

Transaction Risks

RISK, HAZARD, CAUSE, AND OUTCOME

Each risk in a transaction has four aspects, the understanding of which is critical to managing such risk:

- the hazard that creates the potential for harm,
- the cause of the hazard.
- the chance or probability the hazard will result in an adverse transaction outcome, and
- the potential adverse outcomes.

Hazard

Black's Law Dictionary defines a hazard as a "danger or peril; esp., a factor contributing to a peril." It is a peril or threat of a harm or loss. A peril or threat occurs in connection with an action or actions or a realm of activity. For example, a driving hazard is a risk of injury or death while using a road. Specific hazards include poor driving, bad road conditions, speeding, driving while tired, driving while intoxicated, texting, speaking on a cell phone, and answering emails. The chance of harm or loss while engaged in an activity is the essence of risk.

A hazard is a potential for harm—a condition or circumstance that, when combined with events, develops into an active agency of harm. A hazard is a peril or danger that exists or occurs and could, but will not always, lead to a harm. In *Frigaliment Importing Co.*, the hazard was the ambiguous word "chicken" used to describe the chickens to be sold, which could mean young or old birds. Though the buyer ultimately suffered a loss because the seller delivered old birds that also fit the description, the seller might have shared the buyer's understanding and delivered young birds. In *Leasco Corp.*, the hazard was the error in the unaudited income statement on which Taussig relied. Though he too suffered a loss as a result, that outcome might have been avoided, for example, by linking price to actual net income. In *Chic Organization, Ltd.*, the hazard was the potential that Diana Ross might not collaborate if Chic exercised its option to produce a second record. Though Chic suffered a loss because Ross was not obligated at contract formation to later cooperate, Ross might have renewed her contract with Motown or, notwithstanding the absence of a contract with Motown, cooperated with Chic because of the successful sales of the first record. The lurking of a hazard creates or contributes to the creation of potential for an adverse outcome while not always causing it.

Cause

The cause of a hazard in a transaction will be either

- one or both of the parties to the transaction or
- other causes.

The parties to a transaction can be subdivided into

- those who create or contribute to the creation of a hazard and
- the other party or parties.

Other causes can be subdivided into

- human agents other than the parties to the transaction (or third parties) who control the results of their actions but whose actions cannot be controlled by either party to the transaction, and
- other causes or events beyond the control of specific human agents.

Such other causes can be further subdivided into

- natural forces or forces beyond the control of any specific human agent that creates a hazard to a transaction and
- market forces or actions of human agents, the aggregate effects of which are beyond the control of individual agents that create a hazard to a transaction.

Cause is relevant to transaction risk management because a party can eliminate or reduce the chance of the occurrence of a hazard within its control or the control of third parties whose assistance eliminating the hazard can be controlled. Other causes must be differently managed. In Frigaliment Importing Co., the hazard to the buyer was specifying the chickens to be bought and sold using the ambiguous description of them. The causes of the hazard were the seller's formulation and the buyer's acceptance of that description. The cause of the harm was the seller's delivery of stewing hens, consistent with that description. In Leasco Corp., the hazard to the buyer, we have seen, was an error in the financial statements caused by the accountants at the third-party target who prepared the unaudited income statement. The buyer also contributed to the hazard causing the harm by accepting the error and a price, though calculated as a multiple of net income, not linked to the target's actual income. In Chic Organization, Ltd., the hazard was Ross's right to refuse to collaborate on the second record. The hazard to Chic was caused by the limited term of her contract with Motown. Ross's decision not to renew with Motown and refusal to collaborate on the second record caused the harm. Chic's incorrect assumption that she would remain with Motown did not cause the hazard or the harm but did cause Chic to miss the chance to avoid the hazard. The cause of the hazards in one of the three cases was both parties (Frigaliment Importing Co.) and in the other two (Leasco Corp. and Chic Organization, Ltd.) a third party (the target's accountants and the employment law).

Whether a cause is a proximate, substantial, predominant, or otherwise significant is irrelevant to risk management. In risk management, the focus is on the probable occurrence of a hazard, its likely consequences for a transaction outcome, and how a party can best manage its occurrence and the potential losses that might result. For example, ice on a road is a hazard to the road's users. That the road could have been cleared is relevant to how the risk could have been mitigated and responsibility for the losses allocated.

