

Using Transurance to Maximize the Value of Insurance

By

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Absent some external force, most risk managers think about the value of the insurance they purchase by reference to itself or to what they consider normal. If the price goes down, if the organization has had a large loss, or if their peers buy it, insurance seems like a good value. However, they are forced to think more critically about the value of insurance when their organizations undergo change or when the insurance market changes dramatically.

New insurance products may also prompt one to rethink the value of insurance. This is particularly true in the case of Property Transurance since this new form of coverage enables risk managers to restructure their insurance programs.

Property Transurance

Many costs that companies experience as a result of a large property loss are not reimbursed by traditional insurance. Although these “collateral damages” are too difficult to define, prove, or measure to be covered by traditional insurance policies, they can be covered by Property Transurance since there is no need to specifically define these costs and no need to prove exactly what they are after a loss has occurred. With Property Transurance a company simply pays X% more in premium to receive X% more of a loss recovery.

Assume for example that a company pays \$1 million for its property insurance. It is concerned that it will have significant uncovered cost if it has a large property loss so it buys a 10% Transurance Policy to cover these additional losses. It pays \$100 thousand (10% x \$1 million) in premium to purchase this policy and in the event it has a loss, the company will receive 10% more of whatever loss recovery it receives from its traditional property insurance.

For example, if the company receives an \$8.5 million payment from its property insurance, it will receive an additional \$850 thousand from its Transurance policy. The company does not have to prove that it had \$850 thousand of collateral damages to receive this amount of money, and it can use these funds however it wants.

Collateral Damages

Although there will always be some collateral damages when there is an insurable loss, it is difficult to say precisely what they will consist of until after a loss has occurred. The most obvious collateral damages are those losses that are covered by insurance but not reimbursed by the insurer because of deductibles and limits. There is no dispute about the amount of these losses or whether they are covered, but they are not paid due to the contractual limitations of the insurance policy.

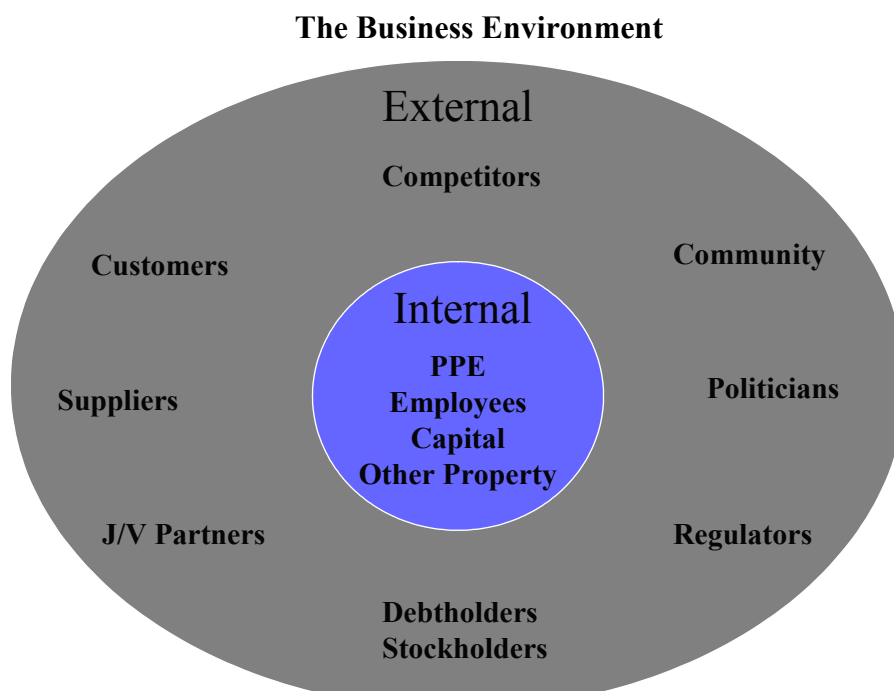
Amounts that are claimed but ultimately not deemed to be covered by insurance are the next most visible class of collateral damages. Collateral damages of this sort arise because of disagreement between insured and insurer as to what constitutes a covered loss or how much is covered.

