
PART I

**When Risks Become
Brutal Realities**

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CHAPTER 1

To Survive and Thrive *A Matter of Judgment*

*Life is short, art long, opportunity fleeting, experience misleading,
judgment difficult.*

—Hippocrates

The goal of every species is to survive and thrive, yet about 96 percent of all species that have ever lived on earth are now extinct.¹ Life is also short for individuals and—more to our point—for many of the enterprises they create. In 1997, the average life expectancy of a Fortune 500 company was about 45 years.² By now, it has likely become even shorter, as demonstrated most recently in the number of stressed and failed industrial and financial institutions in the crisis of 2007–08 and in the recession of 2008–09. While the events of that period have been well documented, a quick review of selected highlights will set the stage for our examination of risk and risk management in this part.

- Between the market highs of October 2007 and the final days of 2008, an estimated \$8 trillion in value was lost, as measured by the Dow Jones Industrial Average, where every 500-point decline equals about \$700 billion in losses.
- The U.K. hedge fund Peloton had been ranked the world's highest performing fund in 2007 with an 87 percent return on investment and \$10 billion in assets. On March 5, 2008, Peloton was forced to dissolve when its liquidity dried up almost overnight.³ That spring, the failure of 85-year-old Bear Stearns occurred in just over 20 days.⁴
- Within 20 months after the end of 2006, 274 major U.S. lending operations “imploded.”⁵ Between January 1 and the end of August 2008, nine

U.S. banks failed, and by September 2009 there were 552 on the Federal Deposit Insurance Corporation's troubled list.⁶

- General Motors and Chrysler underwent federally assisted bankruptcies, while thousands of retail stores, restaurants, travel, luxury goods, furniture, and other businesses that depend on consumer spending experienced severe decreases in revenue and pressure on profits.
- During 2008, U.S. residential mortgage foreclosure activity increased 81 percent over 2007 levels and 225 percent over 2006 levels.⁷ Nationally, more than one in every 400 housing units was in some stage of foreclosure.⁸

Who is responsible? That question has been debated since the onset of the crisis, and it will be for years to come. Yet senior executives and boards of directors have clearly been held responsible in many quarters, representing a trend extending back to Sarbanes-Oxley in 2002, and it's a trend that we expect to continue.

The reasons should be obvious. People rightfully look to senior executives and boards to exercise judgment: to survey the environment, understand the organization, and make tough decisions in difficult and uncertain situations. The enterprise will either survive and thrive or wither and die on the quality and timeliness of its leaders' judgments.

We opened this chapter with a quote from Hippocrates, who spoke and taught with humility (to the point of choosing "First, do no harm" as the opening of his eponymous oath). He must have known how little physicians of his time knew about the unknown. Bacteria, brain chemistry, even various organ functions were yet to be discovered. Then, as now, physicians—and executives—must exercise judgment, and do so amid uncertainty.

We mentioned that 96 percent of all species that have appeared on the planet are now extinct. We implied that organizations aren't doing much better. Yet virtually all species except *Homo sapiens* operate mainly on genetics and instinct. Only we have judgment. We have what neuroscientists refer to as "executive functions" in our brains, the capacity to gather and process information and to make rational decisions and plans based on that information and on our wants and needs. Shouldn't our organizations—also equipped with "executive functions"—be doing better, exercising better judgment, even amid uncertainty and the difficulties it brings?

We think so, and we are not alone.

The Revolving Door to the Corner Office

The door to the corner office has been revolving at increasing speeds. In December 2008, National Public Radio (NPR) reported, "Corporate boards

are holding chief executives accountable for falling stock prices as well as huge losses suffered in the credit and mortgage markets.” According to the Corporate Library, the CEO turnover rate exceeded 18 percent in 2008. The NPR report noted, “CEOs are also spending less time at the helm—their median tenure is down to four years.”⁹

In general, CEO turnover doubles in bad times, particularly when shareholder returns suffer. In 2008, 61 companies in the S&P 500 stock index changed CEOs. Boards typically oust CEOs a year or two after shareholder returns slip, and that “grace period” may decrease further.¹⁰ (The average chief financial officer has 18 months to get the job done, according to *CFO Magazine*.¹¹)

