

Allianz Risk Barometer 2022

The most important business risks for the next 12 months and beyond, based on the insight of 2,650 risk management experts from 89 countries and territories.



Methodology

The 11th Allianz Risk Barometer incorporates the views of 2,650 respondents from 89 countries and territories. The annual corporate risk survey was conducted among Allianz customers (global businesses), brokers and industry trade organizations. It also surveyed risk consultants, underwriters, senior managers and claims experts in the corporate insurance segment of both AGCS and other Allianz entities.

Respondents were questioned through October and November 2021¹. The survey focused on large- and small- to mid-size companies. Respondents were asked to select the industry about which they were particularly knowledgeable and to name up to three risks they believed to be most important.

Most answers were for large-size companies (>\$500mn annual revenue) [1,208 respondents, 46%). Mid-size companies (\$250mn to \$500mn revenue) contributed 518 respondents (20%), while small-size enterprises (<\$250mn revenue) produced 924 respondents (34%). Risk experts from 22 industry sectors were featured.

Ranking changes in the **Allianz Risk Barometer** are determined by positions yearon-year, not percentages.

All currencies listed in the report are in US\$ unless stated.

▼ View the full regional, country and industry risk data



2,650

respondents



89

countries and



22

industry sectors

1 The Allianz Risk Barometer 2022 survey was conducted between October 20 and November 17, 2021, so pre-dates awareness of the emergence of the Omicron variant of Covid-19

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7. Fire, explosion

8. Market developments

9. Shortage of skilled workforce

10. Macroeconomic developments

The most important global business risks for 2022



1

N 449

021: 3 (40%)

Cyber incidents

(e.g. cyber crime, IT failure/ outage, data breaches, fines and penalties)



Watch our short film about the top 10 risks for 2022



View the full Allianz Risk Barometer 2022 rankings here

Key

- 🕈 Risk higher than in 2021
- ♦ Risk lower than in 2021
- → No change from 2021 (5%) 2021 risk ranking %

Figures represent the number of risks selected as a percentage of all survey responses from 2,650 respondents.

All respondents could select up to three risks per industry, which is why the figures do not add up to 100%.





2 ↓ 42%

2021: 1 (41%)

Business interruption

(incl. supply chain disruption)

ろ

1 25% 2021: 6 (17%)

Natural catastrophes

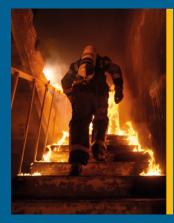
(e.g. storm, flood, earthquake, wildfire, weather events)



4 → 22%
2021: 2 (40%)

Pandemic outbreak

(e.g. health and workforce issues, restrictions on movement)



→ 17%
2021: 7 (16%)

Fire, explosion



5 → 19% 2021: 5 (19%)

Changes in legislation and regulation

(e.g. trade wars and tariffs, economic sanctions, protectionism, Brexit, Euro-zone disintegration)



8 ↓ 15%
2021: 4 (19%)

Market developments

(e.g. volatility, intensified competition/new entrants, M&A, market stagnation, market fluctuation)





9 13% 2021: 13 (8%)

Shortage of skilled workforce



6 17% 2021: 9 (13%)

Climate change¹

(e.g. physical, operational, financial and reputational risks as a result of global warming)



10 ↓ 11% 2021: 8 (13%)

Macroeconomic developments

(e.g. monetary policies, austerity programs, commodity price increase, deflation, inflation)

Allianz Risk Barometer 2022: Top concerns around the world



Australia

- 1. Business interruption ↑
 - 1. Cyber incidents ↑
 - 3. Climate change 🔨

Business interruption and cyber share the top spot with 41% of responses



Brazil

- 1. Cyber incidents →
- 2. Natural catastrophes 1
- 3. Business interruption ↓

Natural catastrophes is the biggest risk riser, moving up from sixth position



Canada

- 1. Business interruption →
 - 2. Cyber incidents 1
 - 3. Climate change 1

Climate change moves up to its highest-ever position



China

- 1. Business interruption ↑
- 2. Changes in legislation →
- 3. Market developments 1

Business interruption is the new top risk with 36% of responses



France

- 1. Business interruption ↑
 - 2. Cyber incidents ↓
- 3. Natural catastrophes 🛧

Business interruption is the new top risk, up from 44% to 51% of responses



Germany

- 1. Business interruption →
 - 2. Cyber incidents →
- 3. Natural catastrophes 🔨

Business interruption is the top risk for the fifth year in a row



India

- 1. Cyber incidents →
- 2. Pandemic outbreak 🛧
- 3. Business interruption ↓

Cyber is the top risk for the fifth year in a row



Italy

- 1. Cyber incidents →
- 2. Business interruption →
- 3. Natural catastrophes 🛧

Natural catastrophes moves into the top three risks with 33% of responses

View all country, regional and industry risk data here

The graphics show the top three risks in **selected countries** and whether each risk is considered to be more or less important than 12 months ago or is in the same position.



Japan

- 1. Cyber incidents →
- 2. Natural catastrophes lacktriangle
- 3. Business interruption →

Cyber is the top risk for the second year in a row with 63% of responses



Kenya

- 1. Business interruption ↑
 - 2. Political risks and violence ↑
- 3. Pandemic outbreak ↓

Political risks and violence is a new entry in second position



Nigeria

- 1. Cyber incidents 1
- 2. Political risks and violence ↑
- 3. Macroeconomic developments →

Cyber is the top risk for the first time with 46% of responses



Singapore

- 1. Business interruption →
 - 2. Cyber incidents →
- 2. Pandemic outbreak 1

Pandemic moves up to joint second top risk with 42% responses



South Africa

- 1. Cyber incidents →
- 2. Business interruption →
- 3. Critical infrastructure blackouts ↑

Critical infrastructure blackouts is a growing concern, entering the top three risks



Spain

- 1. Business interruption 1
 - 2. Cyber incidents ↓
- 3. Natural catastrophes 🛧

Business interruption is the new top risk, up from third position



UK

- 1. Cyber incidents 1
- 2. Business interruption 1
- 3. Climate change 1

Cyber is the new top risk with 50% of responses



USA

- 1. Business interruption →
 - 2. Cyber incidents 1
- 3. Natural catastrophes 1

Natural catastrophes enters the top three risks with 35% of responses

Overview: Business interrupted

Following a year of unprecedented cyber-attacks, business interruption and supply chain disruption, and natural catastrophe activity, these three perils are foremost in the minds of survey respondents in 2022. Meanwhile, awareness of the risks of climate change is growing among companies, achieving its highest-ever position of sixth in the **Allianz Risk Barometer**.

These risks converged in 2021 to cause unprecedented levels of disruption to businesses and their supply chains. The ripple effects of the pandemic and surges in Covid-19 infections have combined with crippling cyber-attacks and extreme weather events to test business resilience and push supply chains to breaking point.

Covid-19 continues to cast its shadow but it is a digital pandemic – **cyber risk** – returning to the top of the rankings (it last held this spot in 2020) that is one of the standout findings of the **Allianz Risk Barometer**. Ransomware and other disruptive forms of cyber-attacks continue to bedevil businesses, while potential risks from digitalization and the shift to remote working are driving growing concern.

