

Fire-Casualty Focus

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Fire-Casualty Focus

Chapter 1 Property Insurance Concepts

Property insurance provides protection against most risks to property, such as fire, theft and some weather damage. This includes specialized forms of insurance such as fire, flood, earthquake, and homeowners coverage. Property is insured in two main ways – open perils and named perils. Open perils cover all the causes of loss not specifically excluded in the policy. Common exclusions on open peril policies include damage resulting from earthquakes, floods, nuclear incidents, acts of terrorism and war. Named perils require the actual cause of loss to be listed in the policy for insurance to be provided. The more common named perils include such damage-causing events as fire, lightning, explosion and theft.

Two Kinds of Coverage

Insurance of property is coverage for two kinds of risk; physical loss to the property and liability for bodily injury or property damage caused by the insured's negligence. If the insured is liable for damaged, the insurer will pay up to the policy limits those sums that the insured is legally obligated to pay.

Liability Insurance

Liability insurance is a compulsory form of insurance for those at risk of being sued by third parties for negligence. The most usual classes of mandatory policy cover the drivers of vehicles, those who offer professional services to the public, those who manufacture products that may be harmful and those who offer employment. The reason for such laws is that the classes of insured are deliberately engaging in activities that put others at risk of injury or loss. Public policy therefore requires that individuals and organizations should carry insurance so that, if their activities do cause loss or damage to another, money will be available to pay compensation. In addition, there are a further range of perils that people insure against and, consequently, the number and range of liability policies has increased. These types of policies fall into three main classes:

Public liability- Industry and commerce are based on a range of processes and activities that have the potential to affect third parties (members of the public, visitors, trespassers, sub-contractors, etc. who may be physically injured or whose property may be damaged or both). It varies from state to state as to whether either or both employer's liability insurance and public liability insurance have been made compulsory by law. Regardless of compulsion, however, most organizations include public liability insurance in their insurance portfolio even though the conditions, exclusions, and warranties included within the standard policies can be a burden.

Those with the greatest public liability risk exposure are occupiers of premises where large numbers of third parties frequent at leisure including shopping centers, pubs, clubs, theaters, sporting venues, markets, hotels and resorts. The risk increases

dramatically when consumption of alcohol and sporting events are included. Certain industries such as security and cleaning are considered high risk by underwriters.

Private individuals also occupy land and engage in potentially dangerous activities. For example, a rotten branch may fall from an old tree and injure a pedestrian, and many ride bicycles and skateboards in public places. The majority of states requires motorists to carry insurance and criminalize those who drive without a valid policy. Many also require insurance companies to provide a default fund to offer compensation to those physically injured in accidents where the driver did not have a valid policy.

Product- Product liability insurance is not a compulsory class of insurance in all countries, but legislation (the mandate of public policy) requires those manufacturing or supplying goods to carry some form of product liability insurance, usually as part of a combined liability policy. The scale of potential liability is illustrated by cases such as those involving Mercedes-Benz for unstable vehicles and Perrier for benzene contamination, but the full list covers pharmaceuticals and medical devices, asbestos, tobacco, recreational equipment, mechanical and electrical products, chemicals and pesticides, agricultural products and equipment, food contamination, and all other major product classes.

Employers- New policies have been developed to cover any liability that might be imposed on an employer if an employee is injured in the course of his or her employment. In many states, the insurers are prohibited from including conditions within their policies that seek to impose any unreasonable conditions precedent to liability, or require the insured either to take reasonable precautions or to comply with current legislation and regulations. In those countries where such insurance is not compulsory, smaller organizations are often driven into bankruptcy when faced by claims not covered by insurance. Many of the public and product liability risks are often covered together under a general liability (or "umbrella") policy. These risks may include bodily injury or property damage caused by direct or indirect actions of the insured.

HOMEOWNERS INSURANCE

This is the type of property insurance that covers private homes. It is an insurance policy that combines various personal insurance protections, which can include losses occurring to one's home, its contents, loss of its use (additional living expenses), or loss of other personal possessions of the homeowner, as well as liability insurance for accidents that may happen at the home. The cost of homeowners insurance often depends on what it would cost to replace the house and which additional riders—additional items to be insured—are attached to the policy. The insurance policy itself is a lengthy contract, and names what will and what will not be paid in the case of various events. Typically, claims due to earthquakes, floods, acts of God, or war (whose definition typically includes a nuclear explosion from any source) are excluded. Special insurance can be purchased for these possibilities, including flood insurance and earthquake insurance.

Term Insurance

The home insurance policy is a form of term insurance. Term insurance satisfies claims against what is insured if the premiums are up to date and the contract has not expired,

and does not expect a return of premium dollars if no claims are filed. This way, auto insurance will satisfy claims against the insured in the event of an accident and a home owner policy will satisfy claims against the home if it is damaged or destroyed by explosion or fire. Whether or not these events will occur is uncertain, and if the policy holder discontinues coverage because he has sold the insured car or home the insurance company will not refund the premium. This is purely risk protection. The payment the insured makes to the insurer is called the premium. The insured must pay the insurer the premium each term. Most insurers charge a lower premium if it appears less likely the home will be damaged or destroyed: for example, if the house is situated next to a fire station, or if the house is equipped with fire sprinklers and fire alarms.

Mortgage Protection

Most homebuyers borrow money in the form of a mortgage loan, and the mortgage lender always requires that the buyer purchase homeowners insurance as a condition of the loan, in order to protect the bank if the home were to be destroyed. Anyone with an insurable interest in the property should be listed on the policy. In some cases the mortgagee will waive the need for the mortgagor to carry homeowner's insurance if the value of the land exceeds the amount of the mortgage balance. In a case like this even the total destruction of any buildings would not affect the ability of the lender to be able to foreclose and recover the full amount of the loan.

Homeowner Policy Development

Homeowners policies are widely used to insure homes, condominiums and personal property of individuals and families. Homeowners policies are divided into two major sections. Section I covers the property of the insured, which can include the home or condominium, other structures, and personal property. Section II provides personal liability insurance to the named insured and family members. It also covers the medical expenses of others who may be injured by an insured or animal of the insured.

In the insurance industry of the 19th century, the only peril which could be insured was fire. Gradually, more and more causes of loss became insurable. Now homeowners can obtain policies that cover all risks of direct loss to the home. Unfortunately, the industry may have oversold the extent of modern homeowners coverage in its attempt to promote the benefits of its product. While the typical policy does cover all risks of direct loss, it does not cover specific causes of loss that are excluded. The reality is that homeowners policies cover all risks of direct loss that are not excluded. Catastrophic risks like flood, earthquake, power outages and war generally are excluded. Some of these, however, can be bought back by endorsement or by a separate policy such as earthquake and flood insurance. Some exclusions attempt to encourage good risk control, like those excluding damage caused by not protecting property from further damage after a loss has occurred or damage caused by deficient maintenance of the property, like not maintaining heat in the home to prevent pipes from freezing or not exterminating termites. Also, home heating oil pollution and mold are becoming an excluded or limited type of loss because of recent developments.

The Contributorship

In a then-anonymous letter to The Pennsylvania Gazette on February 4, 1735, Benjamin Franklin coined the famous phrase "*an ounce of prevention is worth a pound of cure*" when talking about the need for a better fire fighting service in the city of Philadelphia. In December 1736, a fire fighting service was formed in Philadelphia, and in 1752, Franklin's Union Fire Company, along with members of other fire fighting groups, formed the Philadelphia Contributionship, the first insurance company in the American colonies.

The first policyholders took out policies for seven years. After expiration, the premium money was returnable, subject to certain exceptions. Fire losses and office expenses were paid with money taken from a proportionate contribution of each policyholder. Prudence coupled with providence have been hallmarks of The Contributionship. Houses built not conforming to legal specifications were denied insurance. Mrs. Lydia Biddle, for instance, was denied insurance because of an unlawful wooden bakehouse adjoining her home. Early policyholders had to have a trap door to the roof as a way of fighting roof and chimney fires. During the British occupation of Philadelphia in 1777, a chimney sweep hired by the firm was sent around to occupied houses to maintain fireplaces. The lightning rod, invented by Director Ben Franklin, also helped to deter fires. Houses with trees in front of them were not insured because early hoses could not maneuver around them (this gave rise to a competitive company, the Mutual Assurance Company, which was better known as the Green Tree, which existed until 1997). High-fire-risk businesses, such as apothecary shops and breweries, were either not given insurance or insured at significantly higher rates. Later, when skyscrapers were being built, the firm refused to insure them — and to this day, still don't. However, they do insure high-rise condominiums providing there is adequate firefighting equipment that can reach the insured space. Their judgment proved sound when the earliest Philadelphia skyscraper, the Jayne Building, housing pharmaceutical supplies, had a crippling fire which destroyed its top floors.

The Contributionship was fortunate in 1752, its first year, in that 143 policies were written and not one fire was recorded. In 1753, a house on Water Street became the first insured property to burn. Damage was great, but Franklin was happy to report in the *Gazette* that damages were to be immediately repaired without cost to the owner. Cost for repair totaled 154 pounds, nearly a third of the Society's assets. Each member had five shillings threepence per pound of deposit deducted to pay for the fire.

Prior to the 1950s, there were separate policies for the various perils that could affect a home. A homeowner would have had to purchase separate policies covering fire losses, theft, personal property, and the like. During the 1950s, policy forms were developed, allowing the homeowner to purchase all the insurance they needed on one complete policy. However, these policies varied by insurance company, and were difficult to comprehend. The need for standardization became important. The Insurance Service Office (ISO) was formed in 1971 to provide risk information and issued a simplified homeowners policy for resale to insurance companies. These policies have been amended over the years until currently, the ISO has seven standardized homeowners insurance forms in general and consistent use.

The homeowners forms are carefully underwritten. Eligibility requirements are fairly strict. A homeowners policy on a private dwelling can be written only on an owner-

occupied dwelling that does not contain more than two families (three or four families in some states). Generally, each family is limited to a maximum of two boarders or roomers. Separate homeowners forms are written for renters and condominium owners. Minimum amounts of insurance must be purchased under all forms. The insurance contract is essentially a fill-in-the-blank form. Yet problems understanding it arise. That is why it is important for the agent to be familiar with the concepts behind the contract.

Chapter 2 Property/Casualty Law Fundamentals

Insurance contracts are unique. Of course, the contract has the same basic requirements as any other contract. There must be an offer, acceptance, consideration, legal capacity and legal purpose. Beyond these are features associated with the insurance contract that distinguish them from all other contracts. Courts across the United States have recognized the distinctive features of the insurance contract often enough that their understanding is necessary for an understanding of the agreement. Differences include the concepts of indemnity, subrogation, utmost good faith, and adhesion. Insurance contracts are aleatory in nature, but so is gambling. These ideas are examined in this chapter. Other features associated with contract law sometimes take on a life of their own when applied to the insurance contract. Most property and casualty policies are contracts of indemnity. Insurance contracts are based on utmost good faith. Policyholders must maintain an insurable interest. The insurance contract is unique among contracts and the courts treat it differently from other contracts.

Distinctive features of the insurance contract

Normally, insurance contracts are ended by performance. Each party to the contract does what they said they would do. The insurer pays claims if a loss occurs while the insured remits premiums in a timely manner. For most insureds no catastrophic loss occurs but the insurer has done its job by standing ready to pay claims. This is a difference between insurance and everyday business transactions. Insurance is not an option, not a matter of choice. Coverage is frequently required by law, such as with auto insurance. In a market economy, with no government-provided social safety net, the dangers of loss that threaten most middle and working class people and property must be addressed by the individual. One is derelict, if not downright foolish, not to obtain insurance coverage.

As a result, society acknowledges that the insurance business is a business affected with the public interest, the recognition manifests itself in mandates from legislatures and courts. Insurance is a big factor in the economic planning of people and businesses. The insurance industry cannot market and maintain its product in the same manner as those industries in products far removed from the economic heartbeat of the microeconomic system. The insurance product is not like an automobile or a loaf of bread. The contract uses arcane language (even in the “plain English” versions) that render it difficult for the average consumer to understand precisely what they have bought. Because of this, the branches of government will invoke the “public interest” when assuring that the insured ends up with something close to what he or she intended to buy. The insurance contract is viewed as having sweeping scope and authority. The reliability of the insurance product is of vital importance to the public. Insurance involves an obligation that affects the public interest. As such, it is subject to certain restrictions. Sometimes this involves interpreting ambiguous policy language to

the detriment of the insurer. This could even go to the extent of disregarding the written agreement entirely in order to satisfy the purported needs and expectations of the insured. Although differing from other types of contracts, basic contract law applies to that special form of agreement known as the insurance policy. Most contracts involve an even exchange between the contracting parties, but an insurer's promise to pay involves a much larger sum than the premiums being received.

The insurance contract is enforceable only under certain conditions that probably will not occur, or else the policy would not be written. A contract, such as the insurance contract, in which losses and advantages to the parties depend on uncertain events, is called an aleatory contract. Insurance companies offer standardized policies to make possible the spreading of risks over a large volume of business. The prospective insurance buyer is in a position of accepting a given policy or doing without insurance. An insurance contract is described as a contract of adhesion. An adhesion contract provides for one party to determine the provisions of the contract. The other party has little opportunity for bargaining.

Generally, the person to be insured is regarded as the offeror in an insurance contract. The contract is created when that offer is accepted by the insurance company. If the policy differs from that presented to the prospect, the insurance company is making a counter-offer which the applicant may or may not accept. An insurance contract is a unilateral contract in the sense that it involves a promise for an act. The act is the payment of premiums by the policy holder. The promise is that of the insurer to pay for specified losses.

PROPERTY/CASUALTY CONTRACT DESIGN

As with all insurance contracts, the typical property/casualty contract is designed to create a binding agreement between two parties that will be clear and understandable. The purpose of the contract is to transfer the exposure to loss of one party, the insured, to a second party, the insurer. Such a simple concept, yet the agreement contains arcane language that at times can befuddle the most astute linguist. The insurance company is staffed with well-trained lawyers whose job it is to explain in precise language the purpose and intent of the insurance contract. This striving for exactitude at times sacrifices clarity.

The first time most people look closely at the language in their insurance policy is after a loss has been sustained. In this situation, the most important problem for the insured is trying to collect on the claim. To get an idea of whether a claim will be paid, the insured must think about the following questions;

- Did the loss occur during a covered time period?
- Is the loss caused by a covered peril?
- Is the property covered?
- Do any exclusions apply to the coverage?
- Are there any policy clauses or conditions that limit the amount of coverage?
- Is the person sustaining the loss covered?
- Is the location of the loss covered?

Standard versions of the most widely used property and liability insurance contracts are prepared by insurance rating organizations. Most American insurers use forms prepared by the Insurance Services Office or the American Association of Insurance Services.

These services also provide standard rates to be used with their policies. Standardized insurance policies provide all parties to the contract with advantages. They are more economical for the insurer to print and use. These savings should be reflected in lower insurance rates. It is more economical to calculate an insurance rate for standardized policies than for numerous different individual insurance policies, since there is a larger statistical base. That is, because numerous insurers use the same policy, their loss data and other statistics can be combined. Such would not be the case if each company covered different perils or had different conditions in their individual contracts. The meaning of standardized policies becomes widely known by those in the insurance business and by some consumers. This knowledge reduces litigation about the interpretation of these policies.

COMPONENTS OF THE CONTRACT

Property/Casualty insurance contracts have several elements in common;

① Insuring Agreement- The insuring agreement gives force to the insurance policy. In broad terms, it describes the insurer's and the insured's rights and duties. Typically, the insurer indicates it will provide the insurance described in the policy, and the insured agrees to abide by the conditions of the policy. Here are some examples-

The Homeowners Insuring Agreement:

"We will provide the insurance described in this policy in return for the premium and compliance with all applicable provisions of this policy."

The Personal Auto Policy reads somewhat differently. A policy master agreement is set forth, followed by subagreements for any coverages the insured purchases. The master agreement reads:

"In return for payment of the premium and subject to all terms of this policy, we agree with you as follows:..."

② Definitions- What does a particular word mean in the context of a type of insurance policy? The definition of a unique term is given at times in a glossary included with the insurance policy. They may also be found in the body of the text, explained as the policy terms unfold. Definitions must be succinct and relevant to the contract at hand. In the insurance contract, the insurer agrees to assume a risk of loss in exchange for premium payments. The extent of this risk assumed by the insurer, the policy coverage, is defined and limited by the language in the insurance policy. A primary goal of insurance contract language is to avoid ambiguity. There is a good reason for this. The general rule covering contracts of adhesion (i.e., insurance contracts) is that any language a court decides is ambiguous or open to doubt will be construed against the drafter of the contract. If the contract does not adequately define a word, the courts will.

③ Declarations- This is the part of an insurance policy containing information regarding the insurance risk for which the policy was issued. It is a statement relative to underwriting made by the prospective insured at the time of the application. The policy declarations identify the insured, the nature and amount of coverage, the basis by which the premiums are determined, and any supplemental information provided by the insured.

④Exclusions- The clauses related to exclusions would list any type of risk, hazard, specific property or condition in the contract that are not covered by the policy. Policies try to clearly identify losses not covered by the policy. Usually excluded are losses that could arise from a catastrophic event or losses associated with a moral hazard, such as a theft committed by the insured. The insured has no right to collect payment for the specified losses, if they occur. The relationship between exclusions and coverage issues will be examined in the next chapter.

⑤Conditions- Include prerequisites or requirements or possible future events that will trigger the duty to perform a legal obligation. In the insurance contract, they are the limiting and defining provisions that state the rights and duties of the insured or the insurer. A condition might state how the contract is terminated or define what would exclude coverage under the contract. A foundation is provided for the policy by the conditions listed. They enumerate the relationships, rights, and duties between the insurer and the insured.

New York insurance law has served as a model for much insurance regulation all over the country. Other states have laws with similar, if not identical, requirements. The illustration following has relevance in every state. The 1943 New York Standard Fire Insurance Policy (SPF) serves as an example of comprehensive conditions. It is shown separately as Unit 1-1. Follow the bold print down the page. Line 1 is “Concealment, fraud”; line 7, “Uninsurable and excepted property”; line 11, “Perils not included”; line 25 “Other Insurance”; and so on... These headings are the components of the insurance contract as mentioned above.

This policy served as the mainstay of all property insurance forms for three decades and has been tested and interpreted by the courts. It has been replaced today by updated forms written in “plain” English, but still serves as a good example of conditions associated with policies.

⑥Endorsements or Riders- These are written modifications of an insurance policy that change the original, often standardized, contract of insurance. Endorsements may broaden or narrow the original policy language. Strictly speaking, a rider is documentation attached to an existing policy that augments or deletes from policy provisions. It is generally used to extend coverage for some specific reason. Endorsements are themselves often standardized. Basically, endorsements or riders are the documents used to shape the standardized policy to fit individual needs. At least one form must be added to the insuring agreement and the terms and conditions in order to structure a complete contract. One form that would complete the policy is the general property form. This is a form developed by the Insurance Services Office (ISO). It is intended to bring additional standardization to the fire policy. The form includes provisions for covering the building and permanently attached machinery of an insured as well as covering personal property for the insured. Another frequently utilized endorsement is the extended coverage endorsement. For an extra premium, the insured adds coverage for perils including explosion, riot, civil commotion, smoke, windstorm and hail.

Unit 1-1; Standard Fire Insurance Policy

1 Concealment	This entire policy shall be void if, whether	84 relating to the interests and obligations of such mortgagee may
2 fraud	before or after a loss, the insured has will-	85 be added hereto by agreement in writing.
3	fully concealed or misrepresented any mat-	86 Pro rata liability. This Company shall not be liable for a greater
4 terial fact or circumstance concerning this insurance or the		87 proportion of any loss than the amount
5 subject thereof, or the interest of the insured therein, or in case		88 hereby insured shall bear to the whole insurance covering the
6 of any fraud or false swearing by the insured relating thereto.		89 property against the peril involved, whether collectible or not.
7 Uninsurable	This policy shall not cover accounts, bills	90 Requirements in The insured shall give immediate written
8 and	currency, deeds, evidences of debt money or;	91 case loss occurs notice to this Company of any loss, protect
9 excepted property.	securities; nor, unless specifically named	92 the property from further damage, forthwith
10	hereon in writing, bullion or manuscripts.	93 separate the damaged and undamaged personal property, put
11 Perils not	This Company shall not be liable for loss by	94 it in the best possible order, furnish a complete inventory of
12 included.	fire or other perils insured against in this	95 the destroyed, damaged and undamaged property, showing in
13	policy caused, directly or indirectly, by (a)	96 detail quantities, costs, actual cash value and amount of loss
14 enemy attack by armed forces, including action taken by mili-		97 claimed; and within sixty days after the loss, unless such time
15 tary, naval or air forces in resisting an actual or an immediately		98 is extended in writing by this Company, the insured shall
16 impending enemy attack, (b) invasion, (c) insurrection (d)		render
17 rebellion; (e) revolution; (f) civil war; (g) usurped power; (h)		99 to this Company a proof of loss , signed and sworn to by the
18 order of any civil authority except acts of destruction at the time		100 insured, stating the knowledge and belief of the insured as to
19 of and for the purpose of preventing the spread of fire, provided		101 the following: the time and origin of the loss, the interest of the
20 that such fire did not originate from any of the perils excluded		102 insured and of all others in the property, the actual cash value of
21 by this policy; (i) neglect of the insured to use all reasonable		103 each item thereof and the amount of loss thereto, all encum-
22 means to save and preserve the property at and after a loss, or		104 brances thereon, all other contracts of insurance, whether valid
23 when the property is endangered by fire in neighboring prem-		105 or not, covering any of said property, any changes in the title,
24 ises, (j) nor shall this Company be liable for loss by theft.		106 use, occupation, location, possession or exposures of said prop-
25 Other Insurance	Other insurance may be prohibited or the	107 erty since the issuing of this policy, by whom and for what
26	amount of insurance may be limited by en-	108 purpose any building herein described and the several parts
27	dorsement attached hereto.	109 thereof were occupied at the time of loss and whether or not it
28 Conditions suspending or restricting insurance. Unless other-		110 then stood on leased ground, and shall furnish a copy of all the
29 wise provided in writing added hereto this Company shall not		111 descriptions and schedules in all policies and, if required, verified
30 be liable for loss occurring		112 plans and specifications of any building, fixtures or machinery
31 (a) while the hazard is increased by any means within the con-		113 destroyed or damaged The insured, as often as may be reason-
32 trol or knowledge of the insured; or		114 ably required, shall exhibit to any person designated by this
33 (b) while a described building, whether intended for occupancy		115 Company all that remains of any property herein described, and
34 by owner or tenant, is vacant or unoccupied beyond a period of		116 submit to examinations under oath by any person named by this
35 sixty consecutive days; or		117 Company, and subscribe the same; and, as often as may be
36 (c) as a result of explosion or riot, unless fire ensue, and in		118 reasonably required, shall produce for examination all books of
37 that event for loss by fire only.		119 account, bills, invoices and other vouchers, or certified copies
38 Other perils	Any other peril to be insured against or sub-	120 thereof if originals be lost, at such reasonable time and place as
39 or subjects	ject of insurance to be covered in this policy	121 may be designated by this Company or its representative, and
40	shall be by endorsement in writing hereon or	122 shall permit extracts and copies thereof to be made.
41 added hereto.		123 Appraisal In case the insured and this Company shall
42 Added provisions. The extent of the application of insurance		124 fail to agree as to the actual cash value or
43	under this policy and of the contribution to	125 the amount of loss, then, on the written demand of either, each
44 be made by this Company in case of loss, and any other pro-		126 shall select a competent and disinterested appraiser and notify
45 vision or agreement not inconsistent with the provisions of this		127 the other of the appraiser selected within twenty days of such
46 policy, may be provided for in writing added hereto, but no pro-		128 demand The appraisers shall first select a competent and dis-
47 vision may be waived except such as by the terms of this policy		129 interested umpire; and failing for fifteen days to agree upon
48 is subject to change.		130 such umpire, then, on request of the insured or this Company,
49 Waiver	No permission altering this insurance shall	131 such umpire shall be selected by a judge of a court of record in
50 provisions	exist, or waiver of any provision be valid,	132 the state in which the property covered is located. The ap-
51	unless granted herein or expressed in writing	133 praisers shall then appraise the loss, stating separately actual
52 added hereto. No provision, stipulation or forfeiture shall be		134 cash value and loss to each item; and, failing to agree, shall
53 held to be waived by any requirement or proceeding on the part		135 submit their differences, only, to the umpire. An award in writ-
54 of this Company relating to appraisal or to any examination		136 ing, so itemized, of any two when filed with this Company shall
55 provided for herein.		137 determine the amount of actual cash value and loss. Each
56 Cancellation	This policy shall be cancelled at any time	138 appraiser shall be paid by the party selecting him and the ex-
57 of policy	at the request of the insured, in which case	139 penses of appraisal and umpire shall be paid by the parties
58	this Company shall, upon demand and sur-	140 equally.
59 render of this policy, refund the excess of paid premium above		141 Company's It shall be optional with this Company to
60 the customary short rates for the expired time. This pol-		142 options. take all, or any part, of the property at the
61 icy may be cancelled at any time by this Company by giving		143 agreed or appraised value, and also to re-
62 to the insured a five days' written notice of cancellation with		144 pair, rebuild or replace the property destroyed or damaged with
63 or without tender of the excess of paid premium above the pro-		145 other of like kind and quality within a reasonable time, on giv-
64 rata premium for the expired time, which excess, if not ten-		146 ing notice of its intention so to do within thirty days after the
65 dered, shall be refunded on demand. Notice of cancellation shall		147 receipt of the proof of loss herein required.
66 state that said excess premium (if not tendered) will be re-		148 Abandonment. there can be no abandonment to this Com-
67 funded on demand.		149 pany of any property.
68 Mortgagee	If loss hereunder is made payable, in whole	150 When loss The amount of loss for which this Company
69 interests and	or in part, to a designated mortgagee not	151 payable may be liable shall be payable sixty days
70 obligations	named herein as the insured, such interest in	152 after proof of loss, as herein provided, is
71	this policy may be cancelled by giving to such	153 received by this Company and ascertainment of the loss is made
72	mortgagee a ten days' written notice of can-	154 either by agreement between the insured and this Company ex-
73 cellation.		155 pressed in writing or by the filing with this Company of an
74 If the insured fails to render proof of loss such mortgagee, upon		156 award as herein provided.
75 notice, shall render proof of loss in the form herein specified		157 Suit. No suit or action on this policy for the recov-
76 within sixty (60) days thereafter and shall be subject to the pro-		158 ery of any claim shall be sustainable in any
77 visions hereof relating to appraisal and time of payment and of		159 court of law or equity unless all the requirements of this policy
78 bringing suit. If this Company shall claim that no liability ex-		160 shall have been complied with, and unless commenced within
79 isted as to the mortgagor or owner, it shall, to the extent of pay-		161 twelve months next after inception of the loss.
80 ment of loss to the mortgagee, be subrogated to all the mort-		162 Subrogation. This Company may require from the insured
81 gagee's rights of recovery, but without impairing mortgagee's		163 an assignment of all right of recovery against
82 right to sue; or it may pay off the mortgage debt and require		164 any party for loss to the extent that payment therefor is made
83 an assignment thereof and of the mortgage. Other provisions		165 by this Company

⑦Deductibles- It is a common provision in property/casualty insurance policies for the insured to pay the first dollars of an insured loss. A deductible provision in an insurance policy causes this result. A straight deductible has the insurer pay only for the amount of loss in excess of the deductible amount. Thus, if there were a \$5,000 loss and a \$500 straight deductible, the insured would pay \$200 and the insurer would pay the remaining \$4,500.

Deductibles are found in the contract provisions for two reasons. They reduce the moral hazard as the insured must pay a small part of every loss. They eliminate the expenses that would be involved in settling small claims. The savings from reduced expenses and loss claims translates into lower insurance costs for the public. As the insured's deductible becomes larger, the premium gets smaller. Many individuals and firms see the higher deductible-lower premium cost savings as a positive step towards self-insurance on low-frequency loss perils.

DISTINCTIVE FEATURES OF THE INSURANCE CONTRACT

The insurance contract has the basic elements of any other contract. Those elements are summarized (not in correct order) by the acronym COALL. It stands for Consideration, Offer, Acceptance, Legal capacity to contract, and Legality of subject matter. Notice should be given to the fact that in writing is not an element that must be present to have a valid contract. This is important where the concepts of waiver and estoppel are concerned. Here are the features that make an insurance contract different from other contracts.

Aleatory Contract

With this type of contract, the values that are exchanged are not equal. The insured may receive a value out of proportion to the value given. Most contracts are commutative contracts. Commutative contracts involve an equal exchange of money for goods or services. This represents an even exchange, the goods change hands at the market rate or there is some bargaining involved. The insurance contract is an aleatory contract. Its performance depends upon the occurrence of a chance event in the future. That event is the insured peril. If it does not occur, no performance on the part of the insurer is required.

Risk and the Contract

Risk is measurable. Uncertainty, by definition, is not measurable. Insurance is the financial yardstick of risk. Insurance is akin to the manufacturing process, producing certainty as the finished product and using risk as the raw material. The basic nature of the insurance contract is to put a dollar value on the chance occurrence of some fortuitous event. The insurance contract is not a gambling contract. Gambling involves a speculative risk that is created with the transaction. Insurance, on the other hand, is a way to deal with a risk or peril that already exists. The risk of financial loss due to dying or an automobile accident existed before the contract was formed. Insurance and gambling can both be described as aleatory in nature. With the insurance contract no new risk is created. With insurance, the insurer takes the chance of being required to pay the sum agreed upon; and the insured takes a chance by paying the premium or consideration without receiving anything for it if the contingency does not happen.

