



Global Risk Management Survey

2015

Introduction

Globalization offers tremendous potential in the form of international partnership, technological innovation, and business expansion for companies around the world. Increased connectivity and interrelation of countries and companies provides unprecedented opportunity for growth. Aon's 2015 Global Risk Management Survey is designed to offer organizations the insights necessary to compete in this increasingly complex operating environment.

Conducted in the fourth quarter of 2014, the survey has gathered input from 1,418 respondents at public and private companies of all sizes around the world. The 2015 findings from the web-based survey have underscored that companies are grappling with new risks and that there are differences of opinion on how best to prioritize and respond to them.

For the first time since 2007, **damage to brand and reputation** has emerged as the top-ranked risk in our survey. Interestingly, **cyber risk** has entered the top 10 for the first time this year. The connection between these two risks has been felt around the world in 2014, as a rash of data breaches demonstrated the fragile nature of consumer trust in leading corporations.

The interconnected nature of risk is underscored by two other risks in our top 10, the **failure to attract and retain top talent** and the **failure to innovate**. There is no question that organizations are under intense pressure to nurture the ingenuity and maximize the productivity of their people. Companies that cannot appropriately align and incent their workforce will quickly lose ground to their competition.

At Aon, our 69,000 colleagues in over 120 countries touch more risk and people issues on a daily basis than any company in the world. As the leading provider of risk and human capital solutions, we have an appreciation for the challenges these issues create and the opportunities that can be unlocked if they are identified and addressed.

We believe in the power of data and analytics to provide insight in this era of greater complexity and are committed to leveraging our unmatched global network to provide leading organizations with business intelligence like our Global Risk Management Survey.

If you have any questions or comments about the survey or wish to discuss the survey further, please contact your Aon account executive or visit aon.com/2015GlobalRisk.

Best regards,



Greg Case
President and CEO



Executive Summary

On October 29, 2014, Janet Yellen, chairwoman of the U.S. Federal Reserve, delivered the news that analysts had anticipated for months—the U.S. would end its bond-buying program, known as “quantitative easing.” It was the biggest emergency stimulus in history. During a six-year period, *Bloomberg News* said the Fed had added more than USD 3.5 trillion to its balance sheet—an amount roughly equal to the size of the German economy. In pulling away support for the economy, the Fed took a chance that one of the world’s largest economies is on the mend.

Meanwhile, the World Bank and International Monetary Fund have also confirmed that the overall health of the global economy is improving, despite serious setbacks and uneven growth. Worldwide economic growth rose 3.3 percent in 2014 and is expected to reach 3.5 percent in 2015.

In the face of such positive data, economists have uttered (a tad hesitantly) perhaps, a collective sigh of relief that the global economy looks poised to be on a slightly more self-sustaining growth path.

Similar sentiment is captured in Aon’s 2015 Global Risk Management Survey, which keeps our fingers on the pulse of different industries relating to risk management and is one of our many efforts to help organizations stay abreast of emerging issues. The biennial survey contains analyses and detailed facts and figures gleaned from 1,418 organizations of all sizes and industry sectors from every continent.

In the survey, economic slowdown/slow recovery, which was consistently ranked as the number-one risk facing companies worldwide since 2009, has slipped to number two. The percentage of surveyed organizations reporting losses of income in the last 12 months has dropped from 67 in 2013 to 46 in the current survey.

As overall concerns over economic slowdown are temporarily subsiding (even though this risk is still a number-one threat for many industry sectors), organizations have revealed a host of other daunting challenges driven by both external and internal factors in today’s globally interdependent environment. While new risks such as cyber security have moved to center stage, old risks like damage to reputation/brand and increasing competition are taking on new dimensions and complexities. These constantly evolving and interconnected challenges have made risk management a necessity for survival and a key driver for success in this diverse, competitive, and fragile marketplace.

Top 10 risks

In every survey, respondents are asked to rank formidable risks facing their companies. We then choose the top 10 risks for detailed discussion, which is one of the perennial highlights:

1. Damage to reputation/brand
2. Economic slowdown/slow recovery
3. Regulatory/legislative changes
4. Increasing competition
5. Failure to attract or retain top talent
6. Failure to innovate/meet customer needs
7. Business interruption
8. Third-party liability
9. Computer crime/hacking/viruses/malicious codes
10. Property damage

Since top-risk perceptions are often influenced by news headlines, it is an interesting exercise to compare the top 10 risks with some of the key political and business events in 2014 before and during the period when this survey was conducted:

- Rise of Islamic State of Iraq and Syria (ISIS)
- Oil prices crash
- Plunge of more than 40 percent in the Russian Ruble
- Extreme winter weather conditions in parts of Canada and eastern U.S.
- Protests in Ferguson, Missouri
- Massive pro-democracy protests in Hong Kong
- End of quantitative easing and drop in unemployment rate in the U.S.
- U.S. release of rules against tax inversion

- China's economic slowdown and its failure to reach target growth rate
- Investigations of multinationals in China on charges from monopoly and corruption to safety issues
- Continuing military conflicts in Ukraine and Russian annexation of Crimea
- Disappearance of Malaysia Airlines Flight 370, destruction of Malaysia Airline Flight 17 over Ukraine and crash of AirAsia Flight 8501
- Ebola outbreak in West Africa
- Restoration of diplomatic ties between U.S. and Cuba
- Election of leaders in Bolivia, Brazil, Colombia, India, and Uruguay
- Cyber attacks on Sony and Home Depot
- GM ignition switch recall on 1.6 million vehicles
- Bankruptcy filings by large companies such as Energy Future Holdings Corp, NII Holdings Inc. (Nextel), and Radio Shack
- Floods in India, Pakistan, China, and Southeast Europe and widespread drought in U.S. and Brazil

As one can see, major headlines about massive data breaches, large-scale product recalls, mysterious plane crashes, and aggressive government investigations have raised concerns about corporate reputation and brand damage. The unpredictable nature of such crises in an age of 24-hour news cycles and instant social media poses a serious threat to a company's hard-earned global image. In Aon's survey, reputation damage is ranked the number-one risk. While negative news coverage can undermine an organization's reputation in a matter of minutes or hours after a crisis, intensive media scrutiny also heightens awareness of crises preparedness.

At a recent forum sponsored by the National Automobile Dealers Association, Jim Lentz, CEO of Toyota North America, made a succinct statement to journalists when the issue of product recall came up. He said: “It is easier repairing recalled products, but fixing the damage done to a company’s image will be a tougher process that takes time and tremendous effort.” Lenz’s words obviously resonate with many corporate leaders who have responded to Aon’s survey.

In addition to reputational risk, economic slowdown/slow recovery stands out as another illustration of the influence of news events on risk perception. Despite the upbeat forecast about economic expansion in the U.S. and the United Kingdom, a spate of news reports in 2014 about the uneven and sputtering growth in Europe; the slowed growth in China, Japan and Brazil; the currency plunge and recession in Russia due to low oil prices and economic sanctions; and weaker consumer demands in some major oil exporters have undoubtedly dented some organizations’ confidence in the economic recovery. The uncertainty means that this risk is still a serious threat and will continue to loom large.

New entrants in the top 10 list

Take another quick glimpse of the world event list—flooding, severe winter weather, political protests, plane crashes, a pandemic, and cyber attacks. It’s not hard to understand why property damage has re-entered the top 10 risk list. Swiss Re estimates that economic losses from natural and man-made disasters in 2014 amounted to USD 113 billion.

Nowadays, commercial buildings and plants are being developed on a larger scale, and equipped with more costly machinery and new technology that are difficult to replace. Therefore, property damage could cause severe business interruption. In the case of suppliers, the value concentration in just one facility is so large that any damage could affect multiple companies. As a result, industry

claims in excess of USD 1 billion have become more frequent and, in some cases, have come from sources not traditionally anticipated by insurers.

Along with property damage, computer crimes/hacking/viruses/malicious codes have also emerged for the first time as a top-10 risk. The high-profile cyber attacks in the news only represent the tip of the iceberg. Every company that has a website or smart phones has global exposure to such risks. According to PricewaterhouseCoopers, the number of detected cyber attacks skyrocketed in 2014—up 48 percent from 2013. They are expected to go up further in 2015, with roughly 117,000 attacks each day.

Meanwhile, a Washington think tank, the Center for Strategic and International Studies, claims that the annual cost of cyber crime and economic espionage to the world economy runs as high as USD 445 billion—or almost one percent of global income. This does not include the intangible damage to an organization. Last year, the insurance industry took in USD 2.5 billion in premiums on policies to protect companies from losses resulting from hacks.

In the U.S., where a large percentage of cyber attacks are taking place, the Obama administration has formed a new intelligence agency charged with sharing intelligence on cyber attacks. The U.S. and U.K. governments have recently committed to working together on establishing “cyber cells” and “cyber war games.”

Cyber risk is fast-moving, impossible to predict, and difficult to understand, but the damage can be immense. How is it possible to cover the exposure of every company in the world and how do you quantify such exposure? There is no simple answer, but one of the dangers facing the insurance industry is the potential for a cyber hurricane, an event that could impact multiple lines of businesses, geographies, and industry sectors.

Key drops on the top risk list

One of the top economic news stories in 2014 was the dramatic decline of crude oil prices, which had plummeted 40 percent between June and December 2014. While some attributed it to the U.S. shale-energy boom, others blamed Saudi Arabia and other oil-producing countries for refusing to restrict supply. In the commodity market, crude oil was not alone. The other two industrial commodity price indices (metals and minerals, as well as agricultural raw materials) experienced nearly identical declines.

Low commodity prices have a positive material impact on a company's financial performance, resulting in bigger profit margins. This explains why respondents perceive commodity price as a lesser risk (from number eight in 2013 to number 11 in 2015). Such perception is consistent with analysts' forecast that weak commodity price could continue in 2015.

Lack of technology/infrastructure to support business needs has slipped from number 21 in the previous survey to number 31. As the economy is expanding, companies are now investing more in technology and infrastructure to stay competitive.

Understaffing and inadequate succession planning has also fallen from number 22 in the last survey to 30 in 2015 for the same reason—unemployment is going down in many regions and skilled workers are able to move without too many restrictions.

The downward movement of the above two risks has also driven a significant drop in the number of respondents from the Asia Pacific region (see respondent profile), where as these two issues garnered strong interest in the previous survey.

Underestimated risk

From the rising menace of ISIS and the deepening military conflicts in Ukraine to the suspenseful Scottish independence referendum and massive political protests in Hong Kong, 2014 was a year marked by political and social upheavals. In addition, there were more than 40 regional and national elections in 2014—the Republicans took over Congress in the U.S., Narendra Modi won the election in India, and populist and progressive leaders remained in control of countries in South America.

Despite such turmoil, political risks/uncertainties has dropped out of the top 10 risk list and is ranked number 15 in the current survey. One possible explanation could be related to the regional nature of these conflicts, which has limited organizations' exposure to them. Besides, the majority of the elections took place in the second half of 2014 and their impact has been not been felt yet.

In a recent poll conducted by the World Economic Forum, respondents identified geopolitical issues as the biggest threat to global stability over the coming decade. As military conflicts deepen and political uncertainties linger, they could make organizations more vulnerable to disruptions, property damage, embargoes, asset confiscation, and governments' refusal or inability to pay for goods and services. More importantly, the escalating tensions in Ukraine, the Middle East, and Asia could potentially stall the fragile global economic recovery. Both for-profit and non-profit organizations need to give serious consideration to this risk.

On a related topic, we feel that the threat of terrorism, ranked number 41, is also underestimated. ISIS, the world's most dangerous terrorist group, rose to infamy through kidnapping, public execution of hostages, and genocide against minority groups. ISIS financed its operations with money looted from banks and revenue from captured oil fields. It armed its fighters with military hardware seized

from bases, prompting U.S.-led airstrikes in Iraq and Syria. Since the fight against ISIS is largely limited to regions in Iraq and Syria, terrorism failed to register as a top risk in the Aon survey. However, recent terrorist attacks, like the Charlie Hebdo shooting in Paris and the hostage-taking and attempted public beheading by ISIS sympathizers in Australia, all of which occurred after the survey had been conducted, could have changed respondents' perception.

In 2014, the Ebola virus that ravaged West Africa killed more than 9,000 people, raising the specter of a global health pandemic. Without an effective vaccine and treatment, Ebola caused panic in non-endemic countries, while heavy demand for protective gear in the West sparked shortages of protective gear in Africa. The fast evolving situation damaged the burgeoning economy in the region. Quarantines, border closings, reduction in travel, and disrupted transportation stopped trade and caused disruptions for mining, agricultural, and energy companies that have operations in African nations. Since the epidemic had been contained before the survey was done and only two percent of the respondents come from Africa, the risk of pandemic is only ranked number 44 in Aon's survey. The Ebola pandemic exposed many weaknesses in the way the international community has handled such public health crises. As business is going global, so is virulent disease. Lack of international coordination could cause significant damage to the global economy.

Projected risks

In recent years, companies in emerging markets have intensified their efforts to integrate into the global market so they can harness new trade and investment opportunities. At the same time, they have to compete with companies in the emerging markets to capitalize on the growth of new middle-class populations and employee talents in those countries. As a result, companies in both developing and developed countries are now facing tough competition brought about by globalization.

Businesses in emerging markets are facing even tougher competition. Companies that traditionally received state subsidies are now losing the edge. With the opening of borders to trade and foreign investment, globalization is pressuring domestic firms to compete on their own merits. Besides, the excessive labor capacities, easy entries, and risk maturity of multinationals have increased competition in the regions. Therefore, in the post-recession world, it does not come as a surprise that increasing competition has been projected as the number one risk in three years' time.

Two other risks, closely interconnected with increasing competition, are also projected to remain on the top 10 risk list—failure to innovate/meet customer needs and failure to attract/retain top talents. Innovation and talent are critical to a company's competitiveness and a competitive company, in turn, attracts talents that are innovative.

With today's rapid technological changes, companies rise and fall faster than ever before. Many of the world's top companies have lost their edge due to failure to innovate and adapt to new market conditions. How does a company like Google continue to grow exponentially? Innovation has kept it strong. The company, which started out as a search engine, has been reinventing itself, from inventing spoons for people with essential tremors and Parkinson's Disease to driverless cars. As Professor Vijay Govindarajan of Dartmouth's Tuck School of Business once noted, when a company focuses purely on the marketplace of today and fails to anticipate the future, it will quickly fade out.

Similarly, talent retention has fueled innovation. Because the world's population is aging and economic performances are improving, demand for talent will rise sharply. North America has long been a magnet for talent worldwide because of its adaptable, innovative, and meritocratic environment. However, while the economy expands and employment goes up, the pool of talents is shrinking.

In Asia, where multinationals and fast growing regional companies are competing for experienced leaders and top new graduates, the talent shortage is more acute. Although Europe and Latin America continue to experience instability within their economic environments, they are likely to experience a rise in attrition if employment opportunities become more readily available elsewhere.

Perspectives and alignment

In Aon's 2015 survey respondent profile, readers will notice that we have a healthy mix of CEOs, CFOs, and risk management participants. Such diverse roles enable us to capture the difference in their risk perceptions. As expected, CEOs and CFOs rank very high on their top risk list those with strong concrete financial implications—economic slowdown/slow recovery, commodity price risk, cash flow/liquidity risk, and technology failure/system failure. At the same time, risk managers seem to pay more attention to liability-related risks—third-party liability, property damage, and cyber security.

These diverse views illustrate the importance of gathering a cross section of stakeholders in the decision-making process, so that each one can bring a different perspective. It is also imperative that senior executives and the board of directors communicate with risk managers, taking an active role in assessing and covering the company's risk exposure to ensure it is in line with the strategic goals.

For example, compliance is traditionally overlooked by corporate leadership, who see it as a burden: a risk without a reward. As the world's political map and the regulatory landscape are evolving, compliance is becoming more crucial to a company's bottom line. Senior leadership has to stay involved in all aspects of risk management and align with risk managers in the decision-making process.

As in the prior survey, our study findings highlight the interdependency among many of the top risks, as well as risks that rank lower. The proliferation

of mobile devices is creating a rapidly expanding network of new connections between individuals, groups, and things. The combination of accelerated connectivity, accelerated data accumulation, accelerated computer power, and accelerated accessibility is a great leap forward, but also a great expansion of risks. High levels of connectivity have added to risk complexity: when the dominos start to fall, they fall fast. Noncompliance, for example, could damage a company's reputation. A company with a damaged reputation might find it hard to be competitive and attract talent. The lack of talent would result in failure to innovate and meet customer needs. The list goes on. This interdependency between risks illustrates that organizations can no longer evaluate risks in isolation but must consider their interconnectedness.

Albert Einstein once said, "Information is not knowledge." It is Aon's belief that information and analytics will offer ways to complement and supplement the knowledge base of our clients, enabling them to understand the risks and succeed. We hope this report helps us achieve this goal for ourselves and for the clients we serve.

1 Damage to reputation/brand	2 Economic slowdown/slow recovery	3 Regulatory/legislative changes	4 Increasing competition
5 Failure to attract or retain top talent	6 Failure to innovate/meet customer needs	7 Business interruption	8 Third-party liability
9 Computer crime/hacking/viruses/malicious codes	10 Property damage	11 Commodity price risk	12 Cash flow/liquidity risk
13 Technology failure/system failure	14 Distribution or supply chain failure	15 Political risk/uncertainties	16 Growing burden and consequences of corporate governance/compliance
17 Exchange rate fluctuation	18 Weather/natural disasters	19 Capital availability/credit risk	20 Directors & Officers personal liability
21 Failure of disaster recovery plan/business continuity plan	22 Corporate social responsibility/sustainability	23 Injury to workers	24 Crime/theft/fraud/employee dishonesty
25 Loss of intellectual property/data	26 Failure to implement or communicate strategy	27 Counter party credit risk	28 Merger/acquisition/restructuring

*Where two risks are shown under the same number, this indicates a tie.

Global Risk Management Survey risk ranking (cont...)

29 Environmental risk	30 Inadequate succession planning	31 Lack of technology infrastructure to support business needs	32 Workforce shortage
33 Product recall	34 Accelerated rates of change in market factors and geopolitical risk environment	35 Aging workforce and related health issues	36 Globalization/emerging markets
37 Interest rate fluctuation	38 Outsourcing Unethical behavior	40 Natural resource scarcity/availability of raw materials	41 Terrorism/sabotage
42 Asset value volatility	43 Understaffing	44 Pandemic risk/health crises	45 Climate change
46 Social media	47 Absenteeism	48 Joint venture failure	49 Share price volatility
50 Pension scheme funding	51 Sovereign debt	52 Kidnap and ransom/extortion	53 Harassment/discrimination

Respondent Profile

Respondent Profile

Aon's Global Risk Management Survey, a web-based biennial research report, was conducted in Q4, 2014 in 11 languages.

The research represents responses of 1,418 risk decision-makers from 28 industry sectors, encompassing small, medium, and large companies in 60 countries across the world.

About 52 percent of the participants are privately-owned companies and 35 percent are public organizations. The rest are primarily government or not-for-profit entities.

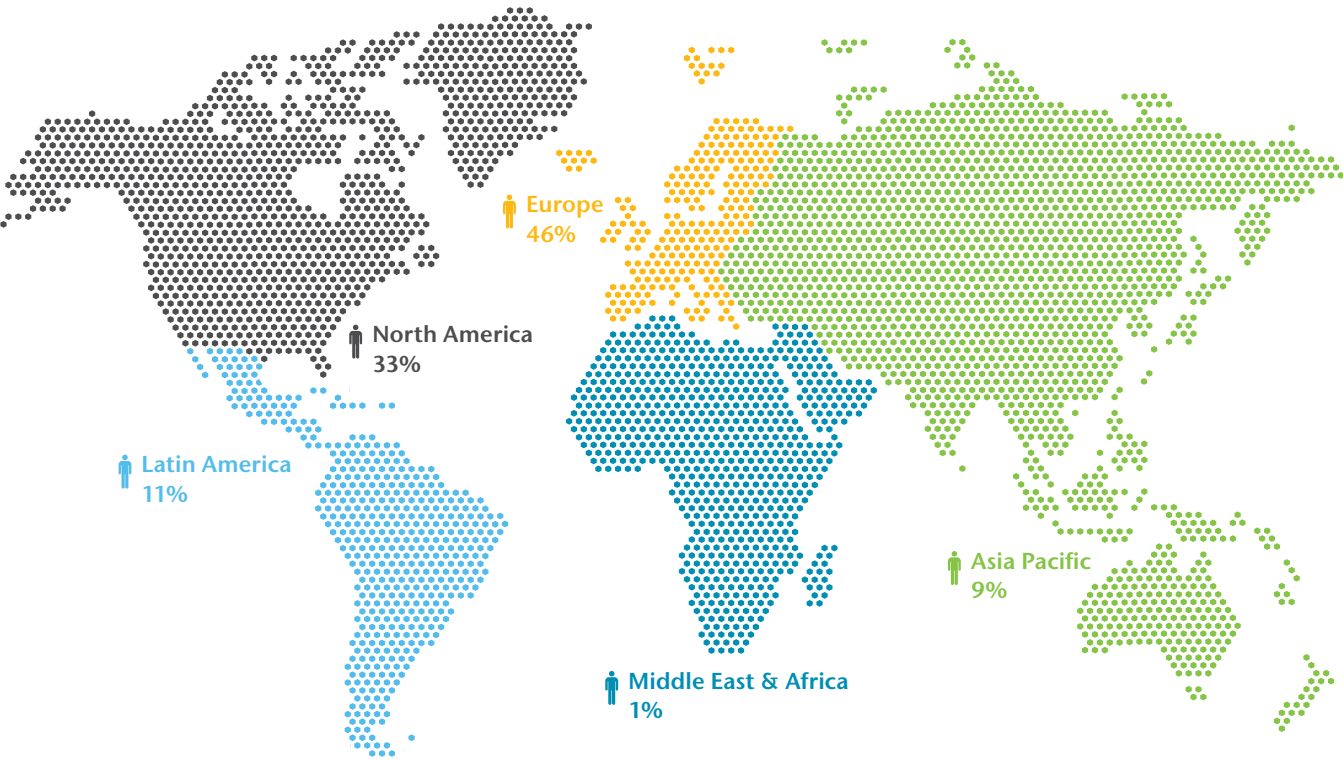
The robust representation of the 2015 survey has enabled Aon to provide insight into risk management practices by geography and industry, and has validated the data that illustrate risks that are common to all industries.