Finally, there are many losses that are too difficult to define, prove, or measure to be included in a traditional insurance policy. A special case of this occurs where business interruption coverage either does not work at all or its performance is so uncertain that the coverage is not purchased. More generally, while these collateral damages may be quite significant, they are often almost invisible to risk managers since everyone knows that they are not covered by insurance and no one attempts to keep track of them. For large losses, a significant amount of collateral damage may manifest in the form of lost revenues, unidentified expenses, or opportunity costs. Even for seasoned business managers, it is impossible to understand the full extent of these losses.

An Environmental Approach

One of the best ways to comprehend the potential for collateral damages that fall into the least visible category described above is to consider the impact a large loss would have on a particular company in the context of its business environment. Businesses can be thought of in terms of the internal and external environments as illustrated in the diagram below.

The internal environment consists of a company's physical property, plant, and equipment; employees; financial capital; intellectual capital; and other types of property. The external environment consists of the physical and social environment in which the company operates. This environment is made up of the company's customers, suppliers, business partners, financial capital suppliers, competitors, community, politicians, and regulators.



When a large loss occurs, every aspect of company's business environment may be affected. Looking at the internal environment, property may be damaged that may not be fully covered by insurance. A large loss may place undue strains on employees or make competing job offers seem much more inviting. It may also impair the value of the company's brand, its contracts, and other intellectual property.

In the context of the external business environment, a large loss may prompt an intense review of the company and its prospects. The community may be concerned about the impact of the loss and politicians and regulators may decide that they need to make their presence felt. Customers, suppliers and joint venture partners may be concerned about the company's ability to make good on its commitments to them, while competitors may find that it is the perfect opportunity to expand their market share. Debt covenants may be breached and shareholders may be concerned that the loss has significantly impaired the business.

In short, everyone and everything in the internal and external environment may be affected by the company's loss and the company may need to expend significant financial and operating resources to stabilize things. In effect, the company that has just suffered a large loss is both struggling to recover and being called upon to make every other party whole or take actions assuring that whatever happened will not recur.

Examples of Collateral Damage

Another way to apprehend the impact of collateral damages is to consider specific situations that have caused them. While the following are just a few examples, they prompt serious consideration of this issue. In each of these examples the collateral damage was at least 15% of the insurance recovery.

1. A large fire temporarily disrupted a manufacturer's ability to fulfill its contractual commitments. The company offered its best customers concessions to keep them happy. Insurance paid for the factory to be rebuilt but not for the customer concessions.
2. A cosmetics company spent significant amounts of money advertising its product to prepare for the year-end holidays, its prime sales period. Several of its trucks, loaded with merchandise, were stolen. Insurance paid for the trucks and the merchandise but it did not pay for the money the company spent on advertising.
3. A records retention company had a fire at one of its facilities and could not readily identify its cause or origin. Suspecting possible terrorism and wanting to reassure its customers, it increased security at all of its facilities. The insurance company was only willing to pay for increased security at the affected facility.
4. A plant explosion caused the local community to be concerned about the potential for environmental damage. Although the company was certain that there was no reason for

local residents to be concerned, it hired experts to conduct tests and to reassure the community. Insurance paid for the plant to be rebuilt but not the community outreach.

5. An tornado ripped the roof off of a major retailer's regional distribution center for the Southeast. Inventory and rebuilding efforts were reimbursed by the company's insurance, but many of the ancillary costs required for the company to work-around this problem were not cover.

6. A student's equipment caused a dormitory fire during the winter break. Insurance only covered the basic property damage, but it did not pay for the special dispensation that the university felt it needed to make to the affected students.

7. A large telecom company's employees worked overtime for many months after Hurricane Katrina. Given that many of their homes were destroyed, the company needed to create a "tent city" to house and feed them and their families. While insurance covered a large portion of the company's property damages, it did not cover the extra costs the company spent on its employees and their families, nor did it pay for the lost revenues that the company experienced from losing so many of its customers.

8. The terrorist events of 9/11 caused a large credit card company to spend money on a new advertising campaign to reassure its customers. Property damages, extra expenses and business interruption losses were paid by its insurance policy, but the advertising costs were not.

