

May 2023

# Global Foresight 2023





# Atlantic Council

GLOBAL FORESIGHT 2023

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The Atlantic Council Strategy Papers series is the Atlantic Council's flagship outlet for publishing high-level, strategic thinking. The papers are authored by leading authorities, including a range of established and emerging strategic thinkers from within and outside the Atlantic Council.

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1030 15th Street, NW, 12th Floor,  
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# Introduction

By Peter Engelke

*Global Foresight 2023* is the second edition of an annual foresight series produced by the Atlantic Council's Scowcroft Center for Strategy and Security. As was the case with the inaugural edition, the goal of *Global Foresight 2023* is to provide a provocative take on how the world might unfold in the years to come. Released by the Atlantic Council as digital products in December 2022 and January 2023, this release gathers those initial products into a formal document.

*Global Foresight 2023* contains three main pieces. In the first piece, the Atlantic Council's sixteen senior directors offer their forecasts of what 2023 might bring, for better and for worse. Their top 23 risks and opportunities in 2023 include Iran becoming a nuclear state, Ukraine losing its war with Russia, a "terrorist bridge" forming across the Sahel, the European Union acting as a great power, a doubling of global funding for climate change, and more. The second piece provides survey findings of 167 leading global strategists and foresight practitioners, who provide insights about what might happen in the world by 2033 (an Appendix provides raw survey data). The third piece identifies six "snow leopards," under-the-radar phenomena that might have unexpected yet critically important impacts in 2023 and beyond. The six snow leopards focus on algorithms, decoupling with China, labor movements, electric vehicles, geoengineering, and East Asian geopolitics.

As the 2022 version of this document also stressed, making sense of our complex world requires that we emphasize the connections across diverse phenomena. As we stated then, such an approach characterizes the field of strategic foresight.

As an Atlantic Council Strategy Paper, *Global Foresight 2023* is part of a longstanding series of intellectually robust assessments of the United States, its allies and partners, and the broader world. We hope that the reader finds this second edition of the Global Foresight series to be even more valuable than the first.

Dr. Peter Engelke

Deputy Director and Senior Fellow for Foresight  
Scowcroft Center for Strategy and Security  
Atlantic Council

*Global Foresight 2023* was originally published on the Atlantic Council's website in late 2022 and early 2023, ahead of the release of this PDF version in May 2023. Some of the scenarios envisioned in report therefore may have already begun to unfold or events may have played out differently than the authors expected.



# Welcome to 2023

Prepare for Russia's coming crack-up. Plan for a Chinese military assault on Taiwan. Temper the optimism about peak carbon emissions. Brace for the further spread of nuclear weapons. Buckle in for even greater global volatility ahead.

These are just some of the forecasts that emerged this past fall when the Atlantic Council's Scowcroft Center for Strategy and Security surveyed the future, asking leading global strategists and foresight practitioners around the world to answer our most burning questions about the biggest drivers of change over the next ten years.

A total of 167 experts shared their insights on what geopolitics, climate change, technological disruption, the global economy, social and political movements, and other domains could look like a decade from now. Although respondents are largely citizens of the United States (roughly 60 percent of those polled), their nationalities are spread across thirty countries, with European citizens constituting the majority of non-Americans. (In the following analysis, all geographic distinctions among those surveyed are based on what individuals identified as their sole or primary nationality, not on the countries where they currently reside.)

Respondents are also employed in a range of fields, including the private sector (26 percent), academic or educational institutions (21 percent), non-profits (19 percent), government (16 percent), and independent consultants or freelancers (13 percent). They are quite evenly distributed across age categories over thirty-five, with less than 10 percent between the ages of twenty-two and thirty-five, but they skew heavily male (a result that we will aim to rectify in future surveys).

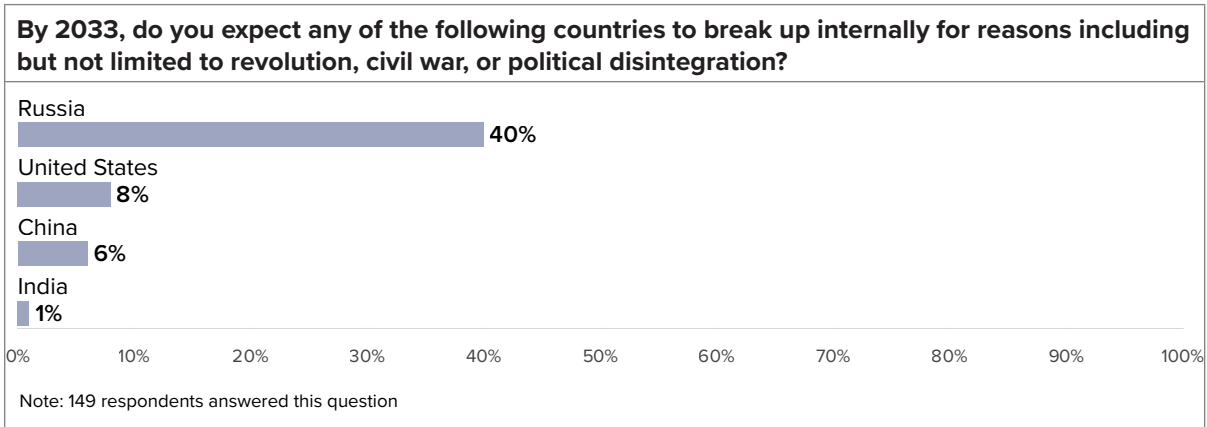
So what will the world look like in 2033? Here are the ten biggest findings from the survey.

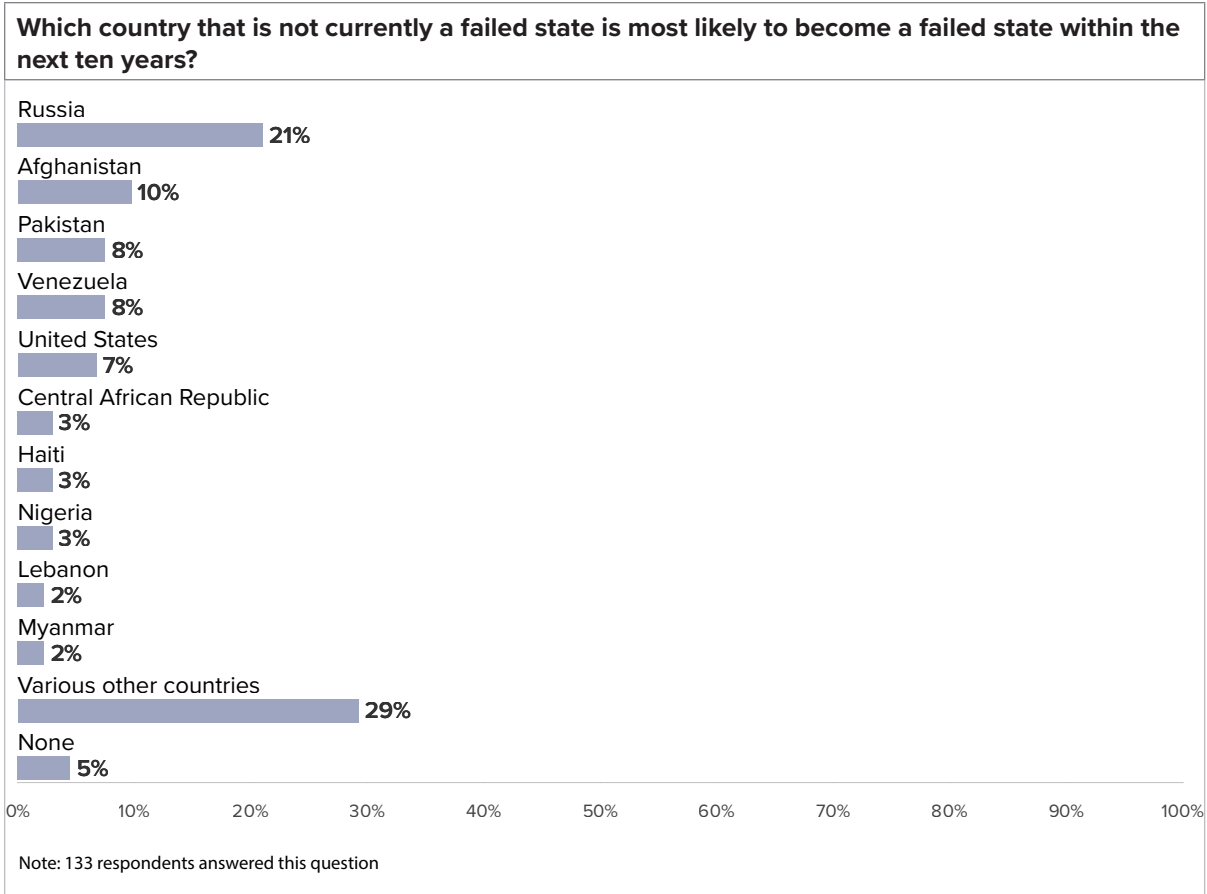
## 1. Russia as we know it may not survive the coming decade

One of the most surprising takeaways was how many respondents pointed to a potential Russian collapse over the next decade—suggesting that the Kremlin’s war against Ukraine could precipitate hugely consequential upheaval in a great power with the largest nuclear-weapons arsenal on the planet.

Nearly half (46 percent) of respondents expect Russia to either become a failed state or break up by 2033. More than a fifth (21 percent) consider Russia the most likely country to become a failed state within the next ten years, which is more than twice the percentage for the next most common choice, Afghanistan.

Even more striking, 40 percent of respondents expect Russia to break up internally by 2033 because of revolution, civil war, political disintegration, or some other reason. Europeans are particularly pessimistic about Russia breaking up: Forty-nine percent of them foresee such an event, compared with 36 percent of Americans.