Rosco Corporation v. Cohen³ illustrates how questions about blame and liability may be distinguished from those about the causes of transaction hazards and adverse outcomes. Arthur Rosen and Edward Consove incorporated Rosco Corporation in 1946, each owning 50 percent of its shares. When Rosen died in February 1978, his shares were redeemed for \$130,000. Consove and his son Gerald decided the latter would take over the corporation. The corporation's books reported assets of \$683,503.55 and liabilities of \$501,032.98, or a net worth of approximately \$180,000. Consove sold his shares back to corporation for \$300,000, for which he received a note for the full amount, secured by a security interest in the corporation's assets, thus rendering the corporation insolvent, with a negative net worth of approximately \$120,000. Interest accrued under the note at 10 percent per annum, and installments of \$600 per week were payable. Gerald became the sole shareholder by purchasing a single share for \$3,000.4 After a fire in 1980, the corporation closed its warehouse and stopped paying Consove, who returned, discovered that his son had been diverting the corporation's funds for his personal use, and took over the corporation's management. Before taking control, he had received on his note \$21,600 and, after taking control, just over \$10,000. Eventually, the corporation filed for bankruptcy, and the trustee sought to recover these payments and to avoid the security interest as fraudulent transfers. The trustee could avoid them if the corporation "received less than a reasonably equivalent value in exchange for such transfer" and "was insolvent on the date [of such transfer] or became insolvent as a result of such transfer." Because the corporation paid only \$130,000 for Rosen's shares a year earlier and Gerald paid only \$3,000 for 100 percent of the corporation's shares, by either measure \$300,000 was more than the value of Edward's shares. The court went further, questioning whether Consove's shares had any value to the corporation. The court held that the note rendered the corporation insolvent because it added \$300,000 to its liabilities, where the corporation had a net worth of only \$180,000. The court summed up the transaction thus: "The substance of the redemption was that the father passed along the ownership interest of Rosco to his son and secured for himself a steady retirement income at his prior salary level, all at the expense of the corporation's creditors."8

This is true, but while Consove made the corporation insolvent by taking back a note for more than its net worth, he did not cause the corporation to fail to pay its other creditors. He may have contributed to its failure by taking \$31,600 from the corporation's cash. For its failure to happen, his son had to mismanage the business so badly that it became bankrupt, an event that was not inevitable when Consove sold his shares and received the note. Put another way, Consove's planning hazard was forecasting on the basis of insufficient information or faulty analysis of the available information that his son would operate the business profitably, as Rosco and he had done for years. He thus forecasted how his son would perform and the business would continue. Most likely, he formed optimistic assessments about his son's talents and the prospects of the business. In any event, he was the source of this hazard. His documentation hazard was taking a note the corporation's creditors could attack and void as a fraudulent transfer. His legal rights to be paid under the note were not effective against such third parties. He was also the source of this hazard. The implementation hazard was his son's mismanagement of the corporation, an event that ultimately ended with default on the note and bankruptcy.

Risk

Risk is "the uncertainty of a result, happening, or loss; the chance of injury, or loss; esp., the existence and extent of the possibility of harm." The focus here is on the chance of an outcome that deviates from what was anticipated. A risk in a transaction could be defined simply as the chance of an outcome that deviates from that anticipated by the parties.

Risk is distinguished from variability or uncertainty. Risk is a quantifiable and statistically measurable chance of an adverse event, while variability is the chance that cannot be so measured, or what is referred to as simple "uncertainty." The key to risk management is to define a hazard with sufficient specificity that the likelihood of its occurrence can be mathematically measured. Examples include catastrophic events, such as hurricanes and earthquakes, which are forecasted; the realization of anticipated value in a merger or acquisition that is predicted based on studies of such transactions; the repayment by a debtor of its obligations that is predicted based on credit scores; the realization of projected revenues by a toll road or train project based on analyses of similar projects of the extent to which such revenues were realized. Statistical measurement, the heart of risk management, quantifies the occurrence of a hazard and thus enables a principal to decide the priority to be given to seeking to avoid or mitigate it.

