NC STATE Poole College of Management
Enterprise Risk Management Initiative

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Executive Perspectives on Top Risks for 2017

Key Issues Being Discussed in the Boardroom and C-Suite

Research Conducted by North Carolina State University's ERM Initiative and Protiviti

Introduction

The impact of the Brexit vote in the U.K., increased volatility in commodity markets, polarization surrounding the 2016 presidential election in the United States, terrorist events, asset bubbles in China, continued discussion about fair wages and income equality that includes calls for raising the minimum wage, and ongoing instability in the Middle East and the unprecedented Syrian immigration in Europe are only some of the drivers of uncertainty affecting the global business outlook for 2017. Entities in virtually every industry and country are reminded all too frequently that they operate in what appears to many to be an increasingly risky global landscape. Rapidly escalating concerns about political and economic stability, data breaches and related cyberattacks, and continued incidents of terrorism vividly illustrate the reality that organizations of all types face risks that can suddenly propel them into global headlines, creating complex enterprisewide risk events that threaten brand, reputation, and, for some, their very survival. Boards of directors and executive management teams cannot afford to manage risks casually on a reactive basis, especially in light of the rapid pace of disruptive innovation and technological developments in a digital world.

Protiviti and North Carolina State University's ERM Initiative are pleased to provide this report focusing on the top risks currently on the minds of global boards of directors and executives. This report contains results from our fifth annual risk survey of directors and executives to obtain their views on the extent to which a broad collection of risks are likely to affect their organizations over the next year.

Our respondent group, comprised primarily of board members and C-suite executives, provided their perspectives about the potential impact in 2017 of 30 specific risks across these three dimensions:[1]

- **Macroeconomic risks** likely to affect their organization's growth opportunities
- **Strategic risks** the organization faces that may affect the validity of its strategy for pursuing growth opportunities
- **Operational risks** that might affect key operations of the organization in executing its strategy

In presenting the results of our research, we begin with a brief description of our methodology and an executive summary of the results. Following this introduction, we discuss the overall risk concerns for 2017, including how they have changed from 2016 and 2015, followed by a review of results by size of organization and type of executive position, as well as a breakdown by industry, type of ownership structure (i.e., public company, privately held, not-for-profit and government), geographic location of their headquarters (i.e., based in either North America, Europe, Asia-Pacific or other regions), and whether they have rated debt outstanding. We conclude with a discussion of the organizations' plans to improve their capabilities for managing risk.

[1] Our report about top risks for 2016 and 2015 included 27 specific risks. Three additional risks were added for the 2017 survey. See Table 1 for a list of the 30 risks addressed in this study.

Methodology

We are pleased that participation from executives was strong again this year. Globally, 735 board members and executives across a number of industries participated in this survey. We are especially pleased that we received responses from individuals all over the world, with 407 respondents (55%) based in the United States and 328 respondents (45%) based outside the United States (151 respondents [20.5%] were based in the Asia-Pacific region and 136 respondents [18.5%] were based in Europe). In 2016 our responses by region were 47% U.S.- and 53% non-U.S.-based organizations. As a result, this report again provides a perspective about risk issues on the minds of executives at a global level.

Our survey was conducted online in the fall of 2016. Each respondent was asked to rate 30 individual risk issues using a 10-point scale, where a score of 1 reflects "No Impact at All" and a score of 10 reflects "Extensive Impact" to their organization over the next year.

For each of the 30 risk issues, we computed the average score reported by all respondents. Using mean scores across respondents, we rank-ordered risks from highest to lowest impact. This approach enabled us to compare mean scores across the past three years to highlight changes in the perceived level of risk.

Consistent with our prior studies, we grouped all the risks based on their average scores into one of three classifications:

- Risks with an average score of **6.0 or higher** are classified as having a "**Significant Impact**" over the next 12 months.
- Risks with an average score of **4.5 through 5.9** are classified as having a "**Potential Impact**" over the next 12 months.
- Risks with an average score of **4.4 or lower** are classified as having a "**Less Significant Impact**" over the next 12 months.

We refer to these risk classifications throughout our report, and we also review results for various subgroups (i.e., company size, position held by respondent, industry representation, organization type, geographic location and presence of rated debt). With respect to the various industries, we grouped related industries into combined industry groupings to facilitate analysis, consistent with our prior years' reports.

The following table lists the 30 risk issues rated by our respondents, arrayed across three categories – Macroeconomic, Strategic and Operational.

Table 1: List of 30 Risk Issues Analyzed

Macroeconomic Risk Issues

- Anticipated volatility in global financial markets and currencies may create significantly challenging issues for our organization to address
- Uncertainty surrounding political leadership in national and international markets may limit our growth opportunities
- Anticipated changes in global trade policies may limit our ability to operate effectively and efficiently in international markets
- Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organization
- Economic conditions in markets we currently serve may significantly restrict growth opportunities for our organization
- Uncertainty surrounding costs of complying with healthcare reform legislation may limit growth opportunities for our organization
- Geopolitical shifts and instability in governmental regimes or expansion of global terrorism may restrict the achievement of our global growth objectives
- Anticipated increases in labor costs may affect our opportunity to meet profitability targets*
- Sustained low fixed interest rates may have a significant effect on the organization's operations*

Strategic Risk Issues

- Rapid speed of disruptive innovations and/or new technologies within the industry may outpace our organization's ability to compete and/or manage the risk appropriately, without making significant changes to our business model
- Social media, mobile applications and other internet-based applications may significantly impact our brand, customer relationships, regulatory compliance processes and/or how we do business
- Regulatory changes and regulatory scrutiny may heighten, noticeably affecting the manner in which our products or services will be produced or delivered
- Shifts in social, environmental and other customer preferences and expectations may be difficult for us to identify and address on a timely basis
- Ease of entrance of new competitors into the industry and marketplace may threaten our market share
- Our organization may not be sufficiently prepared to manage an unexpected crisis significantly impacting our reputation
- Growth through acquisitions, joint ventures and other partnership activities may be difficult to identify and implement
- Opportunities for organic growth through customer acquisition and/or enhancement may be significantly limited for our organization
- Substitute products and services may arise that affect the viability of our current business model and planned strategic initiatives
- Sustaining customer loyalty and retention may be increasingly difficult due to evolving customer preferences and/or demographic shifts in our existing customer base
- Shifting expectations may trigger shareholder activism for our organization that may significantly impact our organization's strategic plan and vision*

** Represents a new risk issue added to the 2017 survey.*

Operational Risk Issues

- Uncertainty surrounding the viability of key suppliers or scarcity of supply may make it difficult to deliver our products or services
- Risks arising from our reliance on outsourcing and strategic sourcing arrangements, technology vendor contracts, and other partnerships and/or joint ventures to achieve operational goals may prevent us from meeting organizational targets or impact our brand image
- Our organization's succession challenges and ability to attract and retain top talent may limit our ability to achieve operational targets
- Our organization may not be sufficiently prepared to manage cyberthreats that have the potential to significantly disrupt core operations and/or damage our brand
- Ensuring privacy/identity management and information security/system protection may require significant resources for us
- Our existing operations may not be able to meet performance expectations related to quality, time to market, cost and innovation as well as our competitors
- Inability to utilize data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plan
- Resistance to change may restrict our organization from making necessary adjustments to the business model and core operations
- Our organization's culture may not sufficiently encourage the timely identification and escalation of risk issues that have the potential to significantly affect our core operations and achievement of strategic objectives
- Our organization may face greater difficulty in obtaining affordable insurance coverages for certain risks that have been insurable in the past

Executive Summary

Brexit. Turmoil in the Middle East and the resulting surge in immigration. Changes in national political leadership. Depressed oil prices. Monetary policies and concerns about inflation and inflated asset prices in China. Global terrorism. Escalating healthcare costs. Rapidly developing innovations from the digital technology revolution. Expanding regulation and oversight. A strong U.S. dollar. These and a host of other significant risk drivers are all contributing to the risk dialogue in boardrooms and executive suites.

Expectations of key stakeholders regarding the need for greater transparency about the nature and magnitude of risks undertaken in executing an organization's corporate strategy continue to be high. Pressures from boards, volatile markets, intensifying competition, demanding regulatory requirements, fear of catastrophic events and other dynamic forces are leading to increasing calls for management to design and implement effective risk management capabilities to identify and assess the organization's key risk exposures, with the intent of reducing them to an acceptable level.

Key Findings

01 Survey respondents indicate that the overall global business context is noticeably more risky than in the two prior years, with respondents in the United States indicating it is about the same as in prior years, whereas respondents in other parts of the world are signaling greater concern about the overall risk environment in 2017 relative to last year. The overall risk scores for *all* of the top 10 risks are higher than prior years, suggesting that respondents sense the level of risk is increasing across a number of dimensions. A majority of respondents rated each of the top 10 risks as a "Significant Impact" risk, and for two of the top 10 risks the overall average score exceeded 6.0 (on a 10-point scale), placing them as "Significant Impact" risks on an overall basis.

02 Surprisingly, despite this heightened overall concern about elevated risks, there does not appear to be a significant increase in the likelihood that organizations will devote additional time or resources to risk identification and management over the next 12 months. While there is an overall moderate level of interest in enhancing risk oversight processes, that level is lower than the prior two years. On the surface, this result seems paradoxical, but it could indicate that organizations either are facing resource constraints in an increasingly risky business environment or are satisfied with the sufficiency of prior year investments.

03 There is consistency between last year and this year as to which risks made the top 10 list of risks out of the 30 risks included in the survey, with some differences in rank among the risks. There continue to be concerns about operational risk issues, with five of the top 10 risks representing operational concerns. Three of the top 10 risks relate to strategic risk concerns, with two related to concerns about macroeconomic issues. This year's emphasis on operational risks is consistent with our results in the previous two years.

With respect to the top five risks overall:

- **Economic conditions in domestic and international markets –** This risk represents the top overall risk and the level of concern is noticeably higher when compared to the two prior years. Seventy-two percent of our respondents rated this risk as a "Significant Impact" risk.
- **Regulatory change and heightened regulatory scrutiny –** This risk continues to represent a major source of uncertainty among the majority of organizations. Sixty-six percent of our respondents rated this risk as a "Significant Impact" risk. This risk was the overall top risk in the prior four years we conducted this survey, but it was edged out by concerns related to economic conditions looking forward to 2017.
- **Managing cyberthreats –** Threats related to cybersecurity continue to be of concern as respondents focus on how events might disrupt core operations. This risk continues to be the top operational risk overall and it is a top five risk for each of the four size categories of organizations as well as four of the six industry groupings we examine.
- **Rapid speed of disruptive innovation –** New to the list of top five risks for 2017 is the risk of the speed in which disruptive innovation or new technologies might emerge that outpace an organization's ability to keep up and remain competitive. With advancements in digital technologies and rapidly changing business models, respondents are focused on whether their organizations are agile enough to respond to sudden developments that alter customer expectations and change their core business model. That concern is elevated for 2017 (fourth overall) relative to prior years.
- **Privacy and identity protection –** Respondents ranked this risk as a top five risk for the first time in 2016 and it continues as a top five risk for 2017. The inclusion of this risk in the top five is consistent with the increasing number of reports of hacking and other forms of cyber intrusion that compromise sensitive personal information.
- **Greater magnitude and severity of risks expected in coming year –** Most C-suite executives perceive the magnitude and severity of risks being higher in 2017 relative to prior years. Interestingly, board members report the lowest threat level when compared to any of the C-suite executive groups. These findings suggest that there are differing views of the top risk exposures facing their organizations – board members appear to be the most optimistic, as they rated 18 of the 30 risks at the lowest impact level, while chief executive officers (CEOs) and chief financial officers (CFOs) rated none of the 30 risks at the lowest level. The noted differences in risk viewpoints across different types of executives seem to be a concern at the global level, given that we find similar kinds of differences in viewpoints continue to be present when examining different regions of the world separately. These findings suggest there is a strong need for discussion and dialogue to ensure the organization is focused on the right emerging risk exposures.
- **CEOs and CFOs see riskier environment –** Interestingly, CEOs and CFOs perceive a riskier environment overall relative to other members of management based on the average risk scores for each of the 30 risks they rated. They rate none of the risks at the lowest impact level (a rating of 4.49 or lower on our 10-point scale). Chief information officers (CIOs) rate the most number of risks (12 of 30 risks) at the "Significant Impact" level.

One of the first questions an organization seeks to answer in risk management is, "What are our most critical risks?" The organization's answer to this question lays the foundation for management to respond with appropriate capabilities for managing these risks. This survey provides insights across different sizes of companies and across multiple industry groups as to what the key risks are expected to be in 2017 based on the input of the participating executives and board members.

The list of top 10 global risks for 2017, along with their corresponding 2016 and 2015 scores, appears in Figure 1 on the following page. Table 2 on page 11 lists the top 10 risks with the percentage responses for the three risk classifications (Significant Impact, Potential Impact, Less Significant Impact) we employ in this report.

Figure 1: Top 10 Risks for 2017

In addition to our Key Findings, other notable findings this year with regard to those risks making the top 10 include the following:

- The risk of succession challenges and the ability to attract and retain talent continues to be an overall top 10 risk, but it is especially prevalent for smaller sized organizations (those with revenues under $100 million), likely triggered by a tightening labor market (though the decline in unemployment rates has been relatively modest), and the respondents' perception that significant operational challenges may arise if organizations are unable to sustain a workforce with the skills needed to implement their growth strategies.
- With uncertainties surrounding Brexit, political dynamics from the U.S. November 2016 elections, falling commodity prices, and the direction of central bank monetary policies around the world, respondents continue to be focused on challenges for their organizations resulting from anticipated volatility in the global financial markets and currencies. This risk has been consistently increasing each year over the past three years, signaling that it is of growing concern.
- Interestingly, respondents continue to highlight the need for attention to be given to the overall culture of the organization to ensure it is sufficient to encourage the timely identification and escalation of risk issues. This risk issue was added to our 2015 risk survey, and it has been included in the top 10 risks each year since then, with the level of concern even higher for 2017. Coupled with that, respondents also highlighted another cultural concern related to overall resistance to change within the organization. Respondents continue to indicate concern about the organization's lack of willingness to make necessary adjustments to the business model and core operations that might be needed to respond to changes in the overall business environment and industry. These issues can be lethal if they result in the organization's leaders becoming out of touch with business realities.
- Rounding out the top 10 risks are concerns about an organization's ability to sustain customer loyalty and retention due to evolving customer preferences and other demographic shifts. When paired with the concerns about the speed of disruptive innovation, this issue of changing customer demographics and their related preferences might combine to threaten an organization's core business model. As a result, it is not surprising that many organizations are focusing their marketing programs on understanding customer behavior and attitudes, with an aim toward building and sustaining profitable customer loyalty.

In addition to our analysis of the top 10 risk results for the full sample, we conducted a number of sub-analyses to pinpoint other trends and key differences among respondents. Additional insights about the overall risk environment for 2017 can be gleaned from these analyses, which we highlight in a number of charts and tables later in this report. Following are some significant findings:

- For the 27 of 30 risks included in both last year's and this year's survey, not one of the risk scores decreased from 2016 to 2017. In all cases, the overall risk score for each risk increased over the prior year, suggesting an overall increase in risk concerns across all dimensions for 2017 relative to last year. When we look at the results across different regions of the world (i.e., North America, Asia-Pacific and Europe), we find that this overall finding is primarily driven by respondents outside North America. Respondents in the Asia-Pacific region rated all 27 risks higher in 2017 relative to 2016, and respondents in Europe rated 24 of 27 risks higher in 2017 relative to 2016. However, respondents in North America only rated 9 of the 27 risks higher for 2017 compared to 2016. This suggests that the overall environment may be perceived as riskier outside North America for 2017.

- Three of the top five risks for 2017 with the greatest increase in risk ratings from 2016 relate to macroeconomic risk concerns. Concerns about overall economic conditions, anticipated change in global trade policies, and uncertainty surrounding political leadership in national and international markets rose noticeably over prior years. The state and health of global market conditions are attracting significant attention.
- Challenges related to difficulties in obtaining affordable insurance coverages for certain risks represented the operational risk with the greatest increase in risk impact score over the prior year. The strategic risk with the greatest increase in risk impact score relates to the concern about regulatory changes and heightened regulatory scrutiny. Interestingly, that risk has been the highest-ranked risk for the past several years we have conducted our surveys.
- CEOs and CFOs rated none of the 30 risks at the lowest impact level ("Less Significant Impact" – a rating of 4.49 or lower), suggesting that they have overall concerns about a number of risks. CEOs and CFOs ranked concerns about economic conditions and regulatory change as "Significant Impact" risks. In addition, CFOs ranked two additional risks as "Significant Impact": sustained low fixed interest rates having a significant effect on the organization's operations, and the impact of disruptive innovations and/or new technologies obsoleting the organization's business model.
- CEOs identified three strategic risks as top risk concerns: regulatory change and scrutiny, strategic impact of cyber-related events, and opportunities for organic growth. In contrast, CFOs and CIOs rated more macroeconomic risks as their top five risks, while chief audit executives (CAEs) rated more operational risks in their top five. Furthermore, other C-suite executives (a group that includes chief operating officers, general counsels, etc.) rated more risks in their top five relative to strategic and macroeconomic risks. This disparity in viewpoints emphasizes the critical importance of the management team engaging in risk discussions among themselves and with the board, given an apparent lack of consensus about the organization's most significant emerging risk exposures.
- All organizations, except the smallest (those with revenues less than $100 million), rated some of their top five risks as "Significant Impact" risks. The largest organizations (those with revenues of $10 billion or higher) rated three of their top five risks as "Significant Impact" risks while the next category of large firms (those with revenues between $1 billion and $9.9 billion) rated all top five risks as "Significant Impact" risks. Thus, the environment for large organizations appears to be the riskiest relative to entities in the other size categories. Unease over operational risks were common among all sizes of organizations (although the specific operational risks differ), and concerns about those risks are generally higher for 2017 relative to 2016. These findings emphasize the reality that there is no "one size fits all" list of risk exposures across all organizations.

- With respect to industry groupings, the Financial Services industry has seen a steady increase in overall risk perceptions over the last three years, likely due to anxiety over increasing regulatory scrutiny, concerns about cyber risk, and a continued low interest rate environment with no end in sight over the foreseeable future. Respondents in the Financial Services industry group rated six of 30 risks as "Significant Impact" risks, followed by the Technology, Media and Communications industry group, where five of the 30 risks are rated that highly. The Energy and Utilities industry group also saw one of the largest increases in overall risk concerns.
- While both U.S.-based and non-U.S.-based organizations perceive the overall level of risk magnitude and severity as high, non-U.S.-based organizations scored their overall risk environment higher than U.S.-based organizations. Both groups of respondents identified regulatory issues and economic conditions as top five risk concerns, with respondents in the Asia-Pacific and European regions especially concerned about risks related to economic conditions. U.S.-based firms rated more operational risks as their top five risk concerns, while non-U.S. firms rated macroeconomic and strategic risks in their top five. U.S.-based firms are more concerned about cybersecurity and ensuring privacy/identity management, and addressing succession challenges, while non-U.S.-based firms are more concerned about anticipated changes in trade policy, volatility in global financial markets and currencies, and disruptive innovations and new technologies. All five top risks for non-U.S.-based organizations are rated at the highest level – "Significant Impact" risks – whereas only one of the top five risks for U.S.-based organizations was at that level.

The remainder of this report includes our in-depth analysis of perceptions about specific risk concerns. We identify and discuss variances in the responses when viewed by organization size, type, industry and geography, as well as by respondent role. In addition, on page 66 we pose key questions as a call to action for board members and executive management to consider that can serve as a diagnostic to evaluate and improve their organization's risk assessment process.

Our plan is to continue conducting this risk survey periodically so we can stay abreast of key risk issues on the minds of executives and observe trends in risk concerns over time.

Table 2: Top 10 Risks (With Percentages of Responses by "Impact" Level)[2]

Risk Description	Significant Impact (6 – 10)	Potential Impact (5)	Less Significant Impact (1 – 4)
Economic conditions in markets we currently serve may significantly restrict growth opportunities for our organization	72%	8%	20%
Regulatory changes and regulatory scrutiny may heighten, noticeably affecting the manner in which our products or services will be produced or delivered	66%	11%	23%
Our organization may not be sufficiently prepared to manage cyberthreats that have the potential to significantly disrupt core operations and/or damage our brand	60%	14%	26%
Rapid speed of disruptive innovations and/or new technologies within the industry may outpace our organization's ability to compete and/or manage the risk appropriately, without making significant changes to our business model	63%	13%	24%
Ensuring privacy/identity management and information security/system protection may require significant resources for us	57%	14%	29%
Our organization's succession challenges and ability to attract and retain top talent may limit our ability to achieve operational targets	55%	15%	30%
Anticipated volatility in global financial markets and currencies may create significantly challenging issues for our organization to address	53%	19%	28%
Our organization's culture may not sufficiently encourage the timely identification and escalation of risk issues that have the potential to significantly affect our core operations and achievement of strategic objectives	55%	16%	29%
Resistance to change may restrict our organization from making necessary adjustments to the business model and core operations	54%	19%	27%
Sustaining customer loyalty and retention may be increasingly difficult due to evolving customer preferences and/or demographic shifts in our existing customer base	57%	14%	29%

[2] The list of risks presented in Table 2 are in the same top 10 risk order as reported in Figure 1. That list is based on each risk's overall average score (using our 10-point scale). Table 2 merely reflects the percentage of respondents selecting a particular point on the 10-point scale. For example, 63% of respondents selected either "6," "7," "8," "9" or "10" as their response (using our 10-point scale) for the risk related to the **rapid speed of disruptive innovation**, whereas only 60% of respondents chose one of those responses for the risk related to **cyberthreats**. The cyberthreat risk is still ranked higher in the top 10 list of risks because its overall average score is higher given that more respondents selected higher response options for cyberthreats (e.g., more selected "8," "9" or "10" using our 10-point scale) than what they selected for the risk related to the rapid speed of disruptive innovation.

