

Agora Special Report

2023 Geopolitical Risks Report: Seven pressure points to watch

January 05, 2023

Executive Summary

The world in 2023

1. **The war in Ukraine is unlikely to end soon:** Even a ceasefire, if concluded next year, will not be sustainable without a new multilateral agreement on European security. Rather, an escalation of the war with further human suffering and economic burden is likely enough.
2. **Europe's energy crisis will last well into 2023,** with no signs of abating. Reallocating oil and gas from Russia and accelerating the energy transition will take time, resulting in higher prices and economic recession. Europe will also continue to face energy security issues.
3. **US-Chinese strategic competition is set to continue along three fronts:** technology, trade, and the Taiwan Strait. The US will focus on limiting the flow of advanced semi-conductors into China and on monitoring foreign investment in high-tech manufacturing.
4. **Access to critical raw materials is essential** as the world moves towards sustainability and technology advances. China has most of the world's reserves and refining capacity, putting Western countries at a disadvantage in ensuring the long-term supply of resources.
5. **Increasingly sophisticated cyber activities by state-sponsored actors** pose acute challenges for international companies, which also have to meet heightened cybersecurity and privacy standards in response to new EU and US regulations.
6. **Developing countries face a brewing storm of non-security related threats** bearing additional risks of political and social instability, as the ongoing food shortage is likely to be regionally exacerbated by extreme weather events and natural disasters.
7. **Instability looms in the Middle East and North Africa** due to a number of factors, from changing dynamics between Gulf countries as well as with the United States and Israel, to Iran's destabilising actions and to the vulnerability of the region's growing gas infrastructure.

... and the key take-aways for international businesses

- **Systemic confrontation between Russia and the West is becoming the new normal** in the form of increased economic disengagement, logistical disruptions, and Western sanctions against Russia, including tighter export controls. Companies should closely monitor these sanctions regimes and prepare for rising compliance costs.
- **The domestic political environment in Russia will become even more repressive,** affecting not only firms, but also their individual employees. International businesses that operate in this market or partner with Russian companies should track domestic legislation and its implementation by the authorities.
- **Europe also faces greater geopolitical risks in the Middle East** as it diversifies its energy sources away from Russia. Disruptions in partner countries such as Algeria and Egypt, and political spats between governments may lead to retaliation against European firms, which need to plan for sudden changes in the business environment.
- **Gas infrastructure development in the Eastern Mediterranean poses new security risks** and highlights the potential danger of maritime chokepoints on energy routes. Security incidents could lead to market volatility, so businesses

should adjust energy budgets, diversify energy sources and create contingency plans for production interruptions.

- **As China and the United States double-down on their own supply-chain security**, businesses in Europe and Asia should prepare to accommodate further pressure from Washington to restrict the transfer of critical technology (e.g. semiconductors) to China.
- **Although the likelihood of a military confrontation in the Taiwan Strait remains low**, businesses whose supply chains depend on maritime trade between Asia and Europe, including automobile and auto parts manufacturers, should plan for severe disruptions.
- **Geopolitical tensions can lead to severe trade restrictions for critical raw materials**. Long-term contracts as well as a dual-sourcing strategy can reduce the risk of supply disruptions through relationships with suppliers in different regions and diversified sources.
- **Cyber threats, including through industrial espionage, increasingly come from Russia**, as it steps up efforts to siphon off corporate technology abroad. High-tech companies should scale up their cyber resilience, e.g., by implementing a zero-trust security model, regular risk awareness trainings, and technical measures like multifactor authentication.
- **Companies face heightened cost of cyber insurance and even loss of coverage**, as aggressive ransomware criminal groups have shaken up the cyber insurance market. Not only have premiums risen substantially in 2021 alone, but also have some insurers excluded from coverage any government-sponsored cyberattacks in peacetime.
- **New privacy regulations in the EU and the US require firms to adjust**. While European data protection has recently been tightened, at least five different state-level privacy laws will come into effect in 2023 in the US, as lobbies have prevented new federal regulations.
- **To reduce the impact of unforeseen climate risks** as well as extreme weather events that can disrupt business operations, companies should prioritize mitigation and response plans. These include measures to manage the direct and indirect impacts of climate events like damages to assets, energy dependence, and interruptions of cross-border supply chains.
- **Climate finance represents a real opportunity**. As efforts to mobilize resources for mitigation and adaptation in developing countries gain momentum, public institutions seek to remove financial, structural, and risk barriers for private sector involvement. Focus on countries that issue green bonds or lead on debt restructuring, like Fiji and the Caribbeans.
- **In contrast, food insecurity and growing inflation pose major risks** to social and political stability in emerging countries, with social unrest and labor strikes threatening to disrupt economic activity. Countries at particular risk and with deep supply chains connections to European markets are Tunisia, Nigeria, Senegal, and Egypt.
- **The economic rivalry between Saudi Arabia and the United Arab Emirates is growing**, as evidenced by Riyadh's aggressive attempts to attract multinational firms and talent from elsewhere in the region. European companies may increasingly have to choose between doing business with either of the two countries.
- **Sanctions against Iran show no signs of easing** as a bottom-up revolt continues to rock the country and a revival of the 2015 nuclear deal remains unlikely. Opportunities for investment in the Iranian economy are therefore minimal, and the entry of Iranian gas into global markets to compensate for reduced Russian supplies is unlikely in the short-term.

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7 pressure points to watch

Russia's war in Ukraine to drag on, causing continued human suffering and global economic woes

The war in Ukraine will remain a major risk factor for international businesses in 2023. This is due to the low prospects for a speedy end to the conflict, as long as both Moscow and Kyiv believe that they can achieve more on the battlefield than in substantial negotiations requiring painful concessions. Instead, further escalation is still possible amid the many uncertainties surrounding the war.