Time is the governing factor in gambling. Risk and time are opposite sides of the same coin. If there were no tomorrow, there would be no risk today. Time changes the perception one has of risk. Risk and its characteristics are fashioned by the time horizon. For risk practitioners, be they gamblers or insurance professionals, the future is the playing field. The gambler thinks he or she is betting on a full house, a can't-lose football team, or the best doggone dog at the track, but what the gambler is really betting on is the clock. They appeal to lady luck to suspend the law of averages so winning streaks will continue and make the reverse appeal so that losing streaks will come to a speedy end. Risk managers at insurance companies are making the same plea. Premiums are set to cover losses over the long run, but insurers maintain sufficient capital and reserves to carry on during those unavoidable periods of bad luck

Adhesion Contract

This legal concept says buyers must adhere to the preexisting terms of a standard contract. The terms signify an inequality of bargaining power as the buyer has no say concerning rates or terms. This concept often arises with any standard form printed contracts submitted on a take-it-or-leave-it basis. It got its start long ago in the process of drawing treaties between nations. When a nation wanted to join in on a treaty already drawn up by other nations, the state wishing to join would sign the treaty and adhere to the existing provisions. The entire contract must be accepted, with all of its terms and conditions. The contract may be altered by the addition of endorsements or forms, but those instruments are also always drafted by the insurer.

As a result of the forced acceptance nature of the insurance contract, if there are any ambiguities, the general rule is that the insured gets the benefit of the doubt. Ambiguities in the document are construed against the party who drew up the paperwork. This is the rule of strict construction of contracts.

Reasonable Expectations

When the terms and agreements in a contract are not made perfectly clear, the problem is called ambiguity. As a buttress to the rule concerning ambiguities, the principle of reasonable expectations states that an insured is entitled to coverage under a policy that they reasonably expect it to provide, and that it be effective. Exclusions or qualifications must be conspicuous, plain, and clear. Contracts of insurance are construed according to the terms that the parties have used. The terms are used, in the absence of ambiguity, in their plain, ordinary meanings. The noted jurist, Justice Learned Hand, put it this way, "Insurers who seek to impose upon words of common speech an esoteric significance intelligible only to their craft, must bear the burden of resulting confusion." [Gaunt v. John Hancock Mutual Life, 160 Fed. 2nd 599 (1947)]. Justice Hand rightly observes that the insurance policy is complex. Most policyholders do not read their policies or understand the terms. The policyholder usually relies on the knowledge and ability of the agent, and this has given rise to the principle of reasonable expectations. Unfortunately for insurers, this doctrine has no clearly defined limits.

Fundamental Rules of Contract Interpretation

This section looks at the interpretation rules of contracts as they are generally accepted in the legal forum. An adhesion contract, when ambiguous, is interpreted by the courts in favor of the person who did not promulgate the contract terms. There follows here

some basic rules of contract interpretation, very basic but very important. These rules are alluded to time and again in court cases, in the media, and by those who have corner offices and speak legalese. Everyone should be familiar with these rules. Where the written words or language in which the parties embodied their agreement or contract may not be changed by parol evidence, the ascertainment of the meaning to be given to the written language is outside the scope of the parol evidence rule. The written words are sacrosanct. They are the terms of the contract. However, words are but symbols. If their meaning is not clear, it may be made clear by the application of rules of interpretation or construction, and by the use of extrinsic evidence for this purpose where necessary. As stated in one case:

"The great object of construction is to collect from the terms or language of the instrument, the manner and extent to which the parties intended to be bound. To facilitate this, the law has devised certain rules, which are not merely conventional, but are the canons by which all writings are to be construed, and the meaning and intention of men to be ascertained. These rules are to be applied with consistency and uniformity. They constitute a part of the common law, and the application of them, in the interpretation and construction of dispositive writings, is not discretionary with courts of justice, but an imperative duty." *Johnson County v. Wood*, 84 Mo.489 (1884).

Where the language in a contract is clear and unambiguous, extrinsic evidence tending to show a meaning different from that which the words clearly import will not be received by a court. It is the function of the court to interpret and construe written contracts and documents. Rules of interpretation are adopted in order to apply a legal standard to the words contained in the agreement by which to determine their sense or meaning.

Among the rules which aid interpretation are:

- 1.) A writing is interpreted as a whole and all writings that are part of the same transaction are interpreted together.
- 2.) All circumstances accompanying the transaction may be taken into consideration.
- 3.) The ordinary meaning of language throughout the country is given to words unless circumstances show a different meaning is applicable.
- 4.) Conduct of the parties subsequent to a manifestation of intention indicating that all of the parties placed a particular meaning upon the manifestation may require the adoption of such meaning.
- 5.) Technical terms and words of art are given their technical meaning unless the context or a usage which is applicable indicates a different meaning.
- 6.) The principal apparent purpose of the parties is given great weight in determining the meaning to be given their manifestation of intentions.
- 7.) An interpretation that gives a reasonable, lawful, and effective meaning to all manifestations of intention is preferred to an interpretation which makes a part of such manifestations unreasonable, unlawful, or of no effect.
- 8.) Where there is an inconsistency between general provisions and specific provisions, the specific provisions qualify and control the meaning of the general provisions.
- 9.) Where written provisions are inconsistent with printed provisions, an interpretation is preferred which gives effect to the written provisions.
- 10.) Where a public interest is affected an interpretation is preferred which favors the public.

Chapter 3 Development of Fire Insurance

Few events are as traumatic as a fire that destroys a house or business. Even though the loss usually involves property that can be rebuilt or replaced, victims of fires are often emotionally and financially devastated. They have no home in which to live, no clothing, no furniture, no cooking utensils, and when a business has been destroyed by fire, no source of income.

Fire victims are invariably in a very vulnerable position. They need immediate financial assistance to try to get their lives back in order. Fire victims that were fortunate enough to have insurance look to their insurer for that help. In most circumstances, the help that was promised in the insurance policy is actually provided to the fire victims.

Great Britain as a Fire Insurance Model

When fire insurance first appeared in Britain after the Great London Fire of 1666, mutual societies, in which each policyholder owned a share of the risk, predominated. The earliest American fire insurers followed this model as well.

Origins of Fire Insurance

Established in the few urban centers where capital was concentrated, American mutuals were not considered money-making ventures, but rather were outgrowths of volunteer firefighting organizations. In 1735 Charleston residents formed the first American mutual insurance company, the Friendly Society of Mutual Insuring of Homes against Fire. It only lasted until 1741, when a major fire put it out of business.

Benjamin Franklin was the organizing force behind the next, more successful, mutual insurance venture, the Philadelphia Contributionship for the Insurance of Houses from Loss by Fire, known familiarly by the name of its symbol, the "Hand in Hand." By the 1780s, growing demand had led to the formation of other fire mutuals in Philadelphia, New York, Baltimore, Norwich (CT), Charleston, Richmond, Boston, Providence, and elsewhere.

Raising Capital

Joint-stock insurance companies raise capital through the sale of shares and distribute dividends. This business model rose to prominence in American fire and marine insurance after the War of Independence. While only a few British insurers were granted the royal charters that allowed them to sell stock and to claim limited liability, insurers in the young United States found it relatively easy to obtain charters from state legislatures eager to promote a domestic insurance industry. Joint-stock companies first appeared in the marine sector, where demand and the potential for profit were greater. Because they did not rely on the fortunes of any one individual, joint-stock companies provided greater security than private underwriting. In addition to their premium income, joint-stock companies maintained a fixed capital, allowing them to cover larger amounts than mutuals could.

The first successful joint-stock company, the Insurance Company of North America, was formed in 1792 in Philadelphia to sell marine, fire, and life insurance. By 1810, more than seventy such companies had been chartered in the United States. Most of the

firms incorporated before 1810 operated primarily in marine insurance, although they were often chartered to handle other lines.

The Embargo Act (1807-1809) and the War of 1812 (1812-1814) interrupted shipping, drying up marine insurers' premiums and forcing them to look for other sources of revenue. These same events also stimulated the development of domestic industries, such as textiles, which created new demand for fire insurance. Together, these events led many marine insurers into the fire field, previously a sideline for most. After 1810, new joint-stock companies appeared whose business centered on fire insurance from the outset. Unlike mutuals, these new fire underwriters insured contents as well as real estate, a growing necessity as Americans' personal wealth began to expand.

Fire Coverage Spreads

Until the late 1830s, most fire insurers concentrated on their local markets, with only a few experimenting with representation through agents in distant cities. Many state legislatures discouraged "foreign" competition by taxing the premiums of out-of-state insurers. This situation prevailed through 1835, when fire insurers learned a lesson they were not to forget. A devastating fire destroyed New York City's business district, causing between \$15 million and \$26 million in damage, bankrupting 23 of the 26 local fire insurance companies. From this point on, fire insurers regarded the geographic diversification of risks as imperative.

Insurers sought to enter new markets in order to reduce their exposure to large-scale conflagrations. They gradually discovered that contracting with agents allowed them to expand broadly, rapidly, and at relatively low cost. Pioneered mainly by companies based in Hartford and Philadelphia, the agency system did not become truly widespread until the 1850s. Once the system began to emerge in earnest, it rapidly took off. By 1855, for example, New York State had authorized 38 out-of-state companies to sell insurance there. Most were fewer than five years old. By 1860, national companies relying on networks of local agents had replaced purely local operations as the mainstay of the industry.

Insurance regulation provided the opportunity to tax the industry, both to cover the cost of regulation as well as to support other governmental functions. The first tax on insurance in the United States was levied by Massachusetts in 1785, in the form of a stamp tax. The first premium tax, which is the common current form of taxation, was enacted by New York in 1824. In addition to raising revenue, taxation was used to protect local insurance companies. Massachusetts again instigated this activity in 1827 with a 10% premium tax on insurers not domiciled in the state.

Eight states, including New York, responded with similar legislation. The New York premium tax rates were 10% on insurers not domiciled in the state but zero for domestic insurers. Illinois enacted a law in 1844 that taxed the total premiums of out-of-state insurers.⁷ By 1996 premium taxes paid by insurance companies in all states totaled \$9.1 billion, a figure well in excess of the cost of regulation. The dominant form of property-liability insurance prior to the early twentieth century was fire insurance. One notable feature about this risk during this period was the propensity for fires to become catastrophes, with devastating losses occurring in New York (1835), Chicago (1871), Boston (1872), and San Francisco (1906). Due to the regional nature of many early insurers, in part fostered by protectionist regulations, the catastrophic losses led to significant insolvencies among insurers, and fire insurance was generally unprofitable

over the period of 1791 to 1850. The New York fire of 1835 demonstrated the problem of New York's protectionist tax laws, as twenty-three of the twenty-six fire insurers operating in the city went bankrupt.¹⁰ After the Chicago and Boston fires of the 1870s, approximately 75 percent of the country's fire insurers went bankrupt.

As a result of this experience, the primary regulatory concern at the time became preventing rates that were inadequate, for an insurer that charged too low a premium in a given area would be able to dominate market share locally, exposing it to the risk of insolvency in the event of a major fire. The fire insurance industry began to deal with the problem of inadequate rates in the early 1800s by establishing local associations to control price competition. The objective of these organizations was to establish rates within a region that would provide for an adequate return, protect insurers from ruinous competition, and reduce the risk of insurer insolvencies. However, these early organizations were voluntary and had no ability to prevent insurers from undercutting their rates and instigating a price war. Eventually the compact system developed, in which companies agreed to adhere to the rates the association developed, and companies that did not join the compact were prevented from cooperating with member insurers. These nonmember companies would not be able to share information with member companies, obtain or provide reinsurance with member companies, or, in some cases, be represented by agents that also represented members of the compact. Unfortunately for the industry, the early compacts were not especially successful.

By 1866 the National Board of Fire Underwriters was established with similar goals, operating on the countrywide level. The Chicago and Boston fires of the 1870s and the resulting wave of bankruptcies led to significant changes for the fire insurance industry. First, the National Board of Fire Underwriters began to focus on fire prevention and data collection. More important, the regional associations were able to enforce the compact agreements more effectively. By 1880 the compact system was considered to be working effectively. This assessment, though, may have been as much the result of an absence of catastrophic fires as it was due to the operation of the compact. However, this success in restricting competition resulted in the passage of antcompact legislation in many states in the 1880s and 1890s. The San Francisco fire of 1906, sparked by an earthquake, again caused significant bankruptcies among insurers and led to another rethinking of regulatory policy. The most influential analysis of insurance regulation during this era was the report of a joint committee of the New York Senate and Assembly chaired by Senator Merritt. Although most of the recommendations dealt with policy forms, agents, and fire prevention, the salient aspect of the Merritt committee report on insurance rates criticized competition in rates and strongly supported rating bureaus, but indicated that they should be subject to state regulation.¹⁶ The National Convention of Insurance Commissioners (NCIC) came out with similar findings in 1914, even proposing that membership in rating bureaus be mandatory.¹⁷ This focus on insurance solvency and support for the anticompetitive behavior of rating bureaus then set the stage for the next development in insurance regulation. Kansas had already enacted the first rating law that allowed joint ratemaking under regulatory supervision, adopting this approach in 1909.

By 1944 eighteen states regulated fire insurance rates. The findings of the Merritt committee and the NCIC illustrate one of the common problems of regulation: it often focuses on the environment that previously existed and develops solutions to deal with the past problems, not recognizing that the situation has actually changed. Both studies supported joint ratemaking due to the risk of catastrophic fires. However, the San

Francisco fire of 1906 was the last of the great city destroying fires in the United States. The lessons of that fire, and social and technological developments, led to a significant reduction in the risk of catastrophic fire.

In fact, despite population growth and inflation, the \$350 million loss from the San Francisco fire was not surpassed even in nominal terms until the 1989 Texas fire at the Polyolefin plant that caused \$750 million in losses. In inflation-adjusted terms, the San Francisco fire loss was almost four times as large as the largest (in nominal dollars) fire loss in history, the Oakland firestorm of 1991 that caused \$1.5 billion in losses. Another development that dramatically affected the insurance environment of the early twentieth century was the introduction of the “reasonably priced, reliable, and efficient” Model T by Henry Ford in 1908, only two years after the San Francisco fire and a few years prior to the Merritt committee and NCIC reports.

Competition

The insurance agency system is one in which independent contractors, known as agents, sell and service insurance solely on a commission or fee basis. They usually have appointments with one or more insurance companies. These carriers acknowledge that they recognize the agent's ownership, use, and control of policy records and expiration data. As the agency system grew, so too did competition. By the 1860s, national fire insurance firms competed in hundreds of local markets simultaneously. Low capitalization requirements and the widespread adoption of general incorporation laws provided for easy entry into the field. Competition forced insurers to base their premiums on short-term costs. As a result, fire insurance rates were inadequate to cover the long-term costs associated with the city-wide conflagrations that might occur unpredictably once or twice in a generation. When another large fire occurred, many consumers would be left with worthless policies. Aware of this danger, insurers struggled to raise rates through cooperation. Their most notable effort was the National Board of Fire Underwriters. Formed in 1866 with 75 member companies, it established local boards throughout the country to set uniform rates. But by 1870, renewed competition led the members of the National Board to give up the attempt.

Regulation

Insurance regulation developed during this period to protect consumers from the threat of insurance company insolvency. Beginning with New York (1849) and Massachusetts (1852), a number of states began to codify their insurance laws. Following New York's lead in 1851, some states adopted \$100,000-minimum capitalization requirements. But these rules did little to protect consumers when a large fire resulted in losses in excess of that amount.

By 1860 four states had established insurance departments. Two decades later, insurance departments, headed by a commissioner or superintendent, existed in some 25 states. In states without formal departments, the state treasurer, comptroller, or secretary of state typically oversaw insurance regulation.

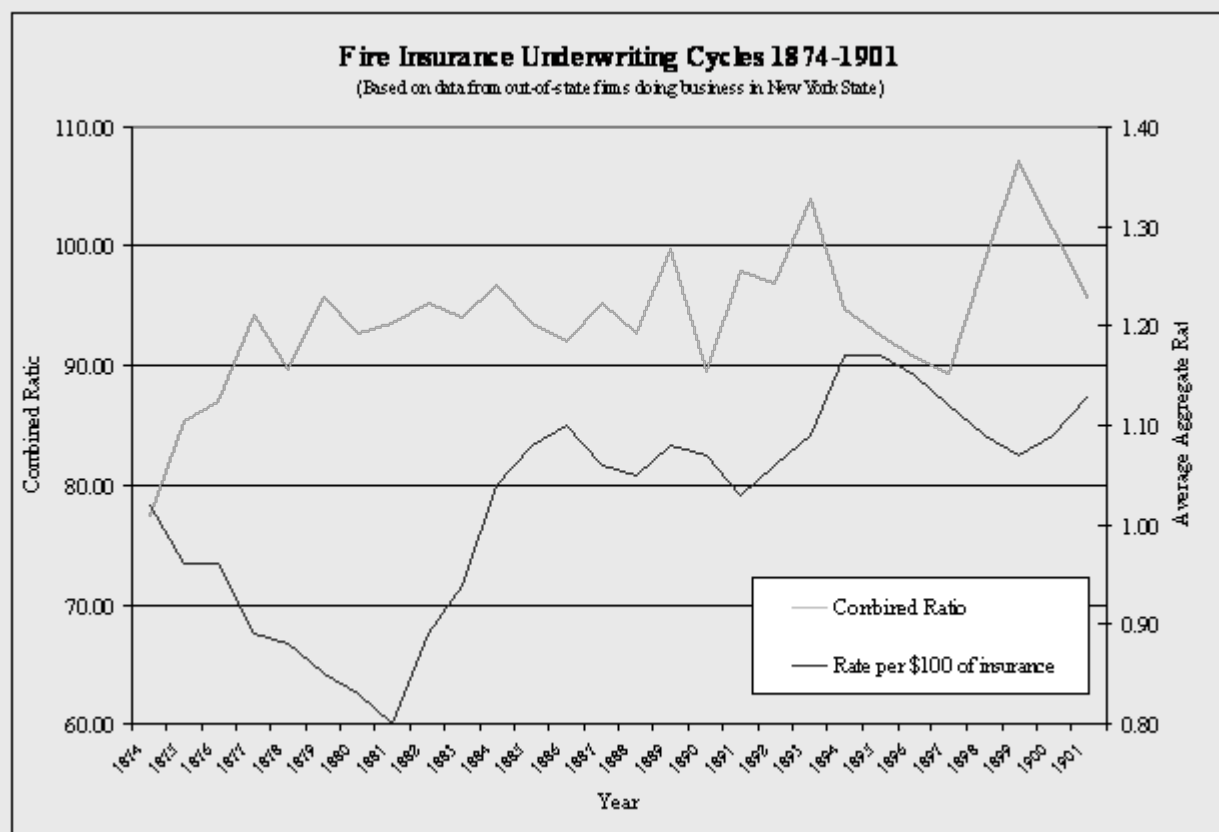
Local Boards

After the Chicago and Boston fires revealed the inadequacy of insurance rates, surviving insurers again tried to set rates collectively. By 1875, a revitalized National

Board had organized over 1,000 local boards, placing them under the supervision of district organizations. State auxiliary boards oversaw the districts, and the National Board itself was the final arbiter of rates. But this top-down structure encountered resistance from the local agents, long accustomed to setting their own rates. In the midst of the economic downturn that followed the Panic of 1873, the National Board's efforts again collapsed.

In 1877, the membership took a fresh approach. They voted to dismantle the centralized rating bureaucracy, instead leaving rate-setting to local boards composed of agents. The National Board now focused its attention on promoting fire prevention and collecting statistics. By the mid-1880s, local rate-setting cartels operated in cities throughout the U.S. Regional boards or private companies rated smaller communities outside the jurisdiction of a local board.

The success of the new breed of local rate-setting cartels owed much to the ever-expanding scale of commerce and property, which fostered a system of mutual dependence between the local agents. Although individual agents typically represented multiple companies, they had come routinely to split risks amongst themselves and the several firms they served. Responding to the imperative of diversification, companies rarely covered more than \$10,000 on an individual property, or even within one block of a city.

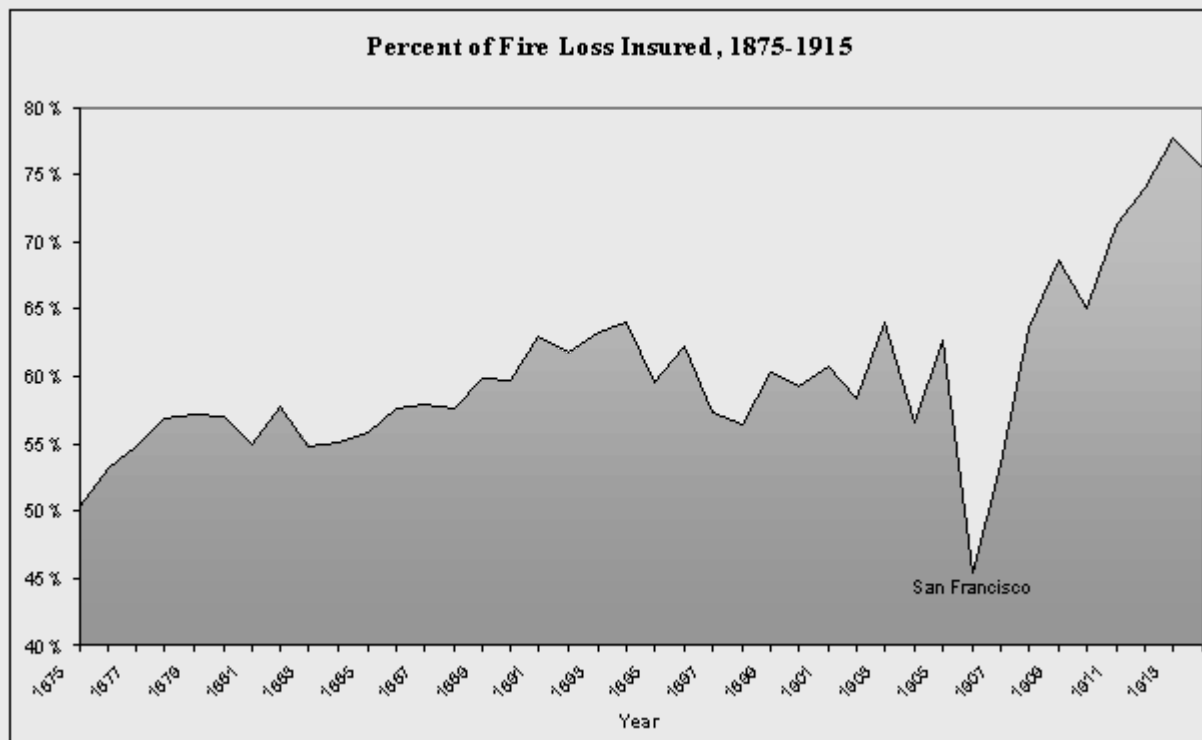


(Note: The underwriting cycle is illustrated above using combined ratios, which are the ratio of losses and expenses to premium income in any given year. Because combined ratios include dividend payments but not investment income, they are often greater than 100.)

As property values rose, it was not unusual to see single commercial buildings insured by 20 or more firms, each underwriting a \$1,000 or \$2,000 chunk of a given risk.

Insurers who shared their business had few incentives to compete on price. Undercutting other insurers might even cost them future business. When a sufficiently large group of agents joined forces to set minimum prices, they effectively could shut out any agents who refused to follow the tariff. Cooperative price-setting by local boards allowed insurers to maintain higher rates, taking periodic conflagrations into account as long-term costs. Cooperation also resulted, for the first time, in rates that followed a stable pattern, where aggregate prices reflected aggregate costs, the so-called underwriting cycle.

Local boards helped fire insurance companies diversify their risks and stabilize their rates. The companies in turn, supported the local boards. As a result, the local rate-setting boards that formed during the early 1880s proved remarkably durable and successful. Despite brief disruptions in some cities during the severe economic downturn of the mid-1890s, the local boards did not fail. As an additional benefit, insurers were able to accomplish collectively what they could not afford to do individually: collect and analyze data on a large scale. The "science" of fire insurance remained in its infancy. The local boards inspected property and created detailed rating charts. Some even instituted scheduled rating – a system where property owners were penalized for defects, such as lack of fire doors, and rewarded for improvements. Previously, agents had set rates based on their personal, idiosyncratic knowledge of local conditions. Within the local boards, agents shared both their subjective personal knowledge and objective data. The results were a crude approximation of an actuarial science.



Anti-Compact Laws

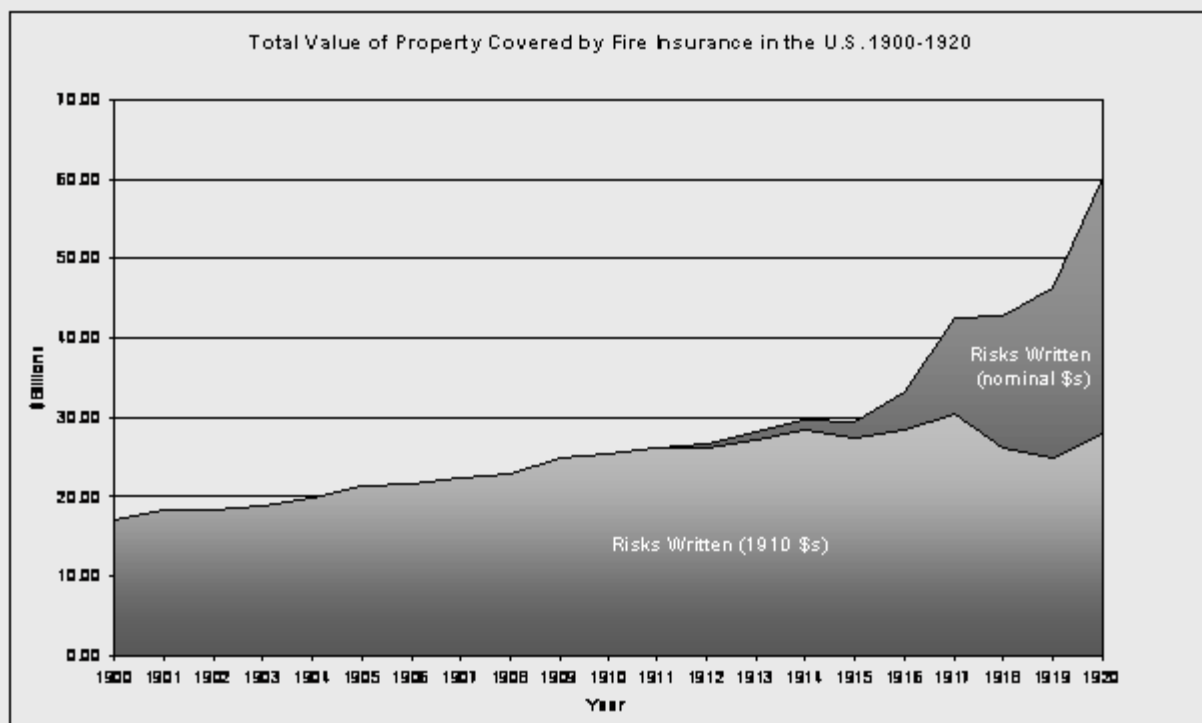
Price-setting by local boards was not viewed favorably by many policy-holders who had to pay higher prices for insurance. Since *Paul v. Virginia* had exempted insurance from

federal antitrust laws, consumers encouraged their state legislatures to pass laws outlawing price collusion among insurers. Ohio adopted the first anti-compact law in 1885, followed by Michigan (1887), Arkansas, Nebraska, Texas, and Kansas (1889), Maine, New Hampshire, and Georgia (1891). By 1906, 19 states had anti-compact laws, but they had limited effectiveness. Where open collusion was outlawed, insurers simply established private rating bureaus to set "advisory" rates.

Spread of Insurance

Local boards flourished in prosperous times. During the boom years of the 1880s, new capital flowed into every sector. The increasing concentration of wealth in cities steadily drove the amounts and rates of covered property upward. Between 1880 and 1889, insurance coverage rose by an average rate of 4.6 percent a year, increasing 50 percent overall. By 1890, close to 60 percent of burned property in the U.S. was insured, a figure that would not be exceeded until the 1910s, when upwards of 70 percent of property was insured.

In 1889, the dollar value of property insured against fire in the United States approached \$12 billion. Fifteen years later, \$20 billion dollars in property was covered.

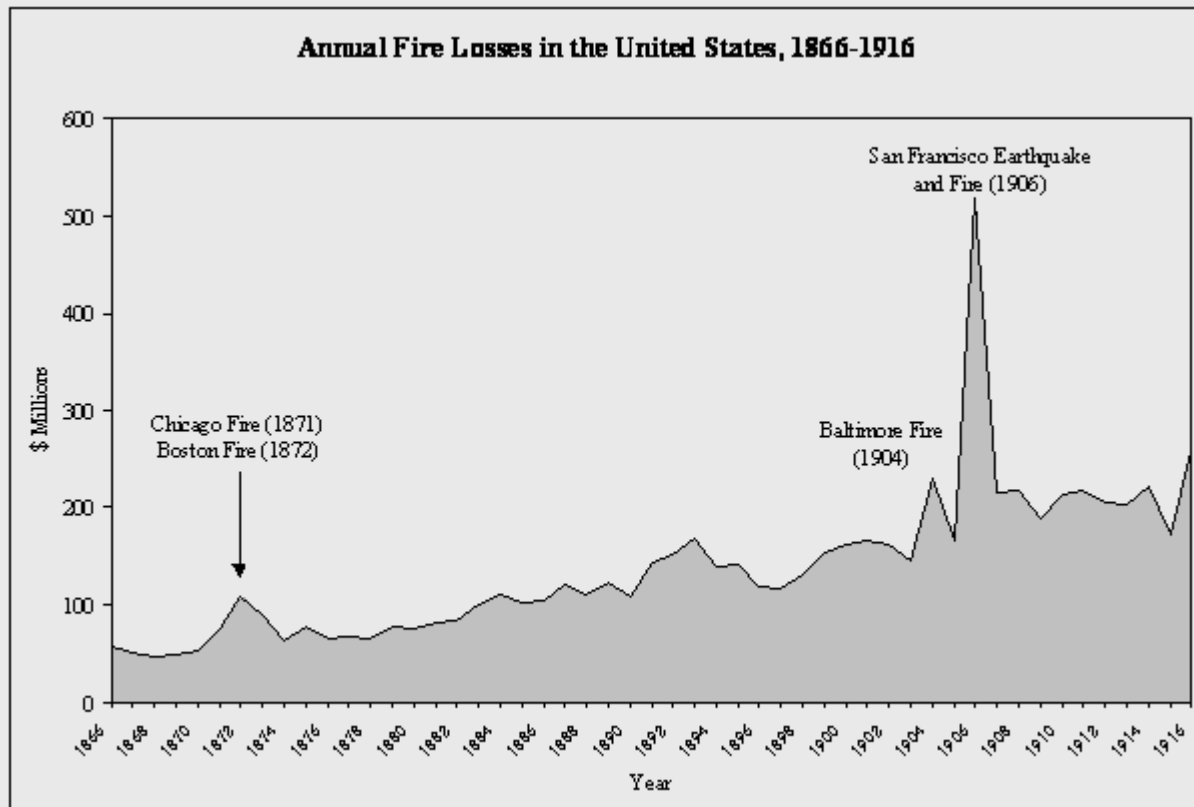


Fire Tale of Two Cities

The ability of higher, more stable prices to insulate industry and society from the consequences of citywide conflagrations can be seen in the strikingly different results following the sequels to Boston and Chicago, which occurred in Baltimore and San Francisco in the early 1900s. The Baltimore Fire of Feb. 7 through 9, 1904 resulted in \$55 million in insurance claims, 90 percent of which was paid. Only a few Maryland-based companies went bankrupt.

