EDITOR’S NOTE

The need to adequately insure property, whether it be commercial or personal, is one of the most fundamental concepts of insurance. Its importance is acknowledged by insureds, agents and brokers, and carriers alike.

Yet the fact that policyholders can be and often are dissatisfied with the amount of a claim settlement after a loss suggests that much work remains to be done by all parties in properly addressing the matter. In this issue of Adjusting Today insurance expert Robert Prahl explains how that process can begin with a better understanding of the basic tenets of coinsurance and insurance to value.

Mr. Prahl describes how these principles apply to property insurance and how penalties for underinsurance are calculated. Furthermore, he discusses what can be done to avoid or minimize the consequences of underinsuring. He even outlines some of the tools used by insurers to determine accurate replacement values.

This is a subject that cannot be revisited too often! We hope you will find it to be interesting and valuable reading.

Sheila E. Salvatore
Editor

An Essential Concept in Property Insurance

Coinsurance/Insurance to Value Revisited

By Robert J. Prahl, CPCU

An insured sustains a fire loss to its commercial building in the amount of $50,000. The actual cash value of the building is $1 million, but the amount of insurance on the building is $600,000. The policy contains an 80 percent coinsurance clause and a $1,000 deductible.

After the loss is adjusted and payment is offered to the insured, the insured calls his agent complaining about the low amount being offered by the adjuster.

The insured wants an explanation of coinsurance, of how the claim payment was determined and a recommendation on how to avoid this situation in the future.
One of the more unpleasant situations confronting insurance agents and adjusters after a property loss is having to tell the insured that he or she is underinsured and will be assessed a penalty in the adjustment of the claim. Ideally, the time to discuss coinsurance or insurance to value with the insured is before the loss, rather than after it has occurred. Such a discussion might have avoided this claim scenario. It is not clear how the amount of insurance on the building was determined when the policy was written or whether proper steps were taken to arrive at an accurate replacement value for the building. Based on the above information, it is evident that the insured will incur a coinsurance penalty because of underinsurance (the limit of insurance on the building was less than the amount required by the coinsurance provision).

Coinsurance can be described as a property insurance provision that imposes a penalty on an insured’s loss recovery if the limit of insurance purchased is not at least equal to a specified percentage of the value of the insured property.

The concept of coinsurance can be confusing to insureds without a clear understanding of its purpose. The purpose of coinsurance is to avoid inequity and to encourage insureds to carry a reasonable amount of insurance in relation to the replacement value (or actual cash value, depending on which basis the policy is written) of their property. Consequently, coinsurance provisions typically are incorporated into property insurance policies.

**Why is it Necessary?**

It is well established that most building property losses are partial in that they do not result in the total destruction of the structures involved. For insureds who recognize this, there may be a tendency to play the odds and limit the amount of insurance purchased. Why pay the premium for full coverage when chances are the full amount may never be needed? Of course, when the property is pledged as security for a mortgage loan, the mortgage company typically requires that the property be insured for an amount that will cover the balance of the mortgage.
The rates ordinarily used for insuring commercial buildings and personal property are calculated with the assumption that they will be used with an 80 percent coinsurance provision. When a policy contains a higher coinsurance percentage, the 80 percent coinsurance rate is reduced to encourage the insured to purchase higher limits. Therefore, with 90 percent or 100 percent coinsurance, the insured must purchase a greater amount of insurance to comply with coinsurance, but the rate is reduced. When there is no coinsurance requirement or when it is less than 80 percent, the rate is increased.

Commercial property policies of both the American Association of Insurance Services (AAIS) and the Insurance Services Office (ISO) contain coinsurance provisions and examples of how to calculate loss adjustments that are built right into the policies. If the insured purchases insurance at least equal to the coinsurance percentage (say 80 percent), the insurer pays the full value of any loss (either replacement cost or actual cash value, depending on what the insured has purchased), less the deductible, up to the limit of insurance. If the insured does not meet the coinsurance requirement, he or she will be penalized in the event of a loss and will become a coinsurer. The formula used to determine the amount payable when a coinsurance provision applies is:

\[
\text{Amount Recoverable} = \frac{\text{Insurance Carried}}{\text{Insurance Required}} \times \text{Loss}
\]

(Insurance carried, divided by insurance required, multiplied by the loss, equals the amount recoverable.)

**Application of Deductible**

When the deductible is subtracted from the loss before application of the coinsurance percentage, this yields a slightly larger adjusted claim payable to the insured than if the deductible were subtracted after application of the coinsurance percentage. Most property insurance policies, but not all, clearly state when the deductible is to be applied.

