

2022 Geostrategic Outlook

How to thrive in a turbulent 2022

December 2021

The EY logo consists of the letters 'EY' in a bold, white, sans-serif font. A yellow triangle is positioned above the 'Y', pointing to the right.

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About the Geostrategic Outlook

The annual *Geostrategic Outlook* presents analysis by the EY Geostrategic Business Group (GBG) on the global political risk environment in the year ahead. The GBG defines political risk as the probability that political decisions, events or conditions at the geopolitical, country, regulatory or societal level will impact the performance of a company, market or economy. Importantly, this definition of political risk includes both challenges and opportunities for global organizations, creating an imperative to develop more strategic approaches to managing political risk.

Scanning the external environment to identify such political risks is the first step in implementing a geostrategy (see Figure 1). To select the top 10 geopolitical developments in the 2022 Geostrategic Outlook, the GBG first conducted a horizon scanning exercise to identify potential political risks. This scan encompassed the four categories of political risk in the geostrategy framework – geopolitical, country, regulatory and societal – throughout all regions of the world. The GBG then crowdsourced the identification of additional developments among dozens of EY leaders across the globe, as well as political

risk experts in other organizations. Finally, the GBG assessed all of the potential geopolitical developments along two dimensions: their probability of occurring and the degree to which they would impact companies across sectors and geographies globally. The top 10 developments included in this *Outlook* are those that were assessed to be both high probability and high impact.

While the analysis in the 2022 Geostrategic Outlook emphasizes the “scan” aspect of the geostrategy framework, it also includes an assessment of the impact of each political development on specific business functions (“focus”). In addition, the GBG includes potential actions that executives can take to manage each geopolitical development in a strategic and proactive manner (“act”).

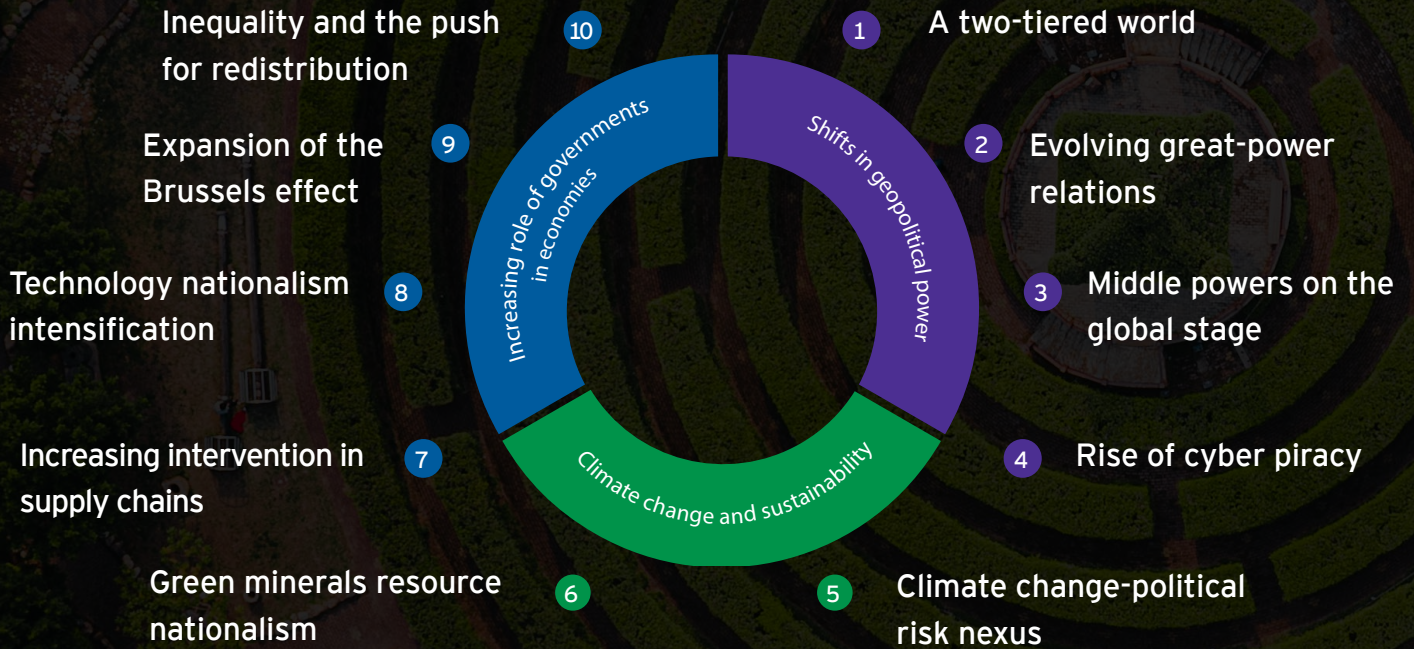
Executives who implement this three-part geostrategy framework for all of the top 10 geopolitical developments in the *2022 Geostrategic Outlook* – as well as any other developments of particular relevance for their companies – are likely to enjoy greater enterprise resilience in the year ahead.

Figure 1: Scanning the external environment for political risks is the first step in implementing a geostrategy.

EY geostrategy framework



Click on each development name to read more.



Three themes emerge

The COVID-19 pandemic has once again been the defining feature of the past year. But the focus shifted from purely public health to also include concerns about pandemic-induced mismatches in supply and demand in everything from semiconductors and energy to labor. Part of the reason for these mismatches has been the differing speeds of economic reopening and recovery in markets around the world.

This dynamic will persist in 2022 as disparities in vaccine access perpetuate a two-tiered world – which is the top geopolitical development for the year ahead. In fact, many of the developments in the 2022 *Geostrategic Outlook* are evolutions of the developments highlighted in last year's *Geostrategic Outlook* (see Figure 2). The two-tiered world will both shape geopolitical dynamics and play out in domestic political and policy consequences, prompting companies to rethink their supply chains, revenue prospects, human capital strategies and reputational risks.

In the two-tiered world, three themes will define the geostrategic environment in which companies will operate.

The first geostrategic theme in 2022 will be continued shifts in geopolitical power and the international system. The **two-tiered world** will contribute to these shifts. So too will **relations among the great powers** – the US, EU and China – which will be somewhat inwardly focused while also competing with each other for global influence. These great-power dynamics are creating a multipolar system in which a variety of **middle powers** will play a larger role in their regions and on the global stage, with those in the Indo-Pacific likely to be particularly influential in the year ahead. Further complicating the geostrategic environment, **cyber attacks and cybersecurity** will be a geopolitical flashpoint among both great and middle powers.

Climate change and sustainability issues permeating policy agendas and political developments in markets around the world are the second geostrategic theme of 2022. At a macro level, the **nexus between climate change and political risk** will become more apparent throughout the year as governments prioritize policies to mitigate near-term climate change impacts and accelerate the energy transition – while also figuring out how to pay for it. A crucial component of these policy efforts will relate to so-called **green minerals** – metals and minerals needed for renewable energy production and storage – and, as such, resource nationalism is likely to become more prevalent in many markets.

Third is the increasing role of governments in driving and directing economic activity within their countries through industrial policies and other mechanisms. This will in many ways be a continuation of the “rise of neo-statism” development highlighted in the 2021 *Geostrategic Outlook*. In the coming year, government focus will intensify on the **technology sector, supply chains** more broadly and **redistributive social policies**. And the EU will play a large role in driving global regulatory standards in many of these areas.

Figure 2: Some developments from the 2021 *Geostrategic Outlook* will continue to evolve in 2022.

Related top 10 political developments

2021		2022
Geopolitics of COVID-19	→	A two-tiered world
Disentangling US-China interdependence	→	Evolving great-power relations
Toward European strategic autonomy	→	Expansion of the Brussels effect
Neo-statism on the rise	→	Increasing intervention in supply chains
Reinvigorated climate policy agendas	→	Climate change-political risk nexus
Geopolitics of technology and data	→	Technology nationalism intensification
US policy realignment		
Tipping point for emerging market debt		
Geopolitical dynamics in the Indo-Pacific	→	Middle powers on the global stage
Another wave of social unrest	→	Inequality and the push for redistribution

Source: EY Geostrategic Business Group.

Geostrategic actions to thrive in 2022

All of these geopolitical developments pose both challenges and opportunities for global organizations. For instance, although developments related to the increasing role of governments in economies may create challenges for cross-border transactions and supply chains, they also create new opportunities for domestic companies in affected markets. And while the two-tiered world poses a variety of business and policymaking challenges, it also provides an opportunity for companies to integrate environmental, social and governance (ESG) into strategy aimed at sustainable long-term value creation. To thrive in the two-tiered world, companies will need to develop more strategic approaches to managing political risk.

Each of the themes for 2022 – and the specific geopolitical developments within them – will affect companies in different ways and will therefore necessitate specific [geostrategic actions](#) to capitalize on the opportunities they present while also mitigating the challenges they pose. There are five broad geostrategic priorities executives can implement to help their companies thrive in the two-tiered world in which they will operate in 2022:

1. Transform supply chains to match geopolitical realities. Geopolitical dynamics and the push by many governments to achieve self-sufficiency in strategic products will complicate traditional cross-border supply chains. Technology companies, manufacturers, automakers, life sciences companies and renewable energy companies are likely to be most affected by these policy dynamics. Continued disruptions to operations and logistics – driven by the pandemic, social unrest, cyber attacks and extreme weather events – will further complicate global supply chains. Executives can seize the opportunity to re-examine their companies' [supply chains](#) for nearshoring, onshoring or friendshoring strategies to improve resilience. The introduction of supply chain due diligence regulations will likely also prompt a reassessment of suppliers and could provide both upside and downside reputational risks. Executives can therefore examine their supply chain partners and the potential risks they pose as part of a [multidimensional risk assessment](#).

2. Make political risk central to acquisition and divestment strategies. Global M&A activity was booming for much of 2021 and the global economy is expected to grow robustly in 2022, providing strategic transactions opportunities to companies across sectors. Executives can anticipate potential geostrategic complications by incorporating political risk assessments into their [transactions due diligence](#). For instance, sectors deemed strategic will likely face limitations on or rejections of cross-border investment, but domestic M&A that creates a more competitive company on the global stage may be encouraged. Antitrust actions in a variety of markets may weaken the likelihood of certain M&A approvals, though, particularly in the technology sector. Executives can use the opportunities provided by the current economic and deals environment to reassess their companies' strategic footprints to improve [resilience against current geopolitical developments](#).

3. Strengthen data management and digital security. The proliferation of regulations surrounding data security and privacy in key markets, including residency and localization requirements, will continue to increase the cost and risk of sharing data across borders. Executives should scan the horizon for potential future shifts. Then they can align their companies' strategies and business models according to country-specific regulations to avoid any [compliance](#)

[issues](#) and gain competitive advantage. Certain companies – including those in the technology sector and those engaging in M&A transactions – will likely be at heightened risk of cyber attack. Software providers may continue to be in the crosshairs, as they offer hackers a means of distributing malware to a large number of organizations. Ensuring companies have strong cyber defenses and [data protection systems](#) in place can help win the trust of customers, employees and other stakeholders.

4. Protect and grow talent pools. The so-called Great Resignation and continued restrictions on [international labor mobility](#) due to the pandemic mean that executives may need to innovate on how their companies attract and retain talent. For instance, sustainability and human rights diligence provides executives with the opportunity to engage and build trust among employees around these issues. In the long term, more supportive government policies in the health and education sectors could lead to improved human capital and reduced costs for companies. Executives can work with policymakers to reduce income inequality and promote [inclusive growth](#), such as through job creation programs for the long-term unemployed, stronger diversity and inclusion programs, and upskilling opportunities.

5. Create sustainable value for all stakeholders. Evolving great-power relations and the expanding role of middle powers could complicate stakeholder management, given the potential for conflicting views from a wider group of country-level policymakers. However, having more stakeholders at the table also provides companies with additional opportunities to engage. The two-tiered world and increasing stakeholder expectations regarding sustainability and broader ESG issues provide the opportunity for a strategic shift. Executives can develop and leverage relationships with all stakeholders – including policymakers, investors, employees, customers and others – to support policies that reduce the divergences in a two-tiered world and promote [sustainability](#) and [long-term value](#) globally. Localized [stakeholder relationship management](#) will be important to gaining competitive advantage in all markets in which companies operate.

1. A two-tiered world

After a sense of global solidarity in the first phase of the pandemic, a widening divide emerged in 2021 between countries with access to COVID-19 vaccines and those without. For instance, while almost two-thirds of EU residents have been **fully vaccinated**, less than one-quarter of people in Association of Southeast Asian Nations (ASEAN) member countries have been (see Figure 3). This divergence has created a two-tiered world in terms of public health, **economic recovery** and political stability. It has also exacerbated geopolitical tensions between developed and emerging markets, especially as fewer than 450 million doses have been administered via the **COVAX initiative** – compared with the initial goal of **2 billion doses available** by the end of 2021.