Dropping one place to second in the 2022 rankings, business interruption (BI) is synonymous with many of the top ranked risks in the survey. It is only the third time in the 11-year history of the Allianz Risk Barometer that it is not ranked top, reflecting its role as the most feared consequence of threats like cyber, pandemic outbreak and natural catastrophes in particular.

The past 18 months have been a wake-up call for BI and risks are likely to remain elevated for the foreseeable future. The pandemic has exposed the fragility and complexity of modern supply chains, and how multiple events can come together to cause problems, raising awareness of the need for greater resilience and transparency – 45% of respondents said recent supply chain disruption had had a large impact on their sector.

Supply chain disruption is expected to ease in the second half of 2022, Covid-19 permitting, but the vulnerabilities exposed by a host of recent events, ranging from the Suez Canal blockage to the global shortage of semiconductors, could take companies years to fix and involve significant costs if, for example, they are looking to reduce reliance on critical suppliers – such as manufacturers in Asia – to build alternative supplies elsewhere in the world.

Companies' growing reliance on technology and digitalization is likely to be the biggest challenge for BI going forward. Alongside supply chain disruption these were cited as the biggest changes brought about by the pandemic, while cyber is the most feared cause of BI in this year's survey. Respondents note that cyber is still not as well understood as traditional BI triggers such as natural catastrophes or fire, therefore mitigations are not as well developed. Cyber security also ranks as companies' major environmental social governance (ESG) concern, with respondents acknowledging the need to build resilience and plan for future outages or face the consequences from regulators, investors and other stakeholders.

Priority issues on the risk agenda

The rise of **natural catastrophes** and **climate change** to third and sixth respectively is telling. Recent years have shown the frequency and severity of weather events are increasing. In 2021, global insured catastrophe losses were in excess of \$100bn – the fourth highest year on record.

Hurricane Ida in the US may have been the costliest event, but more than half of the losses came from so-called secondary perils such as floods, thunderstorms, tornadoes and even winter freezes, which can often be local, but increasingly costly events. More are expected.

Respondents are concerned about the physical loss and supply chain impact from climate change-related weather events. However, they are also worried about managing the transition to a low carbon economy and increasing regulation, reporting requirements and litigation with "lack of actions taken to address climate change" being the second highest ESG concern behind cyber.

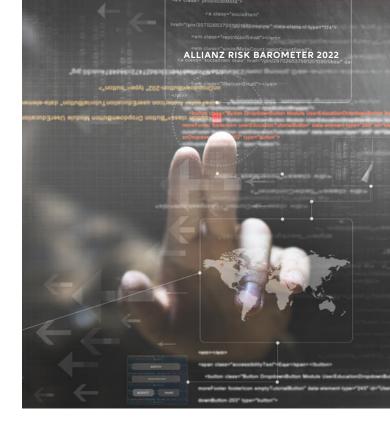
Although cyber risk is perceived as posing a more immediate threat to business than climate change – it accounts for more responses than climate change and natural catastrophes combined – these two perils are also linked by the fact that two of the most significant impacts expected from **changes in legislation and regulation** (the fifth top risk) in 2022 will be around big tech and sustainability. Meanwhile, within climate change, resource depletion is a growing risk for companies that is likely to receive increasing attention from regulators in future.

With pandemic outbreak dropping to fourth place in this year's rankings (from second in 2021), companies' Covid-19 concerns appear to be easing, although the survey predates the Omicron variant. However, the majority of businesses (80%) say they feel relatively well prepared for a future pandemic event but Omicron is a reminder that Covid-19 remains an unpredictable threat, with potentially long-term and far-reaching consequences. This is reflected in the rankings of BI and cyber, but also by the entry of shortage of skilled workforce into the top 10 risks at number nine, with staff absences and shortages expected to disrupt business again in 2022.

Building resilience and protective measures

The disruption of the past year means awareness of BI risk is moving beyond risk management departments and becoming an important issue across entire companies, triggering reviews of exposures, business resilience and critical supply chains.

There is a growing desire and willingness among top management to bring greater transparency to supply chains with organizations investing in tools and systems and working with data to better understand the risks. Increasingly, businesses and insurers see the need to build resilience against the major causes of BI as a competitive advantage.



For example, as the cyber risk landscape evolves, insurers are helping clients improve their cyber security resilience. AGCS now assesses each insurance submission it receives against specific criteria. Assessments look for proactive technology controls, as well as regular backups, patching, training, business continuity arrangements and crisis response capabilities.

Businesses and insurers also have to become more resilient against extreme weather events. Previous once-in-a-century events may well occur more frequently in future. At the same time, with secondary perils accounting for a growing number of losses, current modeling capabilities and risk mitigation strategies will need to be reassessed and improved.

Recent events have shown that so-called 'safe' regions or times of the year can no longer be taken for granted. Therefore, both buildings and business continuity planning need to become more robust in response. Insurers help and support their clients in both of these areas, whether it be advising on flood mitigation, building reinforcement measures or aiding business continuity planning for a wide range of crisis events. Such planning can make a real difference when disaster strikes, ensuring companies can get back operating as quickly as possible.

As awareness of BI risks grow, there is also a realization that not all BI risks are that easy to insure. Capacity for large BI and contingent business interruption risks is currently limited, especially where there is a lack of transparency. The better the transparency and data, the more meaningful capacity insurers are able to provide. It is critical to understand the value chain and identify the critical exposures in order to mitigate the risks and create solutions to transfer or reduce the risk.

Cyber heads the rankings

1 144% 2021: 3 (40%)

Ranking history: 2020: 1

2019: 2 2018: 2 2017: 3

Top risk in:

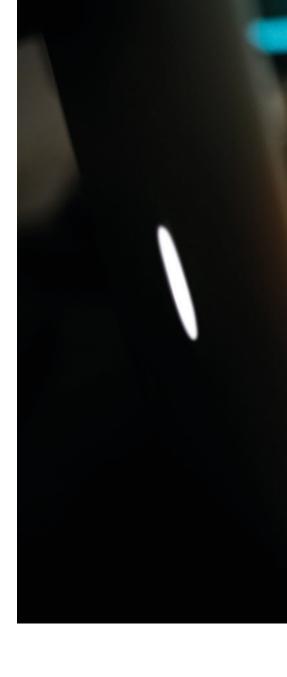
- Australia
- Austria
- BelgiumBrazil
- Denmark
- India
- ItalyJapan
- Netherlands
- () Nigeria
- PortugalSouth Africa
- Sweden
- Switzerland
- UK

Cyber risk hits the top spot in this year's survey, with a series of high-profile ransomware attacks, combined with problems caused by accelerating digitalization and remote working, pushing it up from third in 2021, when it finished behind the closely-related risks of business interruption and the Covid-19 pandemic.