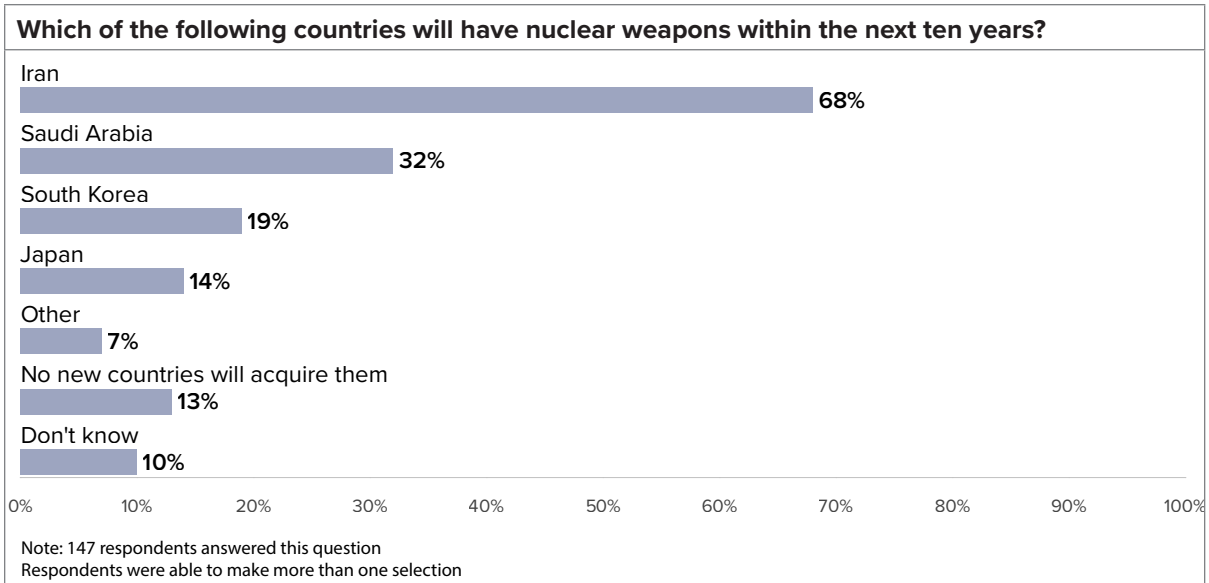
This puts another finding into a darker context: Fourteen percent of respondents believe that Russia is likely to use a nuclear weapon within the next ten years. Among those expecting the country to experience both state failure and a breakup in the coming decade, a sobering 22 percent believe that use of nuclear weapons will be part of that history ten years hence.

Some, though, see hope: Of those who believe Russia is likely to experience state failure or a breakup over the coming decade, 10 percent think that it is the most likely of any currently autocratic country to become democratic by the end of this period.

## **2. We’re heading for more countries with nuclear weapons and less cooperation on stopping the spread of these weapons—but not necessarily actual nuclear use**

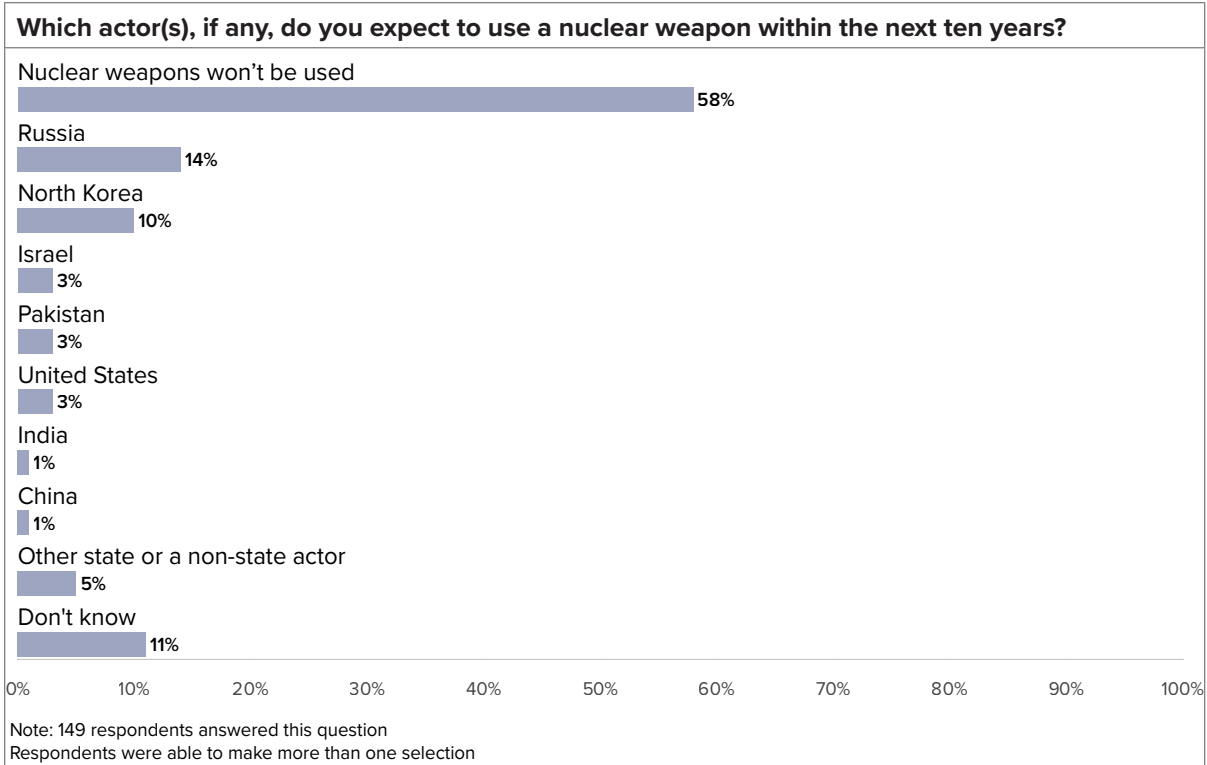
Barely one in eight respondents (13 percent) stated that no additional country will obtain nuclear weapons in the coming decade, and more than three-quarters named a specific country that they expected to become a nuclear-weapons state during this period. Iran was most often cited as a likely nuclear-armed state by 2033 (68 percent of respondents)—an outcome that the Atlantic Council’s Matthew Kroenig, in a separate assessment, argues is highly likely to occur as soon as this coming year. But Iran may not be alone. Respondents who expect some expansion of the nuclear-weapons club believe, on average, that 1.6 countries will join within the next ten years.





One reason for this anticipation of multiple new nuclear-armed countries could be that experts expect regional rivalries to drive nuclear proliferation over the next decade. For example, of those who believe that Iran will obtain nuclear weapons during this timeframe, 41 percent say Saudi Arabia will as well. In contrast, of those who do not believe that Iran will acquire these weapons, just 15 percent envision Saudi Arabia doing so anyway. Similarly, 57 percent of those who say that Japan will acquire nuclear weapons believe the same of South Korea. The former is almost certainly a function of Saudi-Iranian antagonism (wherein if one gets the bomb, the other will feel pressure to follow suit); the latter is likely less a function of Japanese-South Korean tension than of both countries feeling increasingly threatened by China and/or North Korea. Indeed, among those who foresee China initiating military action to retake Taiwan in the next decade (discussed in more detail below), 22 percent think that South Korea will obtain nuclear weapons over the same period while 16 percent believe Japan will. Among those who foresee no such Chinese use of force, the equivalent figures are 13 percent and 6 percent.

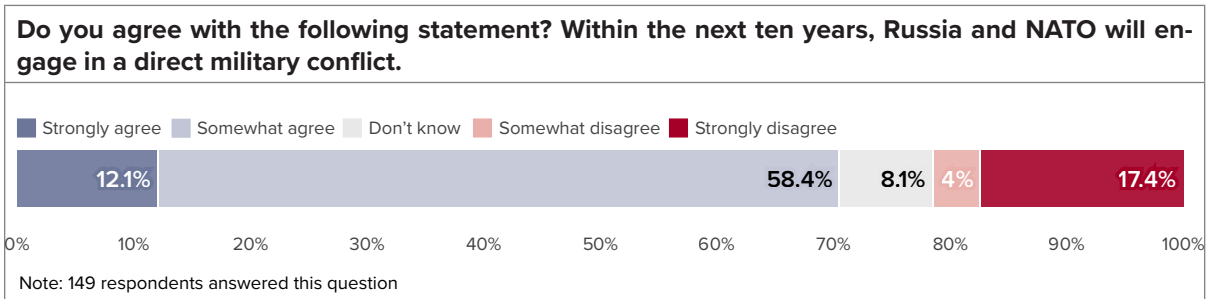
On the positive side, a majority of those polled (58 percent) believe that nuclear weapons will remain unused over the next ten years. On the negative side, it's nevertheless quite disturbing that nearly a third of respondents (31 percent) expect the next decade to include the first use of nuclear weapons since World War II. Responses from those who foresee nuclear use suggest that the weapons may be deployed in a regional rather than global conflict. Russia is most frequently cited (14 percent of all respondents) as likely to use such a weapon by 2033. But, of those who expect the country to do so, only one-third believe Russia will fight a war with NATO during this period. The second-most-cited potential perpetrator, North Korea (10 percent), presumably would also initially deploy nuclear weapons regionally against neighbors without nuclear weapons rather than, say, a country with superior nuclear capabilities such as the United States.



The proliferation of nuclear weapons is consistent with respondent answers that predict a lack of international attention to this issue. Less than 2 percent of respondents named nuclear nonproliferation as the area likely to see the greatest increase in international cooperation over the coming decade. When given the chance to name the biggest global risks receiving insufficient attention, 10 percent mentioned either proliferation or war involving nuclear weapons or weapons of mass destruction.

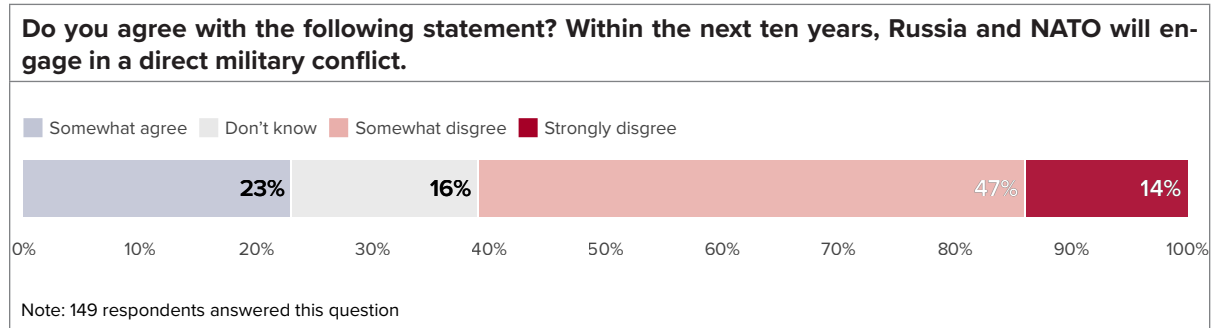
### 3. Expect a Chinese military offensive against Taiwan

Recently, US officials have been warning<sup>1</sup> that China could launch a military campaign to reunify Taiwan with the mainland on a faster-than-anticipated schedule between now and 2027. And our survey results support that dire assessment. Fully 70 percent of respondents agree—though just 12 percent strongly agree—that China will seek to forcibly retake Taiwan within the next ten years. Only around two in ten don't believe that such a scenario will occur. Intriguingly, among government employees, the figures rise to near certainty: Eighty-eight percent agree that China will use force against Taiwan, just 8 percent disagree, and the remaining 4 percent do not know.



