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Risk Perspectives for Boards of Directors

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INTRODUCTION

The articles included in this publication were selected for the ways in which they examine global risk issues critical for boards of directors. They provide key insights into ongoing and emerging risks in the geopolitical, societal and cyber areas, as well as more traditional economic risks. These articles also highlight opportunities available to companies best positioned to take advantage of them.

This report was prepared for Marsh's 2nd Annual Panel Counsel Symposium. As the first and only broker developed Panel Counsel initiative, the Marsh Panel Counsel is a unique approach to retaining top tier legal talent for investigations and litigation on an optional, pre-approved basis, providing Marsh clients with benefits that extend beyond the insurance relationship. The Panel Counsel initiative is designed to foster collaboration between Marsh, its clients, insurers, and law firms.

All articles first appeared on BRINK, a digital platform that informs global decision makers on critical growth and innovation topics. BRINK is made possible by Marsh & McLennan Companies and managed by Atlantic Media Strategies, the digital consultancy of The Atlantic. It collates knowledge and expertise from the world's leading experts on risk and resilience to provide practical and timely insights to top executives and policy leaders worldwide.

HOW THE BOARD CAN BE A COMPANY'S STRONGEST STRATEGIC ASSET

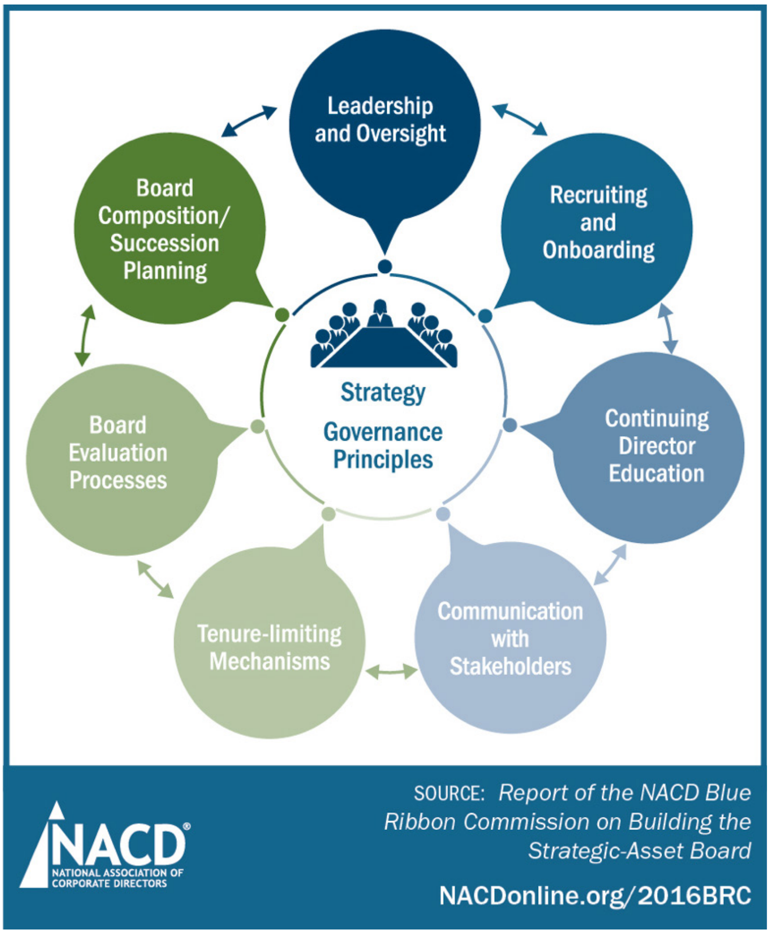
Peter Gleason
President of National Association of Corporate Directors

The world in which corporate boards operate has been transformed in fundamental ways in recent years. The operating environment has changed dramatically: Globalization, the ascendency of the internet, corporate scandals and financial crises have fundamentally altered the business risk landscape, unleashed mountains of regulatory requirements and prompted greater engagement between investors and companies.

All of these changes have resulted in greater director accountability and new areas of oversight, which is why the modern-day board must be one of the company's strongest strategic assets. This need to encourage self-driven transformation was the impetus for assembling the *2016 Report of the NACD Blue Ribbon Commission on Building the Strategic-Asset Board.*

Building boardroom leadership is no easy task, in part because director turnover remains low, particularly in the U.S. According to a 2015 NACD survey of some 1,000 public company directors, boards added 1.2 directors on average to either replace a director or expand the size of the board. That trend is drawing increasing scrutiny from the investor community. A recent report found that 41 percent of the 413 shareholder activist campaigns mounted in 2015 were intended to unseat a director. In addition, the California Public Employees' Retirement System and the Council of Institutional Investors updated their proxy voting guidelines to call investors to consider length of service as an indication of independence.

Consider these statistics in conjunction with a few troubling boardroom trends. NACD public company survey data indicates that more than 50 percent of boards do not conduct individual director evaluations. In its own study,



SOURCE: *Report of the NACD Blue Ribbon Commission on Building the Strategic-Asset Board*

NACDonline.org/2016BRC

the Committee on Capital Markets Regulation found that, between 2010 and 2014, 85 percent of the directors who failed to receive majority shareholder backing remained in their board seats.

Although board composition has become a battleground issue, emphasizing change for the sake of change not only fails to get at the heart of the issue, it's a line of thought that can ultimately undermine the efficacy of the board. Specifically, director tenure becomes a target of public criticism. While some readily conflate length of service with an inability to provide independent oversight, long-standing directors can bring invaluable industry experience and institutional knowledge to boardroom deliberations.

This year's NACD Blue Ribbon Commission instead recommends a more nuanced approach that focuses on seven critical dimensions of continuous improvement for boards.

The key takeaways regarding board composition are as follows:

First, boards need to be proactive. There is a tendency for boards to push off evaluating composition and performance until an event demands it, be it a director's departure, an activist investor engagement, or a calamity that leaves the public at large asking: Where was the board? Instead, nominating and governance committees should use the company's strategic plan as the roadmap to determine what skills and capabilities are needed in the boardroom—not just today or next year, but three to five years out.

A proactive stance is also important in communicating board composition choices. Consider how investors might respond to the slate of directors and address any potential concerns well in advance of proxy season. Some boards, in addition to providing the basic biographical information required by the Securities and Exchange Commission in company filings, provide context that speaks to why each director was elected to the board and how they add value.

Second, boards need to have a long-term outlook. As part of their fiduciary responsibilities, directors should always consider the long-term needs of the organization in addition to short-term goals. As noted above, because the nature of doing business is rapidly evolving, it's important to evaluate not only how the skills represented on the board meet current demands, but also how they will meet future challenges. To this end, having a diversity of perspectives represented on the board can be critical to enriching boardroom dialogues.

In addition, continuing education programs can be a powerful tool in ensuring that all board members are staying abreast of the emerging business issues likely to impact their organizations. At the same time, sitting directors should not expect annual renominations as a matter of course. The skills that initially brought a director into the boardroom are not guaranteed to be relevant to the company's strategy in perpetuity. As such, directors need to keep the company's best interests top of mind and have the fortitude to step down if need be.

Third, maintain a pipeline of talent. Formulaic age- and tenure-limiting mechanisms can deprive the board of the richness and depth of knowledge that can only be brought to the table by seasoned professionals. Instead, determine an appropriate balance between retaining tenured directors and bringing on new talent. Candidates should be selected on the basis of how they will diversify the board's thinking and outlook. When bringing on new recruits, leverage institutional knowledge to onboard new directors and get them up to speed on the company and its governance processes so that they can actively and constructively contribute to boardroom conversations as soon as possible.

Another important element of board talent maintenance is performing regular evaluations at the full board, committee and individual levels. A third-party evaluation can be helpful in encouraging candid feedback on how well the board is functioning as a whole.

Aligning board composition with company strategy will ultimately drive long-term performance, and the recommendations of the NACD Blue Ribbon Commission report are designed to help boards look at themselves through a new lens. If boards pay attention to these factors, when it comes time to ask whether they are ready to confidently guide their organizations through the tumultuous year ahead, the answer will be a well-qualified "yes."

This article appered in BRINK on October 10, 2016

PUTTING A GLOBAL LENS ON DIVERSITY IN THE BOARDROOM

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A recent review of U.S. boardrooms found that directors of large and midsize companies are typically male, over the age of 65 and four years older than their European counterparts. Female directors account for just 15 percent of U.S. board seats, compared to 25 percent in Europe. Findings such as these add to calls to refresh and diversify boardrooms.

Efforts to diversify the boardroom often focus on gender, racial and technical factors; however, another element that is becoming increasingly important for many companies is geographic diversity.

As countries and economies become bound together, companies of all sizes have been taking advantage of these opportunities. International markets accounted for 33 percent of all S&P 500 revenues in 2014. Small and medium enterprises make up 26 percent of all U.S. multinationals. As a result, global risks and opportunities are present in the boardroom of every company, regardless of whether they operate internationally or not, and emerging risks accelerate at a greater pace.

Even so, globalization has been slow to permeate the boardroom. Geographic diversity on boards remains low and most companies, both within the U.S. and elsewhere, have boards that are primarily populated with individuals from the company's country of origin. As boards strive to improve board effectiveness in a global marketplace and in order to understand and manage both risks and opportunities effectively, geographic diversity in the boardroom will need to increase.

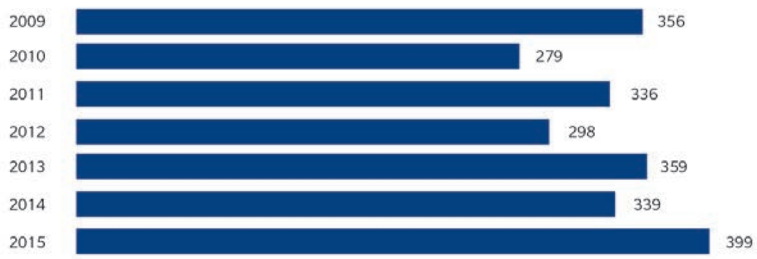
The importance of a global board was highlighted in interviews and comments with 30 directors from around the world who serve on the boards of global companies as part of the research for the report, Governing the Global Company: the Oversight of Complexity. As one director noted, "The board has to give itself a composition that enables it to function at a high level of performance outside [the company's] home country."

ADDING A GLOBAL LENS TO THE BOARDROOM

Experienced directors agreed that as the oversight role stretches beyond borders, the director's role becomes increasingly complicated, incorporating considerations of social and cultural issues, variances in governance frameworks and the necessity for director engagement on a broader range of key issues. Geographic

Fortune 500: Number of Board Seats Filled

While several reasons could account for the number if new appointments, the rise in the number of spin-offs, split-offs, or equity carve-outs seen in recent years has certainly sparked demand for new board members.