San Francisco's disaster dwarfed Baltimore's. The earthquake that struck the city on April 18, 1906 set off fires that burned for three days, destroying over 500 blocks that contained at least 25,000 buildings. The damages totaled \$350 million, some two-thirds covered by insurance. In the end, \$225 million was paid out, or around 90 percent of what was owed. Only 20 companies operating in San Francisco were forced to suspend business, some only temporarily.

Improvements in construction and firefighting would put an end to the giant blazes that had plagued America's cities. But by the middle of the first decade of the twentieth century, cooperative price-setting in fire insurance already had ameliorated the worst economic consequences of these disasters.



CHANGES IN THE REGULATION PARADIGM

Despite the passage of anti-compact legislation, fire insurance in the early 1900s was regulated as much by companies as by state governments. After Baltimore and San Francisco, state governments, recognizing the value of cooperative price-setting, began to abandon anti-compact laws in favor of state involvement in rate-setting which took one of two forms: set rates, or state review of industry-set rates. Kansas was the first to adopt strict rate regulation in 1909, followed by Texas in 1910 and Missouri in 1911. These laws required insurers to submit their rates for review by the state insurance department, which could overrule them. Contesting the constitutionality of its law, the insurance industry took the State of Kansas to court. In 1914, the Supreme Court of the United States decided *German Alliance Insurance Co. v. Ike Lewis, Superintendent of Insurance* in favor of Kansas. The Court declared insurance to be a public good, subject to rate regulation.

While the case was pending, New York entered the rating arena in 1911 with a much less restrictive law. New York's law was greatly influenced by a legislative investigation, the Merritt Committee. The Armstrong Committee's investigation of New York's life insurance industry in 1905 had uncovered numerous financial improprieties, leading legislators to call for investigations into the fire insurance industry, where they hoped to discover similar evidence of corruption or profiteering. The Merritt Committee, which met in 1910 and 1911, instead found that most fire insurance companies brought in only modest profits. The Merritt Committee further concluded that cooperation among firms was often in the public interest, and recommended that insurance boards continue to set rates. The ensuing law mandated state review of rates to prevent discrimination, requiring companies to charge the same rates for the same types of property. The law also required insurance companies to submit uniform statistics on premiums and losses for the first time. Other states soon adopted similar requirements. By the early 1920, nearly thirty states had some form of rate regulation.

Data Collection

New York's data-collection requirement had far-reaching consequences for the entire fire insurance industry. Because every major insurer in the United States did business in New York (and often a great deal of it), any regulatory act passed there had national implications. And once New York mandated that companies submit data, the imperative for a uniform classification system was born. In 1914, the industry responded by creating an Actuarial Bureau within the National Board of Fire Underwriters to collect uniformly organized data and submit it to the states. Supported by the National Convention of Insurance Commissioners (today called the National Association of Insurance Commissioners, or NAIC), the Actuarial Bureau was soon able to establish uniform, industry-wide classification standards. The regular collection of uniform data enabled the development of modern actuarial science in the fire field.

State Rating Laws

In 1946, the NAIC adopted model rate laws for fire and casualty insurance that required "prior approval" of rates by the states before they could be used by insurers. While most of the industry supported this requirement as a way to prevent competition, a group of "independent" insurers opposed prior approval and instead supported "file and use" rates.

By the 1950s, all states had passed rating laws, although not necessarily the model laws. Some allowed insurers to file deviations from bureau rates, while others required bureau membership and strict prior approval of rates. Most regulatory activity through the late 1950s involved the industry's attempts to protect the bureau rating system. The bureaus' tight hold on rates was soon to loosen. In 1959, an investigation into bureau practices by a U.S. Senate Antitrust subcommittee (the O'Mahoney Committee) found that competition should be the main regulator of the industry. As a result, some states began to make it easier for insurers to deviate from prior approval rates. During the 1960s, two different systems of property/casualty insurance regulation developed. While many states abandoned prior approval in favor of competitive rating, others strengthened strict rating laws. At the same time, the many rating bureaus that had provided rates for different states began to consolidate. By the 1970s, the rates that these combined rating bureaus provided were officially only advisory. Insurers could choose whether to use them or develop their own rates.

Although membership in rating bureaus is no longer mandatory, advisory organizations continue to play an important part in property/casualty insurance by providing required statistics to the states. They also allow new firms easy access to rating data. The Insurance Services Office (ISO), one of the largest "bureaus," became a for-profit corporation in 1997, and is no longer controlled by the insurance industry. Still, even in its current, mature state, the property/casualty field still functions largely according to the patterns set in fire insurance by the 1920s.

Chapter 4 Homeowners Coverage-

Insurance companies have been accused of issuing policies written in legalistic terms with little or no apparent organization. Most people avoid reading insurance policies until faced with a claim. Even the so-called "plain language" insurance policies have provided little help to the lay person to understand the coverage provided by the policy. Contrary to the initial appearance of the typical insurance policy, there is a step by step method that insurance professionals and attorneys use to analyze a policy. A goal of the insurance professional is to be able to explain that method in plain terms, explain some of the technical terms, and introduce basic insurance law concepts. Of course, every situation is unique, different companies issue different policies, and different kinds of policies may not use the exact terminology. However, agents should be able to at least begin to understand a property, inland marine, ocean marine, disability, commercial liability, or life insurance policy, or decipher communications from lawyers that seem almost as confusing as the policy itself.

There follows a set of procedures to follow in analyzing an insurance policy. It is important for agents to pass these procedures on to policyholders so that they can better comprehend, analyze, and understand the policy

1. Review the Declarations Page
2. Get the Right Policy Forms
3. Understand the Types of Insurance Forms in the Policy
4. Identify the Insuring Language
5. Review the Exclusions
6. Apply the Language of the Policy to the Claim, Keeping in Mind Legal Principles

I. Declarations, Definitions, Coverages, Perils and Exclusions

Most of the time, an insurance policy is really a collection of a many different forms. The first step to understanding a policy is to learn that it resembles a jigsaw puzzle, with many pieces fitting together to form one whole. The agent must also make sure that he or she has all of the pieces of the puzzle.

1. Review the Declarations Page

Most types of insurance will feature a **declarations page**. The declarations page helps answer the questions who, what, when, where, and how much. The declarations page usually contains the following information:

- Name and address of the **insured** (i.e. the person or company who purchased the policy), the **insurer** (i.e. the company that is bound by the policy); and the **insurance broker** (the person who sells the policy, who may or may not be affiliated with the insurer);
- The **policy number** (most insurance companies track by number, not name, so this can be very important when a claim arises);
- The **policy period**, which are the dates the policy covers;
- A description of the types of **coverage** the insurance provides. For example, the declarations page of a property policy will describe what property is covered,

generally what type of losses are covered, such as fire, crime, business interruption, etc., and usually the premium for each type of coverage.

- A list of the **forms** applicable to the coverage. Most insurance companies use standard forms for all of their insureds. The declarations page will list **code numbers** identifying the appropriate forms that make up the insurance policy.

2. Get the Right Policy Forms

After the declarations page, there will be policy forms. An important first step is to **make sure and have all of the correct forms**. Do not someone else to have sent the correct forms, or all of the forms. Agents must make sure and check to have the declarations page for the policy period in which the loss occurred. Check the declarations page, and find the list of forms and the code numbers. Most policy forms have their identifying code number in the header or footer. A lot of time, energy, aggravation and money can be saved by making sure to have all of the correct forms prior to reading them. After all, if one is going to go to the trouble of reading an insurance policy, it really ought to be the right one.

3. Understand the Types of Insurance Forms

Now that all of the forms are present, it is time to start to try to make sense of them. First, it will be helpful to identify in general terms the kinds of forms that are commonly encountered.

a. Forms Related to Premium, Cancellation and Renewal- Most policies have forms setting forth when **premium** (i.e. the cost of the insurance) falls due, under what conditions the premium can change, how premium is calculated, and what happens if premium goes unpaid. Similarly, the policy may set forth the rules governing cancellation and renewal of the policy.

b. Insuring Forms- The **insuring forms** set forth what the insurance company is promising to cover, and often set forth kinds of losses the insurance company will not cover. When a claim arises, the language in the insuring forms will be critical to determining whether the insurance company is obligated to pay. Be aware of provisions setting forth **time limits** on when to make claim and when to file suit. Many property and marine insurance policies have time limits to sue, and if the policyholder does not sue in time, his or her claim will be barred no matter what the merits. Many times these limits are one year. These dates should be calendared so that they do not get missed down the road. Lastly, even if a policyholder thinks he or she is past the time limit, they may want to contact a lawyer to be sure. Sometimes missing a date can be excused in certain circumstances, and the policyholder will need a lawyer to advise him or her whether it is too late to make claim or sue.

c. Endorsements- An **endorsement** is a form that modifies the coverage set forth in the insuring forms. Sometimes an endorsement will be called an "endorsement," other times a "**rider**" or "**special form**." Sometimes the insured may purchase expanded coverage by paying an increased premium that adds the endorsement. For example, a business might buy a policy covering the cost of repairing fire damage to its building. That business might also buy an endorsement covering lost profits during the time its facility is closed after a fire. Other times, the insurer will add an endorsement restricting

coverage. For example, a disability insurer might add an endorsement saying that it will not pay for losses arising from back injuries if the insured is known to have a bad back. Because endorsements expand or restrict coverage, they can be very important to determining if coverage exists.

d. First Party Insurance vs. Liability Insurance- Insurance policies can be divided into two broad categories. **First party** insurance covers the property of the person who purchases the insurance policy. For example, a homeowners' policy promising to pay for fire damage to the homeowner's home is a first party policy. **Liability insurance**, sometimes called **third party** insurance, covers the policy holder's liability to other people. For example, a homeowners' policy might cover liability if someone trips and falls on the homeowner's property. Sometimes one policy, such as in these examples, may have both first and third party coverage.

The insured needs to make certain that if they have a first party loss, he or she looks at the first party provisions of the policy. Likewise, if an insured is trying to determine whether there is coverage for liability to a third party, that insured needs to look at the third party coverage.

Lastly, **liability insurance** provides two separate benefits. First, the policy will cover the damages incurred by the third party. Sometimes this is called providing "**indemnity**" for the loss. Second, however, most liability policies provide a **duty to defend**. The duty to defend requires the insurance company to pay for lawyers, expert witnesses, and court costs to defend the third party's claim. These costs can sometimes be dramatic and should not be ignored when facing a liability claim.

4. Identify the Insuring Language

The insuring language states broadly what the insurance will cover. Usually this language will be found in one of the insuring forms, but might also be found in an endorsement. It can be difficult to find the insuring language. One should look for statements such as:

"This insurance covers. . . " "We will pay for. . . " "Coverage is provided. . . "

Usually, the insuring language will be very broad. A typical property policy might say "we will pay for direct physical loss or damage to the property described in the declarations, so long as the cause of loss is not otherwise excluded." Taken literally, this language covers lots of kinds of losses. However, the next step is to look at exclusions.

5. Review the Exclusions

Insuring language tends to use broad sweeping statements as to what the insurance covers. Usually, however, **exclusions** will limit the types of losses the policy covers. An exclusion is just what it sounds like, it excludes certain types of losses from the all encompassing insuring language.

Take a flood case for example. A homeowners' policy might have insuring language like that above covering "all direct physical loss or damage." Flood damage would certainly fall within that definition. However, a homeowners' policy might have an exclusion, saying the insurance company will not pay for flood damage. The exclusion limits what the insurance company has to cover. When trying to determine if a policy covers a given

loss, it is important to review the exclusions to see if any apply to the situation. An exclusion can render an otherwise covered claim not covered.

6. Apply Policy Language to the Claim

Once the policy has been sorted through regarding the insuring language and exclusions, an insurance professional or attorney will try to determine whether a particular claim is covered. What the policy says, of course, is very important. However, because sometimes situations arise that no one anticipated, or a policy is not written very well, oftentimes disputes arise between the insurer and insured. Although there is no way to set forth all of the principles of insurance law here, a few of the rules can give a perspective on how the courts treat insurance cases.

- The insured bears the initial burden of proving the loss falls within the insuring language. Generally, insuring language is interpreted broadly to find coverage.
- The insurer bears the burden of proving the loss falls within an exclusion. Generally, exclusions are interpreted narrowly, once again to try to give the insured the benefit of the doubt.
- Because the insurance company wrote the policy, and there is a broad public policy in favor of spreading risks, if a policy can be interpreted in more than one way, the tendency is to interpret the policy to provide coverage. However, a court will not strain to find an ambiguity where none exists, and should not interpret the policy in a way that violates the reasonable expectations of the parties.
- Specific provisions will control over general provisions.
- The policy will be read to try to give effect to all of the words in the policy. Said another way, the policy should not be interpreted to render some provisions meaningless.
- In a liability policy, the duty to defend can be broader than the duty to indemnify. In other words, the insurance company may be obligated to pay for lawyer costs defending a case even if it turns out there is no coverage for the claimant's loss.

Conclusion

Although insurance law can be complex, a step-by-step process can help the agent understand how insurance adjusters and lawyers analyze a case. Following the steps above will help to better communicate with the insureds, adjusters, brokers, and lawyers in the event that a claim is filed.

Putting knowledge to work.

Contract Interpretation Example

An example of contract interpretation

The following case examines the question as to whether a court may rewrite clear and unambiguous policy language based on public policy considerations where the policy language in question is not prohibited by statute. The insured alleged that the decks of his home were in a state of imminent collapse and that State Farm improperly denied his claim for the cost to repair the decks. The State Farm policy expressly provided that it covered only actual collapse, not imminent collapse. The trial court held that public policy required that the collapse coverage also include imminent collapse, and entered judgment in favor of plaintiff.

The Supreme Court's majority opinion, authored by Justice Brown, held that a court may not invalidate unambiguous policy language on the basis of public policy and that the Court of Appeal consequently erred "by failing to apply the plain, unambiguous language of the policy." The concurring opinion, authored by Justice Moreno and joined by Justices Kennard and Werdegar, agreed that the insurance policy clause at issue did not violate public policy, but stated that courts should not be forbidden from employing public policy when determining how insurance policy clauses are to be interpreted and enforced.



Rosen v. State Farm

IN THE SUPREME COURT OF CALIFORNIA

George Rosen,
Plaintiff and Respondent

S108308

v.

Ct.App. 2/1 B146516

State Farm General Insurance Company,
Defendant and Appellant.

Los Angeles County
Super.Ct.No. BC215170

The insurance policy in this case defined "collapse" as "actually fallen down or fallen to pieces." However, sound public policy, the Court of Appeal concluded, requires coverage for imminent, as well as actual, collapse, lest dangerous conditions go uncorrected. By failing to apply the plain, unambiguous language of the policy, the Court of Appeal erred. (Civ. Code, § 1644.) "[W]e do not rewrite any provision of any contract, [including an insurance policy], for any purpose." (*Certain Underwriters at Lloyd's o/London v. Superior Court* (2001) 24 Cal.4th 945, 968 (*Lloyds o/London*).)

FACTUAL AND PROCEDURAL BACKGROUND

Plaintiff submitted a claim to defendant, his homeowners insurance carrier, for the cost of repairing two decks attached to his home. Plaintiff repaired the decks upon the recommendation of a contractor who had discovered severe deterioration of the framing members supporting the decks. Plaintiff believed his decks were in a state of *imminent* collapse, entitling him to policy benefits.

SEE CONCURRING OPINION

Defendant denied plaintiffs claim on the ground, among others, that there had been no collapse of his decks within the meaning of the policy, in that its coverage was expressly restricted to *actual* collapse.

The "Losses Not Insured" section of plaintiffs homeowners policy provided that defendant did not insure for any loss to the dwelling caused by "collapse, except as specifically provided in SECTION I -ADDITIONAL COVERAGES, Collapse." That provision stated: "We insure only for direct physical loss to covered property involving the sudden, entire collapse of a building or

any part of a building. [¶] Collapse means *actually fallen down or fallen into pieces*. It does not include settling, cracking, shrinking, bulging, expansion, sagging or bowing."

Plaintiff sued defendant for breach of contract and breach of the covenant of good faith and fair dealing. Defendant moved for summary judgment, arguing that plaintiff did not suffer a compensable loss because the decks did not actually collapse¹. In his opposition to the motion, plaintiff argued there was a material factual issue as to whether his decks were in a state of imminent collapse. Plaintiff also argued that public policy required that the collapse provision of the policy be construed to provide coverage for imminent collapse. The trial court denied defendant's motion for summary judgment, concluding there were triable issues of material fact. The parties agreed to try the case to the court on the narrow issue of whether defendant owed plaintiff policy benefits due to the *imminent* collapse of his decks.

The trial court found for plaintiff. "The public policy of the State of California is ...that policyholders are entitled to coverage for collapse as long as the collapse is imminent, *irrespective of policy language*." The trial court declined to honor the policy's restriction of coverage because it would, in the court's view, "encourage property owners to place lives in danger in order to allow insurance carriers to delay payment of claims until the structure actually collapses. ..."

The Court of Appeal affirmed, holding that a homeowner's policy that expressly defines the term *collapse* as *actually fallen down or fallen into pieces* must, nevertheless, for reasons of public policy, be construed as providing coverage for *imminent* collapse.

We reverse.

DISCUSSION

" '[I]nterpretation of an insurance policy is a question of law.' (*Waller v. Truck Ins. Exchange, Inc.* (1995) 11 Cal.4th 1, 18 (*Waller*).) 'While insurance contracts have special features, they are still contracts to which the ordinary rules of contractual interpretation apply.' (*Bank of the West v. Superior Court* (1992) 2 Cal.4th 1254, 1264 (*Bank of the West*).) Thus, 'the mutual intention of the parties at the time the contract is formed governs interpretation.' (*AIU Ins. Co. v. Superior Court* (1990) 51 Cal.3d 807, 821 (*AIU Ins.*).) If possible, we infer this intent solely from the written provisions of the insurance policy. (See *id.* at p. 822.) If the policy language 'is clear and explicit, it governs.' (*Bank of the West, supra*, 2 Cal.4th at p. 1264.)" (*Palmer v. Truck Ins. Exchange* (1999) 21 Cal.4th 1109, 1115.)

As the Court of Appeal acknowledged, the policy language here was clear and explicit. "The plain language of the collapse provision in Rosen's homeowners policy is unambiguous, in that it is susceptible only of one reasonable interpretation-actual collapse of a building or a portion thereof is a prerequisite to an entitlement to policy benefits. By defining the term 'collapse' to mean 'actually fallen down or fallen into pieces,' State Farm effectively removed any ambiguity in the term collapse. Under no stretch of the imagination does actually mean imminently."

The lack of ambiguity in the collapse provision here distinguishes this case, the Court of Appeal pointed out, from the case upon which the trial court principally *relied-Doheny West Homeowners' Assn. v. American Guarantee & Liability Ins. Co.* (1997) 60 Cal.App.4th 400 (*Doheny West*).

¹ In the alternative, defendant moved for summary adjudication of plaintiff's claim for breach of the covenant of good faith and fair dealing and his request for punitive damages. Prior to trial, plaintiff dismissed these claims.

In *Doheny West*, *supra*, 60 Cal.App.4th at pages 402-403, the homeowners association of a large condominium complex sued its property insurer for breach of contract and bad faith, alleging that the parking structure of the complex, as well as the swimming pool and associated facilities built above the parking structure, had been in a state of imminent collapse, and that the insurer had wrongfully denied a claim for the necessary repairs the association had made to the structure.

Unlike the policy in this case, the *Doheny West* policy did not specify that the reach of the term *collapse* was restricted to *actual* collapse. Instead, the *Doheny West* policy excluded coverage for collapse except "for loss or damage caused by or resulting from risks of direct physical loss involving collapse of a building or any part of a building" resulting from specified causes. (*Doheny West*, *supra*, 60 Cal.App.4th at p. 402.) While the *Doheny West* trial court held that this language embraced imminent as well as actual collapse, the trial court found for the defendant insurer on the ground the plaintiff homeowners association had not met its burden of proving that any part of the building was in a state of imminent collapse. (*Id.* at p. 403.)

The Court of Appeal affirmed. Noting that its task was not merely to construe the word *collapse* in isolation, but rather to construe the total coverage clause, the Court of Appeal held that the coverage clause before it "cannot be said to be clear, explicit, and unambiguous, and thus must be interpreted to protect the objectively reasonable expectations of the insured. [Citation.]" (*Doheny West*, *supra*, 60 Cal.App.4th at p. 405.) With these principles in mind, the Court of Appeal stated: "It is undisputed that the clause covers 'collapse of a building,' that is, that there is coverage if a building falls down or caves in. However, the clause does not limit itself to 'collapse of a building,' but covers 'risk of loss,' that is, the threat of loss. Further, on its terms it covers not only loss resulting from an actual collapse, but loss 'involving' collapse. Thus, with the phrases 'risk of loss,' and 'involving collapse,' the policy broadens coverage beyond actual collapse." (*Ibid.*, fn. omitted.)

However, the Court of Appeal rejected the plaintiff's contention that the policy phrases in question "broaden[ed] coverage to the extent that the clause covers 'substantial impairment of structural integrity.'" (*Doheny West*, *supra*, 60 Cal.App.4th at p. 405.) The Court of Appeal concluded that the trial court had correctly interpreted the policy language before it "by requiring that [the] collapse be actual or imminent." (*Id.* at p. 406, fn. omitted.) "This construction of the policy," the Court of Appeal observed, "avoids both the absurdity of requiring an insured to wait for a seriously damaged building to fall and the improper extension of coverage beyond the terms of the policy, and is consistent with the policy language and the reasonable expectations of the insured." (*Ibid.*)

We agree with the Court of Appeal that *Doheny West* is distinguishable from this case. As the Court of Appeal observed: "It is a well-established rule that an opinion is only authority for those issues actually considered or decided. (*Santisas v. Goodin* (1998) 17 Cal.4th 599,620; *Wilshire Ins. Co. v. Tuff Boy Holding, Inc.* (2001) 86 Cal.App.4th 627,639.) At no time did the court in *Doheny [West]* hold that an unambiguous collapse provision expressly limiting recovery to actual collapse must nevertheless be construed to provide coverage for imminent collapse. The court also did not purport to discern a public policy establishing a contractual entitlement to coverage for imminent collapse in all cases. It simply construed the ambiguous collapse provision before it, as it was required to do. (*AIU Ins. Co. v. Superior Court*, *supra*, 51 Cal.3d 807,822.) In so doing, it was required to resolve the ambiguity in favor of the insured and in accordance with the reasonable expectations of the insured. (*Kazi v. State Farm Fire & Casualty Co.* (2001) 24 Cal.4th 871, 879.) [~] In construing the collapse provision in *Doheny [West]* to provide coverage for both actual and imminent collapse, the court expressly relied on the broad language of that particular policy. Specifically, the court held that the 'phrases "risk of loss," and "involving collapse" ' effectively 'broaden[ed] coverage beyond actual collapse.' The State Farm

collapse provision at issue in this case, however, does not contain any comparable language that can be construed to extend coverage beyond actual collapse."

However, "[n]otwithstanding the lack of ambiguity in State Farm's collapse provision," the Court of Appeal held, "as a matter of public policy, that State Farm must provide insurance benefits for imminent collapse of Rosen's two decks."

The Court of Appeal gave the following explanation for its decision not to enforce this unambiguous coverage provision: "The notion that in the absence of coverage for imminent collapse an insured may wait until the full or partial actual collapse of a building simply to ensure coverage is troubling indeed. The actual collapse of a building or any part of a building tragically can result in serious injury or loss of human life, as well as substantial property damage. A requirement that an insurer provide coverage when collapse is imminent clearly is in the best interests not only of the insured and the insured's visitors but also of the insurer. Rectifying the problem prior to an actual collapse may well save lives and money. Moreover, our holding does not unduly burden the insurer because its liability is limited for a loss which is imminent, and, thus, soon to occur anyway. Surely, an insurer's exposure to liability will be far greater in the event of an actual collapse. [~] Any holding to the contrary would encourage property owners to risk serious injury or death or greater property damage simply to ensure that coverage would attach. We cannot and will not sanction such a result. We therefore conclude that notwithstanding the language of the collapse provision, public policy mandates that State Farm afford Rosen coverage for the imminent collapse of his decks."

Applying the same logic, with the same lack of restraint, courts could convert life insurance into health insurance. In rewriting the coverage provision to conform to their notions of sound public policy, the trial court and the Court of Appeal exceeded their authority, disregarding the clear language of the policy and the equally clear holdings of this court. In *Foster-Gardner, Inc. v. National Union Fire Ins. Co.* (1998) 18 Cal.4th 857, we held that an insurer's duty to defend its insured in a "suit seeking damages" was limited to a civil action prosecuted in court, and did not extend to a proceeding conducted before an administrative agency pursuant to an environmental statute. The Court of Appeal in *Fireman's Fund Ins. Co. v. Superior Court* (1997) 65 Cal.App.4th 1205, we noted with approval, had rejected the "suggestion. ..'because it is in the nation's best interests to have hazardous waste cleaned up, our courts must construe insurance policies to provide coverage for such remedial work lest the insureds be discouraged from cooperating with the EPA.'" (*Foster-Gardner*, at p. 888.) "[T]he Court of Appeal in *Fireman's Fund* aptly stated, 'While we agree that it is in everyone's best interests to have hazardous wastes cleaned up, we do not agree that a California court may rewrite an insurance policy for that purpose or for any purpose. This is a contract issue, and imposition of a duty to defend CERCLA proceedings that have not ripened into suits would impose on the insurer an obligation for which it may not be prepared. ...Whatever merit there may be to these conflicting social and economic considerations, they have nothing whatsoever to do with our determination whether the policy's disjunctive use of "suit" and "claim" creates an ambiguity.' (*Fireman's Fund*, *supra*, 65 Cal.App.4th at p. 1214, fn. 8, see also *AIU [Ins.]*, *supra*, 51 Cal.3d at p. 818 ['The answer is to be found solely in the language of the policies, not in public policy considerations'].)" (*Ibid.*, fn. omitted.)

In *Lloyd's of London*, *supra*, 24 Cal.4th 945, we held that an insurer's duty to indemnify its insured for "all sums that the insured becomes legally obligated to pay as damages" is limited to money ordered by a court, and does not extend to expenses required by an administrative agency pursuant to an environmental statute. We rejected the argument that we should rewrite the indemnification provision, extending it to cleanup orders issued by an environmental agency, in order "to advance the cleanup of a contaminated site and the abatement of the contamination's effects by calling in the insurer's resources in supplement to those of an insured

that is prosperous or in place of those of an insured that is not. Our reason is that we do not rewrite any provision of any contract, including the standard policy underlying any individual policy, for any purpose. (See *Aerojet- General Corp. v. Transport Indemnity Co.* [(1997)] 17 Cal.4th [38,] 75-76.) To do so with regard to the standard policy, with which we are here concerned, might have untoward effects generally on individual insurers and individual insureds and also on society itself. Through the standard policy, individual insurers made promises, and individual insureds paid premiums, against the risk of loss. To rewrite the provision imposing the duty to indemnify in order to remove its limitation to money ordered by a court might compel insurers to give more than they promised and might allow insureds to get more than they paid for, thereby denying their 'general free[dom] to contract as they please' of any effect in the matter. (*Id.* at p. 75; accord, *Linnastruth v. Mut. Benefit etc. Assn.* (1943) 22 Cal.2d 216, 218.) It is conceivable that to rewrite the provision thus might result in providing society itself with benefits that might outweigh any costs that it might impose on individual insurers and individual insureds. It is conceivable. But unknown. Knowledge 'depend[s] in large part on' what we are ill suited for, that is, the 'amassing and analyzing of complex and extensive empirical data.' (*Aerojet-General Corp. v. Transport Indemnity Co.*, *supra*, 17 Cal.4th at p. 76.) Without such knowledge we could not proceed." (*Lloyd's of London*, *supra*, 24 Cal.4th at pp. 967-968.)

Plaintiff contends that recent legislation establishing a limited new cause of action for certain specified housing defects (Sen. Bill No. 800 (2001-2002 Reg. Sess.) chaptered as Stats. 2002, ch. 722, § 3 [adding Civ. Code, § 895 et seq., eff. Jan. 1, 2003]), read in light of our decision in *Aas v. Superior Court* (2000) 24 Cal.4th 627 (*Aas*), provides this court with a statutory basis for refusing to enforce the plain language restricting the coverage of this policy for collapse to actual collapse. The contention lacks merit.

