
Global Risk Landscape 2017

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A shifting reality of risk



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The results of this year's BDO Global Risk Landscape survey capture C-suite perception of risk at a unique moment in time, with increasing regional similarities that reflect the realities of a globalised and interconnected world.

One can question whether the top three current risks (regulation, economic slowdown and competition) are indeed risks, or simply the challenges facing all global businesses at present, and these are challenges that will remain. Economic pressures will ebb and flow between bull and bear market cycles and macroeconomic shifts as the world and its economies evolve.

There will always be competition and the pressing need to reinvent and adapt business models as technologies and customer demands change and evolve. Legislative burdens will not go away and the need to demonstrate high standards of corporate governance will remain. But increasingly these requirements will be as much driven by the need to comply (or explain) as they are by a recognition of the increasing fragility of brands and reputations.

The major risks facing businesses today and tomorrow are not the same as they were yesterday; in their stead is a new generation of altogether more complex, intangible risks.

As they future gaze, this year's survey respondents identify disruptive technologies, reputational risk and cyber as among the challenges that are most likely to test them over the next ten years. And which, if not properly managed and mitigated, could very well catch them and their businesses out.

THIS YEAR'S SURVEY RESPONDENTS IDENTIFY DISRUPTIVE TECHNOLOGIES, REPUTATIONAL RISK AND CYBER AS AMONG THE CHALLENGES THAT ARE MOST LIKELY TO TEST THEM OVER THE NEXT TEN YEARS

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Rose-tinted risk glasses?

Overall risk perception is down year-on-year, but is this an accurate reflection of the evolving global risk landscape?

Seventy-two per cent of respondents to this year's BDO Global Risk Landscape survey think the world has become a riskier place. While still a significant proportion of respondents, this is nevertheless a significant drop from the 87 per cent who believed global risks had increased in last year's survey.

The reduction could signify increased confidence in the macroeconomic and geopolitical environment, and account for a below-average number of major natural and man-made catastrophes in 2016. It could also reflect improvements in governance, risk management and business continuity planning: the theme of business resilience continues to rise up the agenda and there is now a much closer dialogue between risk professionals and the board. Over half of respondents (53 per cent)

report that risk is increasing at a manageable rate.

However, the results are perhaps somewhat surprising given the backdrop of political, social and economic upheavals over the last 12 months – and startling evidence of how quickly brand reputations can take a beating in a world where news travels fast and public perception is increasingly unforgiving.

"I think we live in a less confident world – not necessarily a riskier world," says Julia Graham, technical director at Airmic, the UK association of insurance and risk managers. "Risk is a combination of two things: how likely it is to happen and, if it does, what the effect of it might be. So it could be that the risk perception is down because either people think there are fewer risks, or because the risks that exist are smaller. My view



\$158bn

total economic losses from natural and man-made disasters in 2016

Source: Swiss Re sigma



\$49bn

the gap between economic and insured losses

is there are probably fewer risks in a connected world, but when they do happen they are bigger than they were in the past."

The fact that 2016 was a relatively benign year in terms of major disasters could also be influencing perceptions, she thinks. "One of the reasons the insurance industry has remained fairly soft on pricing is because people are getting better at managing risks than they used to, and because there have been fewer global catastrophes. People often relate their perception of risk to how much they pay in insurance premiums, which have been fairly static over the last few years."

In 2016, total economic losses from natural and man-made disasters were \$158 billion, according to Swiss Re sigma. While there were several notable events, including earthquakes, hail and

THE RESULTS ARE PERHAPS SOMEWHAT SURPRISING GIVEN THE BACKDROP OF POLITICAL, SOCIAL AND ECONOMIC UPHEAVALS OVER THE LAST 12 MONTHS - AND STARTLING EVIDENCE OF HOW QUICKLY BRAND VALUE CAN TAKE A BEATING



35%

cited regulatory risk as the highest-ranking threat to overcome

thunderstorms, total insured losses were significantly lower, at \$49 billion. The disparity between the two figures shows that many events took place in areas where insurance coverage was low and where there was minimal commercial and supply-chain impact.

The lack of major events causing disruption to supply chains could also reflect why, in this year's survey, business interruption has dropped out of the top three risk concerns. Instead, the highest-ranking threats to overcome are regulatory risk (35 per cent), increasing competition (30 per cent) and economic slowdown/slow recovery (29 per cent).

2008 hangover continues... particularly in financial services

Nine years on from the height of the global financial crisis, it appears business leaders remain deeply concerned about their ability to navigate the sluggish business environment and their ability to adapt to growing compliance pressures. Perhaps unsurprisingly, this is particularly the case in financial services. Here, 85 per cent of respondents

identify regulatory risk and technological changes and developments as the biggest risks their firms are unprepared for.

"A lot of financial services businesses are still seeing the effects of regulators having an impact on their business," says Nigel Burbidge, Partner/Global Chair, Risk & Advisory Services, BDO. "You can see that in terms of fines that are being imposed on a number of banks and other financial institutions.

"I suspect also there is a risk for businesses that are trading on a multinational basis," he continues. "The UK Bribery Act is beginning to have an impact on businesses that trade in parts of the world where it is more common to provide bribes."

While once considered a cost of doing business, particularly when looking to make inroads into new and emerging markets, new legislation has clearly shown this could be a "cost that puts you out of business", according to Burbidge. He points to the US Foreign Corrupt Practices Act as well as the UK Bribery Act as being highly influential around the world, with regulators demonstrating their ability to cooperate across borders to achieve an outcome.

Burbidge believes the tougher stance on issues such as bribery and corruption are indicative of an altogether less forgiving regulatory environment in the aftermath of the 2008 financial crisis. "It took the regulators a few years to wrestle with the impact of businesses that had been deemed to be 'too large to fail' and the fact they had been bailed out by governments.