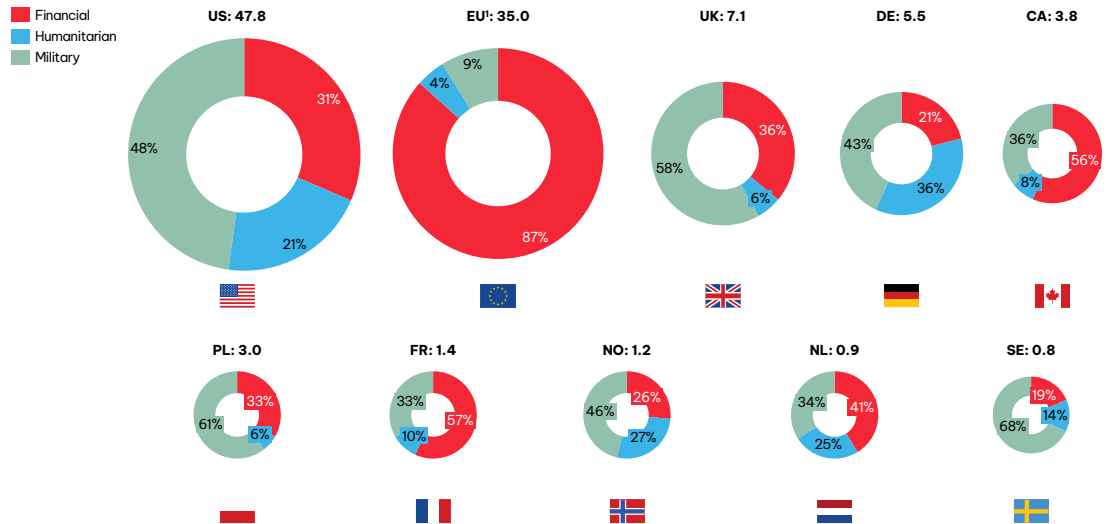
The most likely scenario is a relative stabilization of the frontline with continuous heavy fighting but no rapid sizeable territorial gains by any side. Armed conflict will stay mainly within Ukraine's borders, yet regular drone and missile attacks inside Russia proper as well as subversive activities are likely. Russia seems able and determined to continue to destroy critical, transport, and civilian infrastructure in Ukraine, even when its own economic and military situation deteriorates.

The second, less likely scenario would lead to a horizontal escalation of the conflict, i.e., the direct involvement of third countries. The missile incident in Poland in mid-November showed how the war could easily expand into NATO territory, even if the alliance stresses that it wants to stay away from it. Direct involvement of Russian-allied Belarus also remains a distinct possibility, though neither Minsk nor Moscow appear to have an interest in this at the moment. However, as long as Russia launches air and missile attacks on Ukraine from Belarusian territory, the country remains a potential target for the Ukrainian army.

The third scenario would see the conflict's vertical escalation up to the use of weapons of mass destruction by Russia, including tactical nuclear weapons. While unlikely, this could play out if Ukraine continues its successful counteroffensive and comes close to retaking Crimea.

Developments throughout 2023 may include elements of all three scenarios, as escalation risks prove difficult to control by the belligerents. The longer the conflict lasts, the more likely its geographical expansion becomes, as neighboring countries like Belarus and Moldova or even Poland could become involved. Such horizontal escalation may then trigger a vertical one, possibly leading to the dilemma of accepting a negotiated ceasefire to avoid, or even shortly after, a Russian tactical nuclear strike.

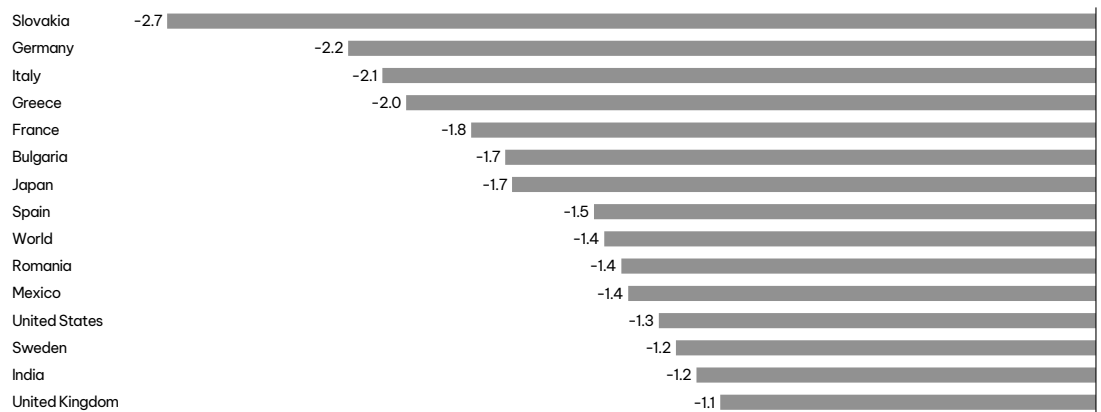
Figure 1: Total bilateral aid commitments to Ukraine, top ten sources and type in €bn



Source: Kiel Institute; Ukraine Support Tracker (survey period: January 24, 2022 to November 20, 2022) Note: Pie charts not to scale

Western support (as shown in figure 1) remains a key factor in Ukraine's ability to resist. Consensus among elites and populations across NATO for military and financial support to Ukraine seems to be holding. The general perception, especially among G7 countries, is that relations with Russia have irrevocably deteriorated, which will likely affect the West's long-term defense planning and funding. However, the war has had a negative socio-economic impact through rising energy and food prices and by depressing economic growth (see figure 2). This, in addition to the risk of horizontal escalation, is likely to soften the current consensus through 2023, especially in Europe. Instead, the number of voices in politics and society supporting a diplomatic solution are likely to grow.

Figure 2: Impact of the war in Ukraine on forecast GDP growth for 2022 in selected countries (as a difference between Dec 2021 and Jun 2022 forecasts, in %)



Source: OECD, June 2022

Russian society will also increasingly suffer from the war, the sanctions, and the country's strategic reorientation away from the West. Nevertheless, living standards will not drop dramatically, while the political system becomes more repressive, allowing Putin's government to retain majority approval for its domestic and foreign policies. International businesses working in Russia or with Russian companies should assess the risks of increased domestic repression and control of foreign cooperation by state security services.

