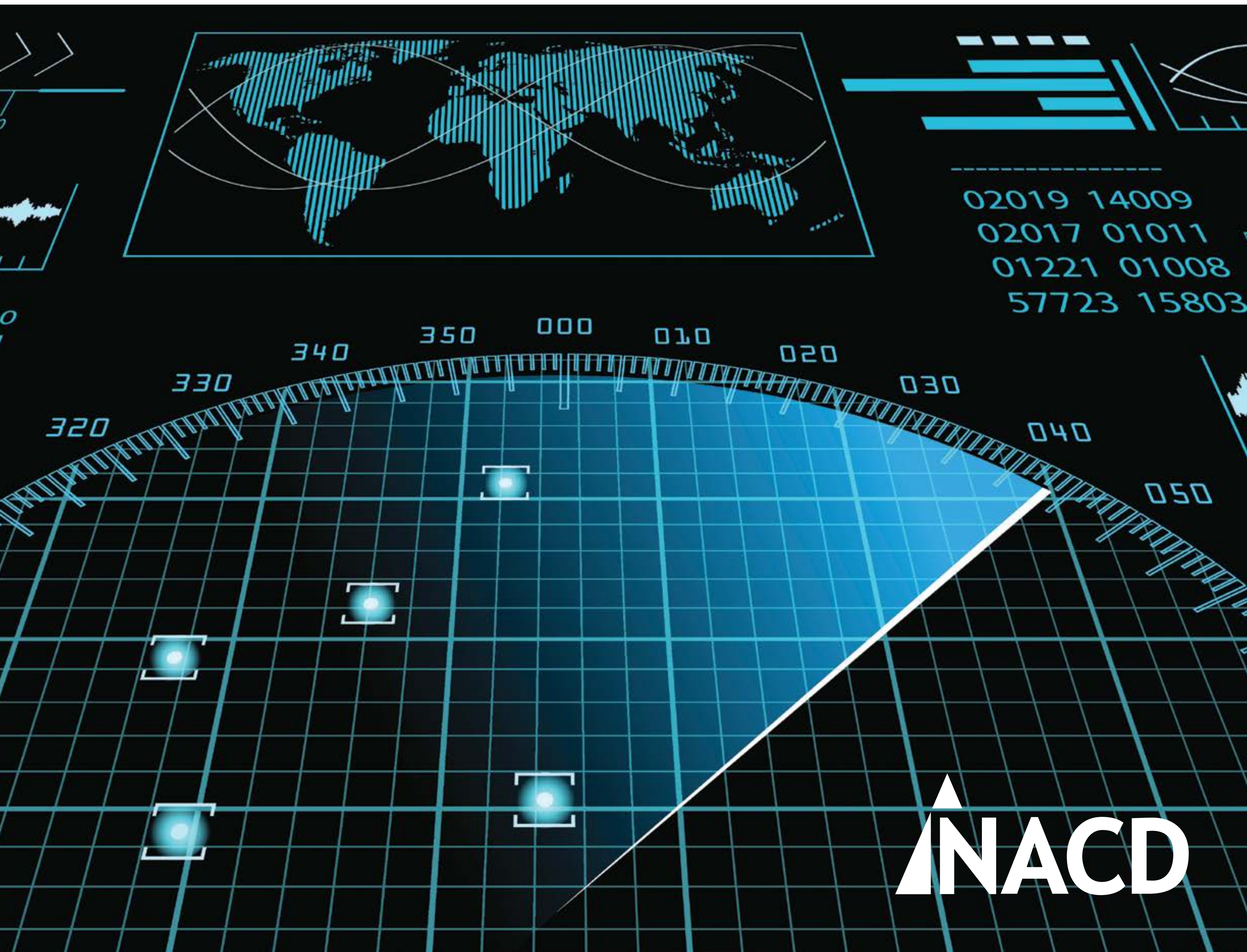
THE REPORT OF THE NACD BLUE RIBBON COMMISSION ON

ADAPTIVE GOVERNANCE: BOARD OVERSIGHT OF DISRUPTIVE RISKS



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Letter From the Cochairs

The future ain't what it used to be.

—YOGI BERRA[1]

Serving as stewards of long-term value creation is "job number one" for directors. A decade ago, NACD's *Key Agreed Principles to Strengthen Corporate Governance for US Publicly Traded Corporations* stated, "For most companies, the priority focus of board attention and time will be [on] understanding and providing guidance on strategy and associated risk. . . . Management performance, corporate strategy, and risk management are the prime underpinnings of the corporation's ability to create long-term value."[2] In his 2018 letter to CEOs, Laurence Fink, chair and CEO of BlackRock, the world's largest asset manager, added a fourth element—purpose—to successful long-term value creation: "To prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society. . . . Without a sense of purpose, no company, either public or private, can achieve its full potential. It will ultimately lose the license to operate from key stakeholders."[3]

Business leaders are faced with the confluence of an always-on global information network, extended supply chains, increasingly interconnected and ever expanding systems of business relationships, and the escalating pace of change in the way we live and work as a result of shifts in technology and demographics. It is more important than ever before for board members and executives to anticipate changes that could affect those four elements of long-term value creation—performance, strategy, risk management, and purpose—especially developments that could undermine the validity of key assumptions on which the organization's strategy and operating model are based. Yet traditional enterprise risk management (ERM) processes may not be well enough designed to address these types of risks; by necessity, many ERM activities focus on determining the impact and the likelihood of a range of identifiable potential risks in order to help prioritize the allocation of scarce resources.[4] And boardroom discussions often rely heavily on reports about past performance and results, which may offer limited insight into the unconventional or unexpected.

In an operating environment frequently characterized by the acronym VUCA (volatility, uncertainty, complexity, and ambiguity), boards need to help their organizations do a better job of assessing disruptive risks—those risks that, whether internally- or externally-driven, could have a significant economic, operational, and/or reputational impact—and to help them be better prepared to respond when they occur. We believe this task is not an optional undertaking for directors: it is a critical imperative for the boards of for-profit as well as nonprofit organizations, and for both private and public companies.

Because these types of risks are often ambiguous, complex, and difficult to identify, assessing and responding to these risks will require building proficiency in what we call adaptive governance. As one Commissioner put it, *"Adaptive governance is a necessary response to a world where disruption is continuous."*[5]

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1 Yogi Berra, *The Yogi Book: "I Really Didn't Say Everything I Said!"* (New York, NY: Workman Publishing, 1998), pp. 118–19.
2 NACD, *Key Agreed Principles to Strengthen Corporate Governance for US Publicly Traded Companies* (Washington, DC: NACD, 2008), p. 9.
3 Laurence Fink's 2018 letter to CEOs, "A Sense of Purpose"
4 Keith Baxter, "Avoiding Black Swans," *De-Risk* (blog).
5 Quotes in italics throughout this report are from members of the 2018 NACD Blue Ribbon Commission.

Board members can start by asking the following questions: Is the information we receive in the boardroom sufficient? Are we using our board's agenda time as effectively as possible? Are we doing enough to look forward—how skilled are we at making sense of weak signals? Am I personally as prepared as I need to be to tackle the responsibilities of a director in this environment?

PART ONE of this report sets out the Commission's view on the key characteristics of disruptive risks and the factors in the current environment that we believe are making them a top priority for boards and management teams. They include risks associated with advanced and emerging technologies, but they are not limited to the tech sector.