The business of ransomware

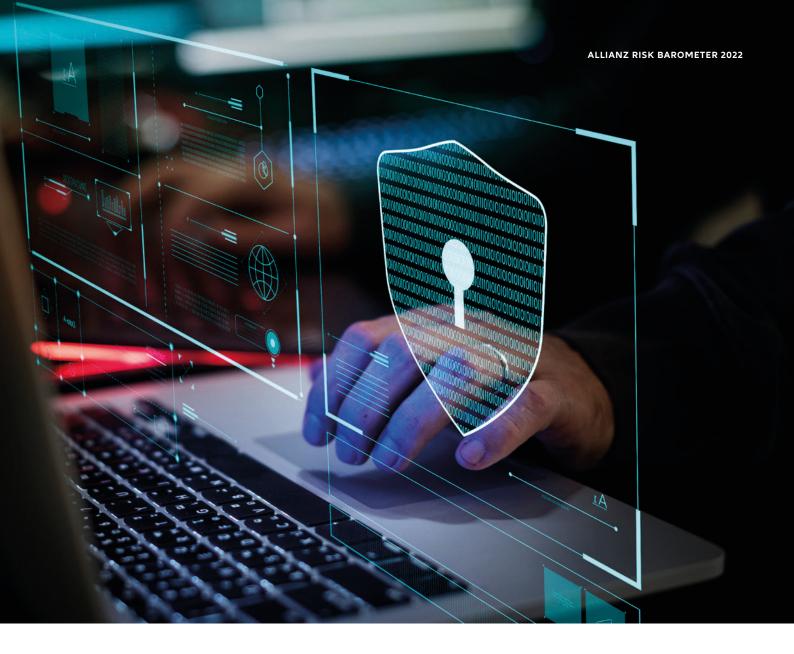
Ransomware has dominated the cyber threat landscape in recent years: it ranks as the top cyber exposure of concern in this year's **Allianz Risk Barometer** (57% of responses), just ahead of data breaches (also 57%). Ransomware has become big business for cyber criminals, who have refined their business models and tactics, lowering barriers to entry and making it easier to carry out attacks. Criminals with little technical knowledge can now carry out ransomware attacks for as little as a \$40 per month subscription, using cryptocurrency to help evade detection.

Recent years have seen growth in the use of 'double extortion' tactics, whereby cyber criminals combine the initial encryption of data with a secondary form of extortion, such as the threat to release sensitive or personal data. Hackers will also now attempt to encrypt or delete backups, making restoration and recovery more difficult or impossible. A worrying recent trend has seen attackers harass employees to gain access to systems, as well as go directly to company senior executives to demand ransoms.



The commercialization of cyber crime has made it easier for criminals to exploit vulnerabilities on a massive scale, explains **Scott Sayce**, **Global Head of Cyber at AGCS**. Previously, hackers typically targeted specific industries that dealt with personal data, such as healthcare and retail, but ransomware attacks are indiscriminate, affecting organizations across all sectors, public and private, both large and small.

"In the past, a bank robber may have hit one or two banks in a week after many months of preparation. Yet, with a cyber-attack, you can target thousands of businesses at once, anywhere in the world, and extract more valuable data than before. Just one gigabyte of data is approximately the equivalent of the information contained within around 5,000 books," says Sayce.



Claims remain at elevated levels

Cyber insurance claims have increased significantly over the past three years, driven by the rise of losses from external manipulation of systems, as well as the increased uptake in cyber insurance. Overall, cyber-related claims seen by AGCS increased from almost 500 in 2018 to more than 1,100 in 2020. Ransomware-related claims increased 50% year-on-year in 2020 (to 90), while the total number of ransomware claims received in the first half of 2021 was the same as reported during the whole of 2019 (60), according to AGCS analysis, as criminals have become more organized and better resourced. Extortion demands have more than doubled while business interruption losses have escalated as larger companies and their supply chains are targeted.

However, as insurers and business have taken steps to increase cyber security and resilience, and with the increased focus on ransomware by law enforcement agencies, ransomware claims are showing some tentative signs of stabilizing, according to Shanil Williams, Chief Underwriting Officer Corporate at AGCS.

"There has been a slight deceleration in ransomware claims, although they remain at elevated levels," says Williams. "Future claims trends are difficult to predict, as perpetrators are always looking to exploit new vulnerabilities and employ new tactics. Cyber is one of those lines of business where you can cover one hole in the bucket only to find a new exposure emerges."

Supply chain attacks on the rise

Recent high-profile cyber-attacks have shown a worrying trend for supply chain incidents where hackers target technology or software supply chains, physical critical infrastructure or digital single points of failure. In December 2021, it was reported¹ that hackers had launched well over a million attacks on companies globally around the world in just four days, through a previously unnoticed vulnerability in a widely-used piece of open-source software called Log4J. This followed cyber criminals inserting ransomware into a software update issued by Kaseya², in itself an attack that had echoes of a suspected nation-state incident targeting US software firm SolarWinds in 2020. Last year also saw the Colonial Pipeline ransomware attack, the largest ever against US energy infrastructure, which disrupted fuel supplies.

Such attacks are of growing concern with increasing digitalization of supply chains, as well as growing reliance on digital infrastructure. Increased vulnerability from remote working (34%) and disruption to digital supply chains and cloud platforms (33%) ranked third and fourth in the ranking of cyber risks of concern in this year's Allianz Risk Barometer.

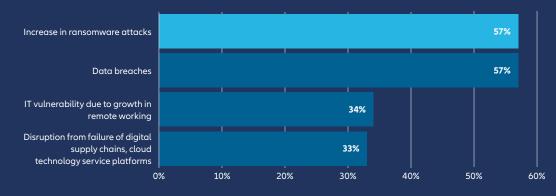
"I am afraid we will see more attacks against technology supply chains and critical infrastructure – they are a logical response to organizations ramping up their cyber security, protections and responses," says Sayce. "It is also likely that we will see hardware being subverted and injected into IT supply chains, and this is a scenario organizations should prepare for."

Cyber hygiene really does matter

As the cyber risk landscape has changed, the insurance industry has turned its focus to helping clients improve the quality of their cyber risk management. AGCS now assesses each insurance submission it receives against cyber security posture criteria. Assessments look for proactive technology controls – such as endpoint protection and multi-factor authentication – as well as regular backups, patching, training, business continuity arrangements and crisis response capabilities.

- 1 Financial Times, Hackers launch more than 1.2m attacks through Log4J flaw, December 14, 2021
- 2 Bloomberg, Kaseya Says It Didn't Pay a Ransom To Hackers, July 26, 2021

Which cyber exposures concern your company most over the next year? Top four answers



A ransomware attack is the most concerning cyber exposure for companies

Source: Allianz Risk Barometer 2022

Figures represent the percentage of answers of all participants who responded (1,153). Figures do not add up to 100% as up to three risks could be selected.

"The role of insurance has always been to ensure good risk management and loss prevention," says Sayce. "Good cyber maturity and good cyber insurance go hand-in-hand. We buy insurance for our home, but this does not mean we leave the front door unlocked, and the same should be said for cyber security."

Even when companies follow best practices and implement technical solutions, systems can still be compromised. Pre-event planning and preparation – such as incidence response planning, scenario testing, and board wargaming – are critical to minimizing the impact of a cyber-attack.

"It is important that we constantly challenge and test our plans. When we look at our submissions, most companies have business continuity plans, but less than 40% test them," says Sayce.

Building cyber resilience

Cyber insurance policies are part of an ever-growing range of technical and risk management support services that form a holistic approach to building cyber security resilience, which **Allianz Risk Barometer** respondents ranked as the environmental, social and governance (ESG) issue that was of most concern to their company, even ahead of climate change (see page 23).

