

Key considerations for board and audit committee members

2014–2015 edition

At a glance

The changing business landscape, technological advances, and significant risks such as cybersecurity are shaping new challenges and opportunities for companies. This publication addresses topics for today's boardroom agenda and can provide a basis to help enhance the quality of board and management discussions in the coming year.



A fresh look at the boardroom agenda

Board agendas continue to evolve, and directors have to stay abreast of the many new issues facing companies. They have to stay focused on overseeing a company's strategy, risk management, ethics and compliance, as well as evaluating and compensating the CEO, among other items. It is crucial to take a fresh and critical look at the boardroom agenda to ensure it is meeting today's needs. Boards may want to consider the following topics and their impact on agendas.

Shareholder activism: preparing for potential interaction

Emerging technologies: considering their strategic impact

Risk oversight: focusing on risk appetite and third-party risks

Cybersecurity: overseeing the risk

Crisis management: understanding the response plan

Financial reporting and revenue recognition: keeping up with standard-setting and regulators

Noteworthy investor perspectives: considering their views

Shareholder activism: preparing for potential interaction

An average of 25 new activist hedge funds have launched each year for the past 10 years, and their assets under management have grown to more than \$110 billion.¹ Nearly one in five S&P 500 companies were targets of shareholder activism in 2014.² So directors will want to discuss the increased shareholder activism environment and how it might impact their companies.

Is your company a target?

Shareholder activists are not all the same. Activist hedge funds often target companies they believe are mismanaged or underperforming, while others go after companies with a lot of cash on hand. They may push companies to spin off underperforming or non-core parts of their businesses, return cash to shareholders through dividends or share buybacks, or replace the CEO.

While activists have historically targeted larger companies, mid-sized and smaller companies are now on their radars.

What some activists may look for:

- Poor market performance against peers
- Poor financial performance against peers
- Lack of new products or innovation (propensity to update existing products rather than bring new products to market)
- Suboptimal capital structure
- Turnover in leadership
- Lack of transparency and communication

Preparing for an activist

Some companies have found it beneficial to look at the company through the activists' eyes, proactively identifying and addressing areas such as undervalued assets and cost-cutting measures, which can be common targets. It is also important for the company to understand its shareholder base and any changes to it. A well-defined crisis management plan in case of any potential activist activity is also valuable.

What have we heard from directors? Some boards have already interacted with an activist shareholder. Others are extensively discussing shareholder activism, even though there haven't been any interactions with an activist.³

Boards and activism

Percentage of directors who say...

their board has interacted with an activist shareholder and held extensive board discussions about activism in the last 12 months

29%

they've extensively discussed shareholder activism, though they haven't had any interactions with an activist—yet

14%

Source: PwC, 2014 Annual Corporate Directors Survey, October 2014

Base: 210, 104

When an activist shows up

When a company becomes the target of an activist, management and the board should first acknowledge that the activist isn't likely to go away easily. They will want to understand what changes the activist is proposing and its strategy for achieving them. It is important to listen objectively. Company leadership may want to investigate what other companies the activist has targeted and whether those efforts were successful in achieving its goals. Companies should consider if, when, and how to launch their crisis response plans.

An understanding of the company's shareholder base—and how shareholders might vote their positions—is also important. In some recent cases, institutional shareholders have sided with activists and even joined them in their campaigns.

Director considerations:

- Think about what activists commonly look for, and consider whether the company may be a target of an activist campaign.
- Discuss with management whether to evaluate how the company might be viewed through activists' eyes.
- Discuss with management the company's crisis response plan, if needed, in the event of an activist campaign.

Spin-offs: when activists push for a breakup

Spin-offs are one tool in an activist shareholder's playbook. They call for large conglomerates to break up and spin off poorly performing subsidiaries or unrelated businesses. **The goal:** to unlock shareholder value and provide more transparency.

2014 saw the most spin-offs since 2000, with the trend expected to continue in 2015.⁴

Emerging technologies: considering their strategic impact

A company's competitors today may be different tomorrow. Future competitors may not even be on the company's radar—and those are the ones that can really cause disruption.