Reformulating any of the uncertainties dealmakers are likely to encounter in a typical transaction into a statistically measurable hazard is outside the scope of this text, but the following example may help the reader understand how this might be done. Consider the buyer's "mistake of fact" in Leasco Corp., which was that the target was profitable. The hazard—an inaccurate statement of the target's income in the unaudited income statement—occurred during the planning phase. One question is the frequency of such error or the hazard occurring, and a separate question is the likelihood the hazard results in an adverse outcome for the buyer. The latter question asks about the chances that the buyer would agree to pay a fixed price for the business and to calculate that price as a multiple of the net income of the business, would rely upon an unaudited income

statement when linking price to income, and would fail to find the error in the income statement before contract formation. A study of mergers and acquisitions of privately held companies in which the financial statements were material to the calculation of the purchase price should also reveal how often such financial statements contained material errors, how often such errors went undiscovered before contract formation, and how often buyers relied upon income statements when agreeing to a price. Those computations would also indicate the frequency that a material error in such financial statements results in adverse outcomes for buyers.

A study of 400 mergers and acquisitions by Deloitte Consulting LLP, which concluded that 60 percent of all mergers fail, illustrates the point. The study divides the merger and acquisition process into four phases: M&A Strategy, Target Screening, Due Diligence and Transaction Execution, and Integration. During the first two and part of the third phases, the acquirer decides on the benefits—what Deloitte calls "value creation"—it desires to realize from an acquisition and the maximum price it is willing to pay for the target, before bidding. It undertakes extensive legal, financial, and other due diligence on the target to understand fully the legal, financial, operational, regulatory, and other risks to the realization of the anticipated benefits. Deloitte groups the potential benefits or value creation into three: efficiency (which includes economies of scale, economies of cost, and cost controls), market power (which includes assets and capabilities that drive market power, brand reputation, and technical knowledge), and reinvention (which includes changing rules of the competitive game, creating paradigm shift, and redirecting industry). During the first two phases, approach errors occur: selection of the wrong target, selection of a target or proceeding on the basis of insufficient information about it, selection of a target that is too far removed from core competencies of the acquirer (perhaps, again, an incorrectly selected target), radical changes in the environment, failure to develop the expected new product, and overestimation of the market. They account for 18 percent, 18 percent, 12 percent, 8 percent, 28 percent, and 16 percent, respectively, of the mergers that fail from approach errors. Though these approach errors are broad and vague, an overlooked error in an income statement or balance sheet should fall into the insufficient information category. Execution errors occur during the last phase (Integration) and include poor leadership, different culture, poor integration, wrong focus, and unclea

Deloitte's study does not indicate what percentage of the failed mergers and acquisitions are attributable respectively to approach and execution errors. If we assume that the failure rate for each phase is about equal, 18 percent of the 30 percent (half of the failed mergers, which is 60 percent of all mergers) or 4.8 percent of all mergers and acquisitions failed because the acquirer proceeded on the basis of insufficient information. It seems unlikely that in all cases the insufficient information was incorrect financial statements, but for the moment we assume it was. Restated as a forecast for future transactions, the Deloitte study would indicate that the probability of an acquirer selecting a target or proceeding with an acquisition or merger on the basis of insufficient information is approximately 4.8 percent, based on the previous assumptions.

The chance of a buyer, like Taussig, assuming the financial information in hand was complete and accurate would be 4.8 percent, assuming the Deloitte study is accurate. If the Deloitte study was refined to separate insufficient information due to incorrect financials and other information shortcomings, the probability would most likely be lower. If the data were refined still further to consider certain factors, such as the acquirer's experience in mergers and acquisitions—because the more seasoned the acquirer, the more attuned it should be to the risk—the probability of an expert like Taussig making the error might be even lower. The chance of an error in the income statement that the acquirer would have in hand would be low, but whether that chance would be so low that it should be ignored is another matter.