Survey respondents by industry

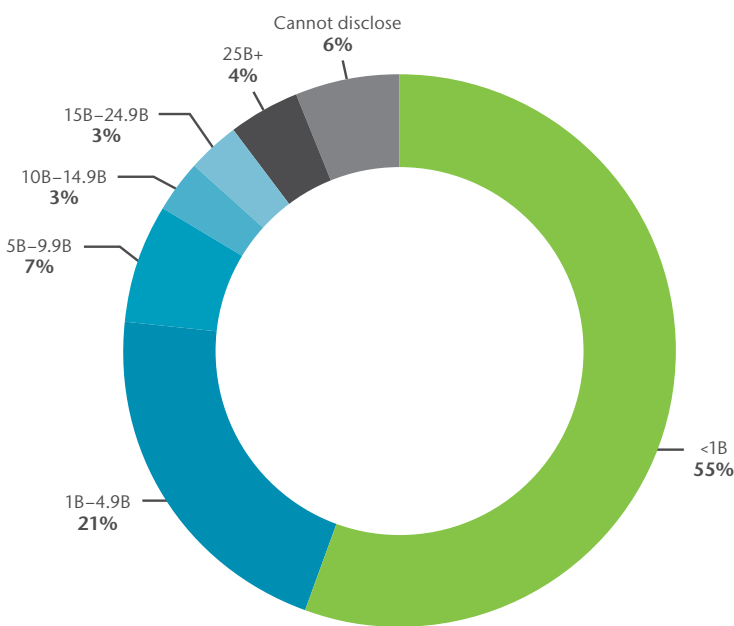
Industry	Percent	Industry	Percent
Agribusiness	2%	Machinery and Equipment Manufacturers	4%
Aviation	2%	Metal Milling and Manufacturing	3%
Banks	4%	Natural Resources (Oil, Gas, and Mining)	4%
Chemicals	4%	Non-Aviation Transportation Manufacturing	2%
Conglomerate	1%	Non-Aviation Transportation Services	4%
Construction	8%	Pharmaceuticals and Biotechnology	3%
Consumer Goods Manufacturing	4%	Professional and Personal Services	6%
Educational and Nonprofits	4%	Real Estate	3%
Food Processing and Distribution	4%	Retail Trade	6%
Government	2%	Rubber, Plastics, Stone, and Cement	2%
Health Care	5%	Technology	3%
Hotels and Hospitality	2%	Telecommunications and Broadcasting	2%
Insurance, Investment, and Finance	7%	Utilities	4%
Lumber, Furniture, Paper, and Packaging	2%	Wholesale Trade	3%

Restaurants included in Hotels and Hospitality; Beverages included in Food Processing and Distribution; Textiles included in Consumer Goods Manufacturing; Printing and Publishing included in Professional and Personal Services

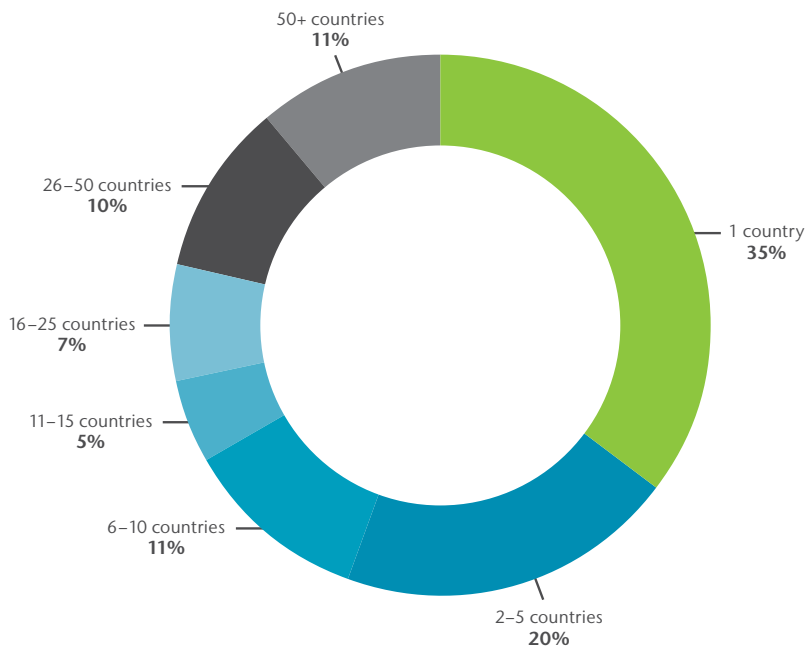
Survey respondents by region



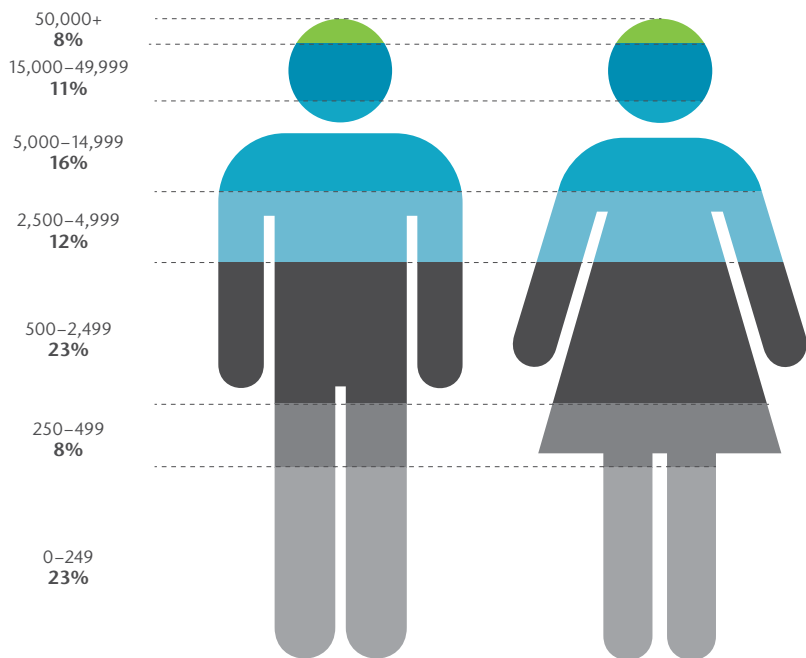
Survey respondents by revenue (in USD)



Survey respondents by number of countries in which they operate



Survey respondents by number of employees



Survey respondents by role

Role	Percent
Chief Administration Officer	1%
Chief Counsel/Head of Legal	3%
Chief Executive	6%
Chief Financial Officer	12%
Chief Operations Officer	1%
Chief Risk Officer	8%
Company Secretary	1%
Finance Manager	5%
General Business Manager	2%
Head of Human Resources	1%
Managing Director/Partner	1%
Other	14%
President	2%
Risk Consultant	2%
Risk Manager or Insurance Manager	38%
Treasurer	3%

Survey results — by numbers

\$74,881,386,027	Total limit purchased for Umbrella/Excess Liability
\$41,861,208,195	Total limit purchased for Directors & Officers Liability
\$1,500,000,000	Maximum limit purchased for Umbrella/Excess Liability
\$1,129,000,000	Maximum limit purchased for Directors & Officers Liability
\$111,596,700	Average limit purchased for Umbrella/Excess Liability
\$60,059,122	Average limit purchased for Directors & Officers Liability
\$1,000,000	Minimum limit purchased for Umbrella/Excess Liability for companies over USD 1B
\$200,000	Minimum limit purchased for Directors & Officers Liability for public company
\$50,000	Minimum limit purchased for Umbrella/Excess Liability
14,180	Number of risk prioritization decisions for top 10 risks
1,418	Companies participating in survey
935	Companies with Risk Management Department
741	Private companies participating in survey
654	European companies participating in survey
532	Companies with more than USD 1B in revenue
494	Public companies participating in survey
259	Companies with 15,000+ employees
161	Companies with operations in more than 50 countries
147	Latin American companies participating in survey
55	Food processing and distribution companies participating in survey
29	French companies participating in survey
2	Priority ranking of claims service & settlement in choice of insurer
1	Ranking of damage to reputation/brand on top 10 risk list
96%	Companies with USD 25+ revenue and a formal Risk Management Department
63%	Average reported readiness for top 10 risks
46%	Utilities companies that have experienced changes in risk profile due to aging workforce
45%	Companies in more than one country that control procurement of all insurance centrally
42%	North American companies that purchased cyber insurance coverage
37%	Companies planning to increase risk management spend in next 12 months
28%	Companies measuring Total Cost of Insurable Risk
28%	Companies with a Chief Risk Officer
27%	Average loss of income experienced from top 10 risks in the last 12 months
12%	Percentage of Chief Financial Officers participating in survey
6%	Companies planning to create a captive or PCC in next three years
5%	Companies with 9–11 employees in Risk Management Department

Top 10 Risks

-  1 Damage to reputation/brand
-  2 Economic slowdown/slow recovery
-  3 Regulatory/legislative changes
-  4 Increasing competition
-  5 Failure to attract or retain top talent
-  6 Failure to innovate/meet customer needs
-  7 Business interruption
-  8 Third-party liability
-  9 Computer crime/hacking/viruses/malicious codes
-  10 Property damage



Damage to Reputation/Brand

Reputation is the sum of many intangible parts, among them a good public image, a reputation for honesty, quality products and services, good management, and social responsibility. In recent years, with the rapid development of media technology and heightened awareness of multiculturalism, there has been a dramatic increase in the number of ways a company's reputation can be damaged. However, the tools and levels of effort business leaders use to manage their reputations are lagging, heightening such risk.

As a result, reputation, which was categorized by experts as “priceless” or “an intangible asset,” is becoming increasingly “pricey,” exerting a direct impact on the company's bottom line.

In 2014, a long list of well-known companies saw their reputations tarnished by unexpected incidents—product recalls, data breaches, offensive language on apparel and in customer communication, fraud investigations, money laundering charges, inappropriate remarks or behavior by company executives, and supply chain disruptions.

In the case of a retailer that fell victim to a hacker attack, the damage was temporary, though the number of people visiting its stores and website dwindled and its quarterly profit dropped. But for others, like U.S. celebrity chef Paula Deen, whose multi-million-dollar food empire crumbled due to a scandal surrounding her use of a racial slur, attempts at a comeback are extremely difficult or even out of reach.

In view of such headline-grabbing incidents, it is not surprising that damage to reputation/brand has once again emerged as a top concern facing companies worldwide. In Aon's 2015 survey, it is ranked as the number-one risk, moving up from number four in 2013.

Damage to reputation/brand has been listed as the highest risk by respondents in industries such as aviation, banking, food processing, education, non-profit, real estate, and telecommunications, where many high-profile cases have been reported.

As the Chinese saying goes: a tall tree catches most of the wind. The risk to reputation and brand poses a major concern for organizations that generate over USD 1B, since they are under greater media and public scrutiny due to their size and wider name recognition.

For many organizations, a comprehensive reputation risk-control strategy can be critical to an organization's bottom line and its ability to rebound from a hit to its reputation. But in a recent Deloitte Touche Tohmatsu survey, which polled 300 executives in the world, only 19 percent would award their companies an “A” grade for their capabilities for protecting against and responding to reputation risks. About 39 percent rated the maturity of their reputation risk-management programs as either average or below average.

In an age of 24-hour news cycles and instant social media, crises could spread globally within hours or minutes. The response to reputational crises must be swift and on point. In addition, globalization means that multiple culturally appropriate approaches to managing risk are needed to handle crises across an organization's global operations. Meticulous planning for crises, a thorough understanding of individual roles and responsibilities, and development of a road map are the keys to protecting a brand.

In the opinion of Daniel Diemier, a reputation expert at University of Chicago, companies need to treat damage to their reputations as understandable and even predictable challenges that one should expect in today's business environment. They should handle these crises like any other major business challenge, based on principled leadership and support from the capabilities that are part of the company's business strategy and culture.



Economic Slowdown/Slow Recovery

Despite the severe winter weather that chilled many businesses and consumers at the beginning of the year, 2014 marked the fastest economic growth since the global economy emerged from the wreckage of the housing bust, the banking crisis, and the ensuing market meltdown.

The improving macro environment, record low interest rates, and overall low volatility pushed U.S. stock indices to record highs—the Dow Jones Industrial Average finished the year up 7.5 percent, the S&P 500 rose 11.4 percent, and the Nasdaq soared 13.4 percent. The unemployment rate plunged to 5.8 percent, the lowest since mid-2008.

In other parts of the world, the Eurozone, which slid into two recessions as it struggled with a debt crises, expanded by 0.3 percent in the final quarter of 2014 and managed, for the first time since 2008, to keep government borrowing under control. The World Bank says developing countries also grew by 4.4 percent in 2014 and are projected to edge up to 4.8 percent in 2015.

Economists now believe that the economy's momentum finally has picked up and looks poised to be on a slightly more self-sustaining path.

Such optimism, if still cautious, is reflected in Aon's 2015 Survey. Economic slowdown/slow recovery, which was consistently ranked as the number-one risk facing companies worldwide since 2009, has slipped to number two in 2015. About four in 10 respondents say they have a plan for, or have undertaken formal review of, this risk. The percentage of organizations suffering a loss of income in the last 12 months has dropped from 67 in 2013 to 46 in the current survey.

However, the geographical and industry breakdowns of this risk reveal a more complex picture: economic slowdown/slow economic recovery remains the number-one risk for respondents in Europe, which still grapples with many uncertain factors. The tensions between Russia and Ukraine and the associated economic sanctions, the possibility of prolonged stagnation in Europe's largest economies, such as France and Italy, and sustained commodity price declines remain key downside risks for the region.

Economic slowdown/slow economic recovery also tops the risk chart for seven of 28 surveyed industries: conglomerate; consumer goods manufacturing; lumber, furniture, paper and packaging; machinery and equipment manufacturers; metal milling; non-aviation transportation; and rubber, plastics, stone, and cement. The contributing factors could include limited growth of business spending, soft housing markets in many parts of the world, weaker consumer demands in China, Russia, and Japan, and the challenges facing major oil exporters due to the sharp drop in crude oil prices.

Moreover, political volatilities also might have dampened organizations' optimism. In 2014, there were more than 40 elections, representing 42 per cent of the world's population and half of the world's GDP. In today's world, where capital is very portable, the uncertainties could affect businesses worldwide.

Adding to this uncertainty is the World Bank outlook, which indicates that the threat of economic slowdown/slow recovery to businesses will continue to loom large in the near future:

While activity in the U.S. and the United Kingdom has gathered momentum as labor markets heal and monetary policy remains extremely accommodative, the recovery has been sputtering in the Euro Area and Japan as legacies of the financial crises linger, intertwined with structural bottlenecks. China, meanwhile, is undergoing a carefully managed slowdown. Disappointing growth in other developing countries in 2014 reflected weak external demand, but also domestic policy tightening.

To better position themselves for this long-term risk, corporate leaders need to monitor closely the business conditions, build customer loyalty, control cost, maintain access to funds, and value their employees. Good planning will enable companies to help mitigate their businesses' exposure to turbulence in the economy.



Regulatory/Legislative Changes

Starting in the 1990s, China created lucrative opportunities for multinationals, which took advantage of the Chinese government's preferential policies and expanded their operations there. But in recent years, as Chinese regulators have ramped up their regulatory enforcement, both local companies and multinationals have come under increasing scrutiny for alleged monopoly, corruption, and safety issues. In early 2015, a U.S.-based high tech company paid a hefty fine of USD 975 million after a protracted anti-trust investigation by Chinese regulators.

China is hardly alone. Regulations, originally designed to help businesses mitigate risks, are now perceived by organizations around the world as a key business risk. The cost and influence of regulations on businesses are such that even marginally incremental regulatory changes could add tremendous cost to a corporation, creating uncertainty in hiring and restricting expansion.

According to Aon's 2015 Global Risk Management Survey, regulatory and legislative changes remains a top issue (number three on the list) that can impact a company's bottom line. Banks, healthcare, pharmaceuticals and biotechnology, telecommunications and broadcasting, and utilities, all of which are traditionally subject to heavy regulation, see regulatory/legislative changes as a number-one or-two risk.

Regionally, the U.S. is viewed as one of the world's most heavily regulated countries. The two sectors that are most affected by this tough regulatory environment are healthcare (the impact of the Affordable Care Act) and financial services, where a large number of mandates are aimed at ensuring transparency and reducing overall market risk.

In emerging markets such as Latin America, where experts says the legal and regulatory environments have become noticeably tougher and more volatile due to political changes, respondents rank regulatory/legislative changes as the number-two risk.

In Aon's survey, the reported readiness of companies for

regulatory/legislative changes is cited by 53 percent of respondents, largely unchanged from 2013's 54 percent. However, only 28 percent of surveyed companies have reported a loss of income in the last 12 months from this risk, a dramatic decrease from 54 percent. The reduction in losses is consistent with the shift in the top risk ranking — regulatory/legislative changes, which was ranked number two in the previous Aon surveys, has fallen to number three. The slight change in perception may indicate that organizations are gradually adjusting to a spate of robust regulatory and legislative changes introduced in the immediate aftermath of the 2009 financial meltdown. Rather than seeing it a burden, they look at this risk as an opportunity to create a competitive advantage over peers that do not manage this process effectively.

As laws and regulations are becoming ever more detailed and the consequences of non-compliance more severe, there has been heightened awareness of this risk. In a recent survey of CEOs conducted by Forbes, 34 percent say they are spending more time with regulators or government officials, or considering doing so.

Experts recommend an integrated global compliance infrastructure, responsive to the different enforcement environments in various jurisdictions. The compliance team should be involved in the product development and design stage to ensure compliance with the most stringent regulatory standards in the different markets. At the same time, it is also imperative to enhance the capability to manage an ever larger number of regulators and respond to multiple simultaneous, parallel enforcement actions in different countries.



Increasing Competition

“Xiaomi,” which means “millet” in Chinese, is a Chinese consumer electronic company, founded on a simple Buddhist principle: “A single grain of rice of a Buddhist is as great as a mountain.”

A year ago, few people outside of China had heard of Xiaomi. But the company seemed to have come out of nowhere to grow into a big mountain—a game changer in the smartphone industry. In 2014, Xiaomi sold more than 60 million phones in China and its market share surpassed those of major international smartphone makers. Now, it has plans to dip into the U.S. retail space.

Xiaomi’s rise has offered a glimpse of the tough competition that organizations of all sizes and industry types are grappling with nowadays. Firms from emerging markets have intensified their efforts to integrate into global commerce so they can harness new trade and investment opportunities. At the same time, they have to compete with multinationals to capitalize on the growth of new middle-class populations and employee talents in their own countries. As a result, companies in both developing and developed countries are now facing tougher competition brought about by globalization.

In Aon’s 2015 survey, respondents consider increasing competition as the number-four risk overall. Three years from now, the risk is projected to top the list. Meanwhile, reported readiness for increasing competition dropped from 65 percent in 2013 to 49 percent in 2015. About 49 percent of respondents have indicated a loss of income due to this risk in the last 12 months.

Increasing competition is seen as the most significant risk by respondents in construction, which is subject to competitive contract bidding, and the telecommunications industry, which faces tougher anti-monopoly rules and competition from foreign suppliers of basic telecommunications services.

In Europe and Asia Pacific, increasing competition is perceived as a number-two risk. One reason might be that the EU has stringent laws against anticompetitive practices and mergers. Besides, companies in Europe not only have to compete with their rivals within the EU, but also those in North America and Asia. In parts of Asia, businesses that traditionally received state subsidies, are now losing the edge. With the opening of borders to trade and foreign investment, globalization brings opportunities and pressures for domestic firms to innovate and improve their competitive position. Excessive labor capacities, easy entries, and risk maturity of multinationals have increased competition in the region as well.

While larger business organizations may be able to fend off higher amounts of competition than smaller ones with limited resources, all organizations, regardless of size, see competition as a priority risk.

Managing competition risk demands a high-level, enterprise-wide approach that includes:

- Identifying and understanding new competitors entering the marketplace.
- Discovering the latest consumer trends and developing the requisite flexibility to adapt and respond to those trends.
- Staying abreast of technological advancements to ensure that businesses are integrating the most effective techniques and technologies available.
- Understanding globalization, including the entry of lower-cost economies into the global marketplace.
- Preparing for aggressive action on the part of competitors, such as price wars.

In summary, increasing competition has made it imperative for companies to focus on innovation, brand recognition, and product differentiation to survive and thrive.



Failure to Attract or Retain Top Talent

In *The Global Talent Index Report: The Outlook to 2015*, the Economist Intelligence Unit, which has benchmarked 60 countries on their capacity for attracting and retaining talent, notes:

Big demographic trends such as population aging remain unchanged, and improving economic performance in the major economies over the next few years are likely to result in demand for talent again outstripping supply. Moreover, even in developed countries, there remain today serious shortages of recruits with the critical “soft” skills companies require most. Talent remains an important component of countries’ and businesses’ long-term competitiveness.

Such observations are consistent with the findings in Aon’s 2015 Global Risk Management Survey, in which respondents have ranked failure to attract and retain top talent among the top five most critical risk areas for their organizations.

Participants from the education and non-profits sectors—known for lacking resources to compete with private businesses in talent attraction and retention—rate this risk as number two. So do the machinery and equipment manufacturing industries, which have been struggling to attract, hire, and retain talent for roles ranging from operational and business managers to skilled production workers, due to negative perception and the rising allure of high-tech companies.

From a regional perspective, organizations in North America as well as Asia Pacific rank failure to attract or retain top talent as the number-two risk. North America has long been a magnet for talents worldwide because of its adaptable, innovative, and meritocratic environment. However, as the economy strengthens, the pool of talents is shrinking. In Asia, where multinationals and fast-growing regional companies are competing for experienced leaders and top new graduates, talent shortages are more acute. Although Europe and Latin America continue to experience instability within their economic environments, they are likely to experience a rise in attrition should employment opportunities become more readily available elsewhere.

Organizations do not see this need wavering and predict that it will rank among the top-six most critical risk areas over the next three years.

Overall, the survey underscores the importance of ensuring that attracting and retaining talent remains a key business strategy. Aon Hewitt Top Companies for Leaders® research shows that the strategic goals for growth should be explicitly aligned with organization’s core talent strategy. Furthermore, core programs and practices designed to build a healthy pipeline of talent require explicit integration with one another, to ensure they are driving the right behaviors and generating the desired results. This includes making sure that leaders set the tone, build relationships, show their commitment to their talent, and are held accountable in meaningful ways.

Aon’s extensive research on engagement also shows that an engaged workforce (led by engaging leaders) is more likely to drive productivity and generate stronger business results. It also empowers leaders and individuals to develop themselves and others, and to believe that this is a critical part of sustainable value creation for the business.

