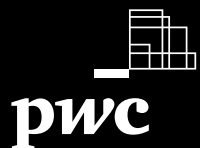


24th Annual Global CEO Survey

# A leadership agenda to take on tomorrow

[www.ceosurvey.pwc](http://www.ceosurvey.pwc)



**On 11 March 2020, the World Health Organization declared<sup>1</sup> COVID-19 a global pandemic, marking the official start of a period of profound disruption and suffering.**

One year later, we still find ourselves in its grip, but vaccines developed at breakneck pace have enabled us to envision recovery. The details of that recovery are not yet clear. However, it's certain that we cannot simply go back to the way things were before. The pandemic has laid bare fundamental deficiencies in our global system, weaknesses in business operating models and challenges that will shape our world moving forward. It has also unleashed energy and creativity, as leaders seek out enduring solutions to these problems.

The pandemic's dual role as accelerator of transformation and amplifier of disruptive forces is the thread that runs through our 24th Annual Global CEO Survey. Most of the CEOs responding to the survey are bullish about a global economic comeback. It will be enabled by a continuation of companies'

pandemic-induced digital acceleration, which promises productivity and other business benefits, but also increases the threat of cyberattack and the spread of misinformation. Although CEOs' confidence in their own company's revenue prospects has rebounded, they are anxious, too: about the trajectory of the pandemic, tax and regulatory policy uncertainty, and, to a slightly lesser extent, climate change.

Numbers tell a story, but we know there's more to most stories than numbers. That's why we've combined the findings from our 5,050 survey responses, gathered in January and February of 2021, with qualitative insights: interviews with chief executives conducted as part of our Inside the Mind of the CEO series<sup>2</sup> and analysis from our Take on Tomorrow series,<sup>3</sup> published between January and March, which tackles today's most pressing issues to help leaders as they think about what's next. When we look at the survey in this light, we see an opportunity emerge—a moment for business leaders to take a step back and ask: how can we do things better?

Answering that question is an imperative that will touch nearly every aspect of their operating model, enabled by a significantly greater focus on trust and transparency. This is certainly the case for climate change, where thus far corporate action trails<sup>4</sup> government-mandated decarbonisation targets; companies also face growing demands from investors and other stakeholders. It is the case for cybersecurity, which many firms have relegated to the CIO's domain when what's actually needed is a strategic approach aimed at taming corporate complexity while establishing a framework for governance and shared responsibility.

The list goes on, pointing to a fundamental truth: company leaders are capable of the kind of change that's needed, but they'll need to think differently and to constantly evaluate their decisions and actions against broader societal impacts. We recognise that this is a daunting challenge, and it is in the spirit of this recognition that we present our 24th Annual Global CEO Survey—as a snapshot of leaders' sentiment, and as a road map of the priorities ahead and how we can collectively address them.



# An improved outlook

When asked about their outlook on the global economy, 76% of CEOs say they believe it will improve during the next 12 months. That’s nearly 20 percentage points greater than the previous record high for optimism, over all the years we have been asking this question. It also marks a significant rebound from our 2020 survey (conducted in the autumn of 2019), when just 22% of CEOs expected improved growth (see Exhibit 1).

Little could anyone have known that the coronavirus would strike, causing global GDP to contract 3.5% in 2020<sup>5</sup>—marking its worst performance since the Great Depression. In the wake of such decline, some bounce-back seems inevitable; in China and elsewhere, it’s already underway.

76%

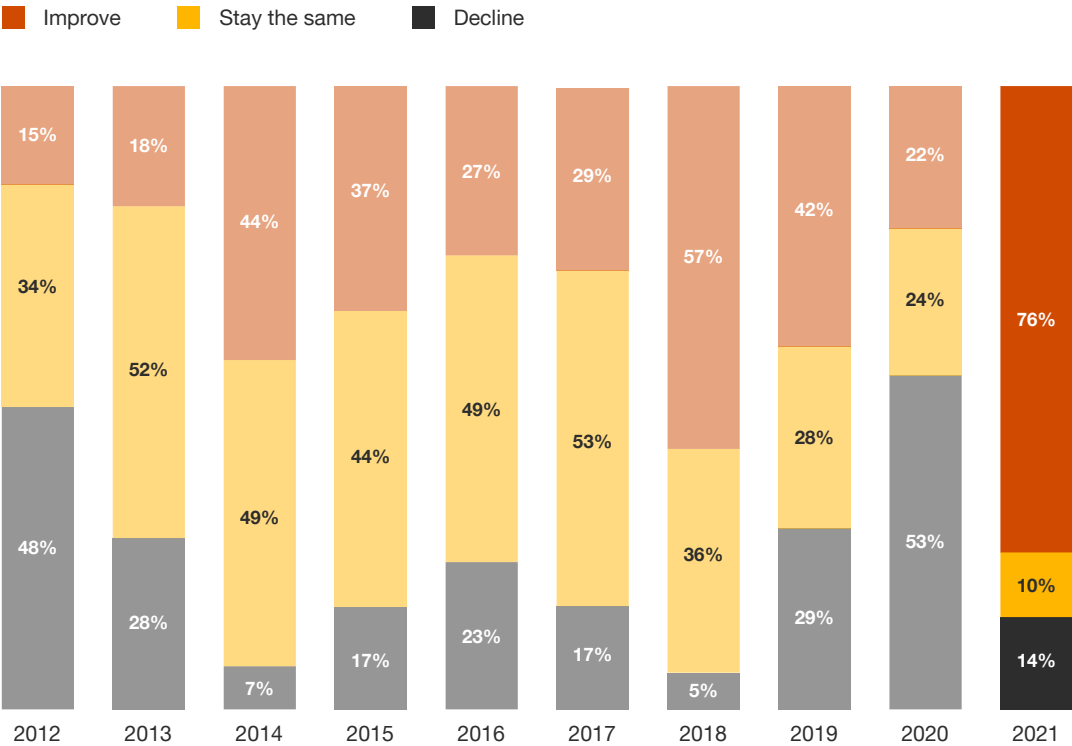
Share of CEOs who believe global economic growth will improve in 2021

Exhibit 1

## A record share of CEOs believe global economic growth will improve in 2021

Question

Do you believe global economic growth will improve, stay the same or decline over the next 12 months?



Source: PwC 24th Annual Global CEO Survey  
Note: From 2012 to 2014, respondents were asked, ‘Do you believe the global economy will improve, stay the same or decline over the next 12 months?’

CEOs' optimism also reflects momentum in vaccine development and rollout in parts of the world. We are by no means out of the woods, but CEOs see a path forward—for the global economy, and for their own organisations: 36% of CEOs say they are very confident about their revenue growth prospects for the next year, and 47% are very confident looking ahead three years. These results mark a reversion to the mean, and another notable turnaround from our 2020 survey results (see Exhibit 2).