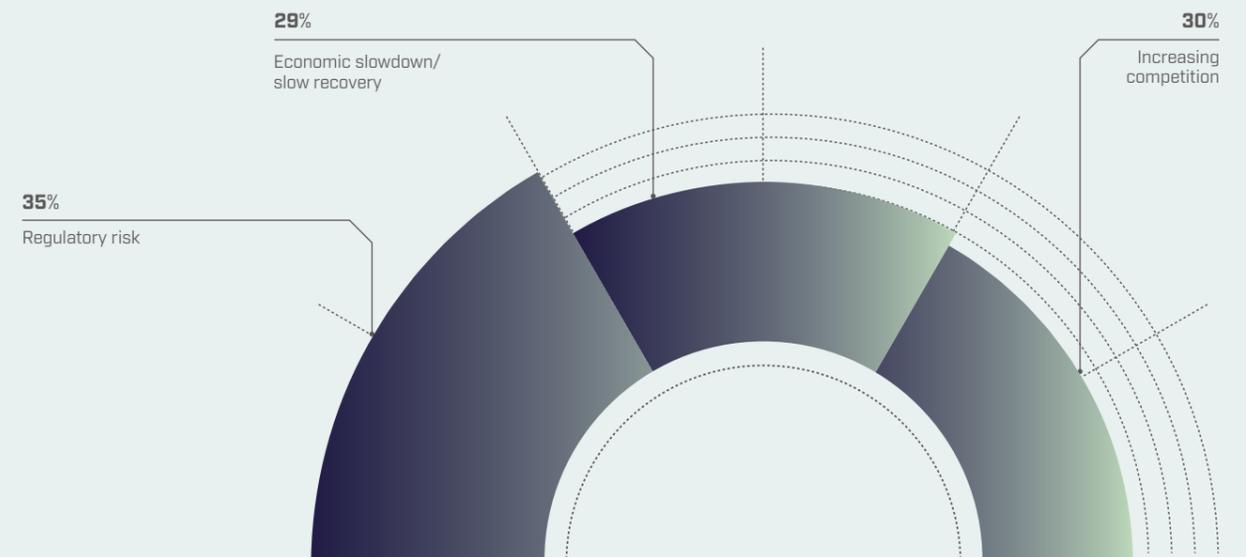
"At the same time governments were saying, 'We can't allow this to happen again'. And so regulators are now sharpening their blades and, in particular, going back to a number of financial services firms on mis-selling and inappropriate conduct behaviour, among other things," Burbidge adds.

Figure 1. Emerging business risks and their impact



Figure 2. Top three risks

The top three current risks are as follows:



Ignore intangible risk at your peril

Why social media has the potential to turn an otherwise innocuous event into a fully blown crisis

The term “black swan” rose to prominence in the aftermath of the US sub-prime collapse and global financial crisis. The brainchild of Nassim Nicholas Taleb, black swans are highly consequential but unlikely events that are easily explainable, but only in retrospect. Taleb recognised that as the world becomes more connected, black swans are likely to become more consequential. He also observed that the human mind is not always conditioned to forecast or fully appreciate the improbable.

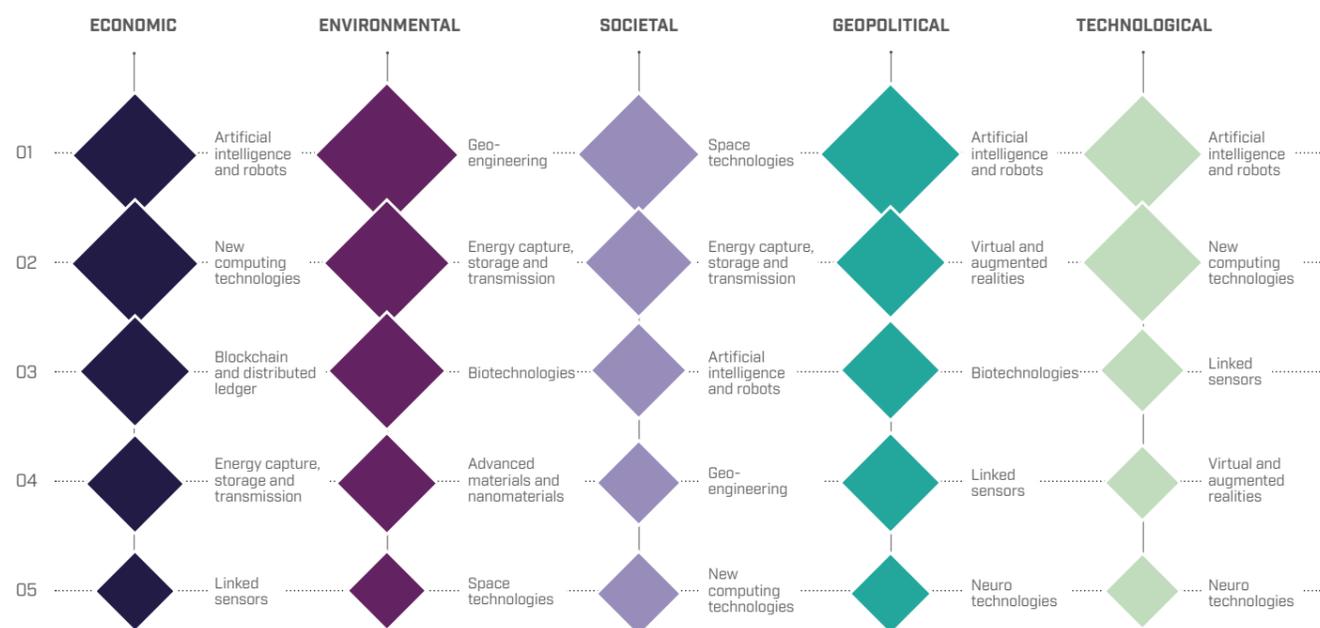
Thinking the unthinkable

In a world where risk is becoming increasingly esoteric and complex, black-swan events are increasingly likely to arise from catastrophic intangibles. Perception of risk is influenced by many different factors and not always truly reflective of the actual risk landscape. While the likelihood of a meteorite hitting a major city is not dissimilar to the probability of an individual winning a major lottery, for instance, people are more inclined to buy

lottery tickets than to worry about meteorites. The ill treatment of an airline passenger was not in itself a black-swan event, however, the sequence of events that came after a man was forcibly removed from an overbooked airline flight caused over \$1 billion to be wiped off the holding company’s value. Meanwhile, a beer advert from a well-known supermarket chain caused offence on Twitter among the Christian community when it claimed that Good Friday had just “got better”.

By improving organisational resilience, businesses have a better chance of preventing negative publicity from becoming a full blown crisis. As emerging, less tangible risks rise up the agenda – including reputation, cyber and supply chain – it is the existence of robust crisis management processes and the speed of response that makes all the difference. In its report Roads to Resilience, prepared by Cranfield School of Management, Airmic (the UK association of risk and insurance managers)

Figure 3. How emerging technologies exacerbate global risks



Size indicates number of responses

Figure 4. The Global Risk Landscape 2017



considers the diversity of resources and assets companies need to enable them to respond flexibly and speedily to challenges. It also emphasises the importance of having a culture that allows information to flow freely right up an organisation so that neither the board nor anyone else is left in the dark.