Organizations that stall in the process of aggressively, strategically, and purposefully address the needs of their workforce will face challenges attracting and retaining the talent they need to thrive. Those who align their business with talent strategies, build mechanisms for evaluating engagement, and establish an infrastructure to track results can gain an edge in the war for talent.



Failure to Innovate/Meet Customer Needs

In its prime, RadioShack, an American electronic retailer, carved a reputation as the go-to stop for consumers' home electronics needs. Its stores were ubiquitous and generations of Americans bonded there while working on home electronics projects. Between the late 1970s and early 1980s, the company introduced one of the first mass-market personal computers, with greater initial success than Apple or IBM.

But the times caught up with RadioShack. With the emergence of Best Buy-type of big box behemoths and, subsequently, online retailer Amazon, Radio Shack missed opportunities to reinvent itself and adapt to consumers' ever-changing needs. After 94 years in business, the company filed for bankruptcy in early 2015.

Around the same time, the company that produced SkyMall, the in-flight shopping catalog, also filed for Chapter 11 protection. SkyMall used to be wildly popular among air travelers. However, with the increased popularity of internet-enabled electronic devices on planes and other ecommerce retailers, SkyMall's catalog lost out.

The downfall of RadioShack and SkyMall is a stark reminder of how many of the world's top companies have lost their edge, shrunk, grown obsolete, or been acquired by rivals due to failure to innovate and adapt to new market conditions.

Companies are well aware of such dire consequences. In Aon's 2015 Global Risk Management Survey, respondents list failure to innovate/meet customer needs as a top-10 risk (number six), consistent with the rankings in 2011 and 2013. Three years from now, participants expect the risk to climb to number four in the overall risk ranking.

For respondents in the field of technology, where the lifetime of products continues to shrink, the race to market has intensified, and the needs of the consumer are fickle, failure to innovate/meet customer needs poses the number-one risk.

European and North American participants also perceive failure to innovate/meet customer needs as a higher risk because of tough competition from emerging markets and fast-changing consumer tastes and needs. About 25 percent of surveyed companies indicated a loss of income in the last 12 months from this risk, an increase of more than 37 percent since 2013.

Innovation is defined as something new or different introduced to the market. It can be game-changing or incremental—creating original ideas or finding new ways to make existing things better. While game-changing events are difficult to forecast, companies should start with incremental innovations.

Vijay Govindarajan, a professor at Dartmouth's Tuck School of Business, once said that successful companies tend to fall into three traps that make the glory days fleeting. First is the physical trap, in which big investments in old systems or equipment prevent the pursuit of fresher, more relevant investments. Second, there's a psychological trap, in which company leaders fixate on what made them successful and fail to notice when something new is displacing it. Finally, there's the strategic trap, in which a company focuses purely on the marketplace of today and fails to anticipate the future. Some unlucky companies manage a trifecta and fall into all three traps.

Experts who have studied the successes of Apple, Google, Nike, and Netflix emphasize the importance of creating a culture within the company where innovation is a basic requirement for employees, and where incremental or revolutionary improvements are encouraged, adopted, and rewarded by leadership. To be innovative, a company needs a system that continuously monitors the marketplace, collects feedback in real time, analyzes the feedback, reports the unvarnished truth to decision-makers, and takes corrective action. At the same time, leaders should assign a positive value to failure, which is an important step in the process of success. They understand that with each failure, the company moves one step closer to success.



Business Interruption

In September 2014, a disgruntled contract employee entered the telecommunications room of an air traffic control center in a suburb of Chicago. After removing a floor panel, he set fire to telecommunications cables before attempting to kill himself.

The small fire he started brought two of the busiest airports in the U.S. to a halt, causing 5,000 flight cancellations. The incident rippled through the whole international air-travel network.

While business interruptions typically conjure up the image of a tsunami, a hurricane, or a September 11 type of terrorist attack creating havoc and impacting whole communities, one cannot ignore those occurring at a smaller scale, such as an arson, power outage or a bomb threat, that could cause disruptions on a scale equal to a natural hazard or a well-coordinated act of terrorism. The fire at the Chicago air traffic control center highlights such vulnerability.

This explains why Aon's 2015 Global Risk Management Survey has ranked business interruption as a top concern (number seven overall) since 2007. The chemical and utility industries, which are susceptible to accidents and interruptions because of the inherently volatile nature of their businesses, put business interruption as their number-two top risk.

In the Middle East and Africa, which have been rife with political and social turmoil, respondents rate business interruption as the number-four top risk.

Past studies have shown that, for companies that fail to recover from a disaster-related disruption within one month, 80 percent are likely to go out of business. For companies without continuity plans, 75 percent fail within three years of a major interruption.

Aon's survey has also revealed some positive trends. Recent high-profile business interruption reports have helped heighten companies' awareness of the need to put continuity plans and mitigation options in place. A large percentage of respondents (73 percent) describe their organizations as being ready for an interruption—

a four percent increase from what was reported in 2013. Reported losses of income in the last 12 months also decreased, from a response of 36 percent in 2013 to 22 percent in 2015.

As more and more companies are taking a more rigorous approach to managing business interruption exposures, it is expected to fall outside the top 10 list three years from now. However, the increasing frequency and severity of cyber attacks could reverse the trend.

Modern technological advances have linked businesses through networks and enabled companies to manage digital storage of essential data, but this interconnectivity and interdependency has also made businesses vulnerable to interruptions. In 2012, a massive malware outbreak disabled 30,000 workstations for two weeks at Aramco, Saudi Arabia's national oil company. Experts estimate that the average impact of a system shut-down is one-half of a percent of market share every eight hours, and that it takes three years to recover that percentage of market share.

In addition, as supply chains are becoming increasingly global, the industrial environment is being heavily affected by uncertainty that has the potential to turn into unexpected disruptions. Moreover, the focus on inventory reduction and lean supply chains has amplified such potential.

Being prepared is both ethically correct and good business. Organizations must address this risk effectively by identifying all potential threats to their business and evaluating their mitigation options for each threat. While insurance can cover some property and operational losses, it cannot make up for loss of market share, reputational damages, declines in investor confidence, or a share price drop caused by an interruption. Therefore, a fortified and robust business continuity plan will boost a company's resilience in the event of a breakdown.



Third-party Liability

In a recent *New York Times* article, Paul Rubin, an economist at Emory University, noted that Americans spend about 2.2 percent of Gross Domestic Product (roughly USD 310 billion a year, or about USD 1,000 for each citizen) on tort litigation. Christopher Tidball, an author and business consultant, has made similar claims. He said a new personal injury lawsuit is filed every two seconds in the United States, making the country the most litigious nation on earth.

These statistics offer a glimpse of the third-party liability challenges facing global companies today. Third-party liability refers to bodily injury, loss, or damage caused to a third-party as a result of action, inaction, or negligence. In Aon's 2015 survey, third-party liability is cited a significant concern, jumping from number 13 in overall ranking of top risks in 2013 to number eight in 2015. Reported losses of income from this risk in the last 12 months have increased from a response of 26 percent in 2013 to 30 percent in 2015.

Third-party liability is perceived as a higher risk by participants in non-aviation transportation services and the pharmaceutical and biotechnology industries, which have experienced some of the biggest and most high-profile claims. Examples include recent product recalls by large automakers and subsequent bodily injury lawsuits relating to defective parts, and the billion-dollar settlement involving drug makers over off-label promotions.

In the hotel and hospitality industries, where the interaction between employee and customers is an important component, respondents also see third-party lawsuits as a significant risk.

Geographically, third-party liability continues to be a dominant issue both for companies with U.S. operations and those exporting into the U.S. market. While U.S. lawmakers have recently passed legislation to curb the abuse of class actions, Europe is going in the opposite direction. At least 13 member states of the European Union have introduced mechanisms of collective litigation. In Germany, the court has tripled compensation allowed for bodily injuries, and authorities are increasingly applying criminal laws to investigate and prosecute directors and officers of companies in relation to product safety offences.

Third-party liability does not appear to be a major concern in the Middle East and Africa, but it is becoming a significant risk for companies in Asia and Latin America. In China, lawmakers have recently amended laws to introduce the possibility of public interest litigation, which would enable consumer class actions to be brought for allegedly defective products.

Meanwhile, the changing legal landscape has also made it easier to bring claims against directors and officers, with a growing number of lawsuits in Australia, Canada, China, India, Italy, Malaysia, Russia, and the United Kingdom. Such claims will inevitably deter some individuals from accepting board appointments, and this seems to explain why Directors and Officers Liability has shot up in the rankings from number 34 in 2013 to number 20 in the 2015 survey.

Experts have identified the following third-party litigation trends:

- The US litigation model is spreading quickly to other markets and many U.S. law firms are expanding overseas and looking for clients.
- Third-party litigation funding, in which wealthy individuals and companies help fund lawsuits that plaintiffs might not otherwise bring, is becoming common.
- Globally, the frequency of class actions and the average settlement sums are increasing.
- U.S. specialty firms are bringing an increasing number of class-action claims against Asian companies on matters such as accounting irregularities.

Responses to the increased exposure has varied from the pragmatic, such as improved health and safety standards or assisted return-to-work programs, to the more extreme, such as exiting from certain products or services due to the perceived danger of lawsuits.



Computer Crime/Hacking/ Viruses/Malicious Codes

The past five years have witnessed a large number of high-end data breaches involving organizations of all sizes, with personal records and financial information stolen and sold on the black market by criminals in a matter of days and hours.

Every company with a website or smart phones has global exposure to cyber attacks, which are difficult to understand and predict. The Center for Strategic and International Studies, a well-known Washington think tank, has estimated that the annual cost of cyber crime and economic espionage to the world economy runs as high as USD 445 billion—or almost one percent of global income. The average time to resolve a cyber attack is also rising, climbing to 45 days, up from 32 days in 2013.

As cyber crimes are becoming more rampant, more costly, and more time consuming to resolve, businesses are faced with an increased possibility of legal exposure, reputation damage, and operational interruption that can wreak havoc on their bottom line.

For the first time since Aon began its Global Risk Management Survey in 2007, computer crime/hacking/viruses/malicious codes has entered the top 10 risk list, jumping from number 18 in the 2013 survey to number nine in 2015. The current survey has also revealed a positive trend: responses of reported readiness for this risk have increased from 68 percent in 2013 to 82 percent in 2015.

For telecommunications companies that provide technology and system support, computer crime/hacking/viruses/malicious codes poses a number-one business risk. This is because each time the industry develops or adds a new feature to a system, the chance of cyber risks rises. For example, hackers would not have access to systems if networks had never developed mobile or remote access, or if software had never had security defects that could be exploited.

Retailers, a prime target for hackers, rate computer crime/hacking/viruses/malicious codes as the number-two risk. In 2014, a large number of retail operations were affected by hackers. Experts say the trend is expected to continue and may increase retail security budgets by double digits in 2015.

Respondents in North America, where a large majority of high-profile cyber attacks are taking place, seem to be more concerned about this risk (number five) than those in other regions (Latin America 26 and Asia Pacific 22). In the U.S., the issue is becoming so serious that the Obama administration has formed a new agency charged with sharing intelligence on cyber attacks. The White House has also convened a summit, calling on companies to share data with government agencies following data breaches.

Each year, the security industry strives to protect companies with potent new tools, but a new crop of hackers emerges with more damaging cyber attack techniques. Meanwhile, users' careless online behavior will continue to create exploitable opportunities for hackers or directly result in security breaches. As hackers and anti-hackers remain locked in a fierce arms race, survey participants expect this to be a top risk concern (number seven on the list) three years from now.

While proactive measures to mitigate risk can be costly and time-consuming, they are far less demanding than the consequences of a serious breach. Having a robust, well-documented program to monitor cyber risks may provide favorable evidence of a company's efforts, thus reducing liability should an incident occur. Companies also need to conduct risk assessments for each third-party provider and, depending on the type of data being shared, take additional steps to prevent security breaches.

Insurance specifically designed to cover the unique exposures of data privacy and security can act as a backstop to protect a business from the financial harm resulting from a breach. While some categories of losses might be covered under standard policies, many gaps often exist. Because cyber events have the ability to impact numerous lines of insurance coverage, risk managers should work with their insurance brokers to analyze such policies and determine any potential gaps in existing coverage.



Property Damage

Rapid economic development over the past three decades has attracted millions of migrants to cities. At present, more than half of the world's population live in urban areas, most of which are situated along coasts or major rivers. In addition, many of these economic activity hubs straddle active earthquake or extreme weather zones. There is a real danger that natural hazards will wreak frequent havoc, causing substantial property damage and disruption to businesses, which typically have substantial material capital investments, customized assets, and expensive high-tech equipment.

Swiss Re has estimated that total economic losses from disaster events in 2014 reached USD 113 billion worldwide. Among these, insured losses amounted to USD 34 billion. Natural catastrophes alone have led to USD 29 billion in insured losses. Notable events have included extreme winter conditions in the U.S. and Japan, violent summer storms in many parts of the U.S., Hurricane Odile in Mexico, a typhoon in the Philippines, Storm Ela in Europe, Cyclone Hudhud in India, and severe summer drought in China. In the same year, man-made catastrophes, such as fires and explosions (a major cause of property damages), maritime, rail and aviation disasters, terrorism, and political and social unrest resulted in insured losses of USD 5 billion.

Such staggering numbers have given rise to deep concerns about property damage. In Aon's 2015 survey, property damage has appeared on the top 10 risk list for the first time since 2007. While reported readiness for property damage has increased from 73 percent in the 2013 survey to 81 percent, the percentage of companies that reported losses of income in the last 12 months has also gone up, from 22 in 2013 to 36 in 2015.

The high property damage risk ranking indicates a clear concern for increased and changing threats to key business facilities, and their potential impact on an organization's ability to continue operations and achieve its business goals.

As expected, in real estate, hotels, and the hospitality industry in which property damage from fire, severe weather, vandalism, or other catastrophic events could be fatal, respondents have ranked the risk at number three.

In Latin America, where the losses from natural disasters relative to GDP in the past five years have reportedly exceeded loss ratios in any other part of the world, property damage is number three on the top risk list. As population grows and urbanization further expands, the losses from this risk will rise for years to come.

Nowadays, commercial buildings and plants are being developed on a larger scale and equipped with costly machinery and new technology that are difficult to replace. As the property and business interruption values of individual properties have risen, industry claims in excess of USD 1 billion have also become more frequent, in some cases coming from sources not traditionally anticipated by insurers.

Meanwhile, multinationals have shifted many of their activities and assets to emerging markets, which unfortunately lack the capabilities to handle large-scale natural and man-made disasters. Often times, the value concentration in just one facility tends to be larger, meaning that property damage in one location could affect multiple companies. For example, a fire at a semi-conductor plant could impact dozens of international telecommunications firms that rely on it for parts.

While most companies treat property loss as inevitable, experts believe that the majority is preventable if organizations frequently identify and assess each risk to their facilities; conduct rigorous awareness onsite training (since individual negligence could cause major damage to a company's property or computer network); develop a business continuity plan; check for gaps in insurance coverage; and meticulously conduct pre-loss analyses and post-loss evaluation to maximize their policies.

Perspective:

A major and sustained epidemic could affect all sectors of society in an affected region

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A major and sustained epidemic could affect all sectors of society in an affected region

A point of view based on the Ebola outbreak in West Africa

Ebola is one of the world's most deadly viral diseases. Since the Ebola epidemic in West Africa was officially declared in March 2014, it has claimed more than 9,000 lives in the region. Three countries in West Africa were most hit: Guinea, Liberia, and Sierra Leone. The lack of an effective treatment to cure Ebola or a vaccine to prevent the disease led to terror among infected communities and caused fear and panic around the world—from Dallas, Texas to a small city outside Rome, Italy. While many corporations that have operations in West Africa bore the brunt of this epidemic, some protective gear manufacturers in the U.S. reaped windfall profits, as demand for protective gear in the U.S. even sparked shortages in Africa.

The outbreak baffled and triggered hysterical reactions from various governments, media, aviation companies, and commercial actors. It highlighted the gap in preparedness that hampered the international community's ability to facilitate a response early in the outbreak, when containment of the disease was most critical.

For example, five months after the outbreak, a large majority of health centers in Monrovia (Liberia) were still not equipped with basic protective material for health workers or critical cleaning supplies such as soap and disinfectants. At the same time, there were no fully equipped planes in Europe, that could organize a medical evacuation (Medevac) of Ebola patients and expatriate medical staff when treatment was needed. Many commercial airlines had suspended flights to the area, further hampering efforts to transport medical personnel and supplies into the endemic countries.

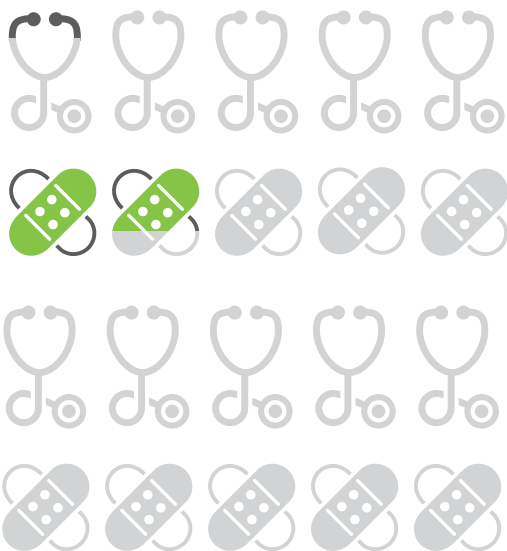
Due to the lack of an international "coordinating mechanism" that could foster rapid collective action, the crises expanded and the virus was allowed to travel wide and fast. Death tolls rose dramatically. Agricultural, industrial, and trading activities came to a halt, and the disruptions left more than one million people in the affected areas without food supplies. Health workers

in the three endemic countries also paid a heavy toll. More than 800 of them were infected and close to 500 died while taking care of their patients. This came at a time when the affected countries had barely 0.2 doctors and 1.7 nurses per 10,000 inhabitants. Such losses are catastrophic, with undeniable long-term repercussions on already weak and crippled health systems.

The Ebola outbreak has clearly demonstrated the interconnectedness between the national health system in one individual country and the global health system. What happens in a distant part of the globe really does matter to the whole world. Viral diseases do not respect international boundaries. At the same time, an epidemic is not just a public health crises. It is an economic crises, affecting all segments of society.

Therefore, getting things right, not only for this epidemic but also for future ones, is vital to global health and economies. Establishing a clear mandate for coordinated action and designating the implementing body charged with such responsibility is needed not only for poor countries, but developed ones as well.

This came at a time when affected countries had barely 0.2 doctors and 1.7 nurses per 10,000 inhabitants.



It is worrying that many countries in the West were deemed to have biological-disaster response capacities, but were unable to respond rapidly when an urgent medical crises occurred. This might be explained by a combination of reasons, including: lack of political leadership at a time of crisis; unwarranted fear; and the lack of an international mechanism to coordinate rescue efforts by governments, NGOs like MSF, and corporations.

In conclusion, a public health crisis like that created by Ebola could have serious effects on all sectors of activity within the affected areas.

It is a fact: the healthcare challenges in Africa could affect the rest of the world. We need to establish an international coordinating mechanism to cope with future pandemics. Proper investment in healthcare for communities in poor countries can not only save lives but also contain dangerous outbreaks before they spread to other parts of the world.