Overall Risk Concerns for 2017

Before asking respondents to assess the importance of each of the 30 risks, we asked them to provide their overall impression of the magnitude and severity of risks their organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months. We provided them with a 10-point scale where 1 = "Extremely Low" and 10 = "Extensive." The table below shows a slight increase in the perceptions of the magnitude and severity of risks over the past three years.

	2017	2016	2015
Overall, what is your impression of the magnitude and severity of risks your organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months?	6.2	6.1	6.0

The above data shows there appears to be only slightly higher concern about the overall risk environment relative to last year. However, when we ask about their perceptions related to individual risk issues, respondents rated the risk impact higher in 2017 relative to 2016 for all 27 risks included in both years' surveys.

Figure 1 (shown earlier) summarizes the top 10 risks for 2017. Each of the top 10 risk concerns for 2017 were also included in the top 10 list of risks for 2016 as well. Thus, respondents continue to be concerned about similar issues, but their overall rating of each of these risks is higher this year relative to the prior year. However, there also are a number of differences when reviewing specific breakdowns of the results – for example, boards of directors are much more optimistic about the risks for 2017 relative to the CEOs and other members of the C-suite, and they are most concerned about macroeconomic and strategic risks. Only two of the top 10 risk issues for 2017 relate to macroeconomic concerns, while three others relate to strategic risk issues. Thus, operational risks again dominate the 2017 top 10 risk challenges.

While in prior years respondents have consistently indicated notable concerns about overall **economic conditions restricting growth** in markets their organizations serve, that risk issue moved to the top risk spot for 2017, with an average impact score of 6.6 on our 10-point scale, making it a "Significant Impact" risk. This is not surprising as there are many factors continuing to cloud the outlook for the global economy. Among them are volatility in equity markets, uncertainty in the European Union and global economy due to the Brexit vote, continued dampening of and fluctuations in oil and gas prices, continued strengthening of the U.S. dollar, uncertainty regarding the impact of potential actions by central banks in many countries in the global marketplace, and implications to U.S. economic policy resulting from the U.S. 2016 national elections. Add to these factors, sluggish growth rates in various global markets, rising global debt, the threat of deflation, massive immigration pressures on Europe, and concerns about ongoing terrorist incidents, and you have a mix of factors contributing to uncertainty in domestic and international markets and economies. Potentially, this assessment by the survey participants suggests a concern over a "new normal" for businesses learning to operate in an environment of slower organic growth. In rating this risk, executives and directors may be mindful that the pace of economic growth could shift, dramatically and quickly, in any region of the global market, increasing the importance of being in the right markets at the right time. As a result of this continuing concern, companies may be aggressive in seeking new markets and new ways of serving customers to stimulate fresh sources of growth.

Similar to prior years, anxiety over how **regulatory changes and heightened regulatory scrutiny** may affect the manner in which an organization's products and services will be produced or delivered remains high on the top 10 risks for 2017, with a risk impact score making it a "Significant Impact" risk. This risk was at the top of the list for all four prior years that we have conducted this survey, suggesting companies continue to have significant anxiety that regulatory challenges may affect their strategic direction, how they operate and their ability to compete with global competitors on a level playing field. This may be particularly relevant in 2017 given uncertainty surrounding how the newly elected U.S. president will influence the role of government and its impact on the business environment, especially regarding trade policy with other nations. The stakes are high since, without effective management of regulatory risks, organizations are reactive, at best, and noncompliant, at worst, with all of the attendant consequences. Even marginally incremental regulatory change can add tremendous cost to an organization, and the mere threat of change can create significant uncertainty that can hamper hiring and investment decisions. The pace of regulatory and legislative change can affect an organization's operating model to produce or deliver products or services, alter its costs of doing business, and affect its positioning relative to its competitors. That this risk remains close to top-of-mind suggests the cost of regulation and the influence of regulation on business models remain high in many industries.

With little surprise, concerns about the risk of **cyberthreats disrupting core operations for organizations** remained in the top five risk challenges. Cyber risks have evolved into a moving target, with digitization advances, cloud computing adoption, mobile device usage, creative applications of exponential increases in computing power, and innovative IT transformation initiatives constantly outpacing the security protections companies have in place. Given publicity about data breaches affecting politicians, global financial institutions, major retailers and other high-profile companies, along with the growing presence of state-sponsored cyberterrorism, more executives are recognizing the need for "cyber resiliency," realizing it is not a matter of if a cyber risk event might occur, but more a matter of when it will occur and the organization's preparedness to reduce the impact and proliferation of the event is paramount. With the apparent level of sophistication of perpetrators and the significant impact of a breach, more organizations are recognizing that this risk is an enterprise security issue, not just an IT security issue. Cyber is likely to never leave the stage as a top risk as companies increase their reliance on technology for executing their global strategies.

The **rapid speed of disruptive innovations and dramatic changes that new technologies** are having in the marketplace moved this risk higher on the top 10 list of risks for 2017 relative to last year. With the speed of change and the advancement of technologies, rapid response to changing market expectations can be a major competitive advantage for organizations that are nimble as an early mover and able to avoid bureaucratic processes that slow down the ability to change in the face of market opportunities and emerging risks. This risk is viewed as having a "Significant Impact" in three of the six industry groups we examined.

Coupled with concerns about cyberthreats are challenges related to **privacy/identity management and information security/system protection.** Technological innovation is a powerful source of disruptive change, and no one wants to be on the wrong side of it. Cloud computing, social media, mobile technologies and other initiatives to use technology as a source of innovation and an enabler to strengthen the customer experience present new challenges for managing privacy, information and system security risks. Recent hacking attacks that exposed tremendous amounts of identity data involving a number of large companies and the federal government highlight the realities of this growing risk concern. As stated above, the continued advances of technology disruptors in the form of digitization to harvest new sources of value through business model innovation require continued progress in maturing security and privacy capabilities across the enterprise. Achieving this maturation requires improved collaboration between IT and the core business.

An apprehension with **succession planning and acquiring and retaining talent** remains a top risk concern for 2017. For the past four surveys, this risk has appeared in the list of top 10 risks, with respondents rating its overall risk impact score somewhat higher this year than last year. With changing demographics in the workplace due to an aging population and the increasing influence of millennials, the challenges of slower economic growth, increasingly demanding customers, and growing complexity in the global marketplace, organizations must up their game to acquire, develop and retain the right talent. Multiple trends are transforming the global talent landscape as well as creating the need for altering talent management strategies. These trends include globalization, digitization, increasing mobility, worker shortfalls over the long term in many developed countries, and growing opportunities in emerging markets. As boundaryless organizations expand their global reach, they must "think global" as they build the culturally aware, diverse and collaborative teams needed to be agile and resilient so they can face the future confidently. For example, companies in some industries must now access talent pools globally to obtain the specialized knowledge and technical know-how they need. The survey results likely indicate that executives recognize the need for talented people with the requisite knowledge, skills and core values to execute challenging growth strategies in a rapidly changing world.

Given questions in Europe surrounding the United Kingdom's eventual exit from the European Union and uncertainties in other world markets, including China, it is not surprising that risks related to the impact on organizations resulting from **volatility in global financial markets and currencies** continue to be a top 10 risk for 2017. Rising public debt, falling commodity prices, sluggish economic growth, the strong U.S. dollar, and uncertainty surrounding policies of the U.S. Federal Reserve and other central banks regarding potential shifts in interest rates all add up to uncertainty in the financial marketplace and global currencies.

Respondents expressed overall concern that their **organization's culture may not encourage the timely identification and escalation of risk issues** that might significantly affect core operations. Despite the recognition that there are a number of top risk concerns along operational, strategic and macroeconomic dimensions, there appears to be an overall lack of confidence that processes are in place for individuals to raise risk issues to the leadership of the organization. The collective impact of the tone at the top, tone in the middle and tone at the bottom on risk management, compliance and responsible business behavior has a huge effect on timely escalation of risk issues. The timely identification and escalation of key risks is not easy, which is likely why this risk was ranked highly. Given the overall higher levels of risk impact scores for all risks in 2017 relative to 2016, this cultural issue may be especially concerning to senior management and boards.

In addition to cultural issues surrounding the escalation of top risk concerns, respondents also continue to indicate that **resistance to change restricting necessary adjustments to their business model and core operations** is a top 10 risk for 2017. In these uncertain times, it makes sense to enhance the organization's ability and discipline to act decisively on revisions to strategic and business plans in response to changing market realities. To that end, organizations committed to continuous improvement along with breakthrough, disruptive change are more apt to be early movers in exploiting market opportunities and responding to emerging risks.

The final risk making the top 10 list relates to concerns about challenges related to **sustaining customer loyalty and retention**. Customer preferences can shift rapidly, making it difficult to retain customers in an environment of modest growth in certain sectors. Not only is preserving customer loyalty more cost-effective than acquiring new customers, but loyal customers also are more likely to purchase higher margin products and services over time. Therefore, sustaining customer loyalty and retention is about increasing profitability through superior top-line performance, together with reduced marketing costs and costs associated with educating customers.

Two of the top 10 risks – related to overall economic conditions and regulatory change – are rated as "Significant Impact" risks (i.e., an average risk score of 6.0 or higher) for this year, and the overall risk scores for all of the 10 top risks were rated more highly by respondents in 2017 relative to 2016 and 2015. This suggests an overall increase in concerns about these risk issues for the upcoming year relative to prior years.

We also compared the average scores for 2017 for the total population of 27 risks that we examined in 2016 (recall that we added three new risks for 2017) to identify those risks with the largest changes in scores from 2016 to 2017. The five risks with the greatest increases in risk scores are shown in Table 3. Three of the five 2017 risks with the biggest year-over-year increases relate to macroeconomic risks. Concerns about the impact that geopolitical and economic changes may have on their core operations are top of mind. Coupled with those macroeconomic concerns, respondents are also concerned about the strategic impact that regulatory changes and increased regulatory scrutiny may have on their business models. Heightened regulatory concerns may be linked to increased concerns surrounding uncertainty about upcoming changes in political leadership, particularly in the United States. Among the increasing risk issues, respondents also highlighted that their organizations may face greater difficulty in obtaining affordable insurance coverages for certain risks that may have been insurable in the past.

Table 3: The Five Risks with Highest Level of Increase

Risk Description	Type of Risk	2017	2016	Increase
Economic conditions in markets we currently serve may significantly restrict growth opportunities for our organization	Macroeconomic	6.61	5.83	.78
Anticipated changes in global trade policies may limit our ability to operate effectively and efficiently in international markets	Macroeconomic	5.21	4.45	.76
Our organization may face greater difficulty in obtaining affordable insurance coverages for certain risks that have been insurable in the past	Operational	4.70	4.09	.61
Uncertainty surrounding political leadership in national and international markets may limit our growth opportunities	Macroeconomic	5.53	5.00	.53
Regulatory changes and regulatory scrutiny may heighten, noticeably affecting the manner in which our products or services will be produced or delivered	Strategic	6.51	6.06	.45

Surprisingly, there were no risks with a lower risk impact score in 2017 relative to 2016. So, there is heightened concern about all risks in 2017 relative to 2016. Table 4 shows the five risks with the lowest level of increase in 2017 over 2016. These risks were scattered across all three categories (two macroeconomic, two operational, and one strategic).

Table 4: The Five Risks with Lowest Level of Increase

Risk Description	Type of Risk	2017	2016	Increase
Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organization	Macroeconomic	4.79	4.77	.02
Uncertainty surrounding costs of complying with healthcare reform legislation may limit growth opportunities for our organization	Macroeconomic	4.51	4.47	.04
Our organization may not be sufficiently prepared to manage cyberthreats that have the potential to significantly disrupt core operations and/or damage our brand	Operational	5.91	5.80	.11
Our organization's succession challenges and ability to attract and retain top talent may limit our ability to achieve operational targets	Operational	5.76	5.63	.13
Ease of entrance of new competitors into the industry and marketplace may threaten our market share	Strategic	5.08	4.94	.14

Three-Year Comparison of Risks

We provide an analysis of the overall three-year trends for the 30 risks surveyed this year. As discussed previously, to help identify differences in risk concerns across respondent type, we group all the risks based on their average scores into one of three classifications. Consistent with our four prior studies, we use the following color-coding scheme to highlight risks visually using these three categories. Table 5 that follows summarizes the impact assessments for each of the 30 risks for the full sample, and it shows the color code for the 27 risks examined in all three years. Recall that we added three risks to the 2017 study (for a total of 30 risks considered in 2017). Thus, we show only the current year results for those three new risks added in 2017.

- Significant Impact – Rating of 6.0 or higher
- Potential Impact – Rating of 4.5 – 5.9
- Less Significant Impact – Rating of 4.4 or lower

Given that the overall average risk impact scores increased in 2017 for every risk included in last year's survey, there are no risks that actually saw a drop in impact risk category in 2017 from 2016. Instead, the impact risk category scoring rose for five of the 27 risks examined in both years, with concern about risks related to overall economic conditions making the most noticeable jump from the "Potential Impact" category to the "Significant Impact" category for 2017. Concerns about changes in global trade policies, challenges associated with the inability to obtain affordable insurance coverages, uncertainty surrounding complying with healthcare costs, and instability in governmental regimes or expansion of global terrorism each moved from the "Less Significant Impact" category to the "Potential Impact" category.

The two risks identified as "Significant Impact" risks are concerns about overall economic conditions and concerns about regulatory change and increased regulatory scrutiny. Respondents have consistently rated risks related to regulatory change and increased scrutiny as a "Significant Impact" risk across all three years (i.e., red in all years).

For the most part, the relative significance of all the other remaining risks has remained consistent for all years, as observed by the consistency in color reflected for most risks across the three years reported. Interestingly, all three risks added to the survey in 2017 are rated as "Potential Impact" risks, suggesting that there is a moderate level of concern related to each of these risk issues.

Sixteen of the 27 risks where we have data for all three years remain consistently at the "Potential Impact" level (i.e., in yellow) across all three years, suggesting that a number of risk concerns repeatedly fall into a category of risks to keep an eye on, given they might potentially emerge as a more significant issue. None of the 27 risks with data for 2015, 2016 and 2017 is consistently at the "Less Significant Impact" level (i.e., all green circles). Collectively, these findings suggest there are a number of risk concerns on the horizon that may be worthy of proactively monitoring over time.

Table 5: Perceived Impact for 2017 Relative to Prior Years – Full Sample

Macroeconomic Risk Issues	2017 Rank	2017	2016	2015
Economic conditions in markets we currently serve may significantly restrict growth opportunities for our organization	1	●	●	●
Anticipated volatility in global financial markets and currencies may create significantly challenging issues for our organization to address	7	●	●	●
Uncertainty surrounding political leadership in national and international markets may limit our growth opportunities	11	●	●	●
Anticipated increases in labor costs may affect our opportunity to meet profitability targets	12	●	N/A	N/A
Sustained low fixed interest rates may have a significant effect on the organization's operations	16	●	N/A	N/A
Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organization	27	●	●	●
Anticipated changes in global trade policies may limit our ability to operate effectively and efficiently in international markets	22	●	●	●
Geopolitical shifts and instability in governmental regimes or expansion of global terrorism may restrict the achievement of our global growth objectives	29	●	●	●
Uncertainty surrounding costs of complying with healthcare reform legislation may limit growth opportunities for our organization	30	●	●	●

Strategic Risk Issues	2017 Rank	2017	2016	2015
Regulatory changes and regulatory scrutiny may heighten, noticeably affecting the manner in which our products or services will be produced or delivered	2	●	●	●
Rapid speed of disruptive innovations and/or new technologies within the industry may outpace our organization's ability to compete and/or manage the risk appropriately, without making significant changes to our business model	4	●	●	●
Sustaining customer loyalty and retention may be increasingly difficult due to evolving customer preferences and/or demographic shifts in our existing customer base	10	●	●	●
Social media, mobile applications and other internet-based applications may significantly impact our brand, customer relationships, regulatory compliance processes and/or how we do business	14	●	●	●
Our organization may not be sufficiently prepared to manage an unexpected crisis significantly impacting our reputation	17	●	●	●
Opportunities for organic growth through customer acquisition and/or enhancement may be significantly limited for our organization	18	●	●	●
Shifts in social, environmental and other customer preferences and expectations may be difficult for us to identify and address on a timely basis	20	●	●	●
Growth through acquisitions, joint ventures and other partnership activities may be difficult to identify and implement	23	●	●	●
Substitute products and services may arise that affect the viability of our current business model and planned strategic initiatives	21	●	●	●
Ease of entrance of new competitors into the industry and marketplace may threaten our market share	24	●	●	●
Shifting expectations may trigger shareholder activism for our organization that may significantly impact our organization's strategic plan and vision	25	●	N/A	N/A

Operational Risk Issues	2017 Rank	2017	2016	2015
Our organization may not be sufficiently prepared to manage cyberthreats that have the potential to significantly disrupt core operations and/or damage our brand	3	●	●	●
Ensuring privacy/identity management and information security/ system protection may require significant resources for us	5	●	●	●
Our organization's succession challenges and ability to attract and retain top talent may limit our ability to achieve operational targets	6	●	●	●
Our organization's culture may not sufficiently encourage the timely identification and escalation of risk issues that have the potential to significantly affect our core operations and achievement of strategic objectives	8	●	●	●
Resistance to change may restrict our organization from making necessary adjustments to the business model and core operations	9	●	●	●
Inability to utilize data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plan	13	●	●	●
Our existing operations may not be able to meet performance expectations related to quality, time to market, cost and innovation as well as our competitors	15	●	●	●
Risks arising from our reliance on outsourcing and strategic sourcing arrangements, technology vendor contracts, and other partnerships and/or joint ventures to achieve operational goals may prevent us from meeting organizational targets or impact our brand image	19	●	●	●
Uncertainty surrounding the viability of key suppliers or scarcity of supply may make it difficult to deliver our products or services	26	●	●	●
Our organization may face greater difficulty in obtaining affordable insurance coverages for certain risks that have been insurable in the past	28	●	●	●

Analysis Across Different Sizes of Organizations

The sizes of organizations, as measured by total revenues, vary across our 735 respondents, as shown below. The mix of sizes of organizations represented by respondents is relatively similar to the mix of respondents in our prior years' surveys, although we did receive responses from a greater percentage of larger organizations (with revenues of $1 billion or more).

Most Recent Revenues	Number of Respondents
Revenues $10 billion or greater	75
Revenues $1 billion to $9.99 billion	371
Revenues $100 million to $999 million	204
Less than $100 million	85
Total Number of Respondents	**735**

The overall outlook about risk conditions differs across sizes of organizations. We asked respondents to provide their overall impression of the magnitude and severity of risks their organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months, using a 10-point scale where 1 = "Extremely Low" and 10 = "Extensive." Large organizations (those with revenues greater than $1 billion) indicated that the magnitude and severity of risks is higher relative to the two smaller size categories of organizations. So, not surprisingly, the largest firms appear to be facing a greater amount of overall risk and those risk levels are higher than they were two years ago.

The majority of our respondents (371 of 735 respondents) are in organizations with revenues between $1 billion and $9.99 billion. They believe that the overall magnitude and severity of risks is higher in 2017 relative to 2016. In contrast, respondents in other sized firms sense a slight reduction in the magnitude and severity of risks.

Overall, what is your impression of the magnitude and severity of risks your organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months?	2017	2016	2015
Organizations with revenues $10 billion or greater	6.5	6.8	5.7
Organizations with revenues between $1 billion and $9.99 billion	6.6	6.4	6.0
Organizations with revenues between $100 million and $999 million	5.8	5.9	6.1
Organizations with revenues less than $100 million	5.4	5.8	6.0

Consistent with our findings related to the overall top 10 risks for 2017 for the full sample, the top three risks for the overall sample are included in the top five risks for each of the size categories of organizations. All sizes of organizations are concerned about overall economic concerns, potential changes in regulations and regulatory scrutiny, and cyberthreats, with those three risks included in the top five risks for each size category of organizations. Clearly, the economic environment combined with concerns about regulatory scrutiny are of paramount concern to many organizations, influencing their decisions to expand, invest and hire. And, for now, cyber concerns are here to stay.