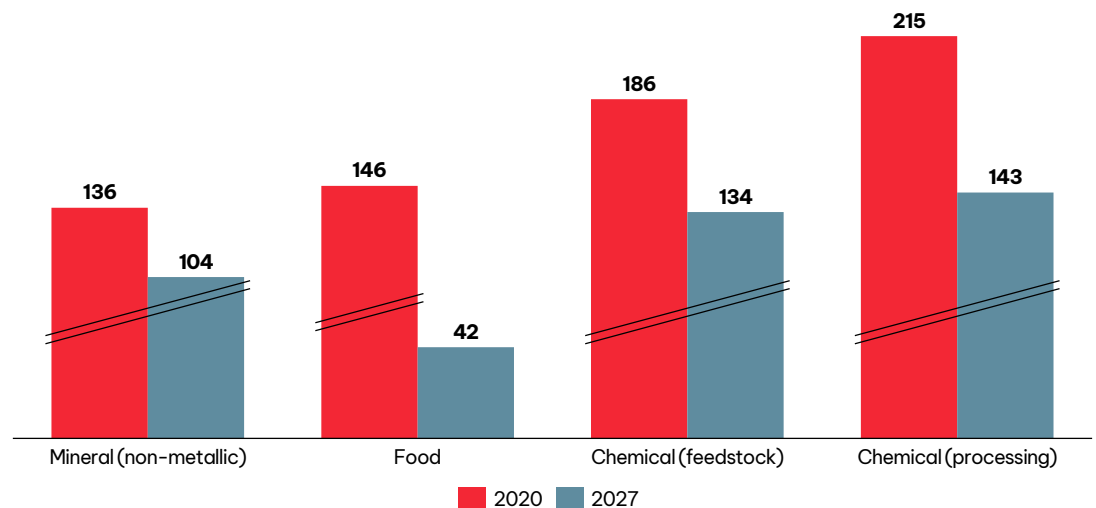
All plausible war scenarios will continue to have a negative effect on stability in the region throughout 2023. Without a functioning security architecture, the region will experience an expanding arms race and further militarization, heightening the risks of the war's horizontal escalation. The "cold war" atmosphere in Russian-Western relations is becoming a new normal in all areas, not just militarily. Economic and logistical decoupling will continue, and business ties across the new "iron curtain" will become even more difficult to maintain.

The energy crisis persists in Europe and beyond, with opportunities in green investments

Russian's invasion of Ukraine has sparked an energy crisis in Europe, drastically reducing gas supplies and driving up prices compared to other regions. Despite forecasts of decreasing gas demand by different EU industries in the medium-term (as shown in figure 3), the possible relocation of energy-intensive production marks a serious risk for Europe's industrial base. Moreover, Russia's cutting of supplies together with EU and G7 sanctions on Russian gas and oil have created new threats to energy security.

Major forces driving energy policy in 2023 include the need to slash elevated prices and to transition to renewable sources in response to climate change. The Ukraine war has further led to rising inflation, reduced household incomes, and increased production costs. As a result, a decline in global economic growth and stagnation in the Eurozone are expected for 2023.

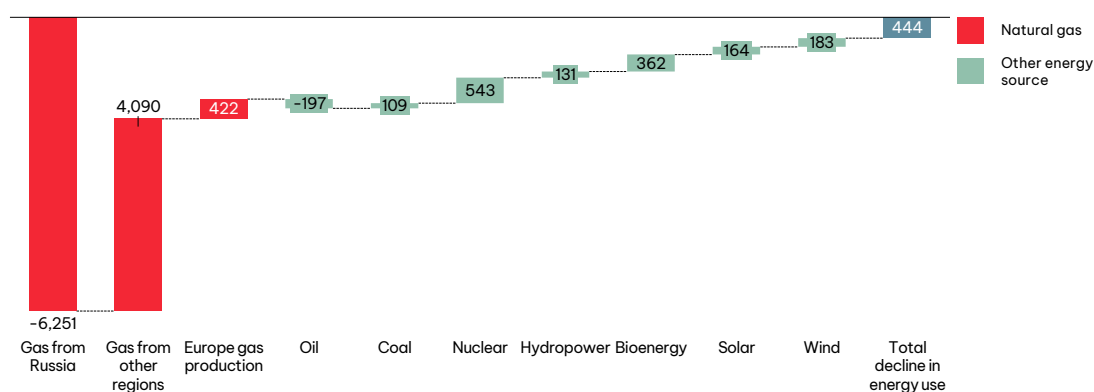
Figure 3: Demand for natural gas in the EU in selected energy-intensive industries in 2020 (actual) and 2027 (forecast), in terawatt hours



Source: Climact, N. Sönnichsen, October 2022

Governments striving to address the threefold challenge of energy security, climate change and economic growth have prioritized short-term supply over long-term objectives. About 65% of gas previously bought from Russia will be imported from other regions (4.090 out of 6.251 petajoules, cf. figure 4). The remaining gap will have to be filled by investments in renewables and new technologies, thus enhancing supply security in the medium and long term. By 2030, coal demand is projected to decrease by about a half, and natural oil and gas demand by nearly a fifth. Meanwhile, cost-effective technologies such as wind and solar will account for 30% and 15% of electricity generation, respectively, by 2030, up from 13% and 5% in 2021.

Figure 4: Europe's changing primary energy mix in response to the reduction in Russian gas imports, forecast 2022–2024, in petajoules per year



Source: DNV

In the short-term, high-energy prices are here to stay, even with the EU's just-passed gas price cap at €180 per megawatt hour. That's because Russia's oil and gas lack immediate substitutes, and meagre investments in the energy sector in recent years have exacerbated the current shortages. China's easing of Covid-19 restrictions, in turn, has caused a surge in new cases there, which may temporarily reduce energy demand. While weaker-than-expected global economic growth may affect the peak of oil demand and the energy transition, global value chains will be reshaped by trade and commodities becoming more expensive.

Against this backdrop, Europe has begun to develop its energy relationship in particular with countries in the Middle East and North Africa. This gives these new-found suppliers more political leverage, while increasing Europe's exposure to the region's complicated geo-politics. Algeria and Morocco, for example, are important energy, and trade and investment partners, respectively, for European businesses. However, they are also in a long-standing row over Western Sahara, a formerly Spanish-controlled disputed area now claimed by Rabat. Positions taken by European governments regarding the territory's status have in the past led to retaliation. Either by the Algerian government, which supports an independence movement there, or by Morocco. For example when Spain recognized Morocco's sovereignty over the territory in early 2022, Algeria responded by banning the import of Spanish livestock. Similarly, Germany's recent gas agreement with Qatar for two billion cubic meters annually may expose Berlin to risks from future disputes within the Gulf Cooperation Council (GCC) states.