PART TWO outlines the Commission's definition of adaptive governance and associated imperatives for boards in the following areas:

- strengthening the aspects of board culture that help the organization identify and respond to disruptive risks
- investing in the skills (in the senior management team, across the company, and in the boardroom) needed to navigate disruptive risks
- enhancing board operating processes that contribute to better situational awareness in the boardroom
- reviewing communications with shareholders and stakeholders

PART THREE summarizes the Commission's recommendations, and the Toolkit provides resources to help boards implement the recommendations.

Whether adaptive governance will be an evolutionary step for a given board or company, or something more revolutionary, will depend in part upon the maturity of the board's current governance, enterprise risk management, and risk oversight processes. It will also depend on the skills and mind-sets of those sitting around the boardroom table. In our discussions about the elements of board culture and board composition that are most critical to success in an environment of disruptive risks, the Commission referenced the findings of previous Blue Ribbon Commission initiatives, especially those on culture oversight and the board as a strategic asset. We encourage directors to draw on the recommendations and guidance from those initiatives in conjunction with this one. (See the Appendix on page 24 for additional details.)

Evidence indicates that most boards are not prepared for a VUCA world. According to recent NACD research, nearly half of directors said their boards' tendency to focus on oversight of known risks—those that management has already identified—presents a significant barrier to understanding and overseeing disruptive, atypical risks. We believe this constitutes a failing grade, and the objective of this Blue Ribbon Commission initiative is to help directors improve that grade. Since opportunity and risk are often two sides of the same coin, enhancing adaptive governance will also enable boards to provide more valuable guidance to management on how to turn uncertainty into sustainable advantage.

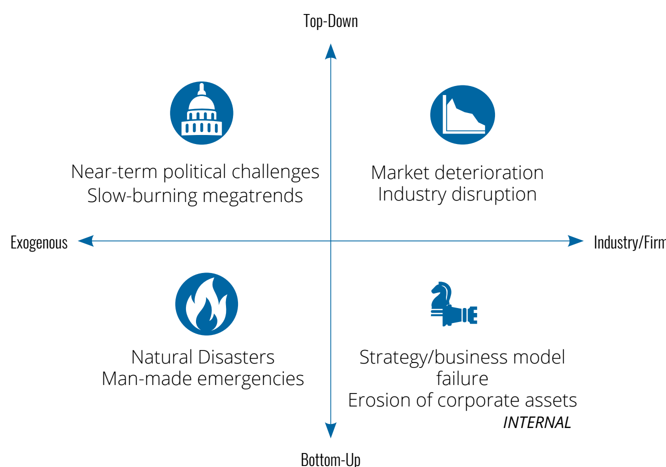
Sue Cole
Kelvin Westbrook

This Blue Ribbon Commission report represents a consensus of the Commissioners' viewpoints and reflects their support for its principal recommendations. We did not believe it necessary that each Commissioner agree with every word of the report. As a group, however, the Commissioners regard this report as a fair representation of their views on an important and timely subject.

Part One
A Changing Risk Landscape

In the current business press, the adjective "disruptive" is frequently associated with fast-moving developments related to advanced and emerging technologies. While the threats and opportunities associated with new technologies are unquestionably significant, disruptive risks are not limited to these alone. As shown in Figure 1, sources of disruptive risks may lie inside or outside of the organization. Some disruptive risks may be company-specific, some may be common to an industry sector, and others may affect all organizations nationally, regionally, or even globally. They could be "unknown unknowns"[6] or they could be issues that are familiar, but minimized or ignored—risks hiding in plain sight.[7] [See Section One of the Toolkit for a list of examples of disruptive risks.]

FIGURE 1: SOURCES OF DISRUPTIVE RISKS



Source: Marsh & McLennan Companies. Used with permission.

In the words of one Commissioner, *"Impact is the real differentiator. These risks could be internal, external, relatively more or less known to the company, but the common denominator is the severity of impact."*

For the purposes of this report, the Commission's definition of disruptive risks are those risks that have a significant, severe, and often sudden effect on a company's revenue, profitability, competitive position, and/or reputation.[8] These risks have the potential to change industry structure or operating conditions, make existing business models obsolete, derail growth, or otherwise pose a fundamental threat to the long-term strategy of the organization.

KEY CHARACTERISTICS OF DISRUPTIVE RISK

Commissioners observed that disruptive risks share several characteristics that make them difficult to predict and measure, as well as challenging to oversee from a board perspective:

- Trigger events or risk thresholds are not always clear in advance: even if their causes are relatively familiar, these risks may "develop in a non-linear manner," as a result of "tipping points that might be detectable only in retrospect," and "may in themselves trigger systemic [effects] that can reverberate through and across industries."[9] In some cases what appears to be a relatively minor shift

[6] Donald Rumsfeld, remarks at NATO press conference, June 6, 2002.
[7] Michele Wucker, "Why Do We Ignore Obvious Dangers?," *Observer*, May 26, 2016.
[8] See Richard Smith-Bingham, *The Emerging Risks Quandary: Anticipating Threats Hidden in Plain Sight* (New York, NY: Marsh & McLennan Companies, 2016), p. 4
[9] See Richard Smith-Bingham, *Material Improbabilities: Getting Practical With Emerging Risks* (New York, NY: Marsh & McLennan Companies, 2018), p. 8.

in the business, regulatory, or social environment could either significantly change the nature or magnitude of known risks, or create new risks.[10]

- Drivers of risk are interconnected: these risks may cluster in patterns not seen previously, and they may lead to risk "contagion," with risk in one area amplifying others or causing new risks to appear elsewhere.[11]
- Impact is hard to quantify: historically, companies and boards have used financial metrics as an important lens to screen and prioritize risks. As financial materiality is no longer a sufficient yardstick, the management team and board may not fully appreciate the true impact of a disruptive risk until it is too late to mitigate it.

As a result, these risks may not always be in scope for management, who are trying to run the business day to day. Commissioners agreed with one who stated, "*Traditional compliance or ERM processes might not always capture them, or not capture them early enough, and as a result there is not necessarily a clear path for escalation to the board.*"

RECOMMENDATION

The board, CEO, and senior management need to develop an understanding of disruptive risks—those that could have an existential impact on the organization—and consider them in the context of the organization's specific circumstances, strategic assumptions, and objectives.

THE CURRENT ENVIRONMENT: "EXPONENTIAL TIMES"

While disruptive risks are hardly new, conditions in today's business environment make companies especially susceptible to volatile operating conditions and unexpected events. Recent reversals in what seemed to be established norms in areas such as global trade and immigration policy in many Western countries have created significant uncertainty for businesses and citizens alike: in the most recent World Economic Forum global risk report, 93 percent of survey respondents from the international community of risk thought leaders expect that political and economic confrontations between major powers will increase.[12] The US intelligence community's 2018 global threat assessment concurred bluntly: "Adversaries and malign actors will use all instruments of national power—including information and cyber means—to shape societies and markets, international rules and institutions, and international hot spots to their advantage. . . . US allies' and partners' uncertainty about the willingness and capability of the United States to maintain its international commitments may drive them to consider reorienting their policies, particularly regarding trade, away from Washington."[13] And nearly half of institutional investors believe that most companies don't fully acknowledge the impact of political risk on their business.[14] [Section Two of the Toolkit outlines considerations for boards related to geopolitical risks.]