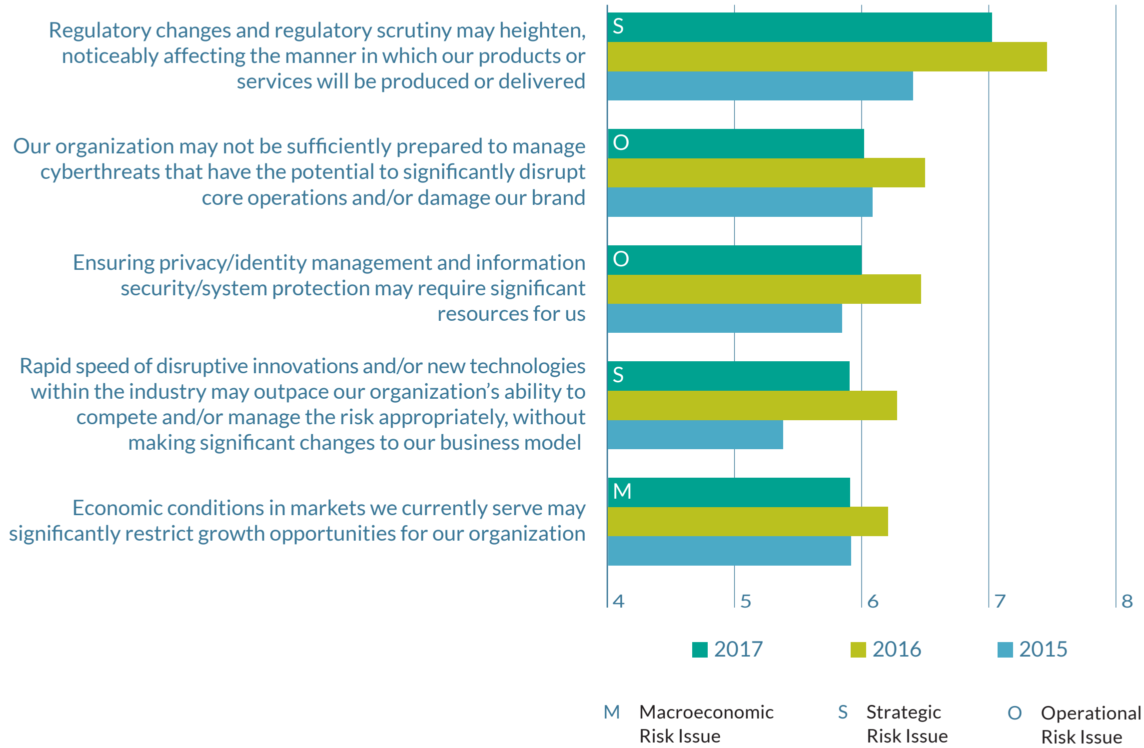
Issues related to the rapid speed of disruptive innovations and new technologies also made the top five for all sizes of organizations, except the smallest (those with revenues less than $100 million). The smallest organizations are more concerned about the organization's succession challenges and ability to attract and retain top talent and uncertainty surrounding political leadership impacting growth opportunities.

Except for the smallest organizations (those with revenues less than $100 million), all other sizes of organizations rated some of their top five risks as "Significant Impact" risks. The largest organizations (those with revenues of $10 billion or more) rated three of their top five risks as "Significant Impact" risks while the next category of large firms (those with revenues between $1 billion and $9.99 billion) rated all top five risks as "Significant Impact" risks. That is in contrast to the full sample results, where only two of the 30 risks included in the 2017 survey are classified as "Significant Impact" risks. Thus, the overall risk profile for large organizations is noticeably higher relative to the smaller organizations.

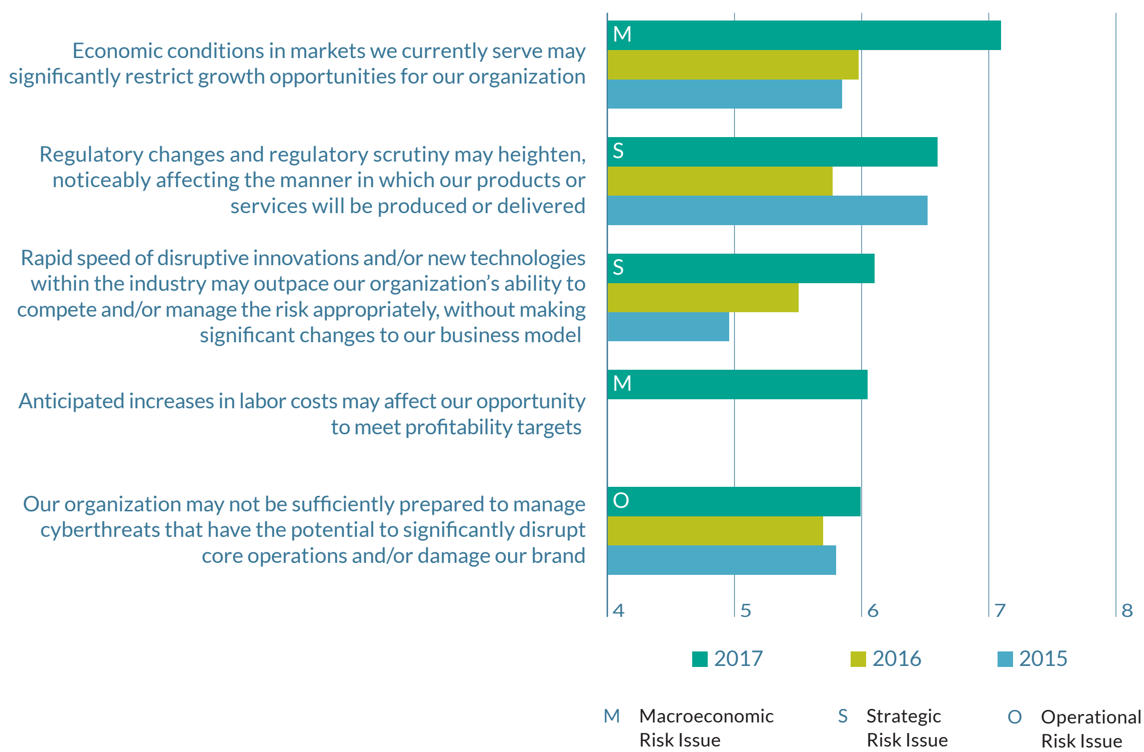
Although slightly less in 2017 relative to 2016, concerns about regulatory changes and regulatory scrutiny impacting how organizations do business exceeded a score of 7.0 on the 10-point scale for the largest organizations, while concerns about overall economic conditions exceeded a score of 7.0 for organizations with revenues between $1 billion and $9.99 billion. None of the top five risks for the two smaller size categories of firms exceeded 7.0 on the 10-point scale.

The accompanying charts summarize the top-rated risks by size of organization. Only the top five risks are reported.

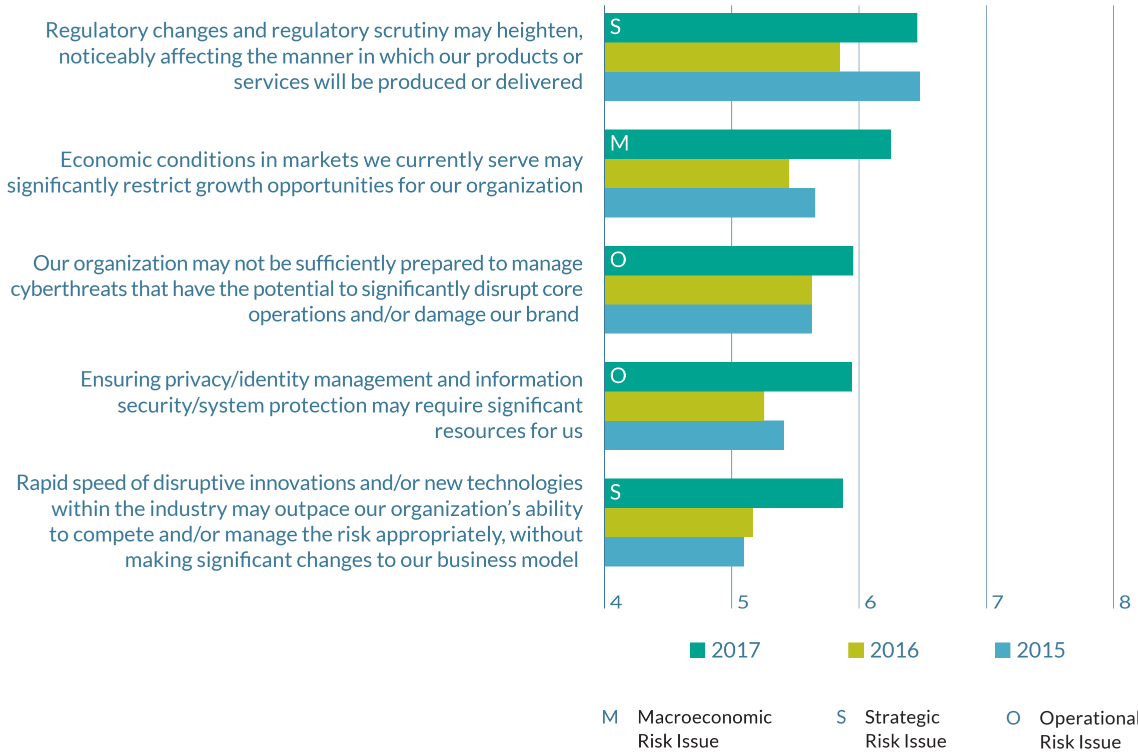
Revenues $10B or Greater



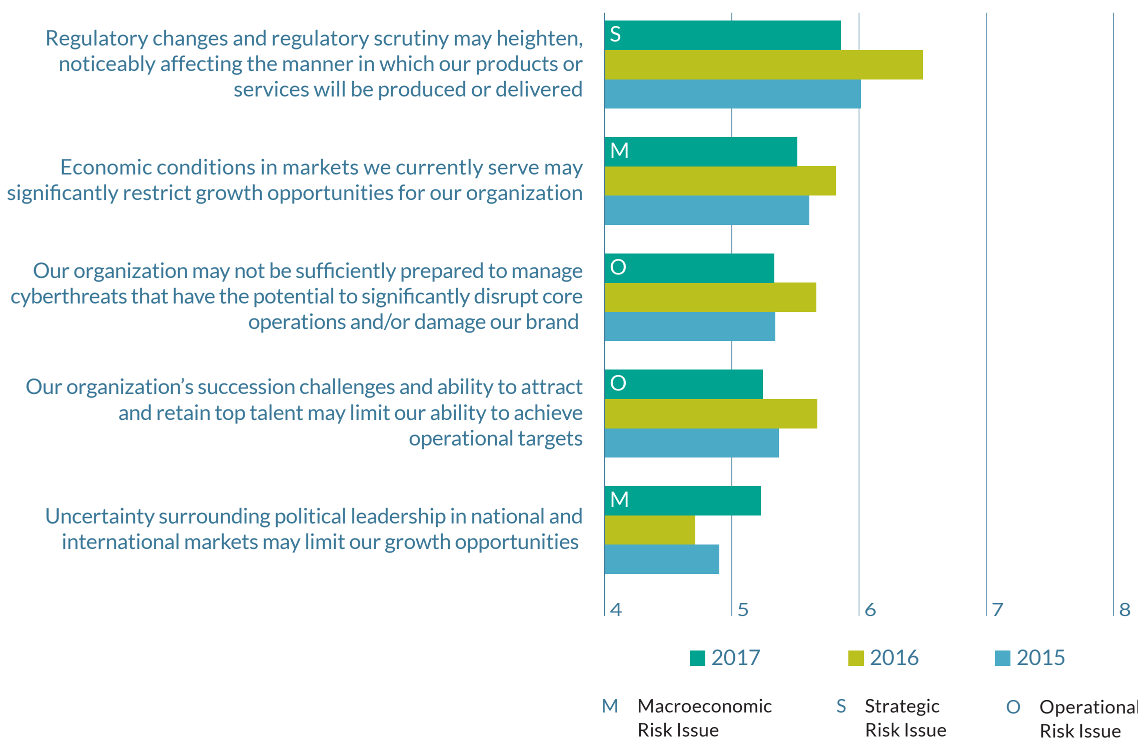
Revenues $1B to $9.99B



Revenues $100M to $999M



Revenues Less than $100M



Analysis Across Executive Positions Represented

We targeted our survey to individuals currently serving on the board of directors or in senior executive positions so that we could capture C-suite and board perspectives about risks on the horizon for 2017. Respondents to the survey serve in a number of different board and executive positions. The remaining respondents represent individuals currently serving in a variety of executive positions. While only 16 respondents indicated they were responding as members of a board of directors, it is reasonable to expect that some CEOs and perhaps other C-level executives also serve on a board.

Executive Position	Number of Respondents
Board of Directors	16
Chief Executive Officer	78
Chief Financial Officer	100
Chief Risk Officer	136
Chief Audit Executive	132
Chief Information/Technology Officer	115
Other C-Suite[3]	93
All other[4]	65
Total Number of Respondents	**735**

To determine if perspectives about top risks differ across executive positions, we also analyzed key findings for boards of directors and the six executive positions with the greatest number of respondents: chief executive officer (CEO), chief financial officer (CFO), chief risk officer (CRO), chief audit executive (CAE), chief information/technology officer (CIO), and other C-suite executives.[5]

Similar to our analysis of the full sample and across the different sizes of organizations, we analyzed responses about overall impressions of the magnitude and severity of risks across the above types of respondents. Again, the scores in the table on the following page reflect responses to the question about their overall impression of the magnitude and severity of risks their organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months, using a 10-point scale where 1 = "Extremely Low" and 10 = "Extensive."

[3] This category includes titles such as chief operating officer, general counsel and chief compliance officer.

[4] These 65 respondents either did not provide a response or are best described as middle management or business advisers/consultants. We do not provide a separate analysis for this category.

[5] We grouped individuals with equivalent but different executive titles into these positions when appropriate. For example, we included "Vice President – Risk Management" in the CRO grouping and we included "Director of Finance" in the CFO grouping.

Overall, what is your impression of the magnitude and severity of risks your organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months?	2017	2016	2015
Board of Directors	5.5	6.0	5.7
Chief Executive Officer	6.0	6.3	6.1
Chief Financial Officer	6.3	6.1	6.9
Chief Risk Officer	6.3	5.9	5.7
Chief Audit Executive	6.1	6.1	6.2
Chief Information/Technology Officer[6]	6.6	6.5	N/A
Other C-Suite	6.4	6.0	6.5

[6] In 2017 and 2016, we had sufficient participation to warrant a separate analysis of individuals serving as Chief Information/Technology Officer. In 2015, the CIO/CTO respondents were grouped with Other C-Suite executives due to a small number of observations.

The overall impression among CFOs, CROs, CIOs and Other C-Suite executives about the magnitude and severity of risks in the environment is higher for 2017 relative to 2016. For the second consecutive year, CIOs appear to be the most concerned, given they rated the magnitude and severity of risks for both 2016 and again in 2017 at the highest level among all executives, possibly because they are most directly associated with the organization's activities around managing cyber and identity/privacy risks. Interestingly, CEOs are the least concerned among the executive suite, while the board members are seemingly even less concerned about the magnitude and severity of near-term risk exposures their organizations will face in the coming year. These differences in perspectives suggest there may be value in explicitly discussing and analyzing factors that might be influencing overall impressions about the risk environment among key leaders of organizations, including the board of directors.

As discussed previously, to help identify differences in risk concerns across respondent type, we group all the risks based on their average scores into one of three classifications. Consistent with prior studies, we use the following color-coding scheme to highlight risks visually using these three categories. Below and on the following pages, Table 6 summarizes the impact assessments for each of the 30 risks for the full sample and for each category of executive using the following color code scheme:

- 🔴 Significant Impact – Rating of 6.0 or higher
- 🟡 Potential Impact – Rating of 4.5 – 5.9
- 🟢 Less Significant Impact – Rating of 4.4 or lower

Table 6: Perceived Impact for 2017 Relative to Prior Years – by Role

Macroeconomic Risk Issues	Board	CEO	CFO	CRO	CAE	CIO/ CTO	Other C-Suite
Economic conditions in markets we currently serve may significantly restrict growth opportunities for our organization	🟡	🔴	🔴	🔴	🟡	🔴	🔴
Anticipated increases in labor costs may affect our opportunity to meet profitability targets	🟢	🟡	🟡	🟡	🟡	🔴	🔴
Sustained low fixed interest rates may have a significant effect on the organization's operations	🟢	🟡	🔴	🟡	🟢	🔴	🟡
Anticipated changes in global trade policies may limit our ability to operate effectively and efficiently in international markets	🟢	🟡	🟡	🟢	🟢	🔴	🔴
Anticipated volatility in global financial markets and currencies may create significantly challenging issues for our organization to address	🟢	🟡	🟡	🟡	🟡	🔴	🟡
Uncertainty surrounding political leadership in national and international markets may limit our growth opportunities	🟡	🟡	🟡	🟡	🟡	🟡	🟡

Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organization	🟢	🟡	🟡	🟡	🟢	🟡	🟡
Uncertainty surrounding costs of complying with healthcare reform legislation may limit growth opportunities for our organization	🟢	🟡	🟡	🟢	🟢	🟡	🟡
Geopolitical shifts and instability in governmental regimes or expansion of global terrorism may restrict the achievement of our global growth objectives	🟢	🟡	🟡	🟢	🟢	🟡	🟡
Strategic Risk Issues	**Board**	**CEO**	**CFO**	**CRO**	**CAE**	**CIO/ CTO**	**Other C-Suite**
Regulatory changes and regulatory scrutiny may heighten, noticeably affecting the manner in which our products or services will be produced or delivered	🔴	🔴	🔴	🔴	🔴	🔴	🔴
Rapid speed of disruptive innovations and/or new technologies within the industry may outpace our organization's ability to compete and/or manage the risk appropriately, without making significant changes to our business model	🟡	🟡	🔴	🟡	🟡	🔴	🔴
Sustaining customer loyalty and retention may be increasingly difficult due to evolving customer preferences and/or demographic shifts in our existing customer base	🟢	🟡	🟡	🟡	🟡	🔴	🟡
Shifting expectations may trigger shareholder activism for our organization that may significantly impact our organization's strategic plan and vision	🟢	🟡	🟡	🟢	🟢	🔴	🟡
Social media, mobile applications and other internet-based applications may significantly impact our brand, customer relationships, regulatory compliance processes and/or how we do business	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Shifts in social, environmental and other customer preferences and expectations may be difficult for us to identify and address on a timely basis	🟡	🟡	🟡	🟡	🟡	🟡	🟡

Opportunities for organic growth through customer acquisition and/or enhancement may be significantly limited for our organization	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Ease of entrance of new competitors into the industry and marketplace may threaten our market share	Yellow	Yellow	Yellow	Yellow	Green	Yellow	Yellow
Our organization may not be sufficiently prepared to manage an unexpected crisis significantly impacting our reputation	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Growth through acquisitions, joint ventures and other partnership activities may be difficult to identify and implement	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Substitute products and services may arise that affect the viability of our current business model and planned strategic initiatives	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

Operational Risk Issues	Board	CEO	CFO	CRO	CAE	CIO/ CTO	Other C-Suite
Our organization may not be sufficiently prepared to manage cyberthreats that have the potential to significantly disrupt core operations and/or damage our brand	Yellow	Yellow	Yellow	Red	Red	Yellow	Red
Ensuring privacy/identity management and information security/system protection may require significant resources for us	Yellow	Yellow	Yellow	Red	Red	Red	Yellow
Our organization's succession challenges and ability to attract and retain top talent may limit our ability to achieve operational targets	Yellow	Yellow	Yellow	Yellow	Red	Yellow	Yellow
Inability to utilize data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plan	Green	Yellow	Yellow	Yellow	Yellow	Red	Yellow
Our organization's culture may not sufficiently encourage the timely identification and escalation of risk issues that have the potential to significantly affect our core operations and achievement of strategic objectives	Green	Yellow	Yellow	Yellow	Yellow	Red	Yellow

Our existing operations may not be able to meet performance expectations related to quality, time to market, cost and innovation as well as our competitors	🟡	🟡	🟡	🟡	🟡	🟡	🟡
Resistance to change may restrict our organization from making necessary adjustments to the business model and core operations	🟢	🟡	🟡	🟡	🟡	🟡	🟡
Risks arising from our reliance on outsourcing and strategic sourcing arrangements, technology vendor contracts, and other partnerships and/or joint ventures to achieve operational goals may prevent us from meeting organizational targets or impact our brand image	🟢	🟡	🟡	🟡	🟡	🟡	🟡
Uncertainty surrounding the viability of key suppliers or scarcity of supply may make it difficult to deliver our products or services	🟢	🟡	🟡	🟢	🟢	🟡	🟡
Our organization may face greater difficulty in obtaining affordable insurance coverages for certain risks that have been insurable in the past	🟢	🟡	🟡	🟢	🟢	🟡	🟡

Board members appear to be the most optimistic by far about risk issues, as reflected by their ratings of 18 of the 30 risks at the lowest impact level (reflected by the green circles). For the risks of highest concern (rated greater than 6.0 and reflected by the red circles), board members (only 1 risk) and CEOs (2 risks) exhibited the least concern. At the other end of the spectrum, CIOs rated 12 of the 30 risks as "Significant Impact" risks. Interestingly, CEOs (28 risks) and CFOs (26 risks) rated almost all risks in the middle category (i.e., "Potential Impact" risks).