Another illustration is the follow-up study on a sponsors' demand forecast for a public-private partnership rail project, a forecast on which the project sponsors, lenders, and government relied when deciding to approve the project and its financing. They projected a number of passengers for each of the first five years, after which the demand would be stable, with a 5 percent probability that such targets would be missed by 15 percent or more. Put another way, the sponsors claimed a 95 percent chance that at least 85 percent of the projected revenue would be received. The projected revenues were not realized. A follow-up study was done, using the methods developed in an earlier study of the accuracy of traffic forecasts for comparable projects. It concluded that actual traffic demand on the projects that were studied was on average 51.4 percent lower than the forecasted demand and 65 percent lower in 25 percent of such projects. It found the forecast for the rail project was likely to be no more or less accurate than other traffic forecasts for comparable projects. According to the study, the chance that the project would realize 85 percent of the projected revenue was approximately 50 percent, in contrast to the forecaster's own estimate of 95 percent. The hazard to the project sponsors and lenders—the occurrence of which was statistically measurable—was that the forecast was based on incorrect data or assumptions, did not include assumptions that should have been included, or did not correctly analyze the data.

Adverse Outcome

All adverse outcomes in transactions fall into three broad groups, according to their impact on the benefits or losses a party anticipated realizing or incurring:

- First, a party might realize no or fewer benefits than or benefits inferior to those anticipated. An example is a reseller of a widget who realizes a profit of \$5 instead of the \$6 it hoped for. Another example is a widget buyer who hoped for but did not receive a rare widget.
- Second, a party might incur additional costs, where it incurs more costs than anticipated to perform, or greater liability to pay compensation for failing to perform, or to realize the desired benefits. For example, a widget buyer pays \$6 instead of the \$5 it expected. In another example, a judgment for \$10 is awarded against it for breach when it expected any such judgment would not exceed \$5.
- Finally, a party might incur delay, for example, where a party realizes the benefits later than anticipated.

The four cases previously described illustrate the adverse outcomes described in the first bullet: in *Frigaliment Importing Co.*, the chickens the buyer received were inferior and had less value than the chickens it expected as a result of a documentation hazard; in *Leasco Corp.*, the target had less value than the buyer anticipated as a result of relying upon incorrect information during transaction planning (calculating the price); in *Chic Organization*, *Ltd.*, Chic received less value than it expected when Ross did not cooperate with production of a second record as a result of overlooking that possibility during planning; and in *Rosco Corp*. Consove received none of the anticipated value because of planning, documentation, and implementation hazards: he miscalculated the potential for his son to ruin the business; for his shares, he accepted a note the corporation's creditors could attack and void; and his son fatally mismanaged the corporation's business. The correlation of hazard with potential adverse outcome helps to frame the relationship between risk and loss in a transaction.

TRANSACTION RISK MANAGEMENT

Transaction Phases

The life of a contract in contract law starts with formation and ends with discharge. If a breach occurs, one or two additional phases are likely: the exercise of remedies and dispute resolution. In transaction risk management, the life of a transaction starts with conceptualization of an exchange and its potential benefits and ends with benefit realization, or if a dispute occurs, dispute resolution, winding through planning, negotiation, documentation, implementation, and benefit realization. Transaction activities fall into four or five discrete classes or groups, which may coincide with and proceed in separate phases: conceptualization, planning, documentation, implementation, and final outcome, the last of which consists of benefit realization or dispute resolution. ¹⁹

Conceptualization differs from planning in that it is an early-stage vision of a deal, such as an acquisition, a joint venture, a construction project, or a financing; planning is the detailed iteration of that vision. Documentation reduces the plan to one or more contracts, although not all of the plan will necessarily be the subject of contractual terms and conditions, only those that state the commitments that must be fulfilled. Implementation of the transaction, which follows, will include performance of those commitments, but it may include more: whatever additional tasks a party must complete after obligations have been discharged to realize the anticipated benefits. For example, a business acquirer realizes value from a merger or acquisition usually only after the target has been integrated, something that occurs after the deal is closed.

However, transactions do not always follow clearly demarcated steps. Tenders, especially by governmental agencies, may follow such phases. Deals that are negotiated from their inception do not: as a party negotiates, it also decides what benefits it will realize and what tasks it and the other party will complete; conceptualization, planning, and documentation are combined and proceed concurrently, often in haste. In such cases, a decision about what will go into the contract combines conceptualization, planning, and documentation activities. Still, decisions about what benefits should be realized, tasks should be completed, and conditions and contingencies should be addressed differ from the choice of words used in a contract to describe them, and both such decisions and word choices differ from the actions that fulfill the commitments they create.