“The rates ordinarily used for insuring commercial buildings and personal property are calculated with the assumption that they will be used with an 80 percent coinsurance provision.”
Let’s take the information provided in the introductory claim situation and figure what the insured would recover in this claim. Using the coinsurance formula and subtracting the deductible before application of the coinsurance percentage, the amount payable to the insured would be $36,750 on a $50,000 loss. It is calculated, using the coinsurance formula, as follows:

\[
\frac{600,000}{800,000} \times \frac{50,000 - 1,000}{50,000} = \frac{75\% \times 49,000}{100} = 36,750
\]

(Insurance Carried) (Insurance Required*)

*80% x $1,000,000

**$50,000 Less Deductible of $1,000

(Here the deductible is subtracted before application of the coinsurance percentage.)

Had the deductible been subtracted after application of the coinsurance percentage, the recovery would have been $36,500 or $250 less: 75 percent x $50,000 = $37,500 minus the $1,000 deductible. As noted previously, subtracting the deductible before application of the coinsurance percentage results in a slightly higher recovery for the insured.

When an insurance policy is silent as to when the deductible should be applied, the deductible should be applied first — to give the insured the benefit of the ambiguity. (In the ISO Businessowners Policy, the deductible is subtracted before application of the coinsurance percentage; in the ISO Commercial Property Policy, it is subtracted after application of the coinsurance percentage.)

Note that it is not mandatory that the insured carry insurance up to the specific percentage, but if the insured does not comply, a penalty will be imposed in the adjustment of the loss.

**Insurance to Value Requirements in Homeowners Insurance**

The “insurance to value” requirement of the replacement cost provision in a homeowners policy,
while technically not coinsurance, is similar to the coinsurance provision in commercial property policies. The similarity lies in the fact that if the 80 percent insurance to value requirement is not met, recovery may be based on the proportion of the cost to repair or replace represented by the amount of insurance carried, divided by 80 percent of the replacement cost. With a homeowners policy, however, the minimum amount received will never be based on an amount that is less than the actual cash value of the property (which can occur with a commercial property policy).

The applicable provisions in the AAIS and ISO standard homeowners policies are virtually identical under the loss settlement provision, paraphrased as follows:

If the “limit” on the damaged building is less than 80 percent of its replacement cost at the time of loss, the larger of the following amounts will be paid, but not more than the policy limit:

1. The actual cash value at the time of the loss; or
2. That proportion of the cost to repair or replace — after application of the deductible and without deduction for depreciation — of the damaged part which the limit on the building bears to 80 percent of the full current replacement cost of the building.

If the “limit” on the damaged building is 80 percent or more of its replacement cost at the time of loss, the smaller of the following amounts will be paid:

1. The limit of liability applying to the building;
2. The replacement cost of that part of the building damaged with like kind and quality material for like use; or

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1 Although the policy only requires that the limit be 80 percent of the dwelling replacement cost, many, if not most, insureds will prefer to insure for 100 percent to be sufficiently covered in the event of a total loss.

“It is noteworthy that the insured is not restricted to rebuilding at the same site and may rebuild elsewhere, but the most the insurer will pay is what it would cost to rebuild at the original location.”
(3) The amount actually spent to repair or replace the damaged building.

It is noteworthy that the insured is not restricted to rebuilding at the same site and may rebuild elsewhere, but the most the insurer will pay is what it would cost to rebuild at the original location.

In both the AAIS and ISO forms, the cost of such property as excavations, piers, other supports, and underground pipes, wiring, etc., is not included in determining the replacement cost. This provision is added because this property ordinarily survives a loss. Let’s use an example of damage to a roof to demonstrate how the insurance to replacement value provision is applied, first addressing a loss situation in which the insured has not met the insurance to replacement value requirement.

Suppose, for example, the following facts apply:

- The replacement value of the house is $400,000;
- The amount of insurance is $275,000;
- The full cost to replace the wind-damaged roof, without deduction for depreciation, is $9,000;
- The actual cash value of the roof (after depreciation) is $8,000;
- The insured carries a deductible of $500.

In order to comply with the insurance to replacement value provision, the insured would have had to insure the home for $320,000 (80 percent of $400,000). The limit carried is $275,000 and, as a result, the insured did not meet the insurance to replacement value requirement and will incur a penalty. The insurer therefore will pay the larger of the actual cash value or the fraction or proportion of insurance carried to insurance required. The actual cash value of the damaged roof is given as $8,000.

In this first example, we need to determine the proportion of the loss that the amount of insurance carried bears to the amount of insurance required to determine if that amount is larger than the actual cash value of $8,000.

To determine that proportion, the following formula applies:

\[
\frac{\text{Insurance Carried}}{\text{Insurance Required}^*} \times \frac{\text{Replacement}}{\text{Cost of Roof}} = \text{Payable}
\]

\[^*\text{80 Percent of Replacement Cost of Building}\]
Using the formula, the figures are:

\[
\frac{275,000}{320,000} \times 85.9\% \times 9,000 = 7,302
\]

It is important to note that based on the language of the loss settlement provision in the homeowners policy, the deductible is subtracted from the loss before the coinsurance percentage is applied.