The percentage of new board appointments that went to current and retired CEOs and CFOs rebounded strongly in 2015, increasing more than 6 percentage points over the 2014 figure to reach 73.2% in 2015.

Source: Heidrick & Struggles

diversity adjusts the lens through which risks and strategy are examined and provides insights into factors that can be quite nuanced, such as the role of the government, regulators or other stakeholders in the marketplace.

Creating and sustaining an effective global board must include a focus on three key areas: board composition, board processes and director skill sets.

Board composition: Developing a board with directors from a range of countries and with deep in-market global experience makes the job of the nominating and governance committee for a global board especially challenging. One key question: How does a board prioritize and accommodate geographic, cognitive, experiential and demographic diversity without significantly increasing the number of directors?

While increasing the search for global board members, there is a limited pool of talent for qualified directors with global experience and growing global competition for these candidates. For example, on a practical matter, English tends to be the boardroom language for a large number of global boards. This language requirement may consciously or unconsciously be a limiting factor for otherwise well-qualified director candidates.

Some qualified individuals may decline to pursue global board opportunities due to the expanded demands, including time commitment and travel associated with the role.

Board processes: Board meetings of all organizations require thoughtful preparations, and these requirements are even greater for the global company. The processes to support a board with broad geographic diversity are expansive. Global board meetings, agendas and locations are often set two to three years in advance, and meetings can last up to one week when factoring in extensive site visits and meetings. Directors noted: "You cannot assess risk and opportunity by just sitting in Houston or New York."

Technology (video- and/or teleconferencing) and the potential need for translation of written materials, as well as meeting discussions, are additional considerations. Efficient board support is critical to managing a diverse, international flow of information on current trends and developments.

One important factor to consider is that diversity can increase the challenges in managing group dynamics and coming to a consensus. An effective chair is essential to capture the value of board diversity, capitalizing on different perspectives while creating an environment of collaborative decision-making.

Cultural sensitivity to processes and language is important. Even when all board members speak English, confusion can occur due to differences in business language, jargon, culture context or analogies that simply do not translate cross-culturally.

Director skill sets: Serving on the board of a global company requires two core capabilities: the commitment of time and a true sensitivity to cultural differences. As one director said, "If you join a global board, don't expect to be able to put guardrails on your time or level of involvement." Time zones, travel and a wider span of activities result in a greater time commitment to effectively participate on a global board.

Global directors must have the ability to transcend their regional views. They also must be open to dialogue and willing to listen to contrasting views and perspectives. Although these qualities are important for all directors, they are especially critical for those who serve on global company boards.

Accelerating globalization presents new challenges for corporate governance and oversight. As businesses expand their international operations, boards must be shaped to support their global mission and mirror their companies' geographic diversity and knowledge.

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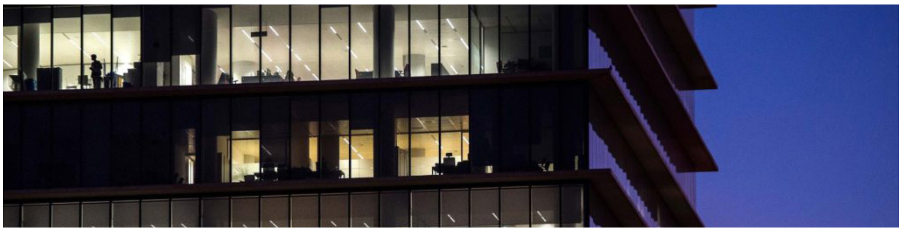
10 PAIN POINTS GLOBAL BOARDS FACE AND HOW DIRECTORS CAN STEP UP

Susan Stautberg
CEO and Global Co-Chair of WomenCorporateDirectors



Companies today face a confusing mix of trends and countertrends, making long-term strategic planning especially challenging. Boards today are taking on a greater role in the strategic direction of their companies and reaching down into issues that were once management's domain.

The pain points stemming from a more global, connected market and supply chain dominated the discussion at WomenCorporateDirectors' recent Global Institute in New York. More than 250 top global directors, board chairs, and CEOs gathered to explore today's most pressing board issues. A number of common challenges emerged.

1. It's a small world – for the criminals, too. Global connectivity means that you can find customers anywhere, but it also means that criminals anywhere can find you.

Gabrielle Greene-Sulzberger, general partner at Rustic Canyon/Fontis Partners and a director of Whole Foods Market and Brixmor Property Group, addressed the risks companies face if they don't bring their cybersecurity systems up to date: " 'State of the art' now is Chip and PIN, which Europe adopted several years ago, but, here, we're still a year or two away," she said. "This is part of the reason why American retailers are such a lightning rod for criminals right now."

2. Taking cybersecurity out of the tech silo. Former Dell CIO Adriana "Andi" Karaboutis, EVP of Technology and Business Solutions at Biogen and on the board of Advance Auto Parts, said that "we need to not think about cybersecurity as only an IT problem – it is a business problem; it's strategic."

"If your company is opening plants overseas in a new country, it's not enough to ask about the workforce there, or the financials there, or whether the tax situation is favorable," she said. "An added question needs to be around what the security and cybersecurity profiles look like."

3. Throwing out cost models. Innovations in manufacturing are challenging the most basic cost and revenue models for the production and distribution of goods. Supply chain expert Andrea Abt, former head of supply chain for Siemens and director at Brammer, said 3D printing is changing the "givens" of the supply chain.

"You can print the parts at your customer site, saving on logistics and saving on assembly," she said. "3D allows for greater inventory control: you can print on demand and not have to warehouse items, which can get costly."

4. Environmental costs of development. Responsible and ethical corporate governance demands that companies conduct a more accurate accounting of the real costs in manufacturing goods – including the impact on the local populations and environment. A board member for the International Crisis Group, Maria Livanos Cattaui, has seen other companies ravage local environments when extracting resources.

One of the largest paper companies in the world that sells extensively to U.S. firms, she said, had once been a "case study in how not to take care of a forest" in Indonesia. "Many in the macroeconomic field agreed that we are often measuring the wrong things when it comes to GDP. Indonesia would measure how much timber was cut down and exported, whereas it should consider the real measuring to include how much of a virgin forest is not being cut down. That should go into the wealth of a country."

5. Bringing in boardroom talent. Maggie Wilderotter, executive chairman of Frontier Communications and a board member of Xerox, Procter & Gamble, and Juno Therapeutics, encourages both management and

boards to provide opportunities for qualified women. She herself has served on 24 public company and seven private company boards, and is eager to get more women in top leadership and governance roles.

"What we have to do is to give competent and capable women a chance, take risks on them, and put them in positions where they can continue to move, morph, and grow in their companies," said Wilderotter, who has helped place more than 20 women a year on corporate boards.

6. Penetrating a patriarchal climate. Herta von Stiegel, the founder and executive chair of Ariya Capital, which invests in clean energy throughout sub-Saharan Africa, understands the challenges in entering many countries in the region, but there has been progress, she said.

"When I moved to Nairobi last year, I was very pleasantly surprised that certainly in East Africa, at least, there are quite a few women in government. A number of constitutions actually mandate that at least 30 percent of the cabinet posts are held by women."

But while a lot has happened on the political front, "it's still a very, very patriarchal environment. If you show up as a woman in business, you're still thought of as 'Plan B' or 'Plan C.' But women are progressing; they are moving forward. There is a sense of 'we need to be at the table.'"

7. Meeting customers where they are. Having worked in both India and the U.S., Kalpana Raina – a director at John Wiley and Sons, Information Services Group, and Yellow Media Group – understands the need to address very different customer bases dependent on the local nature of the markets.

"Where real innovation is happening is the process and resource engineering in places such as India," she said. "We've seen this 'innovation at the edges' with a product called 'ChotuKool Fridge,' made by a local Indian manufacturing company. A small, lightweight, and mobile cooling unit, ChotuKool doesn't use compressors, and appeals to consumers at a vastly lower price point than a typical refrigerator. This is the kind of innovation being done to solve local problems."

8. Rethinking risk and control. The very concept of risk, which might be strongly compelling to start-ups, can be frightening to larger companies. But today's shifting markets and technologies demand that big companies redefine their relationship with risk.

CEO and president of GE France, Clara Gaymard, shared: "GE is a 120-year-old company, with over 300,000 employees all over the globe and is present in 170 countries. Being a big company was to control the risk in technology or the risk in selling – in everything. But now, the biggest risk you can take is not taking risks," she said. "We have to give up some of the control, and empower people at a local level."

9. Defending against disruptive competitors. Digital platforms are able to bypass existing business channels while changing traditional ideas about sectors and competitive sets. This offers new opportunities for emerging firms—especially those grounded in new technology—but presents new threats for more traditional companies.

Alison Winter, a director of Nordstrom, has helped her company adapt to the dramatic changes in the retail environment over the past decade. "As a board, we look at our competition as Amazon, not the other retailers. When that's your competition, you are constantly looking at what's new – what can we do differently?" By purchasing hot sales sites such as HauteLook and interweaving them into a Nordstrom web platform, the company has been able to drive huge digital sales.

10. Up-ending assumptions about demand. As demand explodes in certain regions, companies must be careful about assuming that success in one market will make it easy for them in others. Lynn Schenk – chair of the board's risk committee at Biogen, a director at Sempra Energy, and a trustee of Scripps Research Institute – said that boards must ask the tough questions and do their homework.

"As a board member, one must really get to know the culture of the place," she said. "Knowing the patients, for example – how do they relate to doctors? In the U.S., there is a growing partnership between patients and physicians, but this is not true in many other countries."

These kinds of socioeconomic and cultural factors can affect people's recognition that they even need a product – which has an impact on how companies can enter a market and what kind of infrastructure and understanding must be in place before they get there.

With innovation becoming increasingly important in corporate culture and the economy more broadly, boards will need to dive into areas that management has traditionally owned. Without this action, we risk missing the boat on the major shifts in our economy.

This article appered in BRINK on August 12, 2015

TAKING THE LONG VIEW OF "SHORT-TERMISM"

Robyn Bew
Director of Strategic Content Development for the National Association of Corporate Directors

"Short-termism" is endemic in the corporate world.

For years, leaders from the public and private sectors have expressed concerns about the dangers of short-term thinking and behavior on the part of companies. Comments on this issue in recent months have come from a variety of directions, from major institutional investors such as BlackRock and Vanguard to regulators to presidential candidates.

And data from a variety of surveys of senior executives and board members reinforces these public statements. In one survey of U.S. CFOs and finance executives, 80 percent of respondents said they would cut spending in areas such as maintenance, R&D and advertising, and more half reported they would delay the start of a value-creating new project in order to meet earnings targets.