Government policies will perpetuate this two-tiered world in 2022. Developed markets will focus on expanding the proportion of their populations that are fully vaccinated and will continue to pursue controversial **booster shot programs**. The US and EU will also continue to vaccinate children younger than 12, and more governments may follow suit. At the same time, developed markets will continue vaccine diplomacy efforts with certain emerging markets – although the COVAX initiative will likely remain under resourced despite increasing calls to make vaccine access more equitable globally. India and South Africa will join China and Russia in exporting more vaccine doses to other emerging markets, but many national vaccination efforts will continue to be hampered by logistics issues. And in both developed and emerging markets, **vaccine hesitancy** could help give rise to new variants.

Differences in vaccination rates will translate into divergent economic outcomes. Developed and emerging market economies alike are forecast to continue expanding in 2022. But while the International Monetary Fund (IMF) forecasts that economic output in developed markets **will return to pre-pandemic trends** by 2022, output in emerging and frontier markets is expected to remain weaker for several years. The emerging markets likely to fare particularly poorly in 2022 include those with fewer supply chain links to developed markets, under greater sovereign **debt stress** or heavily dependent on tourism revenue. Anticipated **interest rate tightening** by central banks in developed markets in response to continued high inflation could also exacerbate financial challenges in emerging markets.

Another area of divergence will be political stability. While political instability could occur in any country that faces new pandemic restrictions – such as in response to new variants like Omicron – such instability is more likely in markets that continue to have low vaccination rates and weak economic growth. Incumbent governments are likely to come under pressure – either at the ballot box or on the streets – which would lead to policy and regulatory shifts as well. After more than **5,000 pandemic-related violent incidents** in the first 16 months of the pandemic, social unrest is also likely in these countries as populations demand more government actions to address the pandemic and associated challenges – which will only further **hurt economic prospects**.

This two-tiered world will likely exacerbate geopolitical tensions and intensify the sense among many that the multilateral system is broken. This situation risks further dividing the world into **developed and emerging blocs** on a variety of crucial issues. Efforts to enhance the trust in and relevance of the World Trade Organization (WTO) and the credibility of the IMF could also be casualties of these tensions. And continued skepticism about the climate financing that developed countries pledged for developing countries at the 2021 United Nations climate change conference (COP26) could further erode trust.

Business implications

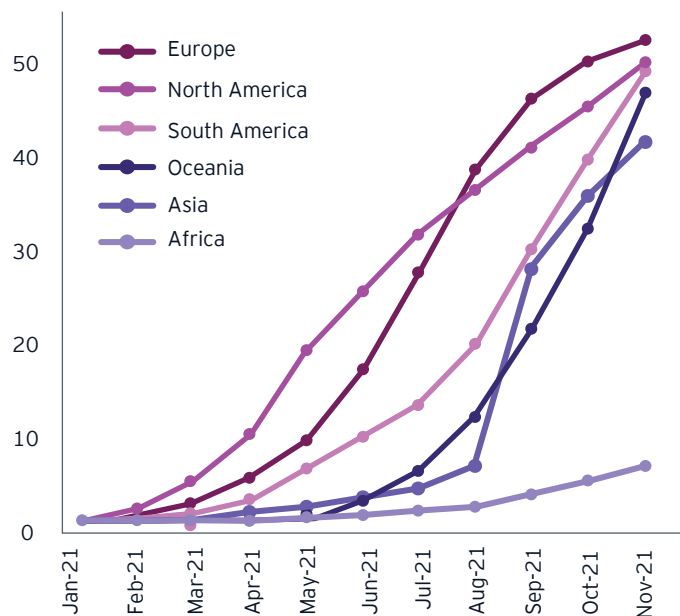
- ▶ **Companies' revenue growth prospects will diverge.** In markets with high vaccination rates, the opportunity for revenue growth will strengthen in the short term. Opportunities are likely to be particularly strong in sectors that were most negatively affected by the pandemic, such as hospitality and retail. In contrast, revenue growth is likely to be weak in markets with low vaccination rates, due to a combination of subdued consumer demand, potential lockdowns or other pandemic containment policies, and sociopolitical instability. Companies can better anticipate these divergences by assessing how **consumer preferences and spending patterns** may be shifting in the two-tiered world.
- ▶ **Global operations and supply chain disruptions will persist.** As demand growth continues to accelerate in many developed markets, while most emerging markets grapple with pandemic-induced economic disruptions, cross-border operations, supply chains and logistics will face persistent challenges globally. Shortages of manufactured goods – both inputs and final products – are likely to remain common, as are high costs and delays associated with international shipping and port clearances. In this environment, companies that prioritize developing supply chain resiliency – for instance through networked ecosystems or end-to-end transparency – are likely to outperform their competitors.
- ▶ **A less globalized labor market will necessitate human capital strategy changes.** Short-term talent shortages could persist in markets that continue to bounce back from the pandemic, particularly if these countries also constrain inward migration. Companies may need to become more innovative in how they attract and retain talent. In countries still in the throes of dealing with COVID-19, labor market disruptions may continue to occur amid new outbreaks. And in the long term, the loss of years of education and job training will likely hinder human capital development and productivity growth.
- ▶ **Reputation management will become more important for multinational companies.** Companies that operate in both parts of the two-tiered world could face reputational risks arising from their employees and customers if they do not actively manage these issues. Within companies, cross-border communications and policies will need to recognize the different pandemic environments in which their employees currently operate. And if Western-based multinational companies are perceived to be linked to their home country governments' unpopular pandemic policies, the appeal of their brands could wane in some emerging markets.

Recommended actions

- ▶ Support policies that reduce the divergences in a two-tiered world and promote **long-term value** globally.
- ▶ Enhance data collection and analysis across the **supply chain** to identify shortages and delays sooner and improve resilience.
- ▶ Determine how consumer needs may diverge in key markets and adjust sales targets and **strategic plans** accordingly.
- ▶ Identify potential international **labor mobility** and other cross-border and domestic solutions to plug talent gaps.
- ▶ Engage in proactive and localized **stakeholder relationship management** in all markets in which the company operates.

Figure 3: Pandemic fortunes began to diverge dramatically in 2021 as a result of vaccine access.

Percentage of people fully vaccinated



Source: Our World in Data COVID-19 data set, accessed 15 November 2021.

2. Evolving great-power relations

The global operating environment is being defined in large part by the competition and cooperation between the three major geostrategic actors: the US, EU and China. The EU's relationship with China became more complicated in 2021 as the promise of the EU-China Comprehensive Investment Agreement (CAI) faded because of issues in China's Xinjiang province, while efforts to further partner with the US yielded mixed success. The US reaffirmed its competitive stance vis-à-vis China while increasing its security and diplomatic presence in the Indo-Pacific, even as it sought to rebuild transatlantic ties. And China grew more domestically focused throughout the year.

Domestic political dynamics will continue to influence the trajectory of great-power relations in 2022. The US will likely turn inward as the congressional midterm elections approach in November. In China, the 20th National Congress of the Chinese Communist Party (CCP) scheduled for the second half of 2022 will shake up the top echelon of Chinese politics. The emerging emphasis on domestic political and economic transformation, even at the potential cost of higher economic growth, will continue through the "common prosperity" agenda and indigenous innovation. And in the EU, though France will be distracted by its presidential election in April, it will use its EU presidency in the first half of the year to accelerate the push toward EU strategic autonomy. The focus of this initiative will be on the EU's role in the world, but Brussels' ambitious regulatory agenda may pull attention toward intra-bloc negotiations as well.

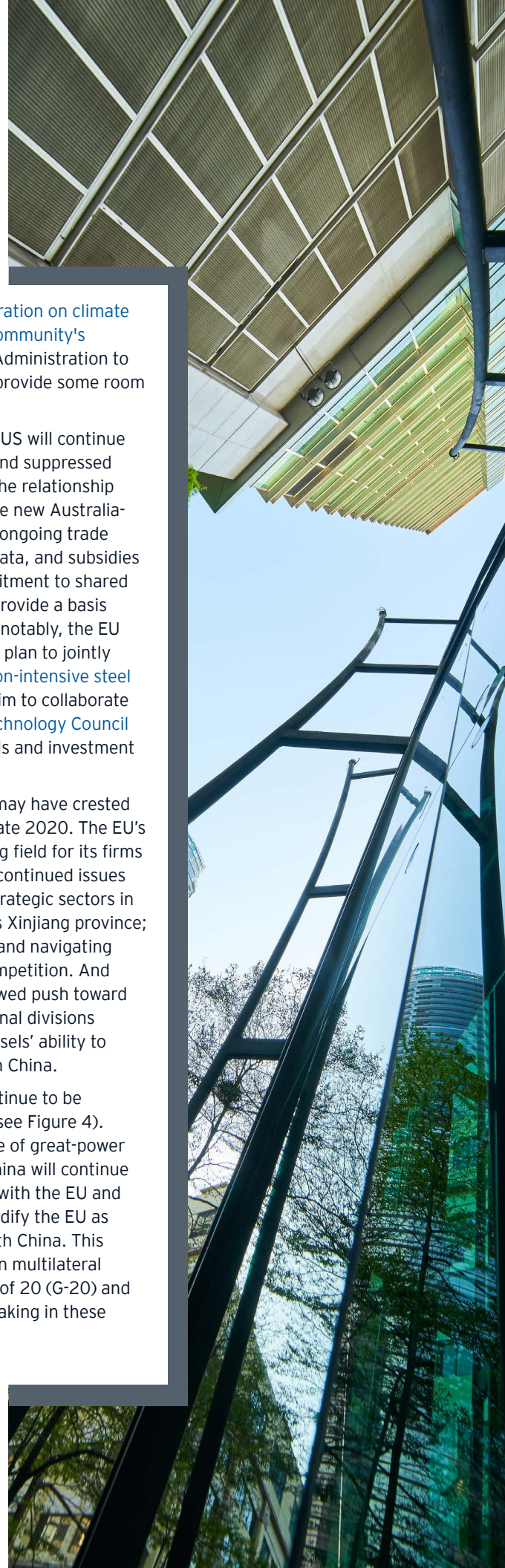
Partly because of these domestic political dynamics, the US-China relationship is expected to remain tense across a range of issues including trade, technology, industrial policy and areas of Chinese sovereignty. The breadth of bilateral competition, somewhat limited communication and continued actions that are perceived as threatening the other's red lines will make it difficult for either government to be seen as

compromising. Recent [collaboration on climate change](#) and the [US business community's](#) continued push for the Biden Administration to engage more with China may provide some room to maneuver.

Relations between the EU and US will continue to have their own challenges and suppressed tensions, particularly around the relationship with China, the dynamics of the new Australia-UK-US (AUKUS) security pact, ongoing trade restrictions on areas such as data, and subsidies in the aviation sector. A commitment to shared liberal democratic values will provide a basis for cooperation, though. Most notably, the EU and US will progress with their plan to jointly apply trade measures on [carbon-intensive steel and aluminum](#). And they will aim to collaborate through the new [Trade and Technology Council](#) in areas such as export controls and investment screening.

EU-China economic relations may have crested with the signing of the CAI in late 2020. The EU's desire to achieve a level playing field for its firms in China will be challenged by continued issues over Chinese investments in strategic sectors in the EU; the situation in China's Xinjiang province; areas of Chinese sovereignty; and navigating Sino-American geopolitical competition. And though the EU will lead a renewed push toward a more unified approach, internal divisions will continue to challenge Brussels' ability to operationalize its [strategy](#) with China.

All three great powers will continue to be interconnected economically (see Figure 4). But the EU will be in the middle of great-power geopolitical competition, as China will continue to try to find common ground with the EU and the US increases efforts to solidify the EU as a partner in its competition with China. This competition will also play out in multilateral institutions such as the Group of 20 (G-20) and WTO, complicating decision-making in these groups.