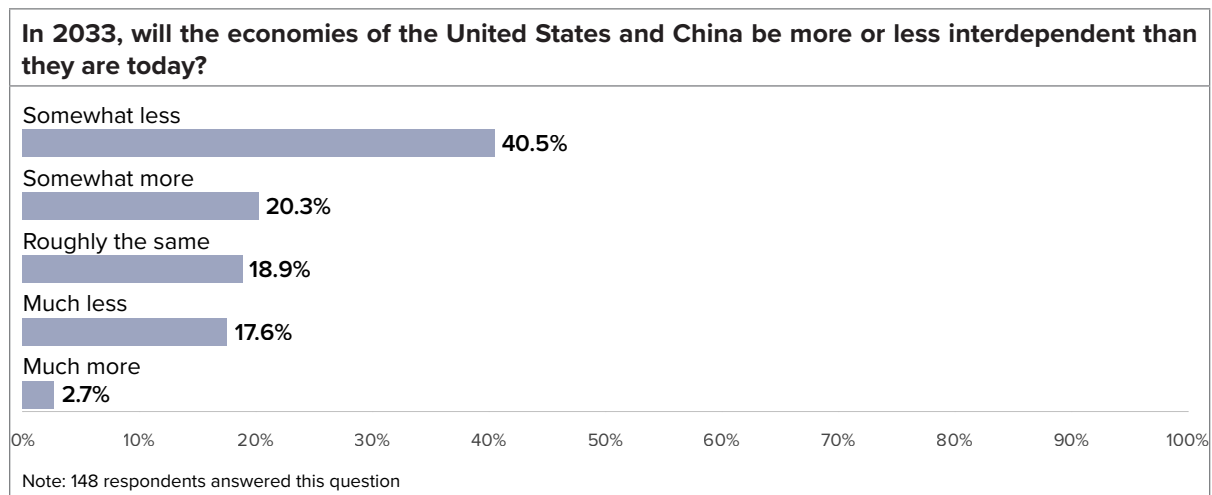
1 Mallory Shelbourne, "China's Accelerated Timeline to Take Taiwan Pushing Navy in the Pacific, Says CNO Gilday," *USNI News*, October 19, 2022, <https://news.usni.org/2022/10/19/chinas-accelerated-timeline-to-take-taiwan-pushing-navy-in-the-pacific-says-cno-gilday>.

Many people are currently focused on the risk of Russia engaging in a direct fight with the United States and NATO. But notably, even in the throes of a hot war in Ukraine right on NATO’s borders, the majority of respondents (more than 60 percent) disagreed with the notion that there will be such a Russia-NATO military clash within the next ten years—perhaps suggesting a belief that the conflict in Ukraine can be contained to that country or that the war has exposed Russia as too weak to take the fight directly to NATO. Given that a Chinese military assault on Taiwan would likely prompt the United States to intervene in support of the island, and that respondents were far more inclined to see a China-Taiwan conflict as probable than a Russia-NATO conflict, the biggest impending risk of war between great powers might be in Asia, not Europe.



#### 4. US-Chinese decoupling may not be as dramatic as we think it will be

There has been a lot of talk about “decoupling,” or efforts to disentangle the US and Chinese economies. But the experts we surveyed delivered a clear verdict: Full-blown decoupling is very unlikely. Despite all the geopolitical tensions and tit-for-tat trade restrictions between the two countries, the most likely outcome (according to roughly 40 percent of respondents) is that the US and Chinese economies will be “somewhat less” interdependent in 2033 than they are today. Moreover, of those who believe China will use force against Taiwan, 64 percent predict at least some decline in economic interdependence—a surprisingly low number given how drastic a move a Chinese military campaign against Taiwan would be. Fully 22 percent of those expecting Chinese use of force against Taiwan believe that the US and Chinese economies will become *more* interdependent by 2033.



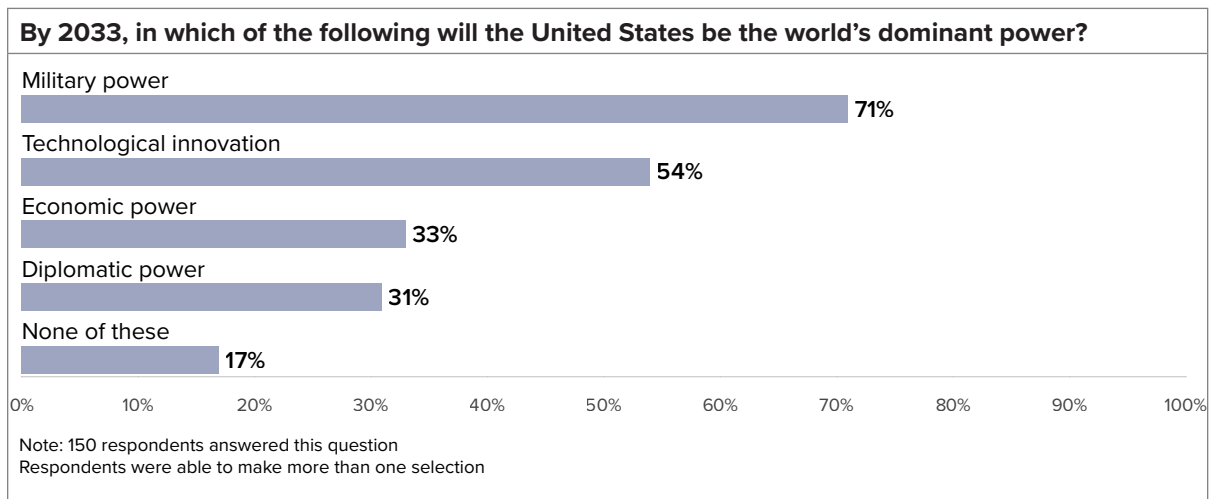
Overall, 58 percent of respondents forecast less economic interdependence between the two countries by 2033 and just 23 percent expect more. US respondents are slightly more convinced about this direction of travel, with 64 percent anticipating a drop in interdependence (24 percent still anticipate an increase).

Just as important, though, roughly eight in ten respondents—both overall and among Americans—expect any change in either direction to be limited at most. The widespread expectation, then, is a slow decoupling.

### 5. The United States will remain powerful but not hegemonic

Respondents generally expressed a belief in the United States’ staying power over the next ten years, though many envisioned a country preeminent in some domains of national clout but not others. Seven in ten foresee the United States continuing to be the world’s dominant military power by 2033—a notably high percentage given concerns about China’s military modernization and the United States losing its military edge—while about half think the United States will maintain its technological dominance over everyone else. Just three in ten, however, believe the United States will be the world’s dominant player in diplomacy, and only slightly more than three in ten believe it will be the world’s dominant economic power.

All of which raises a question: If the United States loses its economic and diplomatic dominance, can its other advantages be maintained? After all, military power depends to a substantial degree on strong alliances and economic and technological prowess, while technological power relies in large part on a country’s capacity to commercialize technological advances.

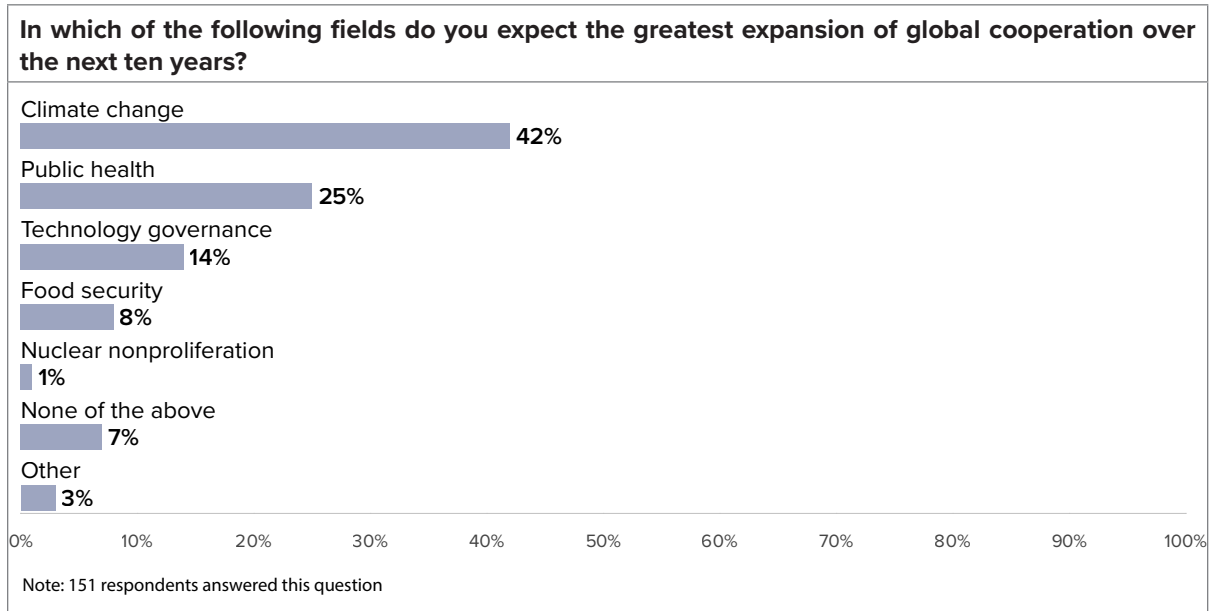


Two minority groups of respondents have sharply divergent views about American power. The first group, constituting 19 percent of the survey pool, are pessimists, believing one or more of the following will be true by 2033: The United States will be a failed state; it will have broken apart; or it will no longer be the world’s dominant power in any category our survey covered: military, economic, diplomatic, or technological. (Notably, roughly the same proportion of respondents—7 percent—listed the United States and Pakistan as the country most likely to fail over the next ten years.) Fourteen percent of American respondents and 17 percent of European respondents fall into this group. The most striking answers are from those who are citizens of countries outside the United States and Europe: Over half of these are in our pessimists category. (This analysis does not treat them generally as a category because they are too diverse to characterize and too few to rely on statistically.)