Also, the emerging gas infrastructure in the Eastern Mediterranean increases Europe's security risk from states or non-state actors threatening to unsettle energy markets or disrupt supplies. Iran, for one, may be tempted to target such installations through the Lebanese Hezbollah, after its regional deterrence capabilities weakened due to increased Arab-Israeli security cooperation. Moreover, maritime security at chokepoints such as the Straits of Hormuz or of Bab el-Mandeb becomes more relevant as Europe relies on deliveries along these strategic routes. In their quest for influence, major powers such as China, France, and Russia and regional ones like Saudi Arabia, Qatar, Turkey, and the UAE all have established a presence in the area. This geopolitical competition considerably increases energy security risks.

Then, there are a number of stability risks in energy-producing countries that could impact European businesses. Algeria, Egypt, and Morocco all face significant inflationary pressures which, in the worst case, can increase unemployment, drive up food prices, and stoke popular discontent, with a negative impact on political stability if uncontained. At best, they will deplete foreign exchange reserves and undermine public and foreign investment flows at a critical time when countries desperately need both to sustain economic growth. Potential risks also arise from power struggles between countries like Egypt and Algeria, which are vying for the future role as the region's energy hub.

In this current energy context, the strategy of companies should be to increase their energy budgets and diversify their energy mix, including self-generation of renewable energy and further innovation.

Investment opportunities in emerging and developing economies for new oil or gas infrastructure have the potential to bring quick returns with minimal impact on climate change goals. The US and the EU, in light of China's control of the downstream supply chain of critical minerals needed for clean energy sources (such as copper, nickel, and lithium), provide incentives for investments within their territories and through friend-shoring, i.e. the process of re-orienting supply chains to source essential materials from allied countries. Additionally, the energy transition offers long-term investment opportunities in innovative technologies, such as those for renewable energy and electric mobility, carbon-free home heating, carbon capture and storage, and green hydrogen-based fuels. Growing demand for net-zero technologies could create more than \$12 trillion of annual sales by 2030, including in transport, power generation, and hydrogen.

US-China global rivalry to deepen, mostly affecting technology and trade

Despite the efforts of US President Joe Biden and Chairman Xi Jinping to put a floor under their country's expanding strategic rivalry during the G20 summit in Bali, fundamental differences remain. Although channels of high-level communication have been reestablished, including restarting a working group on climate, Beijing and Washington will continue to compete vigorously. Each will try to lay the foundations for it to "win" in their increasingly zero-sum race in the decades ahead. In 2023, the competition will develop along three major lines: technology, trade and military preparations in the Taiwan Strait.

The battle over dominance in critical cutting-edge technology like semiconductors, super-computers, AI, machine learning, biotech and new materials will be key. Both China and the US view supremacy in modern technology as a prerequisite for long-term economic prosperity and modern military power. Through its plan to secure critical supply chains and by signing into law the CHIPS Act, the Biden administration in 2022 doubled-down on industrial strategy. It has also encouraged the "friend-shoring" of critical manufacturing and strategic minerals and limited the flow of advanced semiconductor technology to China. In 2023, the main focus will be the drafting and passing of legislation that will allow the US to monitor any outward investment that transfers high-tech manufacturing capacity to "hostile countries" such as China, Russia, Iran, or North Korea. Moreover, Washington will encourage European and Asian partners such as the EU, the UK, Israel, Japan, and South Korea to develop and enforce similar export control mechanisms. With two years left in office, Biden's team will double down on an effort to build a lasting policy legacy, even though, no matter who wins the White House in 2024, tech rivalry with China will most likely continue to determine the US course of action.

In the year ahead, China will try to counter US moves. First, Beijing will try to divide US allies by offering preferential market access and cutting deals with individual countries and companies – German Chancellor Olaf Scholz's trip to China in November is exemplary. Second, China will pour more money into import-substitution and indigenous innovation in critical technology, as a new State Council team settles in by late March 2023 and drafts its medium-term plans. Third, China will continue to lobby companies to obtain waivers and special licenses from the US government that would allow the flow of technologies and components within the legal framework set by the US executive order limiting the export of semiconductor technology.

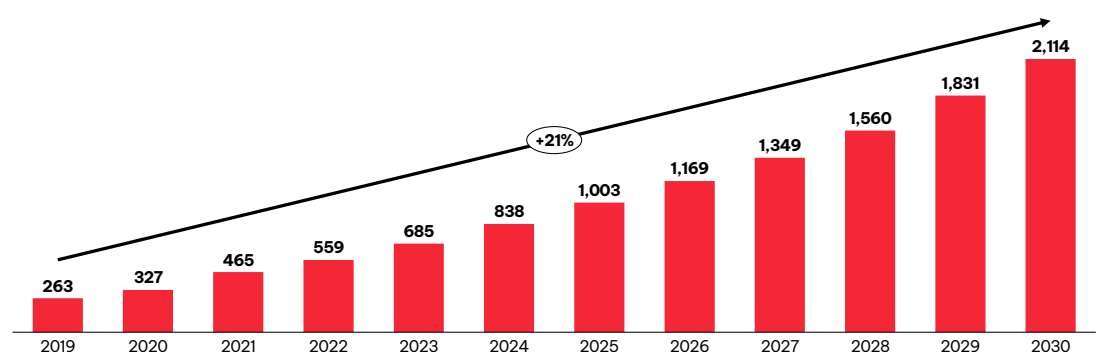
On trade, the US will proclaim its desire to sort out the tariff war with China, but is unlikely to give US Trade Representative Katherine Tai a proactive role, thus leaving trade talks on hold. The WTO will continue to review some Trump-era cases raised by Beijing, as it did with steel tariffs in early December. The US will be slow to implement these rulings, relying on legal push back. The Republican majority in the House of Representatives can be expected to bring new legislation to the floor, but the focus of this effort will likely be on even tighter controls on technology transfers – largely in line with the Biden administration’s vision.

With regard to Taiwan, the probability of war in 2023 remains low. Beijing prefers to regain control of the island by non-military means, with a timeframe not set in stone. Nevertheless, a number of triggers could lead to an unintended escalation. For example, if the new Republican Speaker of the House visited Taiwan in 2023, China is certain to respond with an even greater show of force than it did when Nancy Pelosi did so in 2022. In turn, Beijing could feel compelled to take action, including through a naval embargo, if Taipei crossed a red line by, for example, announcing independence or definitely deviating from the rhetorical status quo with the mainland. Similarly, China could also become more aggressive if concluding that US efforts to strengthen Taiwanese self-defense capabilities would prevent it from using a military option to regain the island altogether. In such a case, Beijing could see a “window of opportunity” for earlier action than planned. In any case, China will continue to rapidly modernize its military and to create the capabilities needed to overwhelm Taiwanese defenses, while the US and its allies (most notably Japan) will continue to buttress Taipei’s military abilities. Although the likelihood of a military confrontation in the Taiwan Strait in 2023 is low, governments and businesses need to ensure that they have plans in place to disrupt maritime trade routes.