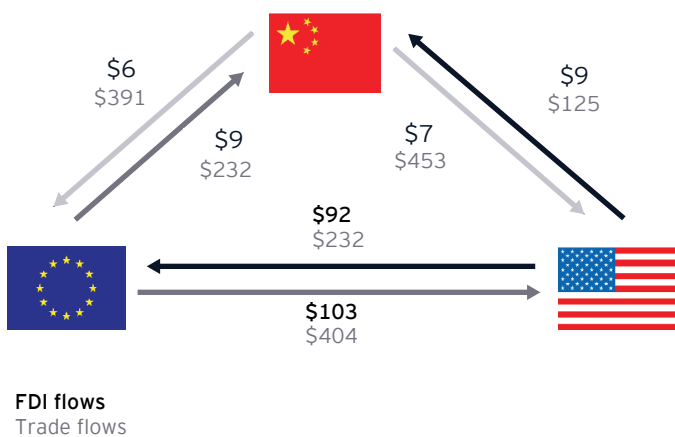


Business implications

- ▶ **Strategic sectors are likely to have more opportunities at home than abroad.** Sectors deemed strategic for economic or national security reasons include semiconductors, computer and telecommunications equipment, electric vehicles (EVs), pharmaceuticals and critical infrastructure – as well as the extended supply chains for each of these sectors. Impacts in sectors considered strategic are likely to include increased government intervention in their supply chains, limitations on or rejections of cross-border investment, export controls, restrictive trade measures and increased regulatory scrutiny. For these reasons, companies’ growth opportunities domestically – or in other countries within their home markets’ sphere of influence – are likely to outweigh those in other great powers.
- ▶ **Scrutiny of cross-border supply chains could provide nearshore suppliers growth opportunities.** Companies with cross-border supply chains, particularly those operating in the EU, will face increasing demands for supply chain transparency and due diligence. The US will continue to restrict imports from sectors and geographies with which it has concerns with forced labor, such as the apparel and polysilicon sectors in China’s Xinjiang province. And the EU’s supply chain due diligence directive would require the expansion of companies’ efforts to monitor ESG issues across their entire global supply chains. With great-power politics complicating multilateral action, it is unlikely the WTO could help resolve or standardize these policies. Nearshoring or onshoring may therefore become more attractive, providing growth opportunities for suppliers in those markets.
- ▶ **Cross-border data flows and management will be more complicated.** Cross-border movement of data will also continue to be restricted or subject to further regulation. The US and the EU are still working to resolve Privacy Shield issues, and China’s Data Security Law will further restrict the movement of data across borders. And with several EU countries continuing to pursue digital service taxes, digital platforms and their cross-border sales could face higher operating costs. Such companies will also continue to be subject to competition scrutiny for various business practices across multiple markets.
- ▶ **Companies operating across major powers will need strategic reputation management.** Chinese companies seeking to operate or raise capital in the US may face regulatory and reputational challenges at home. And US firms operating in China are likely to find it increasingly difficult to navigate between the two markets, with corresponding increases in reputational risk. Many companies are likely to seek to manage these reputational risks rather than exit the market because of mitigating factors such as the extensive economic network between the two countries, the continued strength of China’s production ecosystem and the lack of comparable manufacturing alternatives. Doing so successfully will require a strong understanding of the political dynamics in each market – and could provide companies with a strategic advantage over their competitors.

Figure 4: Great powers' economic interconnectedness contributes to – and complicates – geopolitical relations.

Bilateral foreign direct investment (FDI) and merchandise trade flows (USD billion)



Recommended actions

- ▶ Build **supply chain resiliency** and agility in the face of ongoing trade restrictions and other potential economic restrictions imposed as a result of great-power competition.
- ▶ Re-evaluate your company's strategic footprint and planned investment and **M&A activities** to take geopolitical developments into consideration.
- ▶ Reimagine the **corporate trade function** to improve the firm's ability to respond to geopolitically-driven trade disruptions.
- ▶ Prepare **mitigation strategies** for managing tariff or tax exposures when geopolitical disputes arise.

Source: World Trade Organization, United Nations Conference on Trade and Development, Rhodium Group, EY analysis.

Note: All data is the latest available (usually 2020).

3. Middle powers on the global stage

Middle powers – countries that shape geopolitics within their regions or globally in collaboration with others but lack the capabilities associated with superpowers – are playing a more significant geopolitical role as a multipolar world solidifies. Many are G-20 members and wield influence in that forum (see Figure 5). In 2021, three of the G-20 middle powers – Japan, Australia and India – accelerated collaboration with the US on their shared goal of a “**free and open Indo-Pacific**.” In addition, early vaccine rollouts by middle powers such as Israel, Chile and Singapore were used to generate insights and influence on COVID-19 management globally.

Middle powers will expand their geostrategic influence in 2022. This is in part because of the great powers being somewhat internally focused, meaning they need partners with which to collaborate internationally. Great powers’ focus on one another also offers opportunities for middle powers to play a more active geopolitical role in their respective regions. The middle powers best positioned to exert more power in 2022 are those that successfully manage COVID-19, as the rest will likely remain focused on domestic matters.

The Indo-Pacific will continue to be the foremost arena in geostrategic competition, so middle powers in this region will be most consequential in 2022. Japan, under a new prime minister, will leverage its trade relationships and international development programs **throughout Asia**. Australia will continue to bolster traditional alliances, such as through **AUKUS**. And India will leverage its “**Act East Policy**” to engage ASEAN, a priority in the wake of the 2020 border skirmishes with China. ASEAN countries, meanwhile, will pursue economic relations with one another and other middle powers as a hedge against overdependence on either the US or China.

Among European middle powers, the UK will continue to pursue “**Global Britain**” as it seeks to sustain the leadership momentum it gained hosting the Group of Seven (G-7) and **COP26** summits in 2021. In contrast, Russia will exert its power primarily in its near-abroad, continuing to expand its **security presence throughout Central Asia**. Moscow’s activities in Eastern Europe will continue to raise tensions with the US and EU, though.

Canada is the only middle power in the Americas positioned to expand its influence, with the biggest impact likely in international climate policy. Its “**Feminist International Assistance Policy**” may also open a new global leadership role for Ottawa. In contrast, Mexico and Brazil will play limited geopolitical roles as both are facing challenges of **COVID management**, stagnating economic growth and persistent security issues.

Washington’s de-prioritization of the Middle East enables the further development of intra-regional power dynamics. Saudi Arabia’s pre-eminent position among the Arab states is acknowledged throughout the Gulf Cooperation Council region, but the smaller countries, particularly the United Arab Emirates and Qatar, will continue to chart independent positions on selected issues. And Turkey’s domestic concerns – including **high inflation**, a depreciating lira and migration – will preoccupy Ankara and likely lead to foreign policy actions that put it at odds with the US and EU.

Africa will also lack a unifying middle power in 2022, although South Africa will continue to use its prominence in global forums to highlight disparities in access to vaccines and financial markets between the continent and developed countries. Upcoming elections in Kenya (August 2022) and Nigeria (February 2023) will keep both governments internally oriented, but election results could shift their geopolitical roles within the region.

Business implications

- ▶ **Geopolitics will influence growth and investment opportunities – particularly in the Indo-Pacific.** Middle powers include some of the largest and fastest-growing economies in the world and therefore provide significant business opportunities. As middle powers engage, both with one another and with major powers, their investment policies and approval processes are likely to reflect those geopolitical relationships. Middle powers may welcome infrastructure and other investment as a path to securing closer relations with certain geopolitical players; in other cases, companies' investments may be rejected because of geopolitical considerations. And many governments will seek to protect domestic industries to boost their countries' economic and geopolitical standing, which will provide more opportunities for domestic companies. In contrast, foreign companies are likely to contend with **rules that place controls on certain foreign investments**.
- ▶ **Middle powers' shifting alliances will likely affect supply chain strategies.** Middle powers are looking to supplement their participation in multilateral trade regimes with **bilateral trade deals**, which can reduce the costs of cross-border trade and could accelerate the use of nearshoring or "friendshoring." And thawing political relations – such as those between Israel and the UAE and Morocco – have the potential to further open regional trade flows and facilitate the regionalization of companies' supply chains. But this shifting and more complex trade policy environment could also complicate compliance efforts for companies and their third-party suppliers.
- ▶ **Revenue growth prospects may be greater in regions where middle powers thrive.** Regions that have a strong middle power are more likely to have emerged from the worst of the COVID-19 pandemic and to have stronger economic growth. Revenue growth opportunities are therefore likely to expand. In contrast, regions with weaker middle powers are likely to pose fewer growth

opportunities in the near term. Where strong connections to great powers are also lacking, consumer companies may find that local populations' preferences shift toward domestic or regional brands.

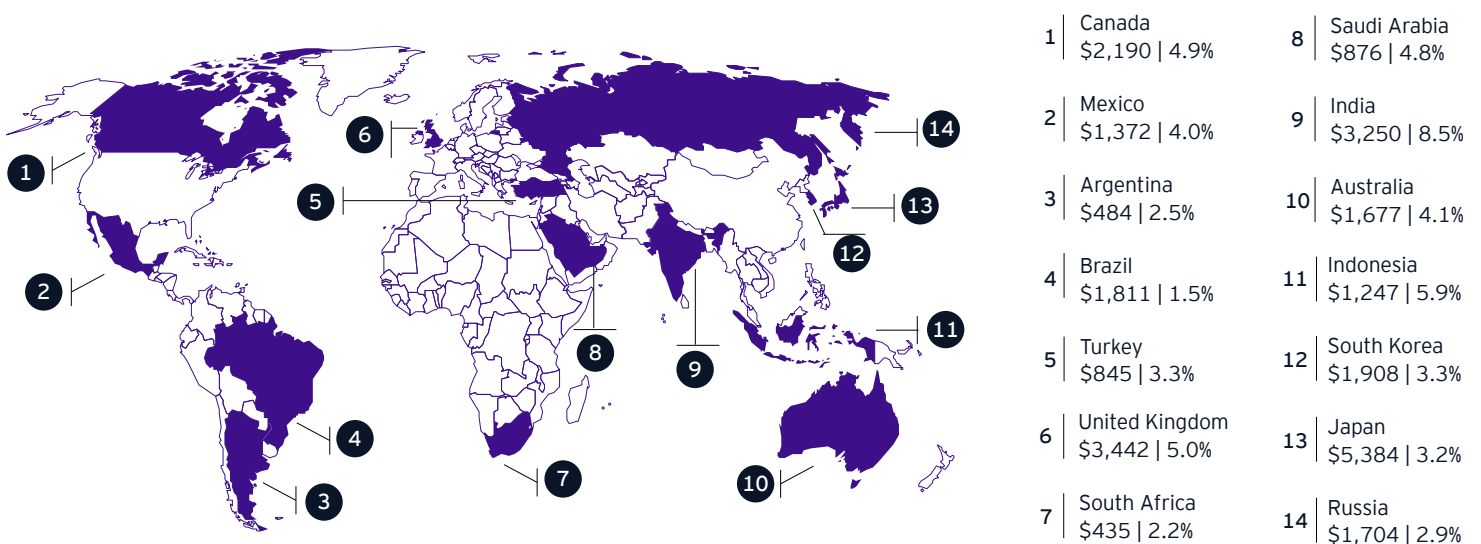
- ▶ **Stakeholder management needs to adapt to middle powers' expanding role.** As middle powers play a more active role in shaping the global agenda, their inputs will increasingly impact global standards. This presents companies with the opportunity to engage with middle powers on a variety of global policy issues. They will also have to monitor a growing number of stakeholders when tracking developments among global regulators and standard-setting bodies.

Recommended actions

- ▶ Assess regional geopolitical trends as part of key strategic decision-making processes such as **transaction due diligence**.
- ▶ Conduct **scenario planning** for regions critical to your company's footprint, including how middle powers' shifting roles may affect revenue growth or reputational concerns.
- ▶ Consider how your company's **supply chain strategy** will be affected by the expansion of middle powers' influence and related trade policy changes.
- ▶ Identify which middle power governments are important **stakeholders** for your company and whether there are opportunities to partner in international forums on relevant policy issues.
- ▶ Provide the **board of directors** and executive management visibility into your company's political risk exposure related to middle powers' role on the global stage.

Figure 5: Middle powers will play a more significant role in geopolitics in regions around the world.

Select middle powers and their forecast 2022 GDP (USD billions) and GDP growth (%)



Source: International Monetary Fund, EY analysis. | Note: Only middle powers that are G-20 members are highlighted on the map.

4. Rise of cyber piracy

Cybersecurity climbed the geostrategic agenda in 2021. With more organizations conducting business online, the pandemic created a [perfect storm of conditions](#) in which threat agents could act. Multiple large-scale and disruptive [cyber attacks](#) were discovered or conducted in 2021, collectively imposing an estimated [\\$6 trillion cost](#). The US began to coordinate with the private sector on security standards for the technology supply chain. The US also imposed sanctions on Russia (Moscow denied involvement in the alleged cyber attacks). And the US, NATO and other American allies also publicly asserted that one of the year's biggest hacks originated in China (an accusation Beijing has denied).

The rise of cyber piracy will continue in 2022. Just as with the "[Golden Age of Piracy](#)" in the 17th and 18th centuries, hackers will include both state-sponsored and independent groups operating in a relatively lawless and ungoverned arena. As with piracy on the seas, many cyber attacks will continue to be financially motivated – although attacks disrupting economic activity in pursuit of political goals will also be increasingly common.

The rising level of geopolitical competition is one reason cyber attacks will persist at elevated levels in 2022. Cyber piracy will remain an attractive geostrategic realm because it targets data and digital systems, offers a degree of anonymity or deniability and does not have clear consequences or terms of engagement. But there are a relatively small number of governments that have significant cyber capabilities. Among the most [cyber-capable governments](#), there is a high degree of coordination among those that are members of the [Five Eyes](#) – Australia, Canada, New Zealand, the UK and the US – and, to a lesser degree, among those countries and France, Israel and Japan. In contrast, China, Iran, North Korea, Russia and others will continue to operate more independently.

Governments are not the only cyber actors though. Cyber criminals and "[hactivists](#)" will remain key players in cyberspace. These private groups will continue to be based in countries with advanced technological education, widespread internet access and limited economic opportunities – and often where populations have political disputes with great powers. The risk of hactivism is therefore likely to grow in a two-tiered world.

[Ransomware](#) will remain the most common form of cyber attack (see Figure 6). In part this is because cryptocurrencies offer a relatively secure way of collecting ransoms, although this appeal may wane as authorities continue to develop the means to [recover ransomware payments](#) and as [sanctions on cryptocurrency exchanges](#) expand. Supply chain attacks – in which malware is distributed to a large number of organizations through a piece of software in their supply chains – will likely also be increasingly common, particularly as hactivism continues to rise.