The second group, constituting 12 percent of all respondents, are optimists, believing that the United States will be the single dominant power in all fields: military, economic, diplomatic, and technological. Among American and European respondents, the proportions of optimists—12 percent and 15 percent respectively—are roughly the same as those for pessimists. The big difference comes from the rest of the world, where no respondents expect the United States to have such multifaceted hegemony by 2033.

## 6. Global cooperation on climate is set to increase, but curb the enthusiasm about peak emissions

Climate change is the issue most likely to shoot up the international policy agenda in the coming decade, according to respondents. A plurality (42 percent) believe that it will garner the biggest increase in international collaboration, comfortably ahead of second-place public health (cited by 25 percent of those polled).



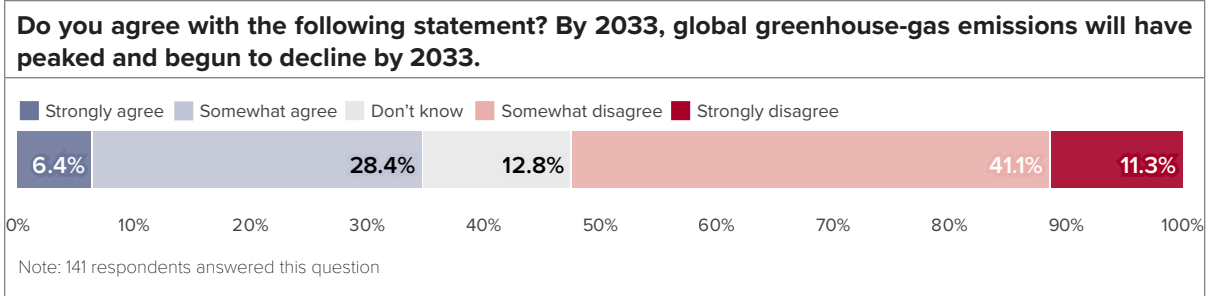
Of those who assert that climate issues will attract the biggest boost in global cooperation by 2033, nearly a third (29 percent) believe that, among various social movements presented to respondents, environmental movements will have the most political influence worldwide over the next ten years. Among those who do not think climate change will rise up the international agenda, only 12 percent expect environmental movements to wield such influence.

If political leaders and policymakers focus more on climate issues, will greenhouse-gas emissions peak and start to decline over the next ten years? Views are mixed. The International Energy Agency (IEA) recently estimated<sup>2</sup> that global carbon-dioxide emissions will peak in 2025 (although it also admitted<sup>3</sup> that a significant gap remains between countries' stated emissions goals and the target of stabilizing the average rise in global temperature at 1.5 degrees Celsius above pre-industrial levels). Respondents who foresee greater global cooperation to address climate change are split on peak emissions, in a reminder that such collaboration could result from both a proactive effort to accelerate the clean-energy transition or a more reactive response to a still-rapidly warming world: 47 percent believe that the peak will have occurred by 2033, but 42 percent disagree. Among the others, the equivalent figures—26 percent and 60 percent—reveal much greater pessimism.

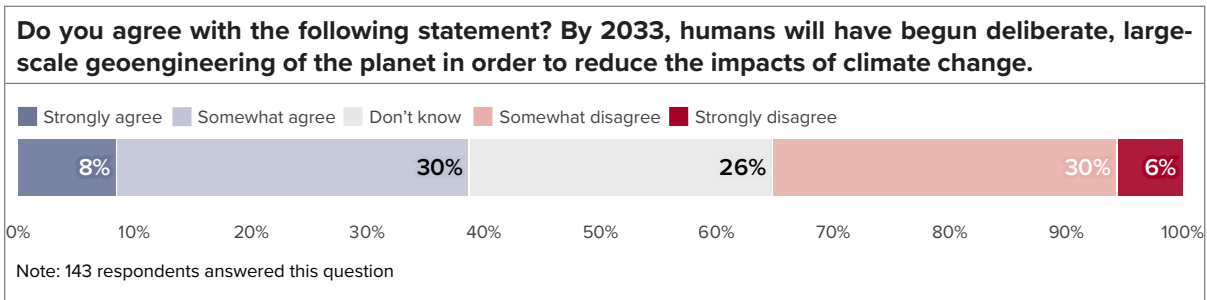
Overall, in a clear counterpoint to the IEA's assessment, a majority of respondents don't think greenhouse-gas emissions will have peaked and begun to decline by 2033. The experts we polled are only a bit more bullish about that peak and decline happening within the next decade (35 percent) as they are about humans safely landing on Mars and returning to Earth during that period (23 percent). Only 6 percent strongly agree that we'll see emissions peaking and declining over the next ten years.

2 International Energy Agency, "World Energy Outlook 2022 shows the global energy crisis can be a historic turning point towards a cleaner and more secure future," International Energy Agency, October 27, 2022, <https://www.iea.org/news/world-energy-outlook-2022-shows-the-global-energy-crisis-can-be-a-historic-turning-point-towards-a-cleaner-and-more-secure-future>.

3 International Energy Agency, "Executive Summary," *World Energy Outlook 2022, November 2022*, <https://www.iea.org/reports/world-energy-outlook-2022/executive-summary>.

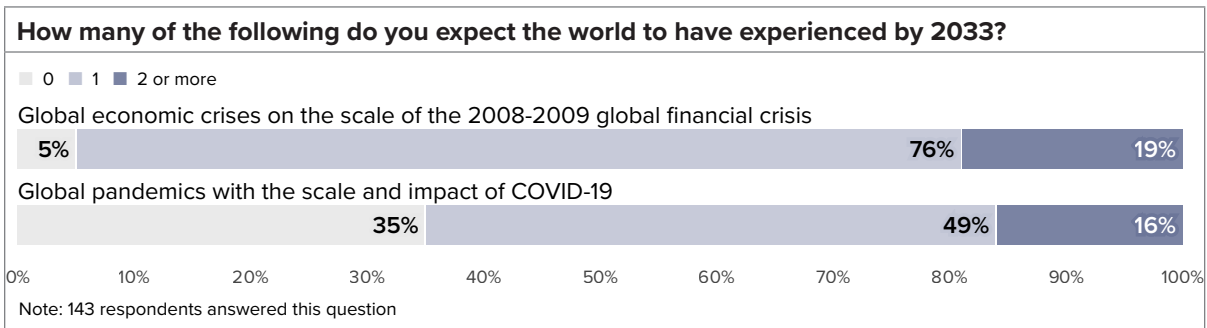


On a separate question, respondents on balance were also more inclined to agree (39 percent) than disagree (35 percent) that by 2033 humans likely will have begun deliberate, large-scale geoengineering of the planet (for example, seeding the atmosphere with aerosols) in order to reduce the impacts of climate change—indicating that a slight plurality presumably think those climate impacts will be big enough by that point to spur such a controversial and consequential move.



## 7. Get ready for even greater global volatility

One remarkable survey result is how many respondents expect the world to face additional economic and public-health perils in the coming decade. Seventy-six percent predict another global economic crisis on the scale of the 2008-2009 financial crisis by 2033. A further 19 percent say that there will be two or more such crises. Forty-nine percent foresee another global pandemic with the scale and impact of COVID-19 breaking out by 2033, with an additional 16 percent anticipating two or more such pandemics.



These results might reflect recency bias, where recent experience of crises leaves us more concerned about others occurring. But they may also suggest more troubling trends, including a coming era of more frequent and intense public-health emergencies<sup>4</sup> rather than once-in-a-century pandemics as well as a return to historical economic patterns after the relative calm of the post-World War II decades;

4 Marco Marani, Gabriel G. Katul, William K. Pan, and Anthony J. Parolari, “Intensity and frequency of novel epidemics,” *Proceedings of the National Academy of Congress 118, no. 35 (2021)*: e2105482118, accessed February 10, 2023, <https://doi.org/10.1073/pnas.2105482118>.

between 1908 and 1946, five global recessions brought about greater declines<sup>5</sup> in global per-capita gross domestic product than did the 2008-2009 crisis—amounting to more than one per decade.

## 8. The tug of war between democracy and autocracy will persist, with democracies potentially losing some ground

Our respondents as a whole do not foresee a clear triumph for either democrats or autocrats over the next ten years. More expect the number of democracies in the world to shrink (37 percent) than to grow (29 percent). But almost all forecast any change to be modest: Just 4 percent foresee many more or many fewer democracies by 2033. Thirty-five percent believe the world will have roughly the same number of democracies as it does today. (It’s worth noting that we asked about the future number of democracies, not the projected strength or type of these democracies.)



When asked open-ended questions about which countries are most likely to move from democracy to autocracy or the reverse by 2033, respondents most frequently chose “none.” Notably, 46 percent foresaw no shifts from autocracy toward democracy and just 31 percent predicted no countries going in the other direction, which is consistent with respondents’ general view that overall change will be modest but trending away from democracy.

Democracy and autocracy, moreover, are not necessarily distinct categories. For example, several countries—including Hungary, Turkey, and Russia—are cited both as autocracies likely to become democracies or democracies likely to become autocracies, suggesting that some respondents have differing views on how to categorize these countries.

5 M. Ayhan Kose and Naotaka Sugawara, “Understanding the depth of the 2020 global recession in 5 charts,” *World Bank Blogs*, June 15, 2020, <https://blogs.worldbank.org/opendata/understanding-depth-2020-global-recession-5-charts>.

**Which democratic country today is most likely to become autocratic over the next ten years?**

Those answering “none” are excluded.



**Which autocratic country today is most likely to become democratic over the next ten years?**

Those answering “none” are excluded.