The Value of Transurance

Since the premium and limit provided by Property Transurance are in exact proportion to the premium and limit of the insurance policy that it references, one could argue that Property Transurance offers the same economic value as the insurance it references. One might even say that Property Transurance has greater value than the insurance it references since it is hassle-free, and the buyer does not have to expend any effort negotiating coverage or settlement terms.

Since most risk managers are confident that they will have collateral damages when they have a large property loss and are convinced that their insurance programs offer good value, it should be obvious that Transurance is a good value as well. What further analysis is required?

Thoughtful risk managers would say that this is fine in theory, but it presupposes that an organization values every aspect of its insurance program, exactly as it is. In practice, risk managers may feel that certain parts of their insurance program have more value than others.

Many risk managers also feel that they need to fully understand the value of Transurance before they can make a convincing case for their organizations to buy this new coverage. Since Transurance is equivalent to a quota share participation in the referenced insurance (e.g., 10% Transurance referencing a \$100 million limit is equivalent to a 10% quota share participation in the same \$100 million limit), its value is equal to the value of the referenced insurance multiplied by the Transurance percentage. Consequently,

understanding the value of Transurance necessitates a detailed analysis of the property insurance program that it references.

Operational Value

Organizations receive both operational and financial benefits from their insurance. Although the operational value of insurance is subjective and difficult to quantify in dollar terms, it can be significant.

In some cases, insurance is a necessity since it is required by law or by contract. When it is not absolutely required, insurance is often a sign of prudent management, and many stakeholders feel much more confident about an entity knowing that funds will be available if something goes wrong.

Many risk managers also value the loss control services that their insurers offer and feel that insurance helps them ensure that best practices are maintained. Other risk managers feel that they have much more experience and knowledge about their businesses than the insurance company personnel with whom they interact. They may be frustrated by having to document relatively small claims and feel that their insurance company's claim involvement may lead to unwarranted delays.

Since Property Transurance is a new type of insurance, there are no legal or contractual requirements to buy it. While it may improve third party perceptions of an organization over time, third parties are not currently demanding that organizations have this coverage, and this product offers no loss control services. As a result, risk managers must evaluate Transurance based on its financial merits.

This is problematic because the operational benefits of insurance often seem much more tangible than does the financial value it offers. This is largely due to the fact that significant loss events do not occur very often so we do not experience the financial benefits of insurance on a routine basis. It is also because risk managers do not have a practical framework for assessing the financial impact of the insurance they buy.

Financial Value

To understand the financial value of insurance, one must compare the cost of insurance against the cost of not buying it (i.e. self-insurance). Investors are willing to pay high multiples of companies' earnings only if they are confident that those companies will be around in the future and can sustain their earnings growth. As a result, companies need capital both to make value enhancing investments and to serve as a safety buffer that will help them recover from unexpected problems.

Companies that buy insurance need less capital as a safety cushion. They can use this extra capital to make additional investments or give it back to their shareholders, if they can not find productive uses for it. Thus, insurance is valuable to the extent that the

premiums paid for it are less than the cost of holding capital to fund the same types of loss events.

Six relatively simple steps are required to estimate the cost of self-insurance. The following example will articulate these steps and serve as a template for risk managers who desire a better understanding of how much it would cost their organizations to hold capital instead of buying insurance.

An Example

The table below depicts the property insurance program of a large manufacturer and shows that the costs of self-insuring this risk would be approximately \$96.5 million.

Calculating the Cost of Self-Insurance
(In Thousands)

Insurance Layer	Layer Limit	Expected Loss	Gross Risk Capital Required	Capital Allocated to Insurable Property Risk	Cost of Risk Capital	Capital Charge	Cost of Self-Insurance
\$10MM XS Deductibles	\$10,000	\$1,300	\$8,700	\$6,525	10%	\$653	\$1,953
\$40MM XS \$10MM	\$40,000	\$700	\$39,300	\$29,475	10%	\$2,948	\$3,648
\$200MM XS \$50MM	\$200,000	\$700	\$199,300	\$149,475	10%	\$14,948	\$15,648
\$500MM XS \$250MM	\$500,000	\$250	\$499,750	\$374,813	10%	\$37,481	\$37,731
\$500MM XS \$750MM	\$500,000	\$75	\$499,925	\$374,944	10%	\$37,494	\$37,569
Totals	<u>\$1,250,000</u>	<u>\$3,025</u>	<u>\$1,246,975</u>	<u>\$935,231</u>		<u>\$93,523</u>	<u>\$96,548</u>

The steps required to develop the numbers in the table above and perform this analysis are as follows.