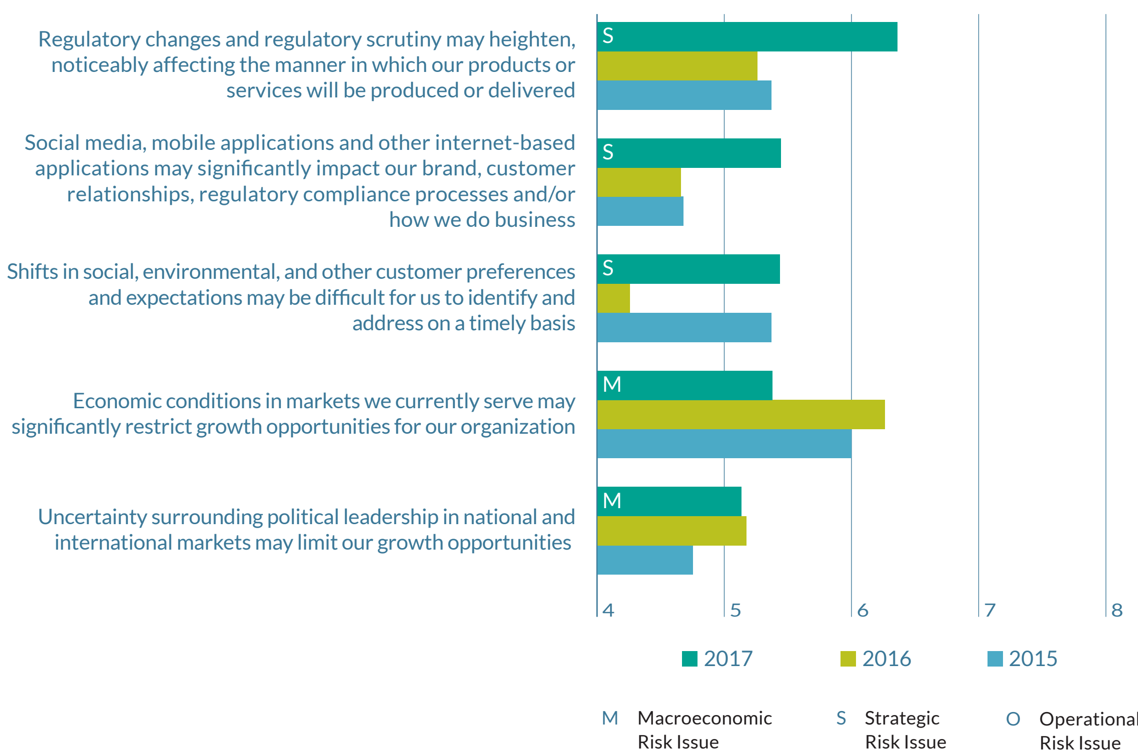
The charts on the following pages highlight the top five risks identified by each position. Of particular note is the observation that three of the top five risks for CEOs relate to strategic risk concerns, which coincides with the views held by board members and the group of executives in our Other C-Suite category. CAEs mostly pinpointed operational issues in their top five risks (four of the five risks) while CROs included two operational risks in their top five. In contrast, board members, CFOs, CIOs and Other C-Suite executives did not include any operational risks in their respective top five lists this year. This disparity in viewpoints emphasizes the critical importance of both the board and the management team engaging in risk discussions, given the different perspectives each brings to the table and the potential for a lack of consensus about the organization's most significant risks. Without clarity of focus, the executive team may not be appropriately addressing the most important risks facing the organization, thereby leaving the organization potentially vulnerable to certain risk events. The disparity reflected above may also reflect CEOs and board members taking more of a "big picture" view as other executives focus more on operational issues.

The impact of economic conditions in the market was rated as the top risk by CEOs, CFOs, CIOs and Other C-Suite executives, and it made the top five risks for all other executives except CAEs (who rated it sixth). Boards of directors and CAEs rated concerns about economic conditions at the "Potential Impact" level, while all other positions rated this risk as a "Significant Impact" risk (CFOs rated it highest at a score of 7.6 on our 10-point scale).

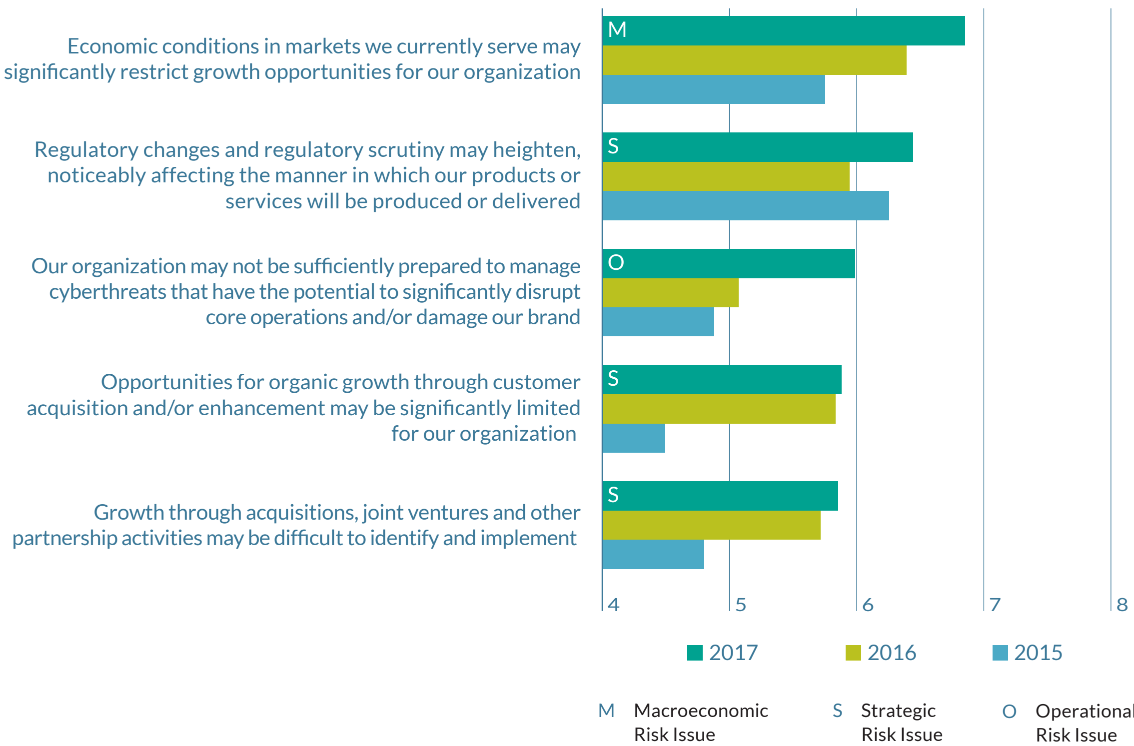
Consistent with the analyses of results for the full sample and across the four size categories provided earlier in this report, concerns about regulatory scrutiny made the top five list of risks for almost all executives, excluding only the CIOs (who rated it sixth). Every group rated this risk as a "Significant Impact" risk. Collectively, this suggests that virtually all members of the executive team have heightened concerns about uncertainties linked to the overall regulatory environment.

While risk related to cyberthreats is a top risk concern among the full sample (third overall for 2017) as reported earlier, that risk did not make the top five list of risk concerns for board members and CFOs. What was most surprising is that cyberthreats were not included in the top five risk concerns for CIOs. CIOs were mostly focused on macroeconomic and strategic risk issues, and all five of their top five risk concerns were rated as "Significant Impact" risks. However, CEOs, CROs, CAEs and Other C-Suite executives all believe cyberthreats are a top five risk concern. Perhaps because CIOs are "so close to the action" and possess enough knowledge of the threat landscape and the organization's risk management capabilities, they have more confidence regarding cyber risks than other executives who read the headlines regarding a threat they do not fully understand.

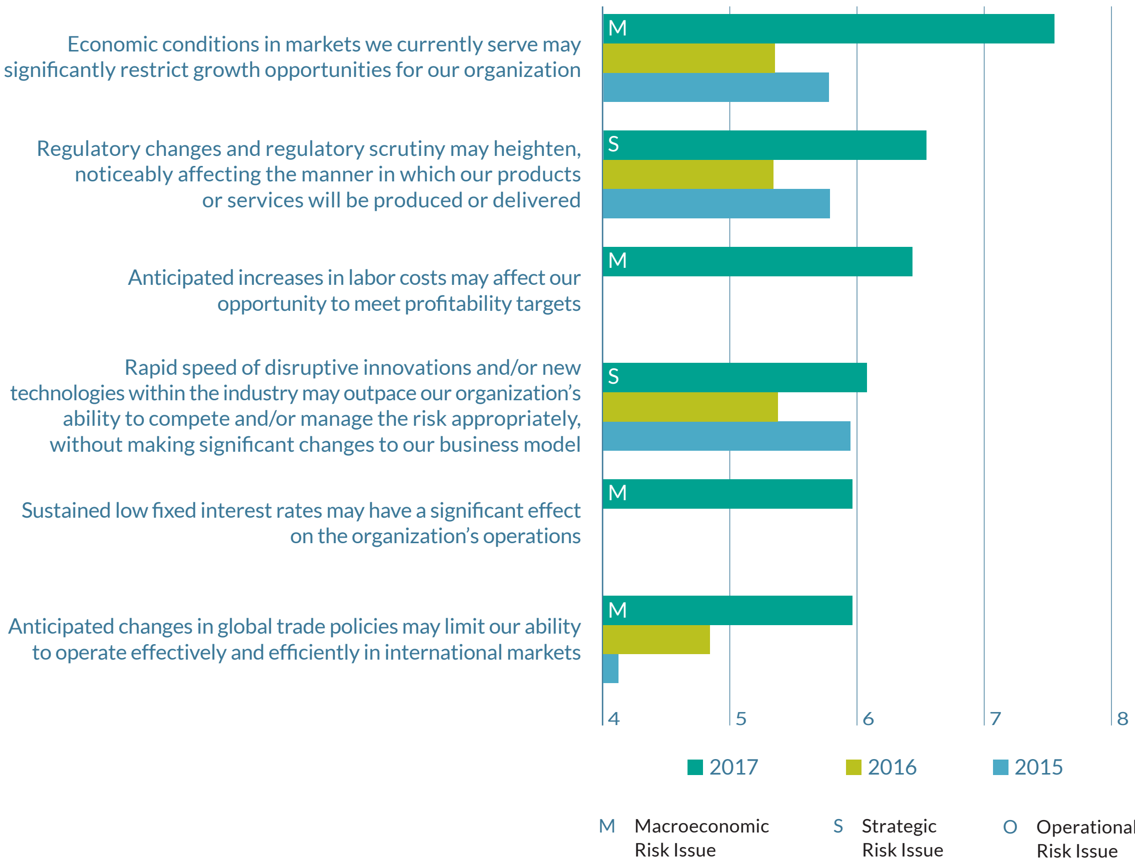
Board Members



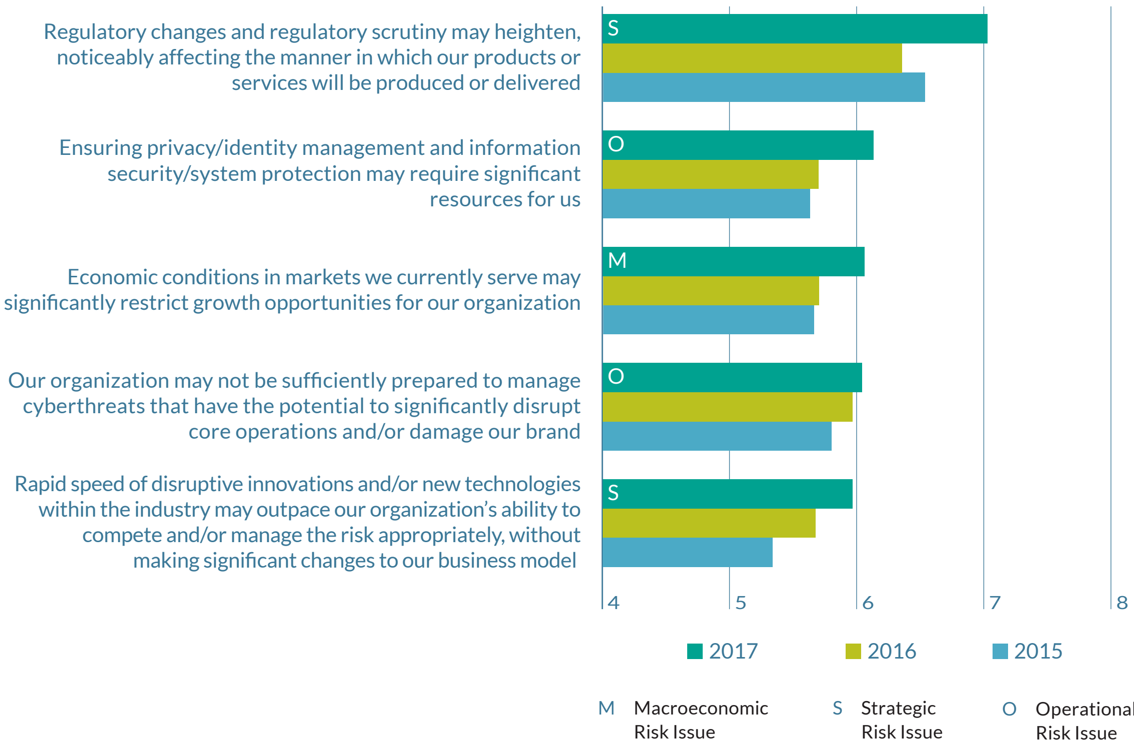
Chief Executive Officers



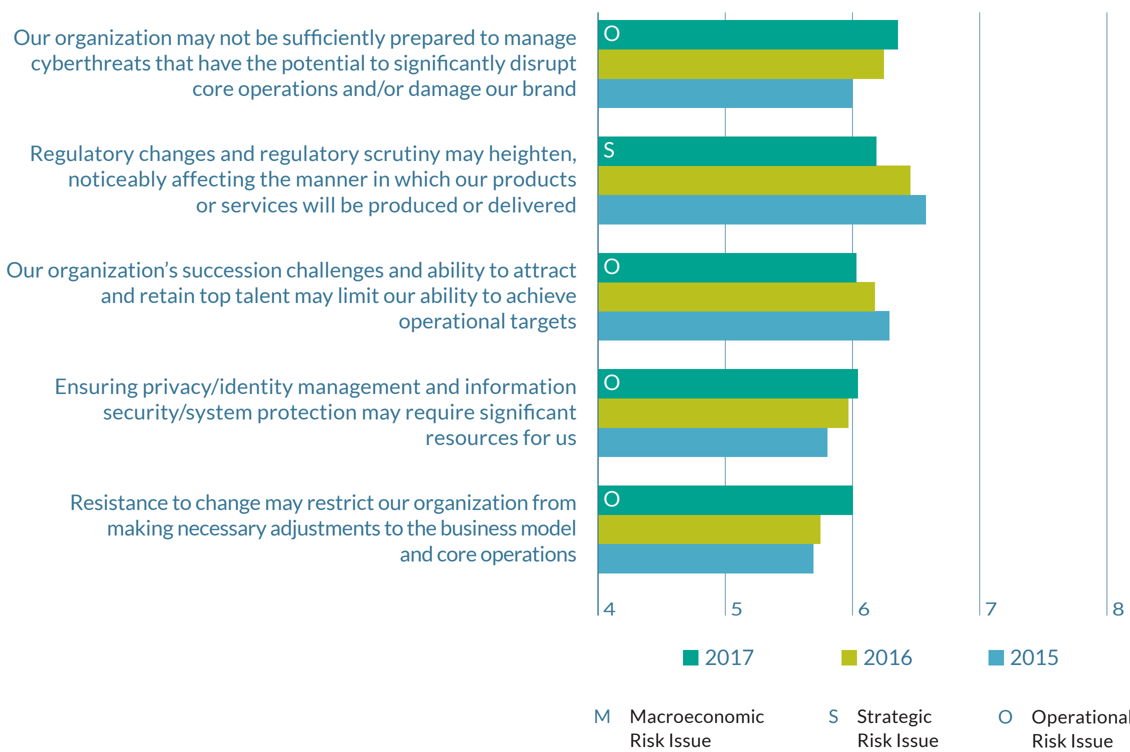
Chief Financial Officers



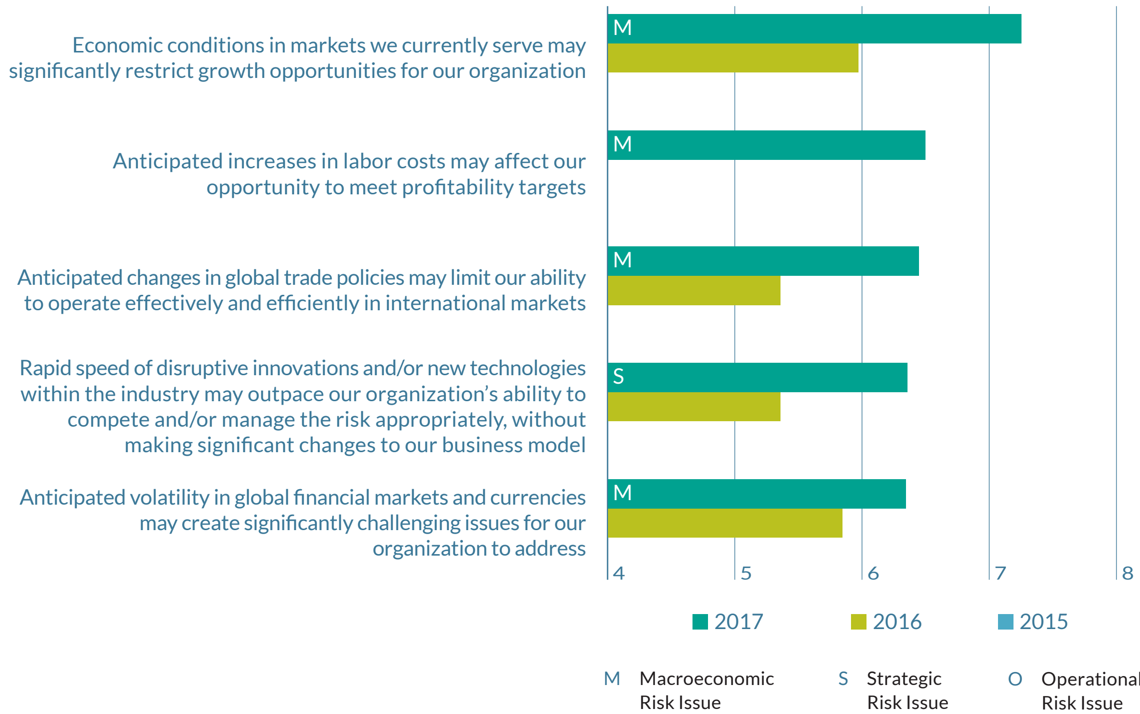
Chief Risk Officers



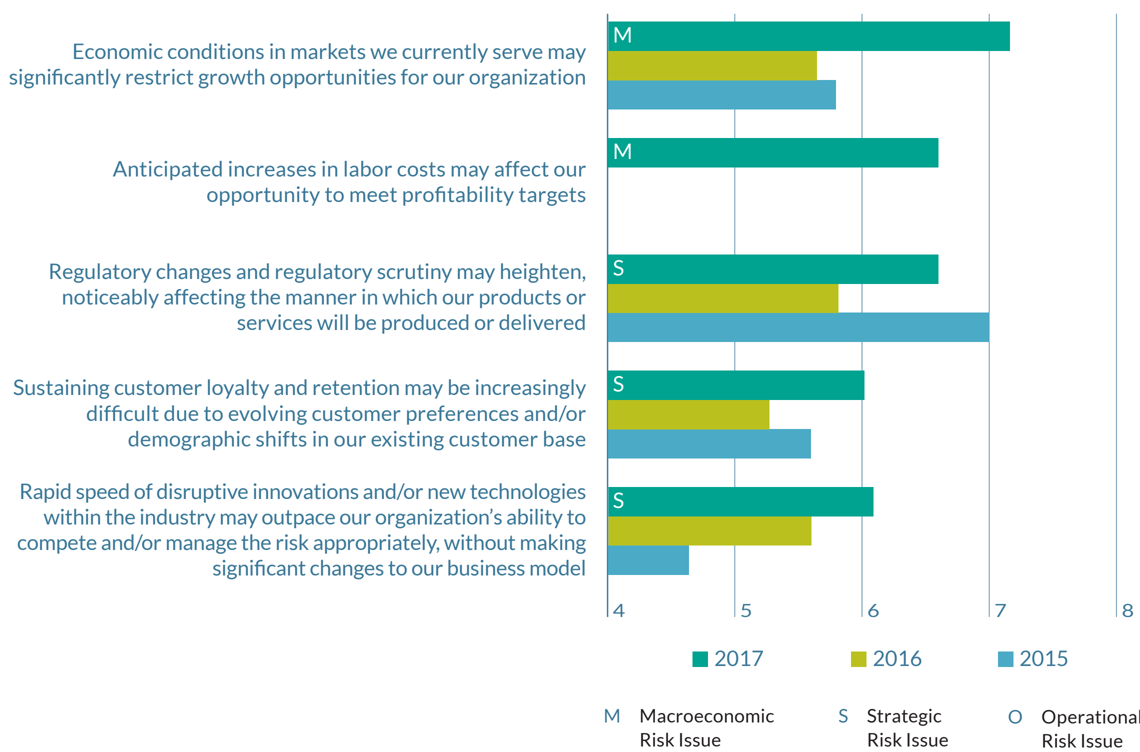
Chief Audit Executives



Chief Information/Technology Officer



Other C-Suite Executives



Industry Analysis

Respondents to our survey represent organizations in a number of industry groupings, as shown below:

Industry	Number of Respondents
Financial Services (FS)	198
Consumer Products and Services (CPS)	185
Manufacturing and Distribution (MD)	129
Technology, Media and Communications (TMC)	46
Healthcare and Life Sciences (HLS)	62
Energy and Utilities (EU)	58
Other industries (not separately reported)	57
Total Number of Respondents	**735**

We analyzed responses across the six industry groups to determine whether industries rank-order risks differently. Similar to our analysis of the full sample and across the different sizes of organizations and types of respondents, we analyzed responses about overall impressions of the magnitude and severity of risks across the above industry categories. Again, the scores in the table below reflect responses to the question about their overall impression of the magnitude and severity of risks their organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months, using a 10-point scale where 1 = "Extremely Low" and 10 = "Extensive."