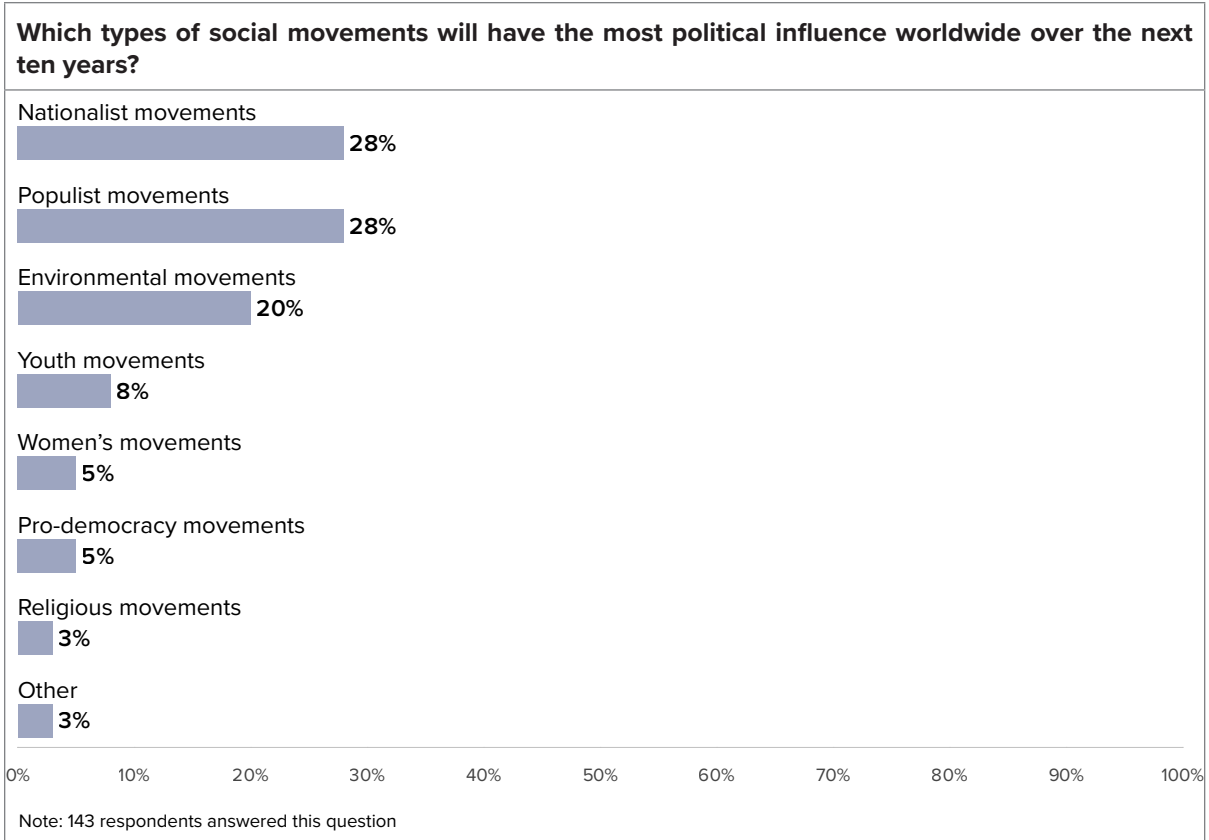


Also notable: A small but significant minority of 9 percent of all respondents—and 10 percent of US respondents—selected the United States as the democratic country most likely to grow autocratic by 2033. Some respondents’ views on the future of US and global democracy appear to be linked, suggesting that they see the United States as the most important democratic country and guardian of global democracy. Among those who foresee either no change or a decline in the number of democracies worldwide, 12 percent expect the United States to become autocratic—their top choice. For those who expect the number of democracies to expand, none predict an autocratic United States.

**9. Democracies will face a difficult decade of systemic dangers**

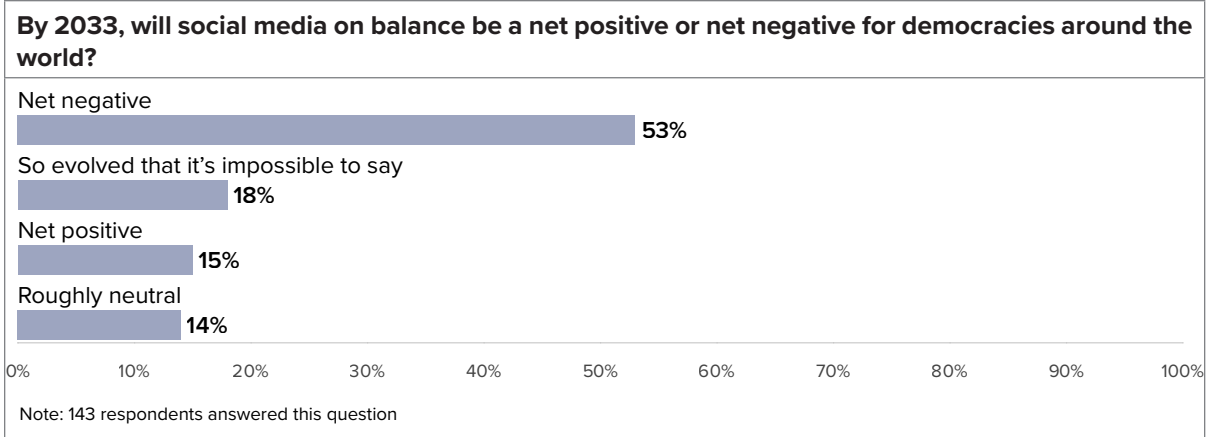
Democracies are entering a dangerous decade in which they will need to contend with nationalist and populist forces and all the challenges associated with rapidly evolving technology. When asked which social movements they expected to have the most political influence worldwide over the next ten years, only 5 percent of respondents chose pro-democracy ones—whereas a majority picked either nationalist or populist movements. A third of respondents went with movements advocating for other causes often associated with democratic societies: the environment, youth issues, and women’s rights.



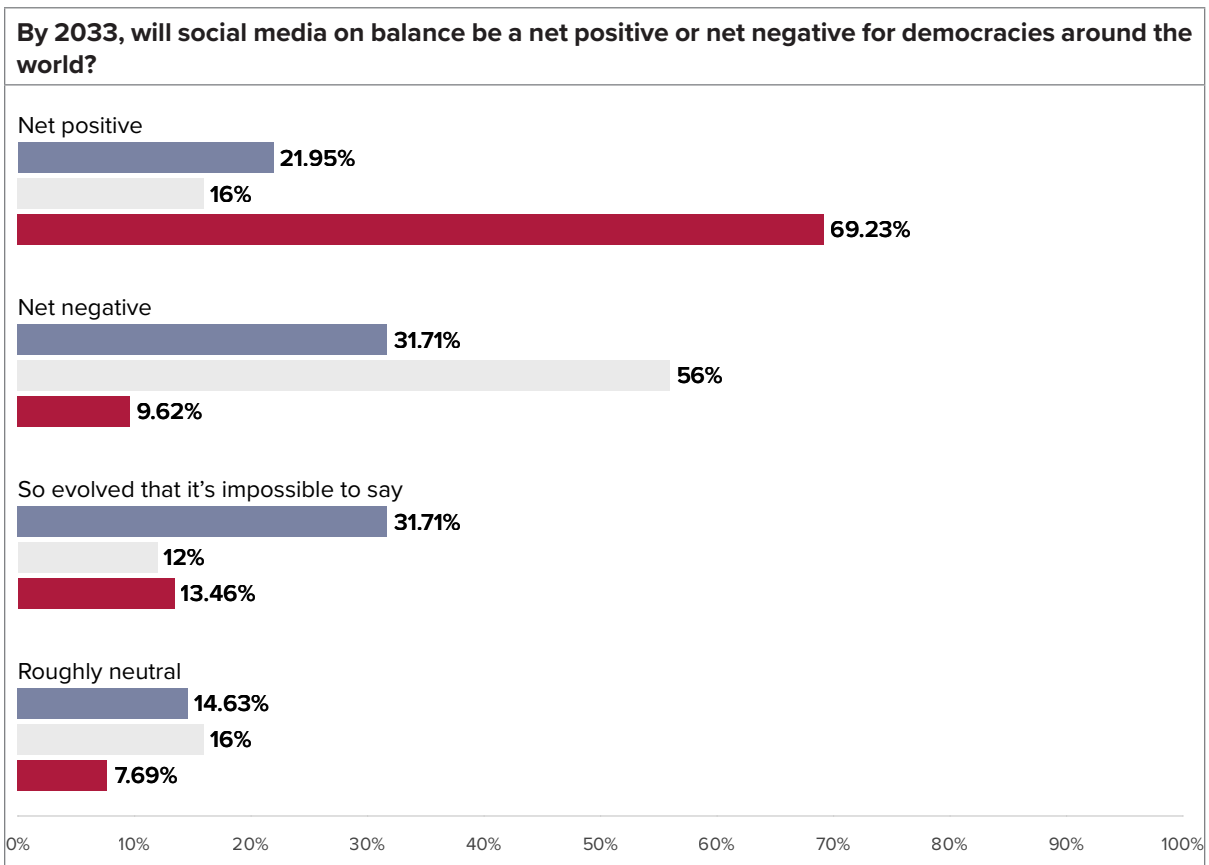


Admittedly, nationalists and populists are not invariably more supportive of autocratic political systems than democratic ones. Nor are, say, youth movements invariably opposed to autocracy. But our survey responses pointed to a connection between gathering nationalist and populist strength and greater popular pressure toward autocracy. Among those who foresee fewer democracies in the next decade, 68 percent predict increasing political influence for populist or nationalist movements and just 2 percent growing clout for pro-democracy ones. Of those forecasting more democracies, the equivalent figures are 38 percent and 10 percent.

Trends in mass communication and new technologies also present potential perils for democracies. Against the backdrop of a tech sector undergoing great transformation—from new regulatory efforts to the corporate upheaval at social-media companies to the ways in which these platforms have been caught up in broader political polarization—over half of respondents (53 percent) predict that social media will prove a net negative for democracies by 2033. Only 15 percent think it will be a net positive—a remarkable shift away from the dream, so prevalent during the early Arab Spring era, of social media as a democratizing force. Eighteen percent say that social media will have so evolved over the next ten years as to make the question impossible to answer.



For those who forecast a reduction in the number of democracies around the world, a large share (69 percent) expect social media to be a net negative for democracies.