Getting the response right first time

A rapid, well-thought-out response can help avoid potential crises and even present an opportunity. Here, the C-suite have a critical communication role. Richard Branson’s compassion and quick reaction to a recent rail crash involving a Virgin

train, for example, was in stark contrast to many other responses to corporate crises. “Too often brands don’t survive because the business tries to project an image of what the brand is about – but the underlying business is something completely different,” thinks Nigel Burbidge, Partner/Global Chair, Risk & Advisory Services, BDO.

Unforeseen shocks and events are also a chance to learn and change, with resilient organisations willing and able to adapt their culture and processes after events and near misses. It is these attributes among others that will determine the longer-term success and fortitude of the world’s leading brands in a social media age.

How risk became a boardroom responsibility

Today's organisations operate in a fast-paced, ever-shifting global landscape, beset with new and unknown risks. Can governance and speed of decision-making keep up?

In a speech to corporate risk managers in January, Stephen Haddrill, CEO of the UK's Financial Reporting Council (FRC), said boards have a responsibility to set the correct tone from a culture and risk-appetite perspective across their organisations. With growing recognition that responsibility for risk management ultimately comes from the top, it is essential to improve dialogue between risk professionals and the C-suite.

"There is an important role and opportunity for risk professionals to play in advising and supporting the board when considering governance, risk and culture in the business," Haddrill said. "Risk-taking is a fundamental part of growing a successful business and companies must not seek to eliminate risk. They should be ensuring that their approach to risk-taking – their risk appetite – is aligned to their values and an intrinsic part of their culture."

Short versus long term

Part of this involves questioning whether an organisation's culture poses risks to the business. For public companies, for instance, does the pressing need to answer to shareholders and investors encourage a short-term focus and potentially excessive risk-taking? In BlackRock CEO Larry Fink's 2016 letter to the 500 largest companies in which it invests, he expressed concern about an excessive focus on "short-termism". Fink asked the CEOs to lay a strategic framework for long-term value creation each year.

"A healthy culture both protects and generates value," writes Sir Winfried Bischoff, chairman of the FRC. "It is therefore important to have a continuous focus on culture, rather than wait for a crisis."

In his recent speech, Haddrill acknowledged that while organisations

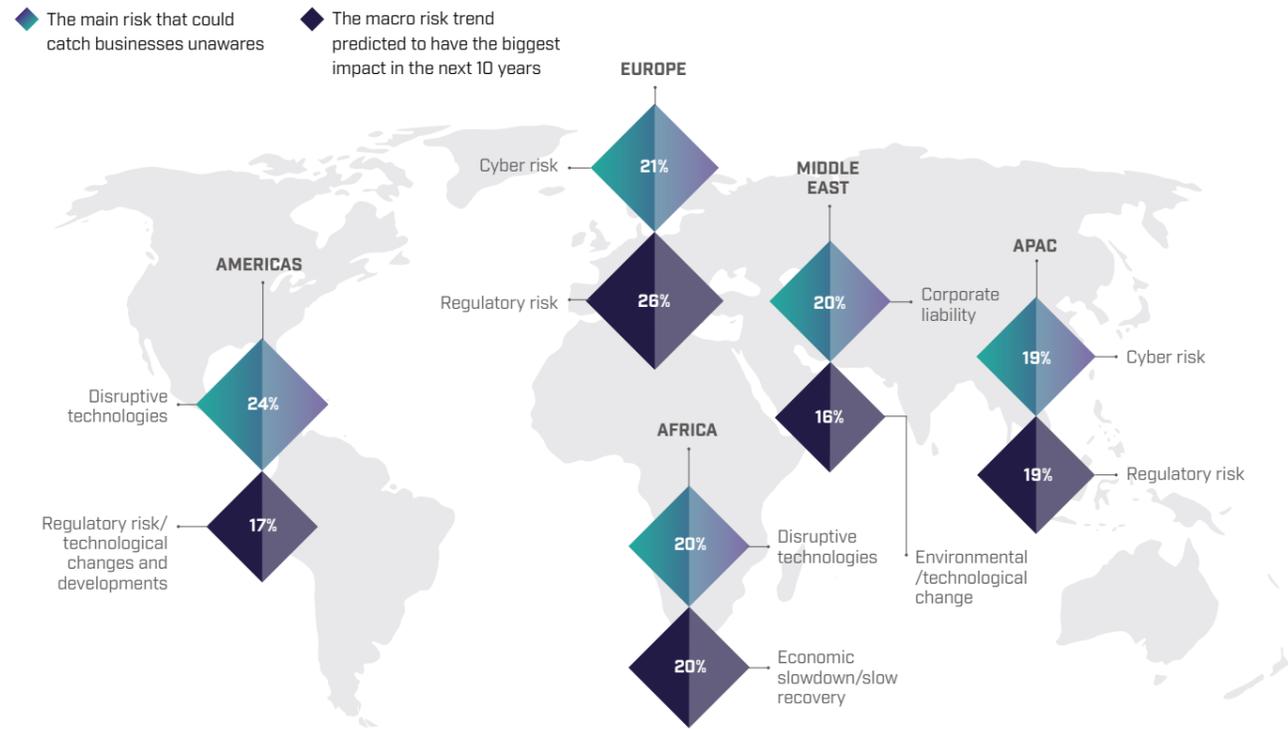
are making significant strides to set the right tone, culture and risk appetite, some companies may still be reluctant to appoint risk professionals who ask difficult questions and want access to sensitive information. In the FRC's view, an effective risk culture is one that does not shy away from challenging how and why decisions are made. It is also one in which there

is a strong dialogue between individuals responsible for risk and those at the helm of the organisation.

Creating such effective risk cultures inevitably involves questions around hierarchical organisational structures, where it can be difficult to break through the risk "glass ceiling". Fewer layers can also mean a quicker, more nimble response to an ever-changing risk landscape.

DOES THE PRESSING NEED TO ANSWER TO SHAREHOLDERS AND INVESTORS ENCOURAGE A SHORT-TERM FOCUS AND EXCESSIVE RISK-TAKING?

Figure 5. Of the emerging risks, this is the main risk that could catch businesses unawares



Changing attitudes, new challenges

“Acceptable behaviour evolves over time, so culture has to be adjusted for the context and the times in which the company is operating,” states the FRC in its report *Corporate Culture and the Role of Boards*. “For example, consumers are far more concerned with the environmental impact of companies and of their own behaviour than they were 30 years ago. Well-chosen values typically stand the test of time, but need to be tested for continuing relevance as society changes and businesses adapt.”