Economic and financial volatility is a concern for many organizations: Globally, CEO confidence in economic growth declined from 80 percent in 2016 to 65 percent last year, ac-

[10] See International Risk Governance Center, "Governance of Emerging Risks" (PowerPoint presentation, Mar. 2017), slide 3.
[11] See KPMG, *Dynamic Risk Assessment: The Power of Four* (London: KPMG, 2018), pp. 4–5, and the World Economic Forum, *Global Risks Report* 2014 (Geneva: World Economic Forum, 2014), p. 12.
[12] Richard Smith-Bingham, "Risks Illustrate Imperative to Balance Corporate Ambition With Resilience," *NACD BoardTalk* (blog), Jan. 23, 2018.
[13] Daniel R. Coats, *Worldwide Threat Assessment of the U.S. Intelligence Community*, Feb. 13, 2018, p. 4.
[14] Edelman, *2017 Edelman Trust Barometer Special Report: Institutional Investors Executive Summary* (New York, NY: Edelman Inc., 2017), p. 5.

cording to a KPMG survey (though US CEOs' confidence is still solid).[15] Analysts highlight the potential for financial contagion, where interest rate, currency, or stock market moves in one country or region "amplify . . . problems" elsewhere, "threatening assets that investors recently considered to be comparatively safe."[16] New competitors, new technologies, and changing business models are accelerating creative destruction in many industries.[17]

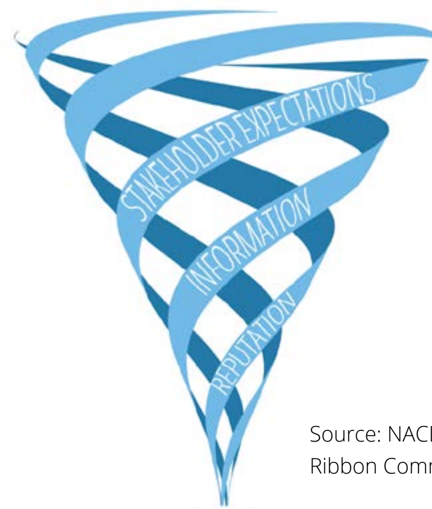
One commissioner stated simply, *"We are living in exponential times."* Commissioners discussed three different "multiplier effects" that increase the potency of disruptive risks in the current environment:

Reputation: As recently as four years ago, many risk professionals considered reputation risk to be an outcome of other risks.[18] Today, with the speed and reach of social media, reputation is a risk in its own right that can dramatically increase the potency of what might seem like minor or isolated events: even a single Twitter post can cause dramatic swings in a company's share price.[19] In KPMG's 2017 CEO survey, concerns about "reputational and brand"-related risk scored third in importance (out of 16) while the year before this risk category didn't make the top ten.[20]

Information: About 90 percent of the world's data was created in the last two years, and activities related to data, analytics, and the Internet of Things consume almost one-quarter of business workloads.[21] The sheer quantity of data now available is exacerbating information overload for both management and the board, making it more difficult to absorb, prioritize, and use in decision making. Data quality is also a growing concern (and source of risk): according to an MIT study, "fake news and false rumors reach more people, penetrate more deeply into the social network, and spread much faster than accurate stories."[22]

Stakeholder expectations: As a Commissioner put it, "*Investors, regulators, and legislators keep raising the bar for boards on the oversight of everything from cybersecurity to culture, and the notion of companies' license to operate is now front and center.*" Investors are speaking out more forcefully not only on corporate governance matters, but on environmental and social issues, and regulators such as the US Securities and Exchange Commission (SEC) are devoting greater attention to management and board-level cybersecurity activities.

THE MULTIPLIER EFFECT



Source: NACD 2018 Blue Ribbon Commission

[15] KPMG, *Disrupt and Grow: 2017 Global CEO Outlook* (Amstelveen, Netherlands: KPMG International, 2017), p. 10.
[16] Ben Eisen, Ira Iosebashvili, and Amrith Ramkumar, "Emerging-Markets Rout Boosts Contagion Fears," *Wall Street Journal*, June 10, 2018.
[17] Innosight, *2018 Corporate Longevity Focus: Creative Destruction is Accelerating* (Boston, MA: Innosight, 2018). The authors note that the reasons for corporate departures from the S&P 500 include P/E activity, M&A, and the entrance of new high-growth companies, as well as the "creative destruction" impact of disruptive trends and threats.
[18] See, for example, Advisen's report, *Reputational risk: does it have a bad reputation? A study of cyber reputational risk* (New York, NY: Advisen, 2014), p. 4.
[19] Neil Wilson, "Can Twitter Affect Stock Prices?," *ETX Capital* (blog), Apr. 18, 2016.
[20] KPMG, *Disrupt and Grow: 2017 Global CEO Outlook* (Amstelveen, Netherlands: KPMG International, 2017), p. 16.
[21] Bernard Marr, "How Much Data Do We Create Every Day? The Mind-Blowing Stats Everyone Should Read," *Forbes*, May 21, 2018, and Joe McKendrick, "With Internet of Things and Big Data, 92% of Everything We Do Will Be in the Cloud," *Forbes*, Nov. 13, 2016.
[22] Robinson Meyer, "The Grim Conclusions of the Largest-Ever Study of Fake News," *The Atlantic*, Mar. 8, 2018.

These developments have not escaped directors' notice: in a 2018 NACD poll, 62 percent of board members say they view atypical, disruptive risks as "much more important" to the business environment today as compared to five years ago (and none said they were less important).[23] Yet there appears to be a disconnect between awareness of disruptive risks and concrete action in the boardroom. While more than three-quarters of public-company directors reported in NACD's most recent annual governance survey that their boards are actively overseeing risks related to the company's strategy, several oversight practices related to disruptive risks are in use by only a minority of boards, according to the online poll, including evaluating risk interdependencies (44%), incorporating atypical risks into board-level strategy discussions (31%), and participating in scenario-planning exercises (28%).[24]

Other research points to a similar disconnect within the executive teams of many companies. One survey found a pattern of blind spots, where senior leaders reported high levels of confidence in their organizations' ability to transform in response to a fast-changing business environment, but significantly underestimated the importance of specific threats and were underinvesting in the activities and technologies that support innovation. The study concluded that "the worrying thing here is that executives aren't more worried."[25]

Commissioners shared examples of other red flags from their own boardroom and executive experiences, including these:

- Allegiance to legacy business models with reluctance to question their future viability
- Underestimating the cost of a given risk materializing
- Failure to account for potential first- or second-order competitive responses to a company's action
- Gravitating toward an overly narrow set of benchmarks for assessing alternatives (e.g., focusing on recent events, or major historical milestones)
- Failure to fully explore the costs and potential implications of "staying the course" versus pursuing alternative strategies
- Underestimating the impact of shifts in behavior—or potential risks—from customers, suppliers, or partners
- Explaining away underperformance as a result of "challenges in execution" or uncontrollable external factors, without exploring other potential causes ▲

[23] Data from NACD member poll on board oversight of atypical risks, conducted via email, March–April 2018.
[24] NACD, *NACD 2017–2018 Public Company Governance Survey* (Arlington, VA: NACD, 2017), pp. 23–27, and data from NACD online poll, March–April 2018.
[25] Innosight, *Are Business Leaders Caught in a Confidence Bubble? 2017 Strategic Readiness and Transformation Survey* (Boston, MA: Innosight, 2018), p. 4. Also see Innosight, *2018 Corporate Longevity Focus: Creative Destruction is Accelerating* (Boston, MA: Innosight, 2018).