Overall, what is your impression of the magnitude and severity of risks your organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months?	2017	2016	2015
Financial Services (FS)	6.5	6.0	5.7
Consumer Products and Services (CPS)	5.9	5.9	6.2
Manufacturing and Distribution (MD)	6.1	6.5	6.2
Technology, Media and Communications (TMC)	6.5	6.6	5.8
Healthcare and Life Sciences (HLS)	6.2	6.6	5.5
Energy and Utilities (EU)	6.5	5.9	6.4

As might be expected given the interest rate and energy price environment, the Financial Services and Energy and Utilities industry groups saw the largest increase in overall risk concerns during the most recent year. While the Energy and Utilities industry group saw a decrease from 2015 to 2016, the continuation of low energy prices and failure of negotiations to limit oil supplies might have caused the ratcheting up of risk concerns for 2017. As we discussed in last year's report, the decline in the Energy and Utilities industry group may have been a timing issue, as the survey period expired before the industry could fully assess the magnitude of the decline in oil and gas prices. This year, the rating looking forward to 2017 factors in the new pricing realities.

The Financial Services industry group has seen a steady increase in overall risk concerns over the three-year period. This period has been marked by a historically low interest rate environment and failure to reach consensus on the likely monetary policy by the Federal Reserve and other central banks.

Respondents in the Healthcare and Life Sciences industry group reflect the most volatility in overall risk concerns across the three years. After this industry group saw a significant increase in the overall risk environment from 2015 to 2016, the 2017 survey results reflected a slight moderation in the level of overall risk concern. The results may be a result of the minor pause in the rapid changes healthcare entities are experiencing as they attempt to continue implementing changes in response to regulatory and other market forces that have disrupted that industry.

The 2017 levels of overall risk concern are mostly tracking in line with 2015 and 2016 levels for the Consumer Products and Services industry group. While the Manufacturing and Distribution industry group experienced a small increase in 2016, the perception of risk magnitude and severity looking forward to 2017 has returned to 2015 levels.

Table 7 provides an overview of the significance and differences across industries in executive perspectives about each of the 30 risks rated in this study (categorized as macroeconomic, strategic and operational risk issues).

- Significant Impact – Rating of 6.0 or higher
- Potential Impact – Rating of 4.5 – 5.9
- Less Significant Impact – Rating of 4.4 or lower

• • • *Table 7: Perceived Impact for 2017 Relative to Prior Years – by Industry*

Macroeconomic Risk Issues	FS	CPS	MD	TMC	HLS	EU
Economic conditions in markets we currently serve may significantly restrict growth opportunities for our organization	🔴	🔴	🔴	🔴	🟡	🔴
Anticipated increases in labor costs may affect our opportunity to meet profitability targets	🟡	🟡	🔴	🟡	🟡	🟡
Anticipated volatility in global financial markets and currencies may create significantly challenging issues for our organization to address	🔴	🟡	🟡	🟡	🟢	🟡
Anticipated changes in global trade policies may limit our ability to operate effectively and efficiently in international markets	🟡	🟡	🔴	🟡	🟢	🟡
Uncertainty surrounding costs of complying with healthcare reform legislation may limit growth opportunities for our organization	🟢	🟡	🟡	🟢	🔴	🟢
Sustained low fixed interest rates may have a significant effect on the organization's operations	🔴	🟡	🟡	🟢	🟡	🟢
Uncertainty surrounding political leadership in national and international markets may limit our growth opportunities	🟡	🟡	🟡	🟡	🟡	🟡
Our ability to access sufficient capital/liquidity may restrict growth opportunities for our organization	🟡	🟡	🟡	🟡	🟢	🟡
Geopolitical shifts and instability in governmental regimes or expansion of global terrorism may restrict the achievement of our global growth objectives	🟢	🟡	🟡	🟢	🟢	🟡

Strategic Risk Issues	FS	CPS	MD	TMC	HLS	EU
Regulatory changes and regulatory scrutiny may heighten, noticeably affecting the manner in which our products or services will be produced or delivered	🔴	🔴	🔴	🔴	🔴	🔴
Rapid speed of disruptive innovations and/or new technologies within the industry may outpace our organization's ability to compete and/or manage the risk appropriately, without making significant changes to our business model	🔴	🟡	🟡	🔴	🟡	🔴
Social media, mobile applications and other internet-based applications may significantly impact our brand, customer relationships, regulatory compliance processes and/or how we do business	🟡	🟡	🟡	🔴	🟡	🟡
Shifts in social, environmental and other customer preferences and expectations may be difficult for us to identify and address on a timely basis	🟡	🟡	🟡	🟡	🟡	🟡
Ease of entrance of new competitors into the industry and marketplace may threaten our market share	🟡	🟡	🟡	🟡	🟡	🟡
Our organization may not be sufficiently prepared to manage an unexpected crisis significantly impacting our reputation	🟡	🟡	🟡	🟡	🟡	🟡
Growth through acquisitions, joint ventures and other partnership activities may be difficult to identify and implement	🟡	🟡	🟡	🟡	🟡	🟡
Opportunities for organic growth through customer acquisition and/or enhancement may be significantly limited for our organization	🟡	🟡	🟡	🟡	🟡	🟡
Substitute products and services may arise that affect the viability of our current business model and planned strategic initiatives	🟡	🟡	🟡	🟡	🟡	🟡
Sustaining customer loyalty and retention may be increasingly difficult due to evolving customer preferences and/or demographic shifts in our existing customer base	🟡	🟡	🟡	🟡	🟡	🟡
Shifting expectations may trigger shareholder activism for our organization that may significantly impact our organization's strategic plan and vision	🟡	🟡	🟡	🟡	🟡	🟡

Operational Risk Issues	FS	CPS	MD	TMC	HLS	EU
Ensuring privacy/identity management and information security/system protection may require significant resources for us	🔴	🟡	🟡	🟡	🔴	🟡
Our organization may not be sufficiently prepared to manage cyberthreats that have the potential to significantly disrupt core operations and/or damage our brand	🟡	🟡	🟡	🔴	🟡	🟡
Risks arising from our reliance on outsourcing and strategic sourcing arrangements, technology vendor contracts, and other partnerships and/or joint ventures to achieve operational goals may prevent us from meeting organizational targets or impact our brand image	🟡	🟡	🟡	🟡	🟡	🟡
Our organization's succession challenges and ability to attract and retain top talent may limit our ability to achieve operational targets	🟡	🟡	🟡	🟡	🟡	🟡
Our existing operations may not be able to meet performance expectations related to quality, time to market, cost and innovation as well as our competitors	🟡	🟡	🟡	🟡	🟡	🟡
Inability to utilize data analytics and "big data" to achieve market intelligence and increase productivity and efficiency may significantly affect our management of core operations and strategic plan	🟡	🟡	🟡	🟡	🟡	🟡
Resistance to change may restrict our organization from making necessary adjustments to the business model and core operations	🟡	🟡	🟡	🟡	🟡	🟡
Our organization's culture may not sufficiently encourage the timely identification and escalation of risk issues that have the potential to significantly affect our core operations and achievement of strategic objectives	🟡	🟡	🟡	🟡	🟡	🟡
Uncertainty surrounding the viability of key suppliers or scarcity of supply may make it difficult to deliver our products or services	🟢	🟡	🟡	🟡	🟡	🟡
Our organization may face greater difficulty in obtaining affordable insurance coverages for certain risks that have been insurable in the past	🟢	🟡	🟡	🟢	🟢	🟡

As exhibited by the red circles in Table 7, there are many consistent viewpoints about the most significant risks across industries. All industry groups rated the risk of heightened regulatory changes and regulatory scrutiny as a "Significant Impact" risk. In addition, all but the Healthcare and Life Sciences industry group rated the risk of economic conditions significantly restricting growth opportunities as a "Significant Impact" risk. Additional risks rated at the highest level by two or more different industry groups include risks related (1) to the rapid speed of disruptive innovation noted by respondents in the Financial Services, Technology, Media and Communications, and Energy and Utilities industry groups, and (2) ensuring privacy noted by respondents in the Financial Services and Healthcare and Life Sciences industry groups.

The Financial Services industry group has the highest level of risks concerns. Respondents in that industry group identified six of the 30 risks as "Significant Impact" risks, with all but four other risks rated in the middle category of "Potential Impact" risks. Surprisingly, the Technology, Media and Communications industry group, which noted an overall decline in its perception of the magnitude of risks facing the industry from 6.6 in 2016 to 5.8 in 2017, rated five of the 30 risks as "Significant Impact." The same juxtaposition can be seen for the Manufacturing and Distribution industry group, which saw an overall decline from 6.5 to 6.1 and four risks rated as "Significant Impact." The Consumer Products and Services industry group only rated two risks as "Significant Impact" risks.

Macroeconomic risks dominated respondents' concerns, with six of the nine risks having at least one industry group rating it as a "Significant Impact." Three of the strategic risks and two of the operational risks received a "Significant Impact" rating.

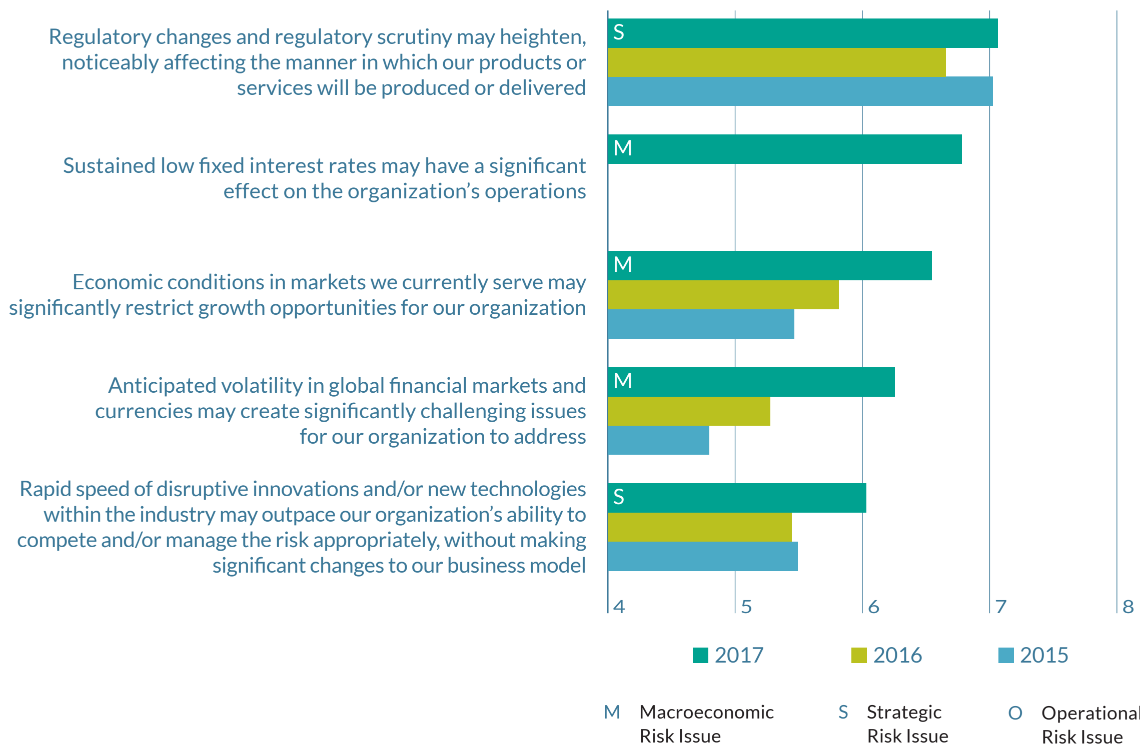
The bar charts on the following pages report the top five risk exposures in rank order for each of the six industry groups. The 2017 results are presented in dark green. Recall that a risk with an average score of 6.0 or higher is considered a "Significant Impact" risk, while risks with average scores between 4.5 and 5.9 are "Potential Impact" risks and risks with average scores below 4.5 are "Less Significant Impact" risks. In addition, the bar charts provide the risk rating for the previous two years with 2016 in light green and 2015 in blue.

The most noticeable observation from these charts is that executives from all industry groups, with the exception of Healthcare and Life Sciences, believe that the magnitude and severity of the 2017 top five risks will be greater than in 2016 and in most cases greater than 2015. In addition, for the first time in our survey's history, respondents from four different industries rate their top risk at an average magnitude of 7.0 out of 10. Both the Financial Services and the Energy and Utilities industry groups rank the risk of heightened regulatory changes and regulatory scrutiny at above 7.0. The Technology, Media and Communications industry group ranks the rapid speed of disruptive innovation at above 7.0. The Manufacturing and Distribution industry group rated the risk of economic conditions significantly restricting growth opportunities at 7.0. The Healthcare and Life Sciences industry group was the only industry that saw an overall decline in its 2017 rankings versus 2016.

There are also differences in categories for the top five risks across the six industry groups examined. The Financial Services and Manufacturing and Distribution industry groups include three macroeconomic risks in their top five risk concerns. It is not surprising that the volatility in finance and global markets resulted in macroeconomic risks dominating in these industry groups. The Technology, Media and Communications and the Energy and Utilities industry groups include three strategic risks in their top five risk concerns. After significant industry changes, executives in these organizations may now be facing challenges in ensuring that their strategy is consistent with creating a sustainable growth model. In contrast, the Consumer Products and Services and the Healthcare and Life Sciences industry groups ranked three operational risks among their top five risk concerns.

These noted differences in risk issues across the different industry groups highlight the importance of understanding industry drivers and emerging developments to effectively identify the most significant emerging risk concerns. Following each bar chart by industry, we provide additional commentary about industry-specific risk drivers.

Financial Services



Commentary – Financial Services Industry Group

Regulatory change and scrutiny remains top of mind for financial services executives and has increased in importance over last year. This may be attributed to the uncertainty surrounding upcoming changes in the U.S. presidential leadership team. The general perception of global political change, encompassing concerns about the U.K.'s proposed exit from the European Union and the impact on the European economy, may also be contributing to concerns that the regulatory environment may be further disrupted. At the same time, in the United States, sales practices in the financial services industry are being scrutinized by Congress, which has now trickled into Europe with several regulators looking at issues such as compensation and cross-selling practices.

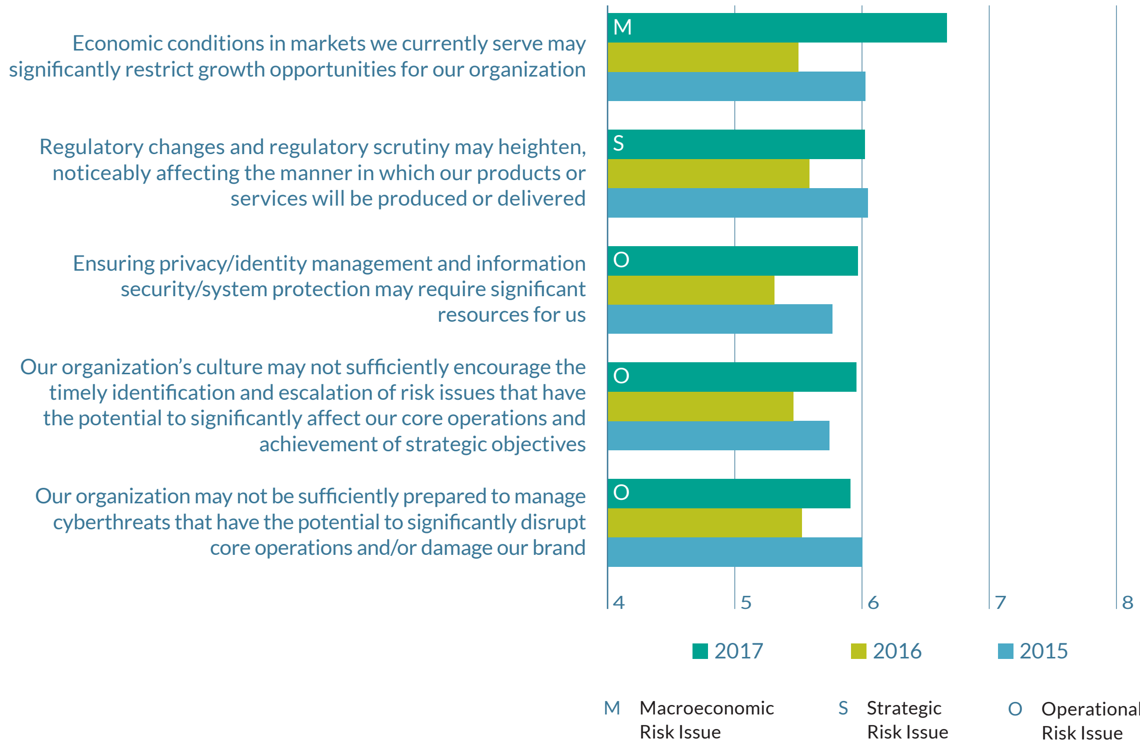
Regulation is a major cost for financial institutions and, as such, will remain a prominent risk for some years to come. But aside from regulatory change, the majority of the top five risk rankings changed completely over last year. One new risk introduced into the survey process this year is the effect of the sustained low interest rate environment on organizations' operations, which shot to the second ranked risk in terms of severity. Sustained low interest rates are a major concern for financial institutions since they result in lower income from investments and spreads on loans. Banks are generating much less income, while insurers are suffering from the ultra-low interest rate environment, with income from investment portfolios severely curtailed. Interest rates were widely expected to rise in 2016, but they remain incredibly low, subjecting firms to razor thin margins. This environment is driving many significant business decisions, including but not limited to realigning portfolios, deemphasizing certain products and services, or even leaving certain markets altogether. An added factor is the uncertainty for financial institutions to generate additional fee income, specifically via cross-selling practices and add-on products, which are being monitored more closely by regulators.

The macroeconomic environment is a major concern for financial institutions, with challenging global economic conditions and volatility in global financial markets and currencies joining the top five risk rankings for the first time. Firms are concerned that global conditions will serve to significantly restrict growth opportunities as well as create challenging issues for them to address.

In addition, there is the rapid growth of financial technology, or fintech, companies that are introducing disruptive innovations and new technologies to the market. The perception is that these nimble, start-up companies could significantly impact the existing financial services industry, so much so that the more established institutions continue to review their business models. While it is early to conclude just how disruptive fintech competitors might be outside of perhaps the payments industry, many established financial services organizations are seeking to either partner with, invest in or acquire fintech entities in order to drive innovation in their respective organizations. Two years ago, fintech was viewed as little more than a nuisance by the more established organizations. Today is a different story, as it has grown to be a large and more prominent force, with fintech firms introducing new technologies that are at minimum having a significant say in shaping the future of finance.

Despite the emphasis on financial technology and innovation, cybersecurity and privacy concerns have fallen out of the top five risk rankings this year. Although these issues remain constant priorities for financial services firms, the focus has turned to macroeconomic and strategic risks, owing to the changing global economic and political environment. Also dropping out of the top risk rankings is the risk of retaining top talent as well as added resources for risk and compliance. Although this may well point to the fact that firms have substantially increased their resources and headcount in these areas over the past few years and are now suitably staffed, it could also be a potential red flag if resources dedicated to risk identification and management are being reduced while regulatory risk is still rising.

Consumer Products and Services



Commentary – Consumer Products and Services Industry Group

This year's survey results for consumer products and services organizations show a number of substantial increases in the severity of risk issues for the next 12 months. Not surprisingly, the risk concerns are led by economic conditions. The survey results reflect uncertainty about how the new presidential administration in the United States will shape economic policy. The concerns reflected in the survey results likely indicate a lack of knowledge and clarity about what might transpire in 2017.

More broadly from an economic perspective, the volume of unknown factors in the industry is substantial. Consumer products and services organizations understand that in today's competitive market in which new businesses form daily to disrupt their markets, there is a fine line between success and failure, either in the short or long term. There also remain significant concerns about whether a down cycle in the global economy may be coming.

Other factors affecting economic conditions around the world include rising global competition, as well as a growing number of options for consumers to obtain products and services from a broad range of companies both within and outside of the Consumer Products and Services industry group. There is no question that industry disruptors that once took a decade to change an industry can now do so in a matter of a few years or even less.

Privacy concerns along with cyberthreats rank among the top five risks as well. In fact, both show significant jumps in their risk score compared to 2016. In this industry, effective management of cybersecurity, privacy and identity management risks is absolutely critical not only to secure customer information, but also to ensure customer loyalty. Customer loyalty programs have become one of the basic building blocks for successful consumer products companies, but such a program cannot be in place if the customer's data is not secured. Customers will not remain loyal to the company as buyers of its products and services, let alone join a program, if the security of their information is in any way doubtful.