Changing attitudes and responsibilities for risk at a board level also introduces new challenges for risk professionals, according to Franck Baron, chairman of the Pan-Asia Risk and Insurance Management Association (PARIMA) and group general

manager, risk management & insurance at International SOS Singapore. “While most C-suite representatives are more open to conversations about risk, we have to ensure the conversations we are having are not overly complex, so that there can be an effective conversation and that management can act upon that information to make the right decisions.”

“I was recently at a conference in Manila,” Baron adds. “The chairmen and CEOs of the two largest conglomerates in the Philippines were there. In my 25 years as a risk professional this is the first time I have witnessed a CEO addressing a risk management conference in Asia Pacific. So there is clearly a growing acceptance at a C-suite level that this is a fundamental component to the conversation. But some risk managers are not yet fully equipped to handle this.”



\$4m

the average cost of a data breach in 2016

Source: *Panemon and IBM*



6,000%

rise in ransomware attacks in 2016

Source: *IBM Security*



Danger in the shadows



By Dr Angus Young
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There are a number of risk factors affecting Asia in 2017. The threat of North Korean missile strikes on neighbouring countries constitutes an ever-present security risk. Since unpredictability is a key attribute of the leadership in Pyongyang, it is difficult to predict whether the USA's tougher rhetoric against North Korea will improve the status quo.

Another risk is the spectre of terrorism. Currently, there are no obvious signs that terrorism is about to escalate in the region, unless Isis changes its strategic focus from the Middle East to South or Southeast Asia. The continued cooperation between governments and various community leaders in Asia against radicalisation, combined with community engagement, heightened security and the promotion of social harmony, are central to containing threat levels.

Economically, Brexit, unresolved economic and related problems among EU countries such as Italy and Greece, coupled with policy uncertainties associated with the Trump administration weigh considerably on the economic performance of Asian economies. Regionally, the risks of a real estate "bubble" in Hong Kong and key Australian, New Zealand and Chinese cities are unlikely to fade in the short term. Measures to cool the property markets in these cities have not been as effective as projected. However, it is difficult to predict if the bubble will indeed burst. The tipping point could be the exacerbation of China's economic transitional and structural problems, prompting further slowing of the world's second-largest economy. This is expected to have a domino effect on Asian economies as China's direct investments and trade with the region inevitably slows.

A major economic risk for China is the unravelling of "shadow" banking, which threatens to trigger a crisis. The lack of funding opportunities caused by decades of tight controls on bank lending has fuelled the intensification of credit intermediation outside of China's regular banking system. Some estimates put the size of shadow banking in China at 20 to 30 trillion renminbi, and the growth of this sector is projected at around 42 per cent. The scale of this unregulated and uninsured sector is not something that the Chinese authorities could easily keep under wraps if and when external or internal economic shocks trigger a run on the financial markets.

At crisis point?

The elements of a catastrophe are already in place. The lack of protection for both lenders and borrowers, combined with shady unlicensed operators with no proper credit or risk controls being allowed to mushroom without regulatory monitors – as well as the importance of shadow banking as a key source of capital – could create a situation similar to the scale of the US subprime lending crisis in 2008–9.

Whether the domino effect would be restricted to China and those Asian economies with close trade ties to the red dragon is an open question. A key indicator is the transition of the Chinese economy from a manufacturing and export-led model to a service sector and consumption-driven growth formula. Should the transformation take place smoothly, the Chinese government would have more time to regulate shadow banking.

However, achieving this would hardly be straightforward. Earlier rumours of new regulations to restrict shadow banking

created panic among investors. Chinese stock market prices tumbled until the Government intervened to stabilise share prices. Part of the problem is that Chinese state-owned banks have vested interests in shadow banking. Why? Because the shadow banks sell mini bond-like instruments called wealth management products at high rates of interest to unsuspecting retail investors.

A possible solution is for China to enact laws to regulate some of the shadow banking sector's activities. First, it could protect lenders against "zombie" loans – loans made to companies who have little prospect of making a profit – with proper lending guidelines, and also protect borrowers with caps on the interest rates charged. Second, China could draw up provisions for financial institutions and advisers to act in the best interests of their clients. These would prevent the unscrupulous or predatory behaviours of financial providers towards unsuspecting clients who rely on their expertise and professionalism.

Together, these measures could shore up the confidence of investors and borrowers, and, in turn, possibly ward off future market volatilities or panics.

A MAJOR ECONOMIC RISK FOR CHINA IS THE UNRAVELLING OF 'SHADOW' BANKING, WHICH THREATENS TO TRIGGER A CRISIS



A new era of geopolitical risk

The rise of a populist and nationalistic agenda across Europe and the US has taken many business leaders by surprise. Adapting to the new era will require a deft balance to adapt business models and supply chains, seize opportunities and mitigate risks as they arise

This time a year ago few would have predicted that the UK would have voted to leave the European Union and that Donald Trump would be president of the United States. The geopolitical risk ramifications, and their likely impact on organisations around the world, are likely to be felt differently depending on the sector, location and level of regional stability.

“Early analysis by political scientists Ronald Inglehart and Pippa Norris points to the populism behind the victories of Brexit and Trump as being driven more by demographics and cultural factors than income inequality,” notes this year’s Global Risks Report by the World Economic Forum (WEF). The report also highlights the “backlash among older and less-educated voters who ‘feel that they are being marginalised within their own countries’, and by changing values in areas such as gender, sexual orientation, race, multiculturalism, environmental protection and international cooperation.”

These demographic and cultural factors are also influenced by – and have

influence over – other macro trends. For instance, they are likely to be exacerbated by unemployment and underemployment and the increasing polarisation of societies, resulting in profound social instability.

As illustrated so effectively by the WEF report, there is a web of interconnection between an organisation’s key socio-economic and political exposures. An event in one geography or sector can ripple through to impact other sectors and geographies. Take large-scale involuntary migration. It is strongly connected to other major risks, including state collapse, failure of climate-change mitigation and adaptation, and interstate conflict.

The ongoing crisis in Syria and resulting migration flows has undoubtedly had an influence over the rise of nationalism in some countries, with far-right politicians such as Geert Wilders positioning themselves as anti-establishment alternatives that are willing to speak out against an “Islamic invasion”.