Governments will take more aggressive cybersecurity measures, seeking to outpace hackers' capabilities, and the presence of havens from which cyber criminals operate and develop international rules or cooperation mechanisms. Although geopolitical dynamics – including great-power competition and a two-tiered world – make it unlikely that significant progress will be achieved soon, the 2021 agreement among all UN members on the desirability of establishing [international cyber norms](#) provides the basis for future cooperation. And some multilateral forums, such as the recently launched [Counter-Ransomware Initiative](#), will foster some cross-country collaboration.



Business implications

- ▶ **Cybersecurity will become a competitive differentiator for technology companies.** Hackers are more likely to target **technology companies** for intellectual property theft, given the increasing geopolitical competition in semiconductors, AI, biotechnologies and other advanced technologies. And software providers – particularly smaller companies with lower levels of security controls – will continue to be targeted as a means of distributing malware to a large number of institutions, raising reputational risks for them and security risks for their customers. Technology providers that have strong and transparent cybersecurity controls are therefore likely to have an advantage over their competitors.
- ▶ **Elevated risks for the energy, manufacturing, telecommunications and pharmaceutical sectors could promote collaboration.** Ransomware attacks often target entities with security weaknesses and poor cybersecurity, facilities with a low tolerance for downtime or those whose computer systems cannot be easily taken offline. This includes state and local governments, critical infrastructure such as electrical grids and hospitals, and production facilities with complex processes that cannot be interrupted. As certain parts of these sectors play an increasingly important role in geopolitical competition – such as vaccine manufacturing and renewable energy technology development – they may be targeted by hackers seeking to steal their intellectual property as well. A **recent EY study** found that almost half of telecommunications executives surveyed have never been more concerned about their ability to manage cyber threats. Companies in these sectors have an opportunity to partner with each other and with governments to improve the resilience of critical infrastructure and production facilities.
- ▶ **Strategic supply chain management will be important in the golden age of cyber piracy.** As hackers continue to attack commonly used software as a means of gaining access to other organizations, companies across sectors will face heightened cyber risks from within their **supply chains**. At the same time, a rise in cyber attacks motivated by disrupting a particular

company, sector or economy (rather than by financial gain) will elevate the risk of broader supply chain disruptions – particularly if the attack is against critical infrastructure on which many companies' operations depend. Companies have an opportunity to gain competitive advantage through strong cybersecurity across their supply chains.

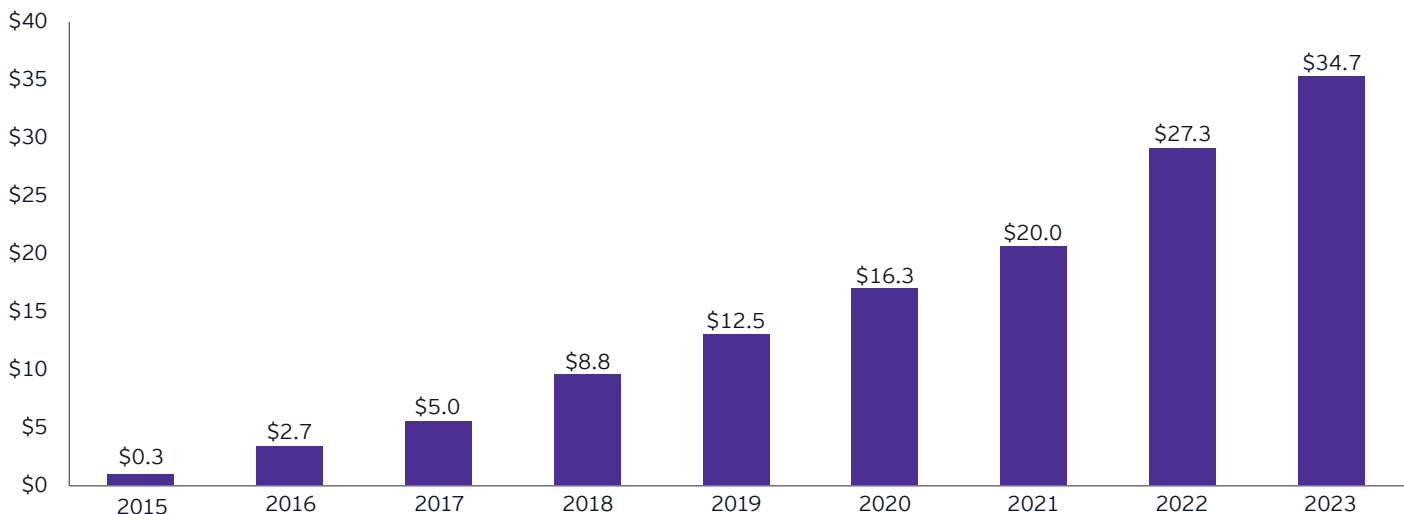
- ▶ **Cyber attacks pose financial and reputational risks – with reputational risks likely to be longer-lasting.** Ransomware attacks often target **companies engaged in M&A** and other time-sensitive financial events and can impose significant financial costs if companies must pay the ransom to complete a transaction or resume operations. A cyber attack that takes a company offline for an extended period can also impose financial costs in terms of lost revenue during that time. And although many stakeholders – including suppliers and customers – recognize that cyber attacks are becoming a common business risk, companies that are attacked can still suffer reputational risks – particularly if their cyber defenses are seen as inadequate or if a significant amount of personal data is compromised.

Recommended actions

- ▶ Evaluate the effectiveness and efficiencies of **cybersecurity and resiliency programs** in the context of driving business growth and operational strategies.
- ▶ Examine supply chain partners and the potential risks they pose in terms of cybersecurity as part of a broader **multidimensional risk assessment**.
- ▶ Ensure your company has in place strong cyber defenses and **data protection systems**, and that employees exercise good cyber hygiene.
- ▶ Consider whether purchasing **cyber insurance** is a worthwhile risk mitigation strategy for your company.

Figure 6: Ransomware costs are expected to continue to increase dramatically.

Global ransomware cost, USD billion



Source: Cybersecurity Ventures, June 2021; EY analysis.

5. Climate change-political risk nexus

As highlighted in the [2021 Geostrategic Outlook](#), climate change has been front and center on policymakers' agendas. The US rejoined the Paris Agreement and announced a net zero target for 2050. The EU introduced the "Fit for 55" package to meet its commitment to cut emissions by at least 55% by 2030. China launched a national carbon market, announced the end of its support for overseas coal-fired power projects and pledged to peak CO₂ emissions before 2030. And at the recently concluded COP26 summit, 197 countries signed on to the Glasgow Climate Pact. Many countries separately agreed to phase out coal, accelerate clean technology, halt and reverse deforestation, cut methane emissions, make farming more sustainable and build green shipping corridors. These actions reflect that much of the focus in 2021 was on upping national commitments and building international consensus on climate policy.

Now the focus will shift to policy formulation and implementation. The ongoing nexus between climate change and political risk will have three dimensions in 2022. First, extreme weather events and [shifts in climate patterns](#) will affect policy priorities in many countries. More governments will create national adaptation plans (NAPs), such as [Canada](#), which aims to finalize its first NAP by the end of 2022. And some governments may seek to increase tax revenues to finance investments to make infrastructure more resilient to climate change and fund programs for communities that are disproportionately impacted. Despite these efforts, many communities will still suffer socioeconomic disruptions from extreme weather events. As a result, perceived inaction on climate change is likely to continue to be a source of [social activism](#) and unrest.

Second, policy and regulatory shifts designed to accelerate the energy transition and adjust to a lower-carbon economy will also create political risks. Momentum on this front will vary across markets, as the [global energy crunch](#) persists and lobbying by groups hardest hit by energy transition policies – including both industries and communities – is likely to complicate the policymaking process (see Figure 7). Indeed, the withdrawal of fossil fuel subsidies could trigger more protests, such as those seen in [Ecuador](#) and [France](#). More broadly, debates around who pays for the transition – governments, companies or consumers – and how to avoid "greenflation" will intensify. As a result, initiatives such as the EU's Fit for 55 package will face intense and complex negotiations throughout the year.

One particularly tricky aspect of the Fit for 55 package will be the [EU's proposed carbon border adjustment mechanism](#), even as other jurisdictions consider similar carbon border taxes. And more countries, including [Austria](#) and [Japan](#), are likely to launch domestic [carbon pricing initiatives](#) – though some may delay introduction while their economies recover. New rules agreed upon at COP26 establishing a global carbon market could accelerate such domestic efforts. Another tool of choice for governments will be sustainability incentives, including taxes and other policies to encourage lower consumption of natural resources, switch to renewable energy sources or boost innovation of new low-carbon products and processes.

Implementing sustainability reporting regulations will also be high on many governments' agendas, including the EU's Corporate Sustainability Reporting Directive, adding to the increasingly complex nonfinancial reporting ecosystem. But the International Financial Reporting Standards Foundation's newly announced International Sustainability Standards Board (ISSB) is poised to bring much-needed consistency and comparability to [ESG reporting standards](#). The ISSB will develop a global baseline of sustainability disclosure standards based on a [building blocks approach](#), consolidating what has long been described as an "alphabet soup" of standard-setters.

Finally, the climate change-political risk nexus will play out in geopolitics, especially over the critical issue of climate financing and developing countries' demand for more leeway in achieving emissions targets while trying to maintain their pace of economic development. And the US-China dynamic will play a significant geopolitical role, as they seek to [cooperate on climate policy](#) while also competing for global leadership in EVs, renewable energy and related technologies. Despite these tensions, some multilateral progress is likely to be made in 2022 – including likely finalization of a [new global biodiversity agreement](#).

Business implications

- ▶ **Climate policies could drive new business models and products.** Many companies have announced net zero climate goals and have shifted operations and strategies accordingly. Climate policies are likely to prompt a continued **reassessment of business models** to identify areas to reduce carbon footprints or unleash new revenue streams – particularly as a company's green credentials are likely to increasingly affect access to capital. For instance, sustainability incentives targeted to boost electric vehicles (EVs) and renewable energy adoption could incentivize automakers to accelerate the shift toward EV manufacturing and also help to drive transformation in oil and gas companies. And technology companies are creating software solutions that help companies manage and report ESG metrics. Companies that innovate their business models to adapt to climate change policies and shifting consumer demands are more likely to thrive.
- ▶ **Carbon pricing mechanisms will have financial and tax implications.** The Glasgow Climate Pact establishes rules for an **international carbon market**. And many jurisdictions are implementing carbon pricing instruments, including **carbon taxes**, emissions trading system (ETS) schemes and possibly carbon border taxes. Such policies will impose additional operating costs – both in terms of direct costs for emissions and indirect

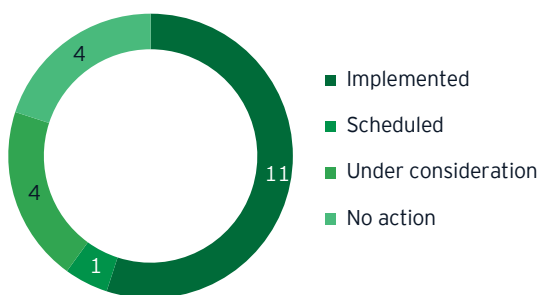
costs through inputs or processes in the production stage – and therefore could reduce profit margins in high-emissions sectors. Governments are also likely to continue to provide **sustainability tax incentives** for companies and households, providing an opportunity for companies to utilize these incentives to help finance green R&D or their own energy transition.

- ▶ **Sustainability reporting will increase compliance requirements and provide opportunities.** With more than **600 ESG reporting provisions globally** and varying demands for voluntary and mandatory disclosures, companies face challenges in quality sustainability reporting. As newer and more rigorous sustainability reporting mandates emerge, companies across sectors – particularly large companies – will face new regulatory compliance requirements regarding greenhouse gas emissions and sustainability practices. Navigating an expanding number of reporting regimes could create challenges, although the ISSB effort should bring more clarity in the coming years. Sustainability reporting could pose both downside and upside reputational risks for companies, depending on their level of transparency, accountability and progress on sustainability metrics. Further opportunities could emerge from analyzing these metrics to identify strategy shifts to adapt to a world moving toward a sustainable economy.
- ▶ **Extreme weather events and climate-related social unrest pose operational risks.** Such incidents can cause damage or destruction of physical capital and fixed assets. Any damage to transportation or electricity infrastructure could trigger disruptions in other business activities as well – sometimes for extended periods of time. Protests could also interrupt commercial operations, lowering sales volumes for companies in affected locations.

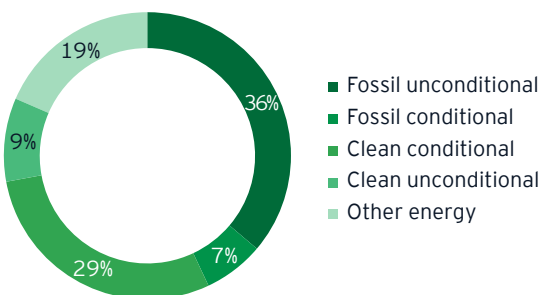
Figure 7: G-20 governments are taking action to price carbon – but they continue to support fossil fuels.