In *Aas*, *supra*, 24 Cal.4th 627, we applied the economic loss rule in a negligence action by homeowners against the developer, contractor, and subcontractors who built their dwellings. The plaintiffs alleged that their homes suffered from many construction defects, but they conceded that many of the defects had caused no bodily injury or property damage. The trial court barred them from introducing evidence of the defects that had caused no injury to persons or property. We upheld the trial court's ruling. We explained that under the economic loss rule, "appreciable, nonspeculative, present injury is an essential element of a tort cause of action." (*Id.* at p. 646.) "Construction defects that have not ripened into property damage, or at least into involuntary out-of-pocket losses," we held, "do not comfortably fit the definition of 'appreciable harm' , - an essential element of a negligence claim." (*Ibid.*)

In enacting Senate Bill No. 800 (2001-2002 Reg. Sess.), the Legislature sought to respond to, among other things, "concerns expressed by homeowners and their advocates over the effects" of our decision in *Aas*, *supra*, 24 Cal.4th 627 "that defects must cause actual damage prior to being actionable in tort." (Sen. Com. on Judiciary, Analysis of Sen. Bill No. 800 (2001-2002 Reg. Sess.) as amended Aug. 28, 2002, p. 1.) In summary, Senate Bill No. 800 "[p]rovides for detailed and specific liability standards for newly constructed housing. Establishes definitions of construction defects. Creates a new pre litigation process that requires that claimants alleging a defect give builders notice of the claim, following which the builder has an absolute right to repair before the homeowner can sue for a violation of those standards. [~] If the builder fails to acknowledge the claim within the time specified, elects not to go through the statutory process, fails to request an inspection within the time specified, or declines the offer to repair, or if the repair is inadequate, the homeowner is relieved from any further prelitigation process. Provides third-party inspectors with immunity from liability." (Judicial Council of Cal., Court News Special Ed., 2002 Legis. Summary (Dec. 2002) <<http://www.courtinfo.ca.gov/courtnews/legsumdec02.pdf>> [as of June 9, 2003].)

Senate Bill No. 800 (2001-2002 Reg. Sess.), plaintiff argues, "affords this Court with the statutory basis for rejecting [defendant's] actual collapse definition: requiring [plaintiff] to wait for the decks to actually collapse off the side of his home before coverage would attach is akin to requiring a homeowner to wait for damage to result from a defect before he can sue the homebuilder." Plaintiff's analogy fails. Senate Bill No. 800 is applicable "only to residences originally sold on or after January 1, 2003." (Civ. Code, § 938.) It is one thing for the Legislature to rewrite the rules for construction defect litigation for homes sold in the future. In *Aas*, we emphasized that "the Legislature may add whatever additional protections it deems appropriate. ..." (*Aas, supra*, 24 Cal.4th at p. 653.) However, it would be quite another thing for this court to rewrite the coverage provision of an existing homeowners insurance policy to remove a restriction. Again, by agreeing to this contract of insurance, the insurer made promises, and the insured paid premiums, against the risk of loss. To rewrite the provision imposing the duty to indemnify in order to remove its limitation to actual collapse would compel the insurer to give more than it promised and would allow the insured to get more than it paid for, thereby denying their freedom to contract as they please. (*Lloyd's of London, supra*, 24 Cal.4th at pp. 967-968.)

DISPOSITION

The judgment of the Court of Appeal is reversed and the matter remanded for further proceedings consistent with this opinion.

BROWN, J.

WE CONCUR:

GEORGE, C.J. BAXTER, J. CHIN, J.



Chapter 5 Home Insurance Essential Concepts

When shopping for home insurance, consumers have much more to consider than how much coverage will cost. They need to buy the right type of policy. Prospective insureds also need the proper level of protection, plus special provisions for valuables such as jewelry, computer equipment and other possessions. Additional coverage might also be needed for such things as earthquakes or flooding.

Lending institutions usually require mortgage customers to purchase homeowners insurance. Relying on the coverage levels mandated by the mortgagee's bank or mortgage company may not be wise. Those levels are designed to protect the house itself, but not necessarily the possessions inside the house. That is why it is important for homeowners to check with their agent or insurance company, to make sure they have adequate coverage.

Basic policies

There are several basic types of home insurance policies:

HO-1 Basic homeowners policy

Covers the house and possessions against 11 different perils.

HO-2 Broad homeowners policy

Covers house and contents against 17 perils, with premiums running about 5 percent to 10 percent more than an HO-1 policy.

HO-3 Special homeowners policy

Covers all perils except those specifically excluded by the policy. Costs 10 percent to 15 percent more than an HO-1 policy.

HO-4 Renters Policy

Covers 17 named perils and includes liability coverage. It does not insure the dwelling itself.

HO-5 Extensive homeowners policy

Covers damage from practically everything except earthquakes, wars and floods.

HO-6 For owners of co-ops or condominiums

Provides personal property coverage, liability coverage and specific coverage of improvements to the owner's unit. Insurance provided by the owner's association normally covers most of the actual structure.

HO-8 Policy for older homes

Covers the same perils as HO-1 but pays only for repair costs or actual cash value, since replacement cost could make the policy costly.

In Texas

The policies above are standard except in Texas, where the state insurance board specifies three types of policies listed below.

HO-A

Covers the home and possessions against named perils only, for actual cash value.

HO-B

Covers the dwelling for all perils unless excluded against all risks and contents against named perils. The house is covered for replacement cost up to policy limits, while contents are covered for actual cash value unless the insured purchases additional replacement cost coverage.

HO-C

Covers house and contents against all risks not specifically excluded by the policy. Again, the house is insured for replacement cost up to policy limits, while contents are covered for actual cash value unless additional coverage is purchased.

There are variations on these policies as well. For example, landlords can buy coverage that insures only their buildings and not the tenant's personal property (which is what a renters policy would cover). Special policies to cover mobile homes (a.k.a. manufactured housing) can also be purchased.

Starting an application

When a prospective insured applies for homeowners insurance, a great deal of information will be provided to the insurance company. The insurance company will ask about current occupation and employment history, marital status, previous addresses, date of birth and Social Security number. The insurer will check criminal, credit, and insurance history to see if the prospective insured is a "good risk." The insurance company also will look at the "loss history" to see what kinds of home insurance claims the applicant has made in the past. Then the homeowner will have to decide what type of homeowners policy he or she wants, the deductible, and how to pay for the coverage. The agent or insurance company will concur with or determine how much it would cost to replace the home and many of the items inside. For more expensive property, such as jewelry and computer equipment, special coverage may be needed in addition to the basic policy.

Analyzing the home- Many factors go into determining the premiums for a homeowners policy. The age of the home, the materials used to build it, where it's located, the square footage, and the number of rooms all play a role.

How is the home heated? What's the overall condition of the house? How many people live in the home? How close is the home to the nearest fire station and fire hydrant? The answers to these questions also help determine how much will be paid for the homeowners policy.

Ways to save- If the home is equipped with an alarm system, smoke detectors and deadbolt locks, it could save money. Those items help make the house safer and more secure. If the home has an in-ground pool or a trampoline, it might mean higher premiums. One can also expect to pay more if the house is located in a higher risk area, such as a coastline. The insurance company will also want to know if the homeowner plans to use the home for any business purposes, or if there are plans to rent all or part of the house, both of which can increase liability. Armed with all this information,

insurance companies can determine how much to charge for insurance, sometimes in a matter of minutes.

Dollar limits are important- If a house is insured for \$100,000 that is the maximum paid out if the house is destroyed, even if it would cost more to replace it. The Declarations Page on the front of the policy shows how much coverage an individual has. Insureds should talk with their agent or company representative if any questions about the insurance limits should arise. A common issue among insureds is to wait for a claim to learn their policy's limit.

Replacement cost coverage for personal property

Before purchasing homeowner's insurance, it is important to understand the difference between 'replacement cost' and 'actual cash value.'

Replacement Cost- Payment based on the replacement cost of damaged or stolen property is usually the most favorable figure from the homeowner's point of view, because it compensates for the actual cost of replacing property. If a camera is stolen, a replacement cost policy will reimburse the homeowner for the full cost of replacing it with a new camera of like kind. The insurer will not take into consideration the fact that frequent use of the camera, causing a considerable amount of wear and tear.

Actual Cash Value

(ACV) This is also known as market value, is the standard that insurance companies arguably prefer when reimbursing policyholders for their losses. Actual cash value is equal to the replacement cost minus any depreciation (ACV = replacement cost - depreciation). It represents the dollar amount one could expect to receive for the item if it were sold in the marketplace. The insurance company determines the depreciation based on a combination of objective criteria (using a formula that takes into account the category and age of the property) and subjective assessment (the insurance adjuster's visual observations of the property or a photograph of it). In the case of the stolen camera, the insurance company would deduct from its replacement cost an amount for all the wear and tear it endured prior to the time it was stolen.

What Does "Replacement Cost" Mean?-The term "replacement cost" is defined or explained in the policy. Simply stated, it means the cost to replace the property on the same premises with other property of comparable material and quality used for the same purpose. This applies unless the limit of insurance or the cost actually spent to repair or replace the damaged property is less. Insureds need to be directed to the language of his or her policy for the exact definition and explanation of replacement cost.

What is "Actual Cash Value"?-The term "actual cash value" is not as easily defined. Some courts have interpreted the term to mean "fair market value," which is the amount a buyer would pay a seller if neither were under undue time constraints. Most courts, however, have upheld the insurance industry's traditional definition: the cost to replace with new property of like kind and quality, less depreciation. Courts have varied in their rulings as to whether or not depreciation includes obsolescence (loss of usefulness as a result of outmoded design, construction, etc.).

What the Difference Means- The only difference between replacement cost and actual cash value is a deduction for depreciation. However, both are based on the cost today to replace the damaged property with new property. Note that accounting or "book" value has no relevance to either of the previous methods of valuation. The depreciation rate reflected in "book" value would yield a terribly inadequate settlement. Another problem with using "book" value is that it may reflect only the items that are "capitalized." To determine adequate limits, one must add "expensed" items into capitalized items.

Other Kinds of Valuation

Certain property may be subject to a special valuation basis other than replacement cost or actual cash value. The value reported should match the applicable valuation basis. For example, if the property policy is endorsed with a selling price endorsement for finished goods, the proper value to insure for finished goods is the cash selling price, less any customary discounts and expenses that otherwise would be incurred.

Most homeowner policies contain replacement cost coverage on the home and actual cash value coverage on personal property. Homeowners policies automatically cover household contents - furniture, clothes, appliances, etc. - up to 40 percent of the amount for which the house is insured. This means if a house is insured for \$100,000, its contents are insured for up to \$40,000. More coverage can be had by paying a higher premium. This automatic coverage pays only the actual cash value of damaged, stolen, or destroyed household goods. Actual cash value is an item's replacement cost, minus depreciation. Replacement cost policies give more protection than actual cash value coverage. For example, suppose a burglar steals a six-year-old television set. With actual cash value coverage, the insured only gets what one would expect to pay for a six-year-old television set. With replacement cost coverage, the insurance company pays to replace the TV with a new set similar to the stolen one. Insurance companies generally want proof the item was replaced before paying the claim in full. An insurer might offer to replace the items instead of paying cash, but the choice is with the homeowner.

Take inventory- Many people learn after a fire or storm they did not have enough personal property coverage. Taking inventory will help homeowners decide how much insurance is needed. It also will simplify claims. The inventory should list each item, its value, and serial number. A photograph or videotape should be made of each room, including closets, open drawers, storage buildings, and the garage. Keep receipts for major items in a fireproof place.

Other protections the policy provides- Homeowners policies regularly provide other types of coverage, including off-premises theft protection and unauthorized use of credit cards. Insureds should make efforts to understand which provisions are included in the standard coverage purchased and which might require supplemental premiums.

Supplemental coverage- Homeowners policies cover specific risks. Depending on what is owned and where a person lives, he or she might need to supplement the insurance policy with special coverage.

Flood insurance- Homeowners policies do not cover flood damage. The National Flood Insurance Program (NFIP) offers flood coverage in many areas. Local insurance agents

sell NFIP flood policies and can give information about the program in and how it works in the area in question. Information is available from NFIP at 1-800-427-4661. or online at www.floodsmart.gov.

If a mortgage lender determines a home is in a special flood hazard area, the borrower might be required to purchase flood insurance.

Earthquake insurance- If concerned about earthquakes, the homeowner can get coverage with a separate policy.

Extra coverage (Endorsements)- The insured might want more coverage for certain items than a standard policy provides. For an extra premium, the insured might be able to buy endorsements that expand or increase the coverage on these items. Some of the most common endorsements cover jewelry, fine arts, camera equipment, coin or stamp collections, computer equipment, and radio and television satellite dishes and antennas.

Personal umbrella liability insurance- If the homeowner wants more liability coverage than a homeowners policy provides, he or she can buy a separate umbrella policy. Because policies vary, one must make sure the agent or company fully explains the coverage.

Higher deductibles, lower premiums- Deductibles allow insurance customers to cut the cost of insurance, by assuming some of the risk. If someone has a \$250 deductible on their homeowners policy, he or she agrees to pay \$250 to cover any losses, before the insurance company pays the rest of the claim. By increasing that deductible to \$1,000, an insured might save 20 to 30 percent on the premiums. A person must decide whether lower deductibles or lowering the premium is right for them.

Bad credit and Insurance

Some insurance companies might charge higher premiums if a person has problems with his or her credit history. Insurers say past experience has shown people with financial problems pose a greater risk. Insurance scores are confidential rankings based on credit history information. They are a measure of how a person manages his or her financial affairs. People who manage their finances well tend to also manage other important aspects of their lives responsibly, such as driving a car. Combined with factors such as geographical area, previous crashes, age and gender, insurance scores enable auto insurers to price more accurately, so that people less likely to file a claim pay less for their insurance than people who are more likely to file a claim. For homeowners insurance, insurers use other factors combined with credit such as the home's construction, location and proximity to water supplies for fighting fires.

Insurance scores predict the average claim behavior of a group of people with essentially the same credit history. A good score is typically above 760 and a bad score is below 600. People with low insurance scores tend to file more claims. But there are exceptions. Within that group, there may be individuals who have stellar driving records and have never filed a claim just as there are teenager drivers who have never had a crash although teenagers as a group have more accidents than people in other age groups. Most people benefit from insurance scoring because most consumers manage their debt well and therefore have good credit scores. Credit-related activities within the last 12 months are given most weight.

Homeowners Policy; Terms

The Underwriting of homeowners insurance include many different forms of coverage which seek to fit the insurance needs of a diverse population. The homeowner policy is a "MULTI-LINE POLICY" - it combines property (fire) coverage with casualty (personal liability & theft) into a SINGLE CONTRACT. Use of coverage is restricted to single or two unit residential property only and the owner must reside at the property location.

There are four types of major coverage

Coverage A

Dwelling - The dwelling that is described in the declarations and structures attached to that dwelling are covered. Materials and supplies located on or adjacent to the premises used for construction, repair and alteration of the dwelling or other structures on the premises are covered. This coverage is not available in the HO-4 contract and the HO-6 carries only a \$1,000 coverage amount.

Coverage B

Appurtenant (Other Structures) - Provides protection for **structures on the premises which are detached from the dwelling**. Exclusions include structures used for business purposes and any structure rented to anyone other than a tenant of the dwelling. This is not included in either the HO-4 or HO-6 contracts. **10% of dwelling coverage amount (Coverage A).**

Payment on Loss

Coverages A and B, dwelling and other structures, are insured on a **"replacement cost"** basis. If, at the time of loss, the insurance coverage amount upon the dwelling is no less than 80% of the cost of replacing the building, replacement cost is paid for losses. Replacement cost means the exact dollars needed at the time of loss to replace the item which requires replacement. Physical depreciation is not deducted from the cost as it is with actual cash value coverage.

In evaluating whether or not the insured qualifies for this 80% requirement, the cost of excavations, wiring, pipes and foundation below the basement or ground level may be deducted from cost. Replacement cost only applies to the buildings and not to personal property. Personal property is covered on an actual cash value basis. This is no replacement cost coverage for carpeting, appliances, awnings and outdoor equipment. When the buildings are insured for less than the required 80%, then payment will be the greater of

1) actual cash value

2) replacement cost in proportion of the loss based on the amount of insurance is in relation to 80% of the replacement value of the buildings.

When the loss is more than a specified dollar amount (\$2,500 for example) or 5% of the insurance amount, then the building must be repaired/replaced before the insured can collect on a replacement cost basis. Insurable value and market or loan value do not necessarily translate into the same dollar amounts. Market value of real estate is based upon supply and demand factors of a specific area, not to mention variable economic relationships. Market value of a dwelling also includes the value of the underlying land, while insurance value does not.

Allowing for Inflation

The main threat to retaining full replacement cost coverage is probably the continuous encroachment of inflation in the economy. As prices of goods rise in general, the real estate market usually hedges upward in value as the greatest single asset most Americans will enjoy. Without adjusting insurance coverages on dwellings to meet increases in value, plus the goods and services it would cost to replace the items it takes to create the value, underinsurance will occur. An inflation endorsement can be added to the homeowners policy to automatically increase the coverage. The amount will increase by a fixed percentage of the face coverage amount on an annual basis.

Personal Property

Coverage C - Personal Property - Provides **protection for personal property which is owned or used by the insured anywhere in the world.** Personal property of others may be covered while it is on the premises if selected by the insured. Maximum coverage is up to 10% of the Coverage C limit on personal property with worldwide protection with a \$1,000 minimum for property usually situated at a residence of the insured which is not shown in the declarations.

Otherwise **the coverage amount is 50% of the Coverage A limit.** On the HO-4 and HO-6 forms, it is available not as a percentage of Coverage A but rather as a flat dollar amount. Under Forms HO 2 AND HO 8 the minimum Coverage A amount is \$15,000 and the personal property coverage amount is \$7,500. The HO 3 dwelling minimum is \$20,000 and the personal property amount is \$10,000. The simple contract wording for all forms of the homeowners Coverage C amount is:

“We cover personal property owned or used by any insured while anywhere in the world.”

Personal Property Exclusions and Limits

Personal property which is not covered includes:

- 1) animals, birds, fish,
- 2) aircraft and parts,
- 3) automobiles or motorized vehicles unless the vehicles are used to service the premises,
- 4) any recording or sound reproducing devices while in a motor vehicle, including tapes, records and discs
- 5) boarder's and roomer's property when the individuals are not related to the insured, any property in an apartment which is regularly rented if it is away from the insured premises,
- 6) business property out of the way from the insured premises, business property of a business which is conducted on the premises, business property carried or held as samples for later delivery after sale.

Homeowners policies set specific dollar limits for particular categories of personal property in a section entitled Special Limits of Liability. Note that for some categories, the policy specifies a limit only for theft, not for damage or destruction. The reason is that items such as jewelry, firearms, and furs are especially susceptible to theft, and insurance companies want to limit their exposure to these fairly common incidents. The

damage or destruction of these items is less common, and insurance companies are willing to cover them up to their actual cash value.

Below are some examples of the *standard* limits for particular categories of personal property. Depending on the policy's type, limits and endorsements, these figures may or may not be accurate:

- \$200 for money, bank notes, bullion, gold, silver, coins, and metals
- \$1,000 for securities, accounts, deeds, letters of credit, notes other than bank notes, manuscripts, personal records, passports, tickets, and some other related items
- \$1,000 for the theft of jewelry, furs, watches, and precious and semi-precious stones
- \$2,000 for the theft of firearms
- \$2,500 for the theft of silverware, silver-plated ware, goldware, gold-plated ware, and pewterware
- \$2,500 for property at the residence used for business purposes
- \$250 for property used away from the residence for business purposes

Additional coverage

Chances are, the value of many of the homeowners personal belongings may exceed the limits in the policy. That is why the insured has the option of increasing these specific limits by purchasing either a Scheduled Personal Property endorsement or a floater. For example, an increased jewelry limit may also be necessary for covering engagement or wedding rings. If the insured purchases a personal property rider, he or she must be able to verify the cost and condition of the item. Photos or a video can be used to inventory the property. However, one should be sure to keep the inventory away from the premises (i.e., safe deposit box). Professional appraisals are needed for certain items, such as jewelry, antiques, or camera equipment (beyond a basic camera).

Other Provisions and Terms

INSURABLE INTEREST - Insurable interest exists as to any individual when damage or destruction of property will result in a financial loss to that individual. Insurable interest extends beyond mere ownership and even tenants have insurable interest in their own belongings within a building owned by another person. Under insurable interest, the insurance applicant must:

- a) face a personal risk of loss; or
- b) have a legitimate interest in preserving the property being insured. Otherwise, he or she will not receive a potential for gain due to the insurance applied for. **In a property or casualty contract, insurable interest must exist at the time of loss.**

DUTIES OF THE INSURED are imposed upon the insured, **in the event of loss**, is "reasonable compliance" in these five areas:

- 1) **Immediate Notice** - written notice is specified, but telephoning the agent is now deemed to meet this criterion.
- 2) **Prevent Further Loss** - of property from damage under reasonable conditions. Further damage due to neglect by the insured is not covered.
- 3) **Damaged and Undamaged Property must be separated to determine loss.**
- 4) **Inventory loss** - compile a complete list of destroyed, damaged and undamaged property.

5) Claim Verification through checking banks statements and records of the insured must be made available to the company.

DUTY OF THE INSURANCE COMPANY - the obligations of the insurance company, according to the contract, are stated in the agreement. **As long as the insured makes timely payments and meets other requirements of the contract, the insurance company is bound to pay in the event of loss.**

Pair and Set Clause - When loss to an object, which is part of a pair or set occurs, the insurance company can employ either of the following options:

1) To pay the difference between actual cash value of the property before and after the loss.

2) Repair or replace any part of the property in order to restore it to its value before the loss occurred.

It is the purpose of the pair and set clause to prevent the insured from collecting fully upon a loss which is only partial and not total.

Mortgagee Rights- a mortgagee interest allows a mortgage holder to receive loss settlement up to the value of the lender's interest in the property (unpaid principal on a mortgage loan). **When canceling, a company must provide 10 days notice to a mortgagee.** If the insured fails to provide proof of loss, a mortgagee has 60 days from receiving notice of the failure of filing a proof of loss to file the loss themselves. New commercial forms now have a **mortgage holder condition** requiring the mortgage holder to be given a 10 day notice of nonrenewal or cancellation for nonpayment of premium, and a 30 day notice of cancellation for any other reason.

APPRAISAL - Each party to the insurance contract selects a disinterested appraiser. Each appraiser chooses an umpire/referee (who will cast the deciding vote when the appraisers disagree) or one is appointed by a court of record. Actual cash value of loss is estimated and sent to the umpire/referee who then sets an amount that is agreed upon by at least one of the two appraisers. That amount is binding for all parties submitting to the appraisal process.

ARBITRATION - National panels make a decision to which both parties, in a claim settlement dispute, agree to be bound. This process saves time and money and is very similar to the appraisal concept, above. In modern ISO policies, the Arbitration clause is only found in the automobile policy forms, as part of uninsured motorist coverage.

Nature of the Contract- Void and Voidable

Two contractual terms which are critical to the status of a contract's effect are "**void**" and "**voidable**".

1) A "void" contract is an agreement which has no legal effect whatever. It means no contract even exists.

2) A "voidable" contract is an agreement that does exist, but whose legal effect can be put aside by a court of law. It would be a binding agreement unless the party who has the right to have it voided (or set aside) wishes to do so. Also of great importance in the contract formation stage are the ideas of **Warranties, Representations and Concealment.**

1) A Warranty is a fact which is sworn to such that a breach of warranty can lead to voiding a contract. A warranty is a much stronger statement than a representation.

Breaching a warranty on even a minor point can be cause for setting aside an agreement. In modern insurance contracts, the strict warranty standard is only held against an insured in the ocean marine form of coverage.

2) Representations are considered to be statements of fact, in the opinion of the person making the statements. In order to void a contract on a basis of misrepresentation a party must show that a material fact was misrepresented. A material fact is one that would have changed the underwriting basis of a policy, had the company known of the material fact. Any minor points which may have been misrepresented will not enable the other party to void an agreement. This is the standard to which virtually all insureds are held.

3) Concealment is the failure to disclose a known fact. It is hiding something that should not be hidden even when the particular fact was not specifically asked about. In order to void a contract the concealment must be intentional.

Other Terms and Conditions

VACANCY AND UNOCCUPANCY are conditions limiting coverage when the insured develops a lack of concern about property protection. It is essentially an insurer's protection against a morale hazard.

1) Vacancy exists when a property is both unfurnished and not being used by anyone for business purposes or as a dwelling.

2) Unoccupancy refers to the fact that a property is furnished or has possessions in the physical structure but no one is using the property for business purposes or as a dwelling.

LIBERALIZATION- is a property insurance clause which states that if the insurer makes any changes in the current edition of a policy which broadens coverage without premium charge, such changes are automatically made a part of all existing policies.

CANCELLATION allows both the insured and the insurance company to cancel coverage, according to contractual conditions. **The insurance company must give some specified written notice (as required by state statute), but the insured can request immediate cancellation.** When the **insured is the party canceling** the policy, any **refund** of unearned premiums **is calculated on a short rate basis** (unless state law says otherwise). The short rate basis enables the insurance company to recoup some of the cost of underwriting and processing the policy.

When the **insurance company cancels**, unearned premiums (refunds amounts) are paid to the insured party on **pro rate (pr pro rata) basis**. This **means the insured gets back all of the money which has not been used or applied to premium cost**.

NONRENEWAL - Nonrenewal is notice given by the company to the insured that the insurance company does not intend to renew the policy upon the normal termination date. Nonrenewal notice affords an insured the opportunity to replace coverage and not have a gap in coverage when the existing policy terminates. The number of days notice required by a company exercises the nonrenewal option is normally 30 days or more.

PROOF OF LOSS - must be filed by an insured within 60 days (mortgagees have an additional 60 days to file loss if insured does not if there is an outstanding mortgage loan).

NOTICE OF CLAIM or notice of loss provision, means the insured must take certain steps in the event of loss or occurrence in order to lead to a filing a successful claim (receiving a loss payment) under the terms of the agreement. **The insured is bound to notify the insurance company of loss as soon as reasonably possible.**

Furthermore, the insured may be required to notify the police if a violation of the law has occurred (i.e. burglary or theft).

ASSIGNMENT - Assignment is **the transferring of some or all rights from one party to another.** Assignment of rights held under property contracts is normally valid only with the written permission of the insurance company.

SUBROGATION (also called Transfer of Recovery rights) is a clause whereby the insurance company, by assignment from the insured as stipulated in the insurance contract, has the right to recover from third parties any recoverable loss which was reimbursed by the insurance company to the insured during the settlement of the claim. Subrogation allows the company to step into the shoes of the insured for purposes of recovering losses which have been paid to the insured by the company due to the liability of the third party. Subrogation is a concept related to indemnity, or the prevention of the insured to profit. In this case, the insured cannot collect for sustained damages twice.

EVENT OF THE INSURED'S DEATH - when an insured dies, the contract allows the legal representatives of the deceased insured to assume coverage on any insured property.

Comparison of Coverage Forms

The Homeowners Broad Form provides insurance for damage to the building, personal property and to the loss of use that results from the damage of any peril insured against. **Coverage for personal property under all the homeowners forms** include the same sixteen perils which are listed below:

- 1) Fire and lightning
- 2) Windstorm or hail
- 3) Smoke
- 4) Explosion
- 5) Vehicles
- 6) Aircraft
- 7) Riot and civil commotion
- 8) Falling objects
- 9) Theft
- 10) Vandalism or malicious mischief
- 11) Weight of snow, sleet or ice
- 12) Sudden and accident damage from artificially generated electrical current
- 13) The freezing of plumbing, heating, air condition or automatic fire protective sprinkler systems or household appliances
- 14) Accident discharge of water or overflow of water or steam from within a plumbing, heating, air conditioning, fire protective sprinkler systems or household appliance
- 15) Sudden accidental tearing apart, cracking, bulging or burning of a steam or hot water heating system, air condition, automatic fire protection sprinkler system or appliance for heating water
- 16) Volcanic eruption

The fire and lightning peril covers a fire which burns down a building or causes other damage. Although there is coverage for fire in the contract, the term itself is not defined in the policy. The court system has taken care of the general definition: **fire is a combustion proceeding at a rate rapid enough to generate flame, glow or incandescence.** In order for there to be coverage under the fire concept, there must be light. Smoke scorching is not solely indicative of fire without the presence of light. The fire coverage extends to coverage for hostile or unfriendly fires. A "friendly fire", which is one that is supposed to remain within its intended confines, would burn where it is supposed to be burning.

Windstorm and hail coverage excludes any damage that is caused by rain, snow, sleet, sand or dust which occurs to the inside of a building unless the outside of the building or roof was damaged due to the direct action of the wind or hail. Any damage that would occur to the inside of the building due the neglect of the insured would be excluded.

Riot and civil commotion covers any damage done by rioters, with very limited exclusions. Pillaging and looting are covered if they happen at the time and place of the general riot. There is some problem in the **distinction between the definition of a "riot" and "insurrection", however.** Losses caused by war are excluded in the homeowners form. The idea of an insurrection may not meet the definition of a riot, which is a tumultuous disturbance of the peace by three or more persons. An insurrection has, as its center of intent, the idea of overthrowing an existing legal government.

Aircraft coverage is provided to the insured property against any self propelled missiles or space craft parts that might damage the property. This includes damage that is the result of direct physical contact with the insured property by an aircraft and it also could include aircraft noise, such as a sonic boom.

Vehicle damage is covered even if the insured owns or operates the vehicle causing the damage. The only exclusion would be the fences, driveways or walks damage done by owned vehicles of the insured.

Smoke damage from a hostile fire is also a peril covered. Exclusions to the smoke peril are smoke damage that is a result of agricultural or industrial smudging operations.

Vandalism or malicious mischief is damage done to the property of others due to willful and malicious destruction of the property. If a building has been vacant for more than 30 days, the vandalism peril will not be covered. The logic behind this denial of coverage is that if the insured is present continuously, vandalism or malicious mischief is less likely to occur. The attitude of the insurance company seems to be: if the insured is not present and doesn't seem to care, neither does the company. Any dwelling that is being built at the time of construction is not considered to be a vacant property.

Theft coverage forms are identical in all the homeowners policies except for form 8. The theft peril provides **coverage for "theft, including attempted theft or loss of property from a known location when it is likely that the property has been stolen".**

Such language relieves the insured of the burden of showing that the loss actually happened due to theft, especially when there is not adequate proof available. The only

requirement under the contract is that the insured must immediately notify the police when property has been stolen. **General exclusions to theft include:**

- 1) When the insured commits the theft.
- 2) When a dwelling which is under construction has materials and supplies that are used in the construction are stolen before the dwelling is completed and occupied.
- 3) If a residence is rented by an insured to anyone except another insured, all theft would be excluded under this condition.