Populism and the recent geopolitical shifts in the US,

UK and other Western nations should be viewed against a range of socio-economic factors, thinks the WEF. "Anti-establishment populism expresses itself differently in different countries... but there are common themes. In many cases, there are also appeals to the rights of native citizens, as opposed to immigrants, and the importance of restoring 'traditional' values and hierarchies." The report also notes a backlash against "progressive" changes in social values, such as acceptance of same-sex marriage, gender identity and secularism.

Walking a tightrope

Traditional flows of business around the world are likely to be impacted by stronger levels of nationalism, impacting supply chains and emerging economies. "Take a manufacturing business in the US, for instance," says Nigel Burbidge, Partner/Global Chair, Risk & Advisory Services, BDO. "It might be making some components in America and trucking them over to Mexico to an assembly plant, and then trucking the completed assembly back again. That is suddenly going to be a riskier operation, with Trump changing tariffs and putting geoeconomic barriers up."

In its 2017 Risk Maps for political risk, political violence and terrorism, Aon Risk Solutions warns that protectionist risks in developed economies could lead to an increase in political risk in emerging and frontier markets as their resilience is challenged. "The changing global landscape, driven by trade protectionism, populist policies and sanctions, is likely to have a significant impact on emerging and frontier markets," says Sarah Taylor, executive director and head of structured credit and political risks at Aon Risk Solutions. "This makes it more important than ever for global businesses to

Figure 6. The biggest challenge to business over the past year, by job role

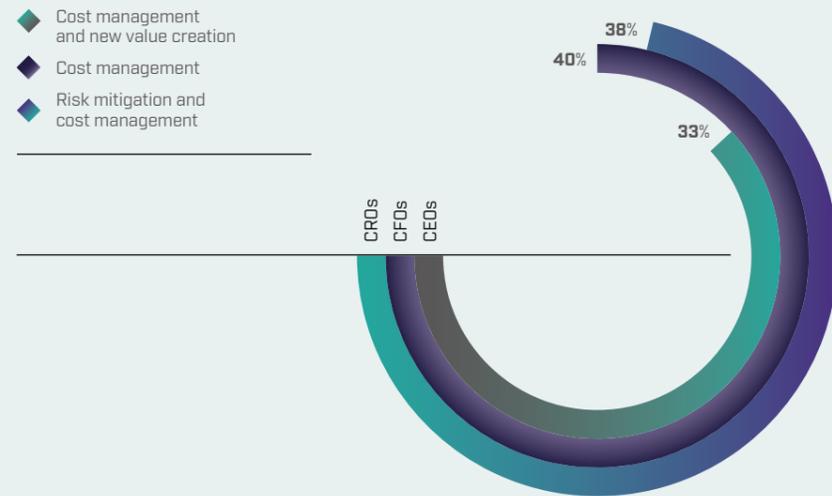


Figure 7. What businesses believe will catch their businesses unawares, by job role

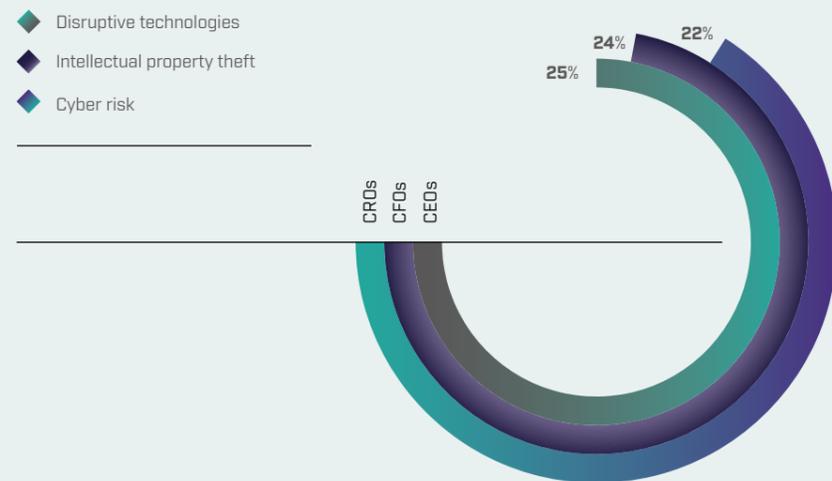
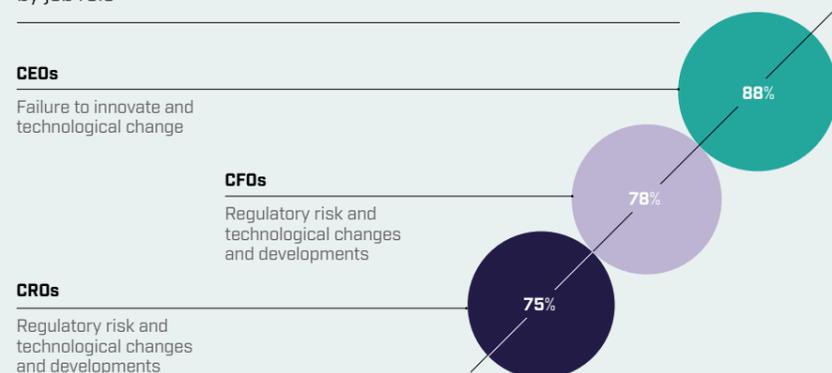


Figure 8. What businesses believe that they are most unprepared for, by job role



understand and mitigate their exposures to political risk."

It is clear there is a fine line to tread for businesses operating in a more polarised geopolitical environment. In a recent paper, consultancy firm Oliver Wyman identified over 30 specific implications arising from a populist era. Taking a broader view, it anticipates that business and industry interventions by populist governments are likely to be much bolder and more frequent.

"Businesses would need to give much greater consideration in a populist era to how their actions would play in the public arena and how they mesh with the goals of populist leaders," it recommends. "The positive

side for businesses is that populist leaders are willing to use carrots as well as sticks. Firms that gain favour may find it much easier to gain government approvals or even subsidies for their plans. They may also find that less cooperative competitors are hobbled in some manner."

"At the same time, playing the political game carries its own risks," the report adds. "Being perceived as an ally of a populist government would backfire if that government fell and could be a problem even if a different faction of populists replaced the first leaders. Furthermore, playing the political game brings the risk of backlash from customer segments who disagree with the firm's positions."