The truth, however, is that a new CEO rarely reverses the losses. The shares of 30 companies at which chief executives were removed actually declined more than they gained.¹² More recently, CEOs in general have had their powers diminished, relative to their boards. According to a study by the University of Southern California (USC) Center for Effective Organizations and Heidrick & Struggles, 82 percent of directors believe that their “CEOs have less control over their boards, with 49 percent indicating this has happened to a great or very great extent.”¹³

These trends may well affect management’s view of risk. Jeff Cunningham, Chairman, CEO, and editorial director of *Directorship*, says, “There is no question that CEO power and prestige have fallen. The unintended consequence is that this can make the CEO overly risk averse. His or her decision making can become reflexive, conventional, and, from a business development point of view, unremarkable.”¹⁴ CEO tenure has been reduced to the point where leaders often cannot see significant initiatives through to completion, which can shift their focus to only short-term goals, since they won’t be around to achieve long-term ones. Nor are CEOs the only leaders affected.

Broad Concerns about Boards

The business acumen of the board often fails to match the needs of the enterprise. Cunningham says, “A lot of people will dispute this, but CEOs complain they are just not getting the ‘brain trust’ and strategic counsel from their boards that they did years ago, although they are getting heaps of advice on the governance issues *du jour*—compensation, compliance, and succession.”¹⁵ A 2005 McKinsey survey of more than 1,000 directors reinforces these concerns:

- Only 11 percent of directors reported that they have a complete understanding of key enterprise strategies or risks.
- More than 50 percent have no clear sense of their companies’ prospects five to ten years down the road.

- Just 8 percent of directors claim to have a complete understanding of long-term risks; 37 percent admit they have little or none.
- More than 50 percent of directors admit that they have no way of tracking changes in risks over time, leaving them vulnerable to unforeseen shifts.¹⁶

Note that these are directors' self-assessments. Moreover, the overall trends they identified seem to have continued. The above-noted USC/Heidrick & Struggles study found that 95 percent of directors rated themselves as highly effective in monitoring financial performance, representing shareholders' interests, and ensuring ethical behavior (compliance and monitoring).

However, they rated themselves much lower on shaping long-term strategy, identifying threats or opportunities, and planning for succession.¹⁷ Those opinions square with reality. The *Wall Street Journal* reported on September 22, 2008, "Many U.S. boards don't cope well with a crisis." Consequently, "some directors are now ratcheting up efforts to anticipate, and avert, trouble." Going forward, boards need to "take a bigger role in risk management."¹⁸

Voice of Experience

"Even though there have always been challenges, they were on a different level. We are experiencing 'a perfect storm.' First, there is the economic environment—volatility in foreign exchange, raw material costs, oil, and other energy sources. Second, the general public is more vocal and more demanding. And third, public outcry is producing strong pressures for regulatory responses, which in turn create even more flux and unpredictability, not just in the United States but in the rest of the world as well. We are not used to this, and we are not trained or equipped to deal with it effectively.

"We have spent the past five years struggling with overkill of compliance and internal control issues, which are not always correlated with managing the uncertainties of a business. But we sort of took our eyes off the ball for what was on the horizon. That makes us even less prepared."

—Rolf Classon, Director

What's Reasonable to Expect of the Board?

The board's power emanates from the shareholders, whose interests the board represents, and its responsibilities center on governing, guiding, and

when appropriate assisting management in protecting and increasing shareholder value. But how much actual responsibility for risk management can be laid upon directors? It's an open question. For instance, Jeff Cunningham says, "I think the public at large and, add for safe measure both politicians and regulators, may not understand how the board interrelates with the C-suite in the area of risk management, and so they lack some of the basic tools needed to understand the risk environment."¹⁹

Many boards and management teams also don't understand that interrelation, at least not fully and in practice. In fact, most conventional guidance on the board's governance role has far more to do with legal obligations, structures, and functions than with how key decisions are made.

For example, in *Corporate Governance*, Colley and colleagues state that the board is responsible for governance based on their articles of incorporation, bylaws, and shareholder agreements.²⁰ The authors go on to present three broad duties of the board: the fiduciary duty, the duty of fair dealing, and the duty to perform functions in good faith. Other standard expectations call upon directors to:

- Act as an ordinarily prudent person would reasonably believe to be in the best interests of the organization
- Fulfill the paramount duty of oversight, with the ability to delegate that authority
- Understand the corporation's operations, performance, and proper responses to problems
- Establish policies, such as specifying decisions requiring board approval, establishing codes of ethics and conduct, and ensuring accurate financial reporting

The vast majority of directors do their best to execute these responsibilities. However, they are often constrained by the limits of time and a lack of the right tools. In addition, a move toward increased director independence—a newfound priority for many shareholders and regulators—may have adverse, as well as positive, effects. While conflicts of interest and "coziness" with management may decrease, directors' insight into the business may also decrease.