Discrete Phase Risks. Each phase has its own risks. A party may have expectations about how long and how much it will cost to plan, negotiate, and document a transaction. Those expectations may be met, exceeded, or disappointed because transaction conceptualization, planning, and documentation may itself take longer or cost more than expected. Sponsors of large infrastructure projects, especially novel project financings, have been reported to bemoan the time and cost required to prepare and negotiate the numerous transaction documents. A party will have expectations about how long and how much it will cost to implement the transaction, that is, for the parties to perform all their obligations and, once such obligations are performed, for it to complete whatever additional actions are required for the benefits to be realized. Those expectations will be met, exceeded, or disappointed, perhaps due to actions and events that occur during the implementation phase. A party, while recognizing the potential for disputes to occur concerning a contract, is unlikely, at contract formation, to envisage any specific dispute thereunder. It will likely form impressions, assumptions, hopes, and expectations when a dispute arises about the possible outcomes and the cost of reaching such results. Those expectations will also be met, exceeded, or disappointed. The successful execution of the first three phases—conceptualization, planning, and documentation—does not ensure successful implementation, though successful implementation should avoid disputes concerning the contract. Each phase will be more or less successful as measured by the party's expectations for that phase, and each phase can and should be managed for the risks that occur during it, though the outcome of the implementation phase marks success or failure for the transaction.

Knock-on Effects. Acts and omissions during planning and documentation contribute to the ultimate outcome of the documentation and implementation phases. When planning a transaction, a party must identify the benefits it anticipates realizing and the tasks that must be completed to receive those benefits; during the documentation phase, it must ensure that those tasks are accurately described in the contract and all necessary rights to receive the completion of those tasks are effective. *Leasco Corp.* illustrates the knock-on effect of misinformation during the planning phase: the error in the income statement formed the basis for the calculation of the price, which was stated in the contract and had to be paid at closing. *Chic Organization, Ltd.* illustrates the knock-on effect of missing a contingency during planning: because Chic missed Ross's potential lack of commitment to Motown to collaborate with Chic, Chic did not ask that the contract require, and the contract did not require, that she collaborate on the second album; and not being so required, she did not collaborate with Chic. *Frigaliment* illustrates the knock-on effect of a decision taken during the documentation phase: the ambiguous description of the chickens created the potential for the seller to deliver stewing chickens. No mistake occurred during planning: each party knew clearly what it expected. Hazards during planning and documentation start a causal chain of necessary but insufficient causes and create the potential for an adverse outcome.

Knock-on Effect on Implementation. The success or failure of a transaction is measured by outcome of the implementation phase, whether the anticipated benefits are realized as, and when and at the cost, anticipated. In a simple exchange between two parties, three activities must be completed for each party's anticipated benefit to be realized:

- One party must complete the task that it is expected and committed to complete to enable the second to eventually realize its desired benefit.
- The second party must complete an additional task to realize its benefit. This task is often completed after the first party has performed and either further contributes to or yields benefit realization.
- The second party must realize its anticipated benefit.

For example, two parties agree to buy and sell a widget, which the buyer expects to resell at a profit. The sale by the seller is the completion of a task for the benefit of the buyer, one that contributes toward the buyer's benefit realization; the buyer's resale of the widget is the task it must complete to realize its benefit; and the buyer's receipt of the anticipated profit is its realization of its desired benefit. The seller's sale to the buyer does not ensure the buyer will realize its profit but is expected to contribute to its doing so. A description of the seller's benefits and tasks would be the mirror image of the buyer's, with a few modifications. This outline—two parties, each having expectations about the benefits it will realize,

each having to complete a task that will contribute to the other's benefit realization, each having a commitment to complete such task, and each having to complete a task that will contribute to its own benefit realization—is the transaction model used throughout this text, with a few variations. While few transactions conform to this simple model, it is sufficient to illustrate and systematically catalogue the principal risks that occur in most simple and complex transactions.

Each transaction hazard is ultimately a danger to the successful outcome of one or more of the six implementation activities previously described. The risk of an unsuccessful outcome is best understood by correlating each hazard in a transaction to one or more of those six activities.