Paul Delaunoy, General Director of Médecins Sans Frontières (MSF)-Luxembourg and Chairman of the MSF Insurance Steering Committee – MSF

Rony Zachariah, Coordinator of Operational Research Unit, Brussels Operational Center – MSF

Top 10 risks

	2015	2013	2011	2009	2007
1	Damage to reputation/brand	Economic slowdown/slow recovery	Economic slowdown	Economic slowdown	Damage to reputation
2	Economic slowdown/slow recovery	Regulatory/legislative changes	Regulatory/legislative changes	Regulatory/legislative changes	Business interruption
3	Regulatory/legislative changes	Increasing competition	Increasing competition	Business interruption	Third-party liability
4	Increasing competition	Damage to reputation/brand	Damage to reputation/brand	Increasing competition	Distribution or supply chain failure
5	Failure to attract or retain top talent	Failure to attract or retain top talent	Business interruption	Commodity price risk	Market environment
6	Failure to innovate/meet customer needs	Failure to innovate/meet customer needs	Failure to innovate/meet customer needs	Damage to reputation	Regulatory/legislative changes
7	Business interruption	Business interruption	Failure to attract or retain top talent	Cash flow/liquidity risk	Failure to attract or retain staff
8	Third-party liability	Commodity price risk	Commodity price risk	Distribution or supply chain failure	Market risk (financial)
9	Computer crime/hacking/viruses/malicious codes	Cash flow/liquidity risk	Technology failure/system failure	Third-party liability	Physical damage
10	Property damage	Political risk/uncertainties	Cash flow/liquidity risk	Failure to attract or retain top talent	Merger/acquisition/restructuring Failure of disaster recovery plan

Top 10 risks by region

	Asia Pacific	Europe	Latin America	Middle East & Africa	North America
1	Damage to reputation/brand	Economic slowdown/slow recovery	Damage to reputation/brand	Damage to reputation/brand	Damage to reputation/brand
2	Increasing competition	Increasing competition	Regulatory/legislative changes	Cash flow/liquidity risk	Regulatory/legislative changes
3	Failure to attract or retain top talent	Damage to reputation/brand	Increasing competition	Increasing competition	Failure to attract or retain top talent
4	Business interruption	Regulatory/legislative changes	Crime/theft/fraud/employee dishonesty	Economic slowdown/slow recovery	Economic slowdown/slow recovery
5	Economic slowdown/slow recovery	Business interruption	Property damage	Regulatory/legislative changes	Computer crime/hacking/viruses/malicious codes
6	Regulatory/legislative changes	Failure to innovate/meet customer needs	Distribution or supply chain failure	Failure to attract or retain top talent	Failure to innovate/meet customer needs
7	Failure to innovate/meet customer needs	Third-party liability	Failure to attract or retain top talent	Business interruption	Increasing competition
8	Weather/natural disasters	Commodity price risk	Economic slowdown/slow recovery	Exchange rate fluctuation	Business interruption
9	Political risk/uncertainties	Failure to attract or retain top talent	Commodity price risk	Commodity price risk	Growing burden and consequences of corporate governance/compliance
10	Cash flow/liquidity risk	Cash flow/liquidity risk	Third-party liability	Crime/theft/fraud/employee dishonesty	Third-party liability

Note: Where ranking for a risk was tied, the All respondent ranking was utilized to determine what risk would be ranked higher

Top three risks by industry

Industry	Key Risk 1	Key Risk 2	Key Risk 3
Agribusiness	Commodity price risk	Increasing competition	Damage to reputation/brand
Aviation	Damage to reputation/brand	Economic slowdown/slow recovery	Increasing competition
Banks	Damage to reputation/brand	Regulatory/legislative changes	Economic slowdown/slow recovery
Chemicals	Distribution or supply chain failure	Business interruption	Damage to reputation/brand
Conglomerate	Economic slowdown/slow recovery	Failure to innovate/ meet customer needs	Business interruption
Construction	Increasing competition	Economic slowdown/slow recovery	Cash flow/liquidity risk
Consumer Goods Manufacturing	Economic slowdown/slow recovery	Increasing competition	Damage to reputation/brand
Educational and Nonprofits	Damage to reputation/brand	Failure to attract or retain top talent	Regulatory/legislative changes
Food Processing and Distribution	Damage to reputation/brand	Commodity price risk	Regulatory/legislative changes
Government	Damage to reputation/brand	Failure of disaster recovery plan/ business continuity plan	Regulatory/legislative changes
Health Care	Regulatory/legislative changes	Damage to reputation/brand	Failure to attract or retain top talent
Hotels and Hospitality	Weather/natural disasters	Damage to reputation/brand	Property damage
Insurance, Investment, and Finance	Damage to reputation/brand	Regulatory/legislative changes	Economic slowdown/slow recovery
Lumber, Furniture, Paper, and Packaging	Economic slowdown/slow recovery	Commodity price risk	Exchange rate fluctuation
Machinery and Equipment Manufacturers	Economic slowdown/slow recovery	Failure to attract or retain top talent	Failure to innovate/ meet customer needs
Metal Milling and Manufacturing	Economic slowdown/slow recovery	Increasing competition	Commodity price risk
Natural Resources (Oil, Gas, and Mining)	Regulatory/legislative changes	Environmental risk	Commodity price risk
Non-Aviation Transportation Manufacturing	Economic slowdown/slow recovery	Increasing competition	Property damage
Non-Aviation Transportation Services	Regulatory/legislative changes	Economic slowdown/slow recovery	Third-party liability
Pharmaceuticals and Biotechnology	Distribution or supply chain failure	Regulatory/legislative changes	Business interruption
Professional and Personal Services	Damage to reputation/brand	Economic slowdown/slow recovery	Increasing competition
Real Estate	Damage to reputation/brand	Economic slowdown/slow recovery	Property damage
Retail Trade	Damage to reputation/brand	Increasing competition	Computer crime/hacking/viruses/ malicious codes
Rubber, Plastics, Stone and Cement	Economic slowdown/slow recovery	Commodity price risk	Increasing competition
Technology	Failure to innovate/ meet customer needs	Increasing competition	Damage to reputation/brand
Telecommunications and Broadcasting	Damage to reputation/brand	Regulatory/legislative changes	Increasing competition
Utilities	Regulatory/legislative changes	Business interruption	Damage to reputation/brand
Wholesale Trade	Increasing competition	Counter party credit risk	Regulatory/legislative changes

Note: Where ranking for a risk was tied, the All respondent ranking was utilized to determine what risk would be ranked higher

Risk readiness for top 10 risks

Risk readiness refers to the level of a company's risk preparedness—undertaking a formal review of risks and putting in place a comprehensive risk management plan. The overall readiness for the top 10 risks stands at 63 percent in the 2015 survey, similar to that in 2013. The result, though positive, falls below expectation. Given the attention and scrutiny that risk management practices have received from stakeholders since the financial crises, one would expect an uptick in the percentage point. The situation may indicate that insurance markets solutions have not been responsive to key risk sensitivities, and that it is important to manage risk from an enterprise perspective.

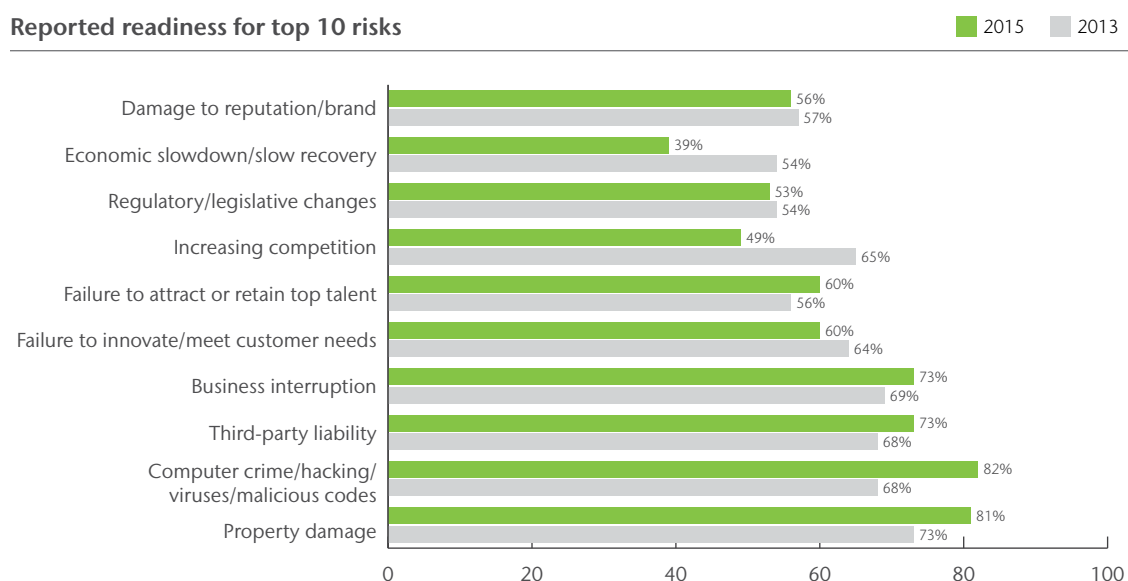
Contrary to results in 2013, when 26 out of 28 industry groups reported a decrease in risk readiness, only six have registered a decrease in the current survey: wholesale trade; non-aviation transportation manufacturing; non-aviation transportation services; educational and nonprofits; construction; and metal milling and manufacturing. These sectors still appear to be grappling with solutions to best fit their industries.

Survey respondents have recorded the highest percentage of readiness to computer crime/hacking/viruses/malicious codes, at 82 percent. Fifty-six percent say their organizations are prepared to handle the impact of damage to reputation/brand, only a slight decrease from 57 percent in 2013. The percentage of readiness for economic slowdown/slow recovery has slipped from 54 in 2013 to 39, due to the improvement of overall economic conditions worldwide. Fifty-three percent of respondents have reported readiness for regulatory/legislative changes, down one point from 2013.

Respondents have identified three risks as “the most difficult to manage and the least ready for.” They are: economic slowdown/slow recovery at 39 percent, increasing competition at 49 percent, and regulatory/legislative changes at 53. All three risks are external in nature and largely uninsurable.

From the perspectives of individual industry sectors, the overall increase in risk readiness can be attributed to the fact that corporate leadership is taking a more active role in managing risks, and that more insurable risks have entered the top 10 list in 2015.

Reported readiness for top 10 risks



Average reported readiness for top 10 risks by industry

Industry	2015	2013	Change
Utilities	70%	68%	2%
Non-Aviation Transportation Manufacturing	56%	67%	-11%
Telecommunications and Broadcasting	69%	64%	5%
Health Care	74%	62%	12%
Natural Resources (Oil, Gas, and Mining)	72%	62%	11%
Chemicals	65%	61%	3%
Pharmaceuticals and Biotechnology	68%	60%	7%
Insurance, Investment, and Finance	60%	60%	0%
Aviation	60%	60%	0%
Agribusiness	66%	60%	6%
Non-Aviation Transportation Services	50%	60%	-10%
Educational and Nonprofits	56%	59%	-4%
Food Processing and Distribution	62%	59%	3%
Metal Milling and Manufacturing	58%	59%	-1%
Consumer Goods Manufacturing	63%	59%	4%
Lumber, Furniture, Paper, and Packaging	64%	58%	5%
Technology	66%	58%	8%
Banks	69%	57%	12%
Hotels and Hospitality	60%	57%	3%
Government	59%	57%	2%
Conglomerate	71%	57%	N/A
Construction	51%	54%	-2%
Real Estate	68%	53%	15%
Wholesale Trade	41%	53%	-12%
Professional and Personal Services	62%	53%	9%
Retail Trade	72%	52%	20%
Machinery and Equipment Manufacturers	66%	48%	18%
Rubber, Plastics, Stone and Cement	58%	46%	12%

Average reported readiness for top 10 risks by region

Region	2015–Average reported readiness	2013–Average reported readiness
Asia Pacific	64%	63%
North America	69%	60%
Europe	58%	55%
Latin America	57%	55%
Middle East & Africa	68%	75%

Losses associated with top 10 risks

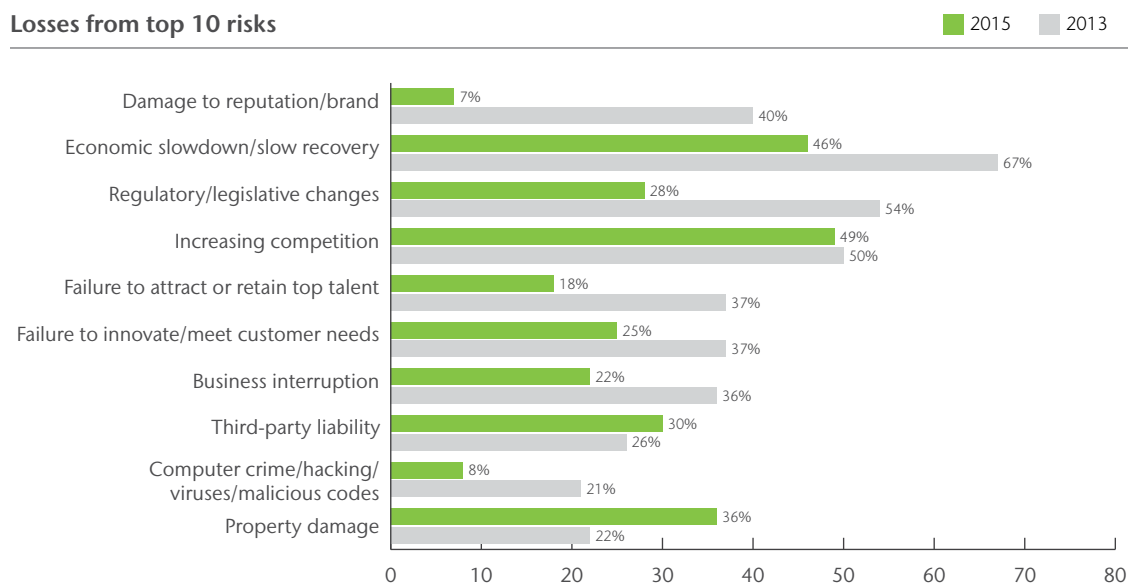
Similar to the 2013 result, 49 percent of the surveyed companies have indicated loss of income in the past 12 months from increased competition, reflecting the continued challenges companies are facing in a hyper-competitive environment. Property damage, which has not appeared as a top 10 risk since 2007, has experienced an increase in the loss of income, from 22 percent in 2013 to 36 percent in the current survey.

On average, reported loss of income from the top 10 risks has decreased from 39 percent in 2013 to 27 in 2015. Three key risks have registered the greatest decrease in loss of income during the 12 months: damage to reputation/brand has dropped 33 percent, from 40 percent in 2013 to seven percent in 2015,

bringing the loss level down to nearly what it was in 2011 and 2009 (due to heightened awareness); economic slowdown/slow recovery, from 67 to 46 percent (improved economic conditions worldwide); and regulatory/legislative changes, from 54 to 28 percent (increased preparedness).

Overall, the 28 industry sectors and five regions covered in this report have reported lower than average losses from the top 10 risks in 2015. The reduction in losses can also be the result of active involvement by the board and senior leadership in risk mitigation strategies. The fact that the majority of entrants in the top 10 list are insurable is also a contributing factor.

Losses from top 10 risks



Average reported loss of income from top 10 risks by industry

Industry	2015 - Average loss of income experienced from top 10 risk in the last 12 months	2013 - Average loss of income experienced from top 10 risk in the last 12 months	Change
Professional and Personal Services	28%	48%	-20%
Non-Aviation Transportation Manufacturing	25%	47%	-22%
Educational and Nonprofits	27%	47%	-20%
Metal Milling and Manufacturing	27%	46%	-18%
Technology	22%	46%	-24%
Lumber, Furniture, Paper, and Packaging	29%	45%	-16%
Conglomerate	20%	45%	N/A
Consumer Goods Manufacturing	24%	45%	-21%
Retail Trade	33%	44%	-12%
Aviation	28%	43%	-16%
Health Care	31%	43%	-12%
Chemicals	18%	43%	-25%
Pharmaceuticals and Biotechnology	23%	42%	-19%
Non-Aviation Transportation Services	27%	42%	-15%
Telecommunications and Broadcasting	30%	42%	-12%
Banks	33%	41%	-9%
Rubber, Plastics, Stone and Cement	31%	41%	-10%
Machinery and Equipment Manufacturers	28%	41%	-13%
Insurance, Investment, and Finance	18%	41%	-22%
Food Processing and Distribution	29%	40%	-12%
Utilities	27%	40%	-14%
Construction	30%	40%	-10%
Hotels and Hospitality	32%	39%	-8%
Natural Resources (Oil, Gas, and Mining)	24%	39%	-15%
Real Estate	20%	38%	-18%
Wholesale Trade	22%	38%	-16%
Agribusiness	34%	38%	-3%
Government	25%	35%	-10%

Average reported readiness for top 10 risks by region

Region	2015 - Average loss of income experienced from top 10 risk in the last 12 months	2013 - Average loss of income experienced from top 10 risk in the last 12 months
Latin America	27%	39%
Europe	25%	42%
Asia Pacific	29%	41%
North America	29%	43%
Middle East & Africa	28%	50%

Top 10 risks in the next three years

In the previous survey (2013), Aon asked respondents to predict the top risks facing their companies in the next three years. They correctly identified six risks on the 2015 top 10 list. The four risks that respondents missed were: business interruption, third-party liability, computer crime/hacking/viruses/malicious codes, and property damage (a related risk, weather/natural disasters, was projected to be on the top 10 list for 2015).

Once again, respondents were asked in the current survey to list their top risks three years from now.

Increasing competition has been projected to jump from the current number four to number one, while failure to innovate/meet customer needs will move from number six to number four. Increasing competition is also rated very high by four out of the five major geographies.

Computer crime/hacking/viruses/malicious codes could move up the list from number nine to number seven, reflecting growing concerns about rampant data breaches that companies have been experiencing in recent years. Cyber risk is fast-moving, impossible to predict, and difficult to understand, but the damage can be immense. How is it possible to cover the exposure of every company in the world and how does one quantify such exposure? There is no simple solution. As cyber attacks are becoming more frequent, we expect this risk to remain a top concern in the near future.

Commodity price risk, while not far off the radar at a current ranking of number 11, is projected to take the number eight spot.

In the current survey, one surprising omission from the current top 10 risk list is political risk/uncertainties. With the rise of ISIS and enduring conflicts in the Middle East, the exacerbating civil war in Ukraine, and the territorial disputes between China and its Asian neighbors, one would assume that the risk would have loomed large. This omission is remedied in the projected list, with a new ranking number of nine. Regionally, political risk/uncertainties is understandably ranked number five by respondents in Latin America, and the Middle East and Africa, all of which are being roiled by political turmoil.

Surprisingly, business interruption and damage to reputation/brand are projected to fall from number seven to number 12 and number one to number five, respectively. But no matter where these risks fall, organizations must constantly evaluate and manage them as the two top risks that could impact a company's bottom line and threaten its survival.

From an industry perspective, 17 of the 28 industry groups have reported a projected change in their top risk ranking, validating the fact that risk is always evolving, and organizations must constantly monitor and evaluate risks and make corresponding plans.

2015



Projected 2018



Where current top 10 risks are projected to be in 3 years

Risk description	Risk rank	Top ten risks 3 years from now
Damage to reputation/brand	1	5
Economic slowdown/slow recovery	2	2
Regulatory/legislative changes	3	3
Increasing competition	4	1
Failure to attract or retain top talent	5	6
Failure to innovate/meet customer needs	6	4
Business interruption	7	12
Third-party liability	8	11
Computer crime/hacking/viruses/malicious codes	9	7
Property damage	10	16

Top 5 risks in the next 3 years by region

	Asia Pacific	Europe	Latin America	Middle East & Africa	North America
1	Increasing competition	Increasing competition	Increasing competition	Economic slowdown/ slow recovery	Failure to innovate/ meet customer needs
2	Economic slowdown/ slow recovery	Economic slowdown/ slow recovery	Regulatory/ legislative changes	Increasing competition	Regulatory/ legislative changes
3	Failure to innovate/ meet customer needs	Damage to reputation/ brand	Commodity price risk	Cash flow/liquidity risk	Economic slowdown/ slow recovery
4	Failure to attract or retain top talent	Failure to innovate/ meet customer needs	Economic slowdown/ slow recovery	Commodity price risk	Increasing competition
5	Damage to reputation/ brand	Regulatory/ legislative changes	Political risk/uncertainties	Political risk/uncertainties	Failure to attract or retain top talent

Note: Where ranking for a risk was tied, the All respondent ranking was utilized to determine what risk would be ranked higher

Top 3 risks in the next 3 years by industry

Industry	Key Risk 1	Key Risk 2	Key Risk 3
Agribusiness	Commodity price risk	Increasing competition	Regulatory/legislative changes
Aviation	Increasing competition	Economic slowdown/ slow recovery	Damage to reputation/brand
Banks	Regulatory/legislative changes	Computer crime/hacking/ viruses/malicious codes	Economic slowdown/ slow recovery
Chemicals	Commodity price risk	Economic slowdown/ slow recovery	Increasing competition
Conglomerate	Failure to innovate/ meet customer needs	Economic slowdown/ slow recovery	Increasing competition
Construction	Increasing competition	Economic slowdown/ slow recovery	Cash flow/liquidity risk
Consumer Goods Manufacturing	Increasing competition	Economic slowdown/ slow recovery	Failure to innovate/meet customer needs
Educational and Nonprofits	Damage to reputation/brand	Failure to innovate/ meet customer needs	Increasing competition
Food Processing and Distribution	Commodity price risk	Damage to reputation/brand	Increasing competition
Government	Regulatory/ legislative changes	Computer crime/hacking/ viruses/malicious codes	Growing burden and consequences of corporate governance/compliance
Health Care	Regulatory/ legislative changes	Increasing competition	Failure to innovate/ meet customer needs
Hotels and Hospitality	Political risk/uncertainties	Economic slowdown/ slow recovery	Failure to innovate/ meet customer needs
Insurance, Investment, and Finance	Increasing competition	Damage to reputation/brand	Regulatory/ legislative changes
Lumber, Furniture, Paper, and Packaging	Increasing competition	Commodity price risk	Economic slowdown/ slow recovery
Machinery and Equipment Manufacturers	Economic slowdown/ slow recovery	Increasing competition	Failure to innovate/ meet customer needs
Metal Milling and Manufacturing	Economic slowdown/ slow recovery	Commodity price risk	Failure to innovate/ meet customer needs
Natural Resources (Oil, Gas, and Mining)	Regulatory/ legislative changes	Commodity price risk	Economic slowdown/ slow recovery
Non-Aviation Transportation Manufacturing	Increasing competition	Economic slowdown/ slow recovery	Failure to innovate/ meet customer needs

Top 3 risks in the next 3 years by industry (cont'd)

Industry	Key Risk 1	Key Risk 2	Key Risk 3
Non-Aviation Transportation Services	Economic slowdown/ slow recovery	Increasing competition	Regulatory/ legislative changes
Pharmaceuticals and Biotechnology	Regulatory/ legislative changes	Distribution or supply chain failure	Failure to innovate/ meet customer needs
Professional and Personal Services	Economic slowdown/ slow recovery	Failure to attract or retain top talent	Increasing competition
Real Estate	Property damage	Economic slowdown/ slow recovery	Increasing competition
Retail Trade	Computer crime/hacking/ viruses/malicious codes	Increasing competition	Damage to reputation/brand
Rubber, Plastics, Stone and Cement	Economic slowdown/ slow recovery	Increasing competition	Commodity price risk
Technology	Failure to innovate/ meet customer needs	Increasing competition	Economic slowdown/ slow recovery
Telecommunications and Broadcasting	Increasing competition	Failure to innovate/ meet customer needs	Regulatory/ legislative changes
Utilities	Regulatory/ legislative changes	Damage to reputation/brand	Failure to innovate/ meet customer needs
Wholesale Trade	Increasing competition	Economic slowdown/ slow recovery	Commodity price risk

Note: Where ranking for a risk was tied, the Projected All ranking was utilized to determine what risk would be ranked higher

Identifying, Assessing, Measuring, and Managing Risk

Identifying, Assessing, Measuring, and Managing Risk

Measuring Total Cost of Risk (TCOR)

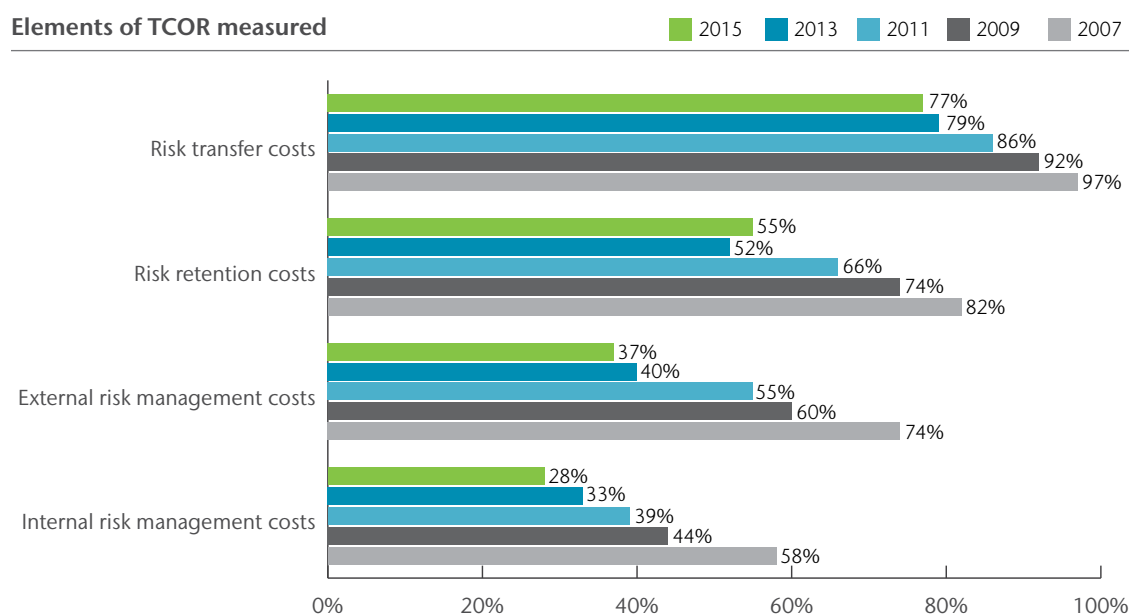
Measuring and managing a company's Total Cost of Risk or TCOR means calculating the risk transfer costs (insurance premiums), risk retention costs (retained losses and claims adjustment costs), and external (brokers, consultants and other vendors) and internal (staff and related) risk management costs.