Unprecedented weaponization of critical raw materials expected

Critical raw materials are likely to emerge as major drivers of geopolitical conflict in 2023. With many economies transitioning towards ‘greener’, less resource-intensive models, the world continues to rely on finite resources located in certain countries. Demand for minerals such as lithium, cobalt, and rare earth elements has increased significantly, and is expected to grow over the next years as figures 5 and 6 show. (For lithium, the mean annual growth rate is 21% between 2019 and 2030, thus roughly doubling worldwide demand between now and 2025, and again between then and 2030.) This is largely due to the emergence of new technologies such as green energy, electric vehicles, and 5G networks. As these commodities become increasingly valuable to any country with industrial production, it also heightens interdependence along the value chain. In the end, geopolitical tensions are likely to erupt, because industry needs are set to outpace efforts to access mineral deposits.

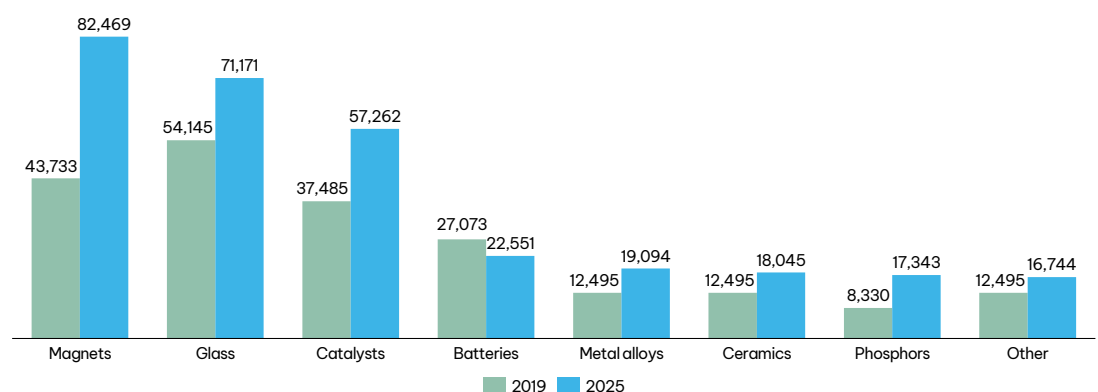
Figure 5: Actual (2019–21) and projected (2022–2030) global lithium demand (in 1,000 metric tons of lithium carbonate equivalent)



Source: Comisión Chilena del Cobre, 2022

Reliable access to critical raw materials is becoming a major global concern as their deposits and/or their extraction and refinement capacities are located in only a few countries. China holds the largest share of rare earth elements, the 17 metallic elements that are essential for products like cell phones, wind turbines, and electric vehicles, followed by the US, Canada, and Zimbabwe. Chile, Australia, and Argentina, in turn, lead in lithium reserves. Cobalt is overwhelmingly held by the Democratic Republic of Congo, with Russia, Canada, Australia, and Zambia trailing. Nickel is mainly found in Russia, Indonesia, Canada, and Australia. Often also the refining process, which takes place in specialized plants located near the raw materials' source, is highly concentrated in a few countries. China, for instance, is the major player in rare earths refining, producing more than 80% of the world's supply, followed by Japan and the US.

Figure 6: Demand for rare earth oxides worldwide in 2019 (actual) and 2025 (forecast) by end use (in metric tons)



Source: Stormcrow "Rare Earths 2020 Report - Things are not Great, but The Will Get Better"

The enormous local concentration of reserves and refining, coupled with export restrictions and limited access for foreign investment, puts global markets at risk of supply disruptions. China, for one, introduced export constraints on rare earths in 2010, further tightening them in 2014 and 2019. Indonesia imposed new controls for nickel and other critical raw materials in 2019, limiting exports and requiring raw nickel to be refined in the country. If the demand for critical raw materials continues to outstrip available supply, there is a risk of additional countries – such as Russia for Palladium – introducing export restrictions or bans by 2023.

For companies facing significant price and supply chain risks, active resource management policies by governments are a key to success. These can lead to more stable prices, managed diversification, and reduced dependence on a few supplier countries. In recent years, the EU has taken a number of measures to secure access to key raw materials. These include the establishment of the European Commodity Observatory monitoring global commodity flows, new legislation on the recycling of raw materials, innovation partnerships to promote new technologies, strategic partnerships with like-minded countries, and the inclusion of a raw materials chapter in new trade agreements. In early 2023, the EU is expected to present the Critical Raw Materials Act, which will include a European raw materials security strategy based on self-sufficiency targets and measures such as an early warning system to identify raw materials becoming critical. Similarly, Brussels seeks to improve the supply of critical raw materials and mitigate the risk of disruption from geopolitical conflicts by pushing for the ratification of trade agreements with Chile, Mexico, and New Zealand, and seeking to advance negotiations with partners such as Australia and India.

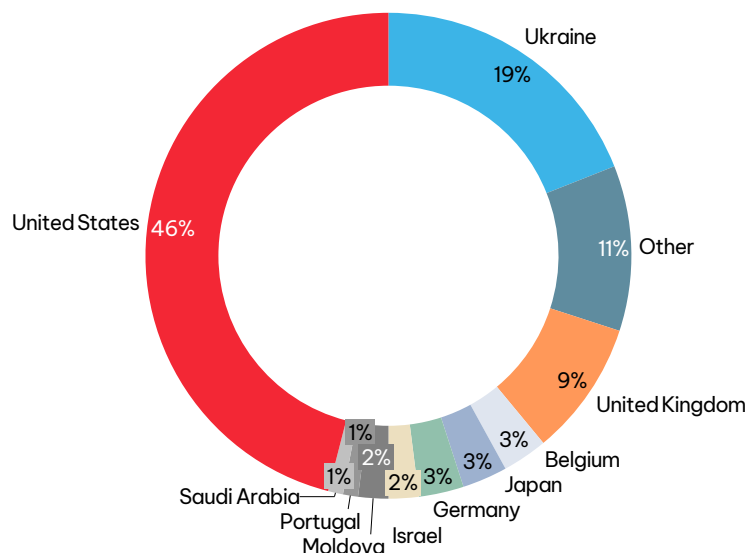
Diversifying supply can help in the short-term, but Europe needs more than that to guarantee long-term supply security. With no mining or refining capacity for rare earth elements and very little capacity for lithium, it is difficult to bring the value chain back home. EU regulations and lengthy approval processes for new mines make it tough, and recycling efforts are unlikely to yield quick results. Also, the Critical Raw Materials Act may come with additional costs for companies, via quotas, taxes, and higher environmental standards.