Count of carbon pricing initiatives, new or amended public money commitments to energy since 2020

More than half of G-20 markets have carbon pricing initiatives in place



Less than half of G-20 government energy financing during COVID-19 has targeted renewables



Source: World Bank, Energy Policy Tracker, *EY Climate Cash and Tax Barometer 2021*, EY Green Tax Tracker.

Note: Data are current as of 13 October 2021. Details on energy type classification are available at www.energypolicytracker.org/methodology/.

Recommended actions

- ▶ Examine your company's international footprint and **business models** from **supply chains** to distribution networks to identify opportunities to reduce carbon emissions – and perhaps increase revenue.
- ▶ Take advantage of any relevant sustainability incentives, including **tax credits**, subsidies and cash grants.
- ▶ Assess the impact of **carbon taxes** on global operations to understand exposure and ensure compliance.
- ▶ **Measure and report on sustainability metrics** while committing to transparency and accountability.
- ▶ Engage proactively with policymakers and standard-setters to contribute to the process of developing new policies and standards.

6. Green minerals resource nationalism

The accelerating adoption of low-carbon technologies to fuel the energy transition is driving a substantial increase in demand for so-called green minerals such as lithium, cobalt, nickel and rare earths, along with nonferrous metals such as copper and aluminum. The International Energy Agency has [predicted](#) dramatic increases in minerals requirements for clean energy technologies in the coming years. Consequently, some mineral-rich countries have started to shift mining sector codes and commercial contracts to capture more revenue, while import-dependent markets such as the US and the [EU](#) have launched measures to secure critical minerals supply chains.

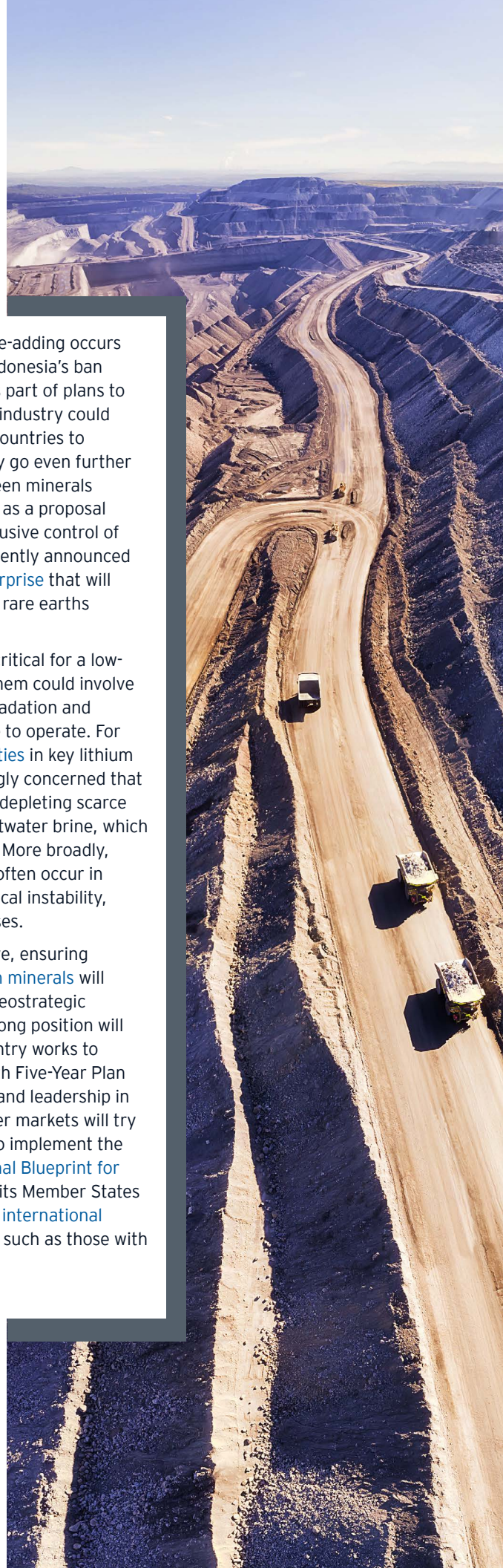
The pace of resource nationalism will [accelerate](#) in many green-mineral-rich economies in 2022. Governments have the market power to engage in such policies because reserves and production of many green minerals are [geographically concentrated](#) (see Figure 8). The motives and choice of tools for resource nationalism will differ by country. A desire to maximize financial benefit from the upswing in commodity prices will often drive interventionism, in part to help alleviate socioeconomic pressures such as income inequality and poverty in some countries. For instance, Peru's government aims to raise taxes on mining companies to fund social programs, and the president of the Democratic Republic of Congo is planning a [review of current infrastructure-for-minerals contracts](#) with China because the country needs more investment. The need to plug fiscal gaps in the aftermath of the pandemic-induced economic contraction will reinforce this motivation, such as [Chile's plan](#) to impose a mining royalty on copper and lithium.

Some green-mineral-rich countries will also seek to move up the value chain of the energy transition by limiting the export of raw minerals

and mandating that some value-adding occurs in the country. For example, Indonesia's ban on export sales of nickel ore as part of plans to expand the domestic smelting industry could provide an example for other countries to follow. Some governments may go even further to assert state control over green minerals production and exports – such as a proposal in Mexico to give the state exclusive control of lithium mining, and China's recently announced creation of a [state-owned enterprise](#) that will control about 70% of domestic rare earths production.

And while green minerals are critical for a low-carbon transition, extracting them could involve significant environmental degradation and challenges to the social license to operate. For example, [indigenous communities](#) in key lithium mining countries are increasingly concerned that the drive to increase mining is depleting scarce freshwater and lithium-rich saltwater brine, which raises the risk of social unrest. More broadly, green minerals extraction will often occur in fragile states, which risks political instability, conflict and human rights abuses.

From the importers' perspective, ensuring resilient [supply chains of green minerals](#) will be an increasingly important geostrategic imperative. China's already strong position will likely grow in 2022 as the country works to secure supplies to meet its 14th Five-Year Plan targets of green development and leadership in technologies such as EVs. Other markets will try to catch up. The US will start to implement the Department of Energy's [National Blueprint for Lithium Batteries](#). The EU and its Member States will continue to forge [strategic international partnerships on raw materials](#), such as those with Canada and Ukraine.



Business implications

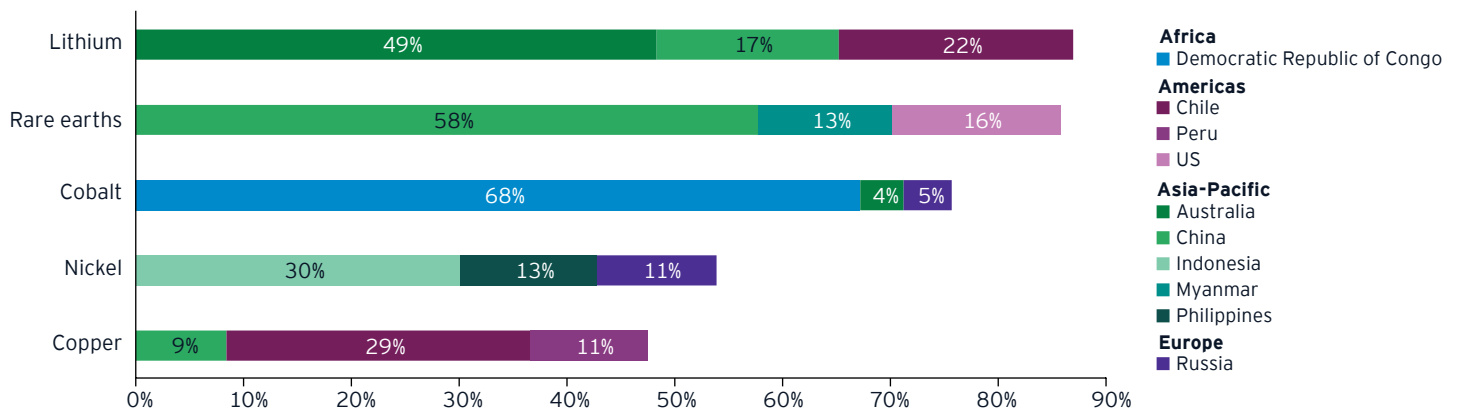
- ▶ **Project design and supply chains will need to adapt to governments' growth strategies for green minerals.** Governments in mineral-rich countries will face trade-offs in adopting sustainable fiscal policies that are linked appropriately to the commodity cycle, grow the tax base and still attract investment. Separately, governments in import-dependent countries will likely face challenges in trying to reduce vulnerabilities in green mineral supply chains while navigating a competitive geopolitical and commercial environment in this area. In both cases, there may be opportunities for companies to engage with governments to help design policies that promote long-term value for all stakeholders. Producers and consumers of green minerals will need to adapt their operations and supply chains accordingly.
- ▶ **Resource nationalism will have financial implications for mining companies.** Governments in some green-mineral-rich markets are likely to impose new windfall and profit taxes or higher excise duties and royalty rates – or at least increase enforcement of existing tax legislation. These policy changes may result in higher tax bills for mining companies operating in those jurisdictions. Governments may also change contract terms, which would impact how mining companies structure their investments in the affected markets.
- ▶ **Miners could face operational disruptions and reputational risks.** Labor strikes, increased social activism or broader

political instability could disrupt mining operations, particularly in countries with high levels of inequality or a history of such activities in the mining sector. A recent EY study identified environment and social as the top risk to the [mining and metals sector](#) in 2022, while the license to operate ranks third. In the case of labor strikes and social activism, mining companies could also face long-term challenges to their social license to operate in some areas. Reputational risks could also arise because of alleged labor and human rights violations, which would affect the company not only in the host market but also globally. Companies that source from mining companies – such as those in the transportation or manufacturing sector – could face related operational disruptions.

- ▶ **Automakers and renewable energy manufacturers will need innovative supply chain strategies.** The global growth in renewable-energy capacity and EV adoption will significantly increase demand for green minerals. Companies operating in these sectors are likely to face higher raw material costs – and possibly the inability to secure sufficient green mineral supplies. Indeed, some automakers and renewable energy producers have already entered into offtake agreements and joint ventures with miners to mitigate these supply chain risks. And opportunities to diversify suppliers include “[urban mining](#)” or circular economy companies that recycle green minerals from old electronics. Sourcing from such suppliers could not only help alleviate green mineral shortages but also reduce the company’s carbon footprint.

Figure 8: Geographic concentration of reserves and production of key green minerals heightens supply risk.

Share of global production for select green minerals



Source: Mineral Commodity Summaries 2021, U.S. Geological Survey; EY analysis.
 Note: The top three producers for each mineral are shown. Data is from 2020.

Recommended actions

- ▶ All companies can [examine their supply chains](#) for green mineral inputs to assess vulnerabilities, improve ESG performance and increase resilience.
- ▶ Mining companies can [review contractual arrangements](#) under which projects are being or will be carried out and evaluate breach-of-contract risks.
- ▶ Mining companies can proactively engage with governments and other stakeholders to [provide and demonstrate the value](#) of mining projects to local communities.
- ▶ Mining companies can conduct [scenario analysis](#) to plan for possible taxation and contractual changes in key markets and adjust strategies accordingly.
- ▶ Automakers and [renewable energy manufacturers](#) can consider long-term supply contracts with miners, explore alternative suppliers and support home governments’ policies to secure green minerals supplies.

7. Increasing intervention in supply chains

The onset of the pandemic in 2020 exposed the heavy dependence of many supply chains on foreign suppliers, weaknesses in just-in-time supply chain management and a lack of companies' visibility into their supply chains. In 2021, critical supply chain shortages, forced-labor concerns and pressures for increased sustainability reinforced these challenges. This has led to increasing calls for state intervention to build resilient and sustainable supply chains (see Figure 9). For example, the Biden Administration issued a supply chain resiliency [executive order](#) and has taken a variety of related actions, while the EU Parliament passed an initiative calling for a [due diligence directive](#) on human rights and sustainability.

This intervention in global supply chains – through subsidies, protectionism or other industrial policies – is likely to increase in 2022 in sectors deemed strategic as a result of the pandemic or increased geopolitical competition. Pharmaceuticals and medical equipment, agriculture and food commodities, semiconductors and digital technologies, [infrastructure](#), and technologies associated with the energy transition are likely to be the focus for many governments. For instance, the Biden Administration will continue to undertake a [comprehensive view of critical US supply chains](#) that will likely incentivize “friendshoring,” nearshoring or onshoring supply chains. Similarly, China will continue to pursue self-sufficiency in key industries as outlined in the 14th Five-Year Plan and its “dual circulation” policy, with a focus on semiconductors.

Governments will also impose new supply chain regulations to address heightened attention to climate change mitigation and forced labor concerns. The most notable will be the EU's proposal on [corporate due diligence and accountability](#), which aims to encourage companies to address human rights and environmental issues throughout their entire supply chains. As with other EU regulations, this is likely to have effects far beyond the EU's borders. In addition, import bans by the [US, UK and Canada](#) related to human rights abuses are likely to expand and could be replicated by other countries.