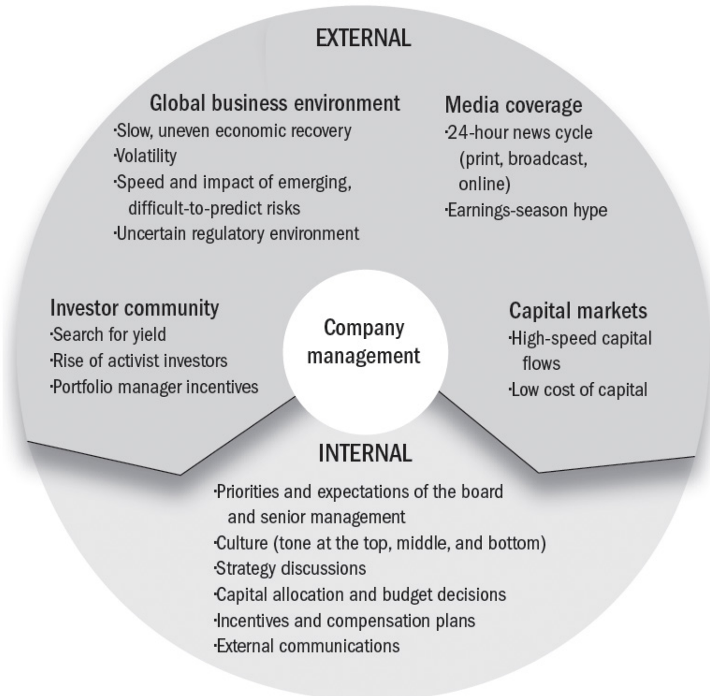
Another study of corporate leaders found a significant gap between the time frames respondents believed should be used to set strategy and what actually happens: Although about three-quarters of respondents said their preferred time horizon for strategy-setting would be greater than three years, 44 percent use a time frame under three years because of short-term pressure.

The director community is not immune: In each of the past three years, respondents to the National Association of Corporate Directors' (NACD) annual surveys of public company directors report that they define "long-term" as three years or less in CEO and senior-executive compensation plan design and related performance assessments.

RETHINK THE RELATIONSHIP BETWEEN SHORT-TERM ACTIVITIES AND LONG-TERM VALUE CREATION

The pursuit of short-term gains at the expense of long-term plans and objectives can expose organizations to a wide range of risks, from missed

Sources of Short-Term Pressure on Company Management



business opportunities to reputation-threatening scandals. It could be easy to conclude that short-term actions and decisions are all, by definition, bad ones, and that they undermine or conflict with long-term value creation. But the Report of the NACD Blue Ribbon Commission on the Board and Long-Term Value Creation (BRC) takes a different view.

The 2015 BRC report recommends that companies rethink the relationship between short-term activities and long-term value creation: Instead of considering them as being in opposition to one another, board members and management teams need to think about them in terms of alignment.

According to the Commission, directors have a fundamental responsibility to ensure that this alignment is well-established and clearly communicated to employees, shareholders and other stakeholders. The board must set the expectation that management teams will not allow a "meet or beat the quarter" mentality to undermine or dilute the company's focus on long-term objectives.

Private companies and non-profit organizations may not have actual quarterly earnings targets to meet, but the underlying situation is the same: They still face a set of demands and expectations from investors (or donors) and other stakeholders that are often short-term in nature.

At NACD's 2015 Global Board Leaders' Summit (GBLS), a panel of current and former BRC Commissioners highlighted several of the report's findings and their implications for boards of directors:

Review current boardroom practices and identify actions that encourage stronger alignment between short-term activities and long-term value creation. Several areas directly within the board's sphere of responsibility offer opportunities for directors to promote a solid shortterm/long-term connection, including the strategy development process, discussions with management about risk appetite, capital allocation and talent strategy, CEO succession planning and evaluation, compensation plan design and setting performance goals and targets. Brian Schorr, partner and chief legal officer at Trian Fund Management, remarked during the GBLS panel that "performance can't be back-loaded: If a company consistently misses those short-term marks year after year, shareholders will question the integrity of the long-term goal you're moving toward."

Cast a wide net for information when preparing for boardroom discussions. Dona Young, a 2015 BRC Commissioner and director at Aegon NV, Foot Locker and Save the Children, emphasized this recommendation from the report. "[Directors] have to do our own homework and not rely solely on management [for information]—[we need to] engage in independent inquiry without making management feel like we don't trust them."

Board-shareholder engagement is the new normal. The BRC report recommends that companies' investor communication plans include identifying which members of the board (for example, the non-executive chair, lead director, compensation committee chair, etc.) will engage directly with shareholders on appropriate governance matters—and preparing them for those conversations. BRC Co-Chair and former CEO and Chairman of CA Technologies Bill McCracken said simply: "In today's world, board members need to talk to shareholders. Regulation FD is a non-issue, a red herring, and directors shouldn't use it as an excuse."

This article appered in BRINK on October 2, 2015

WHEN GOOD IDEAS CLASH— STRATEGY FOR A MORE ENGAGED BOARD

Peter Gleason
President of National Association of Corporate Directors

Boards must evaluate their time and allocate appropriately for open-ended discussions about corporate strategy.

Political change. Worldwide health epidemics. Terrorism. Volatile energy pricing. Record stock index highs. These are just some of the risks and opportunities facing corporate boards today. But by this time next year, these factors will be old news, displaced by another set of pressing headlines. Meanwhile, many good ideas will emerge on how to manage the challenges that such headlines describe—and sometimes those ideas will clash.

As fiduciaries, corporate directors can play a key role in the development of strategy. Beyond merely contributing knowledge, these leaders want to actively participate in shaping their organizations' future. Many boards, however, still follow the traditional path, delegating development of strategy to senior management and confining themselves to the accepted review-approve-monitor function.

But today's business environment requires redrawing the boundaries of this classic process to create a much more dynamic dialogue that involves the clash and synthesis of good ideas at the earliest stage of strategy development. In response to this new reality, boards must take on a new role.

BOARD AND MANAGEMENT COLLABORATION

Establishing this new function will require a cultural shift. The NACD Blue Ribbon Commission Report on Strategy Development recommends early involvement and ongoing dialogue between the board leader and the CEO. As a first step, the board leader (chair or lead director) should have a conversation with the CEO about how to expand directors' engagement.

The leader should make it clear that the board seeks greater involvement not because of any concerns about CEO performance but as a response to the changing competitive environment. The board and CEO can then develop a process together that will allow the C-suite to draw on the board's collective knowledge while ensuring that management retains primary responsibility for strategy development.

OVERCOMING BARRIERS TO PROGRESS

When changing how they participate in strategy, directors need to be aware of potential barriers to candid discussion between the board and management as they assess the company's future. Here is a list of such barriers, followed by ways to overcome them.

Barrier: Short-term focus. In recent years, the pressure for companies to deliver short-term shareholder returns has significantly intensified. Investors may advocate for increased dividend payouts or stock repurchases, potentially draining capital that might otherwise be used for against longer-term objectives.

Solution: Long-term focus. Directors can ask if the company's capital allocation aligns with strategic priorities. During the budget-setting process, directors can ensure consideration of the long-term strategy and link the budget to strategic goals. Metrics must also be designed to overcome a short-term bias. Forward-looking board meetings must be supported by dashboards or metrics to track key performance variables that provide insight into the company's future trajectory. Reports on corporate financial performance, while necessary, are ultimately lagging indicators. The strategic plan should result in agreement by the board and management on appropriate metrics to monitor progress. Management should give the board reports on leading indicators specifically identified in the strategy process as critical to the implementation plan.

Barrier: Infrequent/over-scheduled strategy sessions. It is a common practice for boards to hold an annual session, frequently off-site, to focus on corporate strategy. These meetings can sometimes become counterproductive. For example, the agenda may be packed with presentations from senior management and reviews of current business lines that are not focused on forward-looking issues.

Solution: Frequent dialogue. Monitoring must be coupled with frequent and focused strategy discussions during the year to gauge whether assumptions are still holding or need to be revised due to new information.

Barrier: Inadequate board composition. A board without the necessary "spirit of inquiry," in which they constructively and objectively engage, question, and dig into the current strategy and alternatives.

Without this inquisitive nature, directors may accept signs of underperformance when they should question such indicators.

Solution: Enlightened composition. To support full board engagement in strategy discussions, the nominating and governance committee should consider directors' strategy-related qualifications, both when evaluating current directors and when considering new board candidates.

Barrier: Insufficient agendas. One of the most significant barriers to directors' engagement is simply a lack of time. The range of areas requiring board oversight has significantly expanded, but the length of board meetings has increased only incrementally. As a result, agendas often prioritize compliance-related topics and presentations from management. This leaves little time for directors to discuss forward-looking issues, such as long-term strategy or emerging competitive threats, or to brainstorm alternative tactics.

Solution: Planned agendas. As part of the new dialogue, boards must evaluate how they spend their time and allocate appropriately for open-ended discussions about corporate strategy. The full board can be viewed as a strategy committee of the whole and should consider reserving time on the agenda of every board meeting to discuss elements of company strategy. In addition, boards can consider holding, at a minimum, executive sessions at the beginning and end of every board meeting. During one of these sessions, the chair can speak frankly with directors about the day, expectations, issues, or questions on which directors should focus—including those specifically related to future strategy.

*Barrier: I*nformation asymmetry. Often management knows far more about company risks and opportunities than the board does. Traditionally, boards have relied on information from management to fulfill their duties relative to strategy development (with the exception of major transactions, when outside advisors play key roles). Out of necessity, the information received by boards is significantly streamlined in comparison with the volume and detail available to management on a daily basis. In the current environment, the risk of this asymmetry in the quality and timeliness of information can prove to be great. Management will naturally provide supporting data for its chosen strategy, but the board will need to acquire more information on the alternatives.

Solution: Widening perspective. Boards can be kept informed of industry and company progress so that underlying assumptions can be consistently reviewed and challenged at board meetings. Continuing education at the board level can be specifically targeted to address the company's competition, risk factors, and other strategic elements. Externally, boards may request briefings from third-party experts on issues ranging from cybersecurity to global economic trends to country-specific issues. In addition to meeting with shareholders and other stakeholders, boards may choose to invite analysts and portfolio managers to meet with them.

Barrier: Turf issues. Having served as champions of the existing plan, the CEO and senior management team may not be as responsive as necessary to warning signs that the corporate strategy needs to be reevaluated. They may defend the current plan in response to questions or criticism and be dismissive of slow-growing emerging threats or external shifts. This in turn may raise concern among company executives that the board is potentially crossing the line from oversight to management.

Solution: Teamwork. It is important for the board to assure management that it need not present a perfect strategy from the start. Establishing a board culture that encourages management to present multiple strategies and to be forthcoming with the right—not necessarily the most—information about them will put directors in a position to offer ideas and ask probing questions.

Barrier: Unpleasant consequences of change. When performance is good, it can prove difficult for directors and management to disrupt the status quo in order to make the necessary changes and divert resources toward building competencies for a future strategy. Adopting a new strategic course may entail unpleasant consequences for the company, including dismissing executives, missing earnings targets, laying off employees, closing operations, and the sale of legacy businesses. Faced with this potential fallout, the board and management may be slow to take on a new direction.