Directors must understand the mechanisms by which the value of the enterprise is, and can be, created and destroyed, so they can provide sound governance and useful guidance. Absent understanding and processes that promote sound governance and useful guidance, the board will likely revert to the default setting of raising objections and roadblocks on the one hand, or, on the other, to rubber-stamping management's decisions and initiatives.

Indeed, many experts and enterprises preoccupy themselves with board structure. To their credit, Leblanc and Gillies note, "It is 'board effectiveness'

not 'board structure' that must be analyzed, for it is the effectiveness of the board in the decision-making process that in the final analysis determines corporate performance."²¹

Unfortunately, many boards simply adopt a risk-averse posture rather than develop a decision-making process. Adopting a risk-averse posture in an attempt to protect shareholder value will hobble efforts to create value and, over time, actually erode value. Yet boards require time and certain tools if they are to improve their effectiveness and decision making.

Voice of Experience

"I can't emphasize enough the fact that continuing on a board is not an automatic entitlement. The board needs to take an inventory of the capabilities it needs to be a complete and an effective board, in terms of skills and experience. It needs to look at what it has relative to what it needs, because more often than not, there will be a historical mismatch. Your board's composition will reflect what you were in the past rather than what you need to be in the future. The board needs to manage that proactively."

—David Nierenberg, Director

Barriers to Board Effectiveness

In a Deloitte survey of 250 executives and board members,²² respondents identified the two biggest barriers to effective risk governance systems as a lack of tools needed to analyze nonfinancial issues and skepticism that nonfinancial indicators relate directly to the bottom line:

- One-third of respondents said their companies' nonfinancial reporting measures were excellent or good, compared with 86 percent for financial reporting measures.
- Nearly half of respondents said nonfinancial reporting measures were ineffective or highly ineffective in helping the board and the CEO make long-term decisions (more than 12 months out).
- Nearly three-quarters of executives and directors were under pressure to measure nonfinancial performance indicators.

Three years later, the results were retested.²³ The majority of executives perceived a growing need to better understand the underlying drivers of their performance through nonfinancial measurements, but the available

metrics remained inadequate. The study concluded that companies either did not have or were not sharing critical nonfinancial performance data with their boards. It is in this nonfinancial data that much of the information needed to formulate sound judgments resides.

Barriers to Improving Risk Oversight

Boards are certainly taking risk much more seriously. In 2004, just one in ten boards spent more than 10 percent of their time on formal risk management. By 2005, that number had risen to almost 40 percent. Yet this has not necessarily translated into greater expertise.²⁴

In the 12 months prior to the Deloitte survey, one in five companies surveyed had suffered significant damage from a failure to manage risk and 56 percent had experienced at least one near miss (a serious threat to value that was averted or defused). Ten percent of respondents reported three near misses during the past year. However, despite increased discussion and awareness, adoption of risk management standards across the enterprise was limited. Only one-quarter of respondents set regular risk targets for managers, and less than one-third provided risk management training for managers and staff. This is an indicator of cultures in which risk management is considered “someone else’s job.”

It is the board’s responsibility, in its role as steward of shareholder value, to exercise risk oversight. However, three key challenges must be addressed if the quality of directors’ risk oversight is to be improved:

1. Limited time
2. Lack of industry-specific expertise
3. Different definitions of success

LIMITED TIME Given that they are all part-timers, what time commitment is reasonable to expect of directors? Since the adoption of Sarbanes-Oxley in 2002, the average time spent by board members on their duties has increased by almost 30 percent. The USC/Heidrick & Struggles report noted, “On average, the directors indicated that they serve on 2.5 public boards. They report that during the last year, the average estimated time they spent on board matters—including preparation time, meetings, travel, and other activities—was 202 hours, up from 189 hours in 2004, 177 hours in 2003, and 156 hours in 2001.”²⁵ Most boards meet from four to six times per year, although not always in person.

Given the available time, omniscience or even a highly detailed knowledge of operations cannot reasonably be expected. It may also be unreasonable to expect directors to spend significantly more time on those duties, in which case better use must be made of their available time.