Even though tracking TCOR has been recognized as an effective risk management tool, fewer companies are utilizing it. Aon's 2015 survey shows a continued downward trend in the measurement of TCOR and each of its components. No more than 28 percent of respondents report having tracked and managed all components of their TCOR, down from 33 percent in 2013. The decline should be a cause for concern because failure to track and manage all aspects of TCOR could be detrimental to an organization.

For respondents who do measure their TCOR, 77 percent say risk transfer costs is the element they monitor the most, down from 79 percent in 2013. Fifty-five percent cite risk retention costs as a key measure target, up from 52 percent in 2013. Thirty-seven percent track external risk management costs, down from 40 percent, while 28 percent measure internal risk management costs, down from 33 percent in the earlier survey.

The survey shows that large companies and those with risk management departments are more likely to measure their TCOR, as they possess more resources. About 39 percent of surveyed companies with revenues of USD 1 billion or more measure their full TCOR, as opposed to 22 percent of companies under USD 1 billion. Thirty-five percent of organizations with formal risk management departments measure their TCOR, while only 13 percent of those without one focus on their TCOR.

Elements of TCOR measured



Identifying & assessing major risks

Effectiveness of risk identification and assessment practices

Risk identification and assessment gives an organization a clear view of the potential internal and external obstacles it needs to manage and overcome, and the opportunities on which it can capitalize. A sound assessment enables leaders to define the company's risk appetite and tolerance, and fashion an effective response to risk. In today's global environment, risks are evolving fast and becoming more volatile and complex. Risk managers can no longer rely on one method. They have to cultivate a comprehensive process to identify and assess current and emerging risks.

When asked to assess and rate their organizations' preparedness to identify, assess, and manage current and emerging risks, surveyed companies have achieved an average score of 6.72 out of 10. The majority (57 percent) fall into the 5 to 7 score range, which is equivalent to the "need for improvement" category. North America has the highest average score, which falls into the "lower need for improvement" group, while Middle East and Africa shows "high need for improvement."

Effectiveness of risk identification and assessment practices by region

Region	Score 1–4 High Need for Improvement	Score 5–7 Need for Improvement	Score 8–10 Lower Need for Improvement	Average Score
All	10%	57%	34%	6.72
Asia Pacific	12%	63%	25%	6.50
Europe	10%	58%	32%	6.67
Latin America	8%	55%	37%	6.81
Middle East & Africa	16%	53%	32%	6.53
North America	8%	55%	37%	6.85

Effectiveness of risk identification and assessment practices by revenue (in USD)

Revenue	Score 1–4 High Need for Improvement	Score 5–7 Need for Improvement	Score 8–10 Lower Need for Improvement	Average Score
<1B	13%	58%	29%	6.49
1B – 4.9B	7%	60%	34%	6.88
5B – 9.9B	6%	56%	38%	6.97
10B – 14.9B	3%	48%	50%	7.33
15B – 24.9B	2%	47%	51%	7.42
25B+	4%	39%	57%	7.61

Methods of identifying & assessing major risks

Risk experts have long recommended that organizations tackle current and emerging risks with a structured enterprise-wide risk identification and assessment process. Aon's 2015 Global Management Survey reveals an encouraging trend: organizations using this comprehensive method for risk identification and assessment have increased over 10 percent. Overall, 46 percent of surveyed organizations utilize a structured enterprise-wide method to identify risks, while 40 percent use this process to assess their risks.

Organizations with revenues greater than USD 1 billion are nearly twice as likely to utilize a structured enterprise-wide approach in the identification and assessment of risks than companies under USD 1 billion.

In practice, a large majority of respondents (74 percent) say they use two or more methods for identifying risk and 69 percent use multiple methods for assessing risk.

For risk identification, 63 percent of surveyed organizations say board and/or management discussion of risk during annual planning, risk assessment, or other processes is the method most often used, with senior management judgment and experience the second most common method.

But when it comes to risk assessment, senior management judgment and experience comes first—65 percent of respondents cite it as the most frequently-used method, followed by board and/or management discussion of risk during annual planning, risk assessment, or other processes, at 56 percent.

Identification by region

Category	All	Asia Pacific	Europe	Latin America	Middle East & Africa	North America
Structured enterprise-wide risk identification process	46%	48%	47%	40%	68%	45%
Board and/or management discussion of risk during annual planning, risk assessment or other processes	63%	68%	61%	58%	79%	65%
Senior management judgment and experience	62%	65%	57%	49%	74%	72%
Risk information from other function-led processes (e.g. internal audit, disclosure, compliance, etc.)	54%	64%	54%	49%	63%	53%
Industry analysis, external reports	36%	40%	35%	36%	32%	38%
Other	3%	3%	4%	4%	0%	2%

Identification by revenue (in USD)

Category	<1B	1B–4.9B	5 B–9.9B	10B–14.9B	15B –24.9B	25B+
Structured enterprise-wide risk identification process	35%	60%	59%	63%	62%	68%
Board and/or management discussion of risk during annual planning, risk assessment, or other processes	62%	67%	55%	65%	69%	66%
Senior management judgment and experience	66%	59%	70%	58%	64%	57%
Risk information from other function-led processes (e.g. internal audit, disclosure, compliance, etc.)	50%	56%	61%	68%	67%	73%
Industry analysis, external reports	35%	34%	38%	38%	47%	45%
Other	4%	2%	3%	3%	4%	0%

Assessment by region

Category	All	Asia Pacific	Europe	Latin America	Middle East & Africa	North America
Structured enterprise-wide risk assessment process supported by a standard toolkit and methodology	40%	46%	40%	38%	42%	39%
Board and/or management discussion of risk during annual planning, risk assessment, or other processes	56%	55%	57%	52%	74%	56%
Senior management judgment and experience	65%	65%	62%	52%	79%	73%
Risk modeling/risk quantification analysis	34%	35%	34%	32%	21%	33%
Consult with external service provider/advisor	32%	36%	31%	30%	26%	34%
Other	2%	2%	3%	1%	0%	2%

Assessment by revenue (in USD)

Category	<1B	1B –4.9B	5 B –9.9B	10B –14.9B	15B –24.9B	25B+
Structured enterprise-wide risk assessment process supported by a standard toolkit and methodology	30%	52%	44%	53%	56%	73%
Board and/or management discussion of risk during annual planning, risk assessment or other processes	59%	51%	48%	60%	56%	57%
Senior management judgment and experience	69%	64%	66%	48%	69%	55%
Risk modeling/risk quantification analysis	27%	33%	47%	53%	47%	61%
Consult with external service provider/advisor	32%	32%	28%	30%	36%	30%
Other	2%	1%	4%	0%	4%	0%

Determining limits of insurance

When an organization considers what level of risk to transfer via insurance policies, it has to take into consideration multiple factors. These include: risk severity, risk mitigation measures already in place or under consideration, the regulatory landscape, an organization's historical trend of loss activities, the insurance marketplace, and appetite for risk. The choice made by one individual organization may not work for another. Consideration must always be given to the impact of loss retention on an organization's ability to achieve its objectives.

Aon's 2015 survey shows that organizations utilize a combination of methods to select the appropriate level of limits, with management judgment and experience as the most common approach (59 percent). Relying on a broker or independent consultant to determine limit is ranked second by 57 percent of respondents.

The larger the organization, the more likely it is to adopt more sophisticated and analytical approaches, such as risk modeling and scenario analysis, in determining limits of insurance.

Given the complex and fast-changing risk landscape in North America, companies there use more methods to assist in determining what limits of insurance to buy—a single method alone can no longer meet the challenges. Benchmarking against peers is listed as a popular tool for companies in North America.

Determination of limits by revenue (in USD)

Category	All	<1B	1B –4.9B	5 B –9.9B	10B –14.9B	15B –24.9B	25B+
Benchmark against peers	47%	36%	63%	66%	55%	73%	63%
Industry claims data/large losses	32%	24%	39%	46%	45%	58%	55%
Risk modeling	27%	21%	28%	40%	38%	40%	66%
Cost benefit analysis, premium cost vs. limits purchased	49%	46%	52%	53%	60%	56%	61%
Scenario analysis	28%	22%	30%	43%	30%	49%	52%
Management judgment and experience	59%	59%	66%	61%	55%	62%	50%
Rely on broker or independent consultant	57%	60%	58%	54%	48%	47%	46%
Other	3%	4%	1%	1%	5%	2%	4%

Completion of cyber risk assessment

From identity theft and fraud to large-scale espionage and hacking attacks, cyber security has emerged as a severe risk for organizations of all sizes. Cyber risk causes tremendous financial losses, interrupts business operations, and damages a company's reputation. As cyber criminals are becoming increasingly more sophisticated, it is critical that organizations take strategic steps to mitigate their exposure. Privacy, security, and cybercrimes can no longer be left for the IT department to tackle. The risk requires active involvement and oversight by boards and senior executives.

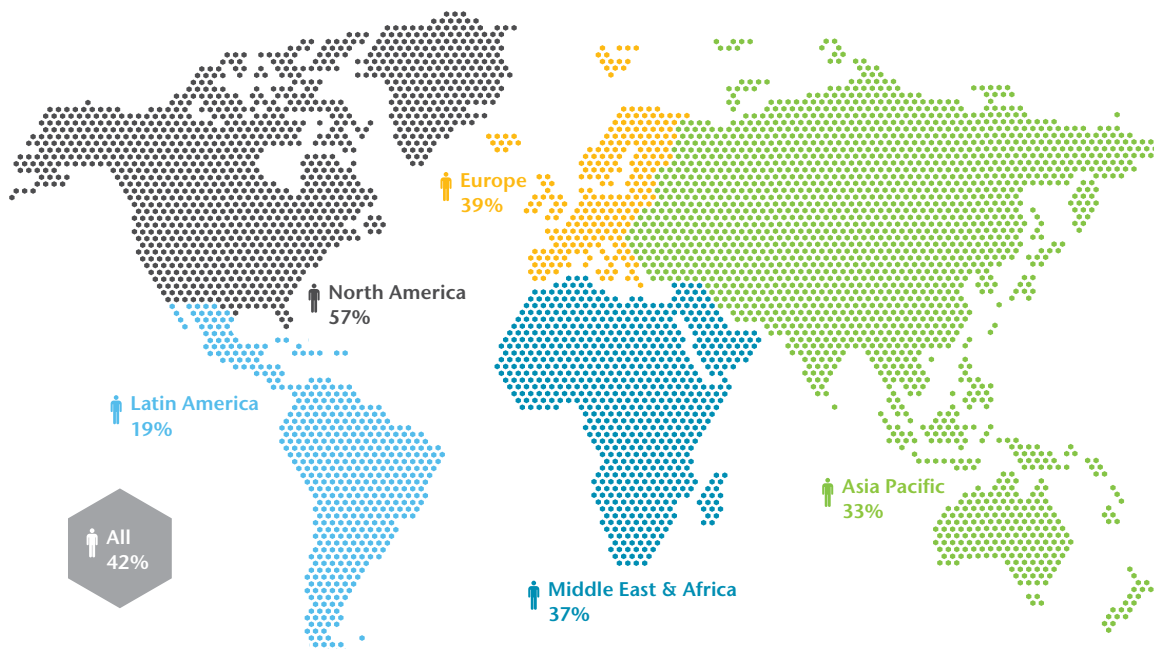
This urgency is reflected in the survey. Forty-two percent of respondents say they have completed a cyber risk assessment. Among these, large organizations and companies in North America, which have been frequently targeted by cyber criminals, are the ones most likely to have completed a cyber risk assessment.

As expected, the following industry sectors, which store and rely on consumer personal and financial records, have the highest level of cyber risk assessment completion:

- Health care—72 percent
- Insurance, investment, and finance—59 percent
- Banks—58 percent
- Retail trade—58 percent

Given the frequency and prevalence of cyber risks, it is alarming that a fairly large percentage of companies (58 percent) have not completed a cyber risk assessment. Only 19 percent of companies in Latin America, for example, have undertaken such an assessment.

Completion of cyber risk assessment by region



Completion of cyber risk assessment by industry

Region	Percentage
Agribusiness	23%
Aviation	54%
Banks	58%
Chemicals	27%
Conglomerate	41%
Construction	32%
Consumer Goods Manufacturing	35%
Educational and Nonprofits	47%
Food Processing and Distribution	24%
Government	41%
Health Care	72%
Hotels and Hospitality	38%
Insurance, Investment, and Finance	59%
Lumber, Furniture, Paper, and Packaging	32%
Machinery and Equipment Manufacturers	39%
Metal Milling and Manufacturing	32%
Natural Resources (Oil, Gas, and Mining)	38%
Non-Aviation Transportation Manufacturing	24%
Non-Aviation Transportation Services	34%
Pharmaceuticals and Biotechnology	40%
Professional and Personal Services	40%
Real Estate	45%
Retail Trade	58%
Rubber, Plastics, Stone and Cement	36%
Technology	52%
Telecommunications and Broadcasting	48%
Utilities	39%
Wholesale Trade	24%

Completion of cyber risk assessment by revenue (in USD)

Revenue	Percentage
<1B	34%
1B –4.9B	57%
5B –9.9B	51%
10B –14.9B	55%
15B –24.9B	53%
25B+	68%

Changes to risk profile due to aging workforce

More and more evidence suggests that the age of retirement is being pushed back worldwide. Based on a recent report by the Economics Intelligence Unit, almost one in three companies expects the number of employees over the age of 60 to increase significantly by 2020. This means that organizations will be significantly challenged over the issue of aging workforce.

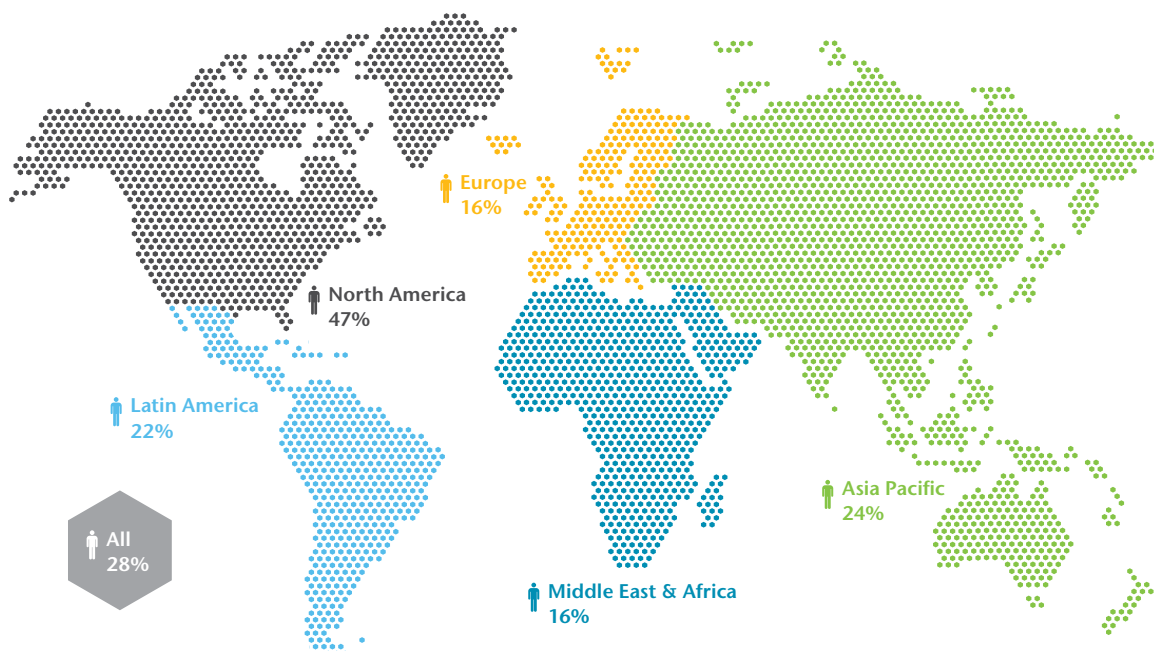
In Aon's 2015 Global Risk Management Survey, nearly 30 percent of respondents have indicated changes to risk profiles as a result of the aging workforce. This can be attributed to several causes. First, low birthrates have made it hard for employers to find younger workers to replace aging employees, and are therefore trying to entice older employees to delay retirement. Second, higher life expectancy and inadequate

savings are forcing people to work longer. Higher state pension ages will give this a nudge.

The impact of an aging workforce can increase financial and operational risk, while creating volatility within the company. This is most evident in North America and especially in the U.S., where 47 percent of respondents have indicated a change in risk profile. Aon's own data analysis of more than USD 3 billion of incurred losses shows that U.S. workers over 45 are reporting 52 percent higher average casualty claims costs and 40 percent more litigated cases.

The aging workforce could pose a current operational risk that can dramatically impact a company's TCOR, impede operations, and create financial constraints if left unmanaged.

Changes to risk profile due to aging workforce by region



Changes to risk profile due to aging workforce by industry

Region	Percentage
Agribusiness	31%
Aviation	33%
Banks	13%
Chemicals	24%
Conglomerate	18%
Construction	32%
Consumer Goods Manufacturing	17%
Educational and Nonprofits	38%
Food Processing and Distribution	20%
Government	59%
Health Care	43%
Hotels and Hospitality	19%
Insurance, Investment, and Finance	27%
Lumber, Furniture, Paper, and Packaging	39%
Machinery and Equipment Manufacturers	37%
Metal Milling and Manufacturing	23%
Natural Resources (Oil, Gas, and Mining)	32%
Non-Aviation Transportation Manufacturing	5%
Non-Aviation Transportation Services	22%
Pharmaceuticals and Biotechnology	11%
Professional and Personal Services	31%
Real Estate	16%
Retail Trade	30%
Rubber, Plastics, Stone and Cement	16%
Technology	18%
Telecommunications and Broadcasting	43%
Utilities	46%
Wholesale Trade	13%

Changes to risk profile due to aging workforce by revenue (in USD)

Revenue	Percentage
<1B	26%
1B –4.9B	31%
5B –9.9B	32%
10B –14.9B	45%
15B –24.9B	27%
25B+	30%

Board Oversight and Involvement

Board Oversight and Involvement

External drivers for risk management

Compared to those in the previous survey, the two factors that have experienced the biggest increases are pressure from suppliers/vendors (11 percent) and pressure from competitors (10 percent). As supply chain-related risks continue to grow in complexity and scope, organizations are paying attention to these two differentiating elements, and risk management is finally being considered as a differentiating factor or competitive advantage.

When asked to identify the most important external drivers that strengthen risk management, respondents have listed increased scrutiny from regulators as the number one catalyst (tougher regulatory environment), followed by economic volatility, which has dropped 10 percent due to improved economic conditions worldwide.

New to the list are cyber threat environment, which is noted by nearly a quarter of the respondents, and random acts of violence. Given the increasing number of such attacks and their unpredictable nature, we expect the percentage for this risk driver could increase over time.

External drivers strengthening risk management (past 2 years)

External Drivers Strengthening Risk Management (Past 2 Years)	All—2015	All—2013	All—2011
Increased focus from regulators	38%	34%	38%
Economic volatility	37%	47%	50%
Pressure from customers	26%	20%	18%
Cyber threat environment	22%	N/A	N/A
Pressure from competitors	21%	11%	N/A
Demand from investors for greater disclosure and accountability	20%	22%	22%
Risk events/black swan events	18%	18%	N/A
Large third-party liability losses/litigation	18%	14%	19%
Natural weather events	17%	18%	14%
Political uncertainty	15%	15%	11%
Workforce issues	15%	12%	13%
Pressure from suppliers/vendors	15%	4%	6%
Globalization	11%	N/A	N/A
Other	8%	9%	14%
Random acts of violence	2%	N/A	N/A

Policies on risk oversight and management

Risk management remains an important item on board agendas, according to Aon's 2015 survey. Seventy-six percent of surveyed companies say their board or a board committee has established or partially established policies on risk oversight and management. This reveals a positive trend: boards of directors are becoming increasingly engaged in risk oversight and in understanding the link between risk management and strategy.

Geographically, the Asia Pacific and Middle East and Africa regions have the highest percentages of companies with established or partially established policies (89 percent).

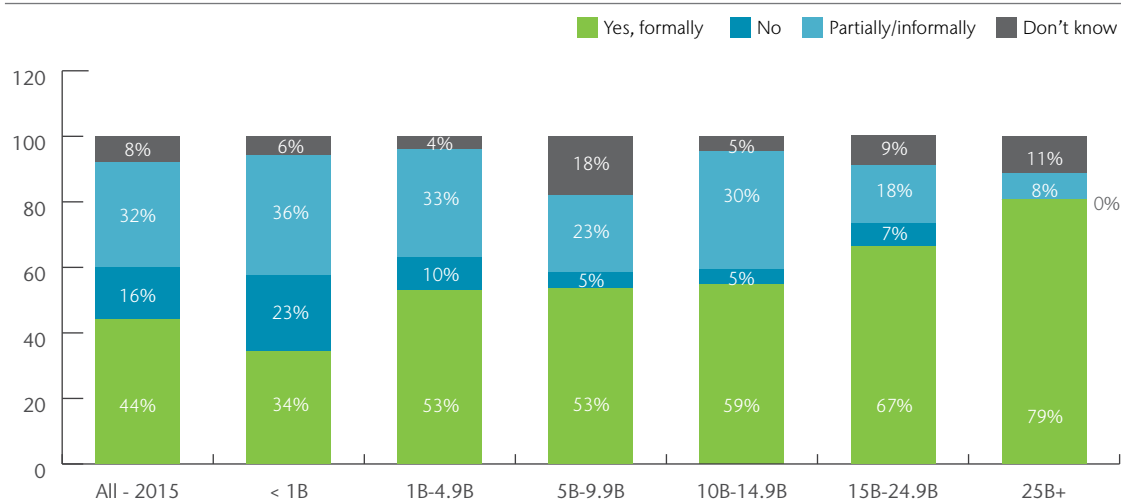
Across industries, the following sectors indicate high levels of board involvement (over 85 percent):

- Aviation
- Banking
- Conglomerate
- Insurance, investment, and finance
- Telecommunications and broadcasting
- Utilities

The survey also shows that organizations with a risk management department are more likely than those without to have established or partially established board policies on risk oversight and management.