Peril Exclusions

1) Loss caused by the enforcement of any law or ordinance that regulates the building, repair or demolition of any building is excluded.

2) Earth movement - This eliminates coverage for losses caused by the earth moving except when direct loss is from fire, explosion, theft or the breaking of glass. The policy specifically defines the movement of the earth as "earthquake, including land shook waves or tremors before, during or after a volcanic eruption: landslide: mine subsidence, mud flow, earth sinking, rising or shifting".

3) Water damage - Water from floods and backup of sewers and drains and overflow of sump pumps is excluded as is water which is below the surface of the ground which seeps through basement walls, foundation walls, etc.

4) Power failure - Coverage is excluded when loss is resulted directly because of the interruption of power and utility services when the interruption takes place away from the resident premises. Therefore as long as loss takes place as a result of the power failure on the actual premises, coverage will exist.

5) Neglect - Any loss that results directly and indirectly due to neglect of the insured, he uses reasonable means to prevent the loss, is excluded. This prevents the insured from collecting for damage that they had a reasonable chance to avoid.

6) War - All loss due to war in any form including undeclared wars, insurrection, rebellions and revolutions is excluded. And any nuclear weapon which is discharged, even accidentally, is still excluded under the contract language.

7) Nuclear hazard stipulates that losses from nuclear hazards are not covered and this includes nuclear reactions, radiation and radioactive contamination.

8) Intentional loss which is defined as loss by "by or at the direction of the insured" "with the intent to cause a loss".

Broad Form and Special Form

The main difference between the Broad Form and the Special Form (HO-3, in Texas HO-C), is that the Special Form **coverage is on an open perils basis for dwelling and other structures**. Open perils **means that a set of exclusions are listed and if the cause of loss is not one of those exclusions it will be covered**. Although the real property is insured on an open perils basis, **personal property is insured on a named perils basis**. Other than this open perils basis coverage difference, the form 3 and form 2 are exactly the same.

EXCLUSIONS

Open perils exclusions in the Special Form are:

- 1) Wear and tear or deterioration
- 2) Inherent vice, latent defect or mechanical breakdown

- 3) Rust, mold, wet or dry rot
- 4) Smog, smoke from agricultural smudging or industrial operations
- 5) Release, discharge or dispersal of contaminants or pollutants unless caused by one of the named perils for which personal property is insured.
- 6) Settling, cracking, shrinking, bulging or expansions of pavements, patios, foundation walls, floors or ceilings.
- 7) Damage caused by birds, rodents, vermin or insects.
- 8) Domestic animals owned by the insured.

An exception to these exclusions is that, if one of the excluded perils is the basis for leaking water from plumbing, heating, air conditioning or fire sprinkler systems or appliances, then the damage would be covered.

Concurrent Causation

Recent Special Form language includes three related exclusions referred to as concurrent causation exclusions. The first part of concurrent causation deals with any loss caused by weather conditions that will contribute to a peril which otherwise is not covered. For instance, in order for there to be coverage, the loss has to be directly caused by a weather condition that is covered or not excluded. The second part of the exclusion deals with loss caused by any actions or decisions of any person, group, organization or governmental body. This also includes the failure to act or to decide by the above named individuals. The last part of concurrent causation excludes loss caused by faulty or inadequate design, maintenance or the use of faulty materials, including defective activity, such as poor planning, in the construction of the covered dwelling.

There is also a general exclusion referred to as "dwelling and other structures" exclusions. The first exclusion in this area deals with the collapse peril. Under additional coverage, the collapse peril is a named perils coverage, however the intent of the language has been to exclude from collapse coverage any collapse resulting from excluded perils such as flood, earthquake or planning and design error. The other exclusions can be found in the discussion under HO2 (freezing of plumbing when the building is vacant, freezing, thawing, etc.).

Renter's Insurance

The Contents Broad Form is often referred to as renter's insurance. The theory is that the renter is using real estate on a contractual basis and no real property ownership exists. This will eliminate the need for any coverage on the dwelling or structure and instead focus the coverage needs on personal property liability coverage. There is a difference in the insuring agreement of Contents Broad Form and the Homeowners Broad Form in that there is building additions and alterations coverage which applies to the tenant and is usually referred to as tenants' improvement and betterments. These improvements can include building additions, alterations, fixtures, improvements or installations made by the insured in a rented apartment or dwelling. The coverage amount on the building additions and alterations is limited to 10% of the coverage on contents.

The Homeowners Special Personal Property coverage endorsement offers open perils coverage on contents and is added to Form 3 to provide open perils coverage on the building and the contents. The Special Personal Property (In Texas, HO15) rider to the Special Form open perils coverage was designed to replace the HO5 form from

earlier ISO contract language. This special personal property endorsement eliminates the perils covered for coverages A, B and C and instead uses the following language "We insure against risks of direct loss to property described in coverages A, B and C only if that loss is a physical loss to property".

The exclusions are the same open perils exclusions applying to the dwelling under an unendorsed Special Form. Such exclusions apply to all coverages of Section I. Another set of exclusions applies to the dwelling and other structures and is comprised of the usual exclusions of vandalism, malicious mischief, glass breakage, 30 days limitation on vacancy, repeat seepage or leaking of water taking place over a period of time and collapse. The last group of exclusions deals with the personal property coverage. **These are new exclusions which do not pertain to other forms including:**

- 1) Breaking eyeglasses, glassware, statues, marble, porcelains and fragile articles, unless they are caused by a specifically named peril.
- 2) Damp atmosphere, extreme temperatures, unless the direct cause of loss is in fact weather, snow, sleet or hail.
- 3) Refinishing, renovating or replacing property except for jewelry, furs, etc..
- 4) Collision except for collision with land vehicles or sinking, swamping or stranding of watercraft including their trailers, furnishing equipment or outboard motors.
- 5) Destruction and confiscation or seizure by order of any governmental or public authority.
- 6) Acts or decisions including the failure to act or decide of any person, group, governmental body, or organization.

The theft coverage language under the Homeowners Special Personal Property form is unique among coverage forms. **Theft is not covered as a named peril but due to the broad open perils coverage of HO15 coverage for loss of real or personal property by theft is included.** There is **just one exclusion** found under the form 15 and that is **if theft is in a building that is under construction and prior to the completion and occupation of the structure.** Typically a named perils form set of exclusions include theft by the insured, theft from unlocked vehicles or watercraft while they are away from the premises and theft to second homes. However under Form 15 they are not excluded and are covered. Besides theft, the coverage applies also to loss by lost or misplaced property as well as having it stolen.

Insurance for Condominiums

The HO6 applies to owner's of condominium units. The risk of loss to the condominium owner is unique due to the manner in which ownership of the real property exists. A condominium is a structure made up of many individual dwelling units shared by different owners. While everyone has their own space or living quarter, there are also common areas (hallways, walkways, etc.) to which all unit owners enjoy real property ownership as tenants in common. While the individual owner of a condominium will have a concern similar to a renter, because they need contents coverage and protection from liability in their living space, there is also the risk of loss inherent to real property ownership

The real property of the condominium owned in common with the other owners is insured through a condominium association to which all occupants or condo owners pay fees for the upkeep. The fees are not only for the upkeep of the exterior and common areas but they also apply to property insurance and liability coverage which is purchased for all the condominium owners for the common area.

BASIC ENDORSEMENTS TO HO 6

In order to enjoy greater coverage, this endorsement includes:

- 1) open perils coverage on personal property.
- 2) Rental unit coverage - This covers a situation where the condominium unit is rented by the owner to another person.
- 3) Open perils coverage on unit owner's building items.
- 4) Assessment coverage - Here loss assessment is automatically included as an additional coverage in form

Older and Historic Properties

The HO8 contract was created to provide a coverage form under homeowners that would allow the owners of unique types of older property to obtain coverage that they otherwise would not be to get. Many older homes were built in a time when the materials and labor was quite expensive by today's standards. Modern dwellings are built in a cost efficient and effective manner, almost cookie-cutter fashion in some cases. The intensive labor and expensive materials which went into dwellings of the past are not economically feasible today. To modernize the insurance approach for these older homes, the HO8 has a unique clause called **functional replacement cost**. Other homeowners contracts as contain a normal or standard replacement cost provision allowing the replacement purchase to be made in actual present dollars. Functional replacement cost allows the insurer to repair damage, but they will pay more than what it costs for common construction materials used today, as opposed to replacing the materials and methods used years ago when the home was built. For example, if the original structure had walls which were made of plaster, then dry wall would be the replacement.. Another reduced type of coverage under this form is the theft coverage which is limited to \$1,000 per occurrence and is only valid on the premises.

Special Risk Concerns

It is possible for the homeowners forms to be augmented by **endorsements for water backup, earthquake and sinkhole collapse**. Since homeowners forms exclude any water damage including water that backups through sewers and drains and overflows from sump pumps, many people still have a need to have coverage for this possibility. The water backup and sump overflow endorsement **will insure the party for up to \$5,000 for direct loss not caused by the negligence of the insured**. Sump pump damage coverage will exist even if the water damage was due to mechanical problems with the sump pump. There is a \$250 deductible associated with this endorsement. The **earthquake endorsement** will pay for loss to the insured's property that results from an earthquake or volcanic eruption. However losses due to floods or tidal waves that are a result of earthquake or volcanic eruption are excluded from coverage. The real estate itself or the land is not covered. Commonly there's a 5% deductible on the value of every item insured under the contract. In areas where earthquakes are more prominent there can be a 10% deductible applied

Sinkhole collapse coverage is available on all homeowners form except for HO4 and HO6. In the event the insured property is damaged because of sinkhole collapse caused by underground erosions of limestone or common sedentary rock caused by water damage. Filling a sinkhole is not covered under this endorsement.

Development of Special Risk Policies

This provides open perils coverage on specifically designated items and has its own contract language as to insuring agreement and requires a separate premium payment. The normal categories of coverage include silverware, camera, stamp and coin collections, jewelry and furs available under an open perils basis. Antiques and fine arts can be insured on an evaluated basis. Personal property under homeowners coverage is normally covered under an actual cash value basis. An optional personal property replacement cost endorsement is available on all property on a replacement cost basis. Four types of property are specifically excluded from replacement coverage under the personal property replacement cost endorsement and they include:

- 1) Antiques and fine arts.
- 2) Collector's items, souvenirs, etc.
- 3) Property that is not in workable condition.
- 4) Articles which are obsolete and are being stored and are not being used.

Broad Form to Special Form

When a property insurance policy is written on a basic form, the insured only receives coverage for items if they are damaged by a covered cause of loss listed on the insurance policy. There are 11 causes of loss, as follows: fire; lightning, explosion, windstorm or hail, smoke, aircraft or vehicles, riot or civil commotion, vandalism, sprinkler leakage, sinkhole collapse, or volcanic action. If the damage to the insured's home is caused by something other than those 11 things, there will be no insurance coverage. In addition, it's important that insureds be made aware they need to check the policy for the definition of those 11 causes of loss because the insurance company can limit or exclude how the insurance applies. For example, if the home is damaged because the homeowner did not maintain the sprinkler system properly there would be no coverage; however, if a fire causes the sprinkler system to be damaged or go off, the policy would pay to repair the damage caused by the sprinkler.

When property insurance is written on a Broad Form, the insured receives coverage for the 11 causes of loss mentioned in the description of the basic form, with the addition of three new causes of loss: falling objects, weight of ice, sleet or snow, and accidental water damage. One will not find many exclusions on this form except for those designed to further define how the 14 causes of loss are applied.

Note that with both the Basic and Broad Forms the insurance company has the duty to specifically *include* coverage. If it's not included on the list, it's not covered.

The most common property insurance form is the Special Form, formerly referred to as "all risk." When a property policy is written on a Special Form, the insurance company has a duty to specifically exclude coverage. Simply put, if the insurance company does not exclude coverage in writing, the damage to the insured's property will be paid for. There are tons of common exclusions, for example: government action, nuclear hazard, war and military action, water damage (i.e. flood), fungus, and pollution. At the end of the day, however, the Special Form gives the insured much more comprehensive insurance protection than the Basic or Broad Forms.

As the insured moves from basic form to Broad Form to Special Form they will find the coverage broadens. An insured may select an insurance type that varies on coverage as well as premiums payable. Under the dwelling program, dwellings containing 1 to 4

families or apartments and dwellings housing 1 to 5 roomers, or boarders, are eligible under each of the three policy types for coverage. A mobile or trailer home which is permanently located may be insured, but only under the basic form (DP1). Townhouses or "row" house are eligible if a separate structure contains no more than four occupied units. Farm dwellings are not eligible for dwelling coverage.

The Dwelling Form provides "**Replacement Cost Coverage**" - the building is restored at today's cost as long as the insured keeps the coverage amount at least 80% or more of the full replacement cost (DP2 AND DP3 ONLY). However, the DP1 coverage form provides an "Actual Cash Value" basis of recovery and not replacement cost.

The dwelling form is available to a real property owner who is ineligible for a homeowner (HO) policy due to the age of the building, location, value or number of living units. This coverage form is usually issued to cover non-owner occupied buildings. The owner of a building housing more than 4 units must seek a commercial form of coverage. The three dwelling coverage forms are similar to the Homeowners Forms 1,2, and 3. However DWELLING FORMS DO NOT:

- 1) cover the peril of theft (it must be endorsed)
- 2) cover personal liability (it is an optional endorsement)
- 3) cover money or valuable papers
- 4) have special limits of liability for certain types of personal property
- 5) cover boats (except rowboats and canoes)
- 6) cover property away from the insured premises for more than 10% of the premises limit for all three forms.

Boats and Other Watercraft

Since the homeowners policy provides only \$1,000 for watercraft and equipment, the need for additional coverage is required. The boatowner will need one of the types of watercraft policies available because the homeowners contract only covers a very limited amount of liability applying to smaller watercraft. The two basic types of policies available include: the boatowner policy and the yacht policy which is used to insure very large boats. The difference between the boat policy and the yacht policy has become minimized over the years but yacht policies are considered ocean marine coverage. The boatowners policy is developed to combine liability coverage with the inland marine form. This course will emphasize the boatowners policy for study purposes.

Boatowner Package

The boatowner policy is a package contract and is quite similar to the auto policy because it provides coverage for concepts of liability, physical damage, medical payments and uninsured watercraft. The boatowners policy available in most markets includes: Section I for physical damage coverage and Section II for liability coverage.

Physical Damage

Coverage A of the boatowners policy provides for physical damage on the boat.

Coverage is on an actual cash value basis for scheduled boats, motors, equipment and accessories manufactured for marine use as well as any trailers described in the declarations. Coverage is based on an open perils concept and exclusions which include: wear and tear, gradual deterioration, inherent vice and

mechanical breakdown. Depending on the company the policy is held with, other exclusions can include:

- 1) when a boat is used to carry persons for hire
- 2) while the boat is rented to others
- 3) while the boat is being operated in a race or speed contest.

When it comes to **valuing the boat, it can vary from company to company**. An agreed value basis means that the face amount of insurance is payable in the event of loss. Other options include: replacement cost coverage which is similar to replacement cost under a homeowners form.

Boatowner Liability

The three types of coverage under the boatowners policy in Section 2 are quite similar to the coverages of a personal auto policy including:

1) **Watercraft** - Watercraft coverage is protection up to a specified limit for any claim or law suit against an insured for damages caused by the insured to another's body or property. The party who is considered to be an insured under this coverage is quite broad and includes: family members and other people who are operating the watercraft with the permission of the insured. The liability exclusions include:

- a) Bodily injury or property damage, which is intentional.
- b) Liability of any person who uses the watercraft without the permission of the owner.
- c) Any damage to the property owned by or in the care, custody or control of the insured.
- d) Injury to persons who are eligible to receive benefits under workers compensation claims.
- e) The liability of a person engaged in the business of selling, storing, moving or repairing a watercraft.

Depending on the company, exclusion might include: any sailboat or watercraft that is used in an official race or speed test. Two other normal exclusions for watercraft liability would include: war and nuclear exclusions.

2) Uninsured boaters - The uninsured watercraft coverage is available as an option under the boatowners policy. The normal amount of coverage is \$10,000 for any insured or family member who suffers bodily injury caused by an uninsured boater. This uninsured boaters coverage is very similar to the automobile insurance coverage for uninsured motorist coverage which is discussed in a previous section.

3) Medical Payments - The medical payments coverage will pay for medical expenses resulting from boating accidents when a person which includes the named insured and family members are injured "in, upon, getting into or out of the insured watercraft". Some policies even include medical payments coverage for an individual who is water skiing.

Territorial Limitations

Policies normally limit the watercraft and insured only in specified territories. Vary broad policies will normally cover a watercraft which is operated on any inland body of water within the continental United States and Canada, including coastal waters up to a limit of 10 to 25 miles. On the other hand, very narrow policies provide coverage only on a specified body water or only within a very narrow boundary around a particular area. Between broad and narrow coverage, exist policies that will provide coverage to inland

lakes or in certain areas with the option to extend coverage to certain areas including: the Caribbean, Bahamas, etc., if the boatowner frequents these locals. However many policies will not provide coverage for offshore waters including the Gulf of Mexico.

Selecting the Right Coverage

In addition to price differences between companies there can be a difference in insurance costs based on the elements of risk to the individual insured's property. Normally a premium rate is based on a unit of insurance and is generally based on a cost per \$100 or \$1,000 of coverage. The rate per \$100 or \$1,000 is then multiplied by the amount of insurance purchased. For real property, much of the premium rate will be based on the type of construction. For instance, fire insurance for a wood building would have a greater cost than for a building built with brick.

Analyzing Price

Rates can also be different based on the actual actuarial experience of each location. Fire protection can vary from city to city and the Insurance Services Office has an evaluation of each fire department and water supply on a rating from 1 to 10. Number 10 is the highest rated with number 1 being the lowest rated. Dwelling property and homeowners programs have rates based on three main factors including: type of construction, fire protection of the city and the number of families living at the location. With a homeowners program the same three considerations exist as in the dwelling property but the homeowners contract has the concept of package policy using indivisible premium by which the premium is the cost of the entire package without regard to a different premium based on various sections of the contract.

Deciding on Forms

When evaluating a homeowners policy and considering the difference between the Broad Form (HO2) versus a Special Form (HO3), it would seem silly economically to choose the Broad Form. For a slight amount of extra premium, the special form will provide open perils coverage rather than the named perils coverage associated with the broad form. In the event an insured just cannot afford this slight extra premium, it should be suggested to select a higher deductible under the homeowner's contract and elect to purchase the Special Form. It is commonly accepted that a Special Form with a higher deductible is a much more desirable contract than a broad form with a smaller deductible. The reason for this is that an insured should elect much broader coverage and have a higher deductible as opposed to having a lower deductible on more narrow coverage.

Balancing Cost of Coverage and Risk

Most people, when purchasing insurance on their dwelling and its contents, make a mistake on the amount of insurance coverage they purchase. A dwelling should be insured based on its replacement cost. If it's an older building, developing the concept of replacement cost can be more complicated than if it's a relatively new building. When older property is involved, the replacement cost can be easily determined with the aid of a replacement cost estimator which is available from various insurance companies and agents. The replacement cost estimator is easy to use and provides a reasonable value

of an insured's dwelling and applying stated cost factors to the various items of construction.

When considering the purchase of replacement cost coverage it is very common for people to purchase at least 80% of the full replacement cost to avoid a co-insurance penalty. However, it is ideal for the insured to purchase 100 % of replacement cost value in addition to purchasing an inflation guard endorsement. Coverage based on these two concepts will result in obtaining enough insurance in the event of total loss. Contents coverage in a homeowners contract is equal to 50% of the value of the dwelling. Whether or not this is adequate coverage depends on the individual insured involved. In the event the insured has items of high value they should make arrangements to avoid being uninsured in the event of a big loss. If actual cash value is applied to contents coverage then perhaps a conversion to replacement cost is desirable. In the event the insured has specific items of personal property that are not covered under their homeowners policy or have very minimal coverage, they should definitely either seek to insure them with the appropriate endorsements or increase the amount of coverage available. Another endorsement that should be considered is earthquake damage assumption. For a very limited amount of money in most areas, the catastrophe of an earthquake can be covered for a very minimal premium.

Chapter 6

Catastrophe Insurance

There are calls from some groups for government-backed programs to assume some of the financial risk associated with natural disasters. Other groups, particularly reinsurers, believe such efforts are ill advised. Existing catastrophe funds, such as the one in Florida that provides state-sponsored reinsurance, demonstrate that these are not good substitutes for the private market. After two active hurricane seasons in 2004 and 2005, the Florida fund ran out of money and had to issue bonds for which all the state's commercial and personal lines policyholders must all pay. In 2016 the state-created fund had \$17.4 billion available for the Atlantic hurricane season. This marks the first time ever that the fund had more money than it would need to pay out if storms racked the state.

GOVERNMENT PROVIDED CATASTROPHE INSURANCE

Here are excerpts from a monograph by J. David Cummins² evaluate the need for a government role in insuring natural and man-made catastrophes in the United States. Although insurance markets have been stressed by major natural catastrophes, such as Hurricane Katrina, government involvement in the market for natural catastrophe insurance should be minimized to avoid crowding-out more efficient private market solutions, such as catastrophe bonds. Instead, government should facilitate the development of the private market by reducing regulatory barriers. The National Flood Insurance Program has failed to cover most property owners exposed to floods and is facing severe financial difficulties. The program needs to be drastically revised or replaced by private market alternatives, such as federal "make available" requirements with a federal reinsurance backstop. A federal role may be appropriate to insure against mega-terrorist events. However, any program should be minimally intrusive and carry a positive premium to avoid crowding-out private market alternatives.

Federal Reserve Bank of St. Louis *Review*, July/August 2006, 88(4), pp. 337-79.

The frequency and severity of natural and man-made catastrophes have increased significantly in recent years. Natural catastrophes include events such as hurricanes, earthquakes, floods, and tsunamis; and man-made disasters include oil platform explosions, aviation disasters, and terrorism. As shown in more detail below, prior to 1986, the number of catastrophes rarely reached 150 per year; but since 1993, there have been at least 270 catastrophes per year. These figures are from Swiss Re (2006). Swiss Re defines a catastrophe as an event that causes a specified amount of monetary loss or loss of life above a certain threshold: In 2005, the monetary threshold for an event to be defined as a catastrophe was \$77.5 million and the fatality threshold was 20. The monetary threshold is adjusted over time so that the catastrophe count is consistent across years. Loss statistics are in terms of insured losses. Total losses, including uninsured losses and infrastructure, would be much larger. Of the 40 most

² 2006, The Federal Reserve Bank of St. Louis J. David Cummins is the Harry J. Loman Professor of Insurance and Risk Management at the Wharton School of the University of Pennsylvania. The author acknowledges helpful comments and suggestions from William R. Emmons, Scott E. Harrington, Dwight Jaffee, Howard Kunreuther, Christopher M. Lewis, and Erwann Michel-Kerjan.

costly disasters since 1970, 34 have occurred since 1990 and 15 have occurred since 2000.

Hurricane Katrina, which made landfall on September 8, 2005, is the most costly catastrophic event in history, with projected insured losses in the range of \$40 to \$60 billion. The most costly prior natural catastrophe was Hurricane Andrew in 1992, which cost insurers \$22.3 billion. The most costly man-made disaster was the September 11, 2001, terrorist attack on the World Trade Center (WTC) in New York, which resulted in about \$40 billion in insured losses. The increasing costs of catastrophes have significantly stressed insurance markets. Insurance works best for high-frequency, low-severity events, which are statistically independent and have probability distributions that are reasonably stationary over time. Catastrophic events, and particularly megacatastrophes such as Katrina and the WTC terrorist attack, violate to some degree nearly all of the standard conditions for insurability. These are low-frequency, high-severity events that violate statistical independence by affecting many insured exposures at one time. Although considerable progress has been made in modeling natural catastrophes, conventional methods are much less effective in evaluating losses from terrorism, given that terrorists are continually modifying their strategies and tactics.

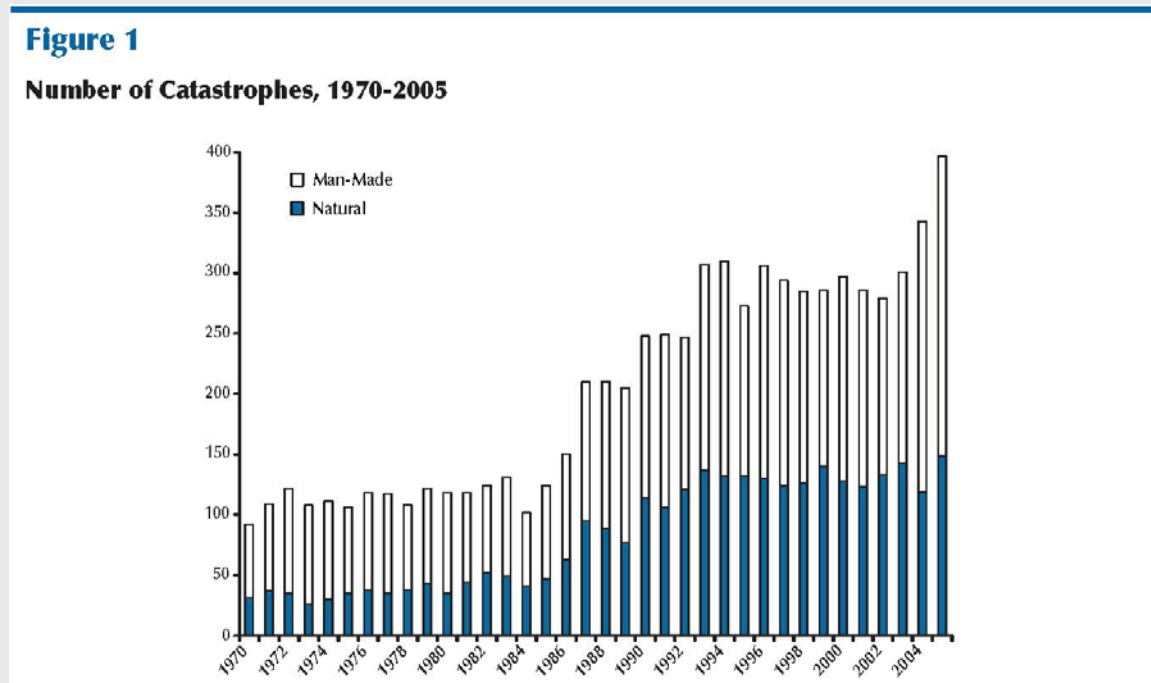
Catastrophe Responses

Insurance markets tend to respond adversely to megacatastrophes. They respond to large events, particularly those that cause them to reevaluate their estimates of the probability and severity of loss, by restricting the supply of insurance and raising the price of the limited coverage that is made available. This occurred, for example, following Hurricane Andrew in 1992 and the Northridge earthquake in 1994 and occurred again following the WTC terrorist attack. Because insurance plays an important role in the economy, instability in the availability and price of coverage generally leads to pressure for government intervention in insurance markets. State governments intervened in Florida and California following Andrew and Northridge, and the widespread availability of windstorm coverage in Florida and earthquake coverage in California seems to be largely attributable to government intervention. The federal government has provided subsidized flood insurance since 1968 and entered the market for terrorism insurance as reinsurer of last resort through the Terrorism Risk Insurance Act of 2002 (TRIA). Governments in several other industrialized nations, including France, Germany, Spain, and the United Kingdom, also have intervened in catastrophe insurance markets.

The objective of this paper is to evaluate the appropriateness of government intervention in catastrophe insurance markets with a particular focus on megacatastrophes, both natural and manmade. The paper begins with a statistical overview of the recent history of catastrophes and then turns to a discussion of the insurability of such events through the private sector, considering the theoretical criteria usually associated with insurable events. The resources of the U.S. insurance industry and the global reinsurance industry are then evaluated to provide perspective on the insurability of large catastrophes. The last major section of the paper evaluates potential public and private sector solutions to the catastrophe insurance problem, considering alternative risk financing mechanisms such as catastrophe (CAT) bonds as well as the most promising models for government involvement. The discussion includes an evaluation of the effectiveness of Terrorism Risk Insurance Act (TRIA) and the likely effect of sunset TRIA on the market for terrorism insurance.

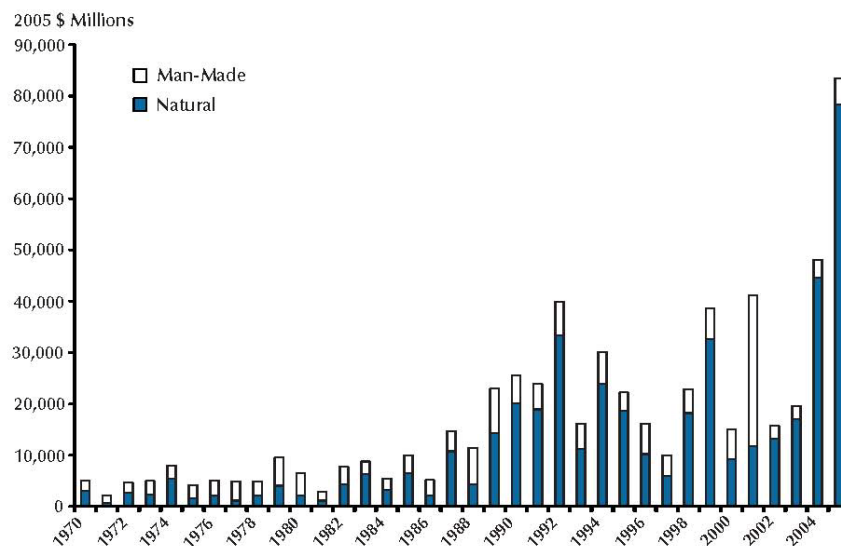
CATASTROPHES: THE RECENT PAST

The number of natural and man-made catastrophes between 1970 and 2005 are shown in Figure 1. The figure indicates a clear upward trend in the number of catastrophes; and a linear trend line fitted to the total number of catastrophes has an adjusted R2 of 0.87. There seems to be a pronounced shift in the data approximately in 1988 and another shift in 1994.