THERE IS A FINE LINE TO TREAD FOR BUSINESSES OPERATING IN A MORE POLARISED GEOPOLITICAL ENVIRONMENT



- A AMERICAS
- B APAC
- C EMEA

Figure 9. Top three threats to business by region:



Figure 10. The risks businesses are most unprepared for by region:



The global stage reflects more similarities than differences

A strong consensus across the regions in this year's survey reflects a globalised and interconnected world

Business leaders across EMEA, Asia Pacific and the Americas agree that increasing competition, regulatory risk and economic slowdown/slow recovery are their top three threats in 2017, with a fairly even breakdown for each region. Looking further ahead, the top two threats on the horizon are also consistent across the three broad regions: business leaders identify that people and damage to reputation/brand would become more prominent challenges. All regions believe risk to be increasing at a manageable rate.

However, there are regional differences between the third future threat. European respondents identify business interruption, while Asia Pacific business leaders point to failure to innovate/meet customer needs. CEOs from the Americas, meanwhile, identify increasing competition as their third biggest threat on the horizon. Within Europe, the greater

emphasis on business interruption could reflect an increasingly globalised world where supply-chain disruption is an unwelcome consequence of outsourcing to other countries.

Supply-chain vulnerabilities persist

It could also reflect a rapidly changing geopolitical risk landscape that must now factor in Brexit as well as populist movements in other European states. Rising labour costs in countries that were previously deemed cheap options could also be fuelling business interruption as a major concern. "Multinational supply chains are suddenly looking a bit more fragile and a bit riskier," thinks BDO's Burbidge. "Many companies have exported manufacturing to China, and China is still relatively cheap. However it's becoming a more expensive place to do business because the Chinese government has

increased labour rates over the last few years."

With many retailers and manufacturers shifting their focus to other low-cost Asian countries such as Vietnam and Thailand, concern over the impact of major natural catastrophes on the supply of parts and components around the world clearly remains a concern. Organisations have certainly improved their ability to map complex supply chains. Yet six years on from the devastating floods in Thailand and the Tōhoku earthquake and tsunami, there remains an awareness of the potential for unknown aggregations of risk beyond the first and second tier of suppliers – aggregations that are only discovered after the event.

"Even a traditional tangible risk like supply chain is becoming intangible, in the sense that we can no longer master it," says Franck Baron, chairman of the Pan-Asia Risk and Insurance Management Association (PARIMA) and group general manager, risk management & insurance at International SOS Singapore. "It became too complex: we can't monitor the supplier of the supplier. Even in professional services you have so many products and components that are not really mastered and monitored.

"It takes a huge flood in Thailand, for example, to find out as a main automotive company that a critical system was produced in Thailand – and that issue applies to a lot of different industries and products," he continues. "Lean and mean manufacturing practices are creating an increased exposure

to disruption while at the same time becoming extremely intangible, which means we have a lack of control. Being more financially efficient usually creates additional exposures and weaknesses in our operating models."

No more siloes

While supply-chain risk is reflective of the complex exposures inherent in a connected, globalised world, it is once again clear from this year's survey that none of the business risks highlighted can be considered in isolation. In particular, there are clear linkages between the top three current risks and top three future risks.

Business leaders are clearly identifying that the challenging and highly competitive environment they currently operate in will lead to greater people risks and problems if they fail to innovate further down the road, for instance. There is a clear synergy between the current challenges facing organisations and those they expect to come up against in the future, according to Airmic's Graham.

"These risks are all linked to the type of world people are staring into the face of," she explains. "When you've got increasing competition in a digital world, companies all want the same people with the same skills. If you're a digital company and you have a data breach, it will damage your reputation at a time when there's increasing competition. And if you don't innovate in an environment where there's more competition, you're in trouble."

WITHIN EUROPE, THE GREATER EMPHASIS ON BUSINESS INTERRUPTION COULD REFLECT AN INCREASINGLY GLOBALISED WORLD WHERE SUPPLY CHAIN DISRUPTION IS AN UNWELCOME CONSEQUENCE OF OUTSOURCING TO OTHER COUNTRIES



Unprepared for disruptive influences

There is no escaping the digital age as business leaders identify both risk and opportunity in an age of data, disruption and new technology

While regulation and competition are expected to remain high on the agenda over the coming decade, looking ahead it is disruption, failure to innovate, and technological changes and developments that the C-suite predict will keep them awake at night.

Throughout the survey there is recognition that the digital data-driven age will be a main challenge and opportunity for businesses across all sectors moving forward. However, business leaders currently feel unprepared. Some 85 per cent say they are not yet ready to tackle the challenge of technology changes and development, while 88 per cent of CEO respondents feel that failure to innovate and failure to embrace technological change are the two risks their businesses are most unprepared for.

It is clear that in an increasingly competitive environment, the ability to adapt, embrace change, invest in the right technologies and

leverage the right data will sort the winners from the losers. Of the emerging risks expected to catch businesses out, 19 per cent of respondents think disruptive technologies (including the internet of things (IoT), autonomous vehicles, mobile internet, cloud computing and 3D printing) would be most likely, followed by cyber risk (18 per cent).

As with most risks, technological changes represent a double-edged sword, depending on whether an organisation is able to leverage new methods of production or distribution to its advantage. For instance, within the insurance industry, being able to tailor personalised products and services to the individual via the IoT – such as the connected car, smart homes and wearable devices – offers significant opportunity for those who adopt it first, known as first movers. But it is also a risk for organisations that fail to adapt their business models quickly enough.

Larger industry incumbents will find it more difficult to be agile than start-up companies, argues Airmic's Graham. "Some industries feel much more confident than others when it comes to innovation," she says. "It's quite difficult to be innovative when you're heavily regulated and at a time when you want to flatten governance. Regulators want businesses to put in more layers, and that means that decisions are typically slower to make at a time when you want decisions to be made more quickly."

By sector, financial services are most concerned that cyber risk would catch them unawares, while for manufacturers it is disruptive technologies. Meanwhile, retail and wholesale businesses say they are most unprepared for computer crime, hacking, viruses and malicious code, and identified disruptive technologies as their biggest emerging risk.

Caught in the cyber crossfire

By role, chief risk officers (CROs) are most concerned about how cyber exposures could impact their business in the future (75 per cent). CRO respondents will also be critically aware of the detrimental impact a cyber

incident can have on their longer-term reputation, with high-profile data breaches hitting the headlines on a weekly basis. In 2016 the average cost of a data breach had risen to \$4 million, according to research by Ponemon and IBM.

CROs' concerns are also likely to reflect new data protection regulation being introduced in Europe and other regions. Under the new rules companies will be expected to notify their stakeholders if a data breach occurs. There will also be much steeper fines and penalties for failing to protect sensitive information.