Solution: Strategic courage. Directors need to engage management in a regular strategic dialogue. Critical questions to consider include: What are the competitive advantages that we intend to rely on in the future? Are our discretionary resources (e.g., capital, managerial talent) better deployed elsewhere? What businesses are we in that we shouldn't be? Do we have other, more attractive alternatives? By asking these questions together, boards and management can make the difficult yet necessary decisions that affect employment and lines of business.

By understanding and overcoming barriers to constructive dialogue, boards can move from the clash of good ideas to consensus on successful strategies.

BOARD ENGAGEMENT IN STRATEGY DEVELOPMENT—COMPANIES OF NOTE

Board engagement with strategy typically happens behind the scenes. In some cases, however, it is written into the board's own governance guidelines. Here are just a few notable examples from the governance guidelines posted on company websites.

General Mills

Meeting Agendas and Materials. Board meeting and background materials sent to directors in advance of meetings focus on our key strategic, leadership and performance issues.

- *Each year, the Board has formal reviews and discussions of our annual and longer-term strategic business plans and management development and succession plans, including an assessment of senior executives and their potential as successor to the Chief Executive Officer. The Board has adopted procedures to elect a Chief Executive Officer successor in the event of the Chief Executive Officer's sudden departure.*
- *Focused discussions of individual businesses and key issues are held throughout the year, and extended off-site sessions are held periodically for in-depth reviews of key strategic matters. The Board also regularly reviews our performance compared to our competitive peer companies.*

Source: General Mills Inc., Corporate Governance Guidelines

Microsoft

Shareholders elect the Board to oversee management and to assure that shareholder long-term interests are served. Through oversight, review, and counsel, the Board establishes and promotes Microsoft's business and organizational objectives. The Board oversees business affairs and integrity, works with management to determine the Company's mission and long-term strategy, performs the annual Chief Executive Officer evaluation, oversees CEO succession planning, and oversees internal control over financial reporting and external audit.

Source: Microsoft Corporation, Corporate Governance Guidelines

Xerox

Role of Directors

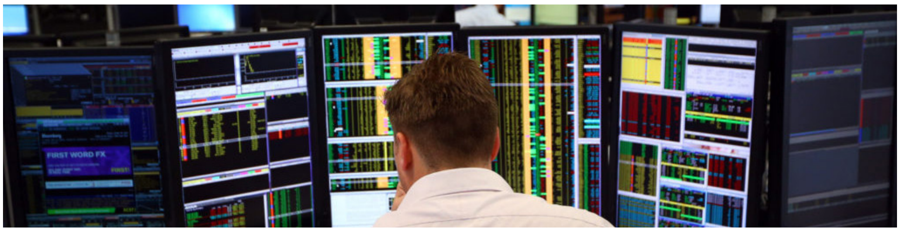
The business of the Company is managed under the direction of the Board. Normally it is management's job to formalize, propose and implement strategic choices, and the Board's role to approve strategic direction and evaluate strategic results. However, as a practical matter, the Board and management will be better able to carry out their respective responsibilities if there is an ongoing dialogue among the Chief Executive Officer, other members of top management and Board members. To facilitate such discussions, the Board conducts an annual review of the Company's long-term strategic plans and principal issues. Periodically during the year, the Board receives strategy updates from members of senior management of the Company.

Source: Xerox Corporation, Xerox Corporate Governance Guidelines

This article appered in BRINK on January 13, 2015

ACTIVIST SHAREHOLDERS ARE THE NEW BUSINESS RISK

Ira Apfel
Director of Communications and Editorial Content for the Association for Financial Professionals



Who leads publicly traded companies? Increasingly, the answer seems to be activist shareholders.

Item: Standard & Poor's 500 companies targeted by activists reduced capital expenditures in the five years after activists bought their shares to 29 percent of operating cash flow, down from 42 percent the year before, according to financial data firm S&P Capital IQ.

Item: Dissident success rates in proxy fights increased to 73 percent in 2014, after mostly hovering between 50 and 60 percent over the previous decade, according to FactSet.

Item: Investment in globally listed companies fell 6 percent in 2014, Citigroup reported, while dividends and buybacks rose 15 percent.

Simply put, activist shareholders are becoming a business risk. Beyond demanding buybacks and dividends, they are forcing board members and chief executives to alter their organization's strategic plans for short-term gain. That leaves corporate chief financial officers and treasurers scrambling.

Pick a Fortune 500 company and chances are it is feeling the heat from shareholder activists. Even mighty Apple Inc. agreed to boost its share buyback program. And with interest rates mired in historic lows, yield-seeking investors have no qualms about challenging corporations.

Imagine you are the CFO or treasurer of one of these corporations. You and your team have spent weeks — if not months — determining how to finance the CEO and board's growth strategy with your painstakingly hoarded corporate cash. At the last minute, shareholder activists swoop in, demanding changes — a mutiny over your bounty, so to speak. The CEO and board just want to sail on, so they capitulate. And you and your finance team are left holding the bill.

Interestingly, activist shareholders' hardball tactics of the past, like replacing boards, are giving way to more civilized encounters. This underscores the feeling that shareholder activism is little more than a corporate shakedown. The CEO and board will not get canned; they will just have to pay this ersatz corporate tax.

"The view of those activists, and it's shared by many institutions, is that it's unnecessary for activists to seek a change in control of the company, which involves a lot of risk in and of itself," said William Lawlor, head of Dechert's global corporate governance group.

Interestingly, activist shareholders' hardball tactics of the past, like replacing boards, are giving way to more civilized encounters.

To minimize activist shareholder risk, CFOs and treasurers increasingly find themselves on the lookout for classic activist red flags like excess corporate cash reserves, suboptimal debt levels, low margins, and undervalued operating segments.

"Activists are looking for fairly straightforward opportunities to boost a company's stock price, so the company wants to make sure it's done everything possible to do that, in order to preempt the issue," said Lawlor. "Internal finance personnel are a key part of that equation."

In addition to eliminating activist red flags, CFOs and treasurers increasingly find themselves explaining their corporation's finance structure to activist shareholders, not just during proxy season but in roadshow-type events where management meets face-to-face with investors. They are even tasked with preparing board reports about what management is hearing from shareholders, said Eduardo Gallardo, a partner at Gibson, Dunn

& Crutcher focusing on mergers and acquisitions and corporate governance.

To mitigate these risks, CEOs, treasurers and investor relations need to do a better job explaining the rationale behind capital expenditures, and treasurers need to create multiple scenarios for funding.

Specifically, treasurers need to designate capital expenditures into buckets: the absolute critical capital expenditures projects and the capital expenditures that can be trimmed if necessary.

Sometimes the efforts are successful. Gallardo said he has attended meetings where the activists were in error, and the management has successfully talked them out of the move.

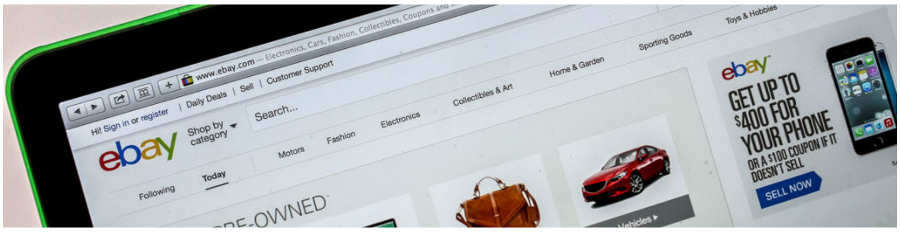
Usually, however, finance executives end up paying this unexpected and unwelcome short-term cost.

This article appered in BRINK on August 19, 2015

'CONSCIOUS UNCOUPLING'—AN INTENTIONAL APPROACH TO SPLIT-UPS HELPS COMPANIES AVOID RISK AND UNLOCK VALUE

Jeff Cox
Senior Partner and Global M&A Transaction Services Leader for Mercer

Chuck Moritt
Senior Partner and North America Multinational Client Group Leader for Mercer



When managed effectively, a split-up or spinoff can accelerate a company's transformation and unlock value.

"Conscious uncoupling" isn't only on the rise among celebrity power couples, it's taking place among big brand names in the marketplace. Though the comparison may seem incongruous, both are done to avoid an acrimonious split and minimize damage.

In both cases, the split is seen as beneficial for all involved—an acknowledgment that, "Hey, we're better off on our own." Both share the goal of separating with the least amount of damage possible. And finally, both spark plenty of debate about whether these are trends that are here to stay.

If the market is any indication, splits don't seem to be going away anytime soon. Split-ups and stand-ups account for much of the recent restructuring activity in the marketplace, with companies increasingly selling subsidiaries or carving out noncore businesses. We anticipate that splits and spinoffs will make up a significant portion of the $40 billion in new transactions worldwide announced recently.

How do we explain this surge in splits? A split-up or spinoff can often be the best way to accelerate a company's transformation and unlock value.

One recent example: Lockheed Martin. While making a bold growth move by acquiring Sikorsky Aircraft (which former parent UTC had recently divested following a strategic review), Lockheed Martin simultaneously announced that it plans to divest the bulk of its IT business, either through a spinoff or an outright sale. The decision to divest was also made in pursuit of growth: Chairman and CEO Marillyn Hewson acknowledged that staying competitive in the cost-conscious IT services market had become increasingly difficult under the current business model. "Market dynamics and trends have led us to believe these businesses may achieve greater growth… by operating outside of Lockheed Martin," Hewson said. "By separating the IT business from the rest of Lockheed they'll have their own business structure that will help the company to compete and grow."

As Hewson's remarks show, in the right circumstances, splits can make a lot of sense. As companies evaluate their strategic priorities, many are realizing they may be better off operating independently as separate entities, rather than as a conglomerate.

DECIDING TO SPLIT: KNOW THE RISKS

While the decision to divest can be driven by the need to strategically reorganize, rebalance a portfolio, or raise capital, the end goal is always the same: maximizing value to get the best possible price.

The bad news is that it can be tricky and painstaking to separate a highly intertwined and complex conglomerate structure. The good news is that there's significant value to be had by doing it well.

Achieving that goal, however, isn't always easy. Companies that pride themselves on having mastered acquisitions may find themselves in uncharted territory when it comes to divestitures. Poorly executed split-ups and spinoffs can result in some real and unfortunate outcomes—unanticipated resource needs, costly ongoing transition service agreements, long and painful separations, and loss of key employees—all of which can destroy morale and damage reputation.

GETTING THE MOST FROM A SPLIT

Since most executives make this high-stakes transaction only once in their careers, getting it right is critical.