While successful organizations should focus on risk management at every level, the responsibility for risk management starts with the board. Board-level engagement, with a separate risk management committee, is essential for an enterprise-wide risk mitigation strategy. Many corporate failures can be attributed to the board's inability to recognize the underlying risks faced by the company, and to take timely and appropriate mitigating actions. Corporate governance and enterprise-wide risk management are intrinsically interconnected.

Board of directors or a board committee have established policies on risk oversight and management by revenue (in USD)



Methods of evaluating effectiveness of risk management

Time and again, the much quoted management adage, “You can’t improve what you don’t measure,” proves to be accurate and relevant to risk management practices today.

To manage for improvement, one must measure to see what’s getting better and what isn’t. As organizations move through the ups and downs of the business cycle, it is imperative that they continually assess their risk performance and improve their mitigating strategies.

Based on Aon’s survey, organizations appear to be utilizing multiple methods for evaluating the effectiveness of their performance, the most common being the comparison of historical results from risk events against effectiveness of risk management programs; identification/tracking of the involvement

of risk management within organization; lower total cost of risk; and comparison of historical results from safety and loss-control programs (i.e., decreasing losses, faster return-to-work). Each category garners over 30 percent of responses.

However, the survey also reveals a troubling phenomenon—nearly 30 percent of all respondents (and 50 percent of those in Middle East and Africa) say they do not measure effectiveness of risk management. Larger organizations, which clearly have much more established processes, tend to measure effectiveness more often.

Methods of evaluating effectiveness of risk management by region

Category	All	Asia Pacific	Europe	Latin America	Middle East & Africa	North America
Compare historical results from risk events against effectiveness of risk management programs	36%	36%	29%	37%	32%	45%
Identify/track involvement of risk management within organization	34%	41%	32%	32%	32%	37%
Lower TCOR	32%	32%	25%	31%	21%	43%
Compare historical results of safety and loss-control programs (i.e., decreasing losses, faster return-to-work)	31%	34%	20%	28%	42%	47%
Do not measure effectiveness	29%	23%	36%	22%	47%	23%
Evaluate opportunity cost associated with business investments that would not have been possible without risk management	12%	15%	12%	12%	11%	11%
Identify income generated or other financial/strategic benefits associated with a company captive	9%	16%	7%	7%	5%	11%
Other	5%	5%	5%	5%	0%	4%

Methods of evaluating effectiveness of risk management by revenue (in USD)

Category	<1B	1B–4.9B	5B–9.9B	10B–14.9B	15B–24.9B	25B+
Do not measure effectiveness	35%	26%	23%	18%	14%	10%
Lower TCOR	28%	34%	46%	39%	52%	52%
Compare historical results from risk events against effectiveness of risk management programs	30%	42%	40%	45%	50%	50%
Compare historical results of safety and loss-control programs (i.e., decreasing losses, faster return-to-work)	26%	33%	39%	50%	48%	50%
Identify/track involvement of risk management within organization	30%	42%	39%	26%	41%	52%
Evaluate opportunity cost associated with business investments that would not have been possible without risk management	10%	11%	13%	21%	9%	29%
Identify income generated or other financial/strategic benefits associated with a company captive	5%	11%	16%	24%	20%	31%
Other	4%	4%	3%	5%	0%	2%

Level of risk management's assistance in meeting business objectives

Based on responses provided in the prior section, only 70 percent of surveyed organizations are truly in a position to answer the question, which goes to the very core reason of risk management. Organizations have scored an average of 3.23 out of five, with 42 percent of companies achieving 4 or 5 in the ranking.

Latin American companies feel that risk management is very helpful in meeting business objectives, while Europe has scored the lowest rating.

Size also plays a role in the extent to which risk management assists in establishing or delivering on business objectives, with larger organizations believing most strongly that it has an impact on the organization's goals. From an industry perspective, conglomerates, banks, and utilities think risk management plays an important role in meeting business objectives, with scores greater than 3.5 out of five, while the non-aviation transportation manufacturing and hotels and hospitality industries have registered the lowest impact.

Extent to which risk management assists in meeting business objectives by region

Region	1	2	3	4	5	Average Score
All	6%	14%	39%	34%	8%	3.23
Asia Pacific	2%	17%	34%	41%	7%	3.35
Europe	10%	16%	38%	30%	6%	3.06
Latin America	1%	10%	42%	37%	10%	3.45
Middle East & Africa	0%	21%	37%	37%	5%	3.26
North America	3%	11%	41%	35%	10%	3.39

Extent to which risk management assists in meeting business objectives by revenue (in USD)

Region	1	2	3	4	5	Average Score
<1B	8%	15%	38%	33%	6%	3.14
1B –4.9B	3%	14%	40%	37%	6%	3.29
5B –9.9B	2%	12%	49%	27%	10%	3.30
10B –14.9B	3%	13%	24%	42%	18%	3.61
15B –24.9B	2%	18%	34%	36%	9%	3.32
25B+	0%	6%	27%	44%	23%	3.85

Perspective:

A view on emerging risks

Perspective:

A view on emerging risks...

One of the many interesting observations from the 2015 Aon Global Risk Management research is the perhaps unconscious alignment of thinking around risk connectivity. Four specific, major business threats that are strongly connected and can have a multiplier effect on company valuation and ultimate survival are reputation, failure to innovate, cyber risk, and interdependency. Although the vulnerabilities arising from dependence on others is not explicitly stated as a major risk, the reliability of suppliers of energy, communication systems, water, and other infrastructure, as well as the growing dependence of firms on increasingly fragmented and brittle supply chains, is a rising vulnerability. Dependence on increasingly mobile skills similarly underpins many other risks. These interdependencies have increased the potential of systemic risks to impact on businesses. These arise from growing connectivity and interdependencies that percolate unseen to the top of risk registers. Mitigating this threat requires changing the methods by which risk is currently measured and managed.

Unsurprisingly, reputation has emerged consistently as the most valuable asset for the majority of companies. This observation is supported by the movement into the top ten risks of cyber risk, for the first time in the history of the Aon research. As evidenced in many highly publicized events, cyber breach has impacted many very valuable brands in all regions of the world. From unsophisticated low-budget attacks to state-sponsored assaults, this risk is growing in significance and fast-moving. A single hacker or disgruntled employee can severely threaten even the strongest brands. Particularly concerning is evidence that building stronger cyber walls around the perimeter of firms is proving unsuccessful in preventing attacks, both because these are breached by the next generation of attackers, and because the greatest risk is often from insiders. Dealing with this challenge requires new, comprehensive responses.

For the insurance and risk advisory industry, the rapidly changing risk landscape requires a collaborative approach to risk modeling, assessment, and mitigation approaches. External expertise will be a necessity—hiring specialist staff internally is a risk in itself, as their specialty knowledge can be obsolete within months, if not weeks. This must be addressed quickly and at Board level. In a more rapidly evolving world, innovation, or indeed failure to innovate and stay ahead of competition, is a disruptive exposure to which no company is immune.

Numerous examples of the depreciation of formerly prized assets should provide a wake-up call to all firms, and not least of all to those that are vulnerable to digital disintermediation. Borders Books was eliminated by e-books, digital imagery eliminated Kodak, GPS replaced maps, Sony is being surpassed by SnapChat and UBER, airBnB, waze, and Craig's List is crowding out traditional business models and physical assets. The gain in the value of new companies' reputations has come at the expense of the decline of others. This Darwinian process, as Schumpeter identified, creates the dynamism for growth, but it is a hard commercial reality. As the pace of change accelerates, innovation is a necessary investment and not an option.

Research by my colleagues at the Oxford Martin School suggests that 47 percent of U.S. jobs may be lost to computerization over the coming decades. So much more is now possible with so much less. Jobs are being lost to machine intelligence, and for every job being created that requires sophisticated skills, many more middle-income jobs are being hollowed out. Computers cannot yet replace certain low-skill jobs, not least in service industries that require human interaction and dexterity, but the widening divide contributes to widening inequality. This and other systemic risks have increased anxiety about the future and have been associated with the fracturing of traditional politics, and political gridlock at the national and global level.



47% of U.S. jobs may be lost to computerization over the coming decades.

As the world population increases from 7 billion to more than 9 billion individuals over the next 35 years (of whom at least two thirds will be urbanized), the density of social and economic activity will compound all risk exposures. The likely concentration of people in densely populated coastal cities with aging and inadequate infrastructure and the impacts of climate change will compound the risks. Higher numbers of people, with higher incomes and increased urban and other assets, will lead to much greater and much more concentrated locations of assets.

The greatest uncertainty, however, comes from greater connectivity. This is what I call “The Butterfly Defect” of globalization, and it is associated with cascading systemic risks. These do not respect national or traditional risk boundaries. A hurricane or concerted cyber attack in New York could lead to a financial crises with global impact. So too could a tsunami or earthquake in Tokyo, or a virulent pandemic in any major city, since our connectivity can carry a pathogen through an airport hub into all continents in 48 hours.

A densely populated and increasingly geographically concentrated and mobile workforce, living in a physically and digitally connected environment, creates new risks. The hubs of globalization—such as major airports, ports, financial centers, or server farms—are the nodes in increasingly complex networks. The integrity of these is vital, and physical

or virtual threats can cause contagion that quickly impacts on geographically remote locations. With logistics, transport, and infrastructure hubs providing the skeleton, and the cyber system, the invisible central nervous system, a small shock anywhere can lead to a domino effect. The more connected we are, the greater our interdependencies.

The time to address these issues starts now. However, our national and global political institutions have failed to evolve to meet 21st-century challenges. Growing interdependency requires growing cooperation but our politics is becoming more and more short-term and local. As a result, the gap between our deeply connected world, which faces deep long-term challenges and an increasingly disconnected politics, driven by short-term concerns, poses a rising threat.

More people, with rapidly rising incomes and higher levels of innovation, means that opportunities are greater than ever in history. But so too are the risks. Business as usual is not an option. Indeed, it poses the greatest threat. New approaches are required for risk management in an increasingly densely packed, tightly connected, and rapidly evolving world. Firms have no time to lose if they are to build resilience and mitigate the new systemic threats. The time to address these issues starts now.

Ian Goldin, Director of the Oxford Martin School and Professor of Globalization and Development, University of Oxford.

Risk Management Department and Function

Risk Management Department and Function

Chief Risk Officer

A Chief Risk Officer (CRO) is tasked with assessing and mitigating significant competitive, regulatory, and technological risks facing an organization. Despite the increasing visibility of CROs, only 28 percent of the respondents report that their organizations have one. About 59 percent of participants say they do not have a CRO nor do they plan to create one, down from 63 percent in 2013. They choose instead to leverage existing teams and use risk committees for driving change.

For companies that have CROs, job responsibilities vary. Sixty-one percent say the CRO function includes risk management, a slight decrease from 2013, when 64 percent reported such an alignment. In the case that CROs do not handle traditional insurance/hazard risk management, these tasks are typically handled by a risk manager, who reports to another area or to a Chief Financial Officer.

Among those that do not have a CRO position in their companies, eight percent of respondents have indicated interest in creating such a position, slightly up from seven percent in 2013. Data seems to suggest that the trend towards creating a CRO position within organizations has peaked.

As expected, the existence or absence of a CRO is correlated with a company's size. Twenty-two percent of organizations with revenues less than USD 1 billion indicate that they have a CRO, as opposed to 37 percent for organizations with more than USD 1 billion in revenue. Highly regulated sectors such as banking, utilities, insurance, investment, and finance are more likely to have a separate CRO position in place.

Role of the CRO

Role	2015	2013	2011	2009	2007
Yes, but this role does not include risk management	11%	10%	12%	11%	8%
Yes, this role includes risk management	17%	18%	19%	14%	17%
No, but we are considering creating this position	8%	7%	6%	10%	10%
No, and we do not plan to create such a position	59%	63%	60%	62%	60%
Don't know	5%	2%	2%	3%	4%

Who is handing risk?

The growing importance and visibility of risk management have led to the increasing integration of such functions with an organization's strategic plan. To succeed in today's competitive and heavily regulated business environment, companies have gradually come to the realization that they have to incorporate risk management into all aspects of their operations.

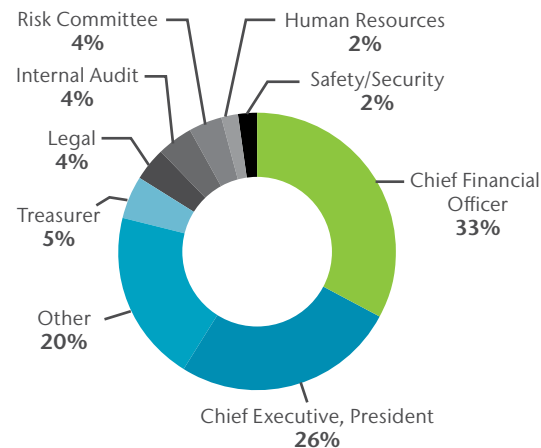
This changing reality is reflected in Aon's 2015 survey. Compared to 2013, the number of organizations with formal risk management departments has registered an increase of 13 percent.

Large organizations are more likely to have a formal risk management department. In the current survey, 93 percent of companies greater than USD 1 billion in revenue report having a formal risk management department, as opposed to 57 percent of companies under USD 1 billion. In addition, corporate structure is also a determining factor. More public companies have a formalized department (87 percent) than private ones (60 percent). This is because private companies are normally smaller and less risk averse, and they face less stringent financial reporting requirements.

By industry, utilities and telecommunications and broadcasting are most likely to have a formal risk management department, while non-aviation transportation manufacturers are the least likely.

In organizations with no formal risk management department, the responsibility resides most often in the office of the CFO (33 percent) or Chief Executive, President (26 percent).

Responsibility for risk when no insurance department



Formal risk management/insurance department (in USD)

Formal Risk Management Department	All 2015	All 2013	<1B	1B –4.9B	5B –9.9B	10B –14.9B	15B –24.9B	25B+
Yes	71%	58%	57%	90%	99%	95%	98%	96%
No	29%	42%	43%	10%	1%	5%	2%	4%

Where does risk management report?

While experts have advocated that risk management functions should be embedded in every business process, from development to sales, this activity is typically managed and championed by either a risk manager, a risk management department, or in some cases, a risk committee. Depending on the type of organizations, the reporting relationship for the risk management function varies, with a majority of respondents (49 percent) saying that their risk management department reports to the CFO/Finance/Treasury.

Given their complex risk financing programs, loss cost/cash flow considerations, significant risk retentions, and utilization of captive insurance facilities, this reporting structure, which is consistent with that in prior surveys, seems to make sense for most organizations. They see it as a natural fit within the finance/treasury function.

Among organizations such as health care companies, which constantly face litigation issues, significant risk retentions, and complex contractual claims, risk management functions are placed within the legal department (27 percent of respondents in the healthcare industry have indicated that risk management reports to the General Counsel).

Organizational reporting for risk management

Department	2015	2013	2011
CFO/Finance/Treasury	49%	51%	54%
Chief Executive, President	13%	12%	10%
General Counsel/Legal	11%	9%	10%
Chief Risk Officer (CRO)	8%	11%	8%
Other	8%	8%	8%
Internal Audit	2%	3%	1%
Company Secretary	2%	2%	1%
Human Resources	2%	2%	3%
Chief Administrative Officer	2%	1%	2%
Controller	2%	1%	1%
Safety/Security	1%	1%	0%

Size of risk management department

Since 2009, risk management department staffing levels remain consistently unchanged, with the majority of respondents saying they maintain staffing levels at fewer than five employees. Twenty-three percent of respondents with a risk management department have more than five employees in it. The percentage increases for larger companies. Those with revenue greater than USD 25 billion (72 percent of them) have six or more employees in the risk department.

By industry, the banking sector, the most heavily regulated since the financial meltdown in 2009, has the largest risk management departments. More than 52 percent of banking respondents say they have five or more employees, with 23 percent having over 15. Rubber, plastics, stone, and cement firms report the lowest number of risk management employees: 79 percent have only one to two employees.

The staffing level might also be influenced by the way a company approaches risks, as well as by the scope of responsibilities each risk management department is given. Organizations which limit their risk management duties to risk financing analysis and insurance program management might have fewer risk managers or specialists, while those that handle extensive claims, risk control, or environmental, health & safety activities could have more. In addition, a company's staffing level is also influenced by the scope of a company's outsourcing activities.

Department staffing by revenue (in USD)

Staffing Level	All 2015	All 2013	<1B	1B –4.9B	5B –9.9B	10B –14.9B	15B –24.9B	25B+
1–2	46%	40%	61%	42%	28%	17%	21%	10%
3–5	31%	31%	27%	38%	36%	40%	35%	18%
6–8	8%	10%	5%	7%	11%	11%	12%	20%
9–11	5%	6%	3%	2%	9%	3%	16%	14%
12–15	3%	5%	1%	3%	2%	9%	7%	8%
16–20	2%	2%	0%	3%	4%	6%	2%	6%
21–25	1%	1%	1%	1%	1%	0%	2%	8%
26–30	1%	1%	0%	1%	2%	9%	5%	2%
31–35	0%	0%	0%	0%	1%	0%	0%	2%
36–40	0%	1%	0%	0%	1%	0%	0%	2%
Over 40	3%	3%	2%	3%	4%	6%	0%	10%

Risk management involvement in employee benefits

Since Aon's Global Risk Management Survey started in 2007, many issues that traditionally fall in the realm of human resources and employee benefits have entered the top risk ranking. For example, failure to attract or retain top talent is listed as a number-five risk, while workforce shortages is ranked 32 on the list and aging workforce, 35. This indicates risk management and employee benefits are becoming more interconnected.

Survey respondents have reported that risk functions are more heavily involved in the financing, delivery, and governance of employee benefits—these are management themes that can be aligned with corporate strategies and practices. Financial structures, such as captive insurance vehicles and multinational pools, allow the risk function to exert its influence and expertise in employee benefit risk management. The survey also indicates that risk functions are less involved in the design of employee benefits (e.g., provisions, contract structures, etc.), which is typically performed in response to workforce needs and legislative environments.

It is interesting to see the regional differences.

Companies in the Asia Pacific region, Latin America and the Middle East and Africa have reported more involvement of risk functions in the non-design elements of employee benefits management than those in North America and Europe. This could be attributed to the more recent growth and competition for talent in these regions, which has allowed employee benefit management practices to benefit from experiences in developed markets.

Organizations are fundamentally changing the perception of human resource risk at the local level by drawing from their experiences controlling and mitigating other centralized risks.

Risk management involvement in employee benefits by region

Category	All	Asia Pacific	Europe	Latin America	Middle East & Africa	North America
Benefits design						
Decision-maker/authorization	5%	10%	3%	10%	8%	3%
Don't know	5%	14%	6%	7%	8%	1%
Interested party with other functions	19%	10%	23%	23%	17%	16%
Not involved	58%	51%	51%	40%	67%	72%
Stakeholder (involved in decisions) with other functions	13%	14%	16%	20%	0%	8%
Financing & funding (pooling, captives)						
Decision-maker/authorization	19%	19%	19%	17%	25%	20%
Don't know	5%	7%	6%	8%	0%	2%
Interested party with other functions	21%	22%	22%	21%	25%	19%
Not involved	35%	36%	34%	28%	17%	39%
Stakeholder (involved in decisions) with other functions	20%	17%	19%	26%	33%	20%
Delivery & administration						
Decision-maker/authorization	19%	23%	13%	19%	17%	24%
Don't know	5%	6%	6%	7%	0%	2%
Interested party with other functions	25%	28%	29%	33%	42%	17%
Not involved	34%	24%	35%	16%	17%	40%
Stakeholder (involved in decisions) with other functions	18%	19%	17%	26%	25%	16%
Governance & compliance						
Decision-maker/authorization	11%	14%	11%	16%	25%	9%
Don't know	4%	6%	6%	9%	0%	1%
Interested party with other functions	28%	30%	29%	20%	33%	28%
Not involved	31%	18%	29%	22%	17%	38%
Stakeholder (involved in decisions) with other functions	26%	32%	25%	33%	25%	25%

Risk management budget

Risk management is a process by which business risks are identified, analyzed, engineered, reduced, eliminated, or transferred. In recent years, the tougher regulatory environment and fast-evolving risk landscape are profoundly changing the way an organization manages its risks. The board of directors and senior executives are under increasing pressure from various stakeholders to maintain effective oversight of risk management. At the same time, there's been a rising interest in risk management as a competitive advantage both in decision-making (tackling the risk the organization wants or needs to take and planning accordingly) and event response (crises management, business continuity, etc.).

Such heightened attention may have driven an increase in organizations' risk management spend. In the survey, nearly one third of respondents have indicated a marginal or significant planned increase in risk management spend/resources over the next 12 months. Respondents in the Middle East and Africa, and Asia Pacific regions say they are planning to spend more, due to their rising awareness of risk management and risk transfer. Following years of declining risk management budgets we see this as a very positive trend. Only three percent of respondents say they are planning a decrease in risk management spend.

Change in risk management budget by region

Category	All	Asia Pacific	Europe	Latin America	Middle East & Africa	North America
No, decrease	3%	1%	5%	6%	0%	2%
No, stay the same	44%	36%	48%	26%	23%	47%
Unsure	21%	22%	20%	32%	8%	20%
Yes, marginally	25%	30%	22%	24%	31%	26%
Yes, significantly	7%	11%	5%	11%	38%	5%

Change in risk management budget by revenue (in USD)

Category	<1B	1B–4.9B	5B–9.9B	10B–14.9B	15B–24.9B	25B+
No, decrease	3%	3%	2%	0%	7%	10%
No, stay the same	45%	49%	43%	71%	33%	37%
Unsure	22%	18%	18%	14%	26%	14%
Yes, marginally	23%	26%	29%	9%	28%	33%
Yes, significantly	7%	5%	7%	6%	7%	6%

Insurance Markets

Insurance Markets

Priorities in choice of insurer

When an organization purchases an insurance policy, it expects to be compensated in the event of a covered loss. If the insurance carrier does not fulfill this promise or there is a long delay in reimbursement, the organization's operations and balance sheet could be adversely affected. In the worst case scenario, such delay or failure to pay could bankrupt a business. This explains why respondents to Aon's 2015 survey cite claims service and settlement as the top criterion in an organization's choice of insurers. A similar choice was reported in 2013.