The influence of emerging technologies continues to grow and they have a greater impact on companies' strategic plans. More directors now believe their company's IT approach very much contributes to, and is aligned with, setting overall company strategy.⁵

As companies use Big Data, social media, and the cloud, their strategies could change. Other technological advances, including voice recognition, digital printing, digital media, and drones, may have big implications on a company's strategic plan. How do companies keep up with this pace of change and stay focused on innovation? Some are creating innovation labs to foster collaboration and creativity internally, going beyond traditional functional and organizational boundaries. Others are collaborating with partners within and outside of their industries, and some are bringing in entrepreneurs and industry experts to promote and encourage innovation.

Better understanding the growing use of emerging technologies

Companies are using emerging technologies to drive revenue and growth, and directors are increasing their focus and engagement on IT areas such as social media and employee use of mobile technologies.⁶ But directors also acknowledge that Big Data and cloud technologies are two areas that could use more of their attention.⁷

Consider the expanded use of the emerging technologies noted below.

Big Data

The Big Data market is expected to grow to \$32.1 billion by 2015 and to \$53.4 billion by 2017.⁸ Some companies are using Big Data to perform more targeted marketing, enhance customer experience, better manage their talent, improve operational performance, and mitigate risks.

Tapping Big Data

Retailers are using Big Data on customers' shopping choices and past purchases to tailor targeted offers and suggest products customers might be interested in.



Manufacturing companies are using Big Data to look at their manufacturing processes to increase performance, more effectively test the quality of their products, and reduce product waste.



The SEC is using Big Data tools in a number of different ways, including analyzing massive amounts of trading data to understand market behavior and detect potential illegal trading and other misconduct.



For example, many companies are mining vast amounts of information in historical reports and data provided by third parties to extract information to make predictions about customer behavior—what's called predictive analytics. A challenge is turning Big Data into "smart data" that the company can actually use.

Mobile computing

Mobile commerce sales are forecast to reach \$626 billion by 2018.⁹ They are projected to make up 26% of US retail e-commerce sales by 2017, up from 19% in 2014.¹⁰ It's not just millennials, either: one in four mobile shoppers in the US is over 55 years old.¹¹ So it's no surprise that many companies are focusing on their mobile strategies. Some are investing more in mobile advertising, while others are considering creating branded mobile apps.

It's important to keep in mind the cost and maintenance of the mobile strategy, protecting sensitive data, and ensuring data privacy.

Cloud computing

Cloud spending is expected to top \$235 billion by 2017, three times what was spent in 2011.¹² Many companies are adopting this technology to allow for more agility, scalability, and efficiency—and to save money. Cloud technologies can potentially eliminate or reduce the need for in-house servers and data centers, which translates to companies buying less software and hardware and reducing personnel costs.

Companies have invested in cloud software to manage human resources, financial information, and even procurement and supply chain services. Concerns about the cloud include data security and privacy risk, since data is housed by a third party.

Social media

Nearly three-quarters of adults who are online use social networking sites.¹³ Many follow brands on social media to get promotions and discounts, for information on new products, to access customer service, and to offer feedback. It is estimated that 46% of web users turn to social media when considering making a purchase.¹⁴

It's no surprise that many companies are using social media to increase brand loyalty and recognition, as well as to improve their customer experience. But the related risks of social media also need to be considered, including its misuse and negative publicity that could harm the company's reputation.

Director considerations:

- Discuss with management how the company is keeping up with technological change and the activities of its known competitors and potential disruptors.
- Understand how the company is using emerging technologies to drive growth and how the related risks are being managed.
- Agree on the board's oversight role for significant emerging technologies adopted by the company.

Use of emerging technologies

Big Data

The Big Data market is expected to grow to \$32.1 billion by 2015 and to \$53.4 billion by 2017.¹⁵



Mobile devices

Mobile will make up 26% of US retail e-commerce sales by 2017, up from 19% in 2014.¹⁶



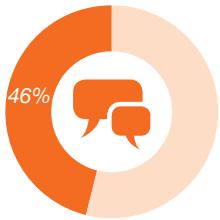
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Risk oversight: focusing on risk appetite and third-party risks

Risk oversight continues to be a top priority for directors. Boards should focus on overseeing the company's most critical risks and agreeing on the company's overall risk appetite. They will also want to ask questions about how third-party risks are managed.