1. Expected Loss. Although it is impossible to determine the mathematical expectation of loss for a given company, lack of precision is not essential since expected losses are a relatively small part of the cost of self-funding insurable risk. To be conservative, we assume that the total Expected Loss is 55% of total premiums. This favors self-insurance since the long-run loss ratio for commercial property insurance is typically higher than this amount. The total Expected Loss is then spread among the different layers of insurance in accordance with the company's loss experience and judgment.

2. Gross Risk Capital Required. This is the amount by which insurable losses may exceed the Expected Loss amount, i.e. the insurance limit minus the Expected Loss in each layer. It is the amount of capital needed to assure that the firm will be able to make value enhancing investments even if there is a total limit loss in this layer.

3. Capital Allocated to Insurable Property Risk. This amount is based on judgment and depends on the risks to which the organization is exposed. In the example above, 75% of the Gross Risk Capital Required is allocated to property risks because the entity is a large manufacturer, and it is more concerned about its insurable property risk than any other type of risk. A financial institution may be as concerned about its exposure to credit, market, and other uninsurable operational risks as it is to insurable property risks; in which case, less of the Gross Capital Required would be allocated to insurable property risk.

4. Cost of Risk Capital. This is the company's marginal cost of capital less the interest income that it would earn if this capital were invested in a short-term U.S. Treasury Bill. In this example, the company's marginal cost of capital was 15%, and the one-year Treasury bill yield was 5%, making the company's Cost of Risk Capital 10%.

5. Capital Charge. This is Cost of Risk Capital multiplied by the amount of Capital Allocated to Property Risks.

6. Cost of Self-Insurance. This is the sum of the Capital Charge and the Expected Losses.

Having estimated the Cost of Self-Insurance as \$96.5 million, one can subtract the Company's insurance premiums of \$5.5 million from this amount to determine that this insurance program has \$91 million of financial value to the company. Moreover, one can calculate the value of 10% Transurance by multiplying this percentage times the value of the insurance, which is \$9.1 million. This operation is shown in the table below.

Calculating the Financial Value of Insurance
(In Thousands)

Insurance Layer	Layer Limit	Premium	Cost of Self-Insurance	Value of Insurance	Value of 10% Transurance
\$10MM XS Deductibles	\$10,000	\$2,000	\$1,953	(\$48)	(\$5)
\$40MM XS \$10MM	\$40,000	\$1,000	\$3,648	\$2,648	\$265
\$200MM XS \$50MM	\$200,000	\$1,000	\$15,648	\$14,648	\$1,465
\$500MM XS \$250MM	\$500,000	\$1,000	\$37,731	\$36,731	\$3,673
\$500MM XS \$750MM	\$500,000	\$500	\$37,569	\$37,069	\$3,707
Totals	\$1,250,000	\$5,500	\$96,548	\$91,048	\$9,105

Analyzing the Results

While this analysis shows that this insurance program offers significant financial value, it forces the company's risk manager to question the value of the first coverage layer. While the first \$10 million of this program has a negative financial value, this layer could be worthwhile if there were operational benefits that could be derived from this layer of insurance.

However in this case, the risk manager doubted that his firm was receiving any such benefits. He felt that the time his staff spent interacting with insurance company personnel and documenting relatively small claims was wasted effort. There was no legal or contractual requirement for the company to buy this layer of coverage, and \$10 million is immaterial to the company from a financial statement perspective in any case.