It is interesting to note that the ranking of financial stability, a top criterion for insurance buyers from 2007 to 2011, has been gradually downgraded, from number two in 2013 to number three in this year's report. This change leads to the conclusion that many organizations now see financial stability as more of a "hygiene factor" in the choice of an insurer, as improved economic conditions worldwide and much stricter regulations governing the insurance industry have boosted people's confidence in the financial well-being of insurers.

Another notable change is the continued upward ranking shift of capacity, which has risen from number seven in 2011 to number five in 2013, and to number four in this year's survey. The rise of capacity reflects:

- Organizations' increasing appetite for insurance contracts that contain as few layers as possible, especially in less established lines of business, including cyber insurance cover.
- Continued need for more capacity by larger organizations, businesses in high-risk industries or companies that are vulnerable to natural catastrophes.

If they were given the additional category of coverage terms and conditions, the majority of survey respondents would have rated it the most important criteria.

Priorities in choice of insurer

Factors	2015 Rank	2013 Rank	2011 Rank	2009 Rank	2007 Rank
Claims service & settlement***	1	1	3	3	4
Value for money/price	2	3	2	2	2
Financial stability/rating	3	2	1	1	1
Capacity	4	5	7	4	Not ranked
Industry experience	5	4	4	5	6
Long-term relationship	6	6	6	6	Not ranked
Flexibility/innovation/creativity	7	7	8	7	3*
Ability to execute and deliver risk finance support proximate to global locations	8	8	9	8	8**
Speed and quality of documentation	9	9	10	10	5

*This was the ranking for Flexibility only in the 2007 survey

** This was the ranking for Global Representation

***Settlement was added to Claims Services in the 2013 survey and Prompt Settlement of Large Claims was removed

Desired changes in insurance market

When asked what changes organizations would most like to see in the insurance market, the majority of respondents said they desire more flexibility (65 percent), broader coverage/better terms (64 percent), and better recognition of investments in internal risk management (50 percent). These answers remain consistent with those in previous surveys. It's a clear indication that organizations are expecting their insurers to offer broader terms and more flexible solutions for meeting risk management objectives as they are coping with new risk and challenges.

Desired changes in the insurance market

Desired market changes	2015 Rank	2013 Rank
More flexibility (i.e., underwriting, coverages, pricing)	65%	66%
Broader coverage/better terms and conditions	64%	66%
Recognition of investments in internal risk management efforts through lower premiums	50%	55%
Improved documentation accuracy and timeliness (policy issuances and endorsement processing)	37%	39%
More product innovation	32%	22%
More sophisticated claims information technology (IT) systems	31%	27%
Streamline/innovate underwriting process	30%	25%
More globally compliant and consistent coverage across multinational programs	29%	N/A
Increased capacity	22%	26%
Other	4%	5%

Desired changes in the insurance market by region

Desired market changes	Asia Pacific	Europe	Latin America	Middle East & Africa	North America
Broader coverage/better terms and conditions	75%	60%	74%	57%	65%
Recognition of investments in internal risk management efforts through lower premiums	57%	48%	61%	50%	48%
Increased capacity	30%	20%	24%	21%	21%
More flexibility (i.e., underwriting, coverages, pricing)	68%	59%	64%	64%	71%
More sophisticated claims information technology (IT) systems	34%	29%	39%	21%	31%
Streamline/innovate underwriting process	35%	22%	28%	7%	40%
Improved documentation accuracy and timeliness (policy issuances and endorsement processing)	35%	31%	53%	29%	40%
More product innovation	41%	30%	26%	36%	34%
More globally compliant and consistent coverage across multinational programs	38%	31%	26%	29%	24%
Other	3%	4%	4%	0%	6%

Risk Financing

Risk Financing

Limits

Umbrella/excess liability

In the 2015 survey, respondents say the most commonly purchased limit stands at USD 100 million and the average limit purchased for all surveyed companies totals USD 112 million. The amounts cited are similar to those in prior surveys. For companies with revenues of more than USD 1 billion, the average limit purchased is USD 190 million, a decrease from USD 198 million in 2013. The highest limit totals USD 1.5 billion, which is reported by respondents in Europe.

Large, high-profile companies normally purchase higher limits because they represent a bigger target for legal actions. Educational and nonprofit organizations, and wholesale trade companies have purchased the lowest average limit of USD 40 million. Among the surveyed industry groups, aviation-related companies, which have high historical loss or claim records, purchase the highest average limit at USD 276 million.

Umbrella/excess liability limits by region (in USD)

Category	All—2015	All—2013	Asia Pacific	Europe	Latin America	Middle East & Africa	North America
Minimum	50,000	323,975	200,000	50,000	50,000	10,000,000	300,000
Average	111,596,700	128,689,691	124,481,395	95,254,508	41,845,384	80,609,091	133,394,153
Most common	100,000,000	100,000,000	100,000,000	10,000,000	10,000,000	10,000,000	100,000,000
Maximum	1,500,000,000	2,250,000,000	1,000,000,000	1,500,000,000	500,000,000	500,000,000	1,200,000,000

Umbrella/excess liability limits by revenue (in USD)

Category	<1B	1B—4.9B	5B—9.9B	10B—14.9B	15B—24.9B	25B+
Minimum	50,000	1,000,000	8,000,000	20,000,000	8,000,000	30,000,000
Average	35,779,551	130,403,428	214,421,875	231,521,739	258,133,333	361,164,233
Most common	10,000,000	100,000,000	200,000,000	200,000,000	300,000,000	100,000,000
Maximum	1,000,000,000	1,500,000,000	1,200,000,000	600,000,000	1,129,000,000	1,000,000,000

Directors and Officers (D&O) liability

The average D&O limit purchased by all respondents totals USD 60 million, whereas companies with more than USD 1 billion in revenue have purchased an average of USD 107 million in D&O liability, up from USD 100 million reported in the 2013 survey.

In the current survey, public companies have purchased a much higher D&O limit (three times more) than private companies. Historically, many private companies feel they have limited D&O exposure because they have no public shareholders, and that tend to have the financial abilities to cover any claims against their directors or officers, should they occur. Nonetheless, this might be changing. As private companies are increasingly facing litigation risks from employees, creditors, and the government, the amount of D&O coverage purchased could prove to be important.

Meanwhile, large companies with high revenues and high profiles have consistently purchased high D&O limits. Geographically, North America has historically reported high D&O limits as a result of tougher regulations and a litigious environment there. In Europe and Asia Pacific, where U.S.-style litigations are spreading and consumer laws have made it easier to bring claims against directors and officers, D&O limit has increased accordingly.

D&O liability limits by region (in USD)

Category	All—2015	All—2013	Asia Pacific	Europe	Latin America	Middle East & Africa	North America
Minimum	50,000	500,000	200,000	100,000	50,000	135,000	250,000
Average	60,059,122	61,544,790	73,544,534	48,834,569	21,571,149	38,302,692	74,635,119
Most common	5,000,000	10,000,000	200,000,000	5,000,000	10,000,000	10,000,000	5,000,000
Maximum	1,129,000,000	500,000,000	400,000,000	1,129,000,000	250,000,000	100,000,000	625,000,000

D&O liability limits by revenue (in USD)

Category	<1B	1B—4.9B	5B—9.9B	10B—14.9B	15B—24.9B	25B+
Minimum	50,000	1,000,000	135,000	1,000,000	5,000,000	5,000,000
Average	16,577,710	72,185,257	100,341,271	129,400,000	187,031,667	220,588,235
Most common	5,000,000	50,000,000	100,000,000	200,000,000	150,000,000	200,000,000
Maximum	225,000,000	400,000,000	400,000,000	340,000,000	1,129,000,000	625,000,000

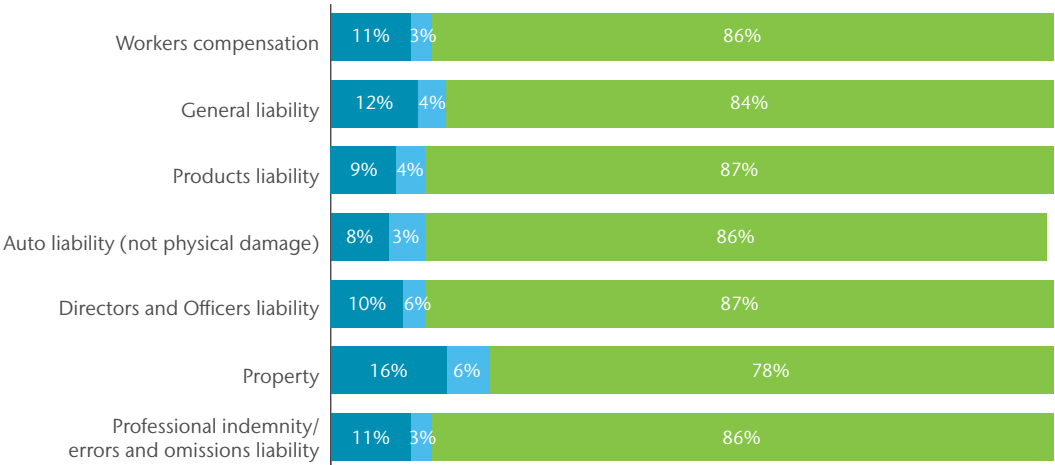
Changes in retention levels

In comparison with those in the previous survey, retention levels remain largely similar, and the majority of companies have not reported any changes. When a change does occur, it's normally an increase due to an organization's rising exposure to natural catastrophe risk, an adverse loss experience, or the desire to control premium spend.

As in past surveys, property has experienced the most change in retention levels. Sixteen percent of respondents indicate an increase, while six percent note a decrease. Some of the larger increases have taken place in:

- Agribusiness—33%
- Natural resources—29%
- Food processing and distribution—27%
- Consumer goods manufacturing—24%
- Construction—23%
- Aviation—21%
- Professional and personal services—20%
- Pharmaceuticals and personal services—19%
- Health care—18%
- Chemicals—18%

Changes in retention levels



Cyber risk coverage

Cyber risk has emerged as a leading risk for many organizations as mobile technologies advance and cloud computing, corporate bring-your-own-device policies, and big data are becoming increasingly popular. At the same time, cyber criminals are using more sophisticated tools and state-sponsored espionage is getting more frequent. In the face of more frequent contractual insurance requirements for cyber liability, forward-thinking companies are taking proactive steps to explore and transfer cyber risk. The table below depicts the coverage offered by cyber insurance in comparison with traditional insurance policies, such as property and general liability.

Cyber risk

■ No coverage ■ Limited coverage ■ coverage

	Property	General liability	Crime/Bond	K&R	Professional indemnity	Cyber
1st Party Privacy/Network Risks						
Physical damage to data only	Limited coverage	No coverage	Limited coverage	No coverage	No coverage	Coverage
Virus/hacker damage to data only	Limited coverage	No coverage	Limited coverage	No coverage	No coverage	Coverage
Denial of service attack	Limited coverage	No coverage	No coverage	No coverage	No coverage	Coverage
B.I. loss from security event	Limited coverage	No coverage	No coverage	No coverage	No coverage	Coverage
Extortion or threat	No coverage	No coverage	No coverage	Limited coverage	No coverage	Coverage
Employee sabotage of data only	Limited coverage	No coverage	Limited coverage	No coverage	No coverage	Coverage
3rd Party Privacy/Network Risks						
Theft/disclosure of private info.	No coverage	Limited coverage	Limited coverage	No coverage	Limited coverage	Coverage
Confidential corporate info. breach	No coverage	Limited coverage	Limited coverage	No coverage	Limited coverage	Coverage
Technology E&O	No coverage	Limited coverage	No coverage	No coverage	No coverage	Limited coverage
Media liability (electronic content)	No coverage	Limited coverage	No coverage	No coverage	No coverage	Coverage
Privacy breach expense/notification	No coverage	No coverage	No coverage	No coverage	Limited coverage	Coverage
Damage to third party's data only	No coverage	Limited coverage	No coverage	No coverage	No coverage	Coverage
Regulatory privacy defense/fines	No coverage	No coverage	No coverage	No coverage	Limited coverage	Coverage
Virus/malicious code transmission	No coverage	Limited coverage	No coverage	No coverage	Limited coverage	Coverage

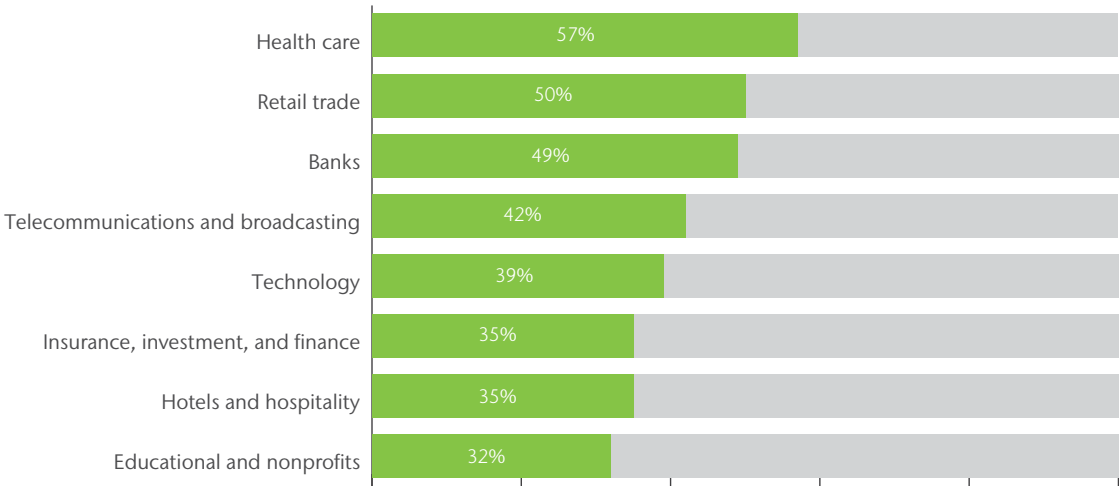
* For reference and discussion only.

Purchase of cyber insurance coverage

In Aon’s 2015 survey, only 21 percent of respondents say their companies have purchased cyber insurance coverage, and 18 percent plan to purchase this coverage. Compared to those in other regions, organizations in North America are more likely to purchase this coverage (42 percent, as opposed to 7–12 percent in other regions). This is most likely

driven by the high frequency and severity of cyber attacks and heightened media attention in North America. The Middle East and Africa region has experienced the highest growth rate, at 43 percent. As expected, the larger the company, the more likely it is to purchase cyber insurance coverage.

Organizations most likely to buy cyber coverage



The following industry factors may result in more risk exposure and have led to higher take-up rates:

- Storage and dissemination of personal information
- A high degree of dependency on electronic processes or computer networks
- Engagement with vendors, independent contractors, or additional service providers
- Regulatory compliance
- PCI Security Standards/Plastic Card Security compliance
- Contingent bodily injury and property damage that may result from cyber incidents
- Operation reliant on critical infrastructure (Personally Identifiable Information risks are less prominent for industries such as utilities, manufacturing, and logistics)
- Intentional acts by rogue employees
- SEC Cyber Disclosure Guidance of 2011

Purchase of cyber insurance coverage by region

Region	Insurance currently purchased	Not purchased and no plans to purchase	Plan to purchase
All	21%	61%	18%
Asia Pacific	12%	71%	17%
Europe	10%	73%	17%
Latin America	7%	77%	16%
Middle East & Africa	7%	50%	43%
North America	42%	40%	18%

Purchase of cyber insurance coverage by revenue (in USD)

Revenue	Insurance currently purchased	Not purchased and no plans to purchase	Plan to purchase
<1B	15%	69%	16%
1B–4.9B	27%	55%	18%
5B–9.9B	23%	52%	25%
10B–14.9B	43%	40%	17%
15B–24.9B	30%	43%	28%
25B+	52%	30%	18%

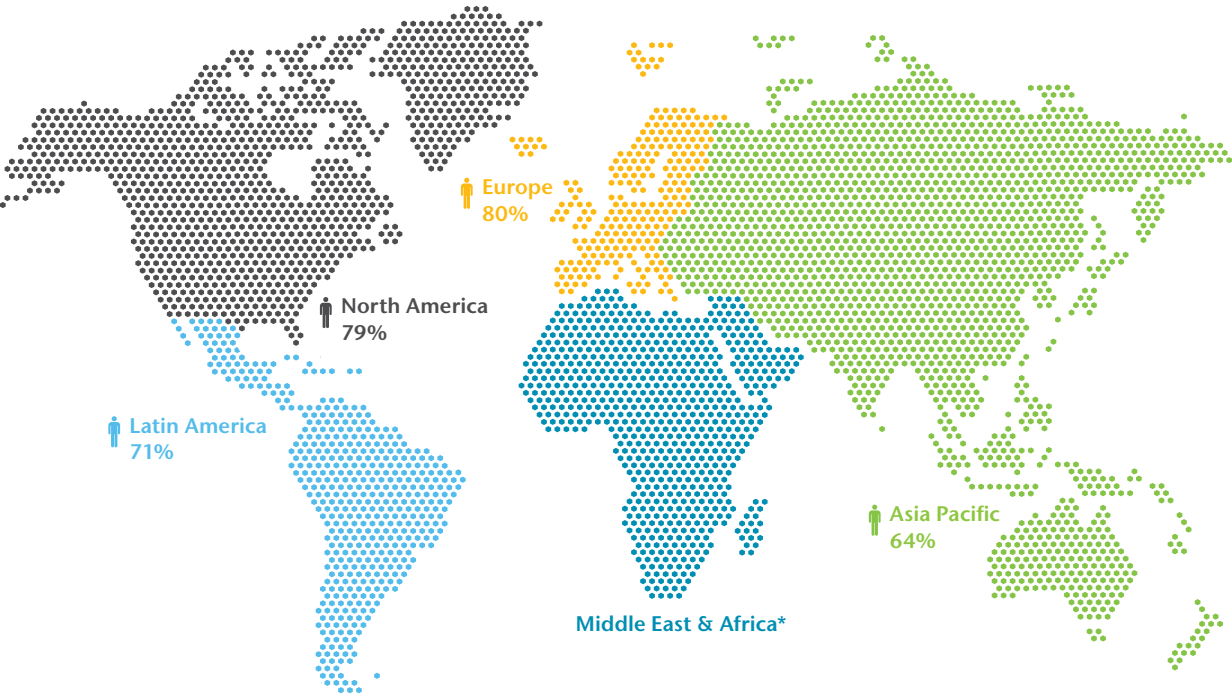
Purchase of cyber insurance coverage by industry

Industry	Insurance currently purchased	Not purchased and no plans to purchase	Plan to purchase
Agribusiness	0%	90%	10%
Aviation	10%	71%	19%
Banks	49%	36%	15%
Chemicals	3%	78%	19%
Conglomerate	7%	29%	64%
Construction	13%	75%	12%
Consumer Goods Manufacturing	12%	71%	17%
Educational and Nonprofits	32%	43%	26%
Food Processing and Distribution	6%	69%	25%
Government	28%	67%	6%
Health Care	57%	42%	2%
Hotels and Hospitality	35%	55%	10%
Insurance, Investment, and Finance	35%	49%	15%
Lumber, Furniture, Paper, and Packaging	0%	100%	0%
Machinery and Equipment Manufacturers	10%	71%	19%
Metal Milling and Manufacturing	12%	79%	10%
Natural Resources (Oil, Gas, and Mining)	0%	74%	26%
Non-Aviation Transportation Manufacturing	0%	73%	27%
Non-Aviation Transportation Services	7%	77%	16%
Pharmaceuticals and Biotechnology	21%	66%	14%
Professional and Personal Services	21%	69%	10%
Real Estate	16%	57%	27%
Retail Trade	50%	24%	26%
Rubber, Plastics, Stone, and Cement	5%	71%	24%
Technology	39%	46%	14%
Telecommunications and Broadcasting	42%	37%	21%
Utilities	14%	47%	40%
Wholesale Trade	15%	73%	12%

Effectiveness of terms and adequacy of limits for current cyber insurance coverage

Among companies that have purchased cyber insurance coverage, 78 percent of respondents feel the terms and conditions are sufficient and effective to manage their exposures. However, respondents were less satisfied with the liability limits, with a third expressing concern over the adequacy of their limits carried.