LACK OF INDUSTRY-SPECIFIC EXPERTISE While increased independence may have reduced potential conflicts of interest, it may also have deprived the CEO of sources of industry expertise and diminished the board's value as strategic partner. Professor Ray Reilly of the University of Michigan's Ross School of Business believes that board members should thoroughly understand the business and that companies should find ways to ensure that they do. He notes that because board members are involved in the business periodically rather than day to day, they often don't know which questions to ask.²⁶

For example, before Lehman Brothers failed, only three directors had direct experience in the financial services industry. As a follow-up to the USC/Heidrick & Struggles study, authors Meyer and Rollo state that in their extensive informal conversations with CEOs, almost all confided that at most they have one or two "very effective directors who provide wise counsel, offer advice on key issues, and contribute both formally and informally to the direction of the company." A fortunate few CEOs say they have three or four such directors. Meyer and Rollo then extrapolate that "only about 10 to 20 percent of directors are seen by CEOs as effective." They add that CEOs also say their senior management team often regards "working with the board as a de-motivating experience."²⁷

Such findings jibe with the views of directors themselves, as evidenced by the above-noted McKinsey Global Survey of directors in which only 11 percent described themselves as having a complete understanding of their company's strategy and risks.^{28,29} It stands to reason that board members will have difficulty providing insight on strategy if they don't understand it. They may even be changing CEOs so frequently due to misperceptions regarding strategy, operations, and performance.

DIFFERENT DEFINITIONS OF SUCCESS Meyer and Rollo³⁰ also report frequent disconnects between CEOs and their boards regarding expectations. CEOs want thought leaders who will partner with them on strategy. They want "independent directors who can help them make better, faster, and wiser decisions" but who let them run daily business operations. In contrast, "many directors define success in terms of committee work, fiduciary responsibility, and keeping the company in compliance with legal, regulatory, and other oversight requirements."³¹

This focus on the part of the board has generated an overemphasis on transparency, compliance, and governance ratings rather than on business strategy. If the board defines success as avoiding suits, fines, regulatory actions, or appearances before Congressional committees and if management defines it as growth in revenue, profits, and shareholder value, then disconnects between the two parties are inevitable.

Combine these three challenges with the potential for tighter regulation in many areas, and with boards perhaps being "gun-shy" after the events of

the 2000s, which ranged from Sarbanes-Oxley through government bailouts, and you may have a recipe for even greater challenges. Meanwhile, the basic imperatives of the enterprise have not changed.

The Imperatives of the Enterprise

In Darwinian terms, the enterprise has two fundamental imperatives: to survive and to thrive. Accomplishing both requires resilience and agility. Resilience enables the enterprise to survive adversity and the impact of negative events. Agility enables it to evade or counter adversity and to adapt to seize opportunities.

According to the U.S. Council on Competitiveness, the potential for disruptions of “global transportation networks and supply chains, IT, and energy . . . is rising in lock step with technological complexity, interdependency, terrorism, mutating viruses, and even weather phenomena . . . For enterprises, communities and countries alike, resilience is becoming a competitive differentiator.”³² By definition, resilience is the ability to recover from a blow or, more technically, the ability to quickly resume a former shape and recover functionality following an adverse impact.

Impact is a function of the mass of whatever strikes the organism or entity and its velocity. A resilient enterprise can absorb or deflect an impact and still survive. It might possess that capacity by virtue of factors such as its size, capitalization, breadth of operations, or depth of experience, or it might develop it over time.

Agility is the ability—the coordination, speed, and strength—to change position quickly to avoid or mitigate the effect of an impact, to roll with the punches. Agility is also the ability to move quickly, even to assume a new configuration, to achieve a desired outcome. An agile enterprise can often avoid negative impact (e.g., by anticipating a competitor’s move or a technology that could supersede its own) or take advantage of opportunities for growth (e.g., by moving from a centralized to a decentralized structure, acquiring another company, or changing its business model).

While resilience and agility in organisms have been developed through natural selection over millennia, those qualities develop—or fail to develop—in organizations through decisions made at the executive and board level. For instance, there are usually trade-offs between resilience and agility that require a decision to pursue one or the other or both in some combination.

Factors Affecting Resiliency and Agility

Esther Colwill, a partner in Deloitte’s Calgary office in Canada, is one of perhaps 100 people ever to scale the Seven Summits—the highest peaks

on each of the seven continents.³³ Colwill noted that when she climbed Mt. Everest, tough decisions had to be made about how much gear to carry. She and her team had to weigh the benefits of resilience to sudden changes in the weather against the agility and faster ascent enabled by small loads.