- A hazard created during the planning phase can adversely affect a task to be completed or the benefit to be realized during implementation. The hazard in *Leasco Corp*. (the incorrect unaudited income statement) created the potential for the buyer's benefit (value of the business) to be less than anticipated. The hazard in *Chic Organization*, *Ltd*. (the possibility Ross would not collaborate) endangered Motown's ability to perform for Chic's benefit (making Ross available for collaboration on the second record).
- A hazard created during the documentation phase can also adversely affect a task to be completed or a benefit to be realized during implementation. In *Frigaliment*, the ambiguous description of the chickens created the possibility for the seller to perform a task the buyer did not expect: to deliver old birds. In *Rosco Corp.*, Consove's acceptance of a note that rendered the corporation insolvent during documentation precluded his and its compliance with the legal formalities that would ensure a commitment binding on the corporation and effective against third parties during implementation, thus exposing benefit realization to impairment by third parties.
- A hazard during implementation—for example, the theft by a third party of an item one party agreed to sell to the other, thus depriving the seller of its ability to perform—can adversely affect a party's completion of a task for the benefit of the other party, the completion of a task for its own benefit, and the realization of a benefit.

Each transaction hazard, whenever it occurs, is best understood in relation to the specific implementation activities it endangers.

Risk Avoidance, Mitigation, and Allocation

Hazards and the losses that can flow from them are managed by eliminating them, or failing that, by mitigating the chances they will occur and the losses that will result if they do occur, and by allocating responsibility for such losses to a party to the transaction or a third party.

For purposes of deciding which risks warrant attention, the probability a hazard exists or will occur can be paired with the potential harm to a transaction: on one end of the scale, an event with low probability is paired with little or no damage, whereas at the other is an event with high probability paired with severe damage. Between are events with low probability and severe damage, high probability and little or no damage, and medium probability and medium damage. A matrix of risks can be constructed relying on intuition about likelihood and potential damage, in the absence of statistical studies of such risks. What is identified as a risk might not be statistically calculable. Add an intuitive judgment of the likelihood of and the damage from its occurrence, tainted by the dealmaker's biases, the risk assessment, even if boxed into a matrix like that previously described, is truly about uncertainties. Still, the matrix highlights the choice for a dealmaker, such as Taussig in *Leasco Corp*. Assuming the probability is comparable to the findings in the Deloitte study and insufficient information is synonymous with incorrect financials, a probability of 4.8 percent is low but not statistically insignificant, especially when paired against the potential loss, which can be (and was for Taussig) the entire value of the anticipated benefits.

Risk Avoidance. Risk avoidance is one of three objectives of managing transaction risk, the other two being mitigation and allocation. Unlike risk mitigation and allocation, risk avoidance eliminates any chance that a specific hazard will occur at any time during the transaction. As we have seen, the risk in *Leasco Corp.*—that the price was higher than the value of the target, based on its net income—could have been avoided by diligence or linking the price to actual net income; the risk in *Chic Organization, Ltd.*, that Ross might not collaborate on a second record, could have been avoided by having had her commit to Chic to cooperate; and the risk in *Frigaliment* could have been avoided by specifying young birds.

Risk Mitigation. Risk mitigation has two objectives: to reduce the chances that a hazard will occur and to reduce the losses that can result when a hazard occurs and could cause losses. For example, a widget buyer has an expert inspect a widget and confirm it has the expected feature; the chance that the widget will not be as expected is reduced but not eliminated. If the buyer also reserves a portion of the price as compensation for the widget not having the expected features, it mitigates the potential losses that might occur if the widget does not conform. Measures aimed at reducing the chance of a hazard occurring are either prophylactic or deterrent. Prophylactic contractual measures, like rules of the road that prescribe safe driving practices, do not eliminate entirely the occurrence of hazards but rather reduce their frequency and likelihood. A contract that includes such measures establishes a private regulatory regime under which one party is a de facto regulator and the other the regulated subject.