Organizations that achieve successful splits do four key things:

1. **Conduct diligence to prepare for going to market and negotiating the deal.** This is crucial since it helps both sellers and buyers understand where the value lies. What impact will carving out have on the parent organization and on the entity being sold? What does this mean for both organizations in terms of infrastructure—will what worked previously still work? How will the sale of this asset affect the larger business and ongoing operations?

2. **Have a plan.** Now is not the time to be making it up as you go. As with any complex initiative, organizing the process into defined phases helps clarify the objectives, process, and actions needed to achieve the desired goals. Breaking things down into manageable steps helps define key milestones, promote coordinated action, and monitor progress.

3. **Focus on people.** Findings from Mercer's 2015 Human Capital Risks in M&A Survey Report, which was based on responses from more than 300 company executives and analyses of 450 live transactions, underscore that successful deals require keen attention to the people-related issues. Never is this more true than in the case of a split, which often requires even greater process and rigor to handle the complicated people challenges that invariably arise:

   - *Identifying and retaining key employees.* A separation involves reconsidering organization design and how to source, and keep, talent. Identifying those key players you can't afford to lose and creating incentives for them to stay are essential to an effective retention strategy.

   - *Rethinking Human Resource policies.* The people questions (especially in cross-border transactions) are wide-ranging and deserve careful consideration: Will the entity being spun off use the same programs as the parent organization? What type of HR infrastructure needs to be in place to ensure things are running smoothly and day-to-day concerns—like payroll, compliance, and governance—are addressed?

   - *Communicating transparently.* Spinoffs bring major change, which often means productivity loss. A clear communication plan brings the end vision to life and keeps employees engaged and focused on execution.

4. **Get the right support.** Preparing for a split is a full-time job—trying to manage the entire process internally can be counterproductive and can even undermine the deal, especially under a tight time frame and pressure from activist investors. Bringing in an experienced advisor with the right playbook can help you devise the best project management approach and marshal the resources to efficiently implement the stand-up, freeing you up to focus on transforming your business.

As the old song says: Breaking up is hard to do. However, with the right advisor and right plan in place, it doesn't have to be. With careful planning, a strong focus on people, and the right support, organizations can avoid risk during a split-up, achieve their strategic goals, and realize greater value.

This article appered in BRINK on September 10, 2015

ASSESSING EMERGING RISKS: OBSTACLES AND OPPORTUNITIES

Richard Smith-Bingham
Director in Marsh & McLennan Companies' Global Risk Center

Companies often struggle to articulate the precise relevance of complex global and emerging risks for their business. Being clear from the outset about how the assessment of major uncertainties can support management decisions will help shape the analyses and gain support of senior-level decision-makers.

WEIGHT OF INERTIA

To provide directional clarity, companies tend to underplay strategic uncertainty and the threats posed by shock events and alternative futures. Companies that take a limited or sluggish approach to global and emerging risks leave firms vulnerable to events that can shatter growth and reputations.

Incidents spiraling out of control might result in a credit rating downgrade or a fire sale of assets, should free cash flows fail to cover emergencies. And should the business environment fundamentally shift, the outcome might be underperforming investments, declining market share or obsolescence.

Many companies experience institutional resistance to this agenda, usually unspoken. In efforts to cope with new demands from boards and regulators, risk management has tended to toward process and efficiency over scope and analytical richness.

By focusing on the predictable and controllable, companies can be blind to risks that might individually not be unexpected, but might combine to produce highly unwelcome surprises. To properly anticipate key factors of value determination, risk management frameworks need to be more forward-thinking and ambitious.

85%

Proportion of risk professionals anticipating risk forecasting to be as difficult or more difficult over the next three years

Source: Association for Finance Professionals/Marsh & McLennan companies. *AFP Risk Survey: report of the Survey Results, 2016*

Note: 46% thought that risk forecasting would be "more difficult" or "significantly more difficult"

In addition, risk analysis is often delayed in strategic and financial planning and called on simply to provide a sanity-check on decisions already made and identify solutions for manageable risks. It is striking that, according to surveys undertaken by Marsh & McLennan Companies and their research partners, risk professionals acknowledge that risk forecasting is getting harder, yet also suggest that the emerging risks agenda remains a low priority.

27%

Proportion of risk professionals saying that identifying emerging risks would be a priority in the coming year

Source: Marsh/Risk Management Society, *Organizational Dynamics; A Focus for Effective Management, 2015*

Against this backdrop, four hurdles need to be overcome: informational, analytical, behavioral and organizational.

Intelligence on global and emerging risks is usually imperfect and often changing. Separating noise from key drivers and triggers of change is difficult, but pursuing the mantra that you can only manage what you can (easily) measure can result in overlooking what is most important. These informational challenges, allied with high levels of uncertainty about how key risks might develop, complicate the task of combining external information with financial planning assumptions and operational realities. Extreme outcomes with low probabilities tend to get lost in simulation processes that provide an aggregate view of earnings volatility. This is one barrier to securing senior management support.

Another barrier is the tendency of individuals to downplay patterns in unfamiliar external data and risks that appear more distant. This sometimes

Global and emerging risk sources – examples

Source: Marsh & McLennan Companies, World Economic Forum, Cambridge Centre for Risk Studies

happens because analyses threaten key interests or because the ability to control outcomes is limited.

Finally, institutional issues can cloud significance and result in inertia, for example, unclear ownership of the emerging risk agenda, weak integration with corporate processes, the habit of handing off responsibility to working groups and local offices and informational overload at senior level. Outside regulated industries, there is often reluctance to resource central functions (especially when growth is weak) and in some markets, the growing influence of activist investors in the boardroom has deprioritized long-term resilience in favor of short-term outcomes.

All these factors dilute appreciation of the threat and can restrict action to ad hoc, anecdotal reporting and the application of local fixes rather than more fully considered cross-firm solutions.

RECOGNITION OF VALUE

The primary reason for investing in the analysis of global and emerging risks is to strengthen strategic, financial and operational resilience. This is particularly important for large companies with complex footprints, business lines and supply chains, but also a concern for smaller companies, which increasingly face similar challenges. The effort to do so may also leave them better positioned to take advantage of sharp changes in the business environment, where there is a potential upside to be harnessed. The goal should be to achieve a generic or wide-ranging resilience, as preparing "for everything" is too costly and risks can be self-deceiving when actual events inevitably follow a course not fully anticipated.

This is not, however, to militate against the need for specific strategies to counter distinct threats, for example, imminent shocks such as a pandemic outbreak or longer-range issues such as declining water availability in certain regions.

As directors more fully embrace their risk responsibilities after the roller coaster ride of the past decade, tricky questions about inchoate threats are increasingly common at corporate board meetings, often requiring more than just fast thinking by chief risk officers and chief financial officers in response.

Questions may stem from a desire to understand the potential impact of fast-moving events on quarterly results, but they may equally derive from an interest in the generation of long-term value or a more general concern about corporate reputation and investor sentiment.

Beyond tracking and reporting on global and emerging risks to support good governance, more in-depth analyses can provide value in three distinct areas

1. Challenge the ambitions of the corporate strategy and long-term planning. Analyses can help test assumptions of the future, for example, the robustness of market demand, the reliability of supply countries and the stability of the competitive landscape. Generating plausible tail-event scenarios can help stress-test earnings and key financial ratios against the materialization of complex adverse situations. Key questions include:

- Viewed through a risk lens, are the expected objectives for long-term strategies achievable?
- What is the range of financial outcomes (positive or negative) that might result?
- Would the risk to assets and personnel be acceptable, should certain threats escalate and crystallize

2. Evaluate the likely effectiveness of risk mitigation measures. Companies need to be sure that risk response efforts are focused on the most critical risks to future expectations.

Although individual emerging risks may not be listed among the top risks, they can often be the underlying drivers or amplifiers of other, more clearly scoped risks.

Anticipating how key risks might evolve is critical to ensuring that mitigation actions in whatever form—strategy adjustment, capital buffers, asset divestment, financial hedging, insurance, business controls, personnel evacuation—are sufficient to keep the company within risk tolerances and on the right footing to forestall emerging crises. Key questions include:

- Do we understand the timeframes in which events might play out and the potential impacts on different parts of our business?
- What is our view on second- and third-order effects?
- How well will our current risk response strategies and investments serve us?

3. Include in the assessment of major transactions and off-strategy ventures. The attractiveness of major acquisitions or investments may look different against a backdrop of certain emerging risks; such considerations should feed into investment committee deliberations. This allows company leaders to get a better view on the alignment between risk and reward, and turn away from ventures that have a downside potential that may not be obvious or manageable (and for which the firm would not be adequately compensated). Key questions include:

- What does the stand-alone valuation of a potential transaction look like under particular risk scenarios?
- What do these risk scenarios mean for the risk profile of the combined post-acquisition entity, especially with regard to risks that are largely outside the company's control?
- To what extent can key concerns be affordably resolved?

This piece first appeared in The Emerging Risks Quandary from the Marsh & McLennan Companies Global Risk Center.

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RISING INSTABILITY AND DEEPENING CHALLENGES

John Drzik
President, Global Risk and Specialties at Marsh

Companies face a daunting task in navigating today's global risks landscape. The world is confronted by an ever-increasing set of interconnected issues—pull on one thread and several others are affected. Resilience requires a complex and nuanced approach.

2015 was characterized by increasing social and political instability. Some 60 million people, the largest number in recorded history, have been forcibly displaced—and their migration is creating significant challenges in host countries. The number of fragile states, characterized by weak governance regimes or unremitting conflict, is growing. Radicalized insurgencies such as ISIS and Boko Haram have spread their tentacles across the Middle East and North Africa and threaten security in Europe and North America.

Geopolitical tensions are also escalating among major powers. Some have been drawn into Syria's civil war, with competing agendas. The crisis in Ukraine has not been resolved; territory remains occupied and sanction regimes are still in place. China's actions in the South China Sea have raised concerns about unlawful sovereignty claims, while Japan has advanced its efforts toward remilitarization. And the integrity of the EU remains under pressure, with leaders divided over responses to the Ukraine crisis, the Greek bailout, record migration flows, terrorist incidents and the prospect of a UK exit.

Risks in other spheres are also contributing to a climate of unrest. The slowdown in China has weakened global economic growth, in particular among emerging markets. High levels of youth unemployment continue to plague southern European countries and the Middle East, while asset bubbles are a growing concern in East Asia and parts of northern Europe. The U.S. and other advanced economies have been hit by cyber attacks with increasing frequency and financial impact.

GLOBAL RISKS OF HIGHEST CONCERN

This year's Global Risks report, prepared by the World Economic Forum with the help of Marsh & McLennan Companies and other partners, presents a picture of the evolving global risk landscape on both short- and long-term horizons.