Part Two

Adaptive Governance: Priorities For Action

While it is impossible to anticipate every risk, directors can be an aid to the management team by helping the organization to see around corners. Board members' experience, coupled with their part-time role, can be an asset in this regard. As one Commissioner put it, *"Think of a kaleidoscope—many different pieces that are constantly shifting. The board's job is to help company leaders step back and put those pieces into a pattern that yields new insights."*

DEFINING ADAPTIVE GOVERNANCE

In the Commission's view, this will require boards to build proficiency in adaptive governance, which we define as follows:

- Active involvement by directors in setting and maintaining a boardroom culture that is centered on open discussion, constructive challenge, and active self-reflection. Commissioners agreed that the unwillingness of directors to rock the boat is a major contributor to blind spots with respect to disruptive risks. One stated simply, "*The virtues of collegiality in the boardroom are outweighed by the vice of complacency.*"
- Board skills that remain fit for purpose in a rapidly evolving business environment. The baseline requirement here is a board composition that is diverse in background, skills, perspectives, and experiences: *"Many boards are locked into a lagging mind-set in part because of composition. This is why diversity is essential."* But while diversity is necessary, it is not sufficient; keeping board skills fit for purpose also requires a commitment from all directors to continuous improvement: staying current with industry, technology, and societal and other trends that will have a significant impact on the organization's strategy, competitive position, and risk profile.
- Ample time on board agendas devoted to looking at the future—including discussing the potential for disruptive risks to affect long-term strategy and value creation—and avoiding excessive focus on reviews of past performance or "box-checking" activities.
- The board taking an active role in guiding the company toward improvements in resiliency. As a Commissioner said, *"We won't be able to predict or defend against everything. How well the company responds to disruptive situations may make the difference between profitable growth or becoming an also-ran."*

We believe improvements in adaptive governance will be beneficial to organizations of all sizes and sectors. They include not only more effective oversight of disruptive risks, but higher-performing boards overall. The remainder of this section of the report explores these ideas in further detail.

BOARD OVERSIGHT OF DISRUPTIVE RISKS

The opportunities and threats posed by disruptive forces and events have the potential to make or break an organization's ability to generate sustainable long-term value. As such, disruptive risks will be a component of strategy discussions at the full-board level and may also appear on the agenda of key committees, depending on the way in which risk-oversight responsibilities are allocated.[26]

[26] The *Report of the NACD Blue Ribbon Commission on Risk Governance* (Washington, DC: NACD, 2009), p. 9, recommended that "the full board should have primary responsibility for risk oversight, with the board's standing committees supporting the [full] board by addressing the risks inherent in their respective areas of oversight."

RECOMMENDATION

Nominating and governance committees should consider how to incorporate disruptive risks into the scope of their board's risk-oversight responsibilities at the full-board and/or key-committee levels. The allocation of responsibilities can be clarified in committee charter language.

Where does traditional ERM oversight end and oversight of disruptive risks begin? Commissioners agreed that quality ERM processes are critical to safeguarding the health of the organization and enabling prudent risk-taking that drives growth.[27] In addition, a well-functioning risk-management system can help create a baseline against which the company can assess early-warning signals that may indicate more unusual, atypical, or disruptive risks on the horizon.

However, several Commissioners reported experiences with ERM processes that yield relatively static information of limited strategic value, with few details about disruptive risks. This is consistent with the findings from annual surveys of senior executives conducted by the North Carolina State Poole College of Management ERM Initiative and the American Institute of Certified Public Accountants. As recently as 2016, they found that only 25 percent of respondents (rising to one-third of large-organization respondents) would describe their ERM processes as "mature" or "robust," and more than half do not consider their ERM process to be a strategic tool.[28]

This suggests that as a first step in enhancing disruptive risk oversight, the board should ask management for an assessment of the state of the firm's ERM infrastructure and processes. Is ERM largely a check-the-box, compliance-oriented exercise, or does it incorporate forward-looking information and enable better decision making? As one Commissioner put it, *"First, get the basics right. The company needs to do a good job at core enterprise risk management processes or it will be constantly fighting fires. If you can't manage known risks, you don't have the luxury of looking beyond them to less familiar and potentially disruptive risks."* [Section Three of the Toolkit contains criteria and considerations for evaluating the organization's ERM processes. Section Four outlines an approach to dynamic risk assessment, with related questions board members can ask management.]

RECOMMENDATION

Ensure that the organization's fundamental enterprise risk management processes are effective, but recognize that these processes may not necessarily capture disruptive risks.

Commissioners identified imperatives in four other areas for boards to consider as they work to strengthen adaptive governance:

1. Strengthening culture
2. Investing in skills
3. Enhancing board processes
4. Reviewing shareholder and stakeholder communications

STRENGTHENING CULTURE

Boards need to strengthen the aspects of board culture that help the organization identify and respond to disruptive

[27] According to the Committee of Sponsoring Organizations of the Treadway Commission, ERM is "the culture, capabilities, and practices that organizations integrate with strategy-setting and apply when carrying out that strategy, with a purpose of managing risk in creating, preserving, and realizing value." See *Enterprise Risk Management: Integrating with Strategy and Performance: Executive Summary*, Committee of Sponsoring Organizations of the Treadway Commission, June 2017, p. 3.

[28] Enterprise Risk Management Initiative, *The State of Risk Oversight: An Overview of Enterprise Risk Management Processes* (Raleigh, NC: Enterprise Risk Management Initiative, 2016), p. 2.

risks. The *Report of the NACD Blue Ribbon Commission on Culture as a Corporate Asset* set forth recommendations and detailed guidance for board oversight of culture inside the boardroom and throughout the organization. Building on those findings, this year's Commission considered the aspects of boardroom culture that we believe are particularly relevant to operating effectively as a team in a volatile, uncertain environment. They include these:

- Openness to alternative, nontraditional points of view and early-stage ideas
- Willingness to question assumptions (one's own, and those of others)
- Receptiveness to management sharing information with the board about potential problems or bad news, and insistence that these are shared early
- Ability to balance support for management with constructive challenge and skepticism—see sidebar, The Challenges of "Constructive Challenge"
- A bias in favor of continuous improvement, including exploring lessons learned from past mistakes
- Active, ongoing, and honest self-reflection

Unfortunately, too many boards are underperforming on this front. In one global director survey, 43 percent of respondents said their boards exhibit "resistance to change [and] status-quo thinking," and one-third reported board cultures that discouraged questions and open discussion.[29]

In order to flourish, these cultural traits must be actively demonstrated and advocated by the CEO, chair, lead director, and other board leaders. They should be integrated into board governance principles, new-director recruiting and onboarding, protocols for boardroom dialogue (see sidebar, The Challenges of "Constructive Challenge"), guidelines for the content and frequency of management reports to the board, board evaluation processes, and executive-session conversations.[30] [See Section Five of the Toolkit for guidance on incorporating these aspects of board culture into board evaluations.]