Such regulations may be minimal or substantial. For example, a construction contract that requires the contractor to complete milestones according to a schedule and budget promotes compliance by requiring the contractor to submit periodic reports about how the completed work matches the schedule and budget. Covenants in a loan agreement that require a debtor to keep proper books and records, to timely pay its taxes and other creditors, to collect its bills from its customers, to deposit all its cash receipts in a bank account with the creditor, and to preserve and protect its properties, ensure the debtor, who might not otherwise do so, follows practices that minimize its loss of revenues and reduce its risk of default on its obligations to its creditors. A service contract that identifies the key personnel to provide the agreed services requires that such personnel be made available upon request and that the services to be rendered to the customer be given priority over the service provider's other commitments, which reduces the chance that the services will not be completed by qualified personnel as and when requested or required by the customer as a result of other customers making demands on their time.

Mitigation of damage is remedial, allowing a party to take actions to reduce the potential losses that might flow from an adverse event or even to avert a hazard that portends the imminent occurrence of such event.

Risk Allocation. As previously noted, responsibility for the losses that result from a hazard not avoided during the planning and documentation phases must be allocated, either by express provision in the contract or by the rules applicable in the absence of such provisions, with the result that

the party to which responsibility for a risk is allocated becomes the insurer of the losses resulting from the occurrence of the allocated risk, subject to certain limitations. The allocation to or assumption by a party of a risk is of the responsibility for the losses that result when the threatened harm occurs. The allocation of a risk—or more accurately, the responsibility for a risk—does not alter the threat from a hazard; that threat remains, while responsibility for losses is allocated. Such insurance may consist of a party covering its own such losses or covering the other party's losses or both

Risk allocation is effectively self-insurance in which a party covers its own losses and insurance for the counterparty in which it covers the counterparty's losses. Risk allocation is always a zero-sum game: a party can shed responsibility for a risk only by transferring it to another party. One party's gain in risk allocation is always another party's loss. For example, a risk that a widget may not have the features a widget buyer expects must be allocated to the seller, the buyer, both seller and buyer, or a third party. The risk must always be allocated in a transaction. An allocation of the risk to the seller—the seller assumes responsibility for certain of the losses the buyer might incur if the widget does not have such features—does not change the fact that the hazard exists and is a threat to the buyer, but it relieves the buyer of that responsibility and vice versa. While risk allocation and mitigation may be used separately or in combination, risk avoidance may not be combined with either, for an obvious logical reason. Because risk avoidance eliminates an existing or future hazard, it is the best outcome of transaction risk management.

- BLACK'S LAW DICTIONARY 834 (10th ed. 2014).
- 2 190 F. Supp. 116 (S.D.N.Y. 1960).
- 3 701 F.2d 978 (1st Cir. 1983).
- 4 *Id.* at 979–80.
- 5 *Id.* at 980.
- 6 701 F.2d at 981.
- 7 *Id.* at 983.
- 8 *Id.* at 984.
- 9 BLACK'S LAW DICTIONARY, *supra* note 1, at 1524.
- MICHEL CROUHY, DAN GALAI, AND ROBERT MARK, THE ESSENTIALS OF RISK MANAGEMENT 9 (2006); GLYNIS M. BREAKWELL, THE PSYCHOLOGY OF RISK 22–25 (2nd ed. 2014).
- 11 DELOITTE CONSULTING LLP, LESSONS LEARNED FROM SUCCESSFUL MERGERS AND ACQUISITIONS FOR CASPA (2008).
- 12 *Id.* at 12.
- 13 *Id*. at 13.
- <u>14</u> *Id*. at 16–17.
- 15 *Id.* at 15.
- 16 *Id*. at 12.
- <u>17</u> *Id*.
- Bent Flyvbjerg, Quality Control and Due Diligence in Project Management: Getting Decisions Right by Taking the Outside View, INT'L. J. PROJ MGMT (2012), http://www.sciencedirect.com/science/article/pii/S026378631200138X.
- 19 HELENA HAAPIO & GEORGE J. SIEDEL, A SHORT GUIDE TO CONTRACT RISK 16 (2013).
- 20 MICHAEL KLEIN, JAE SO & BEN SHIN, Transaction Costs for Private Infrastructure Projects—Are They Too High?" PUBLIC POLICY FOR THE PRIVATE SECTOR No. 95 (1996).
- 21 *E.g.*, HAAPIO & SIEDEL, *supra* note 19, at 138–39.