There is reason to bank on that sentiment. PwC has analysed CEO confidence levels dating back to 2008 to determine both the direction and the strength of global GDP, and the results have consistently yielded accurate projections. (Our 2020 results represent a rare deviation, because of the pandemic's economic impact.) Based on this year's responses, we estimate that global growth could rise as much as 5.0%—just slightly lower than recent IMF projections that the global economy will grow 5.5% in 2021 and in line with separate [PwC analysis](#)<sup>6</sup> suggesting it will return to its pre-pandemic size by the fourth quarter of 2021 or early 2022.


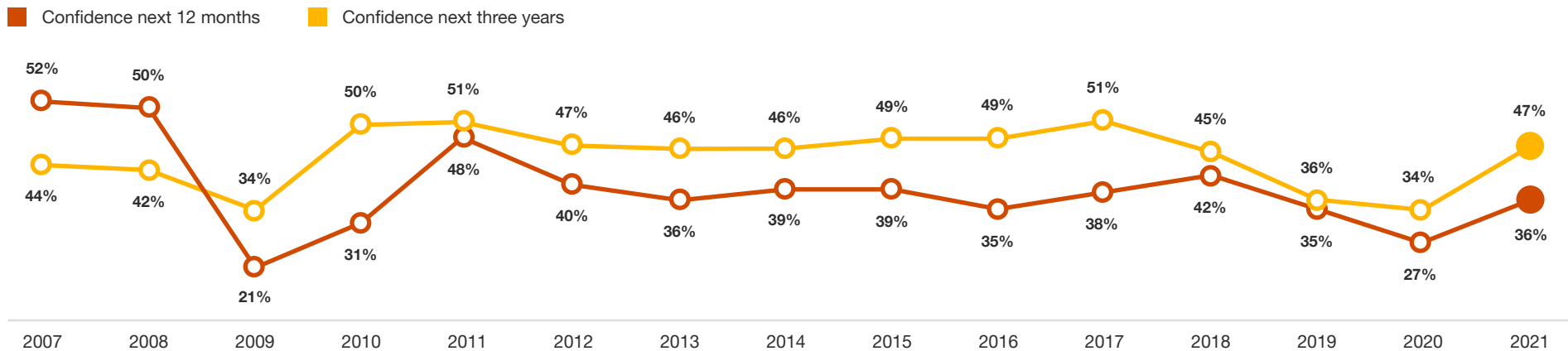
 **Sustaining COVID-era urgency.** As leaders prepare for the anticipated rebound, a critical question will be: which management approaches should businesses retain from the rapid response mode most of them embraced during 2020? [Fast, high-quality decision-making](#)<sup>7</sup>—a hallmark of many companies' pandemic responses—will be on the top of most leaders' 'keep' lists. Priorities include ensuring top management is focused on the big issues that matter most, engaging with people up and down the organisation, revisiting critical decisions frequently, and pushing, early, to understand unintended consequences.

Exhibit 2

## CEO confidence has rebounded

### Question

How confident are you about your organisation's prospects for revenue growth over the next 12 months/three years? (Showing only 'very confident' responses)



Source: PwC 24th Annual Global CEO Survey

# Industry effects

Industries were affected in different ways by COVID-19, as lockdowns and other restrictions changed the way we work, live, travel and shop. This disparity is reflected in confidence levels, both in our survey results and in our interviews with CEOs.


The hospitality and leisure and transportation and logistics sectors are among those with the lowest reported confidence levels. “Whether we like it or not, the next 12 to 24 months are going to be bumpy.... Our goal is to get back to at least 2019 levels in three years,” says Dillip Rajakarier, group CEO of the Thailand-based hospitality firm Minor International, which operates luxury hotels and spas in more than 50 countries.<sup>8</sup> Noni Purnomo, president director of Indonesia-based Blue Bird—which, among other holdings, operates the country’s largest taxi fleet—also acknowledges the challenges of recovery: “We hope

by the second half of the year we’ll be able to see significant improvement. But the impact on business will be lagging.... Our target is to reach 90% of our January/February 2020 revenues by the end of 2021.”<sup>9</sup>

In contrast, CEOs in technology are more confident than their peers in every other industry, a natural byproduct of the pandemic’s digital acceleration. “We’re feeling surprisingly optimistic,” notes Steve Hare, CEO of UK software firm Sage Group. “We’ve started to see new customer-acquisition levels normalise...and small and medium-sized businesses in general are pretty optimistic about the longer term because they are agile.”<sup>10</sup>

CEOs of companies in industries that witnessed favourable changes in consumption patterns during the pandemic also have a positive outlook. A case in point: sales of electric guitars. Revenues at US-based stringed instrument manufacturer Fender Musical

Instruments grew by about US\$100m in 2020. Says CEO Andy Mooney, “The complete reverse of what we anticipated happening is happening. We’re now looking at expansion.... I’m very optimistic that we’ll get significant growth again in 2021 and beyond.”<sup>11</sup>

 **The pandemic experience, sector by sector.** Taking a closer look at the effects on companies in different industries, we see how many will be reinventing their workplaces<sup>12</sup> as the vaccine rollout continues—with flexible work models becoming a permanent fixture for a range of roles, including sales, finance and technology. But striking the right balance will be more challenging in industries such as hospitality, transportation and retail, where business model changes are likely to require significant shifts in deeply ingrained customer behaviours and employee ways of working.







## Lingering anxiety


Despite their confidence, CEOs are acutely aware of threats in the external environment, starting with the obvious: pandemics and other health crises are the number one threat on this year's list, with 52% of CEOs stating they are 'extremely concerned' (see Exhibit 3, next page). The last time we asked this question, six years ago, this threat was selected as an extreme concern by just 9% of respondents.

# 52%

**Share of CEOs extremely concerned about pandemics and other health crises**

At the time our survey was in the field, new variants of COVID-19 were being tracked around the world, vaccine rollout efforts were uneven in many wealthier nations, and governments in many emerging markets were struggling to procure vaccine doses. The pandemic's staying power raised a host of business-specific questions for CEOs.

For example, Deryl McKissack, president and CEO of McKissack & McKissack, a US-based architecture, engineering and construction management firm, reflected on the design of public spaces, observing, "The anxiety isn't going away. I believe many of these measures [to implement design changes] will be permanent. Public health officials are speculating that COVID-19 will be endemic, with sporadic repeats thanks to globalisation."<sup>13</sup>

 **The wall of worry.** Overall, the sheer magnitude of concern about most threats has increased since our 2020 survey, despite CEOs' rise in confidence. Navigating this tension is a perennial leadership challenge that feels particularly acute at the moment. When we convened PwC's global network leaders in mid-February to review our survey results, they observed that, although CEOs tend towards optimism, many had been asking questions about the potential for inflation and the possibility that global markets had priced in too perfect a recovery. The tug-of-war between anxiety and optimism has only increased in recent weeks, with market volatility on the rise.