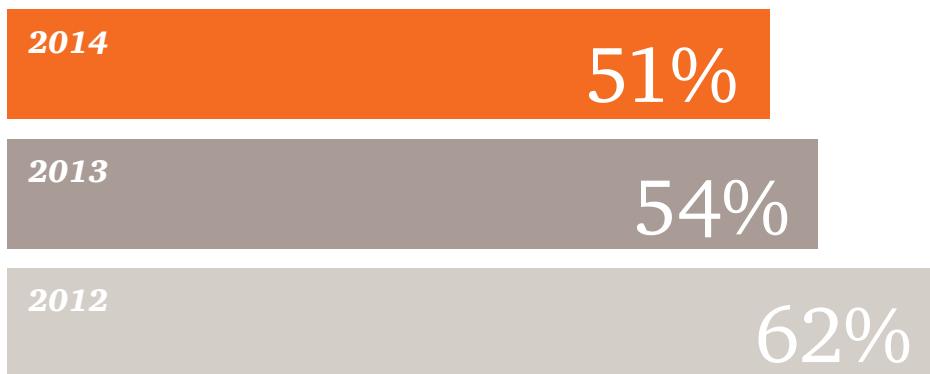
What's our risk appetite?

Understanding the company's definition of risk appetite is important. It is not always a well understood term, and there are often questions about where to begin discussions on the topic. Directors are now less comfortable with their understanding of their company's risk appetite: 51% say their board understands the company's risk appetite "very well"—down from 62% just two years ago.¹⁹

So what is risk appetite? It's the amount of risk an organization is willing to accept in pursuit of strategic objectives. It starts with a company's risk profile that catalogs its various risks, considering both quantifiable and qualitative factors. Risk appetite then considers those risks and the actual amount of risk the company is willing to bear based on its financial and operational capabilities. This amount should not surpass the company's overall risk capacity, which is a higher threshold and is based on the actual amount of risk the company could bear, depending on its capabilities.

Understanding risk appetite

In your opinion, how well does your board understand your company's risk appetite?



Source: PwC, 2014 Annual Corporate Directors Survey, October 2014.

Base: 725, 790, 839

Risk appetite is not a statement; it is a process that when properly defined and communicated drives behavior by setting the boundaries for running the business and capitalizing on opportunities. A company that doesn't define its risk appetite may be taking too much—or too little—risk.

Third-party risk

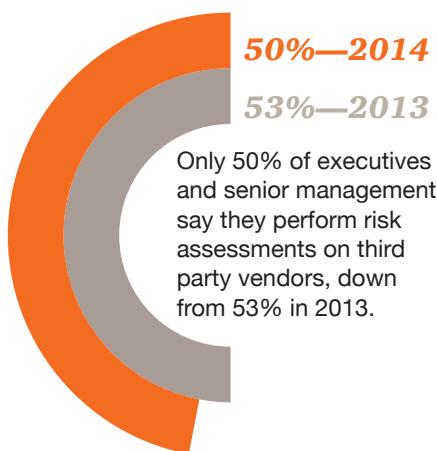
Companies often use third parties to achieve business objectives, from outsourcing business functions to expanding supply chain and distribution channels. But third parties can expose companies to greater risks with significant bottom line and reputational repercussions. Under Federal Sentencing Guidelines, companies can be held accountable for the acts of agents, resellers, distributors, and partners.

Companies need to have appropriate risk management practices that address third-party risk, and directors will want to ask about them. Due diligence on the third parties and partners that a company does business with is important to managing risk, particularly if sensitive data is shared. Two ways to help manage such risk are negotiating written contracts and conducting independent audit or verification procedures.

Director considerations:

- Keep focused on the company's top risks and ask management if the company has an ongoing process to update its risk profile to respond to major changes in strategic direction, business activities, and emerging risks.
- Discuss management's assessment of the company's risk appetite and consider whether it should be adjusted as strategic goals and objectives change.
- Discuss with management the company's third-party relationships and how it manages and monitors the related risks.
- Ask if third parties have access to the company's sensitive data and systems and whether they are required to comply with the company's data privacy and security policies.

Risk assessments on third party vendors



Source: PwC, *The Global State of Information Security Survey 2015*, September 30, 2014.

Cybersecurity: overseeing the risk

Data security is a formidable challenge, because the number of cybersecurity threats and the sophistication of attacks are increasing exponentially. It's likely that your company will be hit—if it hasn't been already. With the increased risk, many directors (65%) want at least some increased focus on cybersecurity.²⁰

It's a business issue not a technology issue

Cybersecurity is a business issue and broader risk-management issue. Companies today are interconnected with their customers, vendors, distributors, suppliers, partners, advisors, and many others. These parties have various access points to a company, which can create greater exposure to a cyberattack. There are significant implications to a data breach. A breach can affect the company's operations and its ability to file regulatory reports, result in

financial losses and potential lawsuits, and do significant reputational damage, to name a few repercussions.