Had the deductible not been subtracted until after the coinsurance percentage was applied, the amount payable would have been slightly less, as follows:

\[
85.9\% \times 9,000 = 7,731 \text{ minus } 500 \text{ deductible } = 7,231 \text{ rather than } 7,302; \text{ $71 less.}
\]

In both instances, the actual cash value of $8,000 is the larger figure, so that amount, minus the $500 deductible, is the amount payable for this loss.

Next, let’s look at an example in which the larger amount is the insurance to value proportion, or fraction.

Assume the same replacement value of $400,000, the same limit of insurance at $275,000 and the same $500 deductible. While the full cost to replace the roof without deduction for depreciation is still $9,000, assume the actual cash value of the roof (after depreciation) is only $6,000. (In this case we are dealing with an older roof, which has more depreciation.)

To calculate the proportion, the figures are:

\[
\frac{275,000}{320,000} \times 8,500 = 7,302
\]

The figure computed from using the formula exceeds the actual cash value loss of $6,000, so the insurer will pay the larger figure. (Keep in mind that if the insured met the 80 percent replacement cost requirement and insured for $320,000, the full replacement cost of $9,000 — less the applicable deductible — would have been paid.)
It must be emphasized that a loss will not be paid on a replacement cost basis (without deduction for depreciation) unless the damages are actually repaired or replaced. Until repair or replacement is completed (or, in actual practice, usually once work is started), the loss is adjusted on an actual cash value basis; that is, with a deduction for depreciation. The insured has six months in which to make claim on a replacement cost basis. In most policies, the insured only needs to give notice of the intent to make claim on a replacement cost basis. They do not need to make the actual repairs/replacement within that period. However, there is an exception to this provision. If the cost to repair or replace does not exceed $2,500 or 5 percent of the limit on the damaged building, whichever is less, the loss may be settled on a replacement cost basis from the outset.

By obtaining proper coinsurance and insurance to value, insureds can reduce the risk of underinsurance. Agents and brokers provide a valuable service to their clients by explaining these concepts and encouraging the purchase of appropriate amounts of insurance. It facilitates the adjustment process when the insurance to value requirement is met.

Avoiding or Minimizing the Problem of Underinsurance

What can agents and insureds do to avoid or minimize the problem of underinsurance? Determining accurate replacement value can be troublesome because there are a variety of tools or methods that can be used and they can have different results. For that reason, it can be said that determining replacement value is not an exact science. It is estimated that 60 percent of homes are underinsured by as much as 20 percent, so it is understandable why there is frustration concerning obtaining an accurate figure for replacement value. If the insured is underinsured, he or she will pay a penalty in the event of loss.

Back in the late 1980s and 1990s when insurers offered “guaranteed replacement cost” insurance, insureds with that protection did not have the problem of underinsurance that can exist today. However, today many companies do not offer that coverage and many insureds are reluctant to pay the price for it.
when it is offered. Instead, companies often offer what can be described as a cushion, that is, additional amounts for dwelling coverage ranging from 20 to 30 percent above the dwelling coverage limit in the event the replacement cost of the loss exceeds that limit. This added coverage should minimize the risk of underinsurance and it is recommended that insureds make sure their insurance company provides this coverage. Care should be taken at the time the insurance is written to ensure that the amount of coverage accurately reflects the value of the home or building. This applies whether insurance is written on an actual cash value or replacement cost basis.

**Replacement Cost Estimating Tools**

Various estimating tools and services are available for this purpose to assist the insured and agent in arriving at a realistic replacement valuation. Note that the focus here is on determining an accurate replacement value of the building when the insurance policy is initially written or when it is renewed. This discussion does not encompass estimating the cost of repairs after a loss, as that is another matter.

According to conversations with agents and company executives, the replacement cost estimating system of Marshall & Swift/Boeckh (MSB) appears to be the tool of choice in the industry to determine replacement value. The system designed for insurers known as Residential Component Technology (RCT), is used by 90 percent of insurers, according to MSB President Peter Wells. In addition, the company offers consumers the opportunity to calculate their own dwelling replacement value in the event they do not agree with the figure calculated by the insurance company. Consumers may use AccuCoverage (www.accucoverage.com), a consumer version of the system used by insurers, for a nominal fee. This estimating tool consists essentially of a detailed questionnaire concerning the construction and amenities of the home, with numerous prompts to assist the consumer in completing the replacement value estimate. Since it is designed for non-insurance people, it takes longer to complete than the version designed for insurance practitioners, who are more familiar with construction terminology. This program walks the consumer (or insured) through a questionnaire that usually takes 20 to 30 minutes to complete, compiling details on the home — square footage, year built, number of baths, architectural style, custom features, its ZIP code, and other amenities — into the worksheet to provide a replacement value. The worksheet also considers the
extra cost of rebuilding a home such as demolition costs, debris removal, architectural plans and even environmental costs. The replacement value may be more or less than the home’s market value.