### Exhibit 3

## CEOs express increasing concern about cyber threats, misinformation and tax policy uncertainty

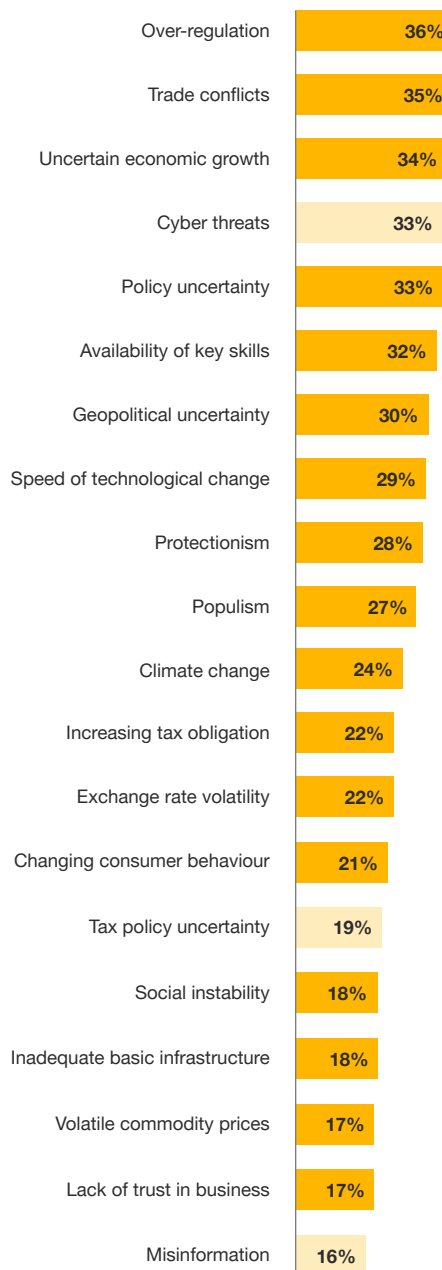
### Question

How concerned are you, if at all, about each of these potential economic, policy, social, environmental and business threats to your organisation's growth prospects? (Showing only 'extremely concerned' responses)

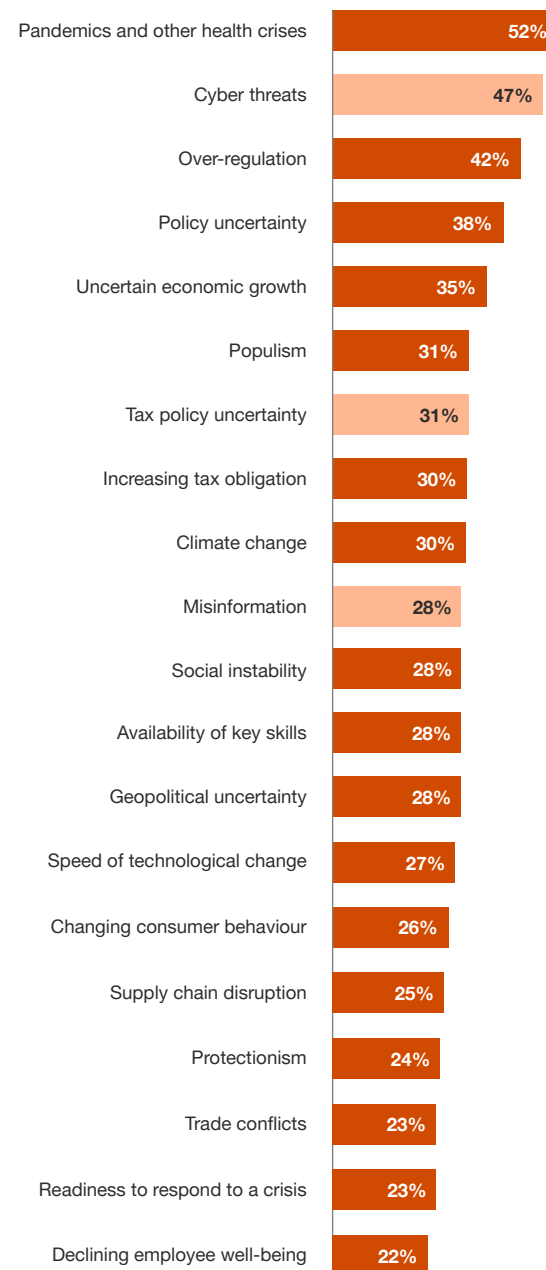
Source: PwC 24th Annual Global CEO Survey

Note: 'Pandemics and other health crises' was last included as a threat in the 18th Annual Global CEO Survey

### 2020 top 20 threats



### 2021 top 20 threats





## The climate change challenge

Far more surprising than the rocket-like rise of pandemics on the threat lists of CEOs was the modest rise of climate change as a priority. Last year, 24% of CEOs selected climate change as an extreme concern; this year, it was selected by 30%. This may seem like a notable jump, but in the context of rising anxiety about nearly all threats, it represents just a marginal increase.

What's more, another 27% of CEOs report being 'not concerned at all' or 'not very concerned' about climate change. And 60% of CEOs have not yet factored climate change into their strategic risk management activities. In fact, at a country level, our results show a moderately negative correlation between exposure to natural hazards and companies' preparedness for climate-related risk. Companies in the countries with the most exposure<sup>14</sup> — which are generally among the largest contributors<sup>15</sup> to CO<sub>2</sub> emissions — are less likely to have embedded climate change into their overall risk management approach (see Exhibit 4, next page).

The decarbonisation imperative is particularly challenging for certain industries and regions. "We're very focused on bio-based and renewable fuels, and our goal is to supply 100% renewably

sourced energy by 2040," says Jeroen Drost, CEO of SHV Holdings, one of the largest family-owned businesses in the Netherlands, with operations in 58 countries and territories and holdings in transportation and oil, among other sectors.<sup>16</sup> But "at the moment, that's just not possible. It's an illusion to think that the world could do without oil and gas." Obi Ozor, founder of Nigeria-based logistics startup Kobo360, notes, "In Nigeria, trucks still spend up to six days in queue before they get inside a port. Now with the barges, you basically cut that time to two days. So we are actually beginning to reduce emissions, but it would be better if the roads to the ports weren't congested or prone to extortion."<sup>17</sup>

### Transparency and transformation.

Despite extraordinary challenges, 2020 brought a burgeoning number of net-zero commitments.<sup>18</sup> Although business participation continues to lag government targets, CEOs are pushing for greater reporting: When asked which areas of their business they should be doing more reporting on, 43% of CEOs chose environmental impact, the greatest share of any area. As management guru Peter Drucker purportedly said, "What gets measured, gets managed." If CEOs make their company accountable<sup>19</sup> — and start applying the same rigour typically reserved for financial reporting — more meaningful climate action should follow.