"The cyber market is shifting to a service-oriented offering that combines insurance policies with technology, risk engineering and response services. Through the underwriting process, and throughout the policy period, insurers can help organizations understand the continually changing exposures and focus their investment in cyber security and resilience," says Sayce.

Demand for cyber insurance continues to grow, reflecting increased awareness of exposures associated with digitalization and remote working. However, a true customer-insurer partnership is needed if the insurance market is to be sustainable and meet the needs of businesses, says Williams.



AGCS is working with its clients to improve their risks and facilitate risk transfer. Blanket exclusions and sub-limits for challenging risks like ransomware can leave businesses without important cover, but AGCS is willing to explore alternative solutions to support companies as they take steps to improve their cyber security maturity, as well as address the needs of large companies in high-risk segments, explains Sayce: "We want to be that partner throughout the cyber risk improvement journey. We work with businesses to improve their cyber security, but also to continuously refine what they are doing against the changing cyber risk and regulatory landscape."



Business interruption

2 4 42% **2021:** 1 (41%)

Ranking history: 2020: 2 2019: 1 2018: 1

Top risk in:

2017: 1

- Argenting
- Australia
- Canada
- ChinaFrance
- Germany
- **3** Ghana
- Kenya
- MoroccoNamibia
- Poland
- Singapore
- South Korea
- SpainTurkey
- USA

Following a year of unprecedented global supply chain disruption, business interruption ranks as the second most concerning risk. A consequence of many of the other risks in the rankings, such as cyber and natural catastrophes, it is of perennial concern for companies the world over. Meanwhile, the pandemic has exposed the extent of vulnerabilities in modern supply chains, and how multiple events can come together to create disruption.

In a year marked by widespread disruption from the pandemic, storms, cyber-attacks and the blocking of the Suez Canal, it comes as no surprise that business interruption (BI) and supply chain disruption continues to be ranked highly among the business risks of most concern.

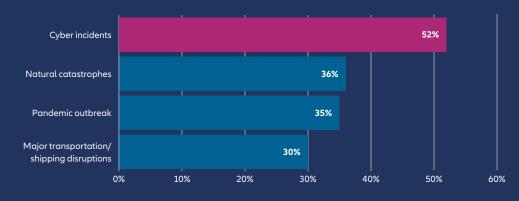
"For most organizations, the biggest fear is not being able to produce and deliver their products or services," says Philip Beblo,
Property Industry Lead, Technology, Media and Telecoms at AGCS. "Whether it's a cyber-attack, a flood or a fire affecting a critical business location or supplier, business interruption events can have a very costly and long-lasting impact that can extend well beyond an individual organization."

Cyber seen as the biggest BI fear

Despite the ongoing repercussions of Covid-19, the most feared cause of BI in this year's survey is cyber (see graphic), which ranked second to pandemic in this category in 2021. The growing concern reflects the impact of recent ransomware attacks, but is also the result of digitalization of business models and supply chains, and the shift to remote working, which have accelerated during the pandemic (see page 10).



Which causes of business interruption does your company fear most? Top four answers



Cyber risk

is the cause of business interruption businesses fear most

Source: Allianz Risk Barometer 2022

Figures represent the percentage of answers of all participants who responded (1,118). Figures do not add up to 100% as up to three risks could be selected.

▼ View the 2021 rankings in this category

Pandemic as a trigger for BI drops to third position, just behind natural catastrophes and ahead of shipping and transportation disruption, which both climb up the rankings in this category year-on-year. Shipping and transportation disruption is also a consequence of the pandemic, as Covid-19 port closures, labor shortages and a sudden surge in demand for container shipping has caused major delays and increased costs for businesses.

Do not underestimate traditional BI

Meanwhile, traditional BI triggers have continued to disrupt businesses. Following a string of extreme weather events in 2021, including hurricanes, winter storms and tornadoes in the US, and record-breaking floods in Europe and China, natural catastrophes are also a standout BI concern for businesses, rising one place to second in 2022. Fire and explosion, drops one position to fifth, yet remained a significant cause of BI in 2021.

"There are multiple triggers for business interruption, and in recent years cyber and pandemic have risen to the fore. But we should not underestimate traditional causes of businesses interruption like fire or weather. One of the largest recent business interruption losses for the insurance industry was triggered by a fire at a [semiconductor] plant, which exacerbated supply chain disruption in the automotive and electronics sectors," says

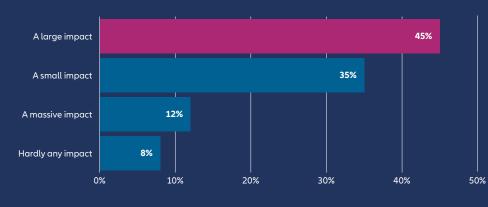
Maarten van der Zwaag, Global Head of Property Risk Consulting at AGCS.

Unprecedented supply chain disruption

One of the clearest manifestations of BI during the Covid-19 pandemic has been the unprecedented levels of supply chain disruption experienced throughout 2021 and into 2022. Companies have had to close or scale-back production where they have been unable to secure critical components, or forgo sales as the result of capacity issues, such as constraints on container shipping or labor shortages.



What impact has the supply chain disruption of the past 12 months had on your company?



Just 8% of businesses said they had suffered hardly any impact from recent supply chain issues

Source: Allianz Risk Barometer 2022 Number of respondents: 1.118

Post-lockdown surges in demand have combined with disruption to production and logistics, as Covid-19 outbreaks in Asia closed factories and caused record levels of congestion¹ at major container ship ports. Other knock-on effects included a spike in demand for energy, which led to power blackouts and further factory closures in Asia, as well as acute shortages of labor in the transport, hospitality and food production sectors. In Europe, a shortage of carbon dioxide², caused by reduced fertilizer production amid high gas prices, continues to affect supply chains in the food and drink sector.

Pandemic-related delays have compounded supply chain problems arising from other unrelated events, such as the blockage of the Suez Canal by the container ship Ever Given. Even before the pandemic, global trade disputes and geopolitical tensions were causing many companies to rethink the structure of their supply chains and their reliance on critical suppliers in Asia. Brexit has also caused disruption and delays to trade between the UK and Europe.

Pushed to breaking point

The pandemic has exposed the extent of interconnectivity in modern supply chains, and how multiple events can come together to create global disruption, across multiple industries. For example, a perfect storm of events has resulted in a global shortage of semiconductors, with a surge in demand during the pandemic coinciding with supply constraints. Power outages in Texas following Winter Storm Uri and a drought in Taiwan both key areas for global chip manufacturing - affected production, as did the fire at a Japanese chipmaker in March 2020. The global shortage in semiconductors is expected to cost the automotive sector alone \$210bn3 in lost revenues.

² Reuters, UK carbon dioxide shortage spilling over into rest of Europe, Nippon Gases – says FT, September 22, 2021

³ Alix Partners, Shortages related to semiconductors to cost the auto industry \$210bn in revenues this year, September 23, 2021

"For the first time, the resilience of global supply chains has been tested to breaking point," says Beblo. "The global model of production, refined over the past four decades to maximize efficiency, also sets the stage for a perfect storm. Supply chain events have happened before, but last year's disruption was on a global scale, impacting almost all sectors, up and down the value chain."