**Other Sites**
As of this writing, several additional valuation tools were offered through other websites. A brief description of these follows. Keep in mind, however, that as websites are updated, their content is subject to change. So be sure to check each site and tool carefully to make sure the information is the most current available.

**HomeSmartReports.com** Also charges a modest fee, takes less time to complete but offers less detail. It gives a low and high estimate of what it would cost to replace the home, plus a standard cost of construction in the particular area, but does not take custom features into consideration. As with any estimating system, insureds should compare the estimate with the policy limits and if there are discrepancies, have the insurer explain why.

**InsuretoValue.net** Offers three types of reports. A free complimentary report is sent to a qualified agent who will contact the homeowner to review the report.

“**So while real estate market value may be declining in a down economy, that does not necessarily mean that construction or rebuilding costs will also be declining.**”
A second option, for a nominal fee, is to have the report sent to only the homeowner. The third option, also for a fee, is to have the report sent to the homeowner and agent.

**Free Sites**
Several of the free sites examined ask for very little information and seem more geared toward providing a market value or selling price for the home than a replacement value. One free site, however, Building-Cost.net, includes a fairly detailed questionnaire that takes approximately 10 minutes to complete and gives consumers a bottom line cost to rebuild the home, including categories for material, labor and equipment. As a caution, some of the terminology used in the questionnaire may appear unfamiliar to many consumers, although the site does provide prompts that explain different styles and types of siding, roofing, kitchen and bathroom levels of quality, etc.

The more information provided, the more accurate the estimate will be. In most cases, it appears that the agent comes up with a figure in consultation with the insured that is based on a replacement cost estimating tool, usually the Marshall & Swift program. Most insurers will conduct some kind of inspection to confirm the replacement value, but inspections vary by insurer. Some insurers inspect virtually every unit to be insured, while others do a “drive-by” inspection which looks at the exterior of the home but not the interior. Still others conduct inspections when the dwelling coverage limit requested exceeds a certain amount, while others do random inspections.

As one insurance claim executive observed, estimating systems are only as good as the information that is fed into them. If the information is sketchy, the resulting replacement cost figure will be suspect. The Marshall & Swift program, however, asks the right questions, according to the executive. But without an on-site inspection, there is always the chance that the figure established from the estimating tool may not be totally accurate.

Homeowners need to realize that replacement cost or replacement value is not the same as market value. Replacement cost estimates are influenced by supply of labor, demand for labor and cost of construction materials. So while real estate market value may be declining in a down economy, that does not necessarily mean that construction or rebuilding costs will also be declining.

Despite downturns in the economy, worldwide demand for construction materials increasingly impacts costs. China and other countries invest heavily in building infrastructure, including copper, concrete and steel. The chief component in asphalt roof shingles is oil, and the price of oil, while at times volatile, has generally been rising. Staying abreast of the current construction costs and market conditions in the area, and updating the amount of coverage when necessary, will help maintain accurate replacement cost coverage for the home.

**Other Methods Available**
Another way to avoid or minimize the problem of underinsurance is for the insured to purchase agreed
value coverage, which is available with commercial property insurance. This coverage suspends the coinsurance clause if the insured carries the amount of insurance that the insurer and insured agree to be the property’s actual value. This amount is entered under the agreed value heading in the declarations for each category of property (building, personal property) to which the option applies. With this option elected, the insured and insurer have agreed prior to loss that the amount of insurance carried is adequate for coinsurance purposes. It is important, therefore, that an accurate insurance amount is established for this endorsement to be effective. Otherwise, there is little benefit to an agreed value endorsement.

Still another consideration is inflation guard coverage, which automatically increases the amount of insurance annually by a percentage indicated in the declarations, so that the insurance limit keeps pace with construction costs.

Conclusion

Insuring the building for an amount that accurately reflects or approximates replacement value can reduce the risk of underinsurance. Agents and brokers can provide a valuable service to their clients by explaining these concepts and encouraging the purchase of appropriate amounts of insurance that will avoid an underinsurance situation and resulting penalty. Although few homeowner insurers are offering guaranteed replacement cost coverage today, most provide increased coverage (percentages may vary by company) for the dwelling over the face amount limit, which should help to reduce the risk of underinsurance.

The replacement cost estimating tool of Marshall & Swift/Boekh (MSB) is a popular option among insurance companies. The company offers a consumer version of the program used by insurers in the event the insured does not agree with the replacement value established by the insurer.