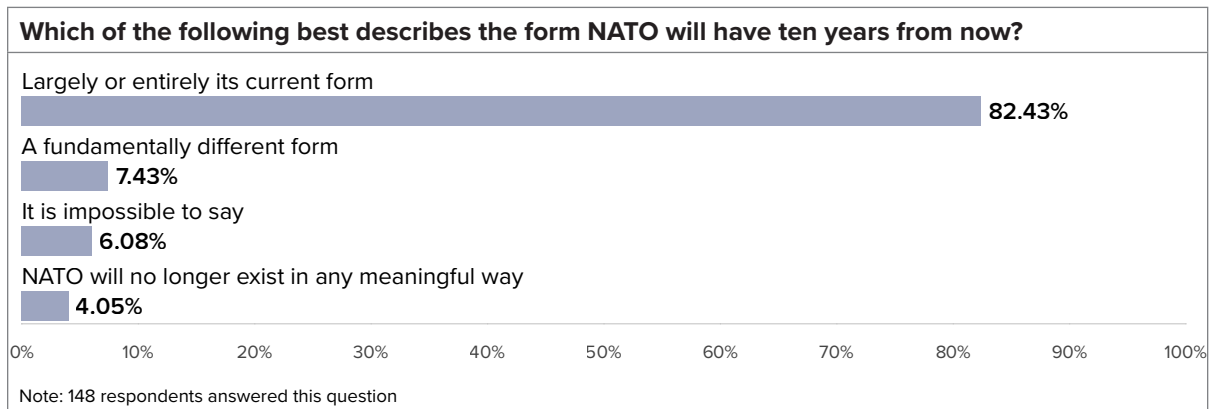
Another compelling finding involved optimism about the speed with which some disruptive technologies—specifically commercial quantum computing, level 5 autonomous vehicles (where the vehicle performs all tasks under all driving conditions without the need of human input), and artificial general intelligence (where computers and machines exhibit human-like intelligence and creativity)—will be developed. In all three cases, majorities of respondents (between 57 percent and 68 percent) agree that these technologies will exist and/or be commercially viable by 2033. Although all three technologies promise enormous benefits for humankind, they also will raise challenges related to the future of work and income, public health and safety, national security, and democratic governance, among other domains. Democracies will need to ground the development and implementation of such technologies

within democratic norms and values through appropriate regulation and standards and via international cooperation.

Through their answers across several questions, respondents raised the prospect of two contrasting scenarios for the coming decade. One of a world with democracy in decline, corroded by nationalism, populism, and social media, with a more autocratic United States deepening the trend. And another—predicted by a minority—of a world where democracy is ascendant, bolstered by a democratic United States, as well as social movements and mass-communication platforms consistent with democratic values.

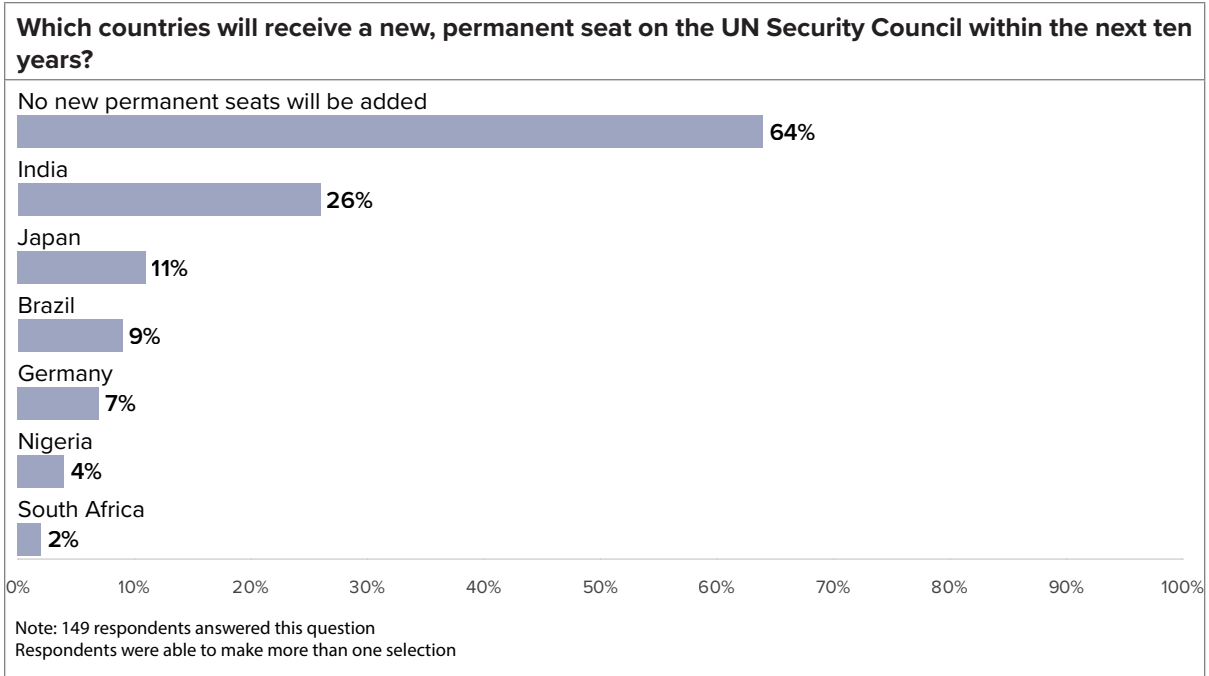
### 10. International security organizations are likely to remain largely unchanged even as the world confronts unprecedented change and challenge

Russia’s invasion of Ukraine has revealed the capabilities and limits of institutions designed to enhance international security. While our respondents predict a range of major challenges to human security over the next ten years—from conflict over Taiwan to the fragility of the Russian state to more pandemics and economic crises—they expect the world’s existing security architecture to stay mostly the same.



Eighty-two percent of respondents, for example, believe that over the next decade NATO will remain an alliance of North American and European countries based on a mutual security guarantee. Among respondents who are citizens of NATO member states, 85 percent think that the Alliance’s current form will be maintained; among those from other countries, 71 percent say the same.

Responses on the possible expansion of the United Nations Security Council convey a similar message. Sixty-four percent of all respondents expect no new permanent seats to be added to the UN’s most powerful body by 2033. The difference between respondents who are citizens of countries with permanent seats and those who are citizens of countries without permanent seats isn’t pronounced (66 percent and 61 percent, respectively).



Beyond institutional inertia and the self-interest of the Council’s current permanent members, a major challenge in expanding the Security Council is the complexity of doing so. As one respondent told us, “If additional seats are added, it will be more than one because the rest of the world will not come [together] around a single candidate.” As a group, those surveyed seem to agree: Respondents who predict Security Council expansion identify an average of 1.7 new members. The strong presumption is that, if the number of permanent seats grows, India will be one of the beneficiaries. Over half of those forecasting that Japan, Brazil, Nigeria, or South Africa will gain a seat also say that India will get one. For those who chose Germany this figure is less than half but still 45 percent. If India’s time could soon come, however, Africa’s looks distant: Only 6 percent of respondents mention Nigeria or South Africa as likely new permanent Security Council members within the next ten years.

A question not directly posed to our respondents is whether this forecasted lack of change in NATO and the UN Security Council is indicative of strength (that these organizations will be effective tools amid the coming decade’s challenges) or weakness (that they are unable to adjust even amid manifest need). Some respondents offered comments pointing to the latter possibility. One worries that, without change, the Security Council will lose relevance as an increasing number of decisions about international security are made elsewhere. Meanwhile, 4 percent of respondents noted, unprompted, that they expect NATO will need to take on a wider global remit, including Asian security, over the course of the next decade. These are more whispers in the margins than the expression of a common opinion, but they do raise questions about whether stasis in these institutions should be interpreted as a sign of institutional health.



**Mary Kate Aylward, Publications Editor, Atlantic Council**

Aylward was an editor at War on the Rocks and Army AL&T before joining the Council. She was previously a junior fellow at the Carnegie Endowment for International Peace.



**Peter Engelke, Deputy Director, Scowcroft Strategy Initiative**

Engelke is on the adjunct faculty at Georgetown University's School of Continuing Studies and is a frequent lecturer to the US Department of State's Foreign Service Institute. He was previously an executive-in-residence at the Geneva Centre for Security Policy, a Bosch fellow with the Robert Bosch Foundation in Stuttgart, Germany, and a visiting fellow at the Stimson Center in Washington, DC.



**Uri Friedman, Managing Editor, Atlantic Council**

Friedman is also a contributing writer at The Atlantic, where he writes a regular column on international affairs. He was previously a senior staff writer at The Atlantic covering national security and global affairs, the editor of The Atlantic's Global section, and the deputy managing editor of Foreign Policy magazine.



**Paul Kielstra, Freelance Analyst**

Kielstra is a freelance author who has published extensively in fields including business analysis, healthcare, energy policy, fraud control, international trade, and international relations. His work regularly includes the drafting and analysis of large surveys, along with desk research, expert interviews, and scenario building. His clients have included the Atlantic Council, the Economist Group, the Financial Times Group, the World Health Organization, and Kroll. Kielstra holds a doctorate in modern history from the University of Oxford, a graduate diploma in economics from the London School of Economics, and a bachelor of arts from the University of Toronto. He is also a published historian.



# The top 23 risks and opportunities for 2023

Another world-shaking, world-reordering war in Europe. Brewing fears of war on an even greater scale in Asia. A coronation in China and political upheaval across the democratic world. Climate-induced catastrophes and emboldened movements to mitigate and adapt to them. The worst energy crisis in a half century and worst food crisis in over a decade. Spiraling inflation and the specter of global recession. A less acute but still-raging, still-hugely disruptive pandemic. Epochal ferment in social media and technology more broadly.

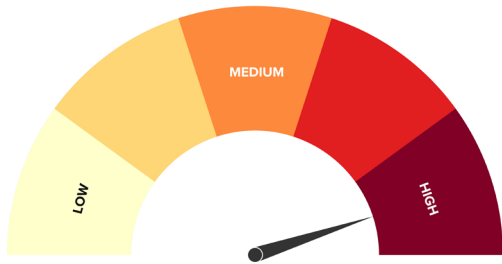
Recently, the leaders of the Atlantic Council's sixteen programs and centers gathered to take stock of these and other developments and trends over the past year, peer into the future, and predict the biggest global risks and opportunities that 2023 could bring.

The results of this foresight exercise are below. Each scenario is assigned a probability; "medium" means a 50/50 chance that the scenario will occur within the next year. Many lower-probability but highly consequential scenarios are included because—as has been so vividly demonstrated this past year—those types of events tend to be some of the most disruptive and transformative. And keep in mind: Forecasts are not destiny. Political leaders and policymakers have agency in shaping whether and how these scenarios play out in the coming year or beyond. The primary purpose of assessing global risks and opportunities, in fact, is to gain insight into how to avert unwanted outcomes and achieve desired ones. To that end, don't miss the policy prescriptions mixed into many of the entries below.

This article was originally published on the Atlantic Council's website in January 2023, and some of the risks and opportunities outlined here may have already begun to unfold.