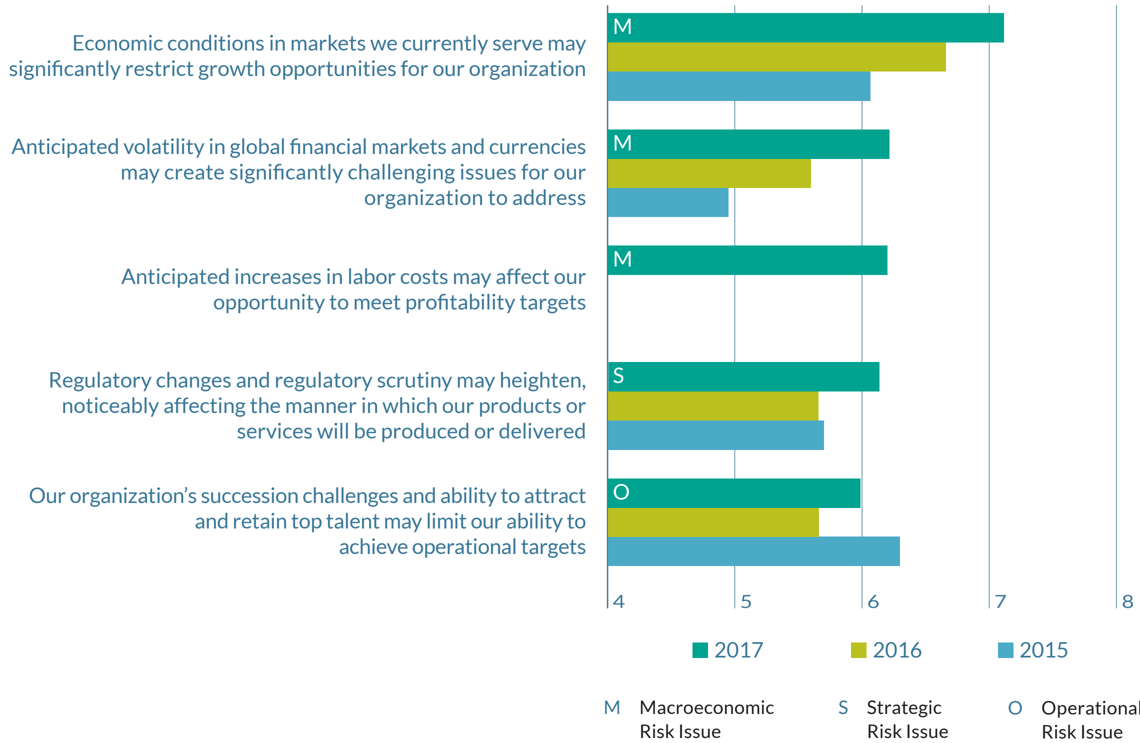
Cyberthreats and privacy risks are not going away anytime soon. In fact, they are becoming more severe due in great part to developments such as the Internet of Things, which is connecting consumers and their devices – and their data – to one another.

Regulatory change and scrutiny remains a key risk as well. Consider that there is a different data privacy law for virtually every U.S. state, not to mention for many individual countries in Europe and the Asia-Pacific region. Consumer products and services organizations must understand and comply with each law and standard. This is a major issue to address in terms of both data breaches and remediation.

Other regulations are affecting consumer products and services companies that are increasingly providing omni-channel experiences for their customers – for example, retail stores offering healthcare services or financial services offerings. As the boundaries continue to blur between a pure retail experience and other industries, the breadth and depth of regulatory oversight increases.

The ranking of the organization's culture not sufficiently encouraging timely identification and escalation of risk issues is likely a reflection of organizations being laser-focused on their customers and new product and service offerings, and therefore not paying as much attention to risk management processes and culture. With the growth and impact of industry disruptors increasing on a seemingly daily basis, consumer products and service organizations are now aware that they have to be concerned about what might be coming next to disrupt their business models. The aforementioned omni-channel services are a good example of this. Many organizations were caught unaware when this became a major factor in the industry, and they had to struggle to catch up from a strategy, technology and infrastructure standpoint.

Manufacturing and Distribution



Commentary – Manufacturing and Distribution Industry Group

It speaks to the duration in which the Manufacturing and Distribution industry group has been dealing with growing economic uncertainty that the top three risks this year are macroeconomic. These concerns reflect the challenges of operating in a global economy and are driven, at least in part, by supply chain and sourcing vulnerabilities, political uncertainty, currency devaluations, softened demand for manufactured goods, and trade agreement considerations.

Economic conditions again lead the list of top five risks for manufacturing and distribution companies, followed by the risk of volatility in global financial markets. A number of factors are contributing to these industry concerns, including the U.K. Brexit vote that continues to impact financial markets. This is having a domino effect on everything from interest rates and currency valuations to materials sourcing and potential trade barriers between the United Kingdom and the rest of the European Union. Meanwhile, China's growth has slowed over the past couple of years and remains so. The yuan was devalued this year, and there are lower levels of investment. Further compounding this issue, Japan also devalued the yen in 2016.

Interestingly, increases in labor costs is the third highest-rated risk this year. This concern is likely driven by higher costs in previously cheaper offshoring locations and a more recent trend to onshoring operations back to the United States. Additionally, with tighter labor markets (that is, lower unemployment) and accelerating wages in the United States, parts of Europe and Japan are having a greater impact on global markets and are viewed to be ongoing concerns for manufacturing and distribution companies in the coming year.

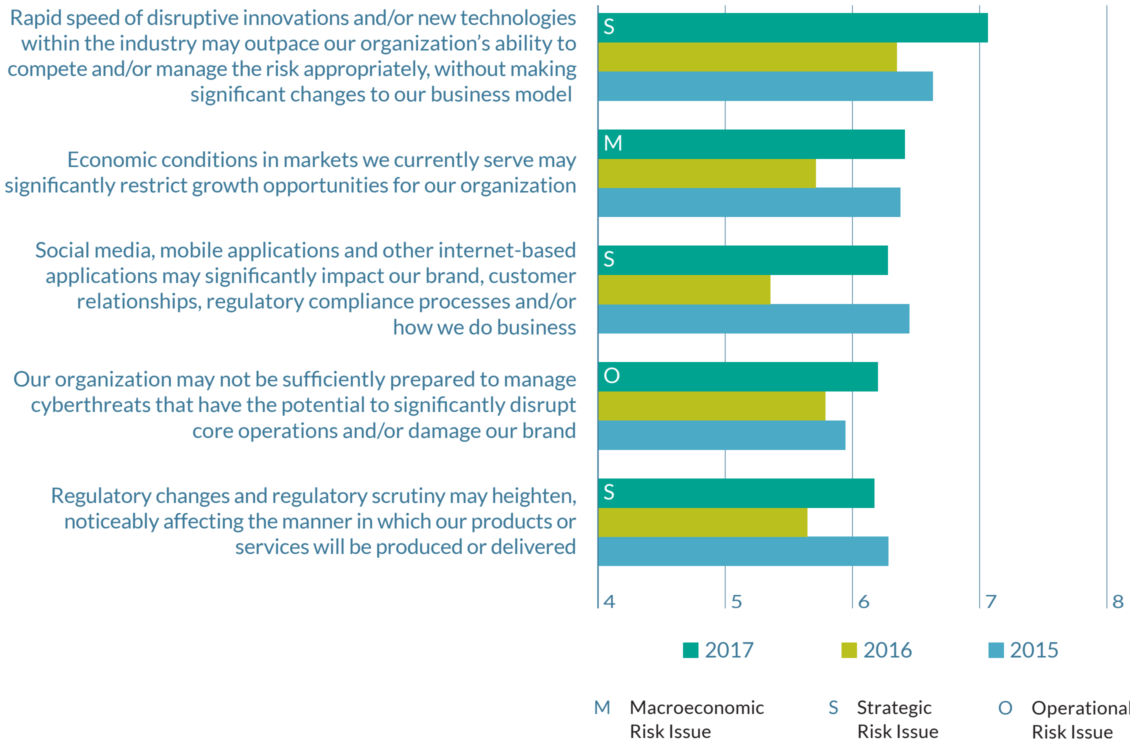
The risk of regulatory changes and heightened scrutiny is rated slightly higher for 2017, although there were no significant changes during 2016. However, going forward, the industry should expect to see an impact from potential regulatory changes under the new U.S. administration – both positive (if the U.S. Environmental Protection Agency regulations are eased) and negative (if trade agreements are revised).

Finally, succession challenges continue to round out the top five risk issues. With tighter labor markets in many locations in which organizations do business, employers are challenged to attract and retain the talent they need.

Despite being in the top five risks last year, cyberthreats did not rank as high this year. However, this does not mean that cybersecurity is not on management's mind – rather, this risk topic has peaked on board agendas over the past couple of years, warranting more attention and discussion. Manufacturing and distribution companies continue to manage and monitor areas of potential exposure, such as intellectual property and embedded technology, even though the industry is not as inherently risky as financial services or consumer products and services.

The lower perceived magnitude and severity of the top risks impacting companies' funding targets over the next year likely reflects that manufacturing and distribution companies are either becoming accustomed to dealing with uncertainty or are becoming better at managing through change, as companies have had to deal with both over the past several years.

Technology, Media and Communications



Commentary – Technology, Media and Communications Industry Group

For the coming year, the Technology, Media and Communications industry group respondents see a significantly more severe risk environment in numerous areas. Without question, there is a sense of uncertainty regarding developments and trends in the various sectors across this industry group and how organizations will be impacted. Note that the number of non-U.S. survey respondents this year was considerably higher than in previous years and consequently reflects more of a global perspective.

Chief among these areas is the rapid speed of disruptive innovations and the potential that they may outpace the organization's ability to compete. This risk also topped the list of risk issues for 2016. Numerous market developments have boards and management concerned, from the continued growth in mobility, to the move to the cloud, to the so-called gig economy. Companies like Uber and Airbnb that have emerged and quickly disrupted their respective industries have created the need for companies to contemplate how they can control the forces of disruption on their businesses. Above all, there is a general sense that rapid changes are moving beyond specific niches and industry fringes into the mainstream and are becoming routine for organizations. This issue and the challenges presented are absorbing more time in board meetings. Directors are seeking to anticipate these changes and ensure that management is adapting to them.

Another factor is the actual speed of disruption; specifically, the ability of organizations to change rapidly. Consider that disruptive companies created today do not have to alter any systems or processes significantly, whereas established companies likely have legacy systems and processes in place that require substantial changes in order to compete effectively. Not having to undergo that transition provides the disrupters with a significant competitive advantage.

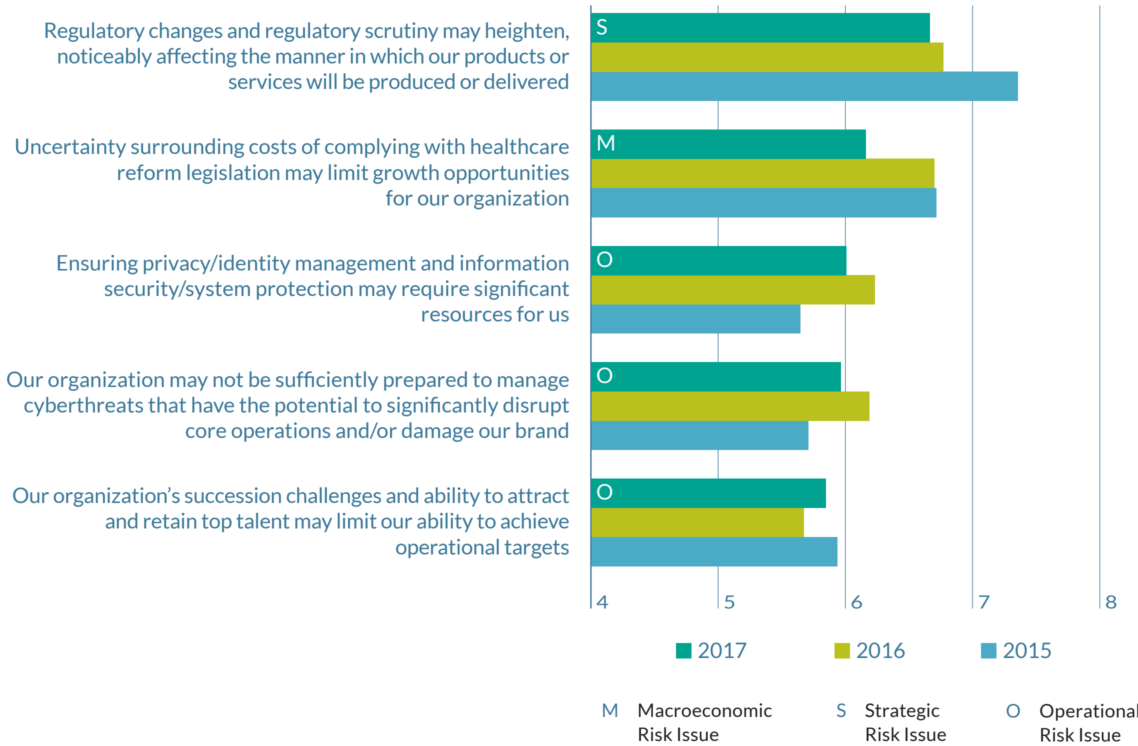
With regard to economic conditions, the primary concern companies in the industry are likely facing is uncertainty. No one has clarity into what the next 12 to 18 months will bring, particularly in markets outside the United States. The run-up to the U.S. presidential election (when this survey was conducted) likely played a part in this concern as well. While the outcome has now been decided, many questions still remain regarding the outlook for the global economy in 2017.

Social media, mobile applications and other internet-based applications rose to the top five list of risks this year, which is not surprising. Organizations in the industry know very well that mobile devices are here to stay, and leaders are very aware of the power that outsiders have to acquire and misrepresent personal and proprietary information. Somehow this all must be managed, from protecting intellectual property to preserving reputation and brand image. Consider also that there remain few rules and guidelines around the effective use of social media. Protecting the brand becomes even more of a concern and more of a challenge.

Concerns around social media and use of mobile applications also tie into the next risk issue on the list, which is related to cyberthreats. Public disclosures of data leaks and breaches are compelling companies to reevaluate how they interact with other organizations and businesses online. Moreover, C-level executives are rightly concerned that they themselves could be a target for hackers interested in accessing and disseminating personal email records and other sensitive data. They recognize that anyone's email can be hacked.

The bottom line is that no organization is protected fully. Boards and management understand they cannot stop all threats, but want to know they have done everything they can to prevent a breach, and should one occur, they have the protocols in place to quickly assess the damage and respond quickly. Toward that end, although privacy/identity management and information security/system protection concerns have fallen from the top five, the overall rating has remained consistent. This may be more of a question of the resources that companies are able to commit to these important privacy and security areas than a sense that the risks have declined in significance.

Healthcare and Life Sciences



Commentary – Healthcare and Life Sciences Industry Group

Although the perceived overarching risk appears to be trending downward, regulatory compliance risks are many and significant in this industry group: IRS 501(r) regulation for tax-exempt entities, government overpayments and credit balances, HIPAA, 340B drug discount program, reimbursement compliance, Stark Law and Anti-Kickback Statute, and state privacy laws, among many others. Key goals of the Affordable Care Act were to make healthcare more accessible and to remove billions of dollars from Medicare and Medicaid, in part by imposing significant fines and take-backs for fraud, waste and abuse violations. Government audits (and related internal investigations) continue to increase, as well as penalties for noncompliance. The downward trend indicates healthcare organizations likely now have a better understanding of healthcare reform and/or have matured processes to comply with various requirements; however, given recent events including the U.S. presidential election, more uncertainty is prevalent. While it is unlikely the entire Affordable Care Act will be repealed, there likely will be a partial repeal of some provisions. The percentage of insured patients may once again change and there is potential for government program cuts to be reversed; however, most believe the regulatory compliance requirements that healthcare systems are confronted with will not go away.

Based on many variables at play, it would be prudent for hospitals to begin planning for cost containment and purchasing efficiencies and to strengthen revenue integrity programs. Ensuring payment accuracy and charge completeness will continue to be challenging. Fee-for-service government-program reimbursement is on the decline and a continued movement toward a value-based purchasing model is in high gear. Hospitals will be rewarded or penalized based on patient outcomes. Accountable Care Organizations, clinically integrated networks and provider-led health plans are on the rise and being developed in response to the need for stronger population health management and improved control over outcomes.

The trend for employing and integrating more and more physicians into already established networks continues to rise. Changes resulting from the Medicare Access and CHIP Reauthorization Act and the Quality Payment Program in the United States will create significant concerns and operational challenges for purposes of predicting and managing quality incentives and compliance. The overarching process for managing physician contracts is daunting, requires more consideration of revenue cycle impact and could benefit from automation. Additionally, those with electronic health record systems in place will be required to demonstrate compliance with a significant number of "Meaningful Use" criteria over the next several years.

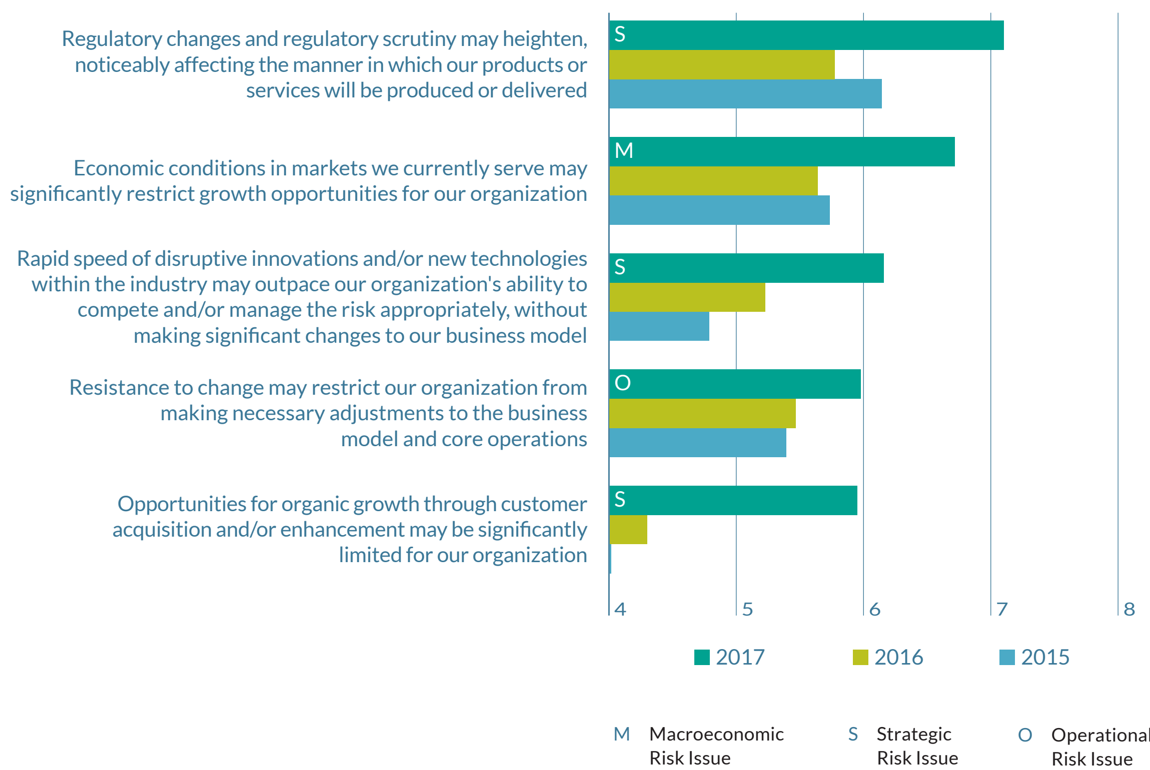
The lack of central oversight and control over vendor management and procurement decisions, along with physician compensation pressure, all further contribute to complexities faced by healthcare organizations. Some hospitals have begun building centralized or shared services functions to improve the efficiency of spend. Cash-poor hospitals will look to be acquired or will seek management services from other larger entities to gain efficiencies. Greater collaboration between hospitals, physicians and other post-acute care providers will be more prevalent. Finally, all organizations seek timely and accurate data to guide decision-making and strategy-setting efforts, but meaningful and reliable information by which to base decisions is lacking at many provider organizations. Developing a culture of data and information governance should be a key initiative that could help ensure organizations successfully report and react to accurate patient outcomes data.

Among the priorities of healthcare organizations, protecting patient information is second only to providing quality care. Those navigating the waters of the healthcare industry are faced with a turbulent course through which increasingly complex compliance, privacy and security obligations abound. This is compounded by an increased reliance on, along with a lack of oversight for, third-party service providers and vendors. As a result, the industry's focus on protecting sensitive information is at an all-time high. With the rollout of a permanent HIPAA audit program by the Office for Civil Rights in the United States, the scrutiny and pressure on covered entities and business associates alike will continue to increase. Additionally, new cybersecurity threats arise on a seemingly daily basis as hackers devise new ways of getting past an organization's defenses. Healthcare organizations are an enticing hacker target because healthcare information is extremely valuable on the black market. Furthermore, the healthcare industry continues to see rapid implementation of new technologies as every phase of the healthcare continuum becomes increasingly reliant on IT. This is further driven by growing demands from "connected" clinicians and patients to have information at their fingertips. As this electronic movement continues, the convergence of the clinical setting and information technology will continue to pose challenges for healthcare organizations.