The US is likewise expected to ramp up efforts to secure critical raw materials. Already in April 2021, President Joe Biden used the Defense Production Act of 1950 to increase the production of several critical raw materials. He directed the Secretary of Commerce to identify, prioritize, and expand the production of these resources as well as to secure their supply through procurement. In addition, there is legislation pending in the US House of Representatives that would codify the president's executive order. The Critical Mineral Exploration and Development Act would create a support program for domestic production as well as research and development of innovative technologies to reduce reliance on foreign suppliers. Should the global supply of critical raw materials face a crunch in 2023, bipartisan agreement on this legislation in the Republican-controlled House and the Democrat-led Senate can be expected.

From state-sponsored attacks to privacy regulation: Upcoming challenges in the digital realm

Russia's assault on Ukraine has made the vulnerability to cyber attacks of critical government and private sector infrastructure and networks a pressing concern. At the onset of the invasion, the hacking of US satellite company Viasat not only beset Ukrainian defences but affected Internet users and web-connected wind farms across central Europe. Two months later, the Pipedream malware was detected in US critical infrastructure before becoming active, showing that direct attacks on a nation's 'nerve system' are no longer a remote threat. In effect, there are more than twice as many Russian cyber attacks against the US than against Ukraine – a country with which it is at war (see figure 7). Germany's Federal Office for Information Security, for one, has classified the threat level as higher than ever before. Besides Russia, China, North Korea, and Iran are the main perpetrators of state-sponsored cyber operations.

Figure 7: Countries targeted by Russian cyberattacks from July 2020 to June 2021, by location of notified customers

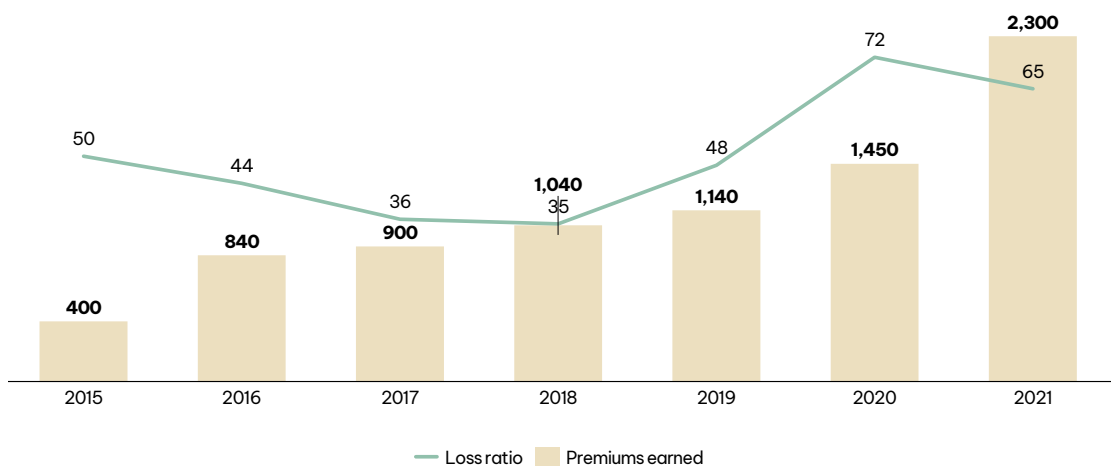


Source: Microsoft "Special Report: Ukraine – An overview of Russia's cyberattack activity in Ukraine"

Ransomware has become a particular headache for both governments and companies, as criminals are increasingly extorting developing countries as well as less protected entities, such as local administrations and small businesses. The industries most affected by ransomware are manufacturing (28%), health (20%), and consumer retail (16%). Attacks are so frequent and severe that insurance companies have increased premiums by 74% in 2021 alone, according to S&P Global Market Intelligence. Figure 8 shows that cyber insurance premiums in the US increased steadily from 2015 to 2021 (at an average annual growth rate of 34%), while the loss ratio – calculated

by dividing the direct losses and defense costs by the premiums earned – changed significantly year on year. Moreover, some insurers such as Lloyd’s of London have introduced comprehensive rejection clauses to exclude coverage for state-backed cyber operations, thus leaving struck companies to deal with the damage themselves.

Figure 8: Cyber insurance premiums earned (in \$m) vs. loss ratio in the US (in %) 2015–2021



Source: Howden; Various sources (NOVA); S&P Global Market Intelligence; Statista

Note: The loss ratio was calculated by dividing the direct losses and defense costs by the premiums earned.

In addition to malevolent cyber activities, government policies also requires firms to respond. The EU recently passed several important cybersecurity regulations, most importantly the Network and Information Security (NIS2) Directive. Other legislative initiatives include the Cyber Resilience Act, which addresses the Internet of Things, and the Digital Operational Resilience Act for financial sector regulation.

The NIS2 Directive considerably expands the number of entities that must meet heightened cybersecurity standards, e.g., by adding sectors such as social networking platforms and pharmaceutical companies. It also requires firms to follow strict incident reporting procedures (within 24 hours for an initial notification of an incident and within 72 hours for a more comprehensive incident report) and to use multi-factor authentication. In terms of more comprehensive cybersecurity risk management measures, the directive requires companies to, for instance, perform due diligence of their supply chains, implement proper encryption practices, and have business continuity and crisis management plans in place. It also sets standards for robust network segmentation between the corporate and production levels of a company. This would help to blunt a future incident like the ransomware attack on the Colonial Pipeline oil system in the US in May 2021. Set to enter into force by the end of the year, the NIS2 directive gives member states 21 months to be incorporate its provisions into national law.