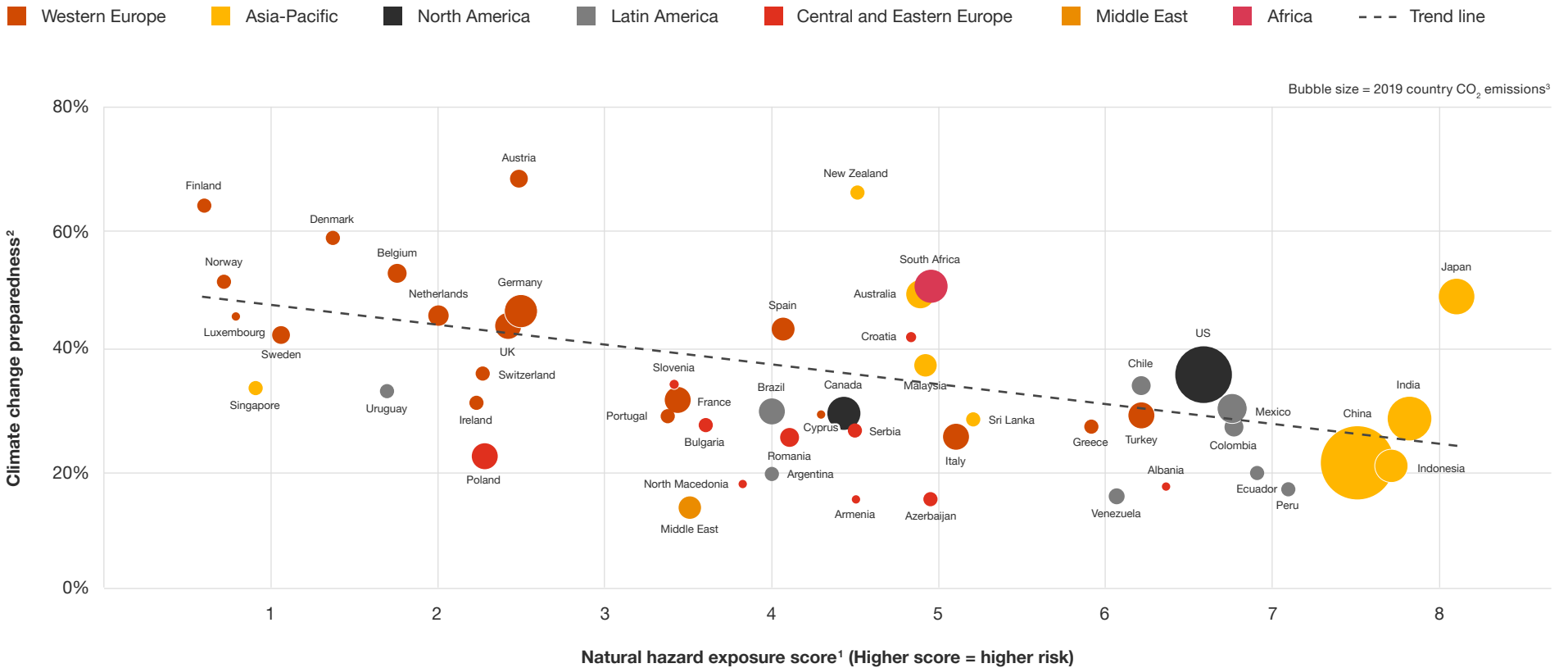


## Exhibit 4

# Companies in countries with the highest exposure to natural hazards are some of the least prepared for climate change risk

## Question

Is climate change and environmental damage explicitly factored into your strategic risk management activities?



Source: PwC 24th Annual Global CEO Survey; EC DRMKC 2021 INFORM Risk Index; Our World in Data

1) Natural hazard exposure score reflects the country's probability of physical exposure associated with specific hazards including earthquake, tsunami, flood, tropical cyclone, drought and pandemic

2) Share of CEOs that have factored climate change and environmental damage into their organisation's strategic risk management activities

3) 2019 country CO<sub>2</sub> emissions are measured in million tonnes



## Danger lurking online

In contrast with the slow ascent of climate concerns, cyber has fast become a major source of anxiety. Now the number two concern, it was cited by 47% of CEOs, compared with 33% last year. Among CEOs in North America and Western Europe, it was the top threat (see Exhibit 5, next page). Likely influencing the response was the uptick in [high-visibility cyberattacks](#)<sup>20</sup> during 2020, some revealed just weeks before our survey went out.

# 28%

**Share of global CEOs who are extremely concerned about misinformation, a 78% increase compared to 2020**

Cyber threat is the top concern for CEOs in the asset and wealth management, insurance, private equity, banking and capital markets, and technology sectors. Says [Uday Kotak](#), founder and CEO of India-based Kotak Mahindra Bank, “During COVID, we have witnessed increased fraud in the banking system. The thought of losing my customers’ money to theft is what keeps me up at night. So, while COVID has brought about a significant increase in digital adoption and transactions, it has also increased the risks associated with digital.”<sup>21</sup>

Also rising rapidly on the list of CEOs’ concerns is the spread of misinformation (28% are ‘extremely concerned,’ up from 16% in last year’s study), the recent impact of which on elections, reputations and public health has been profound. At its core, misinformation reflects today’s [historically low levels of trust](#).<sup>22</sup> For business leaders who need to build back this trust, being transparent about the efficacy of products and sharing data can help.