Supply chain disruption is often long-lasting

BI risks are likely to remain elevated for the foreseeable future, driven by the pandemic, but also due to other emerging threats on the horizon.

According to the recent Euler Hermes Global Trade Report⁴, new Covid-19 infections are likely to drive high levels of supply chain disruption into the second half of 2022, although mismatches in global demand and supply and constraint on shipping capacity – key drivers behind disruption in 2021 – are predicted to ease next year. Longer-term, digitalization and climate change could bring additional supply chain volatility from rising demand for critical materials, such as rare earth elements used in clean energy sources, and stresses placed on power and communications infrastructure.

Fixing supply chains and building resilience takes time, and comes at a cost, explains Beblo: "Past events have shown the impact of a business interruption event can continue for many years. A fire at a semiconductor plant can't be fixed in a matter of weeks or months, so it is important to have alternative suppliers and not depend on a small number of suppliers. Reducing reliance on critical suppliers – such as manufacturers in Asia – could take years to build alternative supplies in Europe and the US." (10-15 years would see complete independence from Asian suppliers).

Resilience becoming a competitive advantage

The pandemic and resulting BI and supply chain disruption has been a wake-up call. Such disruption has raised awareness of the issue at both company and governmental level, triggering reviews of business resilience and critical supply chains.

"Awareness has gone beyond risk management departments to become an important issue across the entire company. There is now a desire and willingness among top management to bring greater transparency to supply chains and to work with data to better understand the risks. Momentum has been building and increasingly businesses see resilience as a competitive advantage," says van der Zwaag.

According to McKinsey⁵, almost two thirds (61%) of organizations it surveyed have increased inventory of critical products over the past 12 months in a bid to improve supply chain resilience. However, more needs to be done. Only 23% of the firms surveyed expanded back-up production sites and just 15% turned to nearshoring or increasing their supplier base. Crucially, while 95% of those surveyed now have formal supply chain risk management processes, just under half of the companies said they understand the location of their tier-one suppliers and the key risks those suppliers face, but only 2% can make the same claim about suppliers in the third tier and beyond.

With greater awareness of the risk, there is also a realization that not all BI risks are easy to insure and to find meaningful capacities, explains Beblo: "Capacity for large business interruption and contingent business interruption risks is currently limited, especially where there is a lack of transparency. The better the transparency and data, the more meaningful capacity we, as insurers, are able to provide. We still see clients where their mapping of supply chain risk is not as detailed as it should be. It is critical to understand the value chain and identify the most important exposures in order to mitigate the risks and create solutions to transfer or reduce the risk."

Natural catastrophes

2021: 6 (17%)

Ranking history: 2020:4 2019:3 2018: 3 2017: 4

Top risk in: Croatia

Greece

Morocco

2021 was a year when events sent shockwaves around the world, causing significant loss of life and unleashing debate as to their cause and mitigation. Natural catastrophes rises three places at the same time as climate change records its highestever position of sixth.

The natcat season started early, in February, with Winter Storm Uri battering North America and causing \$15bn in insured losses1. By December 2021, tornadoes were hammering six US states at a time of year when the threat of such weather events has usually past. Estimated losses are currently around \$3bn.

In June, a series of convective storms hit Europe, triggering large hail events and tornadoes, including the South Moravia tornado in the Czech Republic, which killed six people and injured 200 others, making it the deadliest tornado in Europe for 20 years. Then in July, the low-pressure weather system Bernd triggered catastrophic flooding in Germany, Belgium and the Netherlands, resulting in around 200 deaths and insured flood losses of over \$9bn to date, according to the German Insurance Association GDV.² In total, 2021 was the costliest year ever for insured losses from natural catastrophes in Germany (\$14bn+).

There followed heavy flooding in Zhengzhou, central China, where more than 300 died and around 62cm – or two feet – of rain fell over three days in an event described by the city's weather bureau as a once-in-a-1,000-year storm.

Elsewhere, exceptional temperatures occurred in Canada (nearly 50°C in British Columbia) and California (54.4°C), often accompanied by wildfires, although losses were not as high as in previous years because the fires did not affect as many populated areas.

Fourth highest year on record

Annual insured losses from natural catastrophes in 2021 are estimated to be around \$105bn,1 which would make it the fourth highest since 1970, according to Swiss Re.

Hurricane Ida at the end of August was the year's costliest natural disaster, with it expected to cause somewhere in the region of \$31-44bn in estimated insured damages, according to modeler RMS.3 Ida is the sixthcostliest tropical cyclone ever and the fourthcostliest Atlantic hurricane in the US, occurring in the sixth consecutive <u>above-normal Atlantic</u> hurricane season⁴.



Although Ida was the year's dominant natcat event, Winter Storm Uri and other secondary peril events (such as flood, hail, storm or wildfire) caused more than half of total losses¹.

Such activity shows businesses and insurers have to become more resilient against extreme weather events. Previous once-in-a-century events may occur more frequently in future. At the same time, with secondary perils accounting for a growing number of losses, current modeling capabilities and risk mitigation strategies for these perils will need to be reassessed.

Both buildings and business continuity planning (BCP) need to become more robust. Insurers help and support their clients in these areas, whether it be advising on flood mitigation or building reinforcement measures, or aiding preparation for crisis events. BCP can make a real difference when disaster strikes, ensuring companies get back operating as quickly as possible.

The large losses caused by atmospheric perils have also fueled discussions around climate change in many countries.

"The upwards trend for natural catastrophes in the Allianz Risk Barometer is closely related to the rise of climate change [which rises up to sixth position, see page 24]," says Dr Hannes Roemer, Expert Cat Risk Analyst, Catastrophe Risk Management, at AGCS. "This connection can be seen in responses to the survey question on climate change, where 'physical loss impact – e.g. higher property damages due to volatility of weather' is the number-one impact respondents say their industry already faces.

"We have been exploring the impact of climate change on natural catastrophes at AGCS. Based on different flood model results, which were coupled with climate change scenarios, we could demonstrate an overall flood risk increase of 100-125% until 2086 for areas affected by the 2021 German flood, assuming an intermediate greenhouse gas emission scenario⁵."

- 1 Swiss Re, Global insured catastrophe losses rise to USD 112 billion in 2021, the fourth highest on record, December 14, 2021
- 2 Versicherungsbote, Versicherer schätzen Schadenkosten des Sommer-Hochwassers auf 8,2 Milliarden Euro Sparten, December 7, 2021
- 3 RMS, RMS estimates US\$31 \$44 billion in total US onshore and offshore insured losses from Hurricane Ida, September 16, 2021
- 4 NOAA, Active 2021 Atlantic hurricane season officially ends, November 30, 2021
- 5 Based on the Representative Concentration Pathway (RCP) 4.5, described as an intermediate scenario by the IPCC, where emissions peak around 2040 and then decline



Pandemic outbreak

↓ 22% 2021: 2 (40%)

Ranking history:

2020: 17 2019: 16 2018: 17 2017: 19

Top risk in:

- Hong Kong
- Hungary
- Romania

Bulgaria

Madagascar

Pandemic risk drops two positions in this year's rankings with businesses largely confident in their ongoing contingency plans and future preparations, but future 'Black Swan' events are likely to come from other sources as well.