European regulations focusing on the Internet of Things and financial services could be similarly effective in a market that has been only sparsely regulated and where hardware and software providers have had little incentive to provide secure equipment. Like the EU’s General Data Protection Regulation, these acts will have a wider global impact wherever companies do business with the EU.

The US, in turn, has been less resolute in regulating the cybersecurity landscape. Instead, it has taken an incentivizing approach by linking higher cybersecurity standards to the procurement of IT hardware and software to the US government. Moreover, the divide between red (Republican-run) and blue (Democrat-led) states has widened after the mid-term elections, hindering comprehensive big tech regulation at federal level. Even so, the proposed American Data Privacy and Protection Act in its current form enjoys bi-partisan support, even though Nancy Pelosi, the outgoing Speaker of the House, has so far blocked passage of the bill. She rejects the limiting effect that does not allow states – like California, which she represents – to go beyond the federally prescribed measures. Democrats also advocate for a “private right of action” allowing individuals to sue companies for wrongdoings. Republicans, in turn,

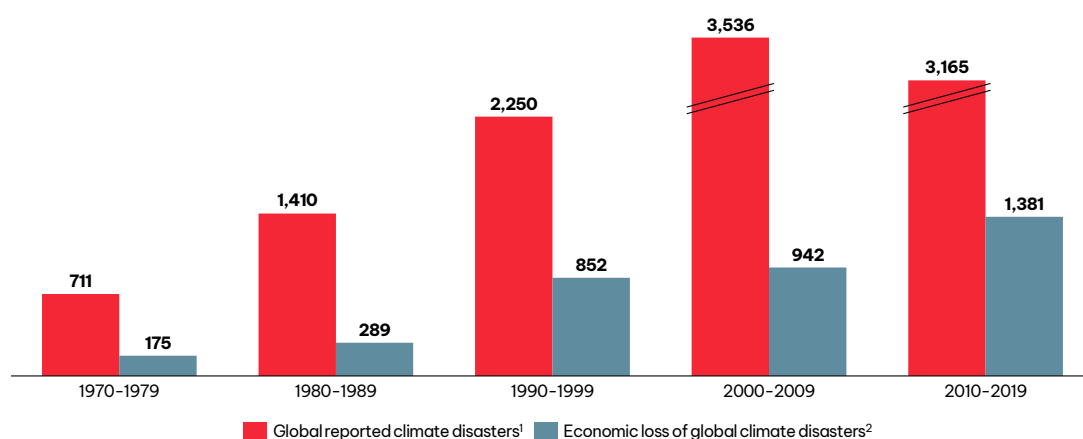
push for a baseline federal law that cannot be exceeded by the states and oppose the said “private right”.

The debate on stronger regulation comes at a crucial time when location data, search histories, and other personal information have become critical security issues. With virtually no laws restricting expansive data brokerage practices, American consumers’ personal data can currently be easily acquired by foreign intelligence agencies or criminals. This represents not only a great reputational risk to companies holding such data, but can also do real operational damage. In the end, 2023 may provide first indications of the pros and cons of both the European and American approaches to securing the cyber domain – with companies active across the Atlantic having to deal with both.

Climate change, food insecurity, and social unrest forming a perfect storm in the developing world

In 2023, global greenhouse emissions are expected to reach a new peak as investment in green energy has slowed due to recovery from the Covid-19 pandemic. With climate-related risks becoming more frequent, economic losses as well as human deaths and displacements around the world will increase. Figure 9 illustrates the exponential increase in global climate-related disasters and the resulting economic costs over the past five decades: What was once an anomaly is now commonplace, costing the world an estimated \$520 billion each year in lost consumption, according to the World Bank.

Figure 9: Global reported climate disasters and associated economic losses 1970–2019, in absolute numbers and \$bn



Source: World Meteorological Organization, “The Atlas of Mortality and Economic Losses from Weather, Climate and Water Extremes”

¹ Number of weather, climate, and water related disasters reported between 1970 and 2019

² Economic losses of weather, climate, and water related disasters between 1970 and 2019 (in billion U.S. dollars)

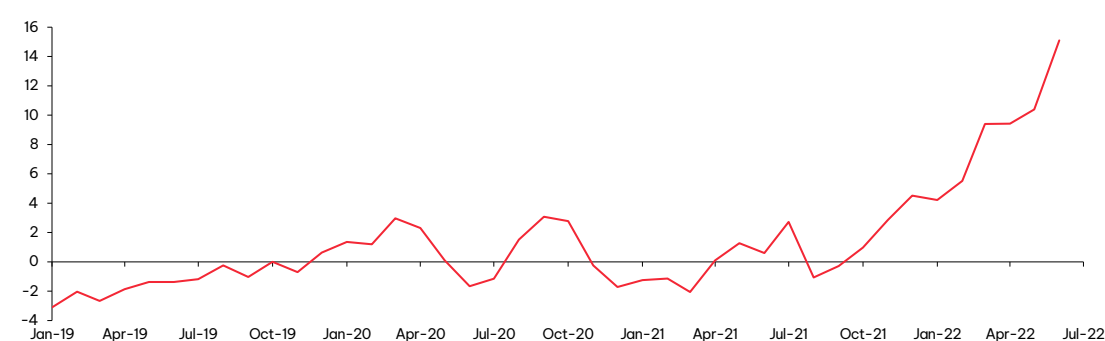
Developing countries are hardest hit by climate change, with 99% of weather-related casualties occurring there. Flooding, extreme drought, heat, changing rainfall patterns, and reduced crop yields are just some of the factors leading to economic damage, loss of livelihoods, and even violent conflict. While still recovering from the pandemic, developing countries will be further left behind by climate change: the African continent, for example, will lose up to 15% of annual per capita economic growth, according to the African Development Bank. Millions of people in countries like Pakistan, India, Bangladesh, Malawi, and Mozambique will be displaced due to floods and extreme droughts. In addition, climate change increases the risks of conflicts over natural resources, creating a favorable environment for armed groups and terrorist recruitment.

At the 2009 UN Climate Conference in Copenhagen, developed countries pledged to mobilize \$100 billion annually for developing countries by 2020 – a target they still have to reach. At COP27 in Egypt in November 2022, it was agreed to establish a Loss and Damage Fund for countries most affected by climate change, though its structure, donors, and beneficiaries have yet to be determined. Even with an expected increase in contributions, the growing development gap will continue to prevent the Global South from implementing effective and sustainable climate action.