# Top risks

**1 A surge in climate adaptation curtails progress on cutting emissions, locking in at least 1.5 degrees of warming**



Pakistan’s devastating floods in 2022, along with the tireless advocacy of Pakistan’s federal minister for climate change, Sherry Rehman, played a pivotal role in rallying parties at the COP27 climate conference to create a Loss and Damage Fund, where rich countries will provide payments to developing countries confronting the costly impacts of climate change.

But there is a strong possibility in the coming year that this new and desperately needed focus on climate resilience, loss, and damage will produce an unintended opportunity for backsliding on mitigating climate change. Moving from the COP27 agreement to an actual fund with money and a plan to disburse it will require tremendous international activism and action, which could reduce the pressure on governments and non-state actors to cut greenhouse-gas emissions and transition to clean energy. That would slow the already sluggish speed at which the world reins in global warming—the root cause of the destruction that has necessitated the Loss and Damage Fund in the first place. If country and corporate delegates show up in December at the COP28 climate-change conference in the United Arab Emirates with a focus on climate adaptation and loss and damage, but without major commitments to reduce emissions as well, we’ll know this scenario has materialized—and that this century the world will blow past an average increase in temperatures of 1.5 degrees Celsius<sup>6</sup> above pre-industrial levels, which countries have sought to avoid as part of their commitments at the 2015 Paris climate conference.

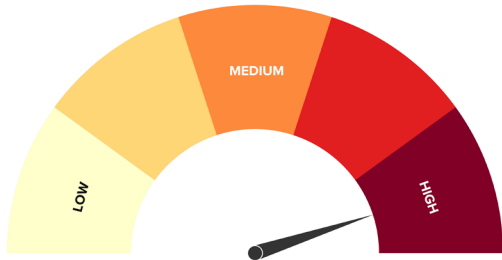


**Kathy Baughman McLeod, Senior Vice President and Director, Adrienne Arsht Rockefeller Foundation Resilience Center**

Baughman McLeod was a global environmental and social risk executive at Bank of America, and a former managing director of climate risk and resilience at The Nature Conservancy. She was an energy and climate commissioner of the state of Florida.

6 Global Warming of 1.5 °C, The Intergovernmental Panel on Climate Change, October 6, 2018, <https://www.ipcc.ch/sr15/>.

## 2 Iran becomes a nuclear-weapons power



In 2023, Iran is very likely to pass the point of no return and become a de facto nuclear-weapons state. Outside experts estimate that Iran’s dash time (the time it would take to make one bomb’s worth of weapons-grade uranium) has shrunk to just a few weeks. As Iran continues to ramp up<sup>7</sup> its nuclear program, this timeline will soon shrink to zero.

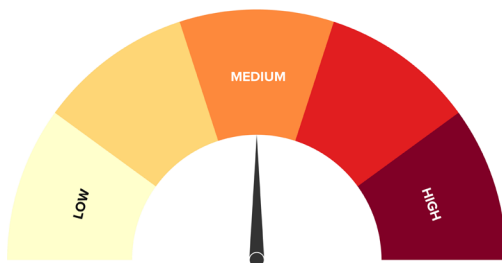
With international nuclear talks stalled amid continuing protests inside Iran at the end of 2022, a diplomatic breakthrough to halt the program now seems implausible. Several consecutive US presidents, including Joe Biden, have said that the use of force is a last-resort option to keep Tehran from the bomb, but many suspect a bluff. Washington is not taking the steps (such as building domestic or international support for military action) that would be the obvious prelude to military strikes on Iran’s nuclear facilities. Iran is unlikely to test a nuclear explosive device in 2023—and it will take time (perhaps years) for it to put a warhead on a ballistic missile. But once Iran has enough weapons-grade material for its first bomb, the game is over. We will look back at 2023 as the year in which the bipartisan US and international effort to keep Tehran from the bomb failed.



**Matthew Kroenig, Acting Director, Scowcroft Center for Strategy and Security**

Kroenig currently sits on the Congressional Commission on the Strategic Posture of the United States. He served in defense and intelligence roles in the Bush, Obama, and Trump administrations. From 2017 to 2021, he was a senior policy adviser to the Office of the Assistant Secretary of Defense for Strategy, Plans, and Capability/Nuclear and Missile Defense Policy.

## 3 The United States loses Colombia—and with it, increasingly, Latin America



Colombia has long served as the linchpin of US policy in Latin America, and it is currently the only major economy in South America that does not have<sup>8</sup> China as its largest trading partner. But all that may be set to change in 2023. In pursuing his policy agenda, the country’s new president, Gustavo Petro, could generate a backlash in the US Congress, particularly the Republican-controlled House of Representatives.

Those policies include Petro’s efforts to reimagine (and potentially scale back) cooperation with Washington on judicial issues and criminal extradition, achieve a possible agreement with Colombia’s National

<sup>7</sup> Stephanie Liechtenstein, “U.N. agency: Iran continues to block nuclear probe, scales up its nuclear program,” *Politico*, November 10, 2022, <https://www.politico.com/news/2022/11/10/un-agency-iran-nuclear-probe-00066350>.

<sup>8</sup> “Columbia Trade,” World Integrated Trade Solution, accessed February 10, 2023, <https://wits.worldbank.org/CountrySnapshot/en/COL>.



Liberation Army guerrilla group, and move away from lockstep coordination with the United States on eradicating drugs and overall drug policy (a joint approach that has been the fundamental tenet of US-Colombia relations over the last twenty years). Fallout in the United States, could, in turn, offer China an opportunity to increase its clout in Colombia. More broadly, inflation and other economic woes in the United States could have outsize consequences for Latin American countries, including greater political polarization and social unrest that leads to democratic backsliding as well as sovereign-debt issues. China could then position itself as a provider of desperately needed relief for countries grappling with these challenges. In such a scenario, US policymakers might be at risk of increasingly losing influence in not just Colombia but Latin America as a whole. A secure position in its near abroad has long been a predicate for America’s robust global posture. Is that position now poised to further erode, even with a longstanding ally?

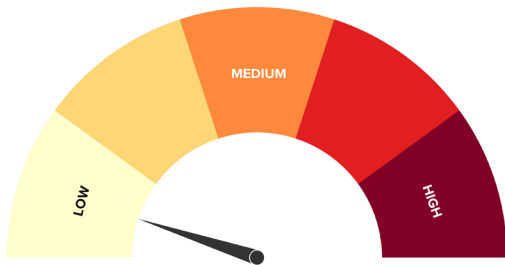


**Jason Marczak, Senior Director, Adrienne Arsht Latin American Center**

Marczak has over twenty years of expertise in Latin American economics, politics, and development, working with policymakers and private-sector executives to shape public policy. He is an adjunct professor at the George Washington University’s Elliott School of International Affairs where he teaches on Central America and US immigration policy.

**4**

**The internet splinters entirely and irrevocably**



Authoritarians have been trying to assert control over their technology ecosystems for years, but 2023 could be the year they finally succeed in creating online information environments that they can fully command. Russia, for example, has increased efforts to censor or shut down entire digital platforms for allowing any information about its war of aggression against Ukraine, turning these platforms into a new domain of conflict. China is going further and seeking to build the backbone of an unfree internet beyond its borders<sup>9</sup> by investing in information infrastructure as part of its “discourse

power”<sup>10</sup> strategy. Even some democracies such as India<sup>11</sup> and Turkey<sup>12</sup> are instituting sweeping internet shutdowns and crackdowns on freedom of expression online. The US government, meanwhile, lacks a clearly articulated strategy to promote an alternative at home and abroad. What’s playing out is not a partitioning of the infrastructure on which the internet operates, but rather an intensifying contest over the rules that govern infrastructure that is inherently interconnected.

Don’t expect a switch to flip, but watch for a slow roll toward two internets: one designed to facilitate government control with built-in surveillance, and one at least aiming to be free, open, secure, interoperable, and governed by many. There is a low likelihood that a full-scale splintering happens in the coming year. But if it does, it would change the world for a long time to come—and it could have a catalytic impact on nearly every other risk and opportunity on this list. There is opportunity embedded

9 Kenton Thibaut, *China’s discourse power operations in the Global South*, Atlantic Council, April 20, 2022, <https://www.atlanticcouncil.org/in-depth-research-reports/report/chinas-discourse-power-operations-in-the-global-south/>.  
 10 Kenton Thibaut, *Chinese discourse power: Ambitions and reality in the digital domain*, Atlantic Council, August 24, 2022, <https://www.atlanticcouncil.org/in-depth-research-reports/report/chinese-discourse-power-ambitions-and-reality-in-the-digital-domain/>.  
 11 “India: Freedom on the Net 2022,” Freedom House, accessed February 10, 2023, <https://freedomhouse.org/country/india/freedom-net/2022>.  
 12 “Turkey: Freedom on the Net 2022,” Freedom House, accessed February 10, 2023, <https://freedomhouse.org/country/turkey/freedom-net/2022>.

in this risk, however: Through novel mechanisms such as the Freedom Online Coalition,<sup>13</sup> the US-EU Trade and Technology Council, a new US State Department bureau focused on digital freedom (the Bureau for Cyberspace and Digital Policy), and new offices at the US National Security Council, democratic countries are now better staffed and resourced to craft that much-needed strategy for protecting an open, global internet. There is nothing inevitable about a “splinternet.”<sup>14</sup>

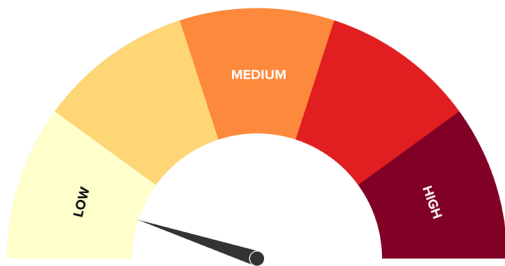


**Graham Brookie, Senior Director, Digital Forensic Research Lab**

Brookie served in various positions at the White House and National Security Council. His most recent role was as an adviser for strategic communications with a focus on digital strategy, audience engagement, and coordinating a cohesive record of former US President Barack Obama’s national security and foreign policy.



**The United States and its allies give up on Ukraine and acquiesce to a Russian victory there**



As long as US leadership remains strong, Russian President Vladimir Putin will lose in Ukraine. But a Russian victory could come if the United States forgets its vital interests in this outcome. There are several ways in which such a scenario—whose probability I’d put at under 10 percent—could materialize.