It is no surprise that the surveyed experts rated geopolitical and societal risks as the issues of highest concern in the short term, along with related economic woes. This continues the trend from last year's report, in which there was a marked shift toward these risk areas. Looking to the longer term, concern continues to coalesce around

Rank	Next eighteen months	Rank	Ten years
1	Involuntary migration	1	Water crises
2	State collapse	2	Weak climate change response
3	Interstate conflict	3	Extreme weather
4	High unemployment	4	Food crises
5	National governance failures	5	Social instability
6	Fiscal crises	6	Biodiversity loss
7	Cyber attacks	7	High unemployment
8	Social instability	8	Cyber attacks
9	Extreme weather	9	Natural catastrophes
10	Asset bubbles	10	National governance failures

Economic   Environmental   GeoPolitical   Societal   Technological

Note: Respondents were asked to provide the five risks of highest concern globally
Source: World Economic Forum, *Global Risks Report 2016*

environmental issues—water crises, food security, extreme weather and climate change—with social instability both a threat and a consequence.

GROWING SOCIAL INSTABILITY

In addition to the refugee crisis, 2015 saw numerous anti-austerity protests in cities across the world, populist movements pressing for independence or regime change, online activist campaigns endorsed by millions of supporters, labor disputes and terrorist attacks. Some catalysts of unrest are economic, such as persistent unemployment in advanced economies or the sudden decline in fortune of many emerging markets. Others have their foundation in increasingly polarized societies, the rise of Islamic radicalism or simmering geopolitical tensions.

What we're seeing now may not be a passing phase of higher volatility. Resentment at a deepening income inequality is on the rise in many countries. In the coming years, this may be exacerbated by the increasing proportion of retirees with insufficient resources for their old age and the increasing loss of jobs due to the automation of workplace activity. A failure to properly integrate refugees into host countries will create a time bomb for the future.

Popular frustration with leaders is widespread and levels of trust are uncomfortably low. In some countries, the prevailing view is that government is weak and too cozy with big business; elsewhere, the exposure of scandals and corrupt behavior has served to further undermine trust. People expect more from governments and businesses, and advances in information and communication technology are providing opportunities for expressing "tribal" sympathies that are not geographically defined and can stimulate collective action—for better or worse.

This creates a very challenging context for business. At a macro level, the rising level of friction can act as a general drag on economic activity, at a time when positive impetus is sorely needed. The threat of business disruption is also higher, undermining the ability of international businesses to operate in certain countries or substantially changing the terms of operation. Activist-driven volatility can influence political decisions by fragile governments and provide a frame of reference for workforce disputes, which intensifies disagreements between companies and local communities.

STRUCTURAL CHALLENGES

This year's Global Risks report also highlights two structural challenges that require more effective coordination between governments, as well as between governments and the business sector: health and food security.

Before 2014's Ebola crisis fades from public and political memory, it is crucial that we do not lose sight of the damage that can be caused by infectious disease. Fighting an enemy that readily crosses borders is a global problem, one that is amplified by ever-increasing urbanization and the growing mobility of populations.

Many lives are at risk, and the humanitarian cost can be enormous if pandemics are not contained. The economic costs can also be huge. The World Bank estimates that Ebola might have cost Guinea, Liberia and Sierra Leone alone more than $1.6 billion in GDP in 2015. The global economic impact of the SARS outbreak in 2003 was in the order of $30 billion to $100 billion.

Better public health strategies in developing countries are vital. Also essential are faster political decision-making around the onset of a crisis, a new regime for the development of drugs and vaccines and new collaborative models between public and private sectors to support financing as well as early detection and logistics.

Food security is a stronger presence on the radar. Increasing population, greater demand for meat, declining crop yields and growing water shortages all contribute to the escalating risk. Disruption from extreme weather events only increases the likelihood of crises in future decades. While science may engineer biological solutions, soil quality is deteriorating in many locations and farmers will not be able to shift crop planting sufficiently in response to the changing climate.

Systemic crises might result, as price spikes and shortages in one region have knock-on consequences elsewhere, as we have seen in Syria. In the words of a former Executive Director of the World Food Programme, "Without food, people have only three options. They riot, they emigrate, or they die."

Concerted efforts to develop drought-resilient crop strains, deploy big data to monitor plantations, roll out (micro) insurance solutions to protect growers and implement initiatives to reduce waste are all constructive steps in the right direction.

IMPLICATIONS FOR BUSINESS

What can businesses do to remain resilient in this challenging environment? The construction of plausible developments and worst-case scenarios provides a platform for gauging which assets are at risk and the scale of the potential damage. The best scenario-planning involves thinking creatively about second- and third-order consequences—likely government responses and cross-border impacts, for example. Companies can then stress-test their supply chains and investment decisions and evaluate changes to their strategy that would help diversify their exposure to disruptive events within and across countries.

Firms should also ask themselves whether they are doing enough to protect and manage their reputation, which is even more vital in this type of environment. Companies need to keep their finger on the pulse of both internal and external sources of instability so that emerging issues can be addressed rapidly and constructively before they cause lasting damage. Becoming more attuned to social and political conversations will also help leaders assess where they might deepen engagement—with customers, employees and policymakers—to help mitigate potential threats in advance.

Of course, a more volatile environment will also create opportunities in the form of new patterns of demand and new customer allegiances. Staying power is critical and companies that are adept in building the skills to manage through a global context of continuous stress and unrest will be better placed to grab market share from competitors that address the same challenges less successfully.

This article appered in BRINK on January 14, 2016

3 RISKS POISED TO DISRUPT A FAST-CHANGING WORLD BY 2021

Ian Bremmer
President and Founder of Eurasia Group

If the reform process sputters, China's reach will be considerably diminished.

[Perspectives on Innovation: Part of our regular monthly series featuring content from Perspectives on GE Reports.]

We spend a significant amount of time looking at the year ahead at Eurasia Group. But given how quickly the world is changing—especially when the absence of global leadership means considerably more geopolitical conflict—I thought it would be useful to look further out on the horizon.

Here are the top three risks I see coming down the pike for the coming five years:

1. China

With all the attention to the conflicts in the Middle East, the political crises in Europe and the unfolding circus of the U.S. presidential elections, it's easy to forget that by far the biggest structural change in the global system is the rise of China. That's true if reform succeeds or fails.

While China's economic and political stability hasn't been in question in Eurasia Group's annual top risks reports over the past several years (owing to a relatively high degree of stability so far), tough decisions will have to be taken in two areas:

- Economically: opening the financial system and dealing with bad loans, or reverting to top-down control
- Politically: allowing a decentralization of the political system, or determining that's too much of a threat to the survival of the existing regime

Given how much greater China's power and influence will be by 2021, its response to these two reform challenges will have critical importance for the future of the world order. If successful, China will be on track to create a large number of companies that are dominant across Asia and competitive around the world. A growing number of countries will be aligned with Chinese standards and architecture, as well as the yuan.

Economies like Pakistan and the Central Asian Republics, Russia and a host of Sub-Saharan African countries will see China as their most important partner; while traditional American allies like Australia, European states and even Japan will hedge towards a more balanced Chinese relationship. U.S.-led institutions will erode, in many cases becoming weaker than competitors in China-led zones. The United States will either move towards bloc-building behavior or seek compromise, yet 2021 will be premature for that to succeed—leaving the world far more fragmented than today.

If the reform process sputters—provoking either internal disagreement or a hardline response by the government—China's reach will be considerably diminished. Still, there will likely be greater tension over areas the Chinese see as "in their sphere," such Taiwan, Hong Kong and the East and South China Seas.

Cyber conflict and proxy fights will become more likely with the United States. While a more diffuse Washington-led consensus would hold in determining economic outcomes, a reversion to great power conflict geopolitically would create much higher risks across Asia and Europe.

Regardless, a rising China that doesn't share American values or priorities—whether there are signs of succeeding or failing—is the world's top risk for 2021.

2. Energy & the Middle East

"Lower for longer" is our mantra—a lower growth environment and an energy revolution driven by gains in efficiency and renewables, leading to depressed oil prices. With the money no longer there, there will be big challenges for countries seriously reliant on oil and gas—Venezuela, Russia and many parts of Sub-Saharan Africa.

The risk of instability will rise in the Middle East in particular without economic reforms, as three factors behind the relatively frozen instability for the past decades will likely dissipate:

- The United States and allies spent significant diplomatic and economic efforts to support regional security.
- Despite poor governance, regional populations were relatively quiescent.
- There was plenty of cash to maintain loyalty and, failing that, order and discipline.

With this (highly imperfect) equilibrium now gone, the likely result will be a reversion in much of the Middle East to a pre-Westphalian state. Many of the region's central states will no longer be able to enforce decisions in their territories, enabling sub-state actors to become the principal sources of governance.

The potential for serious instability in the region has major implications beyond its borders, most obviously for the "broader" Middle East—pockets of North, West and East Africa, Central and South Asia, and the Caucasus. In Europe, the costs of the terrorist and refugee threat will change policy priorities from fiscal responsibility to security, which will reduce growth and foster decentralization—a bigger long-term threat for the European Union. It's also potentially a threat for the United States and globally, to the extent that asymmetric warfare becomes more challenging—particularly in cyber, but also in biosecurity and possibly even nuclear.

3. Technology & the State

Finally, on the implications of technology for governments—the transformative power of explosive technological growth will fundamentally alter the geopolitical landscape in several ways:

Security and the potential for a true military-industrial-technological complex

New technologies pose a fundamental challenge to the traditional role of government to ensure stability and guarantee the enforcement of rules. Under one scenario, the state retains its current shape and becomes supplanted by the private sector and rogues, because the central government can no longer provide the services that ensure its authority. In another, the state becomes the key technological player in the sovereign space—as it currently is in the military space—shifting the privacy/security balance overwhelmingly toward the latter.

Nature of employment

With the 4th Industrial Revolution, information technologies will likely dramatically change labor models in a wide range of industries by 2021—particularly due to improvements in the fields of automation and artificial intelligence. The challenge will be particularly acute for emerging markets, where governments that can't quickly evolve their social contracts to meet middle class expectations will see spiraling social instability.

Rise of populism

The dramatic rise of anti-establishment political movements has been greatly impacted by information technologies that allow individuals to understand the world through an ever-narrower lens of beliefs and facts they already agree with. There's increasingly little room for centrism and political compromise in that environment, making more likely the political success of extremist parties—even in relatively consolidated democracies and authoritarian regimes.

The power of small

The growing capacity of technology to harness large movements is likely to lead to an equally powerful reaction toward local communities that feel kinship from proximity and human interaction. More effective models of governance will emerge at the local level—both in cities suitably cosmopolitan for local attachment to prove stronger and more durable than other forms of identity; and wealthier exurbs, where relative homogeneity allows for the avoidance of collective action problems otherwise bedeviling societies.