In some cases, addressing these issues across the supply chain may conflict with government efforts to improve resilience. For instance, US restrictions on polysilicon imports from China are at odds with the Biden Administration's push for accelerated renewable energy installation. And China's efforts to curb coal power generation could continue to disrupt global supply chains as factories conserve energy by curbing production.

Scrutiny of supply chain sustainability will not only be driven by government regulations but also by stakeholder pressures. According to an [EY survey of institutional investors](#), 91% say nonfinancial performance plays a role in their investment decision-making. Separately, the [EY Future Consumer Index](#) finds 43% of global consumers are willing to pay higher prices for products that benefit society. Moreover, peer pressure around sustainability commitments is likely to continue to rise, as more companies [cut suppliers](#) that fail to meet emissions targets.

Business implications

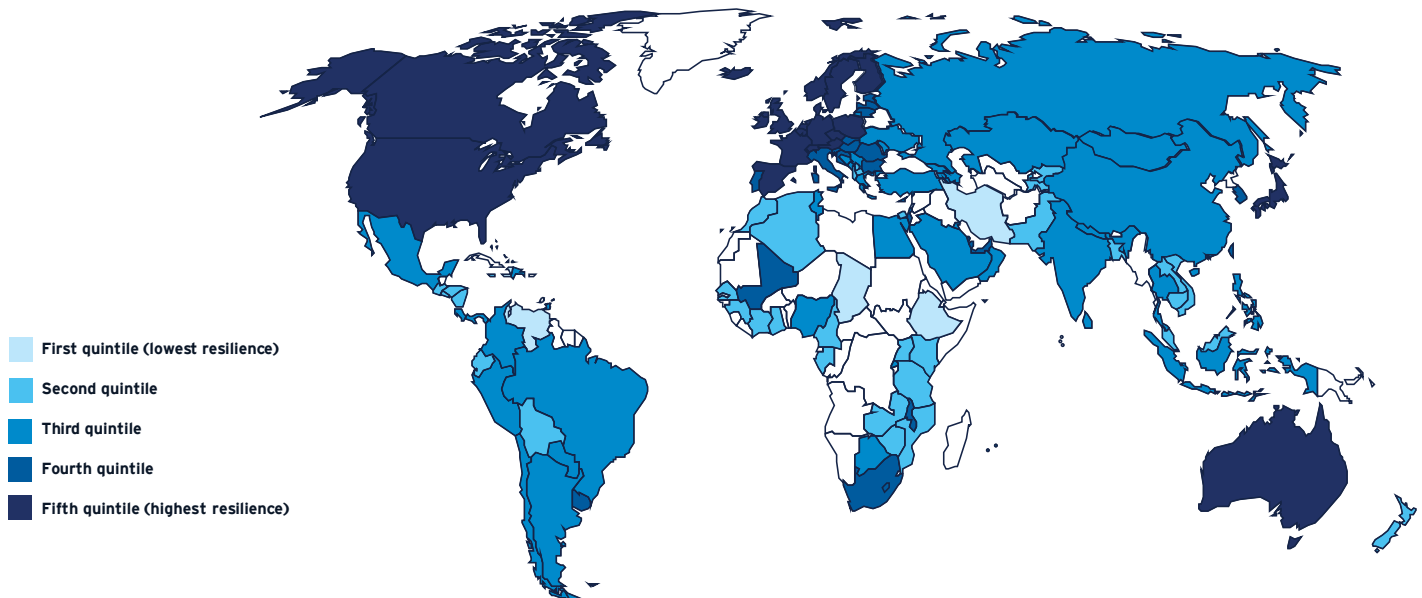
- ▶ **Companies across sectors are likely to face higher input costs.** As the US, EU, China and others continue their efforts to build self-sufficient supply chains, disruptions are likely to continue. This is likely to lead not only to delays but also higher costs for raw materials and other inputs. Some companies might face a shortage of necessary components, while others could see their input costs rise. This might, in turn, lead to higher inflation as companies would try to pass at least some of these costs along to consumers. Resiliency-enhancing efforts include stockpiling inputs and final products and diversifying supply chains.
- ▶ **Regulations and market pressures will create intense pressure to reduce the carbon intensity of operations.** Increased ambition around net zero commitments is likely to heighten policymakers' and consumers' attention toward companies' operations across sourcing, manufacturing, transportation and packaging. Companies have the opportunity to rethink everything from what materials they use in their packaging to where their factories are located and how their products can be recycled or repurposed.
- ▶ **New due diligence processes will elevate the importance of compliance.** The forthcoming EU supply chain due diligence law – and potential similar initiatives – will require companies

to demonstrate their compliance with human rights and sustainability across their entire global supply chains. This would require identifying, assessing and reporting any potential or actual adverse impacts on human rights and sustainability – and shifting suppliers accordingly. While this imposes downside compliance risks and potentially a civil liability regime, it also presents reputational and commercial opportunities for companies with strong diligence across their supply chains.

- ▶ **Increasing intervention in supply chains is likely to shift human capital strategies.** If new government regulations require companies to shift the locations of their operations, they could face challenges in finding the right talent in the new geographies. This challenge could be particularly acute for sectors in which there is a strong ecosystem of talent in certain locations – such as technology or advanced manufacturing – and those that have relied on low-cost labor in foreign markets. Other companies are likely to seize new opportunities associated with accessing different labor pools. And sustainability and human rights due diligence provides companies with the opportunity to engage and build trust among employees around these issues.

Figure 9: Global supply chain resiliency will continue to be a challenge.

2021 FM Global Resilience index scores



Source: FM Global Resilience Index.

Note: The FM Global Resilience Index measures the resilience of the business environment across economic, risk and supply chain factors. The scores are relative and based on a range of 0 (not resilient) to 100 (most resilient).

Recommended actions

- ▶ Identify new markets and suppliers that could support a regionalization or “friendshoring” strategy to maintain access to key commercial markets.
- ▶ Consider potential nearshoring or onshoring strategies to capitalize on new home market domestic-oriented policies.
- ▶ Assign a C-suite-level official or function responsible for sustainability policies and climate change risk mitigation as part of improving supply chain sustainability.
- ▶ Determine if your company has the right structure, practices and data systems to manage potential reputational and compliance challenges and opportunities appropriately, including engaging with stakeholders.
- ▶ Assess how sustainability policies in key markets will affect your company’s supply chain.

8. Technology nationalism intensification

The geopolitics of technology and data has intensified, as highlighted in the [2021 Geostrategic Outlook](#). Supply constraints and policy shifts in semiconductors, greater regulatory and political scrutiny of big tech companies, and the increasing use of industrial policies have been key components of this trend. Technologies such as artificial intelligence (AI), quantum computing, 5G networks, high-capacity batteries and space technology have increasingly become the front lines of geostrategic competition.

There are two ways this technology nationalism will continue to intensify in 2022. First, governments will focus on technological self-sufficiency and providing incentives for domestic production of strategic technologies. [Semiconductors will remain a priority](#) for many governments, with China, Japan, the EU and the US continuing their efforts aimed at increasing domestic manufacturing (see Figure 10). EU-US efforts may become more coordinated as the new [Trade and Technology Council](#) starts its work. And while some markets are likely to welcome foreign companies to build facilities, others are likely to focus more exclusively on domestic capabilities.

Governments will also target self-sufficiency in EV batteries. The Biden Administration will likely seek to accomplish this in part through “friendshoring” battery supply chains. In China, the extension of the New Electric Vehicle (NEV) subsidy program through 2022 will continue to support [EV growth](#). The [European Battery Alliance](#) will offer companies R&D funds while also making progress toward approval of a proposed battery regulation. India’s [Faster Adoption and Manufacturing of Electric Vehicles \(FAME II\)](#) scheme will include measures to promote domestic manufacturing of EVs.

Governments will also continue to invest in domestic capabilities in other strategic technologies, including 5G wireless networks.

More broadly, governments are prioritizing the rollout of 5G networks to enhance broader manufacturing competitiveness, particularly in [Southeast Asia](#). The race to [commercialize and militarize space](#) will also expand as new players and technologies emerge.

The second way in which technology nationalism will play out is through stricter government regulation of digital technologies, with the EU continuing to be a leader in this space. Data privacy and data security will be a key tool in regulators’ toolboxes – particularly in Asia. Beijing will continue to roll out the implementation of its [Personal Information Protection Law](#), [Cybersecurity Law](#) and [Data Security Law](#). And Japan’s [Act on Protection of Personal Information \(APPI\)](#) and Thailand’s [Personal Data Protection Act](#) will both come into force in 2022.

Stricter antitrust rules and enforcement will also be high on the agenda. Debate will intensify over the EU’s proposed [Digital Markets Act](#), with implementation likely to occur in 2023 at the earliest. The US administration will continue to enact the 2021 executive order on [promoting competition](#), which includes technology among its priority sectors. Regulators in Beijing will also continue to pursue a more proactive approach to antitrust enforcement, with a focus on the technology sector. And South Korea, India and Australia, among others, are likely to expand efforts to address market power concerns in e-commerce and internet providers.

The technology nationalism regulatory agenda is also likely to include rules around ethical AI uses – probably to be [led by the EU](#) although China is also seeking to more closely [regulate algorithms](#) – and a renewal of the debate on digital taxes. The latter will be influenced by how implementation of the [international tax reform](#) led by the G-20 and the Organisation for Economic Co-operation and Development (OECD) progresses throughout the year.



Business implications

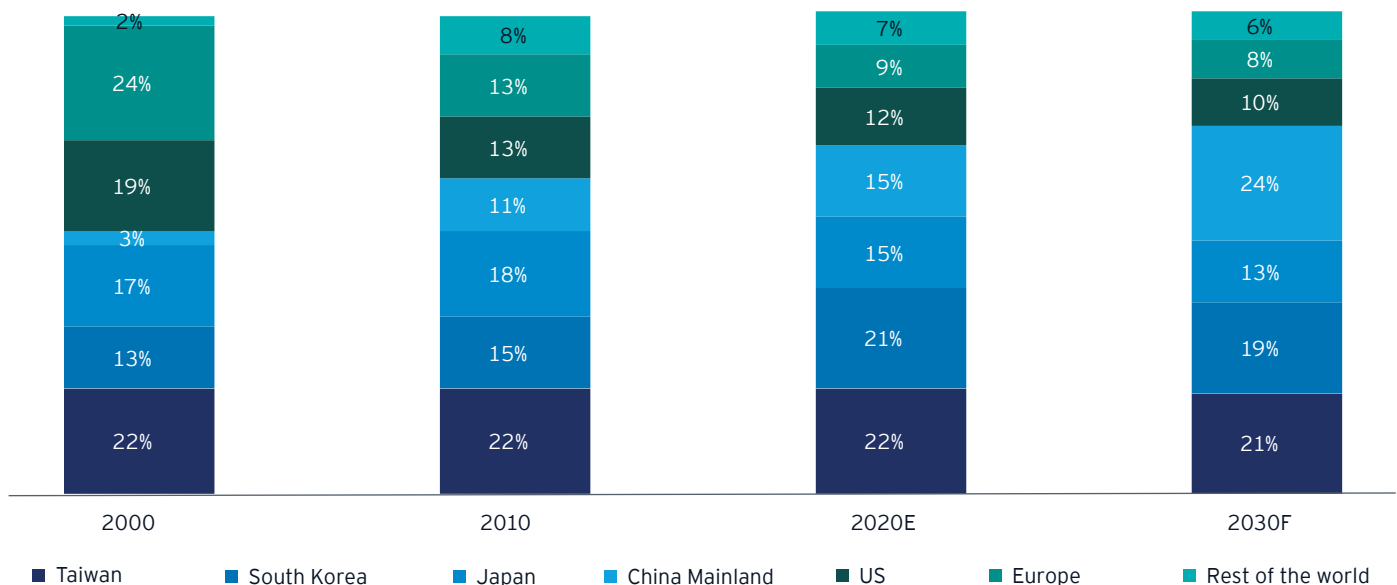
- ▶ **Technology companies' operations and supply chains will continue to nearshore, "friendshore" and onshore.** Semiconductor, EV and telecommunications companies will likely face policies that limit their international suppliers and customers because of the expansion of technology nationalism. Likely policies include governments restricting trade flows and incentivizing domestic production. This will provide opportunities for suppliers in domestic markets. Governments are also likely to prevent foreign companies from competing in certain areas of a domestic market – which would pose challenges for foreign investors but create new opportunities for domestic companies to grow.
- ▶ **Manufacturers are likely to face continued semiconductor supply chain issues.** The global chip shortage that emerged in 2021 because of the pandemic, supply shortfalls and geopolitical tensions will continue in 2022. These **supply shortages** and price increases could even intensify as the rollout of new technologies such as 5G wireless networks and rising household spending in developed markets could create continued rising demand for semiconductors globally. They are likely to start abating by the end of the year as additional capacity comes online, comes online.
- ▶ **Growth and investment opportunities may favor smaller technology companies.** While **technology sector M&A volume** has been high in recent years, increased regulatory scrutiny of market competition and antitrust issues – particularly in the US, EU, China and the UK – could lead to rejections of proposed M&A deals within the technology sector. Such constraints on M&A are most likely in consumer technologies such as e-commerce and social media. This situation is likely to provide more opportunities for entrepreneurs and startups to grow their companies – and in some cases may provide them opportunities to sell to larger players in search of acquisition targets.