One possibility: In response to Putin’s continued nuclear saber-rattling, fear of nuclear war (fear that would likely be ill-considered, I believe) grows to such an extent in the United States that the country ends up substantially reducing aid to Ukraine. If populist right-wing politicians, despite their underperformance in the US midterm elections, gain greater influence in Washington, that could also lead to a reduction in such assistance. Higher energy prices in the United States and especially in Europe could pressure governments as well.

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**John Herbst, Senior Director, Eurasia Center**

Herbst’s 31-year career in the US Foreign Service included time as US ambassador to Uzbekistan, other service in and with post-Soviet states, and his appointment as US ambassador to Ukraine from 2003 to 2006. In that role he helped ensure the conduct of a fair Ukrainian presidential election and prevent violence during the Orange Revolution.

Putin is playing the long game with Europe—and he can still win. Thus far we’ve seen unprecedented, underappreciated European cohesion in response to Russia’s war against Ukraine, but that unity can’t be taken for granted. And we’re already seeing cracks in familiar places, including between large and small countries as well as wealthy and poorer ones. There are four drivers of this risk, which taken together could produce political gridlock and fragmentation in the European Union (EU). The losers in such an outcome? Europe, Ukraine, and the transatlantic relationship. The Winner? Putin.

13 Rose Jackson, Leah Fiddler, and Jacqueline Malaret, *An introduction to the Freedom Online Coalition*, Atlantic Council, December 6, 2022, <https://www.atlanticcouncil.org/in-depth-research-reports/report/introduction-freedom-online-coalition/>.

14 Nathaniel Fick, Jami Miscik, Adam Segal, and Gordon M. Goldstein, *Confronting Reality in Cyberspace: Foreign Policy for a Fragmented Internet*, Council on Foreign Relations, July 2022, <https://www.cfr.org/report/confronting-reality-in-cyberspace>.

- **Energy shocks:** The coming year’s energy crisis could be worse than this past year’s. With Russian gas flows no longer available to refill depleted European stocks early in 2023 and no significant new European import capacity coming online, prices in the region could stay elevated and produce a mad scramble for gas.
- **Economic contraction:** The economic ripple effects of gas shortages include the risk of recession, inflationary pressures, business failures, and all the attendant impacts on cost of living, living standards, and labor markets, which in turn have political repercussions. In the medium term, these consequences might do lasting damage to European competitiveness. We’re already seeing trade surpluses dwindling and key economic sectors idling production.
- **The toxic brew of #1 and #2:** The stabilization measures that European governments have put in place to respond to the two challenges above could fuel concerns about sovereign debt and lead to a new Eurozone crisis.
- **Domestic dynamics:** The Franco-German engine of European action is sputtering. Economic problems, French President Emmanuel Macron’s precarious parliamentary backing, and German Chancellor Olaf Scholz’s complicated three-party coalition constrain both countries’ leaders at home and in the region, and there is uncertainty about how Italy’s new right-wing, EU-skeptical government will relate to Brussels. Major elections in 2023 in Poland, Greece, Estonia, Finland, Spain, and other countries could bring Euroskeptic and Russia-sympathetic politicians to the fore—while also pushing existing governments in those directions.



**Jörn Fleck, Senior Director, Europe Center**

Fleck was chief of staff for a member of the European Parliament and then director of the Transatlantic Policy Network. At the Atlantic Council he continues his work liaising with US and EU lawmakers on diplomatic relations, trade policy, and EU foreign and security policy.

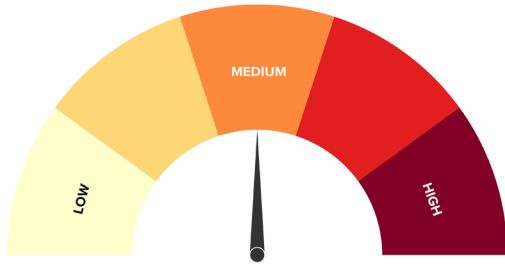
The end of 2022 featured the worst global energy crisis since the Arab oil embargo of the 1970s. The crisis is not purely of Russia’s making, though major drivers include the geopolitical uncertainty produced by the Kremlin’s invasion of Ukraine as well as Russian attempts to weaponize its oil and gas supplies. The decrease in energy demand during the early part of the COVID-19 pandemic aggravated chronic underinvestment in the energy sector. Coupled with a rapidly warming planet, these factors have put affordable and reliable energy resources out of reach for many in both developed and emerging economies. Moreover, price pressure on the conventional energy resources of oil, gas, and coal comes when the world is also experiencing a unique confluence of drought and abnormal weather patterns, which have hobbled access to electricity from nuclear power (in France, for instance, where water scarcity is impacting nuclear-fuel production) and hydropower (in China and previously Argentina and Brazil).



**Landon Derentz, Senior Director, Global Energy Center**

Derentz is the former director of Middle Eastern and African affairs at the US Department of Energy. He served in energy-related roles at the National Security Council and National Economic Council, and under three energy secretaries.

## 6 Jihadists construct a “terrorist bridge” from the Red Sea to the Atlantic



Burkina Faso experienced two coups in 2022 and Mali is still ruled by a military junta that seized power at the end of 2021. The military factions that took control in each country have not yet allowed transitions to democratic elections to take place. The resulting political instability and uncertainty in West Africa compounds the challenges of containing the jihadist movements active in both countries and elsewhere in Africa, with recent attacks in Benin, Cote d’Ivoire, and Togo.

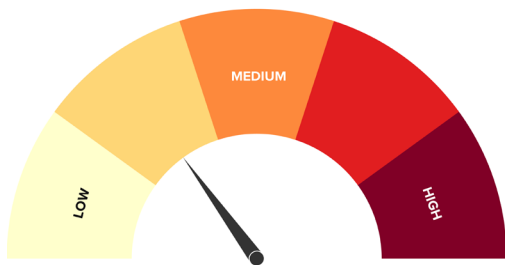
These jihadists—linked to al-Qaeda and the Islamic State—seek to control a span of territory stretching from the Red Sea to the Atlantic coast of Africa. That would grant them access to drug-trafficking routes from South America, which would provide a substantial source of revenue for their wars. Though great-power competition and conventional warfare are in the global spotlight now, jihadist groups with transnational ambitions, based in weak, unstable states, are a risk that merits attention. With jihadist movements also active elsewhere on the continent—from Mozambique to the Great Lakes—some experts are stressing the risk of an “Africanization of jihadism.”



**Rama Yade, Senior Director, Africa Center**

Yade served in several positions in the French government, including as the deputy minister for foreign affairs and human rights, and executive director of the France-West Africa Parliamentary Friendship Group. She also teaches African affairs at Mohammed VI Polytechnic University in Morocco and at Sciences Po – Paris.

## 7 A crisis just short of war erupts over Taiwan



There are many paths to a major crisis over the Taiwan Strait, the risk of which jumped significantly in the last half of 2022 following China’s military response to US Speaker Nancy Pelosi’s trip to Taiwan in August. How might it start? It probably won’t be a development in Taiwan itself or some bolt from the blue by the Chinese. I haven’t seen serious signs that China will attempt to force Taiwan to unify with the mainland in the coming year.

One possible spark would be some action by US policymakers in Congress, where momentum in favor of stepped-up US material and rhetorical support for Taiwan’s defense and de facto independence is only likely to grow with the Republican takeover of the House. China’s reaction would likely go well beyond what it did following Pelosi’s visit, which included launching ballistic missiles near Taiwan, carrying out military exercises in the waters around the island, conducting a dry run for a blockade, and canceling diplomatic dialogues with the United States. Whatever the response from Chinese leaders, the result will be a new—and more confrontational—normal. They might, for example, take retaliatory actions in

Taiwan’s offshore islands or launch a cyberattack against Taiwan’s electrical grid. They may carry out measures that affect the Taiwanese economy or regional supply chains—such as a true blockade of the island—and generally make a mess of the global economy as a result. World War III over Taiwan in 2023 isn’t likely, but what is more likely is a serious Strait standoff short of war that tests US resolve and raises the risk of war in the near future. And any confrontation that pushes the United States and China further into their corners is dangerous in its own right.

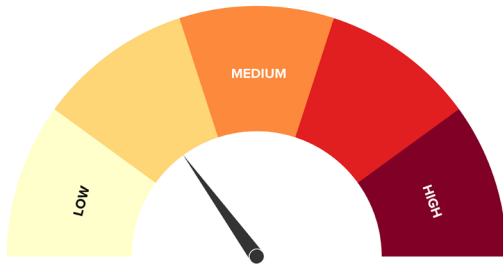


**David Shullman, Senior Director, Global China Hub**

Shullman oversaw the International Republican Institute’s work building the resilience of democratic institutions around the world against the influence of China, Russia, and other autocracies. For nearly a dozen years he was one of the US government’s top experts on East Asia, most recently as deputy national intelligence officer for East Asia on the National Intelligence Council.



## Countries—and not just US adversaries—move away from the dollar faster than anticipated



Alarmism about the health of the US dollar is an age-old tradition in Washington and beyond. Even a broken clock is right twice a day, though, and that time of day may be approaching. The dollar’s advantages remain deeply entrenched in the global financial system. Americans experiencing the strength of the dollar right now relative to currencies such as the pound, euro, and yen would be forgiven for thinking that there is nothing to worry about.

When you drill down, though, it becomes clear that many countries would like to move away from the dollar even if it won’t be easy and there is no clear alternative<sup>15</sup> in the near term. That shift is, in fact, already happening gradually. The dollar’s share of foreign-exchange reserves is declining.<sup>16</sup> Nations around the world—not just US rivals such as China but also countries including India, Indonesia, Malaysia, and South Africa—are investing in technologies such as central bank digital currencies<sup>17</sup> that could make them less reliant on the dollar. The unprecedented global sanctions regime swiftly imposed on Russia in the wake of its February invasion of Ukraine has only increased the likelihood of an accelerated move away from the dollar—perhaps to a probability of roughly 15 percent. If countries can find ways around the dollar, the impact of sanctions would be undercut over time. The next time an adversary violates another country’s borders, the US economic counterpunch might not be quite as painful.

15 Ananya Kumar and Josh Lipsky, “The dollar has some would-be rivals. Meet the challengers,” Atlantic Council New Atlanticist, September 22, 2022, <https://www.atlanticcouncil.org/blogs/new-atlanticist/the-dollar-has-some-would-be-rivals-meet-the-challengers/>.