As with other dimensions of the tone at the top, the board should set expectations with the CEO and senior management that similar qualities are critical to the culture of the company as a whole. Organizations that demonstrate flexibility in the face of challenges and welcome open communication across departments or levels of management can

THE CHALLENGES OF "CONSTRUCTIVE CHALLENGE"

Much has been written about boardroom dynamics—desirable qualities, conditions for success, and potential red flags. Commissioners shared the following perspectives based on their experiences:

"Recognize that some level of tension [between the board and management] is acceptable, and even necessary, provided it is handled appropriately."

"Avoid situations when the desire to minimize disagreement or forestall an uncomfortable conversation pushes the board to a premature decision."

"Management's goal is to have 'a good board meeting.' Directors need to set clear expectations about what 'good' looks like. It shouldn't mean no difficult questions and no disagreement."

"Sometimes, tension in the room can be a catalyst that motivates deeper engagement. Resolution of that tension becomes a by-product of doing good work."

"As directors, we have to acknowledge that we won't get the best performance from a management team that feels unsupported [by the board]. At the same time, we can't and shouldn't accept any answer at face value."

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[29] KPMG, *Building a Great Board: Global Boardroom Insights* (KPMG International, 2016), p. 8.
[30] For additional detail, see *The Report of the NACD Blue Ribbon Commission on Culture as a Corporate Asset* (Washington, DC: NACD, 2017), pp. 15–16, and *The Report of the NACD Blue Ribbon Commission on Building the Strategic-Asset Board* (Washington, DC: NACD, 2016) pp. 12–13.

be better prepared not only to face disruptive risks, but also to take advantage of changes in the business environment that present opportunities for growth.

RECOMMENDATION

On a regular basis, evaluate the culture of the board on dimensions including the level of openness to sharing concerns, potential problems, or bad news; response to mistakes; and acceptance of nontraditional points of view.

Describing the role that a board can play in providing guidance to management in an operating environment where VUCA conditions are the norm, a Commissioner said, *"We can help management see the forest, rather than the trees—we don't have the day-to-day operational biases."* However, other cognitive biases exist that can affect boardroom culture and hinder open, productive discussions among directors and management team members—including those related to unconventional and disruptive risks.

Anchoring (reliance on known information), optimism (downplaying the significance of negative data and accepting positive projections), false causality, loss aversion, and tendencies to default to the views of the group and/or authority figures are all examples of biases that have been extensively explored by behavioral scientists, including Nobel Prize-winners Daniel Kahneman and Amos Tversky.[31] Their research shows these mental shortcuts are a result of the way the human brain has evolved to process large amounts of information quickly, but they can also get in the way of the cultural attributes that help position teams to deal with disruptive risks.

Recognizing that these biases are present—in other words, rejecting the bias for optimism that might suggest any individual director, or the board as a group, is an exception to these common human tendencies—is an important first step. Increasing diverse perspectives in the boardroom is also essential (see page 17). In addition, boards can consider tactics such as requesting information about the full range of options (and associated risks) being considered, designating a devil's advocate to represent the opposing point of view, and accessing unfiltered perspectives from outside experts to help counteract cognitive biases in boardroom settings.[32]

INVESTING IN SKILLS

Boards should invest in the skills—within the organization and on the board itself—needed to navigate disruptive risks. NACD's online poll revealed a significant difference in board members' confidence about management's ability to manage familiar versus atypical, disruptive risks: 82 percent of directors said they were extremely or very confident in their management teams' preparedness to address known risks, compared with just 19 percent expressing the same level of confidence about management's ability to address atypical risk.[33] For their part, 85 percent of risk professionals say they expect risk forecasting to be as difficult or more difficult in the next three years as it is today.[34] Yet roles and responsibilities within the function may be outdated at many organizations. For example, a recent banking industry study found that, even several years after the global financial crisis, only about 15 percent of banks' risk management staff are focused on risk analytics, versus 50 percent on operational activities.[35]

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[31] Mike Pinder, "16 cognitive biases that can kill your decision making," *The Innovation Blog*, Aug. 2, 2017.

[32] For more tactics see Katherine L. Milkman, John W. Payne, and Jack B. Soll, "Outsmart Your Own Biases," the *Harvard Business Review*, May 2015, and Oliver Marnet, *Bias in the boardroom: Effects of bias on the quality of board decision-making*, October 27, 2010, p. 12.

[33] Data from NACD online poll on board oversight of atypical risks, conducted March–April 2018.

[34] Richard Smith-Bingham, *The Emerging Risks Quandary: Anticipating Threats Hidden in Plain Sight* (New York, NY: Marsh & McLennan Companies, 2016), p. 7.

[35] Philipp Härle, Andras Havas, and Hamid Samandari, "The Future of Bank Risk Management," on www.mckinsey.com.

Directors also express doubts about the readiness of their own boards to provide effective oversight of disruptive risks: 74 percent of respondents to NACD's online poll reported that lack of board knowledge hinders disruptive-risk oversight to at least some extent.[36]

Levers the board can use include these:

Criteria for CEO and senior executive selection and evaluation. A Commissioner observed, "*Some CEOs and senior executives built careers on the basis of being successful operators. We need leaders who demonstrate agility, and who can be change agents. Part of agility is recognizing when it's no longer business as usual.*"

Boards should ensure that selection and evaluation criteria of the CEO and senior leaders in the organization include the cultural traits described on page 15, as well as experience in

- leading the development of ideas and insights about future trends and opportunities,
- problem-solving and executing successfully in uncertain situations, and
- building trusted relationships within and across groups of employees and stakeholders.[37]

RECOMMENDATION

The board's CEO selection and evaluation processes should include assessments of his or her leadership abilities in an environment of disruptive risks.

[Section Six of the Toolkit contains guidance on developing resilient executive-compensation plans.]

Oversight of talent strategy. As part of its regular review of the company's talent strategy, the board and/or the compensation committee should ask management to discuss how disruptive risks factor into the organization's human capital plans. Do we have the right organizational structure and roles? Does our leadership bench have the necessary skills and capabilities, bearing in mind the company's long-term strategy and future needs? Do our leadership development, compensation, and reward processes reflect the realities of our changing operating environment, and, as a board, how do we assess whether the incentive system itself could be a source of potential risk?

RECOMMENDATION

Boards should ensure their organization's talent strategy reflects a proactive approach to the skills and structure needed to navigate disruptive risks.

Board composition, diversity, and skills. *The Report of the Blue Ribbon Commission on Building the Strategic-Asset Board* highlighted the importance of a forward-looking and diverse board composition tied to the organization's strategic requirements, and the need for ongoing learning by all board members:

- Director renominations should . . . [be] an annual consideration based on a number of factors, including an assessment of current and future skill sets and leadership styles that are needed on the board.
- The director recruitment process . . . should be designed to include candidates from diverse backgrounds.
- Participation in continuing education should be a requirement for all directors, regardless of experience or length of board tenure.

[36] Data from NACD online poll on board oversight of atypical risks, conducted March–April 2018.