Development and retention of key personnel is critical to the short-term and long-term success of an organization. Succession challenges and the ability to attract and retain top talent may constrain efforts to achieve operational targets. As a company is no better than the quality of its people, recruiting and retaining the best and brightest talent are essential for success. This is particularly true in the healthcare provider space, with expected nursing shortages in the coming years caused primarily by an aging population, prevalence of increasing chronic disease and an aging nursing workforce, as well as the limited capacity for educating an adequate number of replacement nurses. Healthcare organizations could benefit from focusing attention on their talent management programs and consider alternative staffing models that provide more flexibility, such as part-time arrangements and contractors, for replacing and retaining talent.

Further complicating matters, to effectively manage the myriad of compliance, human resource and operational risks healthcare organizations face, leaders must look beyond their own organizations. More and more joint venture arrangements and affiliations/partnerships between nonprofit and for-profit companies are appearing and expand the risk profile of an organization. Oftentimes these ventures don’t come with additional personnel but further stress the resources already in place with new tasks. Many are implementing enterprise risk management programs to more proactively augment internal audit and compliance functions to assist in the management of these risks. Managing the integration of these ventures/mergers along with third-party and vendor oversight is critical.

Energy and Utilities



Commentary - Energy and Utilities Industry Group

For the Energy and Utilities industry group, not only are there notable changes in the top five risks for 2017, but there also are across-the-board increases in the perceived level of severity of the risk environment for the coming year compared to levels reported in our 2016 top risks study. This is not surprising given the rapid decline in commodity prices seen over the past couple of years, which caught many organizations by surprise and rippled through the industry in various impactful ways. Companies now have an increased focus on better understanding the risks they are facing as they look ahead, and thus perceive a significantly more risky environment for the next 12 months.

For 2017, regulatory changes and heightened regulatory scrutiny again tops the list of risk issues for organizations in the Energy and Utilities industry group. With the recent U.S. presidential election, it is likely that most respondents to the survey did not foresee a potential shift in legal, regulatory and financial decisions for 2017 and beyond. Therefore, it is conceivable that the survey results might have changed had the survey been conducted subsequent to the election, which some speculate may result in decreased regulation and oversight. However, given what we have seen from the risk survey results over the years, the majority of these key risks are likely going to remain for companies in the industry over the long term. A number of factors are likely at play here: the Paris Agreement that recently went into effect, ongoing regulation in the United States, and increased attention being paid to fracking by the media, among other influences.

A new industry top five risk for 2017 relates to the speed of disruptive innovations and/or new technologies. Given the increased availability of mobile, internet-connected and cloud-based systems, the technological requirements that are necessary to be competitive in the marketplace are rapidly changing. Organizations need to increase awareness of what their consumers and partners need and stay on top of technology trends and opportunities to enable their performance and growth.

The risk related to a resistance to change may very well be tied to the low oil prices that the industry has been dealing with. Many companies in need of restructuring were admittedly slow in realizing just how low and how fast commodity prices were going to decline. With the need to undergo bankruptcy and divestiture proceedings, embracing change and new approaches is important. These companies may also be resistant to other legal changes in environmental requirements emerging globally as a result of the Paris Agreement, along with the related investments required to comply.

Another new addition to the list of industry top risks is limited opportunities for organic growth through customer acquisition and enhancement. It is interesting that this risk is in the top five for the Energy and Utilities industry group and is likely another reflection of continued low commodity prices and the razor-thin margins that energy companies are generating. In the current environment, these organizations have fewer options for the types of strategic investments and capital expenditures that could help generate new customers and enhance current product and service offerings.

Interestingly, cyberthreats has dropped out of the top five risks for the industry. However, cybersecurity continues to remain a critical risk issue as organizations remain highly concerned about data breaches and any potential shutdown of operations. Of particular note, organizations are concerned about protecting proprietary research and their plans for growth, confidential acquisitions, and other intellectual property that could, if released, compromise their business and strategic plans significantly. The increased media coverage of significant data breaches has also increased board-level discussions, so this should continue to be top of mind for companies in the Energy and Utilities industry group.

Analysis of Differences Between Public and Non-Public Entities

Participants in the survey represent three types of organizations: publicly traded companies (257 respondents), privately held for-profit entities (329 respondents), and not-for-profit and governmental organizations (149 respondents).

We analyzed responses across these three types of entities to determine whether organizational types rank-order risks differently. Similar to our analysis summarized earlier in this report, we analyzed responses about overall impressions of the magnitude and severity of risks across the three organizational type categories. Again, the scores in the table below reflect responses to the question about their overall impression of the magnitude and severity of risks their organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months, using a 10-point scale where 1 = "Extremely Low" and 10 = "Extensive."

Overall, what is your impression of the magnitude and severity of risks your organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months?	2017	2016	2015
Public Companies	6.6	6.3	6.3
Privately Held For-Profit Companies	6.1	6.2	5.8
Not-for-Profit and Governmental Organizations	5.8	5.7	5.7

While the overall magnitude and severity of risks for privately held for-profit companies and not-for-profit and governmental organizations remains consistent with 2016, public companies saw a slight increase in overall risk levels for 2017. Thus, the slight increase in overall risk concerns for the full sample in 2017 is likely attributable to the movement in public companies.

Consistent with the overall survey response, all types of organizations rated almost all of their top five risks for 2017 as more significant than 2016. Not-for-profit and governmental organizations each rated all five of their top risks as having a "Significant Impact," while public companies rated three of the top five at that level (note that the average scores for the remaining two top five risks are 5.97, respectively, which is barely under the "Significant Impact" threshold). Only two of the privately held for-profit companies' top five risks were deemed "Significant Impact."

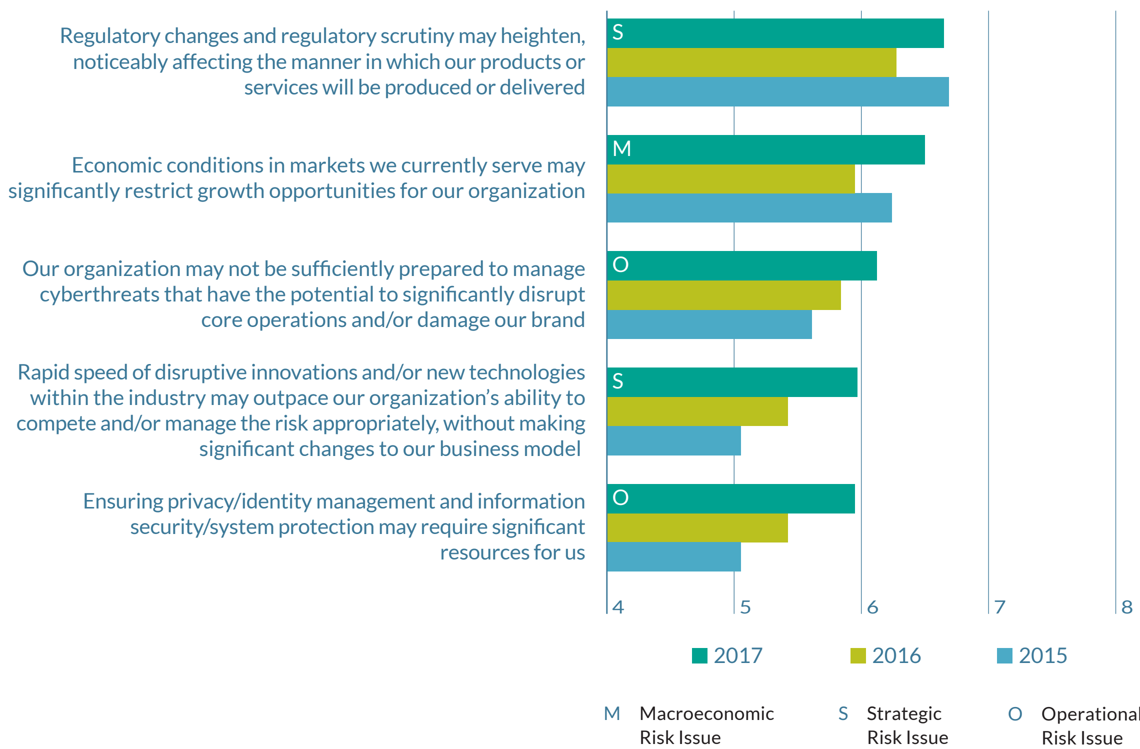
All of the organizations are concerned about regulatory change and regulatory scrutiny, with that risk in the top five risks for all types of organizations. Both public companies and not-for-profit and governmental organizations rated that as their top risk concern for 2017.

Both public and private for-profit companies are concerned about the impact of economic conditions in markets they currently serve and how the rapid speed of disruptive innovations or new technologies might affect their ability to grow their businesses. Both public and not-for-profit and governmental organizations rated risks related to cyberthreats and ensuring privacy and information security as top five risk concerns. Given the reliance on technology and the internet to conduct business for almost all enterprises, concerns about cyber risks and the future resources needed to upgrade information systems cannot be ignored.

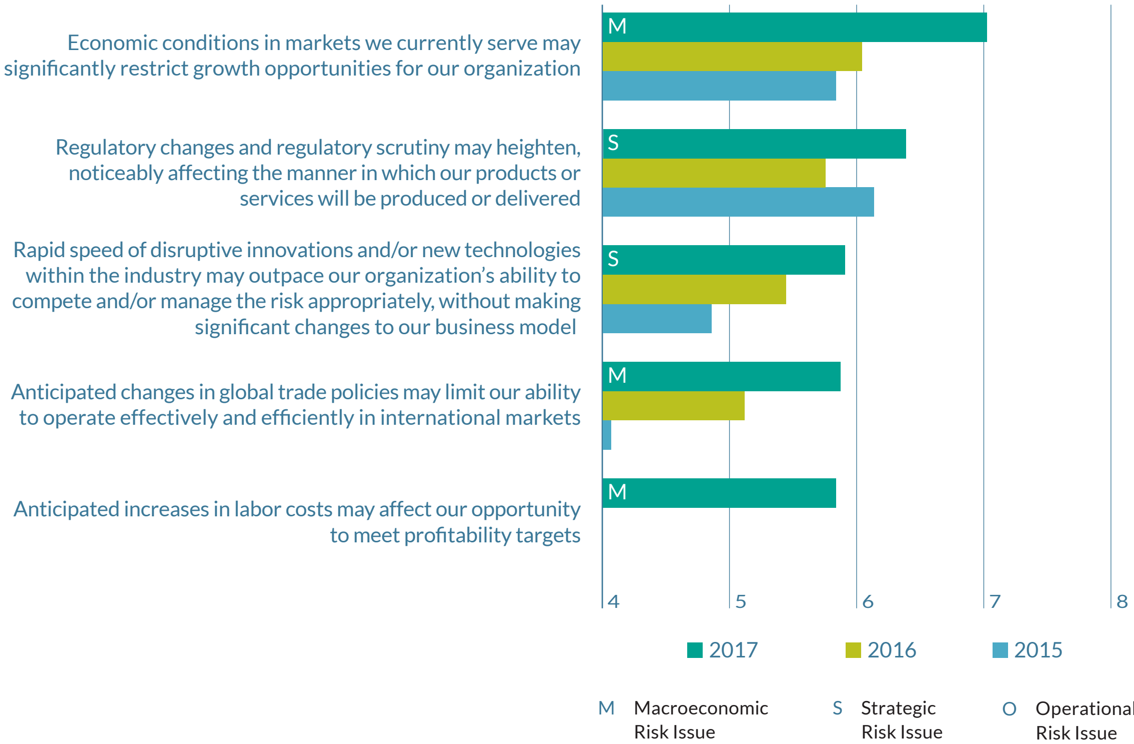
The three different types of organizations identified their most impactful operational risk concerns much differently. Public companies identified two strategic and two operational risks in their list of top five risks. Private for-profit companies identified three macroeconomic risks and two strategic risks. not-for-profit and governmental organizations, on the other hand, identified four operational risks as their most impactful and each of them was deemed "Significant Impact," indicating a significant concern about the organization's ability to effectively manage and provide core business processes necessary to operate.

The 2017 risk scores for the top five risks are higher than the scores from the previous year for all organizations, and these risks (with one exception) are scored higher this year than in 2016.

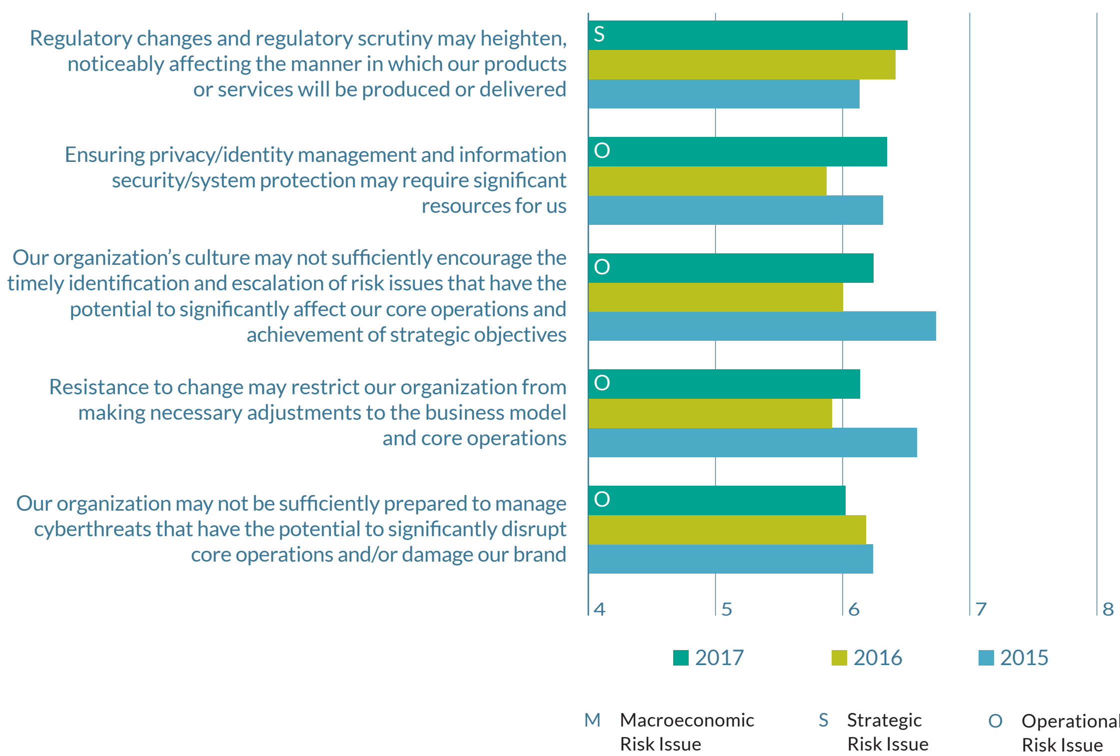
Public Companies



Private Companies



Not-for-Profit and Governmental Organizations



Analysis of Differences Between Geographic Regions

For the first time, we obtained a sufficient number of non-U.S.-based organizations to split the sample into four distinct groups: 413 North America-based organizations (NA)[7], 151 organizations from the Asia-Pacific (AP) region, 136 organizations based in Europe (EUR), and 35 organizations from elsewhere.[8] We were able to split the 2016 sample in the same manner, which resulted in 257 North American organizations,[9] 128 Asia-Pacific organizations and 114 observations from Europe-based organizations. There were 36 additional observations in the 2016 sample from other geographical areas (and are also excluded from this analysis).

We analyzed responses across these three groups to determine whether respondents across different geographic locations rank-order risks differently. Similar to our analysis summarized earlier in this report, we analyzed responses about overall impressions of the magnitude and severity of risks across the three categories. Again, the scores in the table below reflect responses to the question about their overall impression of the magnitude and severity of risks their organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months, using a 10-point scale where 1 = "Extremely Low" and 10 = "Extensive."

Overall, what is your impression of the magnitude and severity of risks your organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months?	2017	2016
North America-based Organizations	6.0	6.0
Asia-Pacific-based Organizations	6.5	6.3
Europe-based Organizations	6.7	6.4

Globally, organizations agree that the overall magnitude and severity of risks facing the organization are on a slight uptick from 2016, though it is the view of organizations outside North America that is driving this result.

The North American respondents believe that risks related to regulatory changes and heightened regulatory scrutiny represent the top risk concern, ranking this as the only "Significant Impact" risk. In vivid contrast, organizations based in the Asia-Pacific region ranked 20 of the 30 risks as "Significant Impact" risks, while those organizations based in Europe ranked 12 of the 30 in this category. Concern over economic conditions was the top-rated risk by organizations in both the Asia-Pacific and European regions. Two additional macroeconomic risks were included in the top five risk lists for Asia-Pacific-based organizations, while Europe-based organizations ranked three additional macroeconomic risks in the top five. For North America-based organizations, three of the top five risk concerns relate to operational risks, while for both Asia-Pacific- and Europe-based organizations macroeconomic risks dominate and no operational risks are included in the top five for either of these two groups.

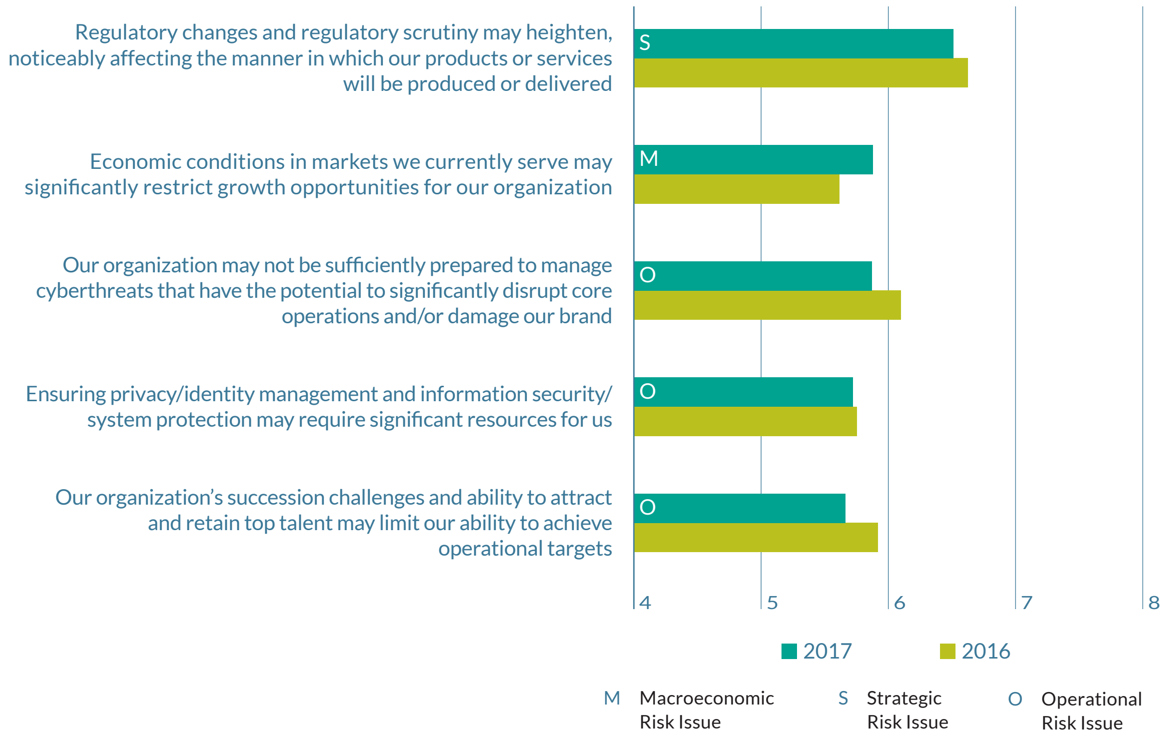
7 The 413 North American organizations are composed of 407 U.S.-based, four from Canada, and one each from Bermuda and Jamaica.

8 Fifteen of these organizations are from Africa-Middle East, two more are from South America, and 18 non-U.S.-based organizations did not disclose their headquarters location. We do not provide a separate analysis for this group.

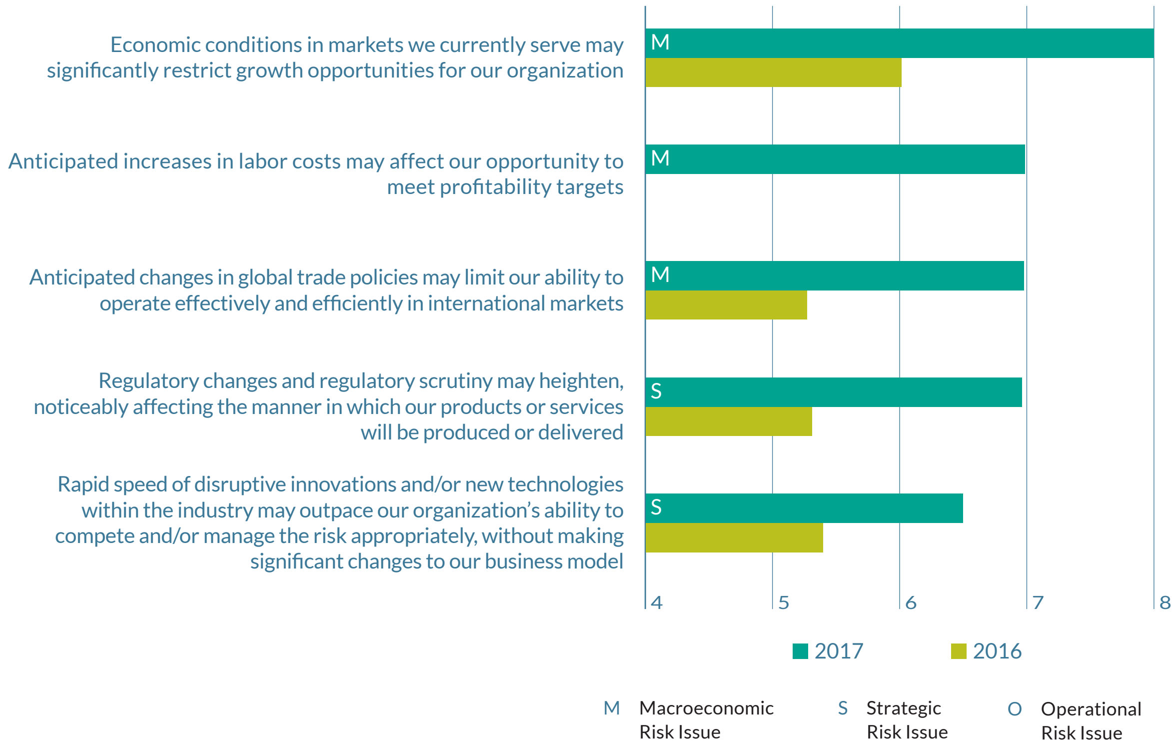
9 The 257 North American organizations are composed of 250 U.S.-based, five from Canada and two from Jamaica.