Likewise, enterprises must balance resilience and agility so they can withstand adverse impacts yet remain nimble enough to exploit opportunities. Jim Porter, retired chief engineer and vice president of Engineering and Operations at DuPont, says, "In the end resilience is about being able to cope successfully with the unexpected. It's about doing the right things in ways that allow you to remain sustainable."³⁴

Resiliency and agility depend to a degree on size. The larger the entity, the more shock it can absorb and still return to its original shape or something approximating that shape. Obviously, there are limits, as major bankruptcies have repeatedly proven, and large size often undermines agility. Large organizations, particularly those that fail to survive, have a legendary lack of agility. Smaller enterprises are generally less resilient to adverse impacts (hence their high rate of failure) but are often better able to avoid them and to dodge threats and seize opportunities when they see them coming.

Resilience and agility must be designed into an entity. For instance, the Vendée Globe race is a solo, nonstop, around-the-world sailing race that includes passage through the tumultuous Southern Ocean, where waves up to 110 feet high have been recorded. In these waters, racers actually expect to be "knocked down," which means submersion of their vessels' masts. Vessels competing in the Vendée Globe are designed to self-right even when the mast is submerged up to 45 degrees. That is resilience.

Not only can an enterprise improve its resilience to specific known events through better preparation, response, and recovery, it can also improve its resilience to unknown and even to unknowable events. Take, for example, preparing for the outbreak of a pandemic. A pandemic can result in quarantine or loss of goods, facilities, or personnel and restrict activities and movements of workers, suppliers, and customers. But by addressing the known risks and effects of a pandemic, the enterprise can be better prepared for a range of unknown events with similar effects, including hurricanes, earthquakes, war, or bioterrorism.

Thus it is generally preferable to anticipate a risk—a specific event or development—and prepare for it rather than ignore it or simply hope for the best. Granted, anticipation and preparation are not always possible. When an event or development simply cannot be anticipated, an enterprise will be best served by improving its general resilience. In other words, the crisis that you prepare for may not be the one you experience, but that preparation will improve your resilience, come what may.

Voice of Experience

“The hardest thing to deal with is the board of a company that’s doing really well. They tend to take an incremental view as opposed to looking at the environment and what’s changing around them. Everything is good. The sun is shining.

“You might ask a board, ‘So, how ready are you for the next downturn? Do you do simulations of what a downturn might look like, how fast it could happen, or how long it would last?’ It seems like a waste of time and money and resources, and instead they’re devoting their energy to increasing shareholder value and top line revenue.

“I think it goes back to whether this is simply a function of human nature that we’ll never be able to change other than on an occasion, and it obviously depends on the leadership and the directors at the time.”

—Suzanne Hopgood, Director

Agility requires awareness, speed, and flexibility, qualities rarely associated with large enterprises. Preparation can help an organization become more agile, but several structural and operational factors should also be considered. For instance, the level of centralization regarding management control and the degree to which responsibility, accountability, and authority are delegated down the line will affect agility. The more decentralized the approach, and the more middle managers and employees are able to make decisions and take action, the more nimble the organization will become.

It’s also essential that the organization maintain a constant state of vigilance. Essentially, vigilance and its corollary, situational awareness, is the characteristic of being aware of the environment and changes in it, and of what the organization can do to respond effectively. It’s harder than it sounds, and many enterprises fail to choose promontories from which to scan the horizon, fail to develop devices with which to detect changes, and fail to employ early-warning systems regarding threats and opportunities. (We discuss these matters in Chapter 5, “Maintain Constant Vigilance.”)

Developing agility can itself expose an enterprise to risks, unless the right processes have also been developed. For example, delegating additional authority—even to middle management, let alone to sales reps and customer service reps—can present risks. So can allowing “skunk works” and other remote teams to perform research and develop business opportunities outside the bureaucracy. These are essential activities but must be properly managed. The Risk Intelligent Enterprise takes steps to inculcate knowledge of risk and risk management into people at all levels. It also

establishes rigorous monitoring and reporting systems in order to control and flag risks when authority is delegated.

On that note, the enterprise must be resilient and agile in relation to both financial and nonfinancial events and developments. Our earlier point about executives' and board members' lack of focus on nonfinancial reporting measures has deep relevance here. In most organizations, transactions and accounts are monitored and reported that such financial effects are usually readily apparent.