As the emergence of the Omicron variant¹ at the end of 2021 demonstrates only too well. pandemic-related problems are far from being a thing of the past and are likely to overshadow business' ability to perform in at least the first few months of 2022 due to ongoing restrictions and potential staff shortages and absences.

Nevertheless many businesses feel they have adapted well to the pandemic. When asked how prepared their company is for a future event, the majority (80%) of Allianz Risk Barometer respondents believe they are "adequately" or "well prepared", although only 9% feel "very well prepared". However, just 11% feel "inadequately prepared". Initiating or improving business continuity management is the main action companies are taking to make them more resilient.

"Many companies are taking advantage of the increased awareness of business interruption, and we have seen more organizations investing in tools and systems to improve transparency of supply chains, work through scenarios and update their business continuity. Being more flexible and agile is essential in times of crisis, but it will also help with the daily business challenges," says Philip Beblo, Global Property Industry Lead, Technology, Media & Telecoms at AGCS.

The pandemic may, however, have sown the seed of the next 'Black Swan' event, given its acceleration of the digitalization trend. Technology-related issues rank as the biggest and most impactful changes to result from the pandemic (see graphic). The adoption of new working practices and greater digitalization are the two biggest impacts cited by respondents, while increasing cyber risk is fourth. Supply chain disruption ranks highly in third.



"We are already seeing big changes in working practices and business models, many of which are here to stay and that will shape business interruption and other exposures going forward. There will be challenges for cyber security and IT capacity as moves to digitalization and remote working are scaled up. But there will also be opportunities, such as more flexible ways of working and access to more data with which to manage risk," says Beblo.

"We are witnessing exponential growth in digital platforms and IT infrastructure: The penetration of smart grids, for example, will soon reach 100% in some markets. However, our understanding of such risks lags behind the pace of technological change, and businesses often underestimate the extent of these exposures," says Georgi Pachov, Head of Portfolio Steering & Pricing at AGCS.

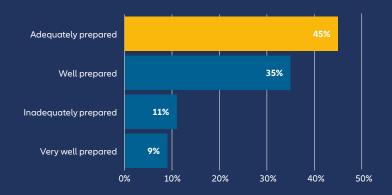
Another key learning from the pandemic has been the importance of people for business continuity. Workforce-related issues rank as the fifth biggest impact of the pandemic, while shortage of skilled workforce is a new entry in the top 10 global risks overall in 2022 (see page 27).

"One of the lessons from the pandemic has been the importance of the workforce for business continuity, as well as the broader societal environment in which business operates," adds Pachov. "The past 18 months has demonstrated the need to focus on the whole business, and not just specific triggers for business interruption."



How prepared do you feel your company is for a future pandemic incident?

Top four answers



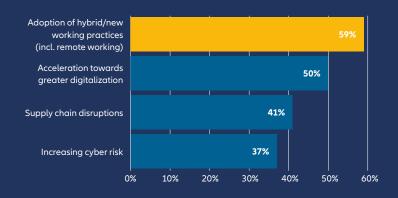
80% of businesses believe they are adequately or well prepared

Source: Allianz Risk Barometer 2022 Number of respondents: 589



What changes are you seeing as a result of the pandemic that are most impacting your company?

Top four answers



Technology issues rank as most impactful changes

Source: Allianz Risk Barometer 2022

Figures represent the percentage of answers of all participants who responded (2,650). Figures do not add up to 100% as up to three risks could be selected.

¹ The Allianz Risk Barometer 2022 survey was conducted between October 20 and November 17, 2021, so pre-dates awareness of the emergence of the Omicron variant

Changes in legislation and regulation

5 → 19%

2021: 5 (19%)

Ranking history:

2020: 3 2019: 4 2018: 5 2017: 5 Legislation never sleeps and despite many promises to reduce red tape, new rules and regulations proliferate. 2022 will be no exception, particularly in the areas of big tech and sustainability.

In data and big tech, there is a global race unfolding to curb anti-competitive practices. In Europe, the DMA (Digital Markets Act) will come to life; in the US, a dozen tech bills will make their way through Congress; and in China, the crackdown on big internet companies is already in full swing.

Although it remains to be seen whether these new rules and initiatives will lead to real change, 2022, at least, holds the promise for a fairer and better-regulated data economy, says Ludovic Subran, Chief Economist at Allianz.

The same can be said about sustainability. The EU taxonomy for sustainable activities regulation takes effect for the environmental objectives of climate change mitigation and adaptation, providing a common dictionary for sustainability criteria and thus effectively enabling comparability of sustainability performance. "Given Europe's clout when it comes to regulation, 2022 could, in retrospect, be seen as the year that ended 'greenwashing'," says Subran.

But the elephant in the room is the US-China geopolitical rivalry, contaminating all sorts of economic activity, from trade to technology and investment. And 2022 could easily see further deterioration, with the US heading for mid-term elections and China for an all-important Communist Party Congress.

The rising tensions around Taiwan are a harbinger for future conflict. However, the surprising US-China announcement at the COP26 climate summit to boost climate cooperation hints at the opposite: "Are we witnessing an early thaw in the US-China standoff? The Chinese economy will not be in the best shape, the US economy continues to suffer from bouts of inflation: 2022, thus, might be the year of tentative common efforts to build a better, functioning relationship. It would be the most welcome surprise," says Subran.



ESG concerns: cyber and climate dominate

Investor and shareholder action is increasingly focused on environmental social and governance (ESG) issues, and companies are challenged by the growing raft of regulation and guidance in many territories, leading to tougher disclosure and reporting rules, according to the **Allianz Risk Barometer.**

Respondents rank cyber security resilience as their major ESG priority (see graphic), driven by the growth and severity of cyber-attacks, and an increase in data security regulations.

"In the past, it was mainly technology companies that were assessed on cyber security resilience, but these days, businesses across a range of sectors are subject to such scrutiny," explains Michael Bruch, Global Head of Liability Risk Consulting/ESG at AGCS.

"Increasingly, cyber security considerations are incorporated into the ESG risk-analysis frameworks of data providers, who look into companies' data-protection and information security practices to evaluate their preparedness for cyber crime."

Climate change is another major ESG presence on the list with respondents ranking it as their second top ESG concern. This should be no surprise so soon after COP26, the UN Climate Change Conference, when building a decarbonized future rose high on the agenda. Net-zero commitments made by the private sector were unparalleled, reflecting the emphasis businesses now place on climate risk and transitioning to a low-carbon economy.

Within climate change, resource depletion is an emerging risk that will likely receive increasing attention in 2022. The World Economic Forum (WEF) has identified biodiversity loss as an existential global threat, stating: "\$44trn of economic value generation – more than half of the world's total GDP – is moderately or highly dependent on nature and its services and is therefore exposed to nature loss."

Biodiversity loss can result in natural catastrophes such as droughts and floods, the disappearance of pollinators, or the collapse of fishing or agricultural yields. The construction, agricultural, and food and beverage sectors are most likely to bear the brunt, but the impact on secondary and tertiary industries, and their supply chains, should not be underestimated.