Insiders are viewed as the biggest threat

More than any other threat actors, current and former employees are the most cited culprits of security incidents.²¹ That's not to say that all bad employee behavior is intentional. Employees may unintentionally compromise data through the loss of mobile devices or by unknowingly responding to targeted phishing schemes. A company culture that focuses on data security, along with employee training and education to create awareness of potential security risks and company policies, is critical.

Employees are not the only source of insider threats. Third parties, including current and former service providers, consultants, and contractors, who have trusted access to networks and data, are also common culprits.²²

Security incidents

Global security incidents
(GSISS 2015)

48%

Global smartphone users
(eMarketer)

22%

Global GDP
(OECD)

21%

Security incidents outpace GDP and mobile phone growth.

*The percentage of growth for global security incidents is **more than double** global GDP and global smartphone users combined.*

Source: PwC, *The Global State of Information Security Survey 2015*, September 2014.

Enterprise technical debt can increase risk

Companies today are managing larger, more complex digital environments, but often, without bigger IT budgets. The average global information security budget fell 4% from a year earlier.²³ As a result, companies often delay software upgrades or replacing legacy IT infrastructure. This “enterprise technical debt” can create greater risk exposure to cyberattacks and result in ballooning costs over time.

It's important that IT budgets and resources are evaluated and appropriate, and that the risks related to enterprise technical debt are addressed by management and transparent to the board.

The NIST framework

The Commerce Department's National Institute of Standards and Technology (NIST) released a Cybersecurity Framework (“the Framework”) in February 2014. The Framework is a risk-based compilation of guidelines

designed to help companies assess their current capabilities and draft a roadmap toward improved cybersecurity practices. While the Framework is initially targeted to critical infrastructure companies and voluntary for companies to adopt, some observers have indicated that it may be used in legal proceedings related to breaches in any industry. The Framework may even be employed by insurance companies when issuing new policies. Because of these expanded uses, many companies are assessing their practices against the Framework.

Five core functions of effective cybersecurity, according to the NIST Framework



Identify: An understanding of how to manage cybersecurity risks to systems, assets, data, and capabilities.



Protect: The controls and safeguards necessary to protect assets or deter cybersecurity threats.



Detect: Continuous monitoring to provide proactive and real-time alerts of cybersecurity-related events.



Respond: The policies and activities necessary for prompt responses to cybersecurity incidents.



Recover: Business continuity plans to maintain resilience and recover capabilities after a cyber breach.

Source: National Institute of Standards and Technology, *Framework for Improving Critical Infrastructure Cybersecurity*, February 2014.

Director considerations:

- Actively engage in the discussions around the company's cybersecurity program and whether it protects the company's most valuable assets across the business enterprise and is getting the appropriate level of attention, resources, and leadership.
- Understand how the company educates and trains employees and third parties on potential security risks and company policies.
- Discuss the IT budget with management, including the IT security budget, and understand the company's enterprise technical debt, if any.
- Ask about the NIST Framework and whether management has considered the guidelines in developing its cybersecurity program.

Crisis management: understanding the response plan

A cyber breach is just one type of crisis that a company may face.

Natural disasters, significant product failures, or even sudden changes in leadership are others. How a company responds is critical since it can have significant implications, particularly on the company's reputation.

Scenario testing can improve execution

Most directors say they understand "very" or "moderately" well the company's crisis communication response plan²⁴, up from less than half who said the same just two years ago. But interestingly, when a crisis actually does happen, often the crisis response plan is forgotten in the midst of the turmoil. This can result in inefficiency and potential mistakes.

Companies will want to assess and test their crisis response plan. Scenario testing can help improve the likelihood of effective execution. And while testing is important, the best laid plans may not always work. Companies need to remain agile during a crisis situation and adapt their plan if and as needed.

As part of their crisis management planning, some companies conduct tabletop exercises to examine specific scenarios and pressure-test incident response plans.

Lessons learned from recent crises

Having the right crisis response team:

Companies need to have the right crisis response team with the requisite expertise to guide the company. The team may be different depending on the crisis situation. For example, the team needed to respond to a security breach may be different from one needed to respond to a natural disaster.

Controlling the messaging:

Management should use caution when communicating in a crisis situation. Companies need to maintain control of the messaging and be careful not to provide too much detail before all the facts are known. Sometimes the known facts can change dramatically in a short amount of time. Such changes can lead to a different response plan and cause the company to lose credibility with its stakeholders if it has already gone public with an incomplete or inappropriate response. Social media can be a valuable communication tool.

Investigations and assessing the need for independent legal counsel:

If a situation is deemed to need an investigation, the audit committee or board will want to determine whether to engage independent legal counsel instead of a familiar law firm overseen by company executives. Why? Independent counsel may be needed to satisfy all parties and regulators—the SEC, stock exchanges, external auditors, and company executives—relying on the credibility and objectivity of the investigation.

Building relationships early:

A company in a crisis situation may need the assistance of regulators or local law enforcement agencies. So management may want to consider building relationships with key individuals in these organizations before a crisis occurs.

Director considerations:

- Ask if management has performed scenario testing of the company's crisis management plan to reduce the likelihood of mistakes and inefficiencies.
- Understand whether and how the company plans to use social media to deliver its messages in a crisis situation.
- Consider lessons learned from recent crises and discuss with management whether any actions or changes are needed to the company's crisis response plan.

Financial reporting and revenue recognition: keeping up with standard-setters and regulators

Companies continue to face an array of new standards, rules, and regulations that can have significant financial reporting implications and broader business impact. Directors should be aware of key developments in this area.

Implications of the new revenue recognition standard

The revenue recognition standard issued in 2014 by the Financial Accounting Standards Board (FASB) aims to provide a single, comprehensive revenue recognition model for all contracts with customers. It will have varying effects on companies depending on their industry and current accounting practices. But new extensive disclosure requirements will impact all companies.

Companies most significantly affected by the new standard will likely be those with industry-specific guidance, like aerospace and defense and software industries. Substantial changes are also expected for other companies with multiple-element contracts (such as mobile telecommunications providers) and those that enter into certain royalty or licensing arrangements (such as biotech and pharmaceutical companies).

It is important to note that the FASB is evaluating certain aspects of the new standard, such as the accounting for licenses, for possible re-deliberation.

For US GAAP companies, the standard is effective for annual periods beginning after December 15, 2016, but the FASB has recently announced that it will be exploring whether there is a need to potentially defer this date. Companies can choose one of two methods to adopt the standard—a prospective approach from initial adoption date—or a full retrospective approach, providing greater comparability for investors.

The new standard has far-reaching implications and companies will want to start preparing for it now. They will want to assess and plan for the standard, including considering whether and how to communicate the expected implications to investors and stakeholders.

Key questions directors should ask about the new revenue recognition standard:

- How is management interpreting the new revenue recognition standard and its application to its customer contracts? Will the timing of revenue recognition be impacted and will it be more volatile?
- What is management's expected method of adoption?
- In light of the significant new disclosure requirements, are the company's IT systems capable of generating the additional data that may need to be collected, analyzed, and disclosed?
- How are the company's internal controls impacted by the new standard, and what changes will need to be made to company policies and practices?
- What are the ramifications on the company's business model? Will product and service sales and marketing strategies need to change or customer contracts restructured to align with the new strategies?
- What are the other broader business implications of the standard on areas like taxes and sales commissions and bonuses?

The public debate around taxes

The US and global tax landscape continues to change. The difficult economic situations in many countries and the related challenges of fiscal deficits have combined to increase the public debate around taxes and their impact on financial reporting.

Companies expend significant effort to manage compliance with complex tax rules and the related accounting standards. Notwithstanding full compliance with the tax laws and regulations, some companies are being negatively impacted by a public perception that they are not paying

their “fair share” of taxes on income. Why? Even though a company may have paid all required taxes in all jurisdictions, some may perceive and assert that it has “taken advantage” of tax rules and paid too little.

This has brought managing tax risks and protecting the company’s brand into the spotlight, as stakeholders have increasingly shown interest in these areas.

Companies will want to consider the current tax environment on their financial reporting and business practices.

Other key developments

Spotlighting key regulatory and standard-setting developments that could impact financial reporting

Activities	Timing	Key points
Recently-issued or effective standards		
FASB revised standard: <i>Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity</i>	Effective date for public companies: annual periods beginning on or after December 15, 2014, and interim periods within those years	<ul style="list-style-type: none">What qualifies as a discontinued operation will have a higher threshold, which is expected to result in fewer disposals transactions qualifying as discontinued operations
FASB revised standard: <i>Presentation of Financial Statements—Going Concern</i>	Effective date for public companies: annual periods ending after December 15, 2016, and all annual and interim periods thereafter	<ul style="list-style-type: none">Management is required to perform a going concern assessment at each reporting periodSpecific disclosures are required in certain circumstances

Spotlighting key regulatory and standard-setting developments that could impact financial reporting (continued)

Activities	Timing	Key points
<i>Proposed rulemaking</i>		
SEC proposed rule: <i>CEO Pay Ratio Disclosure</i>	Comment period closed Status: the SEC advised that the final rule will not be published until October 2015 at the earliest	<ul style="list-style-type: none"> Would require public companies to disclose the ratio of the compensation of the CEO to the median compensation of all employees
PCAOB proposed rule: <i>The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion</i>	Comment period closed Status: PCAOB to consider reproposal	<ul style="list-style-type: none"> Would retain the current pass/fail auditor reporting model Would require that the auditor include a discussion of critical audit matters in the audit report Would require disclosure of the auditor's tenure
PCAOB proposed amendments to <i>Improving the Transparency of Audits</i>	Comment period closed Status: PCAOB to consider supplemental request for comment	<ul style="list-style-type: none"> Would require disclosure of the name of the engagement partner responsible for the audit and certain other audit participants

Director considerations:

- Discuss with management which customer contracts will be affected by the new revenue recognition standard and how revenue recognition will change for the company.
- Ask management about the broader business implications of the new revenue recognition standard and its implementation plan for significant changes.

- Discuss with management the current tax environment and how it may impact the company's tax and business strategies.
- Understand other key financial reporting developments and discuss with management how they might impact the company, as well as how the company is preparing for potential new rules.

Noteworthy investor perspectives: considering their views

There are investors of all sizes and types participating in the capital markets today. While they may have different perspectives and investment strategies, most have expectations about board performance. So it's important to know your shareholder base and consider its views.

Board diversity and renewal

Both directors and institutional investors agree that financial expertise is a top attribute. Industry and operational expertise are also high on their respective lists.

Institutional investors have a keen interest in diversity. More rate gender diversity as "very important" than do directors. A number of individual shareholder groups have even undertaken initiatives designed to increase diverse representation on their investee companies' boards.

Board renewal is getting greater attention by institutional investors and other stakeholders. While there was an increase in the number of independent directors added to S&P 500 companies in the 2014 proxy year, it was still considerably less than a decade ago.²⁵ At the same time, the average age of directors and mandatory retirement age have also risen.²⁶ Institutional Shareholder Services (ISS) started using director tenure as a factor in its company ratings system (QuickScore 2.0) in the 2014 proxy season.

Boards should continue to think about the skills needed to oversee the future strategic direction of the company and how those match up with the existing skills of board members. Director succession planning is also important.

Important director attributes

Respondents who said these were "very important"



Institutional investors want	Directors want
Financial expertise	1 Financial expertise
Risk management expertise	2 Industry expertise
Operational expertise	3 Operational expertise
Industry expertise	4 Risk management expertise
Gender diversity	5 International expertise

Source: PwC, 2014 Investor Survey, October 2014;
PwC, 2014 Annual Corporate Directors Survey, October 2014.

Dialogue and engagement with directors

Whether to have direct dialogue between boards and investors remains a topic of much discussion. Two-thirds of directors say their board had direct communications with institutional investors in the last 12 months.²⁷ And, almost half of institutional investors and a quarter of directors say their communications with one another increased during this same period.²⁸ But other directors are cautious about the practice, with one in five saying it's not appropriate to engage directly with investors about any subject.²⁹

Institutional investors' opinions about direct communication with board members also vary. Some believe that board interactions should have a purpose—and not just occur for the sake of engagement. Others are considering more robust engagement with boards, including proposing "shareholder liaison committees."³⁰ Direct dialogue between investors and directors may be beneficial in certain circumstances. Governance issues, such as shareholder proposals and executive compensation, are often considered appropriate topics for dialogue, according to directors.³¹ Institutional investors believe board composition and management performance are important topics for direct communication.³²



of directors say direct communication with institutional investors has increased over the last year;
48% of investors say the same.

Source: PwC, 2014 *Annual Corporate Directors Survey*, October 2014;
PwC, 2014 *Investor Survey*, October 2014.

Less than half of directors have held discussions about company protocols and practices in preparation for director-shareholder interactions.³³ It's important for boards to determine whether they will engage directly with shareholders and, if so, what topics would be up for discussion. Boards will want to consider developing protocols and practices so they're prepared should a shareholder request engagement.

Director considerations:

- Assess whether the board has the right skills, experience, and diversity for optimal performance and future success.
- Consider whether the board should enhance its transparency around board composition decisions in the proxy report.
- Determine if and when the board should communicate directly with investors, and understand if the company has established communications protocols.
- If the board agrees to direct communication, determine who on the board should be tasked as the point person and who else from the company should participate.

Boards and audit committees can consider how these topics impact their companies. They should also consider other topics they determine to be important to the companies they serve, given their specific facts and circumstances.

Endnotes

- 1 Maxwell Murphy, "Mind the Rising Activist Tide, Experts Say," *The Wall Street Journal*, November 6, 2014, accessed November 7, 2014.
- 2 Brendan Sheehan, "Trends in Shareholder Activism," Global Governance Advisors, October 2014.
- 3 PwC, *2014 Annual Corporate Directors Survey*, October 2014.
- 4 Vito J. Racanelli, "Bullish on Spinoffs," Barron's, December 9, 2014.
- 5 PwC, *2014 Annual Corporate Directors Survey*, October 2014.
- 6 PwC, *2014 Annual Corporate Directors Survey*, October 2014.
- 7 PwC, *2014 Annual Corporate Directors Survey*, October 2014
- 8 PwC, "Where have you been all my life? How the financial services industry can unlock the value in Big Data," PwC FS Viewpoint, October 2013.
- 9 Global mobile commerce spend forecast, Goldman Sachs, March 2014.
- 10 Shea Bennett, "Social, Mobile, Search—Amazing E-Commerce Stats, Facts & Figures," Adweek, June 10, 2014, accessed November 22, 2014.
- 11 Cooper Smith, "The Surprising Facts About Who Shops Online And On Mobile," BusinessInsider, January 9, 2015, accessed January 25, 2015.
- 12 IHS, "Enterprise Cloud Spending to Soar to New Heights in Quest to Drive Greater Business Success," April 3, 2014.
- 13 "Social Media Use By Age Group Over Time," Pew Research Internet Project, updated January 2014, accessed November 22, 2014.
- 14 Shea Bennett, "Businesses on Social Media: Statistics & Trends," Adweek, October 3, 2014, accessed October 23, 2014.
- 15 "Where have you been all my life? How the financial services industry can unlock the value in Big Data," PwC FS Viewpoint, October 2013.
- 16 Shea Bennett, "Social, Mobile, Search—Amazing E-Commerce Stats, Facts & Figures," Adweek, June 10, 2014, accessed November 22, 2014.
- 17 IHS, "Enterprise Cloud Spending to Soar to New Heights in Quest to Drive Greater Business Success," April 3, 2014.
- 18 Shea Bennett, "Businesses on Social Media: Statistics & Trends," Adweek, October 3, 2014, accessed October 23, 2014.
- 19 PwC, *2014 Annual Corporate Directors Survey*, October 2014.
- 20 PwC, *2014 Annual Corporate Directors Survey*, October 2014.
- 21 PwC, *The Global State of Information Security Survey 2015*, September 30, 2014.
- 22 *Ibid.*
- 23 *Ibid.*
- 24 PwC, *2014 Annual Corporate Directors Survey*, October 2014.
- 25 SpencerStuart, *Board Index Report*, November 2014.
- 26 *Ibid.*
- 27 PwC, *2014 Annual Corporate Directors Survey*, October 2014.
- 28 PwC, *2014 Investor Survey*, October 2014, PwC, *2014 Annual Corporate Directors Survey*, October 2014.
- 29 PwC, *2014 Annual Corporate Directors Survey*, October 2014.
- 30 Stephen Foley, "Vanguard calls for boardrooms shake-up," The Financial Times, December 4, 2014.
- 31 PwC, *2014 Annual Corporate Directors Survey*, October 2014.
- 32 PwC, *2014 Investor Survey*, October 2014.
- 33 PwC, *2014 Annual Corporate Directors Survey*, October 2014.

How PwC can help

***To have a deeper discussion
about how these topics might
impact your business, please
contact your engagement
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