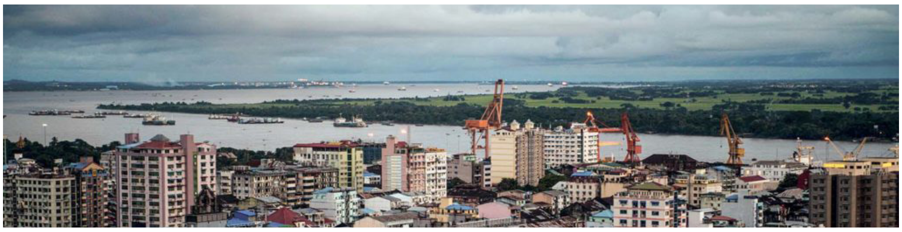
There's a general decentralization theme in all three of these top risks. Deconcentration of power will be one of the critical issues China must address to ensure success and stability. In the Middle East, the failure of the state means effective forms of governance will increasingly be found at the sub-state level. And the explosion of technology on the geopolitical stage means dystopia for some—and empowerment of smaller, more like-minded communities for others.

In a period in which we'll be principally concerned with the implication of globalization's discontents, much of what works will be local.

This article appered in BRINK on April 13, 2016

ASIAN ECONOMIC 'MIRACLE' A PARADOX OF PROFIT AND POVERTY

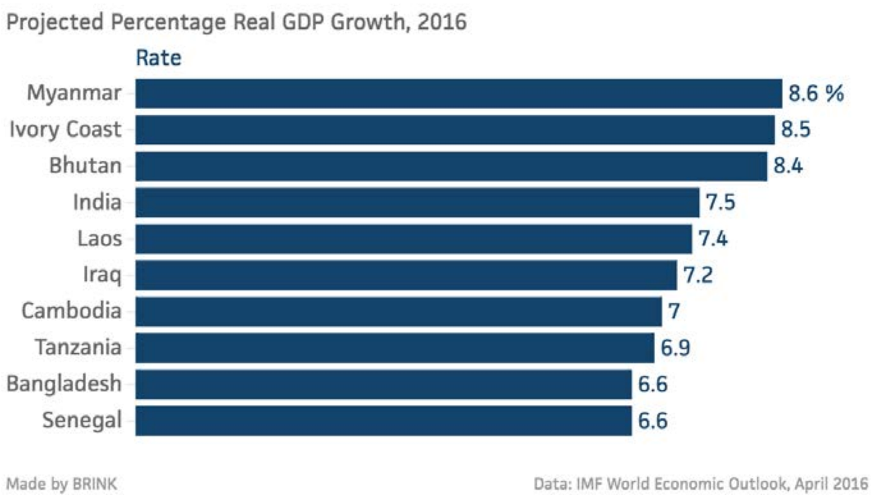
Brock N Meeks
Executive Editor at BRINK



Once merely an economy-in-waiting, always operating in the global economic shadow of the U.S. and other G-7 nations, the Asia-Pacific region has sprung like a lion from the tall grass to become the world's most dynamic region, accounting for 40 percent of the global economy today and a predicted 45 percent by 2025, according to Oxford Economics.

From the promise and pitfalls of rising Myanmar to the all-encompassing economic global footprint of China, the region has seen its share of "miracle" transformations over the last quarter century. Its aggregate economy is growing about 6 percent per year, despite the headwinds of the global financial crisis—a bright spot in any economist's playbook. Led by Myanmar's 8.6 percent GDP growth rate, the region is home to six of the top ten fastest–growing economies in the world.

The region is also home to a deep well of innovation, with companies like Samsung always nipping at the heels of tech giant Apple in the coveted smartphone marketplace. China leads the world in renewable energy installations, as well as the building of new coal plants—there seems to be no shortage of paradox throughout the region.



In today's globalized, interconnected world, what happens in Asia-Pacific reverberates across the globe. This is seen when the tragedy of natural disasters wreak havoc without prejudice on key globalized supply chains, causing billions in disrupted and interrupted businesses and sending executives scrambling to implement risk mitigation strategies, if they even have them at all.

All these factors and more are why BRINK has chosen the Asia-Pacific region as its first area for regional focus with today's launch of BRINK Asia. Like BRINK, BRINK Asia will focus on risk issues across five core areas: environment, economy, society, geopolitics and technology. But BRINK Asia will cover these core areas with a lens uniquely focused on the perils and promise that define this region.

While the problems from country to country may be similar, the solutions and paths forward are hardly cut from the same cloth. This is where BRINK Asia will stand ready to dig into policy options, unearth innovative ideas about risk mitigation and highlight success stories that can be adapted by the current public and private sectors and those thinking about expanding into the region to gain a foothold on the economic opportunities it presents.

Although the exact steps taken by governments to ensure a continued upward economic trajectory will differ, structural reforms are key to sustainable prosperity: boosting competitiveness, growth and jobs.

Christine Lagarde, managing director of the International Monetary Fund, outlined some examples of these structural reforms in a speech she gave in New Delhi, India, earlier this year:

- In China: improving the allocation of credit to help rebalance the economy away from debt-led investment.
- In Japan: tackling dual labor markets, liberalizing product markets and reforming corporate governance.
- In India: enhancing the efficiency of product markets, encouraging private investment and improving infrastructure.
- In many countries—from emerging markets to low-income nations—strengthening the business environment and developing bond markets.

PROSPERITY'S PARADOX

Although the region is booming economically, its citizenry is being left behind; income inequality has deepened since 1990 in 15 of 22 Asian countries, Lagarde noted in her speech, and Asia remains home to two-thirds of the world's poor.

The Asia Foundation puts the region's economic accomplishments in stark contrast to the harsh day-to-day realities for the rank and file citizen:

After decades of sustained economic growth that has led to a substantial reduction in poverty, Asia is experiencing new social tensions and economic vulnerabilities due to the global economic crisis, slower growth rates in emerging economies, concerns about water and food security and weak or nonexistent social safety nets.

Such disparity creates a tenuous scenario for those trapped by lower economic mobility, setting the table for social and political instability and dire predictions: "Both the inequalities within countries as well as the disparities across economies are threatening the long-term growth prospects of Asia," warned The Asia Foundation.

Lagarde, however, believes in inherent power and promise of cooperation among nations and believes there is strength in the region's "dynamism," which she said "presents a historic opportunity to invest now in the future—and to advance Asia."

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HOW TO HANDLE THE EMERGING NIGHTMARE OF A CYBER APOCALYPSE

Claus Herbolzheimer
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For years, conventional wisdom has dictated that organizations focus on preventing the most common types of cyber attacks, rather than preparing for that one all-encompassing disaster that might never occur. But in reality, it is no longer possible to make such a tradeoff. Full-blown cyber crises—some of them life-threatening—are becoming more common. Increasing digitalization and interconnectedness are exposing organizations more frequently to more sophisticated kinds of cyber threats. Planning for worst-case scenarios is no longer optional.

Consider that just last year, a half-billion personal records were stolen or lost. Ransomware attacks grew by 35 percent and spear-phishing by 55 percent. These types of attacks are no longer just harming desktop computing. They are starting to cause the malfunctioning of critical medical equipment, emergency services and fundamental communications. Few organizations' cyber defenses are keeping pace. We estimate that only a third of companies are sufficiently prepared to prevent a worst-case attack. Based on a recent survey by Marsh, a quarter of companies do not even treat cyber risks as significant corporate risks. Nearly 80 percent do not assess their customers and suppliers for cyber risk.

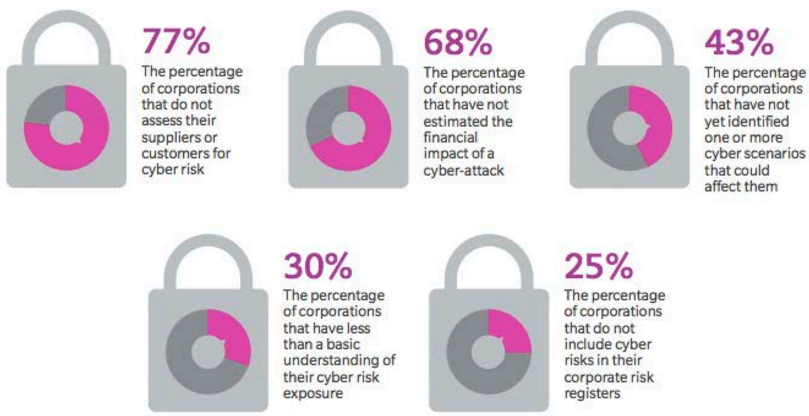
As companies roll out more digital innovations, they need to adopt more flexible and ubiquitous cyber defense measures to meet the more extreme threats they now face. Failing to do so risks unanticipated costs, operational shutdowns, reputational damage and legal consequences. For example, in response to growing ransomware and spear-phishing attacks, many leading organizations are drawing up fallback plans to operate offline in the event that their operations are crippled.

Some are going even further and making operating offline their preferred approach: In response to hacktivists crippling the government's websites through a series of cyber-attacks in 2013, Singapore is cutting off access to the Internet for nearly all government computers. Healthcare providers and hospitals in the United States and Germany are taking critical systems partially offline where connectedness is not required, and are prepared to go back to pen and paper in case an incident impairs their digital operations.

Some organizations are changing the way they use and store data. Classic forms of data and legacy information technology systems are not flexible

THE STATE OF CYBER RISK MANAGEMENT AT A GLANCE

EVEN THOUGH THE NUMBER OF TARGETED CYBER-ATTACKS IS GROWING BY DOUBLE DIGITS ANNUALLY, MANY MEDIUM AND LARGE-SIZED CORPORATIONS STILL DO NOT DEVOTE SUFFICIENT RESOURCES TO CYBER RISK MANAGEMENT



Source: European 2015 Cyber Risk Survey Report, Marsh, Global Risks 2015 or smart enough to keep up with rapidly shifting needs to protect records. To respond to cyber threats more rapidly, some companies are radically simplifying their business setups and technical systems. By doing so, companies limit the places where a hacker can enter and hide. Splitting data up and storing the pieces in different systems also reduces the amount of sensitive data vulnerable at any one time.

Other companies are replicating their core information technology systems so clients can receive basic services even if their own systems entirely collapse. For example, some banks are reproducing their key IT systems in the "cloud" to guarantee basic operations can be maintained. Others are striking deals with competitors to step in as proxies in the event of a cyber crisis. These organizations understand that the ramifications of an attack on their systems go far beyond the damage to their own business: An economic crisis could result if millions of businesses and people were suddenly denied access to their accounts, preventing them from being able to pay salaries or bills.

At the same time, leading organizations are examining whether adequate safety nets are in place to minimize the aftershocks of cyber attacks that cascade to the point that they bring down more than one company or industry. Government-backed "cyber pool funds," for example, could mitigate the financial impact of a complete cyber meltdown, similar to funds set aside to assist with the aftermath of terrorist attacks or natural disasters.

The cyber threats that many companies previously considered to be unthinkable are now daily news. To avoid becoming another headline, organizations must prepare for the worst—including the unthinkable.