Source: Swiss Re (2006)

Although scientists have not reached consensus on whether the frequency of natural catastrophes such as hurricanes has been increasing, the major reason for the increasing number of catastrophes is the accumulation of property values in disaster-prone areas such as California, Florida, the Gulf Coast, and, increasingly, Asia. The value of insured catastrophe losses from natural and man-made events, adjusted to 2005 price levels, is shown in Figure 2. Because catastrophic events also cause significant losses to uninsured property, such as highways, sewer systems, and other infrastructure components, the total value of losses from such events is higher than Figure 2 suggests. However, the insured losses are relevant in evaluating the insurability of such events. Figure 2 shows that, except for the WTC event in 2001, natural disasters cause more insured losses than man-made events. However, the WTC event illustrates that terrorism has added a significant source of volatility that was not previously present. The severity data also show a shift in the late 1980s/early 1990s. Prior to 1987, total insured catastrophe losses never exceeded \$10 billion per year; but beginning in 1987, losses have exceeded \$10 billion in every year and have exceeded \$20 billion in 11 of 19 years.

Figure 2**Worldwide Insured Catastrophe Losses, 1970-2005**

Source: Swiss Re (2006)

Following a record-year in 2004, when losses totaled \$48 billion, losses nearly doubled to \$80 billion in 2005 with the devastation of hurricanes Katrina, Rita, and Wilma. Katrina in particular not only was an unprecedented natural disaster from an insurance perspective but also raised significant questions about the U.S. system for assessing, mitigating, and financing disasters and disaster relief. For an excellent analysis of the lessons to be learned from Katrina in terms of disaster assessment, prevention, mitigation, and financing, see Daniels, Kettl, and Kunreuther (2006).

The top 40 insured catastrophe losses since 1970 are shown in Table 1: 34 of the top 40 have occurred since 1990 and 15 have occurred since 2000; 7 of the 10 most costly hurricanes in U.S. history occurred during the 17-month period of August 2004 through October 2005 (Hartwig, 2005). All but 3 of the top 40 losses are from natural catastrophes, and the losses from the WTC terrorist attack are roughly six times the previous largest man-made catastrophe, which was the explosion and fire on the Piper Alpha oil platform in 1988. The table also shows that the United States is the primary source of large catastrophe losses worldwide. In 2004, for example, 67.7% of worldwide insured catastrophe losses were North American (primarily U.S.) events (Swiss Re, 2005a); and in 2005, the North American total reached 87.1% of worldwide losses (Swiss Re, 2006).

Table 1

Top 40 Insured Catastrophe Losses: 1970-2005

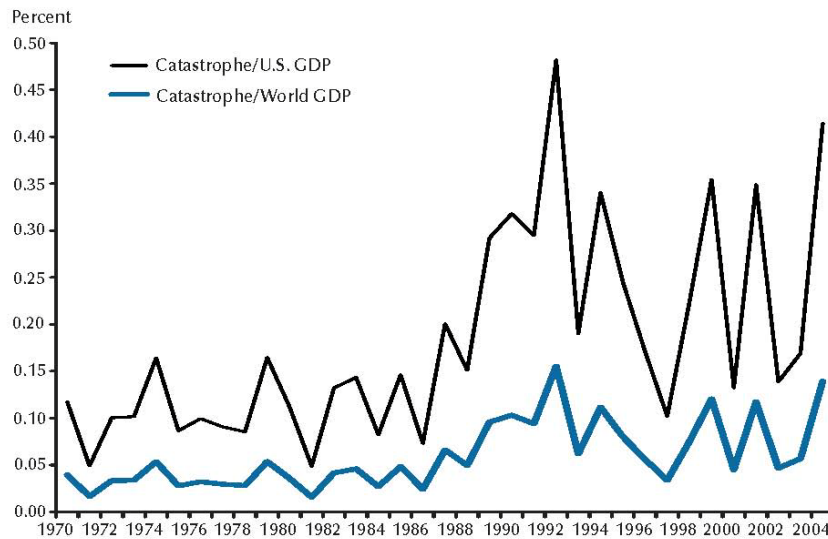
Insured loss¹ (2005 \$ millions)	Victims²	Date (start)	Event	Country/Area
45,000	1,326	8/24/2005	Hurricane Katrina	U.S. Gulf of Mexico, Bahamas
22,274	43	8/23/1992	Hurricane Andrew	U.S., Bahamas
20,716	2,982	9/11/2001	Terrorist attacks on WTC, Pentagon	U.S.
18,450	61	1/17/1994	Northridge earthquake (M 6.6)	U.S.
11,684	124	9/2/2004	Hurricane Ivan: damage to oil rigs	U.S., Caribbean
10,000	34	9/20/2005	Hurricane Rita: floods, damage to oil rigs	U.S., Gulf of Mexico, Cuba
10,000	35	10/16/2005	Hurricane Wilma	U.S., Caribbean
8,272	24	8/11/2004	Hurricane Charley	U.S., Caribbean
8,097	51	9/27/1991	Typhoon Mireille/No 19	Japan
6,864	95	1/25/1990	Winterstorm Daria	France, U.K. et al.
6,802	110	12/25/1999	Winterstorm Lothar	France, Switzerland et al.
6,610	71	9/15/1989	Hurricane Hugo	Puerto Rico, U.S.
5,170	38	8/26/2004	Hurricane Frances	U.S., Bahamas
5,157	22	10/15/1987	Storm and floods	France, U.K. et al.
4,770	64	2/25/1990	Winterstorm Vivian	Europe
4,737	26	9/22/1999	Typhoon Bart/No 18	Japan
4,230	600	9/20/1998	Hurricane Georges	U.S., Caribbean
4,136	3,034	9/13/2004	Hurricane Jeanne: floods, landslides	U.S., Haiti
3,707	45	9/6/2004	Typhoon Songda/No 18	Japan, South Korea
3,475	41	6/5/2001	Tropical Storm Allison	U.S.
3,403	45	5/2/2003	Thunderstorms, tornados, hail	U.S.
3,304	167	7/6/1988	Explosion on platform Piper Alpha	U.K.
3,169	6,425	1/17/1995	Great Hanshin earthquake (M 7.2), Kobe	Japan
2,814	45	12/27/1999	Winterstorm Martin	Spain, France, Switzerland
2,768	70	9/10/1999	Hurricane Floyd: floods	U.S., Bahamas et al.
2,692	59	10/1/1995	Hurricane Opal	U.S., Mexico
2,621	38	8/6/2002	Severe floods	Europe
2,438	26	10/20/1991	Forest fires affecting urban areas, drought	U.S.
2,427	0	4/6/2001	Hail, floods, and tornados	U.S.
2,366	246	3/10/1993	Blizzard and tornados	U.S., Mexico, Canada
2,233	20	12/3/1999	Winterstorm Anatol	Denmark, Sweden, U.K.
2,227	4	9/11/1992	Hurricane Iniki	U.S., N. Pacific Ocean
2,088	23	10/23/1989	Explosion in a petrochemical plant	U.S.
2,068	220,000	12/26/2004	Seaquake (MW 9.0): tsunamis	Indonesia, Thailand
2,024	0	8/29/1979	Hurricane Frederic	U.S.
1,993	39	9/5/1996	Hurricane Fran	U.S.
1,981	2,000	9/18/1974	Tropical Cyclone Fifi	Honduras
1,947	100	7/4/1997	Floods after heavy rain	Poland, Czech Republic et al.
1,923	116	9/3/1995	Hurricane Luis	Caribbean
1,887	18	8/1/2005	Winterstorm Erwin	Denmark, Sweden, U.K.

NOTE: ¹ Property and business interruption, excluding liability and life insurance losses. ² Dead and missing: Figures are approximate and from various sources.

SOURCE: Swiss Re (2006)

Figure 3

Catastrophe Losses Relative to World and U.S. GDP



Source: Catastrophe losses: Swiss Re (2005a); World GDP: The World Bank; U.S. GDP: U.S. Dept. of Commerce

Figure 3 places the catastrophe losses in a broader perspective by showing total insured catastrophe losses as percentages of world and U.S. gross domestic product (GDP). In relation to world GDP, catastrophe losses were less than 0.05 of 1 percent until the late 1980s and have fluctuated around 0.10 of 1% in more recent years. In relation to U.S. GDP, catastrophe losses were less than 0.20 of 1% until the late 1980s and have been above 0.30 of 1% in several years since 1990. There is a significant upward trend in both series, with adjusted R² values of around 0.35 in linear time trend regressions. Figure 3 suggests that catastrophe losses are large and volatile from the perspective of the insurance industry but are more manageable from an economy-wide or societal perspective.

Catastrophe Loss Insurability

This section evaluates the insurability of catastrophe losses. The section begins with a discussion of the theoretical criteria for insurability and an analysis of the differences between natural and unintentional man-made catastrophes on the one hand and intentional events such as terrorism on the other. The section concludes with an evaluation of the resources of the insurance and global reinsurance industries and an economic evaluation of the insurance crises and cycles.....

Implicit in this discussion are some criteria for insurability. One important criterion is that N be sufficiently large for the law of large numbers to operate such that the insurer achieves effective diversification either locally or globally.

Also important is that $\bar{\sigma}^2$ and $\bar{\sigma}_{ij}$ (if the latter is non-zero) be sufficiently “small”-again to ensure that effective diversification takes place. If N is too small or $\bar{\sigma}^2$ and σ_{ij} too large,

then the amount of capital the insurer must hold to achieve a sufficiently small insolvency probability may be too large for insurance to be feasible. Essentially, the cost of capital may push the price of insurance above the level that buyers are willing to pay for coverage, eliminating the gains from trade.

Another important implicit assumption is that sufficient data are available to enable the insurer to estimate the parameters of the loss distribution, μ_i and σ_i^2 , and the covariances among risks, σ_{ij} , if the risks are not independent. This is a non-trivial requirement, given that real-world risks are not identically distributed such that applicants for insurance have heterogeneous parameters. It is well-known that insurance markets can break down as a result of adverse selection if the insurer is not able to discriminate among risks (Rothschild and Stiglitz, 1976). A final requirement is that the loss distribution should be reasonably stationary so that parameters estimated from past data are reasonably good predictors of future loss distributions. If the loss distribution shifts significantly during short periods of time, such as one or two years, the insurer will be unable to estimate premiums or the required amount of equity capital and insurability will break down.

Diversity of Risk

The violation of any of the principal insurability conditions may create situations where risks are neither locally nor globally insurable. However, if other conditions are satisfied, such risks may be *globally diversifiable* through capital markets. Consider the example of events with low frequency and very high severity, where the covariances among the individual risks making up a portfolio are also relatively high. Examples of such risks are unusually severe hurricanes and earthquakes striking geographical regions with high concentrations of property values. For example, modelers have estimated that a \$100 billion event in Florida or California has a probability of occurrence in the range of 1 in 100 (i.e., a “return period” of 100 years). The capacity of the insurance and reinsurance industries may be inadequate to insure such events.

However, events of this magnitude are small relative to the market capitalization of securities markets. Thus, by introducing securitized financial instruments representing insurance risk, catastrophic events in the \$100 billion range are diversifiable across the financial markets, even though they may not be diversifiable in global insurance and reinsurance markets. Such events also have relatively low correlations with securities returns, effectively providing an attractive source of diversification for investors. Securitization extends the scope of diversification from insurance and reinsurance markets to the entire securities market, thus breaking down the problem of small N , large s ’s, and intra-insurance market correlations, in much the same way as reinsurance can reduce or eliminate the problem of non-insurability on the local level. Diversifying insurance-linked risk across the securities market provides the motivation for CAT bonds, which are discussed in more detail below.

The final category of risks consists of events that are so severe that they may not be globally diversifiable even through securities markets. It has been estimated that a severe earthquake in Tokyo could cause losses in the range of \$2.1 to \$3.3 trillion, constituting from 44 to 70% of the GDP of Japan (Risk Management Solutions, 1995). Although it is possible that global securities markets could absorb a significant fraction of such a loss, the full loss is unlikely to be fully diversifiable. I call such events *cataclysmic*, or *globally undiversifiable*.

Losses from mega-terrorism events may also fall into the globally undiversifiable category. Such losses are similar in many ways to losses arising from war, which are generally not amenable to private market insurance or diversification solutions. In addition to sharing the problems of small N and large μ and s with mega-losses from natural hazards, terrorism losses also pose the problem of being very difficult to estimate. Modelers have made significant progress in estimating losses from natural hazards. Modeling firms such as Applied Insurance Research, Equicat, and Risk Management Solutions have developed highly sophisticated models of natural hazard losses based on both statistical data and scientific models of hurricanes and earthquakes. The models have been parameterized using detailed mappings of exposures across the United States and in other major countries. The hurricane and earthquake perils are sufficiently stable in a statistical sense to give modelers confidence in their ability to predict the frequency and severity of future events and to enable insurers to use the models to manage their exposure to catastrophe risk.

Quantifying Terror

Terrorism events are inherently much more difficult to estimate than natural catastrophes. Few statistical data exist that can be used to estimate the parameters of loss distributions. Data on terrorism activities obtained by the government are confidential for national security reasons and hence not available to insurers to assist in estimating premiums and loss exposure. Moreover, terrorists constantly change strategies and tactics, making any predictions from past data inherently unreliable. Terrorists are likely to engage in “target substitution,” shifting their attention to targets that receive the least amount of security. Although some progress has been made in modeling the severity of mega-terrorism events, based on scientific knowledge about the effects of nuclear and conventional explosions and biological and radiation hazards, little information exists that can assist insurers in estimating the probability of terrorism losses. The possibility that terrorists could use weapons of mass destruction raises potential losses from mega-terrorism to levels far exceeding the potential losses from even the largest natural catastrophes.

Another major difference between terrorism and other types of catastrophes is that the frequency and severity of terrorist attacks are significantly affected by U.S. governmental policy. U.S. foreign policy directly impacts the motivation and likelihood of terrorist attacks from different militant factions. U.S. domestic policy and the success of government homeland security programs also affect the mitigation of terrorist attacks—both in preventing such attacks and mitigating the magnitude of any attack that does occur. Moreover, much of the information required to predict terrorist events is likely to remain highly classified and unavailable to those outside of agencies such as the FBI and CIA. In fact, one of the arguments proffered in support of a federal role in the provision of terrorism insurance was that terrorism events represent a negative externality of the national security policies of the sovereign government. Thus, there are significant reasons to believe that government may have to be the insurer of last resort, at least for mega-terrorism events.....



Public-Private Sector Solutions to Financing Catastrophic Risk

Public and private sector solutions to financing the risks of natural catastrophes and terrorism is discussed in the following section. There is a focus on the securitization of catastrophic risk. Public sector solutions to the catastrophic-risk problem are then discussed, including a review of public sector mechanisms currently in place in the United States and other industrialized nations. The Terrorism Risk Insurance Act (TRIA) is also examined.

CAT Bonds

Following Hurricane Andrew in 1992, efforts began to access securities markets directly as a mechanism for financing future catastrophic events. The first contracts were launched by the Chicago Board of Trade, which introduced catastrophe futures in 1992 and later introduced catastrophe put and call options. The options were based on aggregate catastrophe-loss indices compiled by Property Claims Services, an insurance industry statistical agent. Contracts were available based on a national index, five regional indices, and three state indices for California, Florida, and Texas.

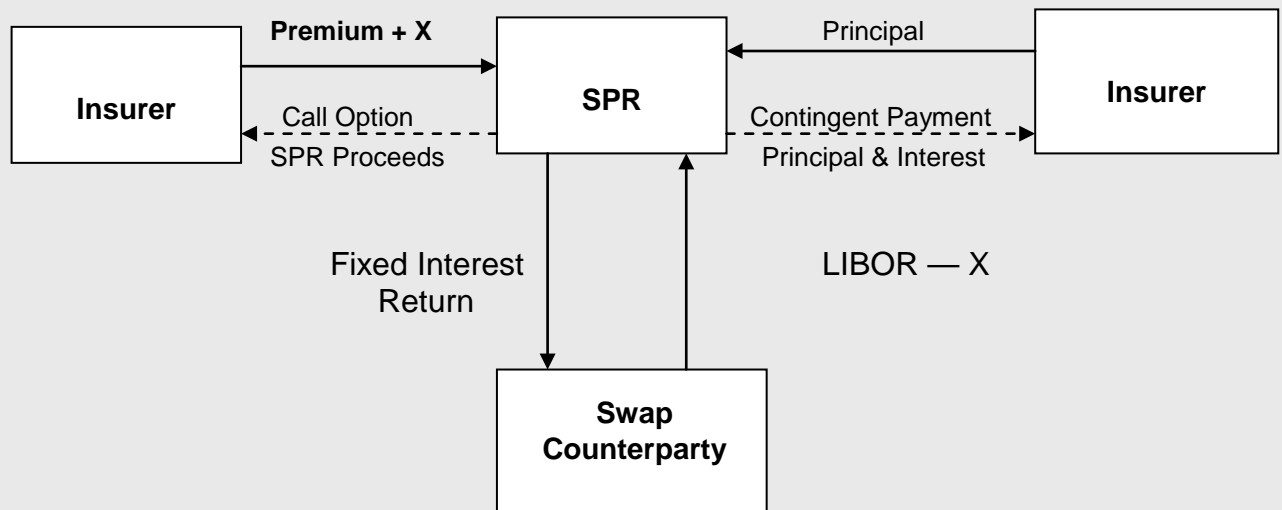
The contracts were later withdrawn because of lack of trading volume. Insurers had little interest in the contracts for various reasons, including the thinness of the market, possible counterparty risk on the occurrence of a major catastrophe, and the potential for disrupting long-term relationships with reinsurers. Another concern was that the contracts were subject to excessive basis risk; that is, the risk that payoffs under the contracts would be insufficiently correlated with insurer losses. A study by Cummins, Lalonde, and Phillips (2004) confirms that basis risk was a legitimate concern. They found that most insurers could not hedge their exposure to Florida hurricane risk very effectively using a statewide index but that all but the smallest insurers could hedge effectively using four intra-Florida regional indices.

Another early attempt at securitization involved contingent notes known as “Act of God” bonds. In 1995, Nationwide issued \$400 million in contingent notes through a special trust, Nationwide Contingent Surplus Note Trust. Proceeds from the sale of the bonds were invested in 10-year Treasury securities, and investors were provided with a coupon payment equal to 220 basis points over that of Treasuries. Embedded in these contingent capital notes was a “substitutability” option for Nationwide. Given a pre-specified event that depleted Nationwide’s equity capital, Nationwide could substitute up to \$400 million of surplus notes for the Treasuries in the trust at any time during a 10-year period for any “business reason,” with the surplus notes carrying a coupon of 9.22%. Surplus notes are debt securities issued by mutual insurance companies that regulators treat as equity capital for statutory accounting purposes. The issuance of such notes requires regulatory approval.

Although two other insurers issued similar notes, this type of structure did not achieve a significant segregation of Nationwide’s liabilities, leaving investors exposed to the general business risk of the insurer and to the risk that Nationwide might default on the notes. The structure that has achieved a greater degree of success is the CAT bond. CAT bonds were modeled on asset-backed-security transactions that have been executed for a wide variety of financial assets including mortgage loans, automobile loans, aircraft leases, and student loans. The first successful CAT bond was an \$85 million issue by Hannover Re in 1994 (Swiss Re, 2001). The first CAT bond issued by a

nonfinancial firm, occurring in 1999, covered earthquake losses in the Tokyo region for Oriental Land Company, the owner of Tokyo Disneyland.

Figure 11 CAT Bond with a Single Purpose Reinsurer



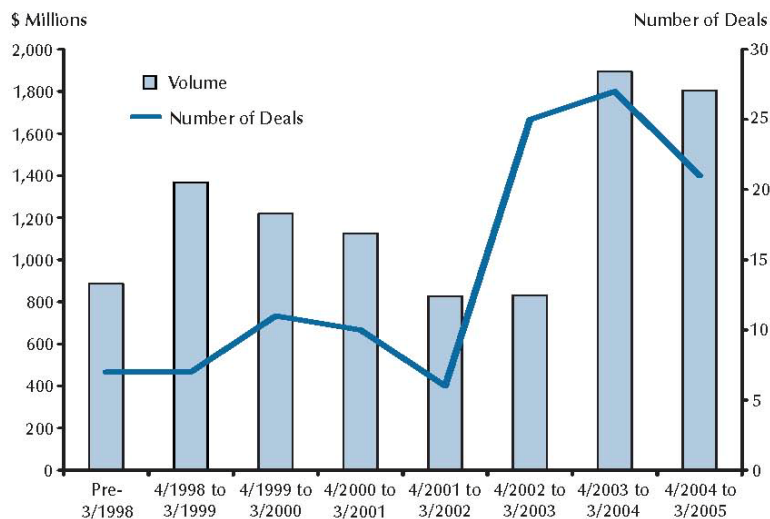
Catastrophe bonds are risk-linked securities that transfer a specified set of risks from a sponsor to investors. They are often structured as floating rate corporate bonds whose principal is forgiven if specified trigger conditions are met. A high-yield debt instrument that is usually insurance-linked and meant to raise money in case of a catastrophe such as a hurricane or earthquake. It has a special condition that states that if the issuer (insurance or reinsurance company) suffers a loss from a particular pre-defined catastrophe, then the issuer's obligation to pay interest and/or repay the principal is either deferred or completely forgiven. They are typically used by insurers as an alternative to traditional catastrophe reinsurance. Advantages of CAT bonds are that they are not closely linked with the stock market or economic conditions and offer significant attractions to investors. For example, for the same level of risk, investors can usually obtain a higher yield with CAT bonds relative to alternative investments. Another benefit is that the insurance risk securitization of CATs shows no correlation with equities or corporate bonds, meaning they'd provide a good diversification of risks.

A CAT bond structure is shown in Figure 11. The transaction begins with the formation of a single purpose reinsurer (SPR). The SPR issues bonds to investors and invests the proceeds in safe securities such as Treasury bonds. Embedded in the bonds is a call option that is triggered by a defined catastrophic event. On the occurrence of the event, proceeds are released from the SPV to help the insurer pay claims arising from the event. In most bonds issued to date, the principal is fully at risk; that is, if the contingent event is sufficiently large, the investors could lose the entire principal in the SPV. In return for the option, the insurer pays a premium to the investors. The fixed returns on the Treasuries are usually swapped for floating returns based on LIBOR or some other widely accepted index. Consequently, the investors receive LIBOR plus the risk premium in return for providing capital to the trust. If no contingent event occurs during the term of the bonds, the principal is returned to the investors upon the expiration of the bonds. Insurers prefer to use an SPR to capture the tax and accounting benefits associated with traditional reinsurance. Some argue that an important advantage of CAT bonds as a financing mechanism is that corporate tax costs are lower for CAT

bonds than for financing through equity; also, CAT bonds pose less risk in terms of potential future degradations of insurer financial ratings and capital structure than financing through subordinated debt (Harrington and Niehaus (2003)).

Figure 12

CAT Bonds: New-Issue Volume and Number of Deals, 1998-2005



Source: Lane Financial (2005)

Investors prefer SPRs to isolate the risk of their investment from the general business and insolvency risks of the insurer, thus creating an investment that is a “pure play” in catastrophic risk. As a result, the issuer of the securitization can realize lower financing costs through segregation. The transaction also is more transparent than a debt issue by the insurer, because the funds are held in trust and are released according to carefully defined criteria. The bonds also are attractive to investors because catastrophic events have low correlations with returns from securities markets and hence are valuable for diversification purposes (Litzenberger, Beaglehole, and Reynolds, 1996). Although the \$100-billionplus “Big One” hurricane or earthquake could drive down securities prices, creating systematic risk for CAT securities, this systematic risk is considerably lower than for most other types of assets, especially during more normal periods.

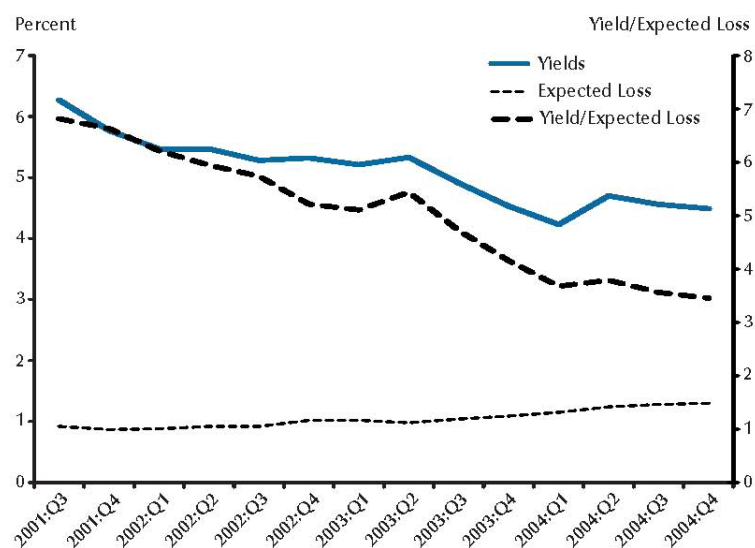
In the absence of a traded underlying asset, insurance-linked securities have been structured to pay-off on three types of variables: insurance industry catastrophe loss indices, insurer-specific catastrophe losses, and parametric indices based on the physical characteristics of catastrophic events. The choice of a triggering variable involves a trade-off between moral hazard and basis risk. Securities based on insurer-specific (or hedger-specific) losses, often called indemnity CAT bonds, have no basis risk but expose investors to moral hazard; whereas securities based on industry loss indices or *parametric* triggers greatly reduce moral hazard but expose hedgers to basis risk. CAT bonds are an innovative financing solution. However, the concept is actually not a new one. It is similar to the practice of bottomry, which dates at least to classical Greek and Roman times. In a bottomry contract, the lender extended loan to finance a voyage. If the ship returned to port, the loan was repaid with interest, but if the ship sank, the loan was forgiven.

However, although there have been approximately 120 bonds issued to date, the amount of risk capital that has been raised remains small relative to the global reinsurance market. The number of issues and risk capital raised are shown in Figure 12, which shows a total of about \$10 billion raised by March 2005. In comparison, the equity capital of the global reinsurance industry and the U.S. property-casualty insurance industry are approximately \$350 billion and \$400 billion, respectively. However, the potential for the use of securities markets to finance catastrophic risk is significant. The amount of asset-backed securities outstanding is nearly \$2 trillion (Bond Market Association, 2006).

Because of the as-yet unrealized potential of the CAT bond market, it is of interest to explore the possible reasons for the limited amount of risk capital raised to date. One possible explanation is that the bonds appear expensive relative to conventional reinsurance. Structuring a CAT bond deal requires significant expenditures on professional expertise from investment bankers, accountants, actuaries, and lawyers. In addition, the spreads on the bonds have tended to be high—often several times the expected losses on the bonds. Cummins, Lalonde, and Phillips (2004) tabulate spreads on CAT bonds issued from 1997 through March of 2000 and find that the median ratio of bond spread to expected loss is 6.77.

Figure 13

CAT Bonds Absolute and Relative Yields



Source: Lane Financial (2005)

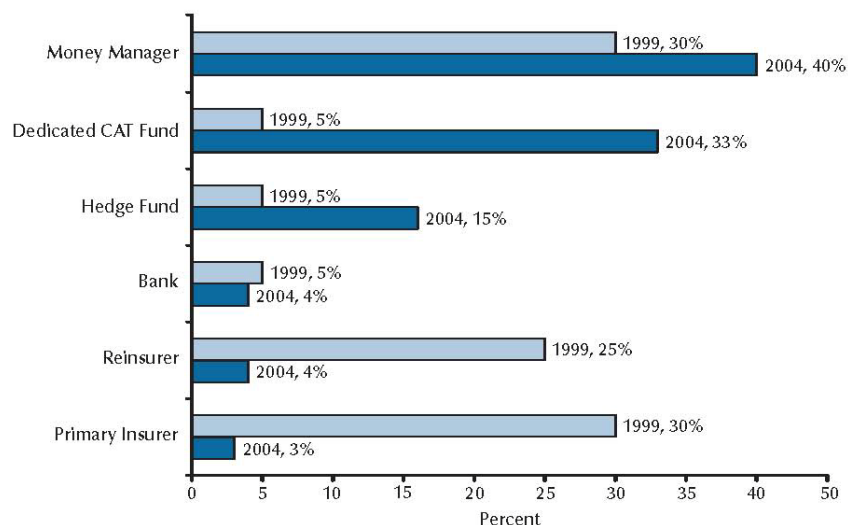
Possible explanations for the high-risk premium on the bonds include investor unfamiliarity with the contracts (a “novelty” premium), the low liquidity of the contracts issued to date (a liquidity premium), and investor uncertainty about the accuracy of the models used to estimate expected losses of the reinsurance (a “model risk” premium). The expected losses under CAT bonds are estimated by catastrophe modeling firms such as Applied Insurance Research and Risk Management Solutions. These firms have developed elaborate and highly sophisticated simulation models that simulate catastrophic events using meteorological and seismological models along with actuarial and other modeling approaches. They have constructed extensive data bases on the value of property exposed to loss in the United States and other major countries.

In addition, although the catastrophic events observed in the United States before the mid-1990s have been uncorrelated with returns in securities markets, this may not be true of a mega-earthquake in California or even a hurricane of the magnitude of Katrina. Thus, the spreads may also reflect a “stealth beta” premium.

Although CAT bonds seem to sell at high premiums over expected losses, in fact, prices of conventional excess-of-loss reinsurance also tend to have high spreads. Froot (2001) documents spreads up to seven times expected losses during the period 1989-98 in the catastrophe reinsurance market. Thus, it is more likely that the high spreads are due to the fact that catastrophe risk is expensive to hedge rather than due to a peculiarity of CAT bonds per se. Moreover, the costs of financing catastrophe risk through CAT bonds have been declining. Investment banks have succeeded in reducing transactions costs as they have gained experience with insurance-linked securitizations, and the spreads on the bonds have fallen over time. This is shown in Figure 13, which plots the average spread on CAT bonds and the average expected loss on the left axis and the ratio of the spread to the expected loss on the right axis, from the third quarter of 2001 through the fourth quarter of 2004. Spreads were averaging 600 basis points at the beginning of the period shown but had declined to about 450 basis points by the end of 2004. In addition, the ratio of the spread to the expected loss declined from around 7 in 2001:Q3 to about 3.5 in 2004:Q4. Another rationale sometimes given for the limited size of the CAT bond market is lack of investor interest. Although that may have been true at one time, recent data suggest that there is broad market interest in CAT bonds among institutional investors. Figure 14 shows the percentage of new issue volume by investor type in 1999 and 2004. In 1999, insurers and reinsurers were among the leading investors in the bonds, accounting for more than 50% of the market; that is, insurers were very prominent on both the supply and demand sides of the market.