Recommended actions

- ▶ Automakers and manufacturing companies can conduct **third-party risk assessments** and explore whether there are alternative suppliers of key technological inputs that pose fewer political risks.
 - ▶ Monitor shifts in the international **digital tax** landscape and assess how such changes would affect tax bills and the cost of digital services.
 - ▶ Determine the impact of changing technology regulations on **operations and supply chains** and on **data compliance** requirements.
 - ▶ Collaborate between risk, operations and **compliance teams** to determine how diverging technological standards could affect the company's operating costs and reporting requirements.
 - ▶ Consider proactively **acquiring** or **divesting** assets to align your company's global footprint with stricter antitrust enforcement.
- ▶ **Geostrategic data management will be crucial.** The proliferation of regulations surrounding data security and privacy in key markets will continue to increase data-sharing costs across borders. Multinational companies that handle data extensively, particularly personal or consumer data, and those that use third-party service providers, such as cloud services or data storage, are likely to be most affected by these regulations. Companies that align their strategies and business models according to country-specific regulations will be better positioned to avoid compliance issues and gain competitive advantage.

Figure 10: Asia's outsized share of global semiconductor manufacturing is expected to persist without policy interventions.

Global semiconductor manufacturing capacity by location (% of total)



Source: Semiconductor Industry Association, September 2020.

Note: All values shown in 8" equivalents, excludes capacities below 5 kwpm (thousand wafer starts per month) or less than 8".

9. Expansion of the Brussels effect

Strong regulation and common standard-setting have been vital ingredients for European integration and the single market. They have not only impacted European companies and consumers but have given the EU power to set certain global standards as well. The best example of the effective power of this so-called **Brussels effect** is how the EU's General Data Protection Regulation (GDPR) has had extraterritorial effect in itself and has also inspired other governments around the world to enact similar policies.

The importance of the Brussels effect will grow in 2022 as the EU embarks on an ambitious regulatory agenda and becomes more assertive in its international role (see Figure 11). The EU's regulatory push will also support its **strategic autonomy** agenda, as its ability to power to set global standards will likely be amplified amid evolving great-power relations because the multipolar system will continue to complicate negotiating and agreeing on a common set of global standards.

Sustainability will be one of the key pillars of the EU's regulatory agenda in 2022 and beyond. This will include moving forward with proposals to introduce supply chain due diligence around sustainability and human rights and a **carbon border adjustment mechanism (CBAM)**. The EU will also continue to evolve its taxonomy for sustainable activities, which will form the basis of other initiatives. Among the most notable are the European green bond standard (EUGBS) – which will define a set of common rules that all issuers must follow – and the Corporate Sustainability Reporting Directive (CSRD) – which will introduce a mandatory framework for large EU companies to report on the sustainability of their activities starting in 2023.

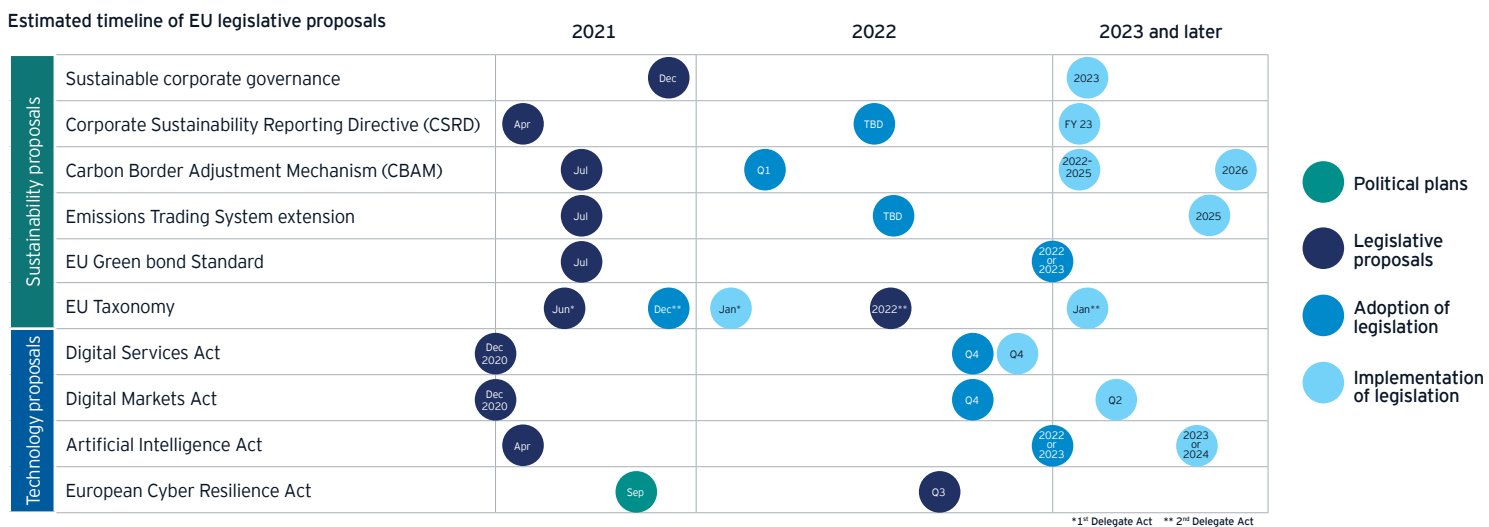
The other key pillar will be technology. The EU's proposed **Digital Services Act (DSA)** and Digital Markets Act (DMA) will aim to rein in big tech firms operating in Europe. The DSA will impose regulations on online platforms to moderate and limit illegal content and goods online, while the DMA will define so-called gatekeepers – large online services providers that control segments of the market – and impose rules to ensure fair competition to reach consumers. Finally, the Artificial Intelligence Act proposal will be debated throughout 2022 and could set international standards for responsible AI once it is implemented.

In both areas, competition for the first-mover advantage in standard setting will become fiercer. The EU has a rather slow legislative process, especially compared with China – which has joined the race to set technology standards via its China Standards 2035 initiative. The new Transatlantic Trade and Technology Council (TTC) is likely to be an important forum for international negotiation, but competing interests and differing views between the EU and US will make ambitious agreements difficult. The same will be true regarding **sustainability reporting standards** and how to achieve greater **sustainability in agriculture**. The risk of competing and incompatible regional standards is therefore likely to rise.

Business implications

- ▶ **The Brussels effect could create new opportunities for European companies.** Even as the EU pursues new sustainability and technology regulations, other governments are doing the same. The lack of a coordinated global approach on sustainability and technology policies risks creating a patchwork of regulations unless there is a sufficiently influential first mover that other governments emulate. If Brussels moves quickly, companies operating in the EU could benefit from a first-mover advantage as they adapt to stricter EU regulations, which could later become the global standard (as happened with the GDPR). Some companies could capitalize both areas of regulation to innovate on business models that leverage digital technologies such as blockchain and AI for tracking sustainability issues including energy consumption or carbon credits.
- ▶ **Sustainability regulatory compliance requirements could create new winners.** These requirements will apply not only to European companies but also to large global companies as the EU implements increasingly ambitious regulations aimed at tackling climate change. Such regulations are likely to set global standards. For instance, the EU's CBAM will seek to apply the EU's carbon price on goods imported into the single market to avoid carbon leakage and level the playing field for EU firms. Companies with low emissions in their supply chains and which import into the EU will therefore likely enjoy competitive advantages.
- ▶ **Supply chain due diligence will affect companies' supply chains and reputations.** Companies operating in the EU will be held responsible for the environmental and social standards in their global supply chains, requiring greater transparency and likely motivating shifts in suppliers in some cases. Such requirements will likely extend to lower-level tiers of suppliers, creating additional compliance costs and likely affecting from which markets European companies source their products. Heightened transparency will also increase both upside and downside reputational risks, particularly in the consumer products sector.
- ▶ **Digital technology platforms will face increased regulatory scrutiny and compliance costs.** The EU's technology regulation agenda will focus on very large digital platforms operating in Europe. These companies could be required to share some internal data with regulators, appoint independent auditors and conduct yearly risk assessments about how they are dealing with the spread of misinformation and illegal goods. Such requirements could provide new opportunities for small and medium companies in the digital technology sector to gain market share.

Figure 11: Multiple EU proposals in process could set global standards on sustainability and technology.



Source: EY analysis.

Note: All future dates are either as currently planned by the EU or likely timelines based on past legislative proposal processes and developments thus far.

Recommended actions

- ▶ Consider **strategy** or business model transformation to position for growth in an EU economy transitioning toward carbon neutrality.
- ▶ Develop or strengthen the ability to **collect and model data** to meet evolving sustainability reporting standards and regulatory requirements.
- ▶ Ensure your company has **full transparency** into human rights and environmental standards across its supply chain.
- ▶ **Monitor policy and regulatory developments** in the EU to determine which apply to companies based in other markets and to anticipate how global standards might evolve.
- ▶ Technology companies can engage in **stakeholder management** to inform the EU's approach to digital regulations and standards.

10. Inequality and the push for redistribution

The COVID-19 crisis has highlighted and exacerbated existing inequalities and fragile social safety nets. It has also seemingly widened inequality at the global level. For instance, global billionaires' [wealth rose](#) by more than 27% during the pandemic, while approximately 120 million people were pushed into [extreme poverty](#). These trends have heightened risks to social cohesion and political stability, and governments have begun to respond with redistributive policies.

More redistributive measures are expected in a variety of markets in 2022, including investing in social services, incentivizing the creation of "middle class" jobs and increasing taxes on the wealthy and corporations. At the global level, a G-20- and OECD-led international [framework agreement](#) on a global minimum corporate income tax and new nexus and income allocation rules aims to address [base erosion and profit shifting](#). Country governments will debate its implementation throughout 2022.

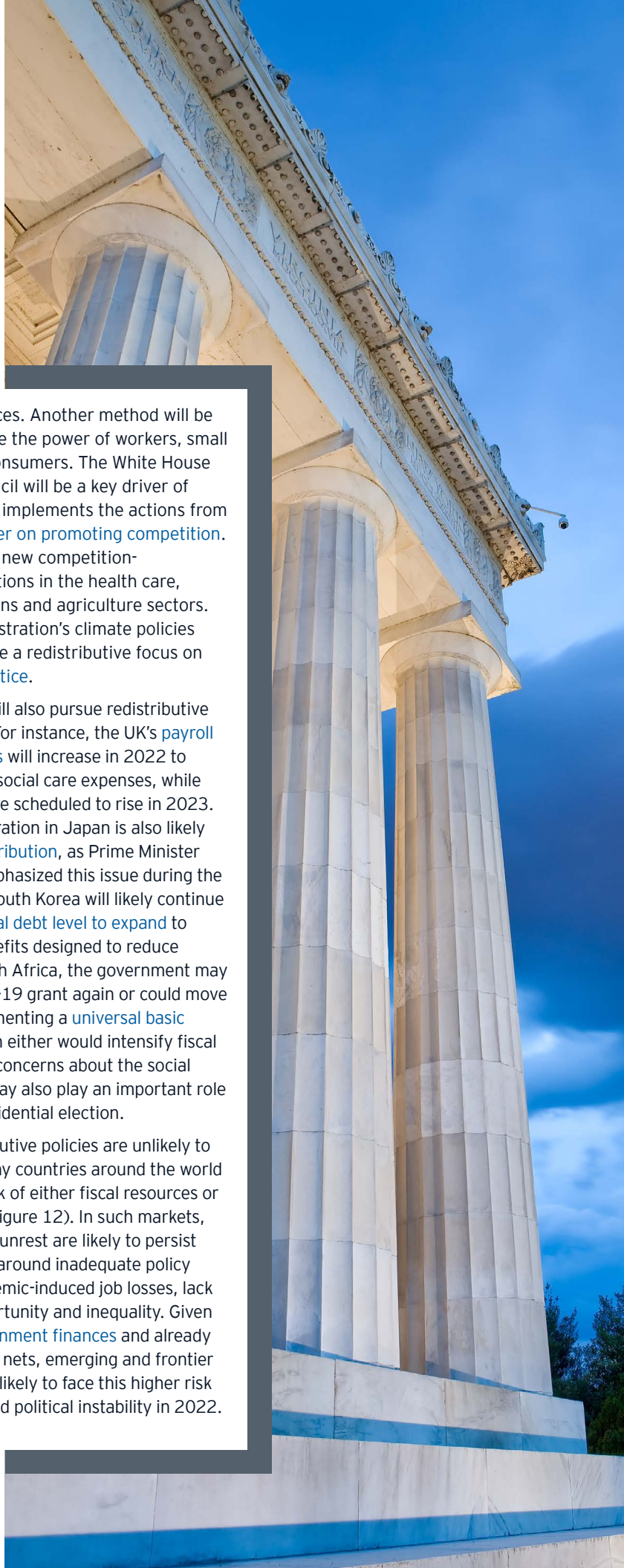
Heading into the 20th Party Congress, China will continue to implement policies and regulations under its common prosperity agenda. This policy focus is also likely to include increasing tax enforcement, limiting working hours and taking antitrust actions, particularly in the consumer technology sector. The government may also introduce new spending on social services such as healthcare, education and pensions. This policy focus is also likely to lead to more [companies to donate](#) to common prosperity causes.