[37] See Bonnie W. Gwin, Ryan Pastrovich, and Jeff Sanders, *A Guide to Reading Your CEO's Leadership Style*, on www.heidrick.com; Deborah Ancona, "Leadership in an Age of Uncertainty," *MIT Center for eBusiness Research Brief* vol. VI, no. 1 (2005); and Sam Bourton, Johanne Lavoie, and Tiffany Vogel, "Leading with Inner Agility," *McKinsey Quarterly*, Mar. 2018.

For the full list of the 2016 Blue Ribbon Commission recommendations, please see the *Report of the NACD Blue Ribbon Commission on Building the Strategic-Asset Board* (Washington, DC: NACD, 2016), p. 23.

These principles are all the more important in an environment of continuous disruption. In the view of this Commission, progress has not been sufficient, and we would amplify the 2016 recommendations as follows:

- **Director renomination should not be a default decision.** In recent research by Heidrick & Struggles on "superaccelerator" companies—large global firms that demonstrated the greatest ability to outperform competitors on profitable growth—distinguishing board characteristics common to these companies include the willingness of directors to step off the board when their skills are no longer relevant.[38]
- **Board diversity is a strategic imperative, not a compliance issue.** Definitions of "diversity" vary, but are widely understood to include both demographic (gender, race/ethnicity, age, nationality) and experiential (skills, professional experience, industry or sector expertise) elements. Research at both the executive and board levels has shown that companies with diverse teams outperform peers on a variety of financial metrics.[39]
- **Nominating and governance committees should establish requirements for ongoing learning by all directors, and incorporate them into the evaluation process.** Directors need to develop and maintain an independent point of view about the business and the industry, based on external as well as internal information. Without it, as one Commissioner noted, *"it's very difficult for directors to get their arms around potential disruptive risks. It's hard to know what could cause the wheels to come off the cart, and easier to concur with the view that management is presenting."* Nominating and governance committees should ask directors to provide information about how they are taking a proactive approach to ongoing learning.

It is important to recognize that the board-skills matrices used by most companies today are typically organized by functional or industry categories of expertise, and do not capture the cultural traits and leadership experiences related to navigating disruptive risks that are outlined on the preceding pages. Nominating and governance committees will need to broaden their criteria for director search and evaluation to incorporate these important factors.

RECOMMENDATIONS

Director renomination should not be a default decision.

Board diversity is a strategic imperative, not a compliance issue.

Nominating and governance committees should establish requirements for ongoing learning by all directors, and incorporate them into the board's evaluation process.

ENHANCING BOARD PROCESSES

Boards should enhance operating processes that contribute to better situational awareness in the boardroom. Issues related to information, reporting, and the conduct of board-management discussions feature prominently in directors' top challenges related to board-level oversight of complex, atypical risks. In an NACD poll, directors cited lack of information from management (53%), insufficient

[38] Theodore L. Dysart and Sara Spiering, "The Characteristics of Leading-Company Boards Today," *Governance Challenges 2018: Board-Shareholder Engagement in the New Investor Environment* (Arlington, VA: NACD, 2018), p. 8.

[39] See Vanessa Furhmans, "Companies With Diverse Executive Teams Posted Bigger Profit Margins, Study Shows," *The Wall Street Journal*, Jan. 18, 2018; Heidi Grant and David Rock, "Why Diverse Teams are Smarter," *Harvard Business Review*, Nov. 4, 2016; and Tim Smedley, "Diversity at the Top Pays Dividends," *Financial Times*, Mar. 7, 2016.

board agenda time devoted to atypical risk discussions (51%), and insufficient external information (46%) as factors that hindered effective oversight of risks in this category, either somewhat or to a great extent.[40] In the same poll, 46 percent of directors reported that their boards tend to focus on known risks—those that management had previously identified—in boardroom discussions, which presents a barrier to effective oversight of disruptive risks, either somewhat or to a great extent.[41]

To help improve situational awareness, directors can review their boards' operating processes with these objectives in mind:

Improve the visibility of disruptive risks in board-management discussions. While SWOT analysis (i.e., a review of the organization's strengths, weaknesses, opportunities and threats) is a familiar concept, in a volatile and uncertain operating environment, companies need to reconcieve the way they assess each of the dimensions.

A Commissioner observed, "*Valuable information exists within the company that can help identify, even in a directional way, the existence of many types of disruptive risks at an early stage. Risk is best managed when rendered explicit, but this information often does not reach senior management or the board in a usable form.*" Board members can ask questions such as these:

- Are we making the most of the data the company already has? Advancements in technology such as data analytics and artificial intelligence have made more information available to risk management and other corporate functions, and enhanced their analytical firepower. Directors, especially those who serve on audit and risk committees, can ask management about how these technologies can help improve the value and insight of board-level risk reports. Management should also explain how the risks related to these technologies—including data protection and privacy issues and greater potential for contagion of errors in more interconnected systems—are being mitigated.[42] In addition, the internal audit function can play an important role in generating data about potential disruptive risks. At one Commissioner's company, "*the internal audit team provides the board with root-cause analysis about over- or under-performance versus targets, as well as assessments about how audit or compliance issues were discovered. The results can be very revealing, and may help expose early red flags about potential future risks.*"
- Do our reports provide a forward-looking view of changing business conditions and potential risks? At many companies, board-level reports are fragmented, relatively static, and focus primarily on relatively well-known, short-term risks.[43] Boards should periodically review the format and content of risk reports to ensure they provide usable insights about disruptive trends and risks, including patterns or reoccurring issues that arise in different locations within a company's network (facilities, suppliers, customers, and so on). The frequency of some types of analysis may also need to change in a world of continuous disruption: for example, deploying monthly pulse surveys to capture customer feedback or employee perceptions, in addition to more comprehensive surveys that are done on an annual basis.
- Do our reports include information from sources outside the organization? Directors should request that independent data about the organization's strengths, weaknesses, opportunities, threats, and evolving external environment—organized in a way that avoids information overload, but is not overly filtered by management—is a regular component of risk reports. (See sidebar, Outside Information Sources, on page 20.)

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[40] Data from NACD director poll on board oversight of atypical risks, conducted March–April 2018.
[41] Ibid.
[42] Philipp Härle, Andras Havas, and Hamid Samandari, *The Future of Bank Risk Management* (New York, NY: McKinsey & Co., 2015), pp. 5–6.
[43] NACD, *Director Essentials: Strengthening Risk Oversight* (Washington, DC: NACD, 2016), pp. 9, 12, and 16.

- How frequently do we review our protocols for escalating information? It is important to ensure that processes related to the flow of information to the board are keeping pace with changes in the business and risk environment, and that reporting thresholds are clearly established and well understood.

[Section Seven of the Toolkit contains a case example of a risk prioritization exercise conducted by the board and management team. Section Eight outlines considerations for improving board-level reporting related to disruptive risks.]

OUTSIDE INFORMATION SOURCES

Directors can use data from the following sources to inform discussions with management about disruptive risks:

- industry analysts (including those with positive and negative recommendations about the company)
- publicly available data on peers and competitors, again including the views of leading analysts in the case of public companies
- the board's existing advisors, including the external audit firm, compensation consultant, investment bankers, equity and debt analysts, and outside counsel
- independent subject-matter experts in areas such as cybersecurity, geopolitics, and technology
- industry publications, conferences, and trade shows
- government data, including publicly available reports on cyber threats, foreign policy, trade issues, and the like

Source: Adapted from *Report of the NACD Blue Ribbon Commission on the Board and Long-Term Value Creation* (Washington, DC: NACD, 2015), p. 14.