"Regulation and global standards around biodiversity are rising," says Bruch. This year, the Taskforce on Nature-Related Financial Disclosures (TNFD) is expected to launch a framework for organizations to report and act on nature-related risks, while French financial institutions will be required to disclose biodiversity-related risks alongside climate-related risks, as well as their strategies for reducing biodiversity impacts.

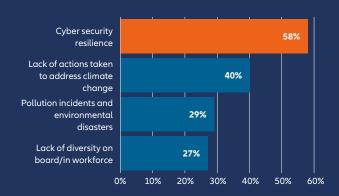
If global warming is to be kept below 1.5°C, nature-based solutions will play a significant role, according to the <u>United Nations Environment</u>

<u>Programme (UNEP)</u> and the International Union for the Conservation of Nature (IUCN)². This will mean protecting ecosystems from loss and degradation, restoring those already degraded, and sustainably managing working lands such as fields and forests.

"As part of their net-zero commitments, companies will not only need to develop and implement strategies to decarbonize, they will also have to manage their impacts on the land and the natural resources they use," Bruch concludes.



Top four answers



Source: Allianz Risk Barometer 2022

Figures represent the percentage of answers of all participants who responded (2,650). Figures do not add up to 100% as up to three risks could be selected.

- 1 World Economic Forum, 2020: Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy
- 2 United Nations Environment Programme and International Union for Conservation of Nature, 2021: Nature-based solutions for climate change mitigation, Nairobi and Gland



Climate change

6 ↑ 17%2021: 9 (13%)

Ranking history: 2020: 7 2019: 8 2018: 10 2017: 14 The risks from – and the pressure to act on – global warming have increased noticeably for businesses over the past 12 months.

Heavy rain in Western Europe, storms and tornadoes in the US, flooding in Asia – climate-related weather events affected numerous companies around the world in 2021, causing massive property damage and business interruptions and insured losses in excess of \$100bn – the fourth highest annual total on record.

It's unsurprising then that climate change records its highest-ever position of sixth in the **Allianz Risk Barometer**, while natural catastrophes ranks in the top three risks (see page 18).

"The risks to businesses from global warming are being experienced with increasing force and immediacy – as direct damage after extreme weather events, but also leading to tightening regulation, and as threats to brand and reputation," says Line Hestvik, Group Sustainability Officer at Allianz.

"In addition to acute issues such as pandemic management and the volatile economic environment dominating the day-to-day business of risk management, the pressure on businesses to act on climate change has increased noticeably over the past year, with a growing focus on the net-zero contribution."

More and more companies are therefore presenting strategies for reducing greenhouse gas emissions in their operations and also analyzing business opportunities for climatefriendly technologies and sustainable products.



Climate change litigation hotting up

Recent years have seen a surge in climate changerelated cases. <u>The cumulative number has more</u> than doubled since 2015¹, according to a recent Oxford University/ Climate Neutrality Forum report presented at the COP26 summit. Just over 800 cases were filed between 1986 and 2014, while over 1,000 cases have been brought in the last six years. Cases have tended to focus on the nature of investments, although there is a growing use of litigation seeking to drive behavioral shifts and force disclosure debate. In November 2020, a case was settled involving a \$57bn superannuation fund in Australia, Rest². The claimant alleged Rest's failure to disclose and address climate risk breached legislation. The fund committed to a raft of new disclosure and climate change-related initiatives in response.

They are rethinking protection measures for sites and production plants to make them more robust against increasing extreme weather events, implementing climate and energy regulations and, increasingly, preparing to meet comprehensive reporting requirements.

"Protection and adaptation to climate-related changes are also increasingly being discussed at management level," says Hestvik. "In the coming years, many corporate decision-makers will be looking even more closely at the impact of climate risks in their value chain and taking appropriate precautions. There is also a clear trend toward building up dedicated competencies within companies around climate risk mitigation. Together with sustainability experts, risk managers will play an increasingly important role in the future in preparing companies for the risks of climate change and combatting global warming."



Climate change – What are the most significant exposures this creates for your company?

Top four answers



Source: Allianz Risk Barometer 2022

Figures represent the percentage of answers of all participants who responded (454). Figures do not add up to 100% as up to three risks could be selected.

- 1 Climate Neutrality Forum, Identifying Sensitive Interventions For The Post Carbon Transition, Autumn 2021
- 2 Clifford Chance, Climate Change test case settles: \$57bn Australian super fund responds to pressure on climate change policy



Fire, explosion

→ 17% 2021: 7 (16%)

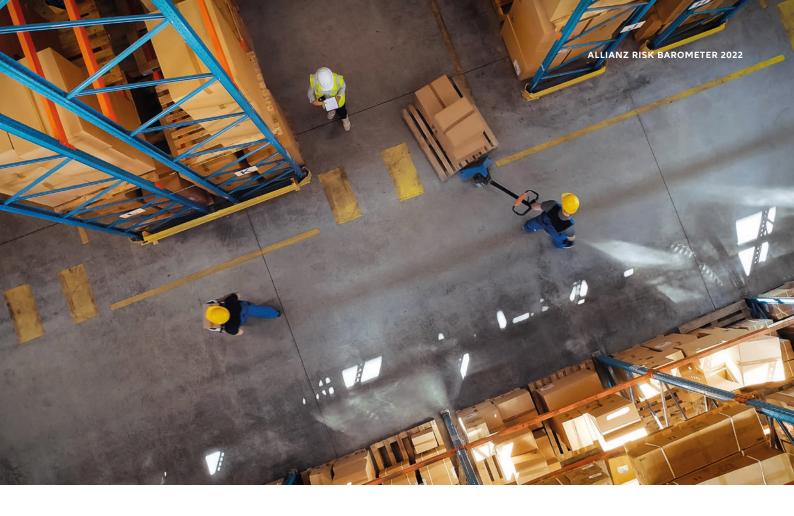
Ranking history: 2020: 6 2019: 6

2018: 6 2017: 7 AGCS analyzed over 470,000 insurance industry claims in over 200 countries with which it was involved between July 2013 and July 2018. The largest single cause of loss for businesses was fire/explosion (excluding wildfires), causing in excess of \$15bn worth of damages during this period. It is little wonder then that fire, explosion has been a staple of the top 10 risks in the Allianz Risk Barometer for the past decade.

In many cases it's not even the material damage of such an incident that results in the biggest losses, although this is often costly. A major fire or explosion can prevent companies from operating for some time and such incidents are the most frequent drivers of business interruption (BI) insurance claims.

Overall, from the claims data analyzed by AGCS, BI losses caused by fire/explosion incidents amounted to an average of over \$6.5mn per incident – nearly a third more than the actual property damage caused directly by such fires (\$4.4mn).

While risk assessment continues to evolve, it is unlikely that such risks can ever be completely eliminated. Nevertheless, regularly assessing and updating prudent fire mitigation practices, including preventative measures, fire extinguishing methods and contingency planning remain essential for all businesses to lower the risk of loss from an incident.