[Albert Bourla](#), chairman and CEO of US-based pharmaceutical company Pfizer—which partnered with the German firm BioNTech to develop one of the first vaccines to earn widespread regulatory approval—acknowledges the importance of transparency and trust in encouraging COVID-19 vaccination. “Let’s focus on getting as many people as possible vaccinated and generate data that will convince even the more sceptical.... We have to teach people that the decision not to take it isn’t a decision that will affect only themselves. It is a decision that will affect society.”<sup>23</sup>

### **The perils of corporate complexity.**

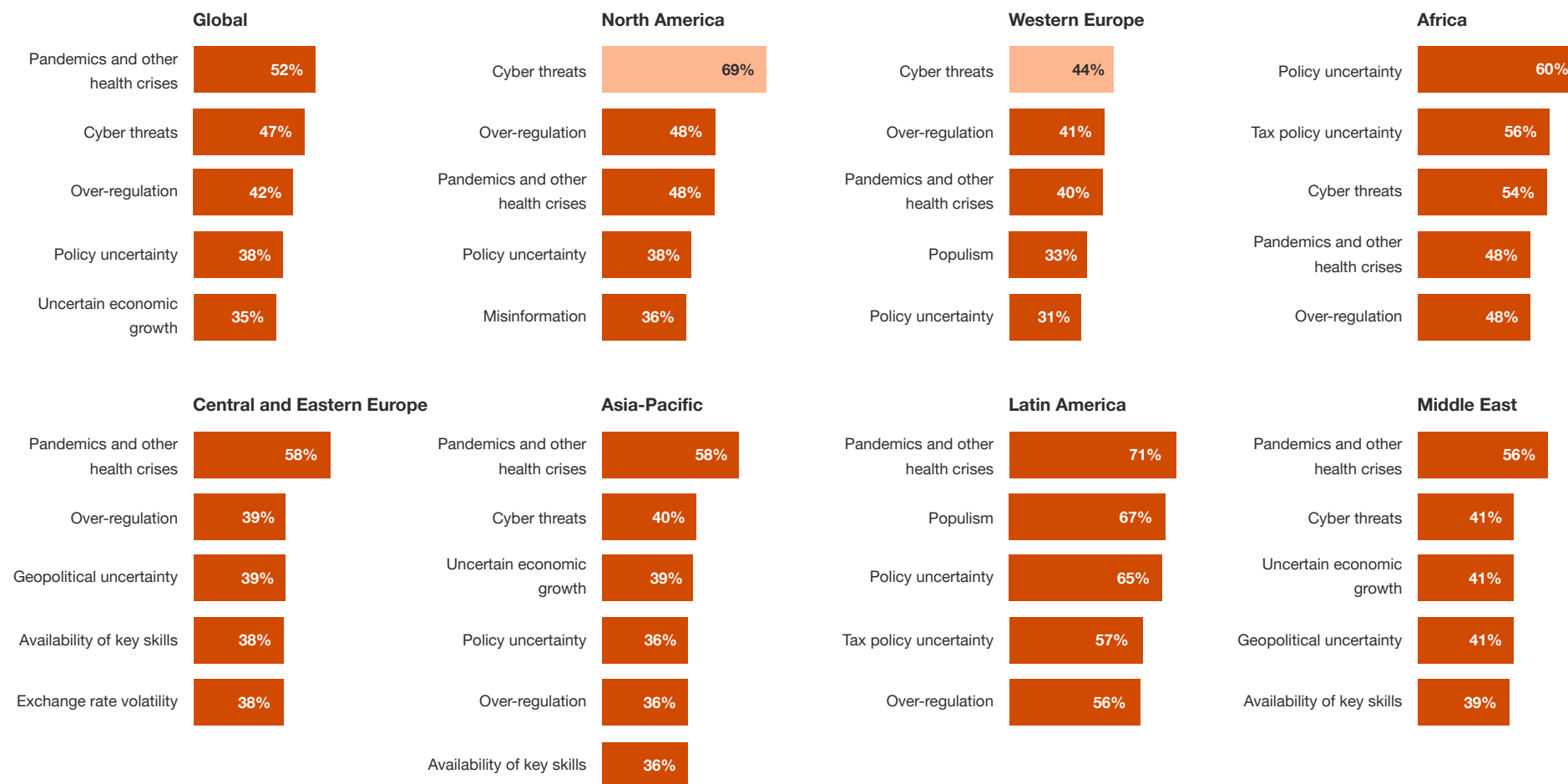
As companies expand their use of external partnerships to enable digital solutions and layer them onto legacy IT structures, the complexity created tends to generate ever-greater cyber risk. The temptation is to focus security efforts on risk dashboards, surveillance and technical initiatives. But leaders who are serious about cybersecurity also need to [embrace simplicity](#)<sup>24</sup> in their strategic dialogue about their business models, ecosystems and in-house processes.

## Exhibit 5

# For CEOs in North America and Western Europe, cyber is the top threat

## Question

How concerned are you, if at all, about each of these potential economic, policy, social, environmental and business threats to your organisation's growth prospects? (Showing only 'extremely concerned' responses)



Source: PwC 24th Annual Global CEO Survey

# Digital acceleration

The increase in CEOs' concern about cyber threats and misinformation coincides with the rapid acceleration of many companies' digital transformation during the pandemic—efforts that are not slowing down. “We were on our digitalisation journey before COVID-19, but now it has gained its own momentum,” notes Jeffri Salim Davidson, group CEO of Malaysia-based conglomerate Sime Darby Berhad, with holdings in heavy equipment, auto, healthcare and logistics. “In the past, we wanted to get everything 100% correct before we launched a digital product, but now it's a matter of getting it out there and refining it as we go.”<sup>25</sup>

Adds Blue Bird's Noni Purnomo, “People still need to move, and transportation is still needed—it's just they want to have it be as low touch as possible.

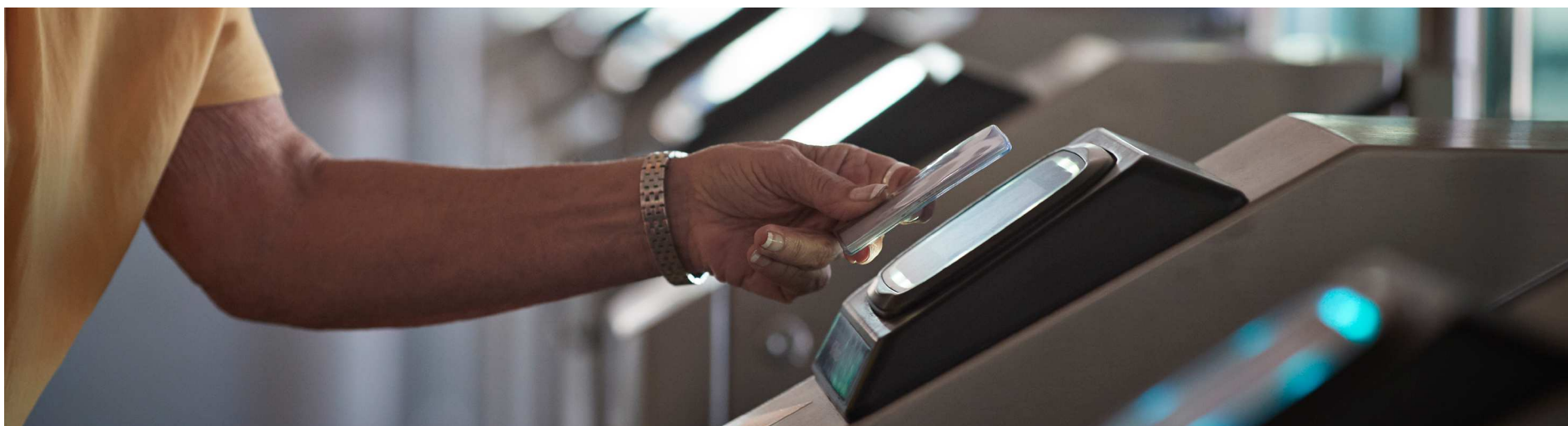
It's why we've been focusing on developing our reservation service, our e-money and the noncash payment service, both for our customers and for our own drivers.”