Given the urgent need for a comprehensive approach to climate finance that addresses both mitigation and adaptation, new opportunities are expected to emerge. These include the continuous efforts of developed countries to co-design climate finance packages with developing economies and the engagement of financial institutions such as the World Bank and the IMF to create more efficient and adequate climate finance mechanisms. The Climate Finance Summit in Paris in June 2023 will be a key event.

Another challenge for developing and emerging economies is food insecurity as a result of climate change, which is compounded by the impact of inflation. With supply chains, ports, and fertilizer markets disrupted, some developing countries experience double-digit food price inflation (with figure 10 showing Morocco's rate as an example). Food insecurity therefore becomes a destabilizing factor in many emerging and low-income economies, in particular in East and North Africa as well as Central and Eastern Asia: Ethiopia, Nigeria, South Sudan, and Yemen are especially at risk of famine.

Figure 10: Food inflation rate in Morocco from Jan 2019 to Jun 2022 (year-on-year, in %)



Source: FAO

To make matters worse, inflation and food insecurity put pressure on public institutions and increase the risk of social unrest and disruptive strikes. Countries such as Tunisia, Egypt, Rwanda, Ethiopia, and Pakistan already rely on international financial bodies to strengthen safety net programs and expand the agricultural sector. More broadly, donor countries will need to provide \$7 billion in aid to vulnerable households, and \$50 billion to end food insecurity for 222 million people across 53 countries

In 2023, several initiatives and trends are worth monitoring. In the area of climate finance, the Bridgetown Agenda and the Caribbean Debt Swaps Initiative are particularly relevant for emerging economies. The former was initiated by Barbados to find creative solutions to high debt and financial pressures associated with the pandemic and climate change, including the use of the IMF's Special Drawing Rights to redistribute funds from developed to developing countries. The latter introduces a debt ceiling mechanism that combines debt relief and climate action. Both models are expected to gain traction globally.

In addition, the green bond market is expected to grow through initiatives by financial institutions such as the World Bank as well as individual countries such as Egypt, which will issue a new \$500 million green bond in 2023. The urgency of climate change is also opening doors to enhance technology and innovation in agriculture, with the climate-smart agriculture approach of the World Bank, and in carbon-offsetting, with the IFC Carbon Opportunities Fund. Although 2023 is expected to see peaks in greenhouse gas emissions and an increase in climate-related disasters and costs, public and private sector initiatives to mitigate and adapt to climatic conditions will continue to grow.

Shifting alliances and political instability make for a volatile Middle East

With the wars in Syria and Yemen largely out of the public eye, the Middle East and North Africa may appear more stable than in previous years. However, the potential causes of instability have not disappeared; instead, they have shifted to other areas of risk.

One important issue is the changing dynamic among GCC countries. The enmity between Saudi Arabia and Qatar has all but ended, just as the economic rivalry between Saudi Arabia and the UAE will increasingly define their relations in the future. The Saudi Vision 2030 challenges the Emirates' position as the regional business hub, and Riyadh is working hard to draw firms and people away from the UAE in particular. Abu Dhabi responds by liberalizing business and social norms to make the country a more attractive place of residence. This includes greater acceptance of religious minorities, the introduction of a three-day weekend (i.e. extending to Sunday), and offering long-term residencies or even citizenship to foreigners. So, when the CEO of state carrier Etihad recently rejected such incentives and accepted an offer to head Saudi Arabia's new national airline, Abu Dhabi reportedly was furious. Such spats increasingly pit the two countries against each other and exacerbate tensions between them.

It is unclear how the warming relations between Saudi Arabia and Qatar will play into this. Doha will seek to reap the rewards of the successful completion of the football World Cup and the soft power the tournament has brought it across the Arab world. However, most analysts suggest that the respective bilateral relations of the three countries – Saudi, the UAE, and Qatar – cannot be equally harmonious.

Elsewhere, Iran is grappling with three months of unbroken unrest that threatens the country's leadership and, depending on further developments, possibly the region's stability as well. Despite a heavy crackdown, protesters continue to challenge the Islamic regime, with no return to 'normalcy' in sight. The revolt has further complicated the already tenuous prospects for a restoration of the 2015 nuclear deal, as it appears increasingly unthinkable for Europe and the US to lift sanctions on a brutal and repressive regime. The election of Benjamin Netanyahu as old-new prime minister of Israel also increases the risk of military action against Iran's nuclear program (or the perception of it), although it could also help soften Iran's position, as was the case when the deal was first struck.

The continued expansion of security cooperation between the GCC countries and Israel undermines Tehran's influence in the region and its ability to strike certain targets in particular. Through increased early detection, interception, and retaliatory capabilities, Iran has in effect been deterred from renewed drone attacks and missile strikes. Instead, Teheran has repeatedly signalled its willingness to address and resolve differences with the GCC in order to reduce tensions. Since April 2021, five rounds of Saudi-Iran talks have taken place in Baghdad, and Saudi and Iranian officials recently agreed to continue this dialogue when meeting at an Iraq-focused conference in Amman in December 2022.

Instead, Iran has taken to destabilizing the region by less direct means. It plays an active role in supporting the weaponization of drug production in Syria, seriously affecting neighboring countries such as Jordan. It also undermines political progress in Iraq after an Iran-friendly government has come to power and former Shiite militia leaders took up top government positions. Quite likely, Iran will also try to threaten the growing gas infrastructure in the Eastern Mediterranean through its Lebanese proxy Hezbollah.

Several other factors affect stability in the Middle East, most notably the state of relations between the US and GCC countries and the widespread perception in the

Gulf that US security guarantees no longer hold. GCC states like Saudi Arabia and the UAE believe that Washington is too preoccupied with Russia's war in Ukraine, its rivalry with China, and the domestic political situation to meaningfully engage in the region. The OPEC+ autumn snub to cut oil production shortly before the US midterm election further deepened the estrangement especially with Riyadh, adding to the personal animosity between US President Joe Biden and Saudi Crown Prince Mohammed Bin Salman. Saudi Arabia could even seek Israeli support in containing any harsh US reaction, even though the eventual strength of the GCC-Israel partnership will also be determined by the anti-Arab elements in Prime Minister Netanyahu's extreme-right coalition. Still, the hosting of Chinese president Xi Jinping in Riyadh in mid-December underlined the country's desire to keep all options in a geopolitically bifurcated world.

Agora Strategy

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