While the average risk scores differ rather significantly between North American and non-North American organizations, all three groups include risks related to enhanced regulatory scrutiny and deterioration in economic conditions high on their respective lists (top two for North America, top four for Asia-Pacific and top three for Europe).

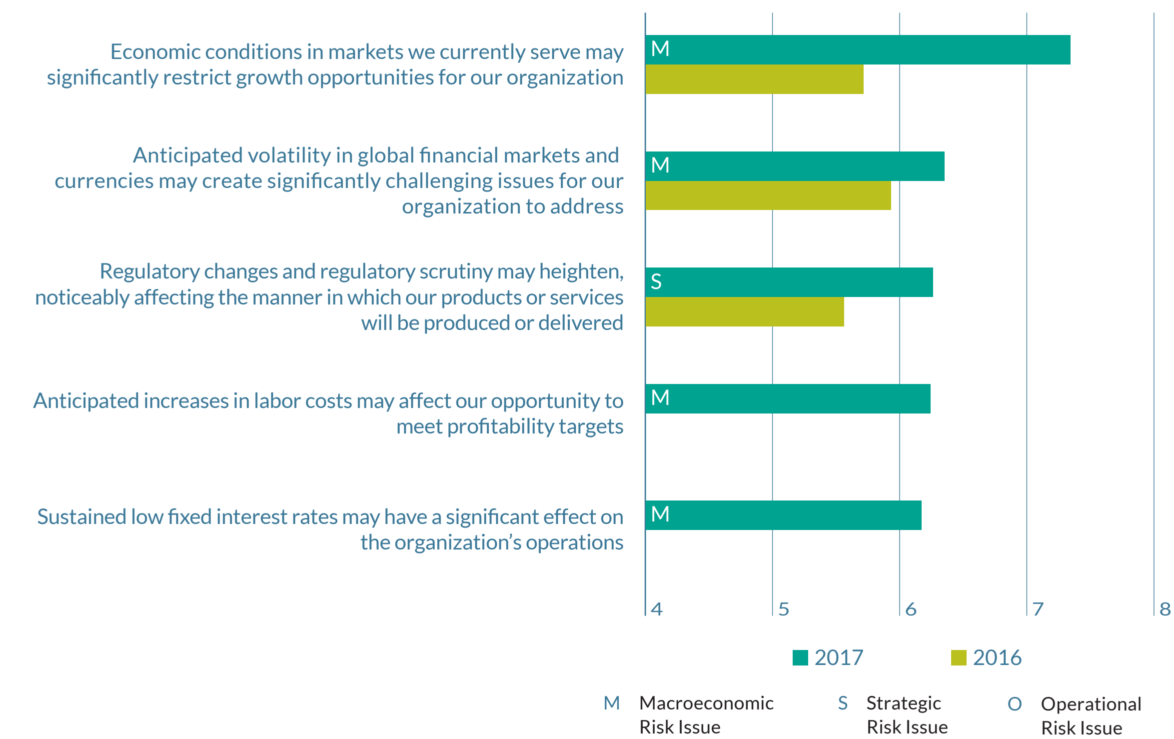
North American HQ Organizations



Asia-Pacific HQ Organizations



European HQ Organizations



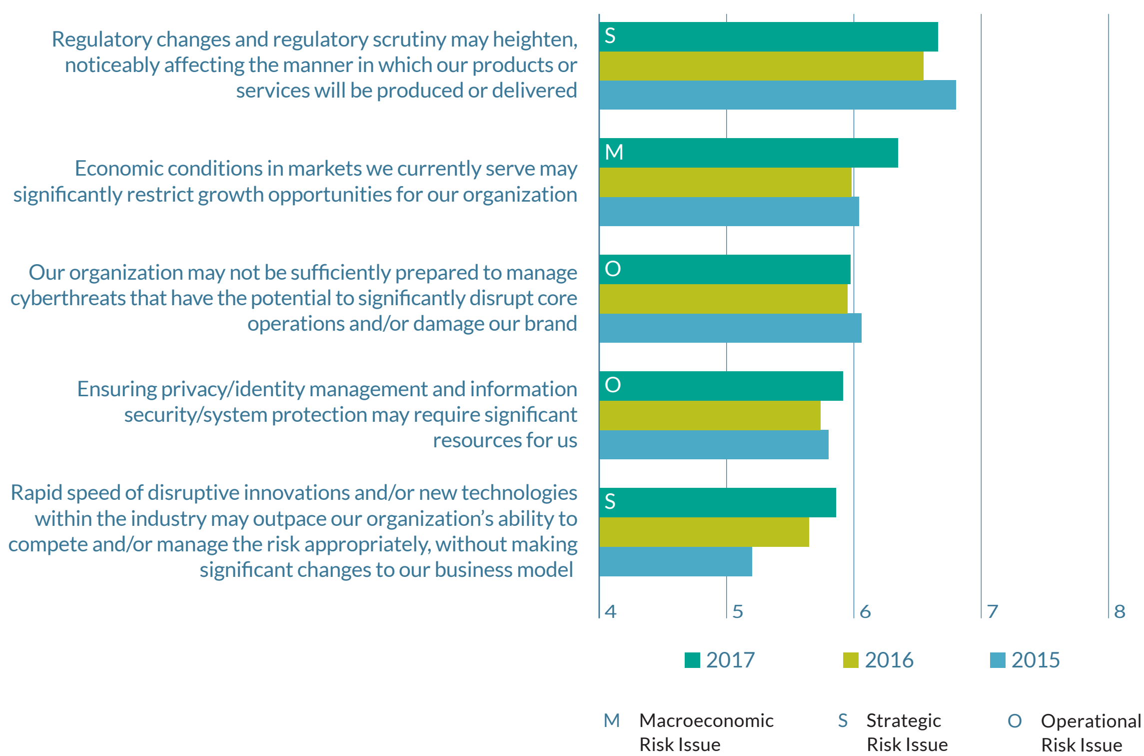
Analysis of Differences Between Organizations With and Without Rated Debt

We also asked participants to indicate whether their organizations have rated debt outstanding, whereby the major credit rating agencies may evaluate the overall riskiness of the enterprise and, implicitly, the organization's risk oversight processes as part of the entity's overall credit score. We are particularly interested in observing how organizations with rated debt perceive their overall risk environment in light of the explicit focus of rating agencies on the management and governance processes, including enterprisewide risk management.

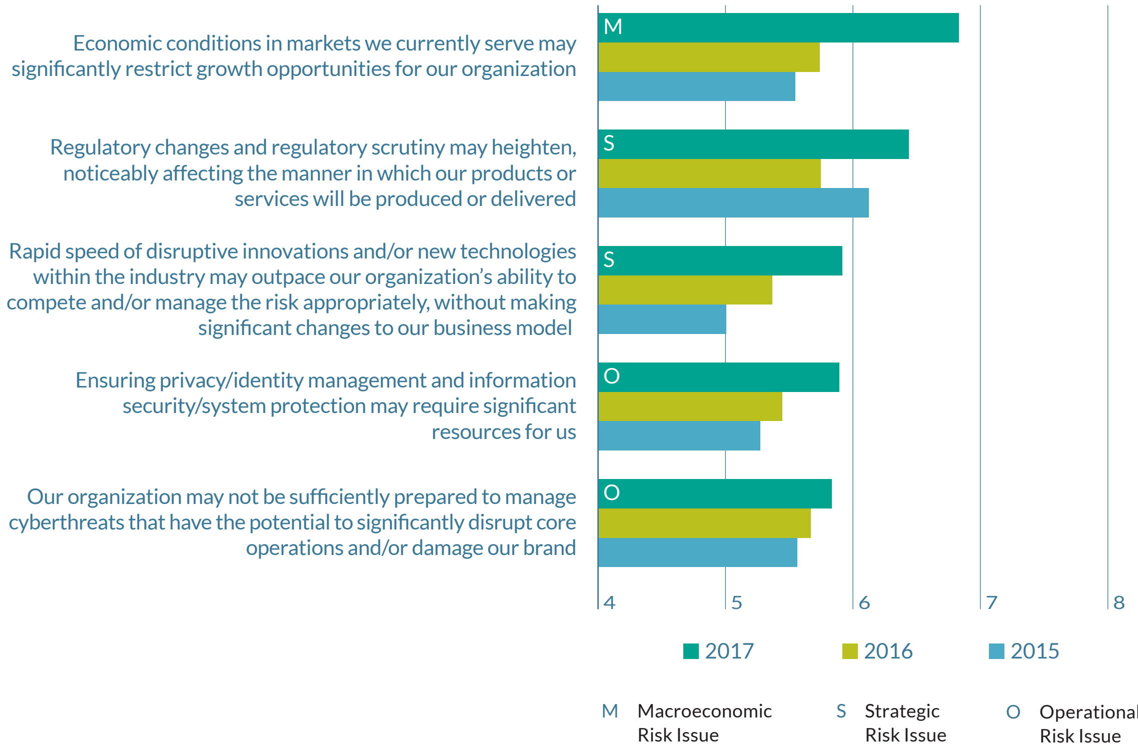
Two hundred seventy-seven participants in the survey represent organizations with rated debt outstanding, while 390 respondents represent organizations without rated debt. Sixty-eight respondents indicated "I'm not sure" in response to this question in 2017. The 277 organizations in our study with rated debt outstanding include 142 public companies, 83 private companies, and 52 governmental or not-for-profit organizations. For the 390 organizations without rated debt, 83 are public companies, 225 are private, and 82 are governmental or not-for-profit organizations. We report the survey results for 2017 and the two prior years for rated debt outstanding organizations and those without rated debt in the bar charts below.

Both types of organizations rank the risk related to regulatory changes and regulatory scrutiny and the risk of deteriorating economic conditions as the top two risk concerns (both at the "Significant Impact" level). They are reversed in order for the two groups. They also shared the remaining three top five risks – though they too were in slightly different order across the two groups. Overall, there is no marked difference between these two groups with respect to 2017 risk concerns.

Organizations with Rated Debt



Organizations without Rated Debt



Plans to Deploy Resources to Enhance Risk Management Capabilities

In light of the risk environment, we asked executives to provide insights about whether the organization plans to devote additional resources to improve risk management over the next 12 months. We used a 10-point scale whereby 1 signifies "Unlikely to Make Changes" and 10 signifies "Extremely Likely to Make Changes."

Despite the fact that respondents rated the impact scores for all risks higher in 2017 relative to 2016, they do not indicate a higher likelihood of deploying more resources to risk management in 2017 relative to 2016. In fact, that likelihood continued to dip slightly in 2017 from 2016 and 2015 for the full sample, as represented by the average score of 6.0 for 2017, compared to 6.1 for 2016 and 6.2 for 2015. This finding is a bit puzzling given overarching concerns about the overall risk environment and could be indicative of resource constraints or satisfaction with past investments. To the latter point, from an industry grouping perspective, Financial Services has the highest participation of the industry groups we examined. That industry group showed a slight decline, which may reflect the impact of prior year investments, as many financial institutions have invested heavily in risk management capabilities in the past.

	2017	2016	2015
Likelihood that the organization plans to devote additional resources to risk management over the next 12 months	6.0	6.1	6.2

In addition to having respondents rate the impact of 30 specific risks, we also asked about their overall impression of the perceived magnitude and severity of risks to be faced and the likelihood of investing additional resources in risk management efforts. The respondents' overall response suggest a slight increase in the nature of the overall risk environment, with an average score of 6.2 in 2017 relative to 6.1 in 2016.

	2017	2016	2015
Overall, what is your impression of the magnitude and severity of risks your organization will be facing with respect to reaching or exceeding profitability (or funding) targets over the next 12 months?	6.2	6.1	6.0

The Energy and Utilities and the Manufacturing and Distribution industry groups show the greatest increase in likelihood to invest more in risk management capabilities in 2017 relative to 2016. That finding is not surprising given the continued regulatory scrutiny and recent data breach events in these industry groups.

The Financial Services and the Technology, Media and Communications industry groups continue to note a desire for enhanced risk management capabilities, as signaled by their 6.3 and 5.9 scores, respectively, in the table below.

Likelihood that the organization plans to devote additional resources to risk management over the next 12 months																				
Full Sample			Financial Services			Consumer Products and Services			Manufacturing and Distribution			Technology, Media and Communications			Healthcare and Life Sciences			Energy and Utilities		
2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
6.0	6.1	6.2	6.3	6.4	6.9	5.8	6.2	6.0	6.3	6.0	5.4	5.9	5.8	5.6	5.5	6.2	6.2	5.9	5.5	5.8

We also analyzed responses to this question across different sizes of organizations – most organizations except the very smallest (those with revenues less than $100 million) are likely to deploy additional resources to risk management. Perhaps smaller organizations do not perceive that they are exposed to external scrutiny and/or regulatory pressure to continue strengthening their risk management.

Likelihood that the organization plans to devote additional resources to risk management over the next 12 months														
Full Sample			Revenues Less than $100M			Revenues $100M - $999M			Revenues $1B – $9.9B			Revenues $10B or higher		
2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
6.0	6.1	6.2	4.9	5.7	6.0	5.9	6.0	6.7	6.4	6.3	5.9	6.1	6.3	6.4

Privately held for-profit enterprises indicate an increased likelihood that they will be devoting additional resources to risk management over the next 12 months. The lower likelihood of not-for-profit and governmental organizations to invest additional resources in risk management is a bit surprising, given that those respondents rated all of their top five risks as "Significant Impact" risks. Not-for-profits focus on preserving brand reputation, and governmental organizations at all levels focus on identifying and managing risk as well as preserving the public trust. Risks to these organizations can relate to a variety of issues, including fraud, waste, misuse of assets, inadequate monitoring of investments, incomplete or unreliable information, and violation of legal and regulatory requirements, not to mention reputation loss.

Likelihood that the organization plans to devote additional resources to risk management over the next 12 months											
Full Sample			Publicly Traded Companies			Privately Held For-Profit Enterprises			Not-for-Profit and Governmental Organizations		
2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
6.0	6.1	6.2	5.9	6.1	6.2	6.4	6.3	6.1	5.5	6.0	6.6

Interestingly, senior executives, including the CFO, CRO, CIO and Other C-Suite executives, indicate the strongest desire to invest additional resources in risk management, while boards of directors and chief audit executives indicate a lower likelihood to invest in additional resources for 2017. The findings related to boards may be due to the relatively low number of survey respondents identifying themselves as board members (n=16). The finding may also reflect the reality that most of the expectations for effective risk oversight are placed on the CEO, who in turn delegates responsibility for design and implementation of risk processes to CFOs, CROs and others. CIOs indicated the greatest likelihood to devote additional resources relative to all other executives (recall we do not have data for CIOs in 2015). While CEOs and CROs did not reflect an increase, as a group they continue to rate highly the need to invest in additional risk management resources.

Likelihood that the organization plans to devote additional resources to risk management over the next 12 months																							
Full Sample			Board Members			CEOs			CFOs			CROs			CAEs			CIOs/CTOs			Other C-Suite		
2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
6.0	6.1	6.2	5.3	6.4	6.5	5.9	6.2	6.2	6.4	6.3	5.7	6.0	6.0	6.5	5.5	5.9	6.2	6.7	6.3	N/A	6.4	6.3	6.0

While North America-based organizations are not as likely to devote additional resources to risk management in the near term, both Asia-Pacific- and Europe-based organizations are more likely to invest in risk management in 2017 relative to the prior year. This is not surprising given the larger risk concerns for those organizations for 2017.

Likelihood that the organization plans to devote additional resources to risk management over the next 12 months							
Full Sample		North America		Asia-Pacific		Europe	
2017	2016	2017	2016	2017	2016	2017	2016
6.0	6.1	5.7	6.0	6.6	6.1	6.7	6.3

A Call to Action: Questions to Consider

This report provides insights from 735 board members and executives about risks that are likely to affect their organizations over the next 12 months. Overall, most rate the business environment as significantly risky, and on an overall basis, respondents rated each of the 27 of 30 risks included in prior year surveys as higher in 2017 relative to 2016 and 2015, suggesting that there continues to be a number of uncertainties in the marketplace for 2017.

The message is that the rapid pace of change in the global business environment provides a risky environment for entities of all types in which to operate. The unique aspect regarding disruptive change is that it represents a choice – which side of the change curve do organizations want to be on? This is an important question because, with the speed of change and constant advances in technology, rapid response to new market opportunities and emerging risks can be a major source of competitive advantage. Conversely, failure to remain abreast or ahead of the change curve can place an organization in a position of becoming captive to events rather than charting its own course.

Accordingly, in the interest of evaluating and improving the risk assessment process in light of the findings in this report, we offer executives and directors the following diagnostic questions to consider when evaluating their organization's risk assessment process:

- Given the pace of change experienced in the industry and the relative riskiness and nature of the organization's operations:
  - Is the risk assessment process frequent enough?
  - Does the process involve the appropriate organizational stakeholders?
  - Is the business environment monitored over time for evidence of changes that may invalidate one or more critical assumptions underlying the organization's strategy?
  - Are risks evaluated in the context of the organization's strategy and operations? Is adequate consideration given to macroeconomic issues?
  - Is the process supported by an effective methodology and risk criteria?
  - Does the process encourage an open, positive dialogue for identifying and evaluating opportunities and risks? Is attention given to reducing the risk of undue bias and groupthink?
  - Does the assessment process give adequate attention to differences in viewpoints that may exist across different executives and different global jurisdictions?
  - Is the board informed of the results on a timely basis? Do directors agree with management's determination of the significant risks?
- Following completion of a formal or informal risk assessment:
  - Are risk owners identified for newly identified risks?
  - Is there an effort to source the root causes of certain risks that warrant a better understanding? Does the process look for patterns that connect potential interrelated risk events?
  - Are effective risk response action plans developed to address the risk at the source? Are the risk owners accountable for their design and execution?
  - When there is evidence that one or more critical assumptions underlying the strategy are becoming, or have become, invalid, does management act timely on that knowledge?
  - Is implementation of risk responses monitored by the risk owners?
  - Do decision-making processes consider the impact on the organization's risk profile?

- Is the board aware of the most critical risks facing the organization? Do directors understand the organization's responses to these risks? Is there an enterprisewide process in place that directors can point to that answers these questions and is that process informing the board's risk oversight effectively?
- Is management periodically evaluating changes in the business environment to identify the risks inherent in the organization's strategy? Is the board sufficiently involved in the process, particularly when such changes involve acquisition of new businesses, entry into new markets, the introduction of innovative technologies or alteration of key assumptions underlying the strategy?
- Are significant risk issues warranting attention by executive management and the board escalated to their attention on a timely basis? Does management apprise the board in a timely manner of significant risks or significant changes in the organization's risk profile? Is there a process for identifying emerging risks? Does it result in consideration of response plans on a timely basis?
- Is there a periodic board-level dialogue regarding management's appetite for risk and whether the organization's risk profile is consistent with that risk appetite? Is the board satisfied that the strategy-setting process appropriately considers a substantive assessment of the risks the enterprise is taking on as strategic alternatives are considered during strategy setting and the selected strategy is executed?

These and other questions can assist organizations in defining their specific risks and assessing the adequacy of the processes informing risk management and board risk oversight. We hope this report provides important insights about perceived risks on the horizon for 2017 and serves as a catalyst for an updated assessment of risks and risk management capabilities within organizations, as well as improvement in the assessment processes in place.

Research Team

This research project was conducted in partnership between Protiviti and North Carolina State University's Enterprise Risk Management Initiative. Individuals participating in this project include:

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- Bruce Branson
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Protiviti

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- Brian Christensen
- Jim DeLoach
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The Enterprise Risk Management (ERM) Initiative in the Poole College of Management at North Carolina State University provides thought leadership about ERM practices and their integration with strategy and corporate governance. Faculty in the ERM Initiative frequently work with boards of directors and senior management teams helping them link ERM to strategy and governance, host executive workshops and educational training sessions, and issue research and thought papers on practical approaches to implementing more effective risk oversight techniques (**www.erm.ncsu.edu**).

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