Nearly half of CEOs plan increases of 10% or more in their long-term investment in digital transformation (see Exhibit 6, next page). Paradoxically, despite the level of concern CEOs registered about cyberattacks, just under half of those planning for heightened digital investment are also planning to boost their spending on cybersecurity and data privacy by 10% or more. Today's digital focus contrasts with the situation in 2010, after the global financial crisis, when the biggest investment priority for CEOs in our survey was gaining cost efficiencies. Sage's Steve Hare captures today's urgency: “I think finally, and particularly among small

and medium-sized businesses, people realise that digital transformation is absolutely essential.... We need to invest.”

## Making the most of tech investment.

Quietly riding on the back of the pandemic-induced digital acceleration was a less-visible surge in the adoption of advanced analytics and artificial intelligence (AI) to inform decision-making. Partly as a result, the gap between AI leaders and laggards is widening, according to PwC research. Companies on the leading edge are more deeply embedding AI<sup>26</sup> in customer-focused applications, back-office applications and risk management—while addressing algorithmic bias so that stakeholders trust the outputs.

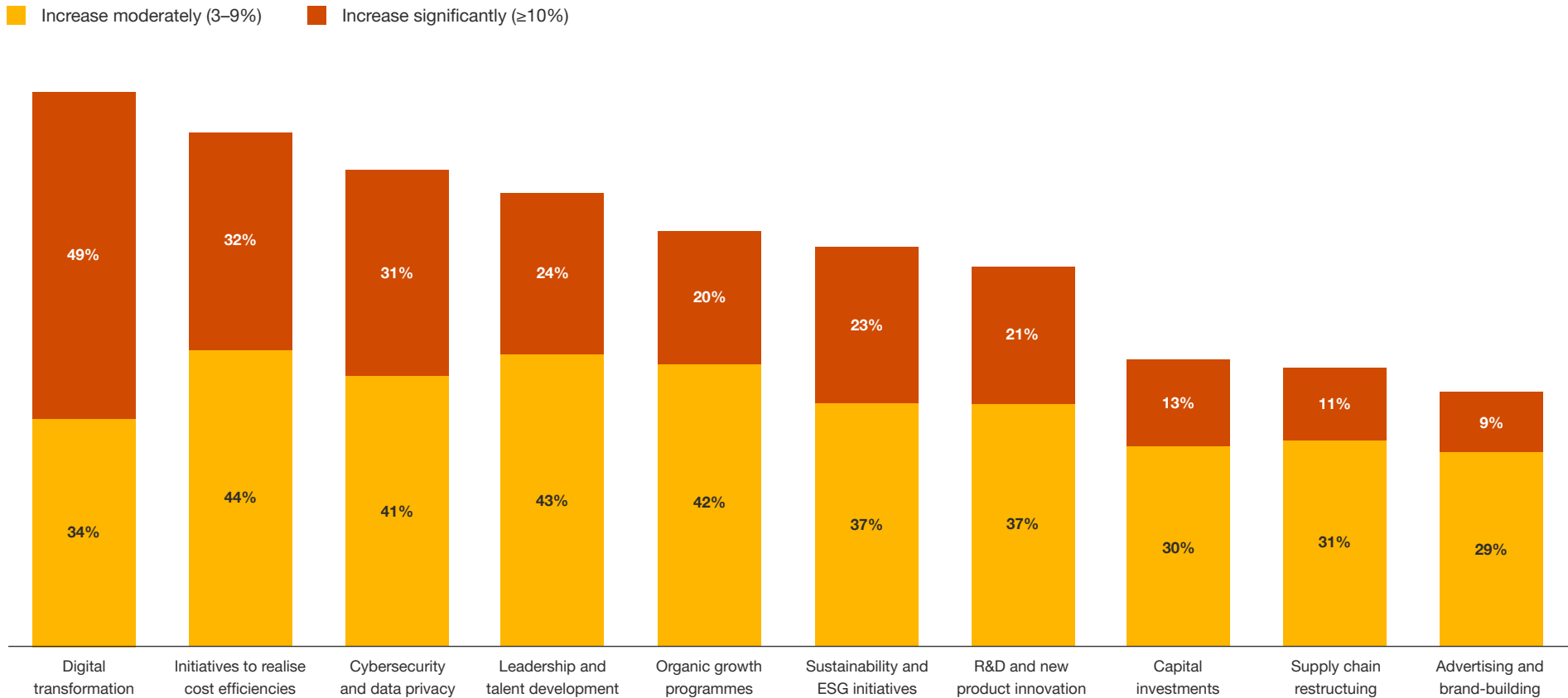


## Exhibit 6

# Nearly half of CEOs plan to increase their rate of digital investment by 10% or more

## Question

How do you plan to change your long-term investments in the following areas over the next three years, as a result of the COVID-19 crisis?  
(Showing only 'increase moderately [3–9%]' and 'increase significantly [ $\geq 10\%$ ]' responses)



Source: PwC 24th Annual Global CEO Survey



## People and productivity


When asked to prioritise the societal outcomes that business should help deliver, CEOs put the creation of a skilled, educated and adaptable workforce at the top of the list. At the same time, a growing number of CEOs are seeking to boost their organisation's competitiveness through digital investments in the workforce; 36% aim to focus on productivity through technology and automation, which is more than double the share of CEOs who said the same in 2016. Anecdotally, CEOs in a variety of industries have told us about their plans to incorporate or expand their use of automation.