Concerns around cyber are also reflective of an ever-changing threat landscape.

Cyber crime is on the rise, with 2016 seeing examples of extortion and ransomware increase substantially. A study by IBM Security found that ransomware attacks grew by 6,000 per cent in 2016 and were on track to be a \$1 billion business by the end of the year.

State-sponsored cyberattacks also appear to be taking on a new dimension, with the potential for businesses to be disrupted by major events as a result. Such attacks include: two instances of widespread disruption to the Ukraine power grid in 2015 and 2016; suspected sabotage of last year's US election; and recent rumours surrounding US

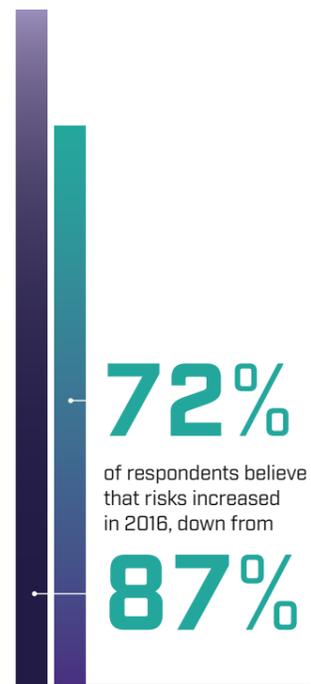
involvement in North Korea's failed missile launches. In one scenario, Lloyd's of London estimates that a state-led attack on the US power grid could cost the economy as much as \$1 trillion.

The ability to exploit weaknesses inherent in the IoT is also of growing concern in a hyper-connected world. Last year's distributed denial of service attack that brought down the servers of domain name company Dyn, orchestrated by the Mirai botnet, demonstrated the level of disruption that could be caused. The attack led to internet blackouts across large parts of North America and Europe.

BUSINESS LEADERS FEEL UNPREPARED FOR THE DIGITAL AGE, WITH 88 PER CENT OF CEOS BELIEVING THAT FAILURE TO INNOVATE AND EMBRACE TECHNOLOGICAL CHANGE ARE THE RISKS THEIR BUSINESSES ARE MOST UNPREPARED FOR

Pressure on margins remains a key concern

C-suite respondents continue to feel under pressure to trim the fat amid fluctuating commodity prices and an uncertain economic outlook



This year's survey identifies both cost management and new value creation as the biggest challenges CEOs face (33 per cent). Cost management is also of key concern for chief financial officers (CFOs) and CROs, regardless of company size. These concerns reflect subdued economic growth and the continued low interest rate environment in mature economies, a slowdown in emerging economies, and volatile energy markets, among other things.

From a regional perspective, cost management is seen as the biggest challenge over the past year for business leaders in Europe (45 per cent), Africa (48 per cent), Asia Pacific (32 per cent) and the Americas (44 per cent). The only

notable regional difference was in the Middle East, where respondents identify new value creation as having been their greatest challenge over the past 12 months.

It is clear that economic concerns remain very real for the majority of business leaders, however, there are also sector differences. Of those emerging risks expected to catch businesses unawares, unpredictable commodity, foreign exchange and equity markets are ranked third overall, after disruptive technologies and cyber risk.

Meanwhile, volatile commodity/energy prices are clearly having an impact within the natural resources sector, with half stating that cost management had been their biggest challenge over

the past year. For economies and sectors dependent on oil revenues, the dramatic slump in the price of crude – from \$120 a barrel in 2013 to \$30 a barrel at the beginning of 2016 – has had significant ramifications, despite more recent increases to \$50–\$60 a barrel.

The Trump effect

In the aftermath of 12 months that have seen the rise of populism, the election of Donald Trump in the US and the Brexit vote in the UK, business leaders are also likely to be alive to a more uncertain and unpredictable geopolitical and economic environment. Some 78 per cent of European respondents and 75 per cent of American respondents

Figure 11. The emerging risks most likely to catch businesses unawares

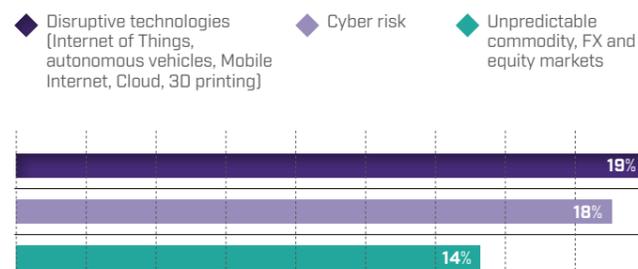


Figure 12. The biggest challenge of the last year amongst all respondents

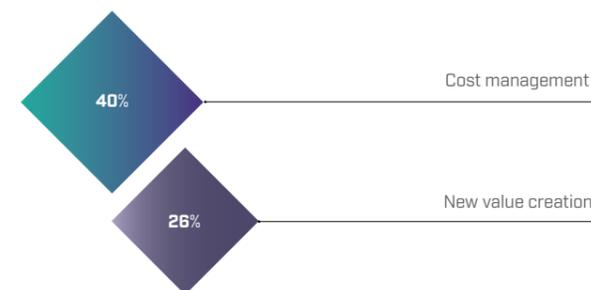
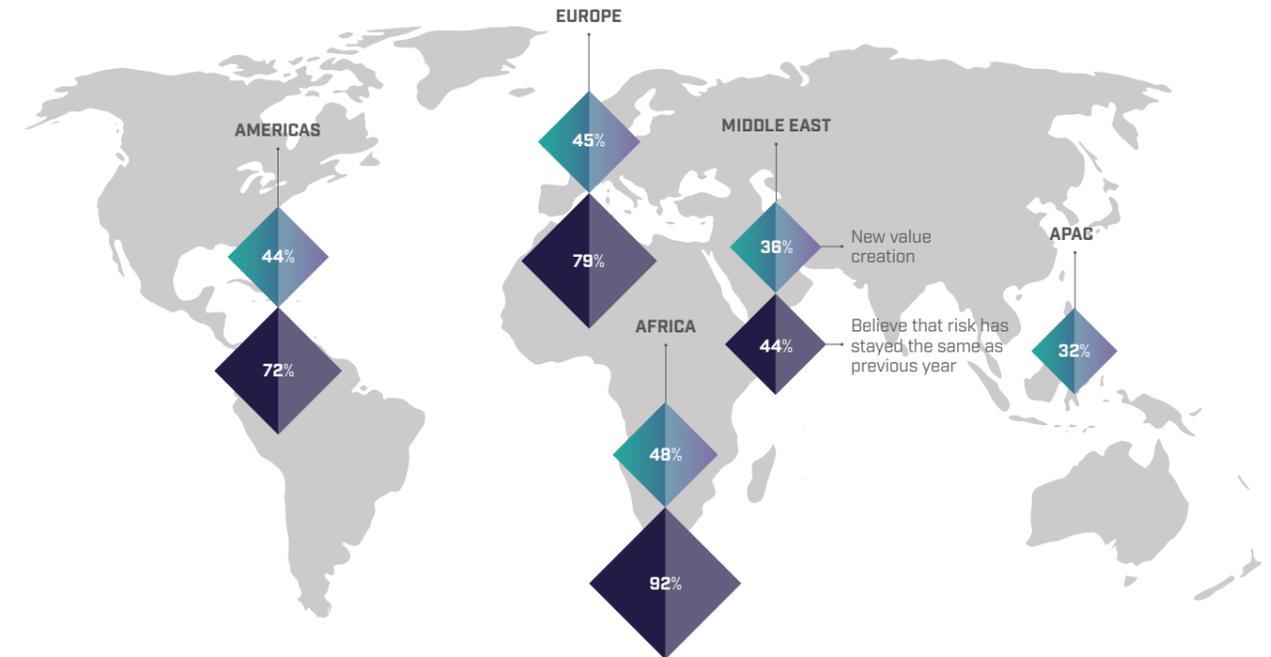