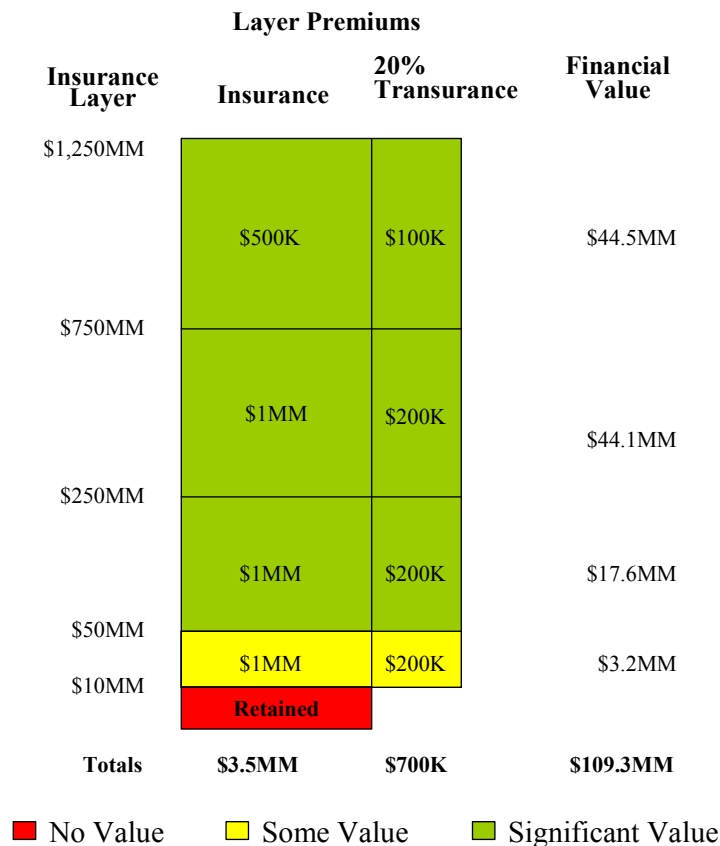
Maximizing the Value of Insurance

The company's senior financial managers have been questioning the financial value of the property insurance for several years. Armed with this analysis, the risk manager can finally understand their concerns and address them.

To maximize the value of the insurance program, the risk manager must first change the traditional insurance so as to retain the first coverage layer. This will eliminate the bulk of the transaction costs associated with relatively small claims and ensure that the entire insurance program has financial value to the firm.

Second, the risk manager must supplement the insurance program with Transurance to the extent that he is confident that the Company would have collateral damages if an insurable event occurred. This restructuring is depicted in the chart below.

Maximizing the Financial Value of Insurance



As shown in the table below, restructuring the traditional insurance program to retain the first \$10 million layer increases the financial value of the program by \$48 thousand while decreasing the insurance premiums by \$2.0 million, from \$5.5 million to \$3.5 million. Adding 20% Transurance to the restructured insurance program increases the cost by 20%, from \$3.5 million to \$4.2 million, but the combined premiums are still \$1.3 million less than the current insurance program.

Maximizing the Value of Insurance (In Thousands)

	Current Insurance Program	Restructured Insurance Program	Restructured Program With 20% Transurance
Limit	\$1,250,000	\$1,240,000	\$1,488,000
Premium	\$5,500	\$3,500	\$4,200
Financial Value	\$91,048	\$91,096	\$109,315
Change In:			
Limit		(\$10,000)	\$238,000
Premium		(\$2,000)	(\$1,300)
Financial Value		\$48	\$18,267

Moreover, this combined insurance/Transurance program increases the financial value of the property insurance program by \$18.3 million and offers \$238 million more in insured limit. Transurance enables the insurance program to be restructured so that it has more financial value and greater limits, while reducing the cost of this program significantly.

The risk manager thinks this is a no-brainer and is looking forward to discussing this methodology with the Company's CFO. They can work together to validate each of the assumptions used in this analysis and restructure the insurance program so that it each part of it provides financial value to the company.

Conclusion

Transurance enables risk managers to reshape their insurance coverage and maximize its value. However before risk managers can restructure their insurance to best effect, they need an objective framework for understanding the value of their insurance programs and communicating that value to their senior management.

The methodology described above is a simple and practical way of analyzing the financial value of an insurance program. With this new understanding, risk managers will be able to restructure their companies' insurance programs in a way that significantly decreases cost while increasing value.

More information about Transurance can be found at TransuranceServices.com. Bruce B. Thomas and L. Ware Preston, III are managing directors at Transurance Services, LLC. You can contact them by calling Bruce at 203-445-0830 and Ware at 203-356-1583.