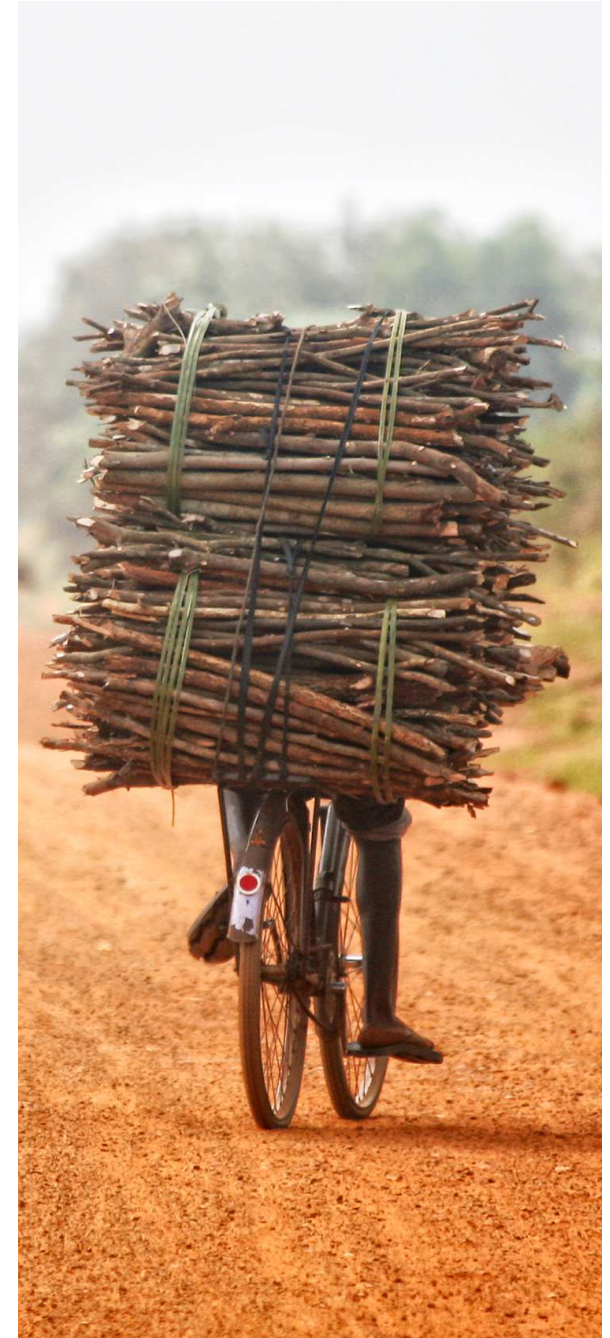
"It's about automating inspection: of the tracks, of the rail itself, of the rolling stock," says JJ Ruest, CEO of CN, a North American freight rail and transportation company based in Canada.

# 36%

**Share of CEOs focusing on productivity through automation and technology, a 124% increase compared to 2016**

"Historically, experienced people would do inspections and decide when it's time to do a repair. But now we want our people to be fixers, not finders." Wayne Peacock, CEO of US-based insurer USAA, explains that previously, "we would create a paper [claim] file, and then a few days later a person in the field would show up. Today, it is digitised all the way through. Now we're applying the capability to bring photos and images into the equation, and then use those images to calculate the cost of damage rather than having a human do it in person."<sup>27</sup>

 **Addressing asymmetries.** There is another side to this conversation, of course, as productivity through automation threatens to leave some behind. Although just 20% of CEOs are 'extremely concerned' about economic inequality as a threat to their growth prospects, the pandemic has amplified asymmetries among individuals, companies and countries, and has raised questions about how we can recouple social and economic progress. Upskilling or reskilling employees to enable their full participation in the workforce<sup>28</sup> means creating more inclusive and sustainable economies and societies that pull people along and catalyse deeper connections between humanity and the economic marketplace.






## Taxing times ahead

Increased productivity will be an important driver of economic recovery, but in the meantime, governments seeking to mitigate the impact of the pandemic both on the domestic economy and on individuals have taken on substantial debt.<sup>29</sup> It is perhaps no surprise, then, that tax policy uncertainty made a notable rise on the list of threats (it ranked seventh, up from 15th last year). CEOs are undoubtedly watching debts accumulate as governments intervene with stimulus packages, and realise that the public will expect business to pay its fair share.

Cross-border competition seems likely, as governments develop tax schemes to benefit their national interest—creating significant complexity for multinationals with global operations. “I’m pretty confident that in a couple of years’ time, the economy, by and large, will be back on its trajectory: less steep, less global and maybe less interwoven or more balanced,” says SHV Holdings’ Jeroen Drost. “I don’t think it will be completely back, because I think there will be a couple of fundamental changes in global trade. That has [mainly] to do with the impact of geopolitics, local politics, the closing of borders and introducing cross-border taxes.”

Platform-based companies, for example, which have profited during the pandemic,<sup>30</sup> could face rising digital taxes from multiple sources.

Moreover, greater tax transparency is coming; although already the norm in some parts of the world, this will represent a sea change in others. Anxiety and accountability for how much companies pay in taxes, and where they pay them, appear to be rising in tandem.

 **A new era of compromise.** The tone of taxpolicy discussion, especially during challenging economic times, tends towards the confrontational. But what we need right now is collaboration based on balance and fairness.<sup>31</sup> Balance is needed because tax is a global issue; it affects where countries invest, where companies operate and where people work. Fairness may get a boost from stakeholder capitalism metrics that set standards for tax contribution reporting: transparency goes a long way in building trust.

# 31%

**Share of CEOs who are extremely concerned about tax policy uncertainty, a 64% increase compared to 2020**

# Global nuance

As cross-border competition heats up global tax debates, CEOs foresee some cooling of global trade tensions. Both trade conflict and protectionism dropped on the CEO threat list, in relative and absolute terms.

But there’s considerable nuance behind that top-line story. Trade conflict still ranks as a top-ten threat in China and Germany, both of which depend on export-driven growth. In China, which has often found itself at the centre of debates, trade conflict is CEOs’ second-highest source of worry. It’s hard not to wonder whether fundamental tensions will reassert themselves as we move past the landmark moments, such as resolution of the US presidential election and of Brexit uncertainties, that immediately preceded our survey period.

It’s also important to recognise that trade patterns and partnerships are in flux. For example, CEOs in the US are reducing their emphasis on China as a growth driver, and increasing their focus on Canada and Mexico; compared to the findings in our last survey, US CEOs’ interest in the latter two countries rose by 78%.