Effectiveness of current cyber insurance coverage by region



*Not enough data for a Middle East and Africa breakout

Effectiveness of current cyber Insurance coverage by industry

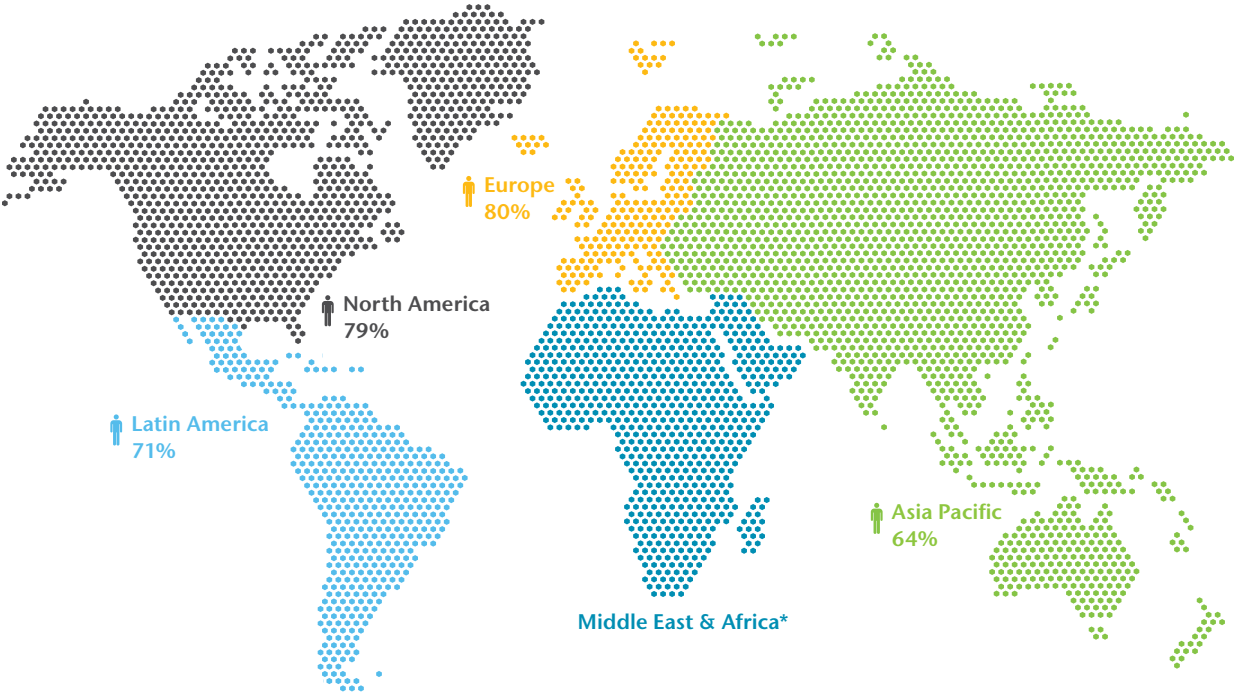
Industry	Percentage
Aviation	100%
Banks	89%
Chemicals	100%
Conglomerate	100%
Construction	67%
Consumer Goods Manufacturing	60%
Educational and Nonprofits	87%
Food Processing and Distribution	100%
Government	100%
Health Care	83%
Hotels and Hospitality	57%
Insurance, Investment, and Finance	76%
Machinery and Equipment Manufacturers	75%
Metal Milling and Manufacturing	60%
Non-Aviation Transportation Services	100%
Pharmaceuticals and Biotechnology	50%
Professional and Personal Services	85%
Real Estate	50%
Retail Trade	85%
Technology	73%
Telecommunications and Broadcasting	100%
Utilities	67%
Wholesale Trade	40%

Effectiveness of current cyber Insurance coverage by revenue (in USD)

Revenue	Percentage
<1B	80%
1B–4.9B	77%
5B–9.9B	100%
10B–14.9B	69%
15B–24.9B	67%
25B+	77%

* Not enough data for agribusiness, lumber, furniture, paper, and packaging, natural resources (oil, gas, and mining), non-aviation transportation manufacturing, and rubber, plastics, stone, and cement

Adequacy of limits for cyber insurance coverage by region



*Not enough data for a Middle East and Africa breakout

Adequacy of limits for cyber insurance coverage by industry

Industry	Percentage
Aviation	100%
Banks	95%
Conglomerate	100%
Construction	58%
Consumer Goods Manufacturing	80%
Educational and Nonprofits	67%
Food Processing and Distribution	100%
Government	60%
Health Care	63%
Hotels and Hospitality	57%
Insurance, Investment, and Finance	76%
Machinery and Equipment Manufacturers	25%
Metal Milling and Manufacturing	40%
Non-Aviation Transportation Services	67%
Pharmaceuticals and Biotechnology	67%
Professional and Personal Services	69%
Real Estate	50%
Retail Trade	48%
Technology	64%
Telecommunications and Broadcasting	71%
Utilities	67%
Wholesale Trade	40%

Adequacy of limits for cyber insurance coverage by revenue (in USD)

Revenue	Percentage
<1B	74%
1B–4.9B	60%
5B–9.9B	56%
10B–14.9B	38%
15B–24.9B	67%
25B+	68%

* Not enough data for agribusiness, lumber, furniture, paper, and packaging, natural resources (oil, gas, and mining), non-aviation transportation manufacturing, and rubber, plastics, stone, and cement

Perspective:

Cyber risk – From cyber security to digital resilience

Perspectives:

Cyber risk – From cyber security to digital resilience

Digital connectivity is driving a wave of transformational disruption which is redefining every industry. From connected, self-driving cars to the industrial internet of things to new ways of engaging savers and borrowers – digital innovation is an imperative rather than a choice.

The appearance of cyber risks in the Top 10 in 2015 is a clear reflection of a shift within the business community: that cyber is a core business issue and not just a technical concern. Cyber is being seen as a risk to be managed, as opposed to a problem to be delegated and fixed.

From the organizational perspective, the values at risk are assets and reputation. The tandem rise of cyber risk and reputational concerns is interesting to observe. It is hard to think of many large businesses whose core informational assets – IP, customer data, commercially sensitive project or deal information – are not stored or transmitted digitally, physical assets are increasingly connected, introducing a whole new set of risks. Direct revenue and remediation costs and ongoing reputational harm can lead to efficiency-damping controls or reduced investment in innovation that creates an ongoing drag or opportunity cost to the organization. Our research at the World Economic Forum last year estimated that a large scale erosion of trust in the digital ecosystem could cost the global economy USD 4.1 trillion in lost value by 2020. From the societal perspective, the values at risk are innovation and growth.

This shift to a primarily business lens has a number of consequence for how organizations deal with the evolving challenge. Given the increasingly digital and/or connected nature of many assets and the risks that this poses to the ongoing viability of the enterprise, the effective management of cyber risk is increasingly being recognized as a fiduciary responsibility requiring top level leadership. As the vulnerabilities and impacts reach across all functions in the organization, a basic literacy in cyber risks is emerging as part of the executive set of competencies, just like a basic literacy with financial statements or anti-trust law. Organizations are actively working to inventory and prioritize their digital/connected assets from a business perspective to identify where to focus resources. These efforts necessarily involve the integration of the security, risk and operational/business perspectives, creating the requirement and opportunity for new indicators and measurements. While many challenges in this space remain, the maturation and standardization of cyber risk measurement practices across the business community will further support the ongoing development of cyber risk transfer markets for all.

Derek O'Halloran; Director, Head of Information Technology Industries, World Economic Forum

Our research at the World Economic Forum last year estimated that a large scale erosion of trust in the digital ecosystem could cost the global economy

USD 4.1
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Multinational Programs

Multinational Programs

Multinational risks continue to present opportunities and challenges for respondents in Aon's 2015 Global Risk Management Survey. Of the 20 top risks identified by survey respondents, about 14 can be tied directly or indirectly to international exposures.

Looking at control and placement of multinational risks, the number of respondents controlling all insurance from the corporate headquarters is down by four percent, and the number reporting control from both the headquarters and local operations is up by one percent.

General liability and property coverage continue to be the lines of business most frequently purchased on a multinational basis. However, there have been significant increases in the number of respondents purchasing multinational programs for other lines, including D&O liability, workers compensation and employers liability, and crime coverage. These upticks may be attributable to the continued need for certainty of coverage and costs, all of which could drive the decision to purchase multinational programs.

Although globalization has dropped four places in the top risk ranking, it remains a consistent theme for companies pursuing improved operational results. As such, risk managers need to focus on a larger geographic spread while addressing variations in regulatory controls, exposures, available solutions, and options for optimal risk finance program design.

Since regulatory controls dictate how and what insurance coverage is to be procured, along with what taxes or fees are to be paid for risk transfer in a given geography, there continues to be a need to review how multinational risk finance programs may respond to a claim, including how and where indemnities may be paid and what, if any, costs may be due depending on the structure of the program placed. In addition, companies should look at the financial design and allocation of related premium costs across the firm.

In recent years, as regulatory controls have increased and become better defined and more strictly enforced, market offerings also have evolved. In some cases, these changes create greater opportunity for multinational firms to align their risk finance structures to address country-specific regulations. In other cases, market offerings are more clearly defined as to how, where, and on whose behalf a policy may or may not respond. Insurers are developing more multinational offerings and making them available. These market developments mean insurance buyers need to consider how and what they may be purchasing. Their final purchase decision will have to balance the local needs of far-flung operations against the efficiency of centralized acquisition of coverage.

The 2015 survey aims to gauge how companies handle such challenges and opportunities relative to multinational risk management strategies and insurance.

Multinational insurance purchasing habits

When reviewing how insurance procurement is controlled within multinational firms, 45 percent of all respondents—the largest group amongst all respondents—have reported that control over all insurance purchases, including corporate and local placements, is located at corporate headquarters. This percentage has slipped from 49 in 2013. It is interesting to note a significant increase in the number of respondents who leave insurance procurement to their international operations. This approach is most frequently employed by multinationals with operations in two to 10 countries, showing that a company's ability to control all placements runs in opposite correlation to the number of countries in which multinational firms operate.

Multinational insurance purchasing habits

Category	All*	2–5	6–10	11–15	16–25	26–50	51+
Corporate headquarters controls procurement of ALL insurance programs (global/local)	45%	52%	43%	42%	35%	49%	40%
Corporate headquarters controls some lines and leaves local office to purchase other lines	44%	29%	42%	54%	58%	44%	53%
No, each operation buys its own insurance with no coordination from corporate headquarters	11%	19%	15%	4%	7%	7%	6%

* All represents respondents operating in more than one country

Types of multinational insurance coverage purchased

Consistent with results in prior years, general liability and property damage are the most frequently purchased multinational programs. In addition to increasing use of programs for D&O liability, marine, workers compensation and employers liability, auto, and crime coverage, there are additional types of coverage available as multinational programs, including product recall and trade credit.

Types of multinational insurance coverage purchased

Category	All*	2–5	6–10	11–15	16–25	26–50	51+
General liability/public liability	81%	75%	79%	84%	86%	83%	86%
Property (property damage and business interruption)	79%	72%	78%	78%	83%	88%	80%
Directors & Officers liability	73%	67%	69%	73%	80%	81%	73%
Marine/ocean cargo	49%	32%	40%	59%	51%	65%	57%
Workers compensation/ employers liability	48%	49%	53%	37%	49%	43%	52%
Auto/motor vehicle liability	42%	49%	46%	43%	36%	39%	38%
Crime	42%	34%	38%	47%	48%	46%	42%
Product recall and contamination	18%	11%	17%	22%	17%	22%	22%
Trade credit	17%	8%	23%	16%	16%	24%	17%
Other	11%	10%	11%	10%	12%	14%	11%

* All represents respondents operating in more than one country

Importance to multinational program purchase decision

When respondents are asked to rank the reasons for purchasing multinational insurance programs, the desire for coverage certainty tops the list. Interestingly, fiscal compliance has leap-frogged over program performance, suggesting that regulatory compliance has trumped service for this group of respondents.

Importance to multinational program purchase decision

Category	All*	2–5	6–10	11–15	16–25	26–50	51+
Certainty of coverage—Knowledge of what coverage is included in the program	1	1	1	1	1	1	1
Cost—This approach is more economical	2	2	2	3	3	3	3
Statutory compliance—Access to local admitted coverage where non-admitted is prohibited	3	3	3	2	2	2	2
Fiscal compliance—Ability to pay insurance premium and related taxes	4	5	5	5	4	4	4
Program performance—Access to local claims and/or other services from local insurer/policy provider	5	4	4	4	5	5	5
Accounting—Ability to allocate risk transfer costs to local operations vs. pay from corporate	6	6	6	6	6	6	6

* All represents respondents operating in more than one country

Captives

Captives

Organizations in all industry groups and geographies continue to use captive insurance companies as an effective way to take financial control and manage risks. About 18 percent of respondents have reported having an active captive or Protected Cell Company (PCC), up from 15 percent in 2013. We expect to see continued steady growth, both in captive formations and the expansion of existing captive insurance entities across developed and emerging markets.

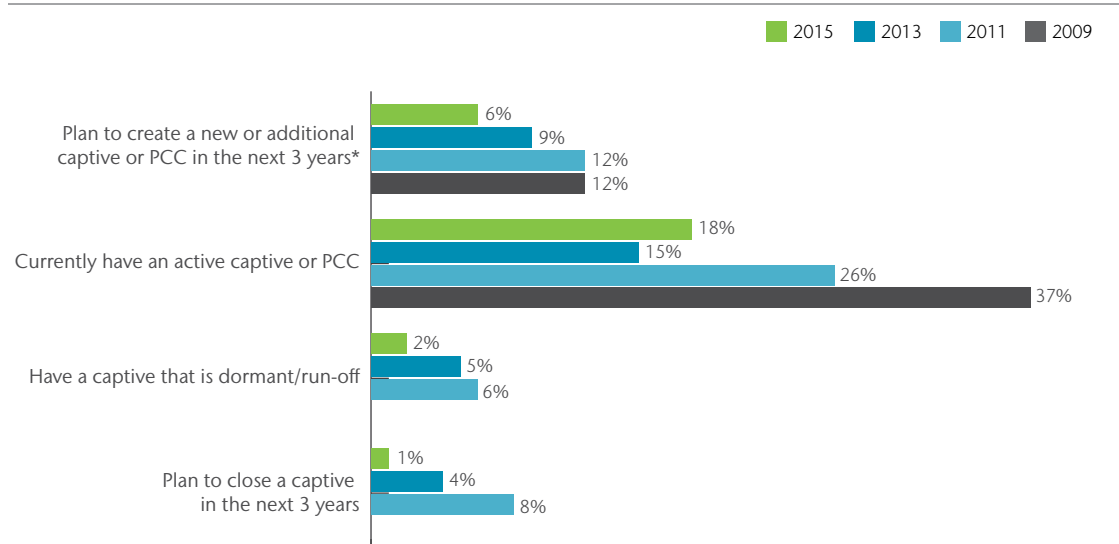
Organizations that use captives

While most captives are formed by companies in North America and Western Europe, where risk management programs are the most developed, captive usage in other parts of the world is gaining traction. For example, survey results show an increase in captive owners in the Asia Pacific region, from 17 percent in 2013 to 23 percent in the 2015 survey.

In recent years, there has been a steep increase in the number of Asian companies entering the Fortune 500 list. For example, in 2013, about 89 Chinese companies made the Fortune 500 list. Among those, three were in the top 10.

This demonstrates that the need for alternative risk financing solutions is growing exponentially. Due to cultural and linguistic differences and the complexities of Asian markets, such as low labor costs and the intricate and often challenging legal and political landscapes, domiciles like Singapore or Labuan are seeing an increased appetite from business owners within the region to utilize captives or PCCs, as they are deemed to have a better understanding of how to manage the needs of local business owners.

Organizations with a captive or PCC by current and future use



* In 2009, we used next year, not next 3 years

The number of captives that are dormant or inactive seems also to be diminishing. This development is further supported by data from Aon's captive book, which has seen an increased amount of premium written in the last three years. This shows that companies that have a captive are utilizing it predominantly as a strategic risk management tool, because they have been able to identify and deliver key business results in doing so.

The top four sectors that are planning to create a new captive or PCC in the next three years are: pharmaceuticals and biotechnology at 18 percent; construction, 12 percent; technology, 11 percent; and natural resources (oil, gas, and mining), 10 percent. These industries are considering captives to make up for inadequate capacity or as a mechanism to self-insure risks.

Captives for the aforementioned industries have been formed to insure many types of risks. The following represent some of the key coverage lines:

- **Pharmaceutical and biotechnology**—Products liability
- **Construction**—General/third-party liability, and product liability, and completed operations
- **Technology**—Professional indemnity/errors and omissions liability
- **Natural resources (oil, gas, and mining)**—Property (property damage and business interruption) and general/third-party liability

Organizations with a captive or PCC by current and future use by industry

Industry	Plan to create a new or additional captive or PCC in the next 3 years	Currently have an active captive or PCC	Have a captive that is dormant/ run-off	Plan to close a captive in the next 3 years	No captive or PCC
Agribusiness	5%	15%	0%	0%	80%
Aviation	0%	29%	5%	0%	67%
Banks	8%	13%	3%	3%	77%
Chemicals	0%	22%	3%	0%	75%
Conglomerate	7%	21%	0%	7%	71%
Construction	12%	12%	1%	1%	74%
Consumer Goods Manufacturing	2%	15%	2%	0%	83%
Educational and Nonprofits	0%	11%	0%	2%	87%
Food Processing and Distribution	3%	36%	3%	0%	58%
Government	0%	6%	0%	0%	94%
Health Care	4%	36%	2%	0%	60%
Hotels and Hospitality	5%	15%	0%	0%	80%
Insurance, Investment, and Finance	7%	18%	1%	3%	70%
Lumber, Furniture, Paper, and Packaging	0%	23%	5%	0%	73%
Machinery and Equipment Manufacturers	6%	19%	6%	0%	70%
Metal Milling and Manufacturing	7%	2%	5%	2%	83%
Natural Resources (Oil, Gas, and Mining)	10%	15%	5%	3%	69%
Non-Aviation Transportation Manufacturing	7%	7%	0%	0%	87%
Non-Aviation Transportation Services	7%	17%	5%	0%	74%
Pharmaceuticals and Biotechnology	18%	32%	0%	0%	54%
Professional and Personal Services	5%	10%	0%	2%	85%
Real Estate	3%	24%	0%	0%	73%
Retail Trade	2%	30%	2%	6%	61%
Rubber, Plastics, Stone and Cement	0%	15%	0%	0%	85%
Technology	11%	11%	0%	4%	78%
Telecommunications and Broadcasting	6%	17%	6%	0%	72%
Utilities	5%	21%	0%	0%	74%
Wholesale Trade	3%	6%	0%	0%	90%

Reasons for captives

Even though the insurance market continues to be challenged with soft rates and low interest rates, an appetite for captive utilization still exists. Aon's survey indicates that companies use captives predominantly as a strategic risk management tool (33 percent) that facilitates greater control over their risk program, particularly around policy terms and conditions. About 16 percent of respondents cite cost efficiencies as a dominant driver for having captives.

Reasons for captives

Reason	2015	2013
Strategic risk management tool	33%	18%
Cost efficiencies	16%	18%
Reduction of insurance premiums	11%	12%
Control on insurance programs	10%	11%
Access to reinsurance market	9%	7%
Risk finance expense optimization	8%	12%
Cash flow optimization	4%	7%
Other	4%	6%
Tax optimization	4%	4%
Ability to establish reserves	4%	4%

Aon's Captive Benchmarking Study, which collates statistics from insurance entities managed by Aon, allows year-on-year trending to provide better insight into the captive industry as a whole. The Risk Maturity Index is an online tool that enables risk and financial leaders to self-assess their organizations' risk frameworks. Data from both sources suggest a link between captive ownership and risk maturity, and between risk maturity and earnings per share. Companies with a higher level of risk maturity have more robust earnings per share and tend to own captives.

During the last 12 month, insights from the Aon Governance Risk and Compliance platform work have identified a close link between strategic objectives and material risks among captive management clients. Amongst captive clients, the formalized process of linking risk to strategic objectives is in most cases aligned.

Interestingly, in the majority of companies that do not have captives, a disparity exists between the CEO and the risk manager in how they perceive the risks facing their companies (as outlined earlier within the survey). This leads to the conclusion that, within a captive structure, the extent of board-level alignment in regards to risk management could be higher. This, however, has not yet been scientifically proven.

Key risks underwritten

Similar to the 2013 survey, this year's results show that general-third-party liability and property (property damage and business interruption) are the most frequently underwritten lines of coverage within a captive, at 45 percent and 59 percent respectively. Continuing the theme of strategic risk management, cyber liability/network liability and environmental/pollution are two emerging risks being underwritten in captive entities. A lack of appropriate or adequate cover in the commercial marketplace is clearly the driving force behind clients' desire to manuscript captive policies.

Current and future coverage underwritten

Coverage	2015 – Currently underwritten	2015 – Continue/ plan to underwrite same/new risk in next 5 years	2015 – Percentage change
Cyber liability/network liability	8%	23%	15%
Employee benefits (excluding health/medical and life)	7%	18%	11%
Credit/trade credit	7%	15%	8%
Employment practices liability	12%	19%	8%
Crime/fidelity	15%	22%	7%
Environmental/pollution	12%	19%	7%
Health/medical	7%	13%	6%
Auto liability	25%	32%	6%
Catastrophe	15%	19%	4%
Professional indemnity/errors and omissions liability	26%	30%	4%
Marine	18%	23%	4%
Warranty	4%	8%	4%
Employers liability/workers compensation	28%	31%	3%
Owner-controlled insurance program/contractor- controlled insurance program	5%	8%	3%
D&O liability	15%	17%	2%
General/third-party liability	45%	47%	2%
Life	6%	8%	2%
Financial products	4%	4%	1%
Terrorism	12%	14%	1%
Third-party business	10%	12%	1%
Sub-contractor default insurance	2%	3%	1%
Aviation	7%	6%	-1%
Product liability and completed operations	27%	26%	-1%
Property (property damage and business interruption)	59%	56%	-3%

Methodology

This Web-based survey addressed both qualitative and quantitative risk issues. Responding risk managers, CROs, CFOs, treasurers, and others provided feedback and insight on their insurance and risk management choices, interests, and concerns.

Aon Centre of Innovation and Analytics conducted, collected, and tabulated the responses. Other Aon insurance and industry specialists provided supporting analysis and helped with the interpretation of findings.

All responses for individual organizations are held confidential, with only the consolidated data being incorporated into this report. Percentages for some of the responses may not add up to 100 percent due to rounding or respondents being able to select more than one answer. All revenue amounts are shown in U.S. dollars.

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About Aon Global Risk Consulting, Aon Inpoint and the Aon Centres for Innovation and Analytics

With more than 1300 risk professionals in 50 countries worldwide, Aon Global Risk Consulting (AGRC), the risk consulting business of Aon plc, delivers risk management solutions designed to optimize clients' risk profiles. Our suite of services encompasses risk consulting; risk control, claims and engineering; and captive management.

AGRC helps clients understand and improve their risk profile. We do this by identifying and quantifying the risks they face; by assisting them with the selection and implementation of the appropriate risk transfer, risk retention, and risk mitigation solutions; and by ensuring the continuity of their operations through claims consulting.

Aon Inpoint is dedicated to delivering value, insight and innovation through data, analytics, engagement and consultancy services to insurers and/or reinsurers, across the full spectrum of insurance, reinsurance, and capital markets.

As the cornerstone of our over USD 350M global investment in data and analytics, Aon's Centres for Innovation and Analytics in Dublin and Singapore transform data received directly from brokers and other sources into actionable analytics, enabling more informed strategic decision-making.

With over 150 colleagues across ACIA, the Centres analyze millions of data points every day. Utilizing Aon's Global Risk Insight Platform (GRIP®), one of the world's largest repositories of risk and insurance placement information, as well as other data sources, ACIA develops insights to help determine the markets that provide the best value for our clients around the globe.

About Aon

Aon plc (NYSE:AON) is a leading global provider of risk management, insurance, and reinsurance brokerage, and human resources solutions and outsourcing services. Through its more than 69,000 colleagues worldwide, Aon unites to empower results for clients in over 120 countries via innovative and effective risk and people solutions and through industry-leading global resources and technical expertise. Aon has been named repeatedly as the world's best broker, best insurance intermediary, best reinsurance intermediary, best captives manager, and best employee benefits consulting firm by multiple industry sources. Visit aon.com for more information on Aon and aon.com/manchesterunited to learn about Aon's global partnership with Manchester United.

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