RECOMMENDATION

Ensure board-level risk reports provide forward-looking information about changing business conditions and potential risks in a format that enables productive dialogue and decision making.

Explore mechanisms that will help the board stay informed about company and industry developments between board meetings. Given the complexity of the business environment and the velocity of changes in operating conditions, directors need ways to continually refresh their views about potential risks and opportunities outside of scheduled board and committee meetings. Companies can use online board portals to provide a central place to access information from independent sources such as those in the sidebar on this page. As with all board-management communication channels, security is critical: encrypting information on digital platforms and testing the security of board members' online access are important considerations for the firm's security and compliance teams.

Several Commissioners suggested advisory groups as another way directors can tap into fresh, often outside-the-box thinking on an as-needed basis. At one Commissioner's company, *"We use an advisory group to provide board members with a view into emerging technologies. It allows us to monitor issues that are very fast-moving in a flexible way, since we can change the composition of the group as business conditions evolve. It can also be a farm team for potential future directors."*

Set aside time on a regular basis for the board and management to do a deep dive on disruptive risks and their implications for the organization's strategy. As noted earlier in this report, well-functioning ERM systems are important, but traditional risk management processes

may not always capture unconventional, disruptive risks. Similarly, traditional board agendas may not be structured in a way that enables robust dialogue about risks in this category. According to NACD survey data, the time directors spend in board meetings has expanded steadily in recent years: the average for board members of public companies was 71.5 hours in 2010, and grew to 78 hours in 2017.[44] Yet as the poll results cited on page 19 indicate, many directors believe their boards are spending too much time on oversight of known risks, and not enough time looking ahead to potential disruptive trends and developments.

As part of their regular review of full-board and committee agendas, the nominating and governance committee can assess the appropriateness of time allocated to various activities and how well the board deals with time constraints (including the use of consent agendas and other efficiency tactics). Feedback from board evaluations and executive-session discussions can provide useful input.

In the Commission's view, boards need to go beyond reallocating time among existing agenda items and should establish dedicated time, on a regular basis (at least annually), for a substantive discussion of the company's vulnerability to disruptive risks and the resulting implications for both short- and long-term strategic objectives. Findings from scenario-planning, simulations, and stress-testing exercises provide valuable input into such discussions. (See sidebar, Getting Hands-On With Disruptive Risks). Boards should consider working with a third party to facilitate these sessions: outsiders free up the CEO, chair, or lead director to act as a peer participant in the conversation; they are often the best-placed to encourage objective, open discussion; and they can bring a fresh set of eyes to the results of such exercises.

The outcomes of scenario-planning, stress-testing, and similar exercises include not only enhanced situational awareness and improved understanding of the risk environment, but also insights that can improve the organization's resilience in the face of adverse events and allow it to respond more quickly in order to take advantage of changes and opportunities in the environment.[45] As a Commissioner observed, *"If a board really works at understanding the essential functions and characteristics of the business, and the resulting impact if those [functions] were disrupted in some way—whatever the cause—they can then ask management to identify all the ways to mitigate those consequences. This is a 'threat agnostic' approach, which helps prepare organizations to deal with risks that are difficult to predict."* [See Section Nine of the Toolkit for an example of a board-level scenario-planning exercise, and Section Ten for a sample of the resulting report.]

GETTING HANDS-ON WITH DISRUPTIVE RISKS—COMMISSIONER PERSPECTIVES

"Management brought the board into scenario planning. It was enlightening on its own, and also improved the quality of our discussions with management in other areas."

"At one workshop we looked at five scenarios that would destroy the company. For each one, we defined the signals that would lead up to the scenario, identified the point where the company would take action, and what actions we would take."

"Asking the question 'under what scenarios would the company disappear' can help uncover atypical risks, including potential disruptors. Venture capital firms [ask] this every week: what would double our portfolio, and what would kill it?"

"We call them 'premortems': assume a project or even an entire business fails, and ask what could cause it. It gives management permission to step out of 'sell mode'."

[44] NACD, *2010 NACD Public Company Governance Survey* (Washington, DC: NACD, 2010), p. 14, and *2017–2018 NACD Public Company Governance Survey* (Arlington, VA: NACD, 2017), p. 33.
[45] See "What Is *Resilience?*," a webpage on the Northeastern University Global Resilience Center's website (https://globalresilience.northeastern.edu).

RECOMMENDATION

Establish time on the board agenda, at least annually, for a substantive discussion of the company's vulnerability to disruptive risks. Consider using approaches such as scenario planning, simulation exercises, and stress testing to inform these discussions.

REVIEWING SHAREHOLDER AND STAKEHOLDER COMMUNICATIONS

Boards should periodically review company disclosures and other communications they have with shareholders and stakeholders related to the oversight of disruptive risks. SEC disclosure rules require companies to identify "the most significant factors that make an investment in a registrant's securities speculative or risky." The SEC has specified that these disclosures should be "organized and concise" and "avoid boilerplate."[46] For public companies, once management and the board have determined that a particular disruptive risk is material to the company, these rules will apply.

Public companies are also required to disclose in their proxy statements information related to board composition and board skills. In addition to the committee charters and board responsibilities documents discussed earlier, these disclosures may also be areas where boards may choose to include information related to the oversight of disruptive risks in general. [Section Eleven of the Toolkit contains considerations for directors related to developing disclosures about board oversight of disruptive risks.]

As noted earlier, investors are increasingly asking questions about how major environmental, social, and technological trends—many of which have the potential to be disruptive risks, as well as opportunities to build competitive advantage—will affect companies' long-term strategy, market performance, and human-capital plans. Boards and management teams should consider how company communications reflect these issues. Directors should also ensure they receive regular updates from the corporate secretary and/or investor-relations leaders about the feedback and questions management is receiving from top investors' governance teams, as well as from portfolio managers. The board should prepare designated leaders (e.g., the nonexecutive chair, lead director, and/or key committee chairs) to participate in strategic engagement efforts with investors, where appropriate.

CONCLUSION

Whether they come from inside or outside the organization, and whether driven by unexpected circumstances or problems hiding in plain sight, disruptive risks won't wait for boards and management teams to catch up.

Adaptive governance will not prevent disruptive risks from occurring, but it will better position the organization to manage those risks and mitigate the ones that cannot be eliminated. Strengthening adaptive governance will require changes to boards' culture, skills, composition, operating processes, and interactions with management. We believe these changes can and should be part of every board's continuous improvement plan. Whatever its size, sector, stage of governance, or risk-oversight maturity stage, every organization has opportunities for progress at the full-board, committee, and/or individual director levels.

We encourage boards to use the recommendations in this report, and the materials in the accompanying Toolkit, to improve their oversight of disruptive risks and strengthen their stewardship of long-term value creation in a VUCA world. ▲

[46] SEC, *Business and Financial Disclosure Required by Regulation S-K* (Washington, DC: SEC, 2016), p. 150.

Part Three

Recommendations of the 2018 NACD Blue Ribbon Commission

1. The board, CEO, and senior management need to develop an understanding of disruptive risks—those that could have an existential impact on the organization—and consider them in the context of the organization's specific circumstances, strategic assumptions, and objectives.