Exhibit 7

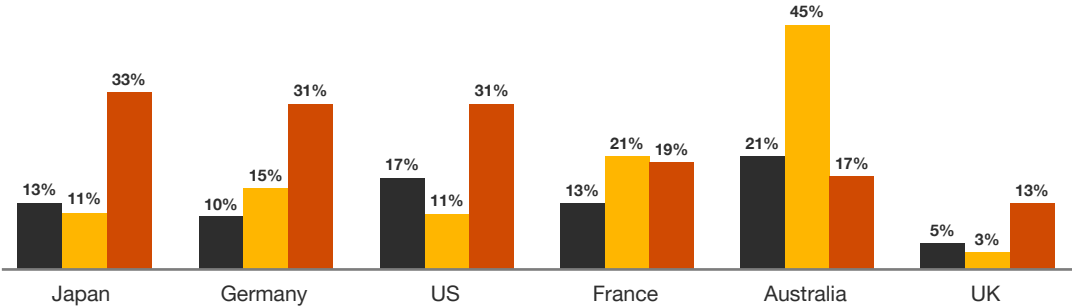
## China CEOs prioritise large economies for growth as US CEOs continue to pull away from China

### Question

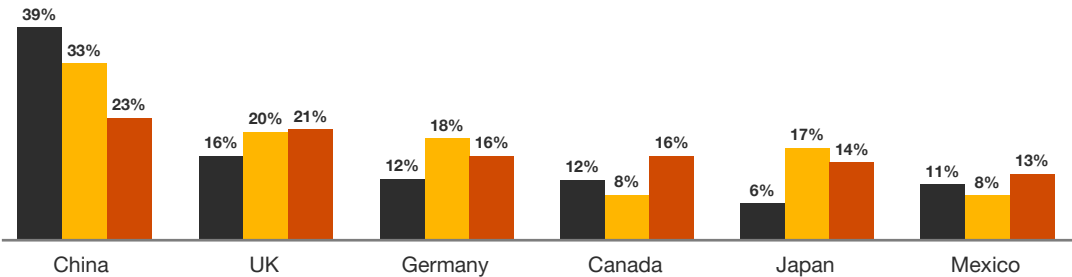
Which three countries/territories, excluding the country/territory in which you are based, do you consider most important for your organisation’s overall growth prospects over the next 12 months?

2019 2020 2021

### China CEOs



### US CEOs



Source: PwC 24th Annual Global CEO Survey  
Note: Showing only top six countries by 2021 rank for China and US CEOs



Those trends are contributing to a broader shift of the US extending its lead over China as global CEOs' most important growth destination. China CEOs, meanwhile, report growing interest in large economies such as Japan, Germany and the US—prime sources for exports (see Exhibit 7, previous page). The UK, post-Brexit, moved to the number four spot overall on the list of growth destinations, surpassing India. And in recent months, we've seen the emergence of new trade agreements, such as the Regional Comprehensive Economic Partnership (RCEP) in Asia, that could have a deep impact.<sup>32</sup>

 **Is localisation the new globalisation?** Given today's uncertainty, leaders must be prepared to rethink their supply chains, and to develop the ecosystems necessary to make localisation succeed.<sup>33</sup> On what is an already crowded agenda, in other words, CEOs need to understand the implications of policy changes, and to take a more selective approach to new market entry, investing internationally only if they have the acumen and capabilities to compete in a more geopolitically charged world.

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**At the global pandemic's one-year mark, CEOs believe we are turning a corner—both in the world's economic trajectory and in their own possibilities for reinventing the future. Seizing that potential will require building the trust and delivering the sustained outcomes that a weary world is yearning for.**



# Survey methodology

PwC surveyed 5,050 CEOs in 100 countries and territories in January and February of 2021. The global and regional figures in this report are based on a sub-sample of 1,779 CEOs, proportionate to country nominal GDP to ensure that CEOs' views are representative across all major regions. The industry- and country-level figures are based on the full sample of 5,050 CEOs. Further details by region, country and industry are available on request. Ninety-three percent of the interviews were conducted online and 7% by post, by telephone or face-to-face. All quantitative interviews were conducted on a confidential basis.

Among the 1,779 CEOs whose responses were used for the global and regional figures:

- 6% of their organisations had revenues of US\$25bn or more.
- 9% of their organisations had revenues between US\$10bn and US\$25bn.
- 35% of their organisations had revenues between US\$1bn and US\$10bn.
- 34% of their organisations had revenues between US\$100m and US\$1bn.
- 14% of their organisations had revenues of up to US\$100m.
- 60% of their organisations were privately owned.

## Notes:

- Conducting fieldwork in January and February of 2021 represents a shift from our historical approach. Typically, PwC surveys chief executives for its Annual Global CEO Survey between September and November, and then releases its report in January of the following year. Given global complexities in the fall of 2020, including pandemic surges, late-stage vaccine trials and several disruptive geopolitical events, we moved the fieldwork in an effort to create a dataset that would be meaningful and enduring.
- Not all percentages in charts add up to 100%, as a result of rounding percentages and the decision in certain cases to exclude the display of 'neither/nor,' 'other,' 'none of the above' and 'don't know' responses.
- Percentage differences cited in this report are calculated using full percentage values, not the rounded values that are displayed in the exhibits.

We also conducted in-depth interviews with CEOs from six regions. Some of these interviews are quoted in this report, and more extensive transcripts can be found on our website at [strategy-business.com/mindofthecio](https://strategy-business.com/mindofthecio).

The research was undertaken by PwC Research, our global centre of excellence for primary research and evidence-based consulting services.

<https://www.pwc.co.uk/pwcresearch>



# End notes

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# PwC network contacts

**Bob Moritz**

Chairman of the PwC Network  
+1 646 471 8486  
robert.moritz@pwc.com

**Kevin Ellis**

Senior Partner and Chairman  
PwC UK  
+44 20 7804 4102  
kevin.ellis@pwc.com

**Harald Kayser**

Senior Partner and Chairman  
PwC Europe SE  
+49 69 9585 2065  
harald.kayser@pwc.com

**Raymund Chao**

Chairman  
PwC in Asia-Pacific and Greater China  
+86 10 6533 5720  
raymund.chao@cn.pwc.com

**Tim Ryan**

Senior Partner and Chairman  
PwC US  
+1 646 471 2376  
tim.ryan@pwc.com

**Richard Oldfield**

Global Markets Leader  
+44 75 9585 0807  
richard.oldfield@pwc.com

**Kevin Burrowes**

Global Clients and Industries Leader  
+44 75 9035 3852  
kevin.j.burrowes@pwc.com

**Bill Cobourn**

Global Chief Marketing Officer  
+1 646 471 5750  
william.cobourn.jr@pwc.com

**Michael Stewart**

Global Corporate Affairs and  
Communications Leader  
+44 79 4640 1450  
michael.x.stewart@pwc.com

**Allen Webb**

Global Integrated Content Leader  
+1 206 579 7111  
allen.webb@pwc.com

**Honor Mallon**

Global Lead for PwC Research  
+44 78 4195 4129  
honor.mallon@pwc.com

**Global CEO Survey  
content team**

Libby Boswell, research and analytics  
elizabeth.s.boswell@pwc.com

Laura Geller, editorial  
laura.geller@pwc.com

Spencer Herbst, research  
and analytics  
spencer.herbst@pwc.com

Elizabeth Johnson, editorial production  
elizabeth.johnson@pwc.com

Catherine Moore, research  
and analytics  
catherine.moore@pwc.com

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