Shortage of skilled workforce

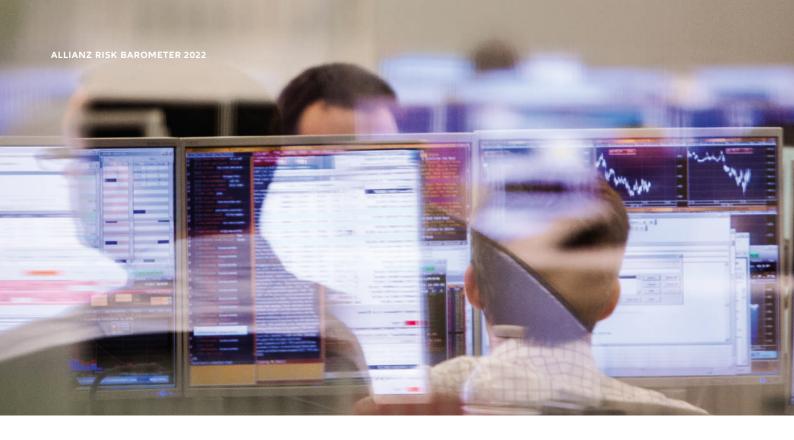
9 ↑ 13%2021: 13 (8%)

Ranking history:

2020: 12 2019: 10 2018: 15 2017: 15 Attracting and retaining skilled workers has rarely been more challenging as 69% of companies globally report talent shortages – the highest in 15 years, according to a ManpowerGroup survey¹, ensuring shortage of skilled workforce is a new entry in the top 10 of the Allianz Risk Barometer.

As economies reopen around the world after lockdowns, reports of employers being unable to find the workers they need have become increasingly common. Covid-19 has been hugely disruptive to the labor market, exacerbating existing issues caused by older employees retiring and the already changing needs and expectations of potential employees, while bringing new challenges such as skilled workers who want flexibility over when and where they work and who are prepared to leave existing jobs to achieve this.

According to estimates², as of December 2020, the global talent shortage amounted to 40 million skilled workers worldwide. By 2030, Korn Ferry estimates³ that this could reach more than 85 million people, resulting in the loss of trillions of dollars in economic opportunity for companies. Knowledge-intensive industries such as financial services, technology, media, telecommunications and manufacturing are among the industries that are predicted to be most affected, while Allianz Risk Barometer respondents rank talent shortage as a top five risk in the engineering, construction, real estate, government, public service and healthcare sectors, and as the top risk for the transportation sector.



Market developments and Macroeconomic developments

↓ 15% 2021: 4 (19%)

Ranking history:

2020:5 2019:5

2018:4

2017: 2

2021: 8 (13%)

Ranking history:

2020: 10 2019; 13 2018:11 2017:6

Market (8) and macroeconomic (10) developments both drop down the rankings in 2022. Allianz and Euler Hermes Research highlight some of the issues impacting the landscape...

2021 was an extreme year that can best be described by the "ketchup bottle effect": after the lockdowns, demand for goods and services exploded, overwhelming supply capacities and resulting in clogged supply chains, material and labor shortages, as well as rising prices. The consequence: a roller coaster growth path with strong, demand-driven quarters followed by weak quarters with stagnating or even declining growth.

2022 is unlikely to be much more stable. Covid-19 is not over and the Omicron variant might render herd immunity as elusive as ever: the constant changing between tightening and loosening restrictions may continue. Supply chain tensions will certainly ease gradually but a return to normal trade flows will take its time. New Covid-19 outbreaks could easily plunge trade into renewed chaos, in particular as China, still the linchpin for most global supply chains, will continue to follow its zero-Covid policy, implying repeated lockdowns.



But in one important aspect, 2022 will be different: fiscal policy will be much less accommodating; there will be no further pay checks for households. In some countries, the fiscal deficit is set to decline by a whopping five percentage points. This contraction, or "fiscal cliff" could become a big drag on growth, in particular if the gap is not filled by private spending and investing (from excessive savings accumulated during lockdowns).

The "hiking cycle" and market movements

Capital markets were firmly under the spell of monetary policy in 2021. Fueled by ample and cheap liquidity and shrugging off repeated lockdowns, supply bottlenecks and rising inflation, markets knew only one direction: up and up, climbing from one record to the other. 2022 will be different as central banks respond. However, the "hiking cycle" is likely to be a protracted and shallow process. The US Federal Reserve (Fed) will end its bond purchases soon and then follow swiftly with interest rate hikes. Key interest rates may reach the 2% mark again, but hardly move beyond. The Fed is unlikely to raise rates above the level that prevailed before Covid-19.

This is even truer for the European Central Bank (ECB). Bond purchases will be tapered this year but will continue well into 2023. Interest rates will also rise again at some point – but hardly above the zero line. The first increase in deposit rates is not expected until 2023, and zero could be reached again by 2025.

Why are central banks so timid? Exiting expansionary monetary policy is much harder than opening the liquidity floodgates. Against the backdrop of elevated markets at stretched valuations, central banks face a delicate balancing act. Otherwise, a market crash looms, with harsh consequences for growth and jobs. But even if central banks pull off the trick – a big if, indeed, given the unforgiving inflation development – markets are in for a much rougher ride in 2022 than in 2021. Volatility is set to increase considerably and repercussions of the monetary turnaround will be felt around the globe, with weaker emerging markets coming under severe strain.

▼ View
the full
Allianz Risk
Barometer
2022 rankings
here

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Allianz Global Corporate & Specialty (AGCS) is a leading global corporate insurance carrier and a key business unit of Allianz Group. We provide risk consultancy, Property-Casualty insurance solutions and alternative risk transfer for a wide spectrum of commercial, corporate and specialty risks across 10 dedicated lines of business.

Our customers are as diverse as business can be, ranging from Fortune Global 500 companies to small businesses, and private individuals. Among them are not only the world's largest consumer brands, tech companies and the global aviation and shipping industry, but also satellite operators or Hollywood film productions. They all look to AGCS for smart answers to their largest and most complex risks in a dynamic, multinational business environment and trust us to deliver an outstanding claims experience.

Worldwide, AGCS operates with its own teams in more than 30 countries and through the Allianz Group network and partners in over 200 countries and territories, employing around 4,400 people. As one of the largest Property-Casualty units of Allianz Group, we are backed by strong and stable financial ratings. In 2020, AGCS generated a total of €9.3bn gross premium globally.

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Contacts

For more information contact your local Allianz Global Corporate & Specialty Communications team.

Asia Pacific Wendy Koh

wendy.koh@allianz.com

+65 6395 3796

Ibero/LatAm Camila Corsini

camila.corsini@allianz.com

+55 11 3527 0235

North America Emil Janssens

emil.janssens@agcs.allianz.com

+1 212 553 1287

UK, Middle East, Nordics

Ailsa Sayers

ailsa.sayers@allianz.com

+44 20 3451 3391

Central and Eastern Europe

Daniel Aschoff

daniel.aschoff@allianz.com

+49 89 3800 18900

Mediterranean/Africa

Florence Claret

florence.claret@allianz.com

+33 158 858863

Lesiba Sethoga

lesiba.sethoga@allianz.com

+27 11 214 7948

Global

Hugo Kidston

hugo.kidston@allianz.com

+44 203 451 3891

Heidi Polke-Markmann

heidi.polke@allianz.com

+49 89 3800 14303

For more information contact agcs.communication@allianz.com

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Allianz Global Corporate & Specialty SE Dieselstr. 8, 85774 Unterfoehring, Munich, Germany

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