Figure 13. Global insight

- Regions where cost management was seen as the biggest challenge of the last year. (Except Middle East)
- Regions that agree risk has certainly increased. (Except Middle East)



think geopolitical risks would impact their businesses.

However, while 79 per cent of business leaders in the Americas are pessimistic about the impact these risks would have, fewer in Europe think the impact would be negative (73 per cent). Moreover, the ability to manage macroeconomic developments – some of which will be shaped inevitably by Britain's exit from the EU coupled with other European politics – will provide cost savings and drive strategic advantage, according to nearly a third of European respondents.

"There's a rather touching faith in the powers that be," says BDO's Burbidge. "This time last year we asked businesses before the Brexit vote what their contingency plans were in the event that Britain voted to leave the EU, and very few had them in place. So the human mind does have this view that the

status quo will continue. It has quite a limited vision and doesn't believe some of these more outlandish things are actually going to happen.

"However, everyone recognises the election of Trump is going to have an impact, not just in America but around the world," Burbidge continues. "The fact that news is spreading faster, populism is on the rise and Donald Trump and Brexit are having an impact on what was seen as a settled world order is having an impact and causing people to focus on similar areas – wherever they are in the world."

In its global economic growth forecast for 2017, the International Monetary Fund (IMF) noted that uncertainty surrounding the policy stance of the Trump administration and its global ramifications could impact the integrated global economy. In April, the IMF predicted that world

growth would rise from 3.1 per cent in 2016 to 3.5 per cent in 2017, and 3.6 per cent in 2018. It considers that stronger activity, expectations of more robust global demand, reduced deflationary pressures, and optimistic financial markets are all upside developments.

"Geopolitical uncertainty is growing and the trend of populism and nationalism may have a huge impact on the

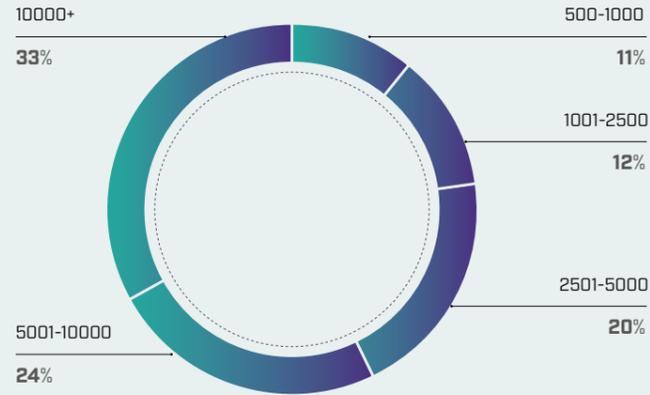
flows of business around the world," thinks PARIMA's Baron. "Even SMEs have a decent degree of international trade and operations overseas.

"I believe the world is becoming more and more complex and uncertain," he adds. "Those respondents that think the world is safer today than it was last year should reconsider because that's not what I'm witnessing."

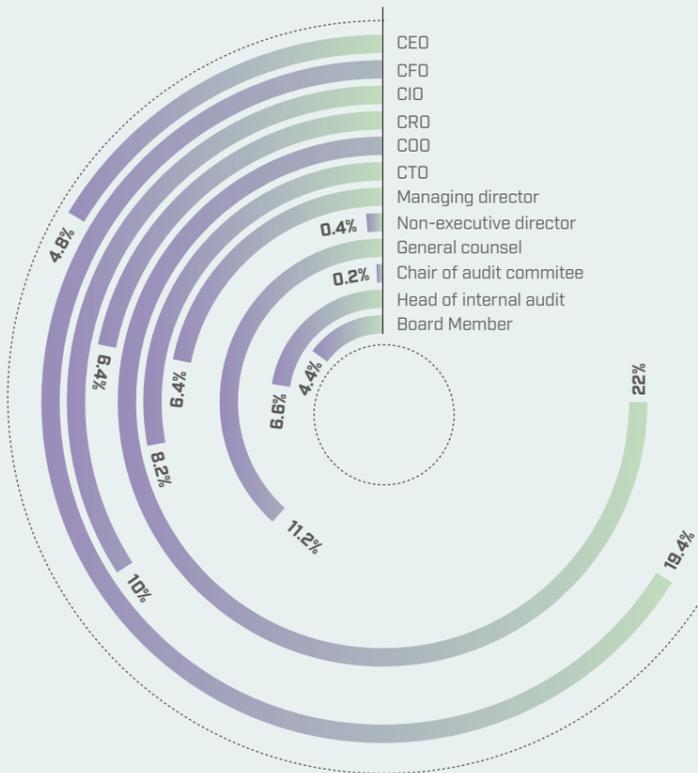
UNPREDICTABLE COMMODITY, FOREIGN EXCHANGE AND EQUITY MARKETS ARE AMONG THE TOP THREE EMERGING RISKS EXPECTED TO CATCH BUSINESSES UNAWARES

Demographic

Company size: Number of employees



Job role



Company size: Revenue



Company location



Sector