Not so for nonfinancial effects, which include developments regarding organizational reputation, brand equity, stakeholder relations, legal and regulatory matters, and environment, health, and safety concerns. These are less quantifiable and measurable, not monitored or reported on as formally or rigorously (if at all) and thus far less apparent. However, nonfinancial effects can generate financial effects with rapid and severe consequences. So, resilience and agility demands an awareness of potential nonfinancial as well as financial developments and their potential impact.

The less prudence with which others conduct their affairs, the greater prudence with which we must conduct our own affairs.

—Warren Buffett³⁵

To Adapt or Not to Adapt? That Is the Question

Like species, enterprises are subject to a process of natural selection that favors the resilient and the agile. Charles Darwin is often credited with saying, "It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change." This remains true of enterprises despite occasional government interventions to prop up the slow-to-adapt. Actually, the interventions are intended to preserve jobs and stabilize the economy rather than to prop up the enterprises. Whether such interventions help or hurt the enterprise and the economy can be understood only over time.

Extending Darwin's thinking into the field of cybernetics, Ashby's Law of Requisite Variety³⁶ essentially states that it takes variety to deal with variety and complexity in the environment. The greater the variety and complexity and thus the uncertainty in the environment, the greater the variety required to survive and thrive in that environment.

Stated another way, the more finely adapted to a specific environment a species becomes, the more likely it is to be successful *as long as its environment does not change*. Conversely, such a species is more likely

to fail if its environment changes suddenly. (Requisite variety is discussed further in Chapter 7, “Manage the Key Connections,” as a means of dealing with complexity.) As a practical matter, the organism or organization is either fit to survive in the new environment or not. If it is not, it becomes extinct.

Unlike other species, individuals and the enterprises they create can choose how they adapt and evolve. Even so, individuals and enterprises often make choices that jeopardize their very existence. That may be their right, provided the laws permit it. However, in such cases the more interesting issue is whether those choices are conscious.

If the decision not to adapt is conscious, so be it. If it is not conscious and the individual or enterprise would prefer to adapt and survive, what can be done to improve the understanding of the situation, and thus improve the decisions and the chances of survival? An enterprise should be able to develop a sufficient variety of strategies to cope with a variety of changed environments. If companies are to improve their resilience and agility, then their ability to adapt to change must also improve.

The Darwin awards—“A Chronicle of Enterprising Demises: Honoring those who improve the species . . . by accidentally removing themselves from it!”³⁷—document stories of individuals who made astonishingly bad choices and got themselves killed. No corporate version has yet been developed; however, if one ever is, there are many candidates awaiting their posthumous moment of glory.

Voice of Experience

“The real key in our view in many of our product lines is to think big, start small, and then scale fast. Crank it up, take a good look at it, and then if it looks right ‘blow and go.’ If, on the other hand, it doesn’t appear as though it’s likely going to be a winner, kill it quick and move on to the next opportunity.”³⁸

—Jim Porter, Retired Chief Engineer and Vice President, Engineering and Operations, DuPont

Risk Comes with the Territory

Enterprises regularly place themselves in the running for a Darwin Award by ignoring risks that could have been foreseen or by failing to manage risks they have foreseen. Equally frequent is failure to thrive due to extreme risk aversion, missed opportunities, and blindness to the risks inherent in

specific initiatives. Those failures rest largely with senior management and the board of directors. It is up to senior management to protect existing value and to create new value within the enterprise; it is up to the board to govern and guide management in those activities. These amount to sacred duties (in business terms) and they are duties that too many boards and management teams have failed to carry out in recent years.

We maintain that one of the first tasks necessary in fulfilling these duties is for executives and directors to become aware of the need to exercise judgment in areas where they may have been operating on tradition, habit, or autopilot. In this context, the exercise of judgment will typically occur in areas fraught with uncertainty regarding threats and opportunities, often under turbulent conditions or circumstances.

To the extent that the leadership can anticipate and prepare for those conditions and circumstances and enhance the resilience and agility of the organization, they will also enhance its ability to survive and thrive. This is the sense in which risk intelligence is never actually attained, but rather is an ongoing way of making better decisions that enable the enterprise better to adapt. This represents a departure from many conventional management and board practices, and is certainly a departure from conventional risk management and its failures.