The US Government will similarly focus on addressing socioeconomic inequality, which will continue to be a central part of the Biden Administration's policy agenda. One method will be seeking to increase the social safety net, primarily through the Build Back Better "human infrastructure" package that includes new spending on childcare, education and

other social services. Another method will be to seek to increase the power of workers, small businesses and consumers. The White House Competition Council will be a key driver of these efforts as it implements the actions from the [executive order on promoting competition](#). This could lead to new competition-promoting regulations in the health care, telecommunications and agriculture sectors. The Biden Administration's climate policies will likely also have a redistributive focus on [environmental justice](#).

Other countries will also pursue redistributive policies in 2022. For instance, the UK's [payroll and dividend taxes](#) will increase in 2022 to tackle health and social care expenses, while corporate taxes are scheduled to rise in 2023. The new administration in Japan is also likely to [prioritize redistribution](#), as Prime Minister Fumio Kishida emphasized this issue during the 2021 elections. South Korea will likely continue to allow its [national debt level to expand](#) to pay for social benefits designed to reduce inequality. In South Africa, the government may extend the COVID-19 grant again or could move ahead with implementing a [universal basic income](#) – although either would intensify fiscal pressures. Public concerns about the social security system may also play an important role in the French presidential election.

However, redistributive policies are unlikely to be pursued in many countries around the world – because of a lack of either fiscal resources or political will (see Figure 12). In such markets, episodes of social unrest are likely to persist because of anger around inadequate policy attention to pandemic-induced job losses, lack of economic opportunity and inequality. Given [constrained government finances](#) and already weak social safety nets, emerging and frontier markets are most likely to face this higher risk of social unrest and political instability in 2022.



Business implications

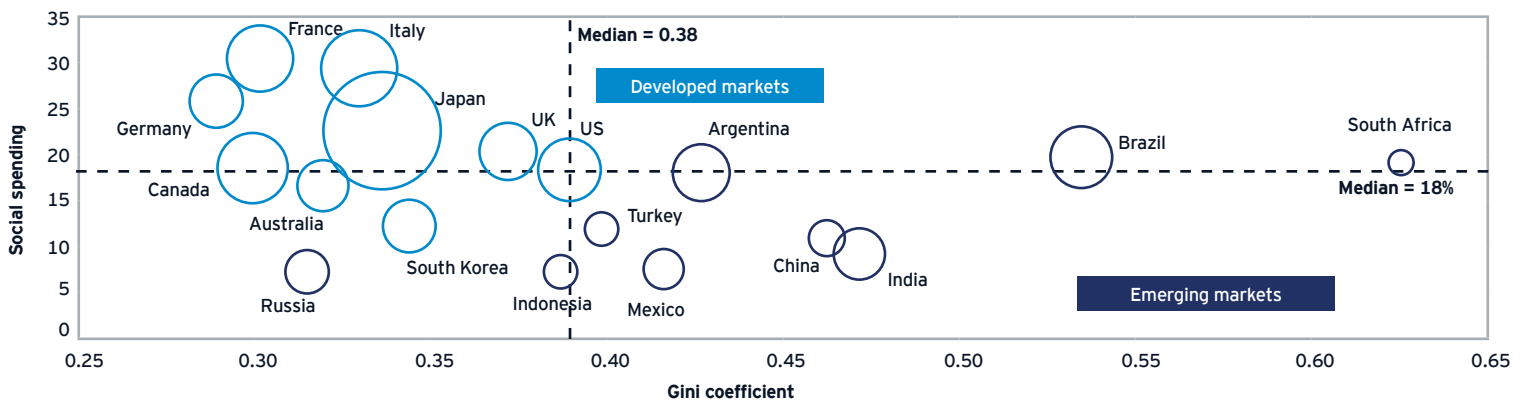
- ▶ **Supportive social policies may improve human capital.** In the US, for instance, social policies that support childcare provision or subsidize its cost are likely to incentivize more parents (especially mothers) to return to the labor force, which may help to ease the talent shortage many companies faced in 2021. More broadly, supportive policies in the health and education sectors could also lead to improved human capital and reduced costs for companies in the long run.
- ▶ **Redistribution policies are likely to be accompanied by tax increases.** With the increasing number of proposals to expand health and social care, companies are likely to face higher tax bills in many markets. Larger companies and those in sectors perceived to have thrived amid the pandemic are most at risk. Relatedly, G-20- and OECD-led global minimum tax rules are intended to ensure that companies pay taxes of at least 15% regardless of where the income is earned.
- ▶ **Growth and investment strategies will need to adapt to a new antitrust era.** The increased scrutiny over alleged monopolistic practices and a desire to promote more competition in the US, EU, China and elsewhere may expand beyond technology into other sectors throughout the year. Those sectors in which governments could make credible distribution claims regarding antitrust concerns are most at risk. This would make regulatory approvals for M&As more difficult to obtain, particularly for larger companies with significant market share. At the same time, it may provide more opportunities for small and medium enterprises to grow their market share.
- ▶ **Social unrest poses a risk of disruptions to business operations.** Social unrest is likely to persist in many markets in which governments are not pursuing redistribution – or the population perceives it is not doing enough. Labor strikes and activism may also affect companies that are perceived as not sharing their profits sufficiently with employees. Protests can interrupt production and supply chains because of either worker absenteeism or protestors blocking transitways, creating logistical challenges and cost increases for companies. Social unrest may also disrupt commercial operations, slowing sales volumes in cities that experience protests. So even if the direct operational impacts of COVID-19 wane in 2022, companies should expect these indirect disruptions to continue in some markets.

Recommended actions

- ▶ Assess the economic implications of government policy-driven shifts and adjust **corporate strategy** accordingly.
- ▶ Work with governments to reduce income inequality and promote **inclusive growth**, such as through job creation for the long-term unemployed, stronger diversity and inclusion programs and upskilling opportunities.
- ▶ Identify and analyze potential **tax policy changes** in key markets, quantifying the possible effects on the business.
- ▶ Establish a monitoring system to identify early warning indicators of the **risk** of social unrest in key markets.

Figure 12: Countries that spend more on social safety nets tend to have lower levels of income inequality.

Gini coefficient, social spending (% of GDP) and gross government debt (% of GDP)



Source: OECD, World Bank, UNESCO, International Monetary Fund, EY analysis.

Note: The size of the bubbles indicates gross government debt as a percentage of GDP. Gini coefficients are measured on a 0-1 scale, with higher numbers indicating higher levels of inequality. The social spending data for Argentina, Brazil, China, India, Indonesia, Russia and South Africa was calculated by adding spending on health, education and social safety nets as percentage of GDP. Countries included are G-20 members with sufficient data to present. All data is the latest available (often 2019 or earlier).

Business implications of the top 10 geopolitical developments

The top 10 geopolitical developments in the 2022 *Geostrategic Outlook* will have broad-based impacts on companies across sectors and geographies. But each development is likely to have more direct impacts on certain sectors, particularly in the near to medium term (see Figure 13). Reflecting the focus of all of the developments within the “increasing role of governments in economies” theme, the technology sector is likely to be most impacted by political developments in 2022. This raises the urgency for executives across sectors to [factor geopolitics into their technology strategies](#). Other sectors likely to be highly impacted by geopolitical developments in 2022 include manufacturing and consumer products. And, of course, the developments within the “climate change and sustainability” theme are likely to have an outside impact on companies in the energy sector.

These developments will also vary in terms of how and where they impact companies (see Figure 14). As a result, different executives or functions within companies will need to monitor and manage each development. For instance, the chief risk officer's leadership on managing the rise of cyber piracy would be prudent, while the chief strategy officer can play a central role in adapting to the climate change-political risk nexus. And the chief operations officer, as an increasingly [active architect of corporate strategy](#), is likely to have a hand in the political risk management of all of the top 10 geopolitical developments.

No one executive or function should manage these developments in a silo though. The EY Geostrategic Business Group's research in collaboration with the Political Risk Lab at the Wharton School of the University of Pennsylvania indicates [effectively managing political risks](#) requires coordination and collaboration across functions. And the chief executive officer and board of directors should maintain oversight over how their company manages these political developments.

Figure 13: The technology, manufacturing and consumer sectors are likely to be impacted by the most geopolitical developments in 2022.

Top 10 geopolitical risk developments by select sector impacts

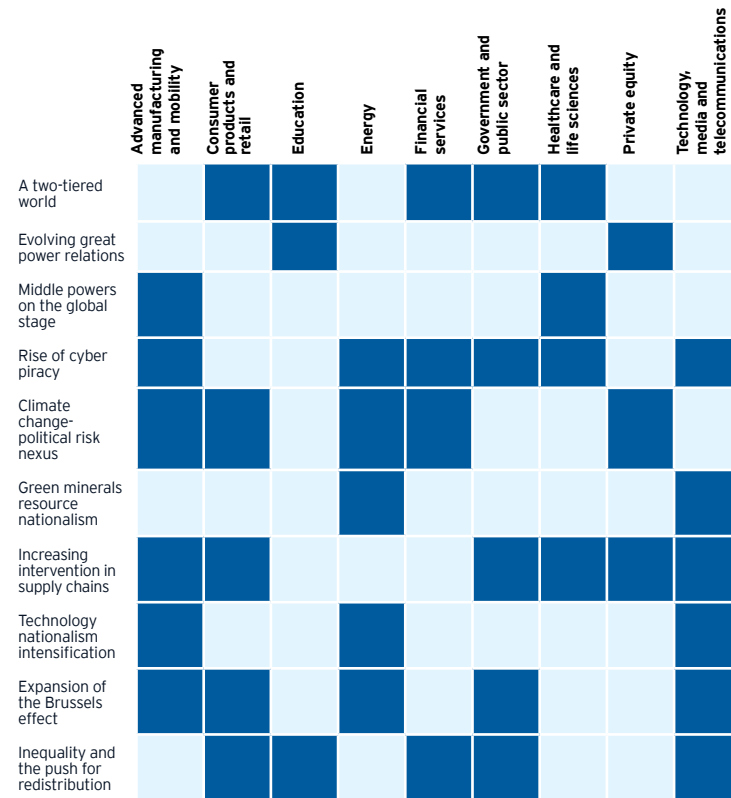
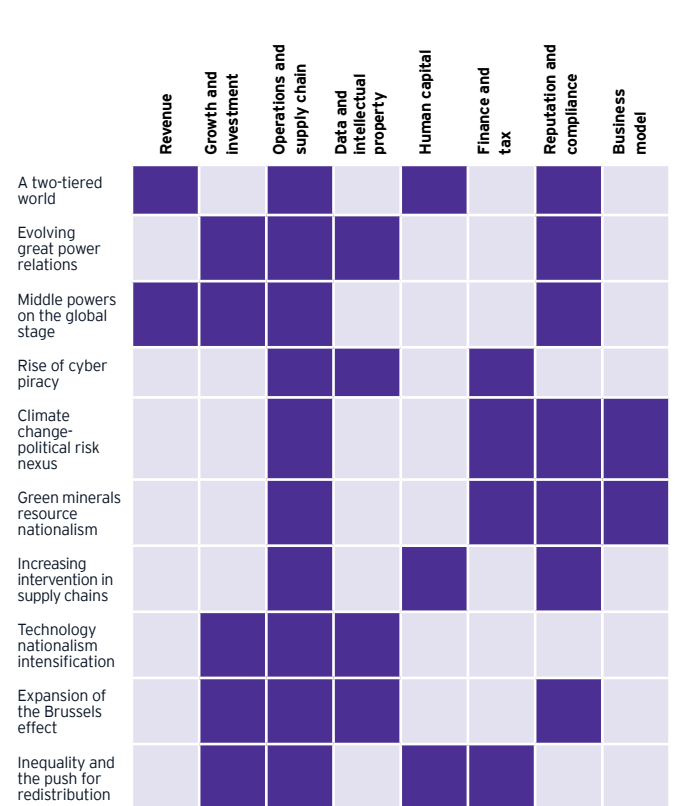


Figure 14: Geopolitical developments will have impacts across the enterprise in 2022 – with supply chains likely to be hardest hit.

Top 10 geopolitical risk developments by business function impacts



Source: EY Geostrategic Business Group.

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The EY Geostrategic Business Group (GBG) helps organizations translate geopolitical insights into business strategy. Geopolitics affect every global organization, from strategy to supply chain. Yet many companies struggle to assess and manage this disruption and the impacts it has on their business. The GBG harnesses local knowledge and collaborates with third-party firms to bring an added independent political risk perspective. With the breadth of our strategic and operational knowledge, EY teams develop actionable plans to help organizations better monitor, assess and manage political risks.

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