Figure 14

CAT Bonds: Percentage of New-Issue Volume Purchased by Investor Type



Source: Swiss Re, Economic Research and Consulting.

However, in 2004, insurers and reinsurers accounted for only 7% of demand. Money managers and hedge funds bought 56% of the 2004 bond issues, and dedicated CAT

bond mutual funds accounted for 33%. The declining spreads and increasingly broad market interest in the bonds provide some indication that the bonds may begin to play a more important role relative to conventional reinsurance.

Other Issues

There are also regulatory and accounting issues that may be impeding the more widespread usage of CAT bonds. U.S. insurance regulators have two concerns about CAT bonds:

- (i) non-indemnity CAT bonds may expose insurers to excessive basis risk and
- (ii) insurers may use securitized risk instruments as speculative investments.

As a result, some regulators may deny reinsurance accounting treatment for non-indemnity CAT bonds. Fortunately, however, it is relatively straightforward to satisfy both concerns and avoid regulatory problems. Contracts can be structured to pay-off on narrowly defined geographical indices or combinations of indices that are highly correlated with the insurer's losses. Concerns about speculative investing can be addressed through dual-trigger contracts, where two triggers have to be satisfied for the insurer to collect, one based on an industry loss index and the second based on the insurer's own losses from the event. The insurer's payoff is based on its *ultimate net loss*, a familiar reinsurance concept equal to the insurer's total loss from an event less collections under reinsurance contracts. This dual-trigger approach was developed in the market for industry loss warranties, which is a segment of the reinsurance market offering this type of contract (McDonnell, 2002). A second potential issue mentioned in some discussions is uncertainty about whether SPRs need to be consolidated on insurers' GAAP (generally accepted accounting principles) financial statements under new rules regarding "variable interest entities" (VIEs) that were adopted post-Enron. However, based on conversations with industry experts, it appears that properly structured CAT bonds do not encounter problems from VIE rules. With the usual CAT bond structure shown in Figure 11, the SPR is a VIE, but the variability (uncertainty about the payoff from the structure to investors) is entirely passed through to the bond holders. The insurer has no variable (equity ownership) interest but merely pays periodic premiums to the SPR and receives a contingent payout if the defined event occurs. Finally, although CAT bonds have not been granted the tax-free conduit status that is available in the mortgage-backed and asset-backed securities markets, off-shore CAT bonds do not create taxable events for the issuing insurer.

The insurer deducts the premium payments to the SPR, and the bond investors pay taxes on the income received from the SPR in the appropriate jurisdiction. Hence, although it would facilitate development of the market to have the regulatory and accounting rules simplified and clarified, these rules currently do not constitute insurmountable obstacles to risk-linked securitizations. Besides the Chicago Board of Trade options and CAT bonds, other capital market solutions to the problem of financing catastrophic loss have been introduced, including catastrophe equity puts (Cat-E-Puts). Unlike CAT bonds, Cat-E-Puts are not asset-backed securities but options. In return for a premium paid to the writer of the option, the insurer obtains the option to issue preferred stock at a pre-agreed price on the occurrence of a contingent event. This enables the insurer to raise equity capital at a favorable price after a catastrophe, when its stock price is likely to be depressed. Cat-E-Puts tend to have lower transactions costs than CAT bonds because there is no need to set up an SPR. However, because they are not asset-backed, these securities expose the insurer to counterparty

performance risk. In addition, issuing the preferred stock can dilute the value of the firm's existing shares.²⁰²⁰ For further discussion of capital market approaches to financing catastrophic risk, see Anderson (2005), Pollner (2001), and Swiss Re (2001). Other innovative solutions, involving hybrids of traditional reinsurance and newer approaches, are discussed in Cummins (2005).

Government Involvement in Catastrophe Insurance Markets

The difficulties faced by insurance markets in financing catastrophic risk have given rise to pressures for government to become involved in the market. Government involvement usually occurs when there has been a major failure in private insurance markets. In the United States, the federal government provides subsidized flood insurance; and the current markets for hurricane coverage in Florida and earthquake insurance in California exist largely due to state government intervention. Other states, such as Alabama and Louisiana, have also established residual market property insurance facilities analogous to the one in Florida; and many other states have Fair Access to Insurance Requirements (FAIR) residual market plans to provide insurance to buyers who cannot find coverage in the voluntary insurance market. I focus here on the California and Florida plans because of their prominence and exposure to large catastrophes. (Jenkins, 2006).

By adopting TRIA, the U.S. government intervened to create a market for terrorism insurance. Governments of several other industrialized countries have also intervened in the markets for catastrophe insurance. This section provides a review of the principal government programs for catastrophe insurance. Because these programs are subject to book-length treatment elsewhere (e.g., Organization for Economic Co-operation and Development [OECD], 2005a,b), the discussion of program characteristics is brief. The discussion also emphasizes the programs adopted in the United States.

Federal Flood Insurance

In the United States, the federal government provides flood insurance through the National Flood Insurance Program (NFIP), administered by the Federal Emergency Management Agency (FEMA). The flood program was enacted in 1968 in response to a market failure in the private flood insurance market, where floods were generally viewed as uninsurable because of the concentration of risk in specific areas and the resulting potential for catastrophes (Moss, 1999). Flood insurance was viewed from a policy perspective as a way to prefund disaster relief and provide incentives for risk mitigation. This type of insurance is important because homeowners insurance and other types of property insurance policies exclude coverage for floods.

NFIP flood insurance policies are offered at prices that are subsidized for many buyers and are sold through private insurers, although the federal government bears the risk. The program was designed to be self-supporting and has the ability to borrow from the government to pay claims. The stated objectives of the program are

- (i) to provide flood insurance coverage to a high proportion of property owners who would benefit from such coverage,
- (ii) to reduce taxpayer-funded disaster assistance resulting from floods, and
- (iii) to reduce flood damage through flood-plain management and enforcement of building standards

By August 2005, Jenkins (2006) estimated that the NFIP had approximately 4.6 million policyholders in 20,000 communities. From 1968 through August of 2005, the NFIP had paid \$14.6 billion in insurance claims, primarily funded by policyholder premium payments. Although the program might seem to be a success (in terms of the amount of coverage provided and claims that have been paid), in fact, the NFIP is badly in need of reform. The program is not actuarially sound, with some policyholders paying premiums representing only 35 to 40% of expected costs (Jenkins, 2006). Following the record losses from hurricanes in 2004 and 2005, the program is currently bankrupt and could not continue to exist in its present state if it were a private insurer. Moreover, the program pays significant amounts of money to repair or replace “repetitive-loss properties,” that is, properties that receive loss payments of \$1,000 or more at least twice over a 10-year period. It is estimated that such properties, which represent only 1% of covered properties, account for 25 to 30% of all loss payments (Jenkins, 2006). Insurance penetration rates are low, even in the most flood-prone areas, with as little as 50% of exposed properties covered by insurance. In Orleans Parish, which includes New Orleans, only about 40% of properties were covered by flood insurance at the time Katrina struck (Bayot, 2005) and coverage rates were even lower in parts of Mississippi. The NFIP also has been criticized for not providing effective oversight of the approximately 100 insurance companies and thousands of insurance agents and claims adjusters who participate in the flood program (Jenkins, 2006).

Reforming the NFIP should become a top priority for federal disaster planning. Having high rates of flood insurance coverage can significantly reduce taxpayer-funded disaster-relief payments following catastrophes, and charging actuarially sound premiums would provide proper incentives for flood-plain management. (For further discussion of the role of insurance in risk mitigation, see Kunreuther (1996)).

There are two approaches that could be taken to reforming the program:

- (i) Continue providing federal flood insurance but fix the problems with the current program. This would entail charging premiums sufficient to cover both claims and program expenses and providing a safety cushion to build up reserves during low-loss years to reduce the need for federal borrowing during years when catastrophes occur. Further, other problems identified by the GAO would also need to be rectified.
- (ii) Adopt a solution with a higher degree of private sector involvement. This could be done following the pattern of the federal terrorism program by requiring private insurers to “make available” private flood insurance policies at actuarially determined prices in flood-prone areas.

Although it is probable that private insurers could provide such coverage without federal support, by issuing disaster bonds (similar to CAT bonds) and through conventional reinsurance solutions, consideration should be given to providing federal reinsurance at prices that would be self-supporting in the long run. The private sector solution is attractive for a number of reasons, including the relative efficiency of insurers in settling insurance claims in comparison with the often chaotic federal response to disaster relief. Under either solution to NFIP reform, rules should be tightened to eliminate repetitive-loss properties from the program, and lenders should be required to enforce mandatory participation in the program as a condition for granting and retaining mortgage loans, as is presently done for homeowners insurance.

Windstorm Coverage in California and Florida

Windstorm coverage is presently provided by private insurers through homeowners and other property insurance policies. The California and Florida programs are noteworthy in that they do not involve the direct government provision of insurance but the creation of quasigovernmental entities not supported by taxpayers. Following the 1994 Northridge earthquake, the market for earthquake insurance in California collapsed as private insurers stopped writing coverage. The California legislature responded in 1996 by creating a quasi-public entity, the California Earthquake Authority (CEA), to provide earthquake insurance to Californians. The CEA is not a government agency but operates under constraints mandated by the legislature.

Specifically, the policies written by the CEA are earthquake “mini-policies” designed by the legislature that provide less-extensive coverage than provided by private insurers pre-Northridge. The legislature also mandated that coverage be provided at sound actuarial prices, although these have been “tempered” somewhat to subsidize policyholders in high-risk areas. The legislature also required that the CEA be funded by capital contributions of about \$700 million from private insurers licensed in California in lieu of requiring them to write earthquake insurance. The CEA had claims-paying ability of about \$6.9 billion at the end of 2004 (PricewaterhouseCoopers, 2005). Putting this in perspective, recall that the Northridge earthquake caused insured losses of \$18.5 billion (Table 1). However, because of the mini-policies and because fewer residences have earthquake insurance now than before 1994, it is probable that the CEA could withstand damages on the scale of Northridge. Since the creation of the CEA, private insurers have re-entered the California earthquake market. In 2004, approximately 150 companies wrote nonzero earthquake insurance premiums in California (California Department of Insurance, 2005). Of the \$985 million in California earthquake premiums written in 2004, however, the CEA accounted for 47.3%; and private insurers generally write insurance in relatively low-risk areas of the state (Jaffee, 2005). Nevertheless, the design of the CEA, and especially its mandate to charge actuarially justified premium rates, has had the effect of not crowding-out the private sector. Something of a puzzle in the California market, however, is that only a small proportion of eligible property owners actually purchase the insurance. In the homeowners market, 33% of eligible properties purchased earthquake insurance in 1996, the CEA’s first year, but only 13.6% had insurance in 2003. The rationale usually given for the low market penetration is that most buyers consider the price of insurance too high for the coverage provided, even though premiums are close to the expected losses (Jaffee, 2005). As in California following Northridge, the hurricane market in Florida was significantly destabilized by Hurricane Andrew in 1992. (For further economic analysis of the Florida windstorm insurance market, see Grace, Klein, and Liu (2006)).

In response to insurer attempts to withdraw and re-price windstorm coverage following the event, the state placed restrictions on the ability of insurers to decline renewal of policies and to increase rates. To provide an escape valve for policyholders who were unable to obtain coverage, the state created the Florida Residential Property and Casualty Joint Underwriting Association (FRPCJUA), a *residual market facility*. Insurers doing business in the state were required to be members of the facility, which insured people and businesses who could not obtain property coverage from the voluntary insurance market.

The FRPCJUA was empowered to assess insurers if premiums were not sufficient to pay claims, and there was no explicit government backing. A similar residual market facility was formed to provide “wind only” coverage along the coast— the Florida Windstorm Underwriting Association. In 2002, the two residual market plans were merged to form the Citizens Property Insurance Corporation, a tax-exempt entity that provides coverage to Floridian consumers and businesses who cannot find coverage in the voluntary market. Citizens operates like an insurance company in charging premiums, issuing policies, and paying claims. If premiums are insufficient, it has the authority to assess insurers doing business in the state to cover the shortfall. It also has the ability to issue tax-exempt bonds if necessary. Citizens was severely stressed by the four hurricanes that hit Florida in 2004, as it struggled to handle the massive numbers of claims that were filed. In 2004, Citizens wrote \$1.4 billion in premiums, accounting for 34% of the Florida property insurance market. Unlike California earthquake insurance, the market penetration of property insurance coverage in Florida is very high, in part because mortgage lenders require mortgagors to purchase insurance. To provide additional claims-paying capacity, Florida also created the Florida Hurricane Catastrophe Fund (FHCF), a state-run catastrophe reinsurance fund designed to assist insurers writing property insurance in Florida.

Insurers writing residential and commercial property insurance in the state are required to purchase reinsurance from the FHCF based on their exposure to hurricane losses in the state. The FHCF does not have state financial backing. However, it is operated as a state agency and is exempt from federal income taxes, enabling it to accumulate funds more rapidly than private insurers. In addition, the fund has the authority to assess member insurers within limits in case premiums and reserve funds are insufficient and also has the ability to issue tax exempt bonds. The catastrophe reinsurance issued by the fund kicks in after an industry retention of \$4.5 billion, and the fund has claims-paying ability of about \$15 billion. The FHCF helped to stabilize the property insurance market following the 2004 hurricane season and Hurricane Wilma in 2005. The California and Florida experience shows that government can play an important role in making insurance available without directly committing taxpayer funding. These programs also have the virtue of not crowding-out private insurers, although it is possible that the mandatory purchase feature of the FHCF may have crowded out some private reinsurance. However, because these are government-mandated and –designed programs, they probably are not as efficient as purely private market solutions.

TERRORISM INSURANCE

Prior to the September 11, 2001, terrorist attacks, terrorism was generally covered by most property-casualty insurance policies. In fact, the risk was considered so minimal by insurers that terrorism was usually included at no explicit price. Likewise, reinsurers generally covered primary companies for terrorism as part of their reinsurance coverage; and reinsurers paid most of the claims resulting from the WTC attack. After 9/11, however, reinsurers began writing terrorism exclusions into their policies, leaving primary insurers with virtually no opportunity to reinsure their exposure. As a result, the primary insurers sought to write terrorism exclusions into their own policies.

Recognizing that substantial exposure to terrorism risk without adequate reinsurance could pose insolvency risks, state insurance regulators rapidly approved terrorism exclusions. By early 2002, insurance regulators in 45 states allowed insurers to exclude terrorism coverage from most of their commercial insurance policies. An exception to the general exclusion of terrorism from commercial insurance policies following 9/11 is

coverage for workers compensation insurance, which is mandated by state law to cover work injuries from all causes. The states did not revise the workers compensation laws to allow terrorism exclusions. Terrorism exclusion also were not introduced for personal-lines policies such as automobile and homeowners insurance.

In February 2002, the Government Accounting Office (GAO) gave congressional testimony providing “examples of large projects canceling or experiencing delays...with the lack of terrorism coverage being cited as the principal contributing factor” (Hillman, 2002, p. 9). According to a survey by the Council of Insurance Agents and Brokers, in the first quarter of 2002, the market for property/casualty insurance experienced “sharply higher premiums, higher deductibles, lower limits and restricted capacity from coast to coast and across the major lines of commercial insurance.”³

In November 2002, Congress responded to these problems by passing TRIA. Through TRIA, the federal government required property-casualty insurers to offer or “make available” terrorism insurance to commercial insurance customers and created a federal reinsurance backstop for terrorism claims. TRIA established the Terrorism Insurance Program within the Department of the Treasury. The program, which has been extended through December 31, 2007, covers commercial property/casualty insurance—all insurers operating in the United States are required to participate. Insurers are required to “make available property and casualty insurance coverage for insured losses that does not differ materially from the terms, amounts, and other coverage limitations applicable to losses arising from events other than terrorism” (U.S. Congress, 2002, p. 7). The legislation thus nullified state terrorism exclusions and requires that insurers offer terrorism coverage.

The wording of the Act implicitly omits coverage of chemical, biological, radiological, and nuclear (CBRN) hazards, which are not covered by most commercial Property/casualty policies. The TRIA Extension Act in 2005 excluded some types of commercial insurance that had been covered under the original TRIA. Specifically, coverage was eliminated for commercial auto, burglary, surety, professional liability, and farm owners multiple-peril insurance (Marsh, 2005b).

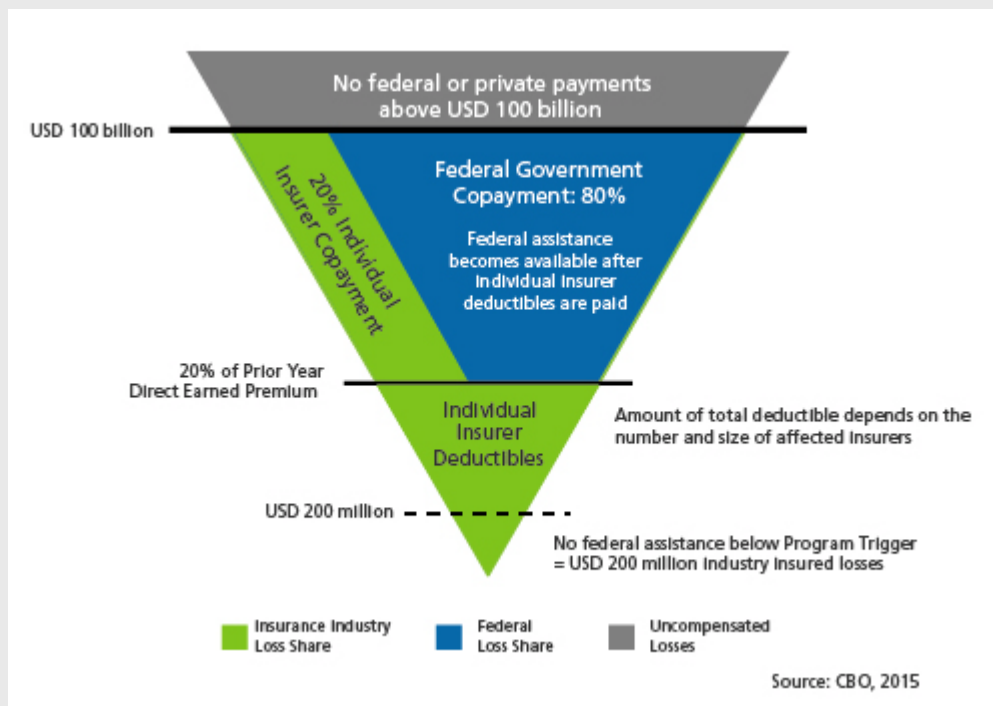
For the federal government to provide payment under TRIA, the Secretary of the Treasury must certify that a loss was due to an act of terrorism, defined as a violent act or an act that is dangerous to human life, property, or infrastructure, and to have “been committed by an individual or individuals acting on behalf of any foreign person or foreign interest, as part of an effort to coerce the civilian population of the United States or to influence the policy...of the United States Government by coercion” (U.S. Congress, 2002, p. 3). Acts of war are excluded, and losses from any terrorist act must exceed a specified monetary threshold before the Act takes effect. The threshold was originally \$5 million, increasing to \$50 million in 2006 and \$100 million in 2007.

In early 2015, Congress answered the calls from the insurance industry and many other business sectors across the country by reauthorizing the federal backstop program again.

Figure 15

TRIPRA 2015 Loss Sharing for the Year 2020

³ Council of Insurance Agents and Brokers (2002).



Note: TRIA is

extended by the Terrorism Risk Insurance Program Reauthorization Act of 2015 (TRIPRA 2015)

Under TRIPRA 2015, the insurer copay will gradually increase each year from 15% ultimately to 20%. Once all the initial criteria for federal coverage have been met, an insurer who incurs losses resulting from a certified act of terrorism is required to first cover a portion of the losses- the insurer deductible. The amount of each individual insurer's deductible is calculated as 20% of the insurer's direct earned premiums in TRIPRA-eligible lines of business for the previous calendar year. For losses in excess of the insurer deductible, each insurer is also required to cover a pro-rata share of the losses, or copayment, with the federal government providing compensation for the remaining losses.

The annual cap on liability also still applies under TRIPRA 2015, which means that no federal or private insurer payments are compensated for any portion of aggregate industry insured losses exceeding USD 100 billion. TRIPRA 2015 also increases the industry annual aggregate retention from USD 29.5 billion to USD 37.5 billion in 2019, the fifth and penultimate year of the program. In 2020, the final year of TRIPRA 2015, the retention will rise to an amount equal to the average of all participating insurers' deductibles over the previous three program years. The Congressional Budget Office (CBO) has estimated that this amount could be as much as USD 50 billion.

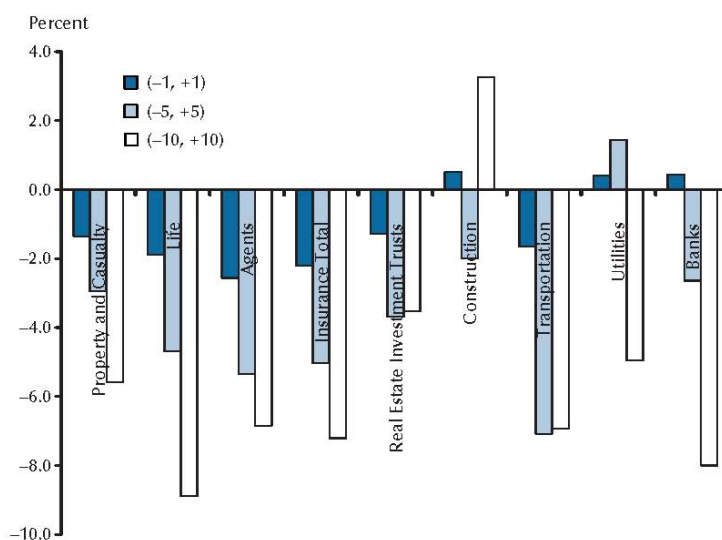
An Evaluation of TRIA

In making the case for TRIA, the president of the United States, Congress, and business leaders argued that the lack of terrorism insurance was having an adverse effect on important segments of the economy, citing cancelled or postponed construction projects, downgrades of commercial and multi-family mortgage securities, and other deleterious effects. However, the evidence was mostly anecdotal and solid evidence of a macroeconomic impact from the restrictions on terrorism insurance during 2002 has been hard to find. One paper that looked at several macroeconomic time series, such as bank construction lending and new construction put in place, did not find

any noticeable interruption in trends that had existed before September 11, 2001 (Brown et al., 2004). A paper by Hubbard and Deal (2004) purports to show that the expiration of TRIA would have a significant adverse impact on the macroeconomy. However, the paper appears to have been written as an advocacy document, and the analysis is not very convincing.

Figure 16

Stock Price Impact of the Passage of TRIA (11/20/2002)



Source: Brown et al. (2004).

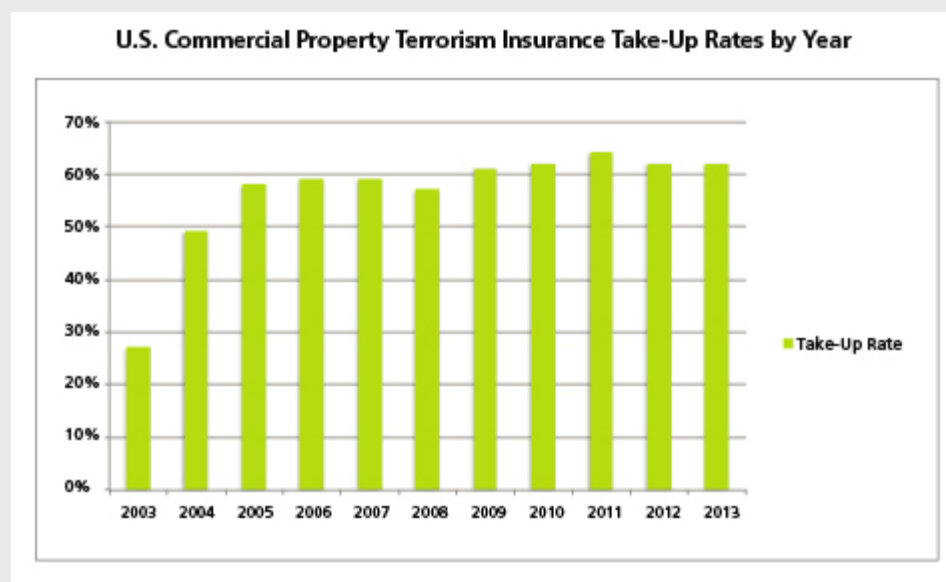
Nevertheless, the general assumption has been that restrictions on terrorism insurance are bad for the economy, providing a rationale for a federal role. This section briefly considers the macroeconomic impact of TRIA, analyzes TRIA's success in restoring the market for terrorism insurance, and evaluates the likely impact if TRIA eventually expires. Brown et al. (2004) provide evidence on the expected economic effects of TRIA by investigating the stock price reaction to the Act's adoption on the industries most likely to be affected by terrorism insurance. They conduct a standard event study of 11 TRIA-related news announcements, culminating in the president signing the bill into law on November 26, 2002. The stock price impact on affected industries of the bill's passage by Congress on November 20, 2002, is representative of the general conclusions of the study. The results, shown in Figure 16, reveal that TRIA's passage had an adverse impact on the stock prices of firms in the insurance, banking, real estate investment trusts, and transportation industries and a negative long-window impact on public utilities. Only in the construction industry is there any evidence of a positive stock price impact from TRIA, and this effect is not statistically significant.

The results imply that TRIA's passage caused the stock market to reduce its estimates of expected future cash flows in nearly all affected industries. It is relatively easy to explain the negative stock price reaction of property-casualty insurers to the passage of TRIA. Prior to TRIA, the availability of terrorism insurance was sharply curtailed, revealing that many insurers did not believe they could write terrorism insurance at a profit. TRIA nullified most coverage restrictions and required insurers to offer coverage that they did not want to provide and, moreover, exposed insurers to significant potential losses from TRIA's deductible, copayment, and recoupment provisions. Although TRIA

left the pricing of terrorism insurance to the private market, states regulate insurance prices; and attempts by insurers to avoid providing coverage by offering insurance at excessive prices would attract adverse regulatory attention. Thus, as shown further below, a considerable amount of terrorism insurance has been offered under TRIA that probably would not have been available without TRIA's "make available" rule.

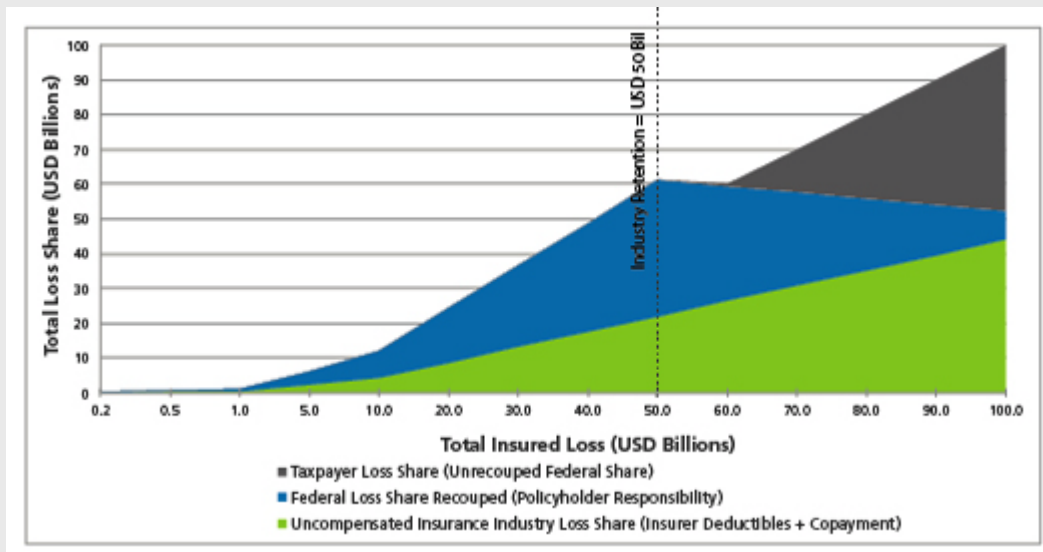
Because the purchase of terrorism insurance is not mandatory under TRIA, it is more difficult to explain the adverse stock price reaction in industries that are buyers rather than sellers of insurance. At first glance, the Act provided firms in these industries with a no-obligation option to buy terrorism insurance that may not have been available otherwise. However, a more careful look reveals some possible reasons for the negative stock price reaction. Brown et al. (2004) provide two possible explanations. A first explanation is a type of "Samaritan's dilemma" problem. That is, the Act may have reduced market expectations with respect to future federal assistance for firms and industries affected by terrorist events by substituting a federal reinsurance program for a potentially more open-ended implicit government commitment. The second explanation is that TRIA may have created insurance market inefficiencies by impeding the development of more-efficient private market mechanisms for financing terrorism losses, especially because no premium is charged for the federal reinsurance. A third possible explanation, which conflicts somewhat with the Samaritan's dilemma argument, is that TRIA implicitly excludes coverage for CBRN hazards, which have the potential to cause the most severe losses.

Although initial reports indicated that take-up rates (the percentage of buyers who accept insurers' offers of terrorism insurance) under TRIA were very low, more recent data reveal that significant amounts of terrorism insurance have been purchased under TRIA. Marsh (2004, 2005a) surveyed their clients in 2004 and 2005 to provide information on terrorism coverage. The results are shown in Figure 17, which provides quarterly take-up rates based on approximately 2,400 Marsh clients from 2003:Q2 to 2004:Q4. The take-up rate increased from 23% in 2003:Q2 to 48% in 2004:Q4. Thus, the large firms which constitute Marsh's clientele demonstrated a significant demand for terrorism insurance, especially in 2004.