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OUT OF DISRUPTION: COMPLEXITIES OF RISK AND OPPORTUNITY

Erin Essenmacher
Chief Programming Officer for the National Association of Corporate Directors

Disruption doesn't always come in a high-tech package.

What do crickets, divorce, talking cars and empathy-centered design all have in common? On the surface, it seems like nothing, but look deeper and you'll find issues creating significant disruption for business, such as resource scarcity, social demographic shifts, cyber risk, regulation and emerging competition. They are also all topics on the agenda at the 2016 NACD Global Board Leaders' Summit that kicked off Saturday in Washington, DC.

We know that geopolitical risk, economic shifts and the fast pace of technological change create challenges for business. We also know these forces do not exist in a vacuum. Many of these issues converge, creating a web of complexity for companies and the boards that oversee them. In that disruption, there is both risk and opportunity.

The board's central role in long value creation and sustainability of the enterprise map back to two basic factors: strategy and risk, namely how well the board governs both. According to this year's NACD member survey, strategy oversight continues to take a top spot in terms of board concerns. We also know that strategy and risk are oftentimes two sides of the same coin. Technology is a perfect example of this. It has enabled advances and innovations that would have been unimaginable even 10 years ago. It has also enabled a legion of new, often unforeseen competitors. Kelvin Westbrook, CEO of KRW Advisors and a director of Archer Daniel Midland Co., Stifel Financial Corp. and T-Mobile USA frames it this way: "Companies can survive cyber data breaches, but many don't survive innovative technology disruption. It's a bigger deal that we need to address."

Technology is a central theme of many of the discussions on the mainstage at this year's NACD Summit. It has enabled Wevorce founder Michelle Crosby to create a paradigm-disrupting company that looks to completely reimagine the way people get divorced—and divorce, as it turns out, is big business: a $30 billion market annually in the U.S. Not only is Wevorce creating new competition in the market; their people-centered approach to law is part of a nascent movement to reimagine how the legal system works, with potentially game-changing implications for everything from employment contracts to mergers and acquisitions. Finally, in the Wevorce story, there are lessons for every company about culture, transparency and how social demographic shifts—and the changing attitudes and norms that come with them—are creating an environment that calls for empathy-centered design.

The intersection of empathy and design is also at the heart of Phil Gilbert's work as head of design for IBM, where he has led the creation of some of the company's most high-profile and game-changing innovations in a host of areas, including artificial intelligence. (Remember Watson, the supercomputer that beat some of the best Jeopardy! players of all time?) Yes, IBM is creating innovative technology, but as Gilbert describes it, technology is only as good as the people and the culture supporting it.

When Gilbert, a serial entrepreneur, applied the design methods he developed at his successful start-ups to IBM, the results were stunning. His team pared 44 products down to four and saw significant growth in market share, all while realizing a 25 percent cost savings. The challenge then became how to scale their success. Gilbert knew that meant changing how the company thought about talent. Designers quickly learn it is critical to designing successful technology. Gilbert had a hunch that empathy was also critical to designing successful teams. As he described at a tech conference last October, the winning formula was simple: "People, places and practices. If we could change all three, we could get people working together in new ways, delivering better outcomes to marketplace." IBM's goal was to formally train 1,000 designers in five years. By all measures, the program has been a success. The company now onboards more designers than 95 percent of the design firms in the world.

INNOVATION AND THE BOARDROOM

Innovation and technology are not always words that leap to mind when talking about big government agencies such as the Department of Transportation, but according to DOT's chief innovation officer, Chris Gerdes, his team is leveraging the Internet of Things to save lives.

For example, the National Highway Traffic Safety Administration just announced that for the first time in years traffic deaths are up—nearly 8 percent in 2015. The DOT's Connected Vehicles program aims to reverse that trend. The program forges a unique partnership between state and local agencies, corporations and the public to enable motor vehicles and infrastructure to "talk" to one another so every car on the road is aware of the position of other nearby vehicles. In this work, there are lessons for every director about how the Internet of Things is shaping the landscape and what it could mean for the businesses they oversee.

Disruption doesn't always come in a high-tech package. The startup packaged food company Chapul was born from CEO Pat Crowley's love for the Colorado River and, more specifically, the way he saw the water source receding. Put into a more global context, issues of water are even more alarming: The United Nations estimates that by 2025, two-thirds of the world's population may face fresh water shortages, a critical concern for the long-term sustainability of both businesses and communities. Crowley's betting that crickets might be the answer. In 2012, Crowley founded Chapul, a company that makes cricket-based protein bars. The company's major challenge: to leap over the psychological hurdle of eating insects. With explosive growth—500 percent annually for the past two years alone—Crowley is on track to break through barriers that are challenging societal norms, reshaping the competitive landscape and may just help save the planet by cutting livestock out of the equation.

The inspiration that comes from the ideas presented above is the heart of convergence in the boardroom. When put into context, it becomes clear that seemingly disparate issues—things like people and technology, resource scarcity and long-term value creation—are inextricably linked. Understanding those connections is critical for directors to develop the strategies and enterprise risk management that will ensure long-term value creation for companies, their shareholders and other stakeholders.

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REPUTATIONAL RISK, CORPORATE CULTURE AND THE BOARD

William R. Rhodes
President and Chief Executive Officer of William R. Rhodes Global Advisors

Restoring public trust and confidence relates explicitly to issues of reputational risk.

Public trust in banks has been severely diminished in recent years coming out of the Great Recession. This poses threats to the financial system and to economic growth. In the United States today, we see this raising not only the risk of increased regulation, but also the threat of mounting political support to break up the biggest banks.

A constant series of prominent misdeeds by banks ranging from the Libor scandal to mortgage-backed securities troubles, nepotism and solvency inevitably diminish public confidence in all major corporations, not just those in the financial sector.

Restoring public trust and confidence relates explicitly to issues of reputational risk, and actions require forthright leadership by corporate boards. Banks must deal with four major areas of risk: credit risk, market risk, operational risk and reputational risk. I believe that reputational risk is by far the most important, because if a corporation loses its reputation, it can go out of business.

In recent years, the Group of 30 has undertaken a series of studies to review the global financial system in the light of the events that created the Great Recession. The most recent G30 report in this series, which I developed with several colleagues, is called Culture and Conduct: A Call for Sustained and Comprehensive Reform.

The report interviews nearly 80 leaders of banking in 17 countries, which produced four broad findings:

- First, weak corporate culture and widespread inappropriate conduct contributed to the 2008/2009 financial crisis and, in diverse forms, have manifested themselves since then.
- Second, these failings eroded public trust in banks and undermined confidence in the financial system. Trust is essential for sustainable success and solid culture; a well-embedded culture is a competitive benefit for a sustainable financial sector and for individual banks.
- Third, at best, we have seen piecemeal reforms with regard to culture and conduct in some major banks. What is both urgent and essential is that reforms are comprehensive; they need to fully engage the managements of banks, the boards and official supervisors, and a comprehensive approach demands actions that reach well beyond regulatory compliance.
- Fourth, that each enterprise develops its own culture. It determines the core values that are central to the culture. Culture cannot be imposed on a firm through new rules and regulations; each enterprise develops its own culture and there is no size that fits all. You cannot impose regulations for culture in the same ways you can for liquidity and capital. We believe there are important roles for regulatory authorities, but we do not believe that more regulation is a desirable path.

Against the background of these findings, the challenge was to find the practical ways to define the key pillars of a comprehensive reform approach to culture and conduct. The interviews showed that while many senior managers in banks had started down the right road and made the right public comments on culture, there was a significant failure to implement.

Even when top executives in banks recognize the crucial importance of reputational risks, we found that approaches and processes are not sufficiently adequate. One of the problems relates to the pressure to produce profits and reports that please investors every quarter. The focus on short-term profits all too often pushes aside what needs to be the paramount duty and responsibility of banks: to serve their customers and their communities first.

After extensive discussions, we finalized a series of key findings that fall into four broad areas of recommendations, starting with the board:

1. Boards of Directors. When it comes to culture and conduct, the board must be a vigorous leader; it must set the right cultural policy and take full responsibility. Issues of conduct and culture need to be important considerations when critical top management compensation decisions are taken. At the same time, boards have key roles in establishing the guiding criteria for determining internal promotions and external hires. The G30 proposed that banks emphasize diversity (cognitive, gender, racial, background) throughout the organization as a key contributor to improved values and conduct and sustained behavioral change.

In assuming responsibility in the crucial area of culture, the board has an obligation to monitor performance. Scorecards for this purpose are necessary. A diverse board can strengthen the focus on all elements of culture. Those firms that understand that culture is core to their business and central to their internal and external messaging throughout the company do better than those that are addressing culture from a regulatory or reactive standpoint. Boards should receive reporting of various indicators (complaints, whistle-blowing, etc.).

2. The tone at the top set by senior management is absolutely key. The executive team must recognize that a major priority on a continuing basis is to promote the corporate values, to ensure that good conduct is valued and that processes exist to correct weaknesses. The approach must go well beyond just what is required in legal and regulatory terms. Compliance procedures are not enough. The approach must be driven by a clear sense of serving the customer, serving the community and doing the right thing.

For global institutions engaged in a wide array of diverse operations, it is exceedingly difficult to communicate the tone in the most effective manner. The board chair, and where applicable, the lead director, the CEO and the senior managers, must communicate right through middle management to the teller level. They must walk the talk every day. They must be seen doing so inside and outside their institution by the public.

3. Policies and processes must be in place that use the compensation system to incentivize good conduct and penalize bad behavior. Executives must be dismissed if necessary, even at the most senior levels. Recruitment policies and staff development approaches need to assign far higher priority to culture and conduct.

Effective whistle-blower protection policies also need to be in place. Now, we know that there are not more whistleblowers in businesses because of real fears of losing their jobs and other forms of retaliation. This needs to change, not only because it is right, but because it is far, far better for banks and their top officers to learn about actual and potential problems from the inside, versus seeing reports from whistle-blowers in the press or in documents in the hands of regulators and politicians.

With regard to processes, let me underscore that top executives who delegate responsibilities for compliance and risk management too extensively to HR and legal departments are making a mistake. The chief compliance office and the chief risk officer need to have direct lines of report to the CEO and access to the full board and the appropriate committee of the board of directors. They need to be able to report their concerns at the highest levels in the most direct manner.

4. We have called previously for a far more robust, high-level exchange of views between senior management, boards and official supervisors. We believe this is essential in the realm of culture and conduct. We believe supervisors need to acquire the skills to fully be able to address these issues, to regularly engage at the highest levels of banks in constructive discussions about conduct performance and the effectiveness of monitoring system. There needs to be effective benchmarking of key attributes that inform on conduct and culture that can serve as the basis for such discussions. The approach of the regulators here should be: "trust but verify."

Public trust in business must be strengthened. The cultural bar must be raised: This is not just about right and good ethics; it is also essential for ensuring a sound and healthy balance sheet.

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