2. Nominating and governance committees should consider how to incorporate disruptive risks into the scope of their board's risk-oversight responsibilities at the full-board and/or key-committee levels. The allocation of responsibilities can be clarified in committee charter language.

3. Ensure that the organization's fundamental enterprise risk management processes are effective, but recognize that these processes may not necessarily capture disruptive risks.

4. On a regular basis, evaluate the culture of the board on dimensions including the level of openness to sharing concerns, potential problems, or bad news; response to mistakes; and acceptance of nontraditional points of view.

5. The board's CEO selection and evaluation processes should include assessments of his or her leadership abilities in an environment of disruptive risks.

6. Boards should ensure their organization's talent strategy reflects a proactive approach to the skills and structure needed to navigate disruptive risks.

7. Director renomination should not be a default decision.

8. Board diversity is a strategic imperative, not a compliance issue.

9. Nominating and governance committees should establish requirements for ongoing learning by all directors, and incorporate them into the board's evaluation process.

10. Ensure board-level risk reports provide forward-looking information about changing business conditions and potential risks in a format that enables productive dialogue and decision making.

11. Establish time on the board agenda, at least annually, for a substantive discussion of the company's vulnerability to disruptive risks. Consider using approaches such as scenario planning, simulation exercises, and stress testing to inform these discussions.

Appendix: Related Resources

Report of the NACD Blue Ribbon Commission on Culture as a Corporate Asset (Washington, DC: NACD, 2017). This Commission recommended that "directors and company leaders . . . take a forward-looking, proactive approach to culture oversight in order to achieve a level of discipline that is comparable to leading practices in the management and oversight of risk" (p. 13). It emphasized the importance of integrating culture into boardroom discussions about strategy, risk, and performance—starting with a rigorous review of the board's own culture. The report's toolkit includes culture-assessment questions, resources on metrics and reporting, suggested external and internal data sources, and leading-indicator data points related to an organization's cultural health.

Report of the NACD Blue Ribbon Commission on Building the Strategic-Asset Board (Washington, DC: NACD, 2016). This Commission advocated in favor of "continuous improvement [in] overall board composition, individual director's skills, and boardroom processes . . . rather than a primarily reactive or event-driven approach to board change" (pp. 10–11). It went on to say, "Boards that have the ability to adapt and retool themselves over time [are] able to maintain a superior level of oversight and guidance and evolve as the organization's strategy and competitive environment evolve" (p. 11). Tools accompanying the report include a multiyear board-succession-planning matrix, board and committee evaluation resources, and guidelines for developing ongoing learning agendas for the board and individual directors.

Report of the NACD Blue Ribbon Commission on the Board and Long-Term Value Creation (Washington, DC: NACD, 2015). This Commission advised directors to "factor substantial preparation time into their board duties . . . in order to build and maintain a sufficiently thorough understanding of the company's business model and industry context—including current conditions and emerging trends" (p. 11). It noted that seeking information on these topics from external sources "signals attentive and thorough preparation on the directors' part, rather than mistrust of management" (p. 14).

Report of the NACD Blue Ribbon Commission on Risk Governance: Balancing Risk and Reward (Washington, DC: NACD, 2009). This Commission recommended that "the full board should have primary responsibility for risk oversight, with the board's standing committees supporting the [full] board by addressing the risks inherent in their respective areas of oversight" (p. 9). It identified "nontraditional" risks as one of five main areas of board responsibility for risk oversight (along with governance risks, critical enterprise risks, board-approval risks, and business-management risks). Other important considerations for boards highlighted in the report include establishing risk tolerance levels, understanding volatility in business operations, understanding the interrelationships between different types of risk, and the potential aggregate impact of seemingly separate risks.

The following NACD online resource centers are updated regularly and contain a range of current thought leadership, expert commentary, boardroom tools, and links to related programs and events:

Risk Oversight

Strategy Development and Long-Term Value Creation

Emerging Issues

Overview Toolkit

The Toolkit contains sample board documents, questions to inform discussion among directors and with members of management, and other materials to support directors in implementing the recommendations of the NACD 2018 Blue Ribbon Commission. The Toolkit is available exclusively to NACD members. For more information about joining NACD, please contact Matt Barone at join@NACDonline.org. To learn more about NACD, visit NACDonline.org.

TOOLKIT MATERIALS IN ORDER OF THEIR CITATION IN THE CORE REPORT OF THE NACD 2018 BLUE RIBBON COMMISSION:

1. Taxonomy of Disruptive Risks
2. The Role of the Board in Oversight of Geopolitical Risk
3. Board Evaluation of Enterprise Risk Management Effectiveness
4. Dynamic Risk Assessment: Considerations for Directors
5. Integrating Disruptive Risk Oversight Criteria Into Board Evaluations
6. Four Operating Principles for Developing Resilient Executive-Compensation Plans
7. Board-Management Risk Prioritization Exercise
8. Enhancing Board Identification and Oversight of Disruptive Risks
9. Guidelines for Scenario Analysis of Disruptive Risks
10. Sample Board-Level Reporting: Scenario Analysis and Disruptive Risks
11. Considerations for External Disclosures Related to Board Oversight of Disruptive Risks

The table below indexes the contents of the Toolkit according to the priorities for action outlined in Part Two of the Blue Ribbon Commission Report.

Priorities for Action	Commission Guidance	Toolkit Materials
Strengthening culture	Evaluate how board culture supports effective oversight of disruptive risks.	• Integrating Disruptive Risk Oversight Criteria Into Board Evaluations
Investing in skills	Understand disruptive risks in the context of the organization's circumstances and strategic assumptions.	• Taxonomy of Disruptive Risks • The Role of the Board in Oversight of Geopolitical Risk • Board-Management Risk Prioritization Exercise • Dynamic Risk Assessment: Considerations for Directors
	Review the effectiveness of enterprise risk management processes.	• Board Evaluation of Enterprise Risk Management Effectiveness
	Ensure talent strategy and evaluation processes reflect the requirements of a disruptive risk environment.	• Four Operating Principles for Developing Resilient Executive-Compensation Plans
	Incorporate criteria related to ongoing learning into board and director evaluations.	• Integrating Disruptive Risk Oversight Criteria Into Board Evaluations

Priorities for Action	Commission Guidance	Toolkit Materials
Enhancing board processes	Improve the visibility of disruptive risks in boardroom discussions, and ensure directors stay informed between board meetings.	• Taxonomy of Disruptive Risks • The Role of the Board in Oversight of Geopolitical Risk • Sample Board-Level Reporting: Scenario Analysis and Disruptive Risks
	Set expectations with management that board-level risk reports will provide forward-looking information about changing business conditions, opportunities, and risks.	• Dynamic Risk Assessment: Considerations for Directors • Enhancing Board Identification and Oversight of Disruptive Risks
	Set aside time on a regular basis for the board and management to do a deep dive on disruptive risks and their implications for the organization's strategy.	• Guidelines for Scenario Analysis of Disruptive Risks • Sample Board-Level Reporting: Scenario Analysis and Disruptive Risks
Reviewing shareholder and stakeholder communications	Periodically review the content of company disclosures and other communications with shareholders and stakeholders related to the oversight of disruptive risks. Clarify the board's disruptive-risk oversight responsibilities in the language of committee charters.	• Considerations for External Disclosures Related to Board Oversight of Disruptive Risks

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