Source: Marsh (2005a)

Further evidence on terrorism insurance take-up rates is provided by surveys conducted by the U.S. Department of the Treasury (2005) as part of its congressional mandate to provide an evaluation of TRIA's effectiveness. The Treasury surveys are a valuable complement to the Marsh surveys because they also included smaller firms. The results, shown in Figure 18, indicate that the take-up rate increased from 27% in 2002 to 54% in 2004. This provides further evidence that a strong demand for terrorism insurance has existed under TRIA. The 2002 results are also important because they reveal that terrorism insurance did not disappear between September 11, 2001, and the passage of TRIA. In fact, significant amounts of coverage were being offered and purchased during this period, even though no federal reinsurance was in effect.

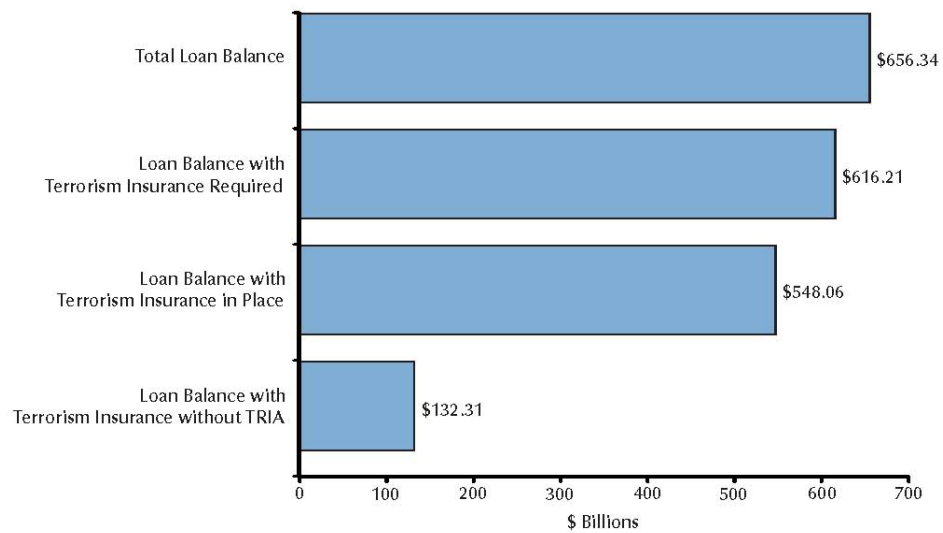


Source: U.S. Department of the Treasury (2005)

The final source of evidence on take-up rates is a survey conducted in 2004 by the Mortgage Bankers Association (2004). The Association surveyed the commercial and multi-family mortgage market to determine the prevalence of terrorism insurance protection for properties covered by these types of mortgages. The results, shown in Figure 19, reveal that lenders require terrorism insurance for mortgages, accounting for about 94% of loan balances.

Figure 19

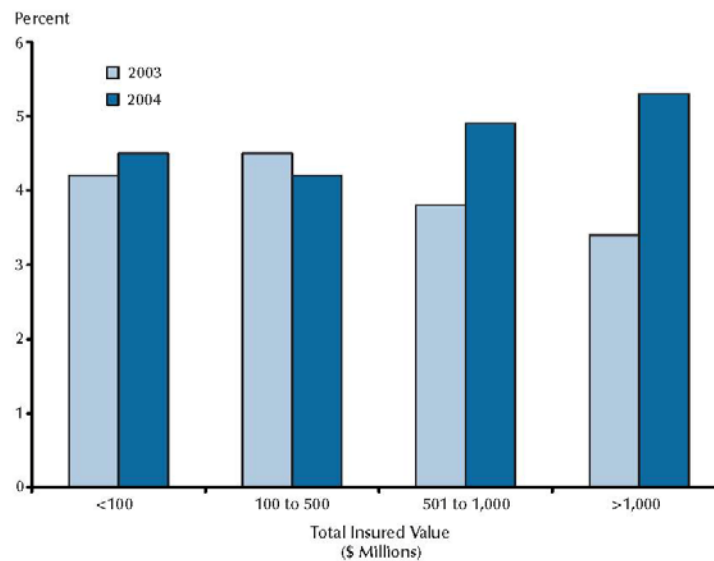
Terrorism Insurance in the Commercial/Multi-family Mortgage Market, 2004



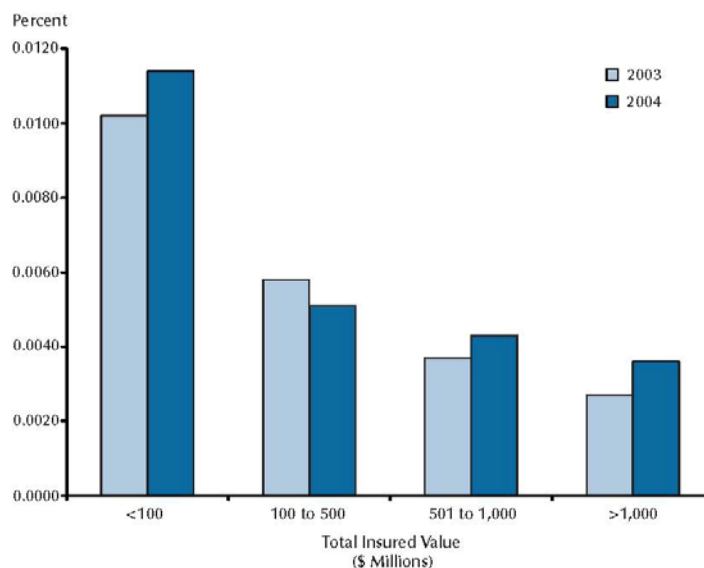
Source: Mortgage Bankers Association (2004)

Figure 20

Terrorism Insurance Price as a Percentage of Property Insurance Premiums



Source: Marsh (2005a)

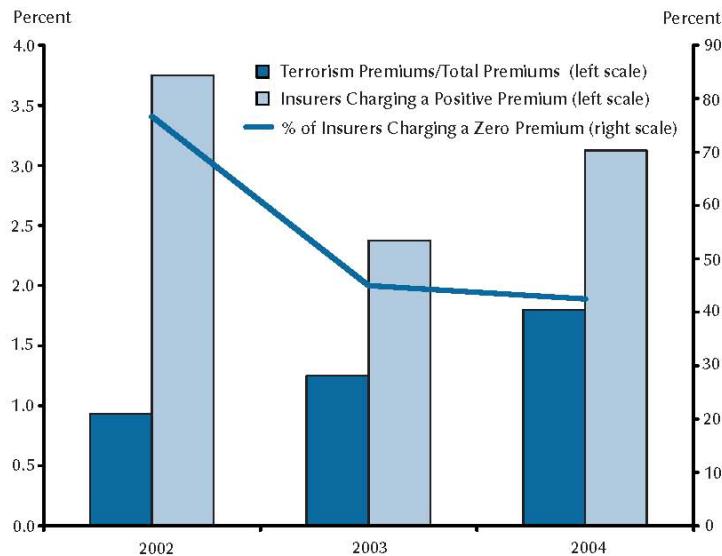
Figure 21**Terrorism Insurance Pricing: Median Rates by Total Insured Value**

Source: Marsh (2005a)

Of the \$616 billion in loan balances where terrorism coverage was required, insurance was purchased for \$548 billion, or 89%. Respondents estimate that only \$132 billion would have been covered by terrorism insurance absent TRIA. Although the accuracy of this counterfactual estimate is not clear, the results do indicate the respondents' belief that TRIA plays a major role in creating a supply of terrorism insurance. The pricing of terrorism insurance was also analyzed in the Marsh and U.S. Treasury surveys. Results from Marsh (2005a) are presented in Figure 20. The figure indicates that terrorism insurance constituted between 4 and 5% of total commercial property insurance premiums for the Marsh clients included in the survey and that prices increased in 2004 for larger properties. However, even at the 2004 levels, prices do not seem unreasonable in a relative sense. Figure 21 provides information on the absolute values of terrorism insurance prices from the Marsh survey. Terrorism insurance premiums represented 0.01% of insured value for relatively low-valued properties, dropping to about 0.004% for the largest properties. Further pricing results from the Treasury surveys are summarized in Figure 22. Perhaps surprisingly, the results reveal that many insurers were still not charging an explicit price for terrorism insurance following the enactment of TRIA.

Figure 22

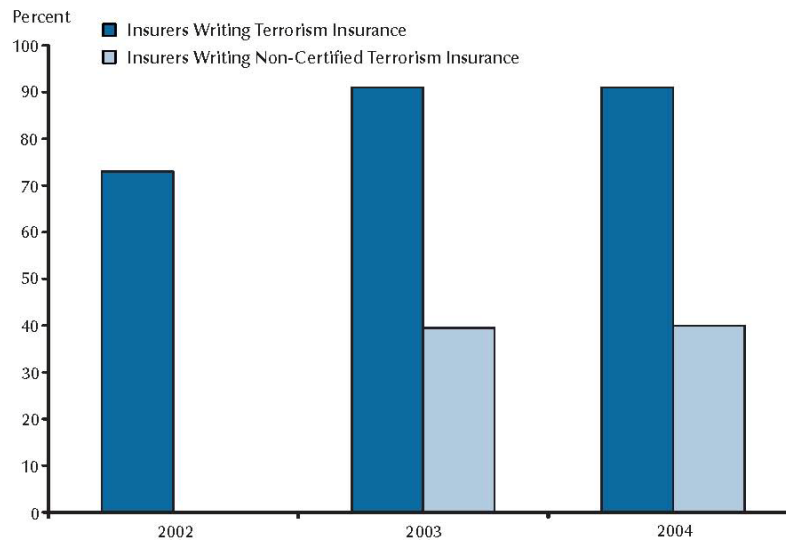
Terrorism Insurance Premiums as a Percentage of Total Premiums



Source; U.S. Department of the Treasury (2005)

Figure 23

Extent of Terrorism Coverage



Source: U.S. Department of the Treasury (2005)

In 2002, about 80% were not charging for terrorism coverage, but this had dropped to 40% by 2004. Including both the zero price and positively priced insurance, terrorism insurance accounted for about 1% of total property insurance premiums in 2002, rising to approximately 2% in 2004. Considering only the positive-premium terrorism insurance, the terrorism premium was about 3% of total premiums in 2004. Hence, the price of terrorism coverage does not seem to be exorbitant under TRIA. I now turn to an evaluation of what the terrorism insurance market might look like without TRIA. Some evidence helpful in making this evaluation is provided in the U.S. Treasury surveys.

In addition to terrorism insurance reinsured under TRIA, which is limited to foreign terrorism, some insurers also write *non-certified* terrorism coverage, which insures against events such as domestic terrorism not covered by TRIA. The percentages of insurers writing certified (i.e., TRIA-reinsured) coverage and non-certified coverage for 2002 through 2004 are shown in Figure 23. However, this distinction is not meaningful in 2002 because federal terrorism reinsurance did not exist for most of the year.

The results are striking—approximately 90% of insurers wrote certified terrorism coverage in 2002 through 2004, but only 40% wrote non-certified coverage. Given that non-certified (i.e., domestic) terrorism events are generally viewed as less risky than foreign terrorism, these results may suggest that no more than 40% of insurers would continue to offer terrorism coverage for foreign terrorism if TRIA expires. The Treasury also queried responding insurers about their 2005 renewals that extend into 2006, when TRIA's renewal was uncertain. Fifty percent of the respondents indicated that they would not provide terrorism coverage “that is roughly similar to TRIA coverage” for the segment of the policy period extending into 2006 (U.S. Treasury 2005, p. 75). Of these respondents, 55% planned to exclude terrorism altogether in 2006, 22% had a contingent exclusion for terrorism going into 2006, and 24% included coverage that was not comparable to TRIA coverage. These results do not bode well for the availability of terrorism insurance coverage absent TRIA.

In conclusion, it is clear that TRIA has been effective in making terrorism insurance widely available. That about half of policyholders do not buy terrorism insurance seems to be more a reflection of the fact that many policyholders do not have significant terrorism exposure rather than a belief that terrorism prices are too high. In fact, terrorism coverage is being made available at prices representing only a small proportion of total property insurance premiums. However, because the government reinsurance is being provided for free, it is likely that the current prices mainly reflect insurer expected losses under the deductible and copayment provisions of TRIA. Thus, prices can be expected to rise once the terrorism deductibles, copayments, and recoupment provisions increase beginning in 2006. The survey results also suggest that availability of terrorism insurance is likely to decline sharply if TRIA eventually expires. This could be a temporary decline until private market solutions begin to emerge. However, the experience with catastrophic risk insurance in California and Florida suggests that many buyers, especially in high-risk areas, will not be able to obtain terrorism insurance without some form of government involvement in the market. Although such involvement does not necessarily imply that the government should serve as reinsurer of last resort, the experience of other OECD countries suggests that some form of government reinsurance may be needed to sustain the market for terrorism coverage in the future. However, care should be taken in designing any federal terrorism program, to avoid adverse incentives and unintended consequences. For example, an economic analysis conducted by Michel-Kerjan and Kunreuther (2006) shows that it would be possible for large insurers to “game” the system under TRIA, shifting responsibility for terrorism losses to smaller insurers and policyholders.⁴

⁴ For further economic analysis of terrorism insurance, see Kunreuther and Michel-Kerjan (2004), Kunreuther et al. (2003), Lakdawalla and Zanjani (2002), and Wharton Risk and Decision Processes Center (2005).

EVALUATION OF GOVERNMENT INVOLVEMENT MECHANISMS

This section begins with an evaluation of theories of government involvement in insurance markets. The discussion then turns to an evaluation of the principal mechanisms for government involvement and recommendations for improving the markets for insurance against catastrophes.

Theories of Government Involvement

Three primary theories of public policy are relevant in evaluating the role of government in addressing market failures in the insurance industry: laissez faire, public interest, and market enhancement. Laissez faire theory maintains that any market-based equilibrium, however imperfect, provides a more efficient allocation of resources within the economy than an equilibrium involving government intervention. From this perspective, government intervention in markets results primarily from rent-seeking behavior of special interest groups (e.g., Stigler, 1971). Thus, industry calls for government protection against catastrophic risk are viewed as opportunistic attempts to secure an ex ante wealth transfer from taxpayers. Several types of inefficiencies can arise from government insurance programs. Provision of subsidized insurance is likely to crowd out private attempts to enter the market, permanently locking in an inefficient solution to financing catastrophe losses. Government programs tend to develop constituencies that engage in intensive lobbying to maintain government support, strengthening concerns about rent-seeking by special interests. At least one lobbying group, the Council to Insure Against Terrorism, was formed specifically to lobby for renewal of TRIA on behalf of business insurance buyers. Several groups representing insurance agents and insurance companies also have active TRIA lobbying efforts.

Subsidized insurance also tends to create moral hazard problems whereby policyholders under invest in loss prevention. Government insurance also may create resource allocation problems if subsidized terrorism insurance leads to overbuilding of building types and locations that are relatively vulnerable to terrorism. Actuarial pricing of government insurance can alleviate some of these problems. However, because the design of government programs is determined by politics rather than the operation of markets, even unsubsidized insurance programs are not likely to represent the most efficient solution. The public interest theory of regulation contests the laissez faire view (e.g., Musgrave and Musgrave, 1984). This theory suggests that market failures can lead to suboptimal allocation of resources and that government intervention targeted at addressing the market failures can improve welfare. Although laissez faire policy suggests that private sector coordination is optimal, public interest theory suggests that, in specific instances, the government can improve upon the market equilibrium by substituting for private sector coordination. Proponents of public interest theory, therefore, maintain that the information asymmetries and bankruptcy costs associated with the market for terrorism insurance may necessitate the role of the government in “completing” the market for terrorism insurance.

The third view of public policy intervention, the market-enhancing view, takes a middle position (e.g., Lewis and Murdock, 1999). The market enhancing view recognizes that market failures can create suboptimal allocations of wealth and that private sector coordination is not always effective. This view holds that public policy should facilitate the development of the private market but should not create new governmental institutions to substitute for private solutions. The market enhancing policy recognizes that government (de)regulation can help facilitate the creation or enhancement of

private institutions for solving market failures, such as how the federal government facilitated mortgage securitization markets. Of course, there is always the risk that government-sponsored enterprises' special privileges may remain fully in place years later, even if the market failures no longer exist.

Mechanisms for Government Involvement

This section first considers natural catastrophes and then analyzes terrorism. The private insurance market seems to have difficulty in providing adequate coverage for the largest natural catastrophes. Projected catastrophes, such as a \$100 billion California earthquake or Florida hurricane, are large relative to the resources of the insurance industry; and holding additional equity capital in the industry to shield against such events does not seem to be feasible (Jaffee and Russell, 1997). GAAP accounting rules do not allow insurers to establish reserves for events that have not happened. Similarly, insurers are not permitted to take tax deductions for events that have not yet occurred, requiring that capital to pay for catastrophe claims has to be accumulated out of after-tax income. It is noteworthy that both the California Earthquake Authority and Florida's residual market and catastrophe insurance plans have been allowed to establish reserves using pre-tax revenues.

Capital Crossing

In addition, large pools of capital (reserves) tend to attract corporate raiders and may induce management to engage in negative net-present-value projects. Raising capital to pay losses following a large-loss event also is difficult because informational asymmetries between capital markets and insurers regarding loss exposure and reserve adequacy raise the cost of capital to potentially prohibitive levels. Thus, private insurance markets tend to be much more efficient at *cross-sectional* rather than *cross-time* diversification. There are several possible solutions to the cross-time diversification problem. Because the resources of capital markets are more than adequate to fund large catastrophes, a market-enhancing approach would be for the government to facilitate the growth of the insurance-linked securities market. This is an attractive solution because it could be implemented without committing tax dollars to paying for catastrophe losses. There are several areas where removal of remaining regulatory and bureaucratic barriers as well as simplification and clarification of rules and approval procedures would facilitate the securitization of catastrophic risk. The GAAP consolidation rules should be clarified and codified for CAT-linked securities, and such securities should be given conduit status for federal income tax purposes. State insurance regulations should be clarified and streamlined to reduce transactions costs and enhance the speed to market of new securities. Even if all regulatory impediments were removed, the CAT bond market still might not attain sufficient size to fund major catastrophes. However, it is also possible that "critical mass" would be reached, where scale economies and the ability to form worldwide CAT bond portfolios would reduce transactions costs and spreads to the point where the market would rival the asset backed securities market. The costs of relaxing the regulatory and accounting rules are low, so it would seem to be worthwhile to conduct the experiment. The federal government could play a major role by creating a task force to coordinate with Congress, the Financial Accounting Standards Board, and the National Association of Insurance Commissioners to bring down the regulatory barriers. A somewhat more intrusive solution to the time diversification problem would be to exploit the federal government's ability to implement intergenerational diversification through federal borrowing. Unlike private insurers, the federal government can effectively accomplish

cross-time diversification because it can raise money following a disaster by borrowing at the risk-free rate of interest. The assertion that the government has superior ability to time diversify may be challenged on the grounds that it places risks on taxpayers regardless of their willingness to bear them.

The government's ability to time diversify led to a Clinton administration proposal for government intervention in the market for catastrophe property insurance (Lewis and Murdock, 1999), whereby the federal government would hold periodic auctions of catastrophe excess-of-loss (XOL) reinsurance contracts to insurers and reinsurers in loss layers where private market reinsurance is not available. The auctions would be conducted subject to a reservation price sufficient to support the expected loss and expense costs under the contracts as well as a risk premium to encourage private market "crowding out" of the federal reinsurance. If a catastrophe were to occur that triggered payment under the contracts, the federal government would finance the loss payments by issuing bonds. Although the proposal was not adopted, it could provide a model for a different type of federal involvement in the terrorism insurance market consistent with the market enhancing view of regulation. However, given that securitization offers a viable private market solution, it would be advisable to give higher priority to exploring that option.

Change to Reserving

Another alternative to government intervention to enhance the private market would be to permit insurers to accumulate tax-deductible reserves for catastrophe losses, a proposal that has been advocated by the insurance industry for at least a decade. One obvious problem with the proposal is that it would reduce federal tax revenues, when other solutions such as securitization are available that would not have this effect. Another problem is that there would be no way to prevent insurers from reducing reinsurance purchases in such a way as to substitute tax advantaged reserves for other forms of hedging, with little or no net gain in risk-bearing capacity.

Finally, a tax-subsidized reserving program would have a crowding-out effect on the securitization market. As mentioned above, state governments have intervened to "make markets" in catastrophe insurance in California, Florida, and other states. These might be considered market-enhancing efforts, except to the degree that they involve an element of coercion. That is, insurers are required to participate in the California and Florida programs if they wish to continue to participate in the states' other lucrative insurance markets, such as the market for automobile insurance. It is likely that less insurance would be available in these states, at least on a cyclical basis, if the state mandated plans had not been adopted. However, it is also possible that the private market would provide adequate coverage if insurance prices were deregulated, allowing the market to clear. The periodic difficulties in private markets for natural catastrophe coverage provide additional impetus for developing the CAT bond market because insurers might be more willing to write coverage on a voluntary basis if more reasonably priced diversification mechanisms were available for mega-catastrophes. The market response to the increasing frequency and severity of catastrophe insurance losses since the 1990s has potentially quite significant implications. In spite of the lack of federal government intervention in the market for natural catastrophe insurance, the private market for natural catastrophe insurance did not collapse completely. Although insurance and reinsurance prices rose following Andrew and Northridge, significant amounts of new equity capital flowed into the industry and reinsurance prices eventually declined (Guy Carpenter, 2005). For the most part, insurance continued to be available

in disaster-prone areas, such as Florida, and private insurers eventually re-entered the market for California earthquake insurance. There is evidence of continuing market anomalies, however, such as the skewness of reinsurance toward the coverage of relatively small catastrophes and the thinness of reinsurance coverage for mega-catastrophes (Froot, 2001). Nevertheless, private markets for natural catastrophe insurance have continued to function with reasonable efficiency in the absence of federal support.

Terrorism, and particularly mega-terrorism events, pose more-difficult problems for private insurance markets than natural catastrophes—mega-terrorism events potentially cause much more extensive losses than natural hazards; the frequency and severity of terrorist events are difficult to estimate, both inherently and because much of the most useful information is confidential for national security reasons; and terrorists can adjust strategies and tactics to defeat efforts to protect against terrorism and mitigate loss severity. The same factors that make terrorism difficult to insure and its similarity to war risk may rule out terrorism-risk securitization, at least on a large scale. Among the other obstacles, the existence of terror-linked securities might influence target selection by terrorists, and terrorists and their sympathizers could attempt to profit by trading in terror-linked securities. However, there is some evidence that securities markets might provide a source of risk-bearing capacity for terrorist events. In 2003, the Golden Globe Financing transaction resulted in a \$260 million securitization covering the risk of the cancellation of the 2006 FIFA World Cup. The transaction explicitly included terrorism risk. Swiss Re has executed two securitization transactions covering catastrophic mortality risk, including mortality spikes from terrorism. A key to the success of these issues may be that they are multi-event bonds, not applying strictly to terrorism (Swiss Re, 2005b).

Consequently, even if government provision of insurance against natural catastrophes is not needed, there may be a legitimate role for government in the market for terrorism insurance. The experience under TRIA provides somewhat mixed messages on the need for a government role—the stock market reacted negatively to the adoption of TRIA but survey evidence strongly suggests that TRIA succeeded in making terrorism coverage widely available. There are various mechanisms for government to become involved in the terrorism insurance market. Because there is great uncertainty surrounding the insurability of terrorism risk, a guiding principle of any government involvement should be that programs be designed to not crowd out the private market. This necessitates that the program be explicitly priced and that the price be set above the expected value of loss. One possibility would be to adapt the Clinton administration proposal and auction off federally backed XOL terrorism reinsurance contracts. Another would be a reinsurance program patterned after TRIA but with a positive premium charge and continuing increases in insurance industry deductibles to encourage the private market to develop gradually. Another important problem is how to handle CBRN hazards. Under TRIA, the federal policy approach is to “look the other way” and to permit insurers to exclude CBRN hazards to the extent they were excluded from non-terrorist commercial coverages. In this respect, CBRN hazards are being treated similarly to war risks. If an XOL reinsurance or TRIA-like program is to be implemented going forward, a case could be made for including CBRN hazards. Because government is likely to compensate CBRN victims after the fact, it might make sense to handle as much compensation as possible through a formal insurance program rather than as disaster relief. As Katrina has shown, the federal response to a disaster can be chaotic and inefficient, whereas private insurers are very effective at

settling claims and have incentives to settle them efficiently provided the government insurance has appropriate deductibles and copayment provisions to control moral hazard.

CONCLUSIONS

The frequency and severity of losses from natural catastrophes such as hurricanes, earthquakes, and tsunamis have increased dramatically in the past 15 years. Even though the resources of insurers and reinsurers worldwide also have grown, the rising costs of catastrophic risks have placed significant stress on insurance markets. Man-made disasters also have led to monetary losses and loss of life. However, until the terrorist attacks of September 11, 2001, terrorism losses did not fall into the mega-catastrophe category; and, in fact, insurers routinely covered terrorism losses for little or no charge. The 9/11 losses revealed a shift in the terrorism probability of loss distribution, which led insurers and reinsurers to exclude terrorism losses from many insurance policies. Governments in several countries responded by adopting government terrorism insurance programs. The U.S. Terrorism Risk Insurance Act of 2002 (TRIA) requires insurers to offer terrorism coverage in commercial property/casualty insurance policies and provides federal terrorism reinsurance. This paper investigates the appropriateness of government insurance programs for catastrophic risk, focusing on coverage for natural catastrophes and terrorist events. A review of the resources of the insurance and reinsurance industries as well as the current state of the market for insurance against earthquakes and windstorms in the United States reveals little need for a government role, beyond the programs currently in effect in Florida and California. Adequate insurance is now available in the states with the highest exposure to natural catastrophes. The earthquake and hurricane insurance markets in the United States fall under the category of a second-best solution; that is, better than an alternative system involving a more intrusive role for government

Although few policyholders in California purchase earthquake coverage, windstorm insurance is widely purchased in Florida. The lack of interest in earthquake coverage among buyers in California is a matter of concern, and the resources of the California Earthquake Authority (CEA) would be inadequate to pay claims from a major earthquake if coverage were more widespread. This situation is likely to lead to pressures for massive governmental disaster relief following a major earthquake. Hence, measures should be considered, such as making earthquake insurance mandatory in quake-prone areas of the state and strengthening the resources of the CEA, on the hypothesis that it is more efficient to provide assistance through prearranged programs where claims are settled by private industry rather than by ex post government assistance programs. Even though government insurance for hurricanes and earthquakes does not seem to be needed, government could deepen and enhance the markets for these and other catastrophe coverages by removing regulatory impediments to the development of the market for insurance-linked securities. This would involve clarifying and/or changing GAAP accounting rules for special purpose reinsurers, granting insurance-linked securities conduit status for federal tax purposes, and giving non-indemnity securities reinsurance status under state regulatory accounting rules. Giving insurers the ability to accumulate catastrophe reserves on a pre-federal income tax basis would reduce federal tax revenues without necessarily adding net capacity to insurance markets. The federal government is already involved in the market for flood insurance, providing subsidized insurance through the National Flood Insurance Program. However, the program is badly in need of reform. It is currently bankrupt and generally does not charge actuarially sound

premiums or have a provision for building up reserves in low-loss years to minimize the need for federal borrowing to pay claims. Flood insurance penetration rates are very low, and the program is not effectively meeting its stated objectives of encouraging loss mitigation and flood-plain management. Although the program could and should be fixed, a better alternative would be to develop private sector solutions by requiring insurers to make available flood insurance coverage, perhaps with a federal reinsurance backstop, and requiring lenders to enforce flood-coverage requirements, as is presently done for homeowners insurance. Terrorism is a more difficult problem for private insurance markets than natural hazards, for several reasons. Terrorism is a deliberate act, similar to war, which has long been excluded from private insurance policies. Moreover, because terrorists can potentially use weapons of mass destruction, terrorism losses are potentially much larger than losses from natural hazards. Terrorism losses are also much more difficult to estimate than losses from natural catastrophes. Prediction is made especially difficult because terrorists are constantly changing strategies, targets, and tactics.

Finally, the likelihood of terrorist attacks is affected by government policies for homeland security, foreign affairs, and defense; and much of the information that would be useful to insurers in estimating premiums remains confidential for national security reasons. Consequently, a case can be made for some degree of government involvement in the terrorism insurance market. Terrorism insurance did not disappear after 9/11, and some coverage will undoubtedly continue to be available if TRIA eventually expires. However, a review of survey data provides convincing evidence that terrorism insurance is much more widespread under TRIA than it would have been with no government reinsurance in place. Thus, insurance availability will decline, at least initially, if government reinsurance is withdrawn, especially for the most vulnerable targets and locations. As with natural catastrophes, it is likely to be more efficient to cover terrorism losses through a pre-existing insurance program rather than through ex post government assistance. Fairly priced terrorism insurance also provides the proper incentives for resource allocation in terms of the siting of construction projects and private mitigation efforts.

If government does continue to participate in the terrorism insurance market, care should be taken that the program does not prevent the re-emergence of the private market. In particular, terrorism insurance should be priced at the expected loss plus a sufficient risk margin to make it attractive for private reinsurers to re-enter the market and to encourage the development of a terrorism risk-linked securities market. Any government terrorism reinsurance should have industry deductibles at least as large as under TRIA. Consideration also should be given to covering the chemical, biological, radiological and nuclear hazards under public and private terrorism insurance. Finally, care should be taken in designing any government terrorism program, to avoid creating adverse incentives and prevent gaming of the system by insurers or other market participants. Future research is needed to determine the effects of catastrophe losses and catastrophe insurance on the macroeconomy. Although catastrophe losses are small relative to U.S. and world GDP, it is still unclear whether such losses and/or the availability of insurance coverage have significant macroeconomic effects. It would be useful to further analyze the relationship between catastrophes and macroeconomic time series, such as construction, bank loans, and mortgages, as well as the correlations of catastrophes with securities returns. Such information would be valuable both to policymakers and to participants in the catastrophe insurance and insurance-linked securities markets. Finally, the experience with Hurricane Katrina suggests that the time has come for a comprehensive re-evaluation of disaster assessment, prevention, mitigation, and financing in the United States.