Navigating amongst icebergs: leading insurers address emerging risk

Insurance Governance Leadership Network

July 2015

Building a better working world

Tapestry Networks

Insurance Governance Leadership Network
ViewPoints

July 2015 TAPESTRY NETWORKS, INC · WWW.TAPESTRYNETWORKS.COM · +1 781 290 2270

Navigating amongst icebergs: leading insurers address emerging risk

"What are the icebergs?" asked a director. He continued, *"What are the risks we think we understand but are much, much larger than they appear? How do we get our arms around those?"* Another director said that discussions of emerging risks evoke an image of a canoeist floating gently down a river, having no idea that waterfalls are up ahead. Over the last several years, the introduction of regulatory risk requirements such as the Own Risk and Solvency Assessment (ORSA) and the "forward-looking assessment of risk" for Solvency II, combined with the evolution of enterprise risk management (ERM), have led to a significant maturation of risk management and governance within the most complex insurers. Despite this progress, boards still wonder if they are prepared to spot the next big challenge, especially in a world where risks seem to multiply exponentially. As one director said, *"The future will only have more volatility, uncertainty, complexity, and ambiguity. The board and management must be ready for that."*

"There are two types of emerging risks: those that creep up on you slowly and those that you wake up one day and find out it is too late."
– Executive

On June 11, Insurance Governance Leadership Network (IGLN) participants met in New York to discuss risk identification and management and to explore the most significant emerging risks. For a list of meeting participants, see Appendix 1. Meeting participants cited risks that have surfaced in previous meetings of the network – changing regulation, cybersecurity, and macroeconomic disruption – but confirmed that boards and top executives are thinking about these risks, and risk in general, in new ways. This *ViewPoints*[1] is guided by the following questions:

- How can boards enhance the governance of emerging risks?
- Which emerging risks are most likely to materialize and cause significant harm?

How can boards enhance the governance of emerging risks?

"The first challenge is defining what we mean by 'emerging risk,'" said one risk executive. *"There is no real bright line. For us, it is the thing just over the horizon that you can't quantify with enough certainty."* Emerging risks are often described as new and unforeseen risks whose potential for harm is not fully known. These risks are exceedingly difficult to model and often demand non-traditional management approaches. Emerging risks fall into two main categories:

- **New risks**. These are genuinely new and frequently the result of technological change. Examples include hazards posed by driverless cars or environmental and geological risks associated with hydraulic fracturing.

- **Developing risks.** Even when emerging risks are known, they can show up in new and more challenging ways. Examples include pandemics, cybersecurity risks, or adverse economic conditions.

One director observed, *"There are really almost no new risks. Most significant risks are things we knew about but misunderstood or underestimated."* As companies triage their risks according to probability and severity, this second category, developing risks, often proves the more worrisome.

Boards continue to grapple with how to adapt existing risk processes and create incremental value. The challenge is that boards and management need to identify important risks before they become game changers, without wasting too much time on risks that won't materialize. Participants identified the following ways in which boards can drive improvement in risk management:

- **Support investment in emerging-risk infrastructure, new talent, and novel solutions.** *"The board has to say risk identification is an important investment,"* said one supervisor, *"because it is not a profit center. It is an expensive long-term commitment."* Emerging-risk work is time consuming. To the extent that the risk function is viewed as a compliance or policing function, it may be undervalued within the company. One executive emphasized the need to support new types of talent, noting, *"The traditional risk lenses are appropriate and needed, but we are going to have to get new talent. The risk team is embedded in our existing culture and has only worked in insurance. We need a different worldview."* In addition to new kinds of people, chief risk officers (CROs) are looking to leverage new technologies and capabilities, such as data analytics, to tackle emerging risks. These technologies can allow firms to expand risk factors, refine early-warning indicators, evaluate second- and third-order effects, and review unstructured data for hidden patterns or correlations.

"Risk management can seem like a major cost center, particularly if it is not closely connected to strategy."
– Chief risk officer

- **Challenge management more effectively.** Directors feel that they must be aware of their personal biases and that they increasingly need to push management to consider different perspectives and think about second- or third-order consequences. According to several directors, it easy to focus on risks themselves, rather than the people who take them, or to presume *"it can't happen here."* Risk committees and boards must also take a longer view: *"I view this like chess. You need to think three to four steps ahead to see what might happen,"* said one executive. Regulators are also looking for this kind of engagement. *"How are [senior managers] thinking about the risks and testing the process?"* asked one supervisor. Directors continue to search for ways to provide effective challenge, especially in highly technical areas where they depend on management-provided information. Bringing in external resources on certain topics is part of the solution.

"Unlike other types of risk, which are highly scientific, emerging risks are more like art with a little science sprinkled in."
– Risk executive

- **Identify the issues that require full board attention.** Executives and directors both acknowledge that there is an art to risk prioritization. One risk committee chair noted, *"I'd be curious to hear how committees decide what goes to the full board and what stays in committee."* Over the last several years, many boards report conducting some sort of full board deep dive on cybersecurity, reflecting the salience of that risk area.

An executive suggested that boards should spend at least one day a year on cyberrelated issues.

- **Define an appetite for emerging risks.** On several occasions CROs have noted that their group has zero appetite for certain risks. More often than not, these zero-appetite risks fall into the emerging-risk category. Unfortunately, they may be unavoidable. Firms should address how they are going to handle emerging risks in risk appetite frameworks and how they will establish tolerances.

- **Create more unstructured time to explore risks.** Most companies have rigorous two-way processes whereby local risks bubble up from units and macrotrends trickle down through functional lines. All directors acknowledged that typical board agendas rarely allow enough time to examine important risks and said the board needs unstructured time for risk exploration. The challenge for boards remains how to allow for that less structured time, given heavy formal governance responsibilities, and where to prioritize it among competing demands. According to one director, *"The strategy sessions are often too fully baked; things are delivered in final form."* One suggested that *"[with] a little bit of chardonnay and a white board,"* people would share what really was on their minds. Another agreed that unstructured time and *"strategic cocktail conversation"* provide an opportunity to see not just what people think, but *how* they think.

- **Employ reverse stress testing.** It is important to understand not just how a firm will react under stress, but what it might actually take to break it. One director noted, *"As a CFO I struggled to break the business. I will be sure I know how to do it as a director."* Reverse stress testing can inform and calibrate the risk process so directors and management understand the kinds of threats that could destroy the enterprise. Several participants reported that this was one of the most important takeaways from this discussion.

- **Continue to improve communication with regulators.** Lead supervisors are seeking more and more direct engagement with board members. At least one insurer has supervisors attend board and board committee meetings as observers. Participants said that this practice is not common, but noted that observation is an important component of the supervisory process. Supervisors emphasized that they also want to hear from non-executives directly. One supervisor agreed that finding ways for companies to communicate directly, without intermediaries such as lobbyists or associations, is important, particularly given policymakers' and regulators' exhaustion at being constantly lobbied.

While there are no simple prescriptions for better management of emerging risks, directors believe that these practices can help to improve identification, management, and governance. This is especially important as emerging-risk management processes become more mature and more integrated. The practices sketched above could reduce the likelihood of emerging-risk management becoming an ineffective, tick-the-box exercise.

Which emerging risks are most likely to materialize and cause significant harm?

Despite much progress on emerging-risk identification and management, directors worry that they are not focused on the right risk areas, or that they are failing to allocate limited resources appropriately. In a wide-ranging conversation, participants identified several particularly worrisome risk areas, where several types of risks intersect and compound, with unknown consequences. Appendices 2 and 3 provide a more complete discussion of emerging risks identified by participants, articles, and leading reports, as well as questions boards can ask regarding emerging risk governance.

Assessing how monetary and regulatory policy may contribute to systemic risk

One supervisor noted, *"It is a different world today, so when we stress test, we are really stress testing history. What feels different is that there are things happening in markets you can't explain. Maybe it is nothing, but maybe it isn't. Something about this market feels funny."* Insurers and individual savers are often cited as the biggest losers under current stimulative monetary policy.[2] Insurers continue to draw attention to the negative consequences of the persistent low-rate environment. More recently, however, directors and others have been turning their attention to the combination of novel, and relatively untested, monetary and regulatory policy. One director argued, *"I'm concerned about capital models and the interplay of misspread bond markets. There is too much free money. There has to be a reckoning, and we won't like it."* Participants point to developments such as the drying up of liquidity in US corporate and government bond markets as examples of monetary and regulatory policy interacting in potentially harmful ways. One supervisor summarized the concerns of several participants, asking,*"Is it a better world because of the reforms, or worse because it is different and moving faster than ever?"* In a recent op-ed, Stephen Schwarzman, chairman and CEO of Blackstone, suggested these dynamics will fuel the next financial crisis.[3]

Anticipating the structural change that digital transformation will create

Participants see clear opportunity in digital transformation, but also want to understand the downside of rapidly advancing technology and changing customer behavior. *"Most carriers have seen the convergence of big data, cloud computing, digital delivery, and digitizing operations as disruptive to the business model,"* said one CFO. One director noted, *"Insurers used to be the data experts. Now everyone else is too."* In this environment, non-traditional competitors can emerge from almost anywhere. Participants worry that a distinctive non-traditional competitor could reinvent some aspect of the industry. *"Who is our Uber?"* asked one director. Beyond overarching competitive risks, each element of digital transformation brings with it specific challenges that could negatively affect parts of the business. For example, data analytics, taken to the extreme, might tear apart traditional notions of risk pooling and diversification, which would have consequences for insurers and society. If companies move too slowly on analytics, or fail to invest appropriately, they may lose ground to cherry-picking competitors.

Staying up to speed on cyberrisk

"Cybersecurity is clearly an 'emerged risk,' but it is constantly changing. As more and more transacting is done online and criminals think up new things … it is hard to see it becoming less of a risk," said one director. Another agreed: *"The criminal element will continue to*

come up with new ways to cause damage." Cybersecurity is a top risk for most insurers, and increasingly, regulators are showing concern as well. In the United States, various state regulators have begun to conduct more serious assessments of insurers' cybersecurity situation,[4] and in April the National Association of Insurance Commissioners published cybersecurity guidance for state regulators.[5]

According to one director, companies are now more diligently addressing the misconception that most threats originate outside the company. He noted, *"Thirty to sixty percent of cyberthreats come from inside the organization from malicious insiders, disgruntled, fraudulent, or unaware employees, or blackmailed individuals."* In a case making its way through the courts, a CFO was fired and then sued by his former hedge-fund employer for falling prey to a phone scam in which an individual, claiming to represent the fund's bank, convinced the CFO to provide banking access codes to check against possible fraudulent activity.[6]

While breaches remain a chief concern, insurers are also trying to stay abreast of new developments so they can anticipate the next challenge areas. Several participants noted that the "Internet of Things," the growing universe of Internet-enabled objects, will provide tremendous amounts of valuable data, but also vastly increase the number of places and ways in which criminals can do harm. Some experts predict that exploitation of Internet-enabled objects for malign intent could have terrible real-world impacts.[7] According to one executive, there may be one bright spot: as the scale of breaches increases, public sensitivity and the degree of reputational damage to any individual firm may decrease. In contrast to macroeconomic and market concerns, cybersecurity typically is viewed as a challenge for individual insurers, but not as a systemic threat, so long as attacks remain focused on companies, not systems – financial, infrastructural, or other. However, one supervisor did raise the possibility of systemic threat, asking, *"Do we have the imagination to understand the possible systemic issues?"*

Understanding anticorporate populist trends

A growing strain of popular sentiment takes a negative view of all corporations and of financial institutions in particular – a cause of concern for leading insurers. New political and regulatory initiatives suggest that this anticorporate populism may have moved beyond public sentiment to public policy. IGLN participants seek to understand not just the policies in play, but the emotions that underlie them. Most of the new policies and regulations are in the area of insurer conduct and consumer protection. Two recent US examples, one political and one regulatory, illustrate the growing interest in consumer protection and the rhetoric that supports it.

- **Senator Warren inquiry.** US Senator Elizabeth Warren recently sent letters to 15 annuity providers asking for information about rewards and incentives offered, often through middlemen, to annuity advisers.[8] She wrote, "I am concerned that these incentives present a conflict of interest for agents and financial advisers that could result in these agents providing inadequate advice about annuities to investors and selling products that may not meet the retirement investment needs of their buyers." She went on to explain that research demonstrates that "annuity dealers often have significant conflicts of interest."[9]

"The UK has been looking at conduct and sales for a while. I see that picking up steam elsewhere, like the US."
– Director

- **Rules for retirement investment advisers.** Under newly proposed Department of Labor rules, financial firms that receive commissions or fees for managing retirement savings, particularly through individual retirement accounts, will be held to higher standards of conduct and expected to act solely in the interests of the client. While these rules have been in development for years, they have recently been reproposed with the vocal support of President Obama.[10]

These actions may portend a larger policy and regulatory discussion regarding compensation and conduct standards that insurers must prepare for. Insurers also contend that these kinds of policy changes can be somewhat retroactive: *"We find yesterday's products judged by tomorrow's standards,"* said one director. He continued, *"Regulators focus on whether we will be there tomorrow for the customer. I worry about whether we can be there for tomorrow's customer."*

Remaining focused on long-term value creation

According to some participants, industry stakeholders, including boards, focus too much on the short term. One director noted he had seen a significant increase in a *"'not-my-problem' attitude"* within companies. In other words, if challenges were likely to surface later, on someone else's watch, boards and management were not sufficiently concerned. Investor and analyst pressure is often cited as the leading cause of short-termism, but in a recent survey, respondents pointed to boards as the leading source of pressure on management over quarterly results and near-term share price gains.[11] One participant asked, *"Are we appropriately balancing long- and short-term results? Are incentives aligned to do this?"*

Improving financial literacy

While declining financial literacy is not generally considered a top risk, participants were keen to discuss the challenge in specific populations – youth, women, and traditionally underserved populations – as well as across society. Low financial literacy levels are a societal concern, but also present specific risks for insurers by reducing the market for products and increasing conduct and reputational risks. Declining literacy combined with ever more complex products and an increasing focus on consumer protection shifts more responsibility from consumers to providers. One director asked, *"To what degree is misbuying, rather than misselling, to blame?"* Product simplification is a common response to this challenge, but participants also proposed that financial institutions, as well as governments, schools, and other groups, should be more active in improving literacy.

★★★

"We have put so much in place, but does that mean we should be comfortable that we are on top of this? I am curious what other companies are worried about. How do you get comfortable that your energy is focused on the right risks?" asked one director. As these recent discussions demonstrate, directors may never be completely comfortable because top and emerging risks will continue to present tough, multifaceted challenges. As directors continue to be asked to challenge the information provided by management and to better understand the risks to their institutions and the financial system, we expect IGLN discussions will provide a useful forum for exchanging perspectives on key risks and good practices in risk identification and oversight.

About the Insurance Governance Leadership Network (IGLN)

The IGLN addresses key issues facing complex global insurers. Its primary focus is the non-executive director, but it also engages members of senior management, policymakers, supervisors, and other key stakeholders committed to outstanding governance and supervision in support of building strong, enduring, and trustworthy insurance institutions. The IGLN is organized and led by Tapestry Networks, with the support of EY. *ViewPoints* is produced by Tapestry Networks and aims to capture the essence of the IGLN discussion and associated research. Those who receive *ViewPoints* are encouraged to share it with others in their own networks. The more board members, members of senior management, advisers, and stakeholders who become engaged in this leading-edge dialogue, the more value will be created for all.

About Tapestry Networks

Tapestry Networks is a privately held professional services firm. Its mission is to advance society's ability to govern and lead across the borders of sector, geography, and constituency. To do this, Tapestry forms multistakeholder collaborations that embrace the public and private sector, as well as civil society. The participants in these initiatives are leaders drawn from key stakeholder organizations who realize the status quo is neither desirable nor sustainable and are seeking a goal that transcends their own interests and benefits everyone. Tapestry has used this approach to address critical and complex challenges in corporate governance, financial services, and healthcare.

About EY

EY is a global leader in assurance, tax, transaction, and advisory services to the insurance industry. The insights and quality services it delivers help build trust and confidence in the capital markets and in economies the world over. EY develops outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, EY plays a critical role in building a better working world for its people, for its clients, and for its communities. EY supports the IGLN as part of its continuing commitment to board effectiveness and good governance in the financial services sector.

Appendix 1: Meeting participants

AIG

- Steve Miller, Non-executive Chairman of the Board
- Doug Steenland, Regulatory, Compliance, and Public Policy Committee Chair and Risk and Capital Committee Member

Aon

- Mike Losh, Audit Committee Chair

Federal Reserve (New York)

- Lauren Hargraves, Senior Vice President and Senior Supervisory Officer, Financial Institution Supervision Group
- Vandana Sharma, Vice President, Financial Institution Supervision Group

MetLife

- Frank Cassandra, Senior Vice President, Global Risk Management

Nationwide Building Society

- Tim Tookey, Risk Committee Chair

Prudential Financial

- Nicholas Silitch, Senior Vice President and Chief Risk Officer

QBE Insurance Group Limited

- John Green, Deputy Chairman

Sompo Japan Nipponkoa

- Jan Carendi, Senior Adviser to CEO

State Farm

- Ed Rust, Chairman

USAA

- Eileen Collins, Vice Chair, Risk Committee
- Van VanAntwerp, Member, Risk Committee

Zurich

- Joan Amble, Audit Committee Member

EY

- Tom Campanile, Partner, Risk Governance Lead, Financial Services Risk Management
- Shaun Crawford, Global Insurance Sector Leader
- Rick Marx, Principal, Business Advisory and Risk Management Services, Insurance

Tapestry Networks

- Leah Daly, Principal
- Jonathan Day, Vice Chairman
- Colin Erhardt, Associate
- Peter Fisher, Partner

Appendix 2: List of emerging risks

Type of risk	Description/potential impact
Business model	
New forms of liability	New forms of liability, and associated litigation, may emerge in any number of areas.
Increasing life expectancy and lifestyle risk	Longer life expectancy is having a major impact on life insurers. At the same time, the growing prevalence of obesity and other lifestyle-related health impairments suggests that mortality or morbidity figures of in-force life and health policies could differ from actuarial expectations.
Non-traditional competitors	The emergence of competition in new and evolving spaces – distribution, risk analysis, alternative capital – may produce significant disruption within the insurance industry.
Changing compensation models	Periodic payment orders and the migration from lump-sum to annuity payments for claimants may cause major changes in business models.
Economic	
Euro zone: ultra-low inflation or deflation	Inflation remains below targets. Deflation in the periphery could both improve competitiveness and increase debt-to-GDP ratios.
High unemployment or underemployment	Lingering effects from the global financial crisis continue to cause high levels of unemployment and underutilization of the productive capacity of the employed population. This may have negative social, political, and economic effects on impacted regions.
Ongoing quantitative easing	Ongoing quantitative easing and divergent quantitative-easing policies may increase uncertainty and cause adverse market effects.
Energy price shocks	Sustained price increases or decreases will place further pressure on energy-dependent countries, industries, and consumers.
Fiscal crises	High debt levels or disorderly withdrawals from emerging markets could create sovereign crises, liquidity challenges, or broader investor panic.
Shadow banking	In 2012, the Financial Stability Board estimated that shadow banking represented 25%–30% of the total financial system.[12] Potential risks include the possibility of an individual institution becoming systemically important without sufficient regulation and oversight.
Asset bubbles	Unsustainable, overpriced assets such as housing, equities, or commodities in any major region pose a risk. Failure to contain a

Type of risk	Description/potential impact
	bubble may lead to a burst and significant damage to the real economy.
Environmental	
Climate change	Warming global temperatures and more extreme weather patterns may cause more frequent and dangerous storms and place greater stress on water and food supplies, which in turn may lead to population displacement, migration, and conflicts.
Biodiversity loss or ecosystem collapse	Land or oceanic events could lead to litigation, food and resource scarcity, collapse of specific industries (forestry, fishing, etc.) and a greater need for infrastructure repair and replacement.
Man-made and natural catastrophes	Whether man-made or natural, disasters result in loss of life, damage to health, property, infrastructure, economic activity, and the environment.
Air pollution	In some industrializing nations, air pollution is a significant negative factor, causing more disease, rising mortality, and constraints on travel and business activity.
Geopolitical	
Euro zone: secession and independence	Europe has witnessed a rise in nationalist and anti-European sentiment. The United Kingdom, Greece, Scotland, Catalonia, and Crimea continue to struggle with questions of unification and independence. These geopolitical uncertainties pose significant challenges for companies.
Inter- and intrastate volatility and conflict	The conflict between Russia and Ukraine, war in the Middle East, the rise of Islamic State, and the surprising volatility in many markets have resulted in significant losses and pose serious ongoing risks.
Large-scale terrorist attack	A successful terrorist attack would have large-scale human and material impacts.
Weapons of mass destruction	The use of nuclear, biological, radiological, or chemical technologies would create mass chaos and significant destruction.
Regulatory and legal	
Consumer protection legislation	Increased regulation and supervision could create barriers to market entry, affect innovation and underwriting, challenge business models, or result in greater fines, recalls, and product liability issues.

Type of risk	Description/potential impact
Regulatory convergence	Convergence is an explicit goal intended to create a level playing field and limit arbitrage. However, it could also contribute to less diversity in risk management.
Litigation	Legal action may change claims patterns.
Social	
Genetic testing	The availability of these tests to consumers raises concerns about privacy, security, antiselection, and malpractice.
Pandemic and drug resistance	Uncontrolled infectious disease spread in people, animals, or plants may lead to health risks, fatalities, and economic disruption.
Workplace demographic change	People are working longer at the same time that companies need to attract and retain millennials. In some markets, millennials face significant unemployment and dislocation. Companies also face a talent gap. Public systems may face difficulties funding longer lives.
Technological	
3-D printing	3-D printing could give rise to unregulated or counterfeit manufacturing and new forms of liability claims.
Artificial intelligence and other smart technologies	Technology in drones, driverless cars, smart cities, and the like may increase the risk of feedback loops, privacy and security problems, and risks from malfunctioning systems, as well as liability claims.
Information technology legacy systems	Many existing technology systems are not well suited to respond to the realities and needs of the 21st century. Modernizing and upgrading these systems will require massive investments of time and resources.
E-cigarettes	Sales of e-cigarettes have increased dramatically, but little is known about their medium- or long-term risks.

Appendix 3: key emerging-risk questions for boards

In thinking about emerging risks and their governance, directors may wish to consider the following questions:

Improving emerging-risk identification and management

- How can risk identification be improved? What categories of risk present the greatest challenges to identify, measure, and monitor?
- How can directors implement and later adapt established risk identification and escalation processes? How do boards ensure there is continuous improvement and a "lessons-learned" view?
- How should boards or committees balance being well informed about emerging risks with focusing on those identified as most important?
- How can boards best assess management information? What alternative information sources can boards turn to?
- What are the arguments for and against greater information sharing on the part of insurers and regulators? What are the barriers to sharing?

Identifying significant emerging risks

- What indications are there that boards are sufficiently (or insufficiently) focused on the biggest strategic and operational risks?
- What new risks present the greatest threats?
- Which risks are developing the most quickly or with the most potential impact?
- What risks do continually evolving regulatory standards and expectations present?
- How can identification, measurement, and monitoring of operational risks be improved?
- How can companies prepare for looming challenges like the end of quantitative easing or increasing divergence in QE policy?
- How can cybersecurity risk management be improved across the industry?

Endnotes

[1] *ViewPoints* reflects the network's use of a modified version of the Chatham House Rule whereby names of network participants and their corporate or institutional affiliations are a matter of public record, but comments are not attributed to individuals, corporations, or institutions. Network participants' comments appear in italics.

[2] The writers of Swiss Re's *SONAR: New Emerging Risk Insights* (Zurich: Swiss Re, 2014) used this phrase to describe quantitative easing (page 9).

[3] Stephen Schwarzman, "How the Next Financial Crisis Will Happen," *Wall Street Journal,* June 9, 2015.

[4] "N.Y. Announces New, Targeted Cybersecurity Assessments for Insurers," *Insurance Journal,* February 9, 2015.

[5] NAIC Cybersecurity Task Force, *Principles for Effective Cybersecurity: Insurance Regulatory Guidance* (Washington, DC: National Association of Insurance Commissioners, 2015).

[6] Kit Chellel, "A London Hedge Fund Lost $1.2 Million in a Friday Afternoon Phone Scam," *Bloomberg Business,* July 7, 2015.

[7] For more information, see James Lyne, *Security Threat Trends 2015* (Oxford, UK: Sophos 2015) or Holly Ellyatt, "Top 5 Cybersecurity Risks for 2015," *CNBC,* January 5, 2015.

[8] Elizabeth Warren, US Senator, Massachusetts, letters to the CEOs of 15 insurers, April 28, 2015.

[9] Ibid.

[10] Gina Chon and Barney Jopson, "US Launches Crackdown on Pension Adviser Conflicts," *Financial Times,* February 23, 2015.

[11] Ben Dummett, "Corporate Boards Turn Up Heat on Management to Think Short Term," *Canada Real Time* (blog), *Wall Street Journal,* June 5, 2015.

[12] Swati Ghosh, Ines Gonzalez del Mazo, and Inci Otker-Robe, "Chasing the Shadows: How Significant Is Shadow Banking in Emerging Markets?" *Economic Premise,* no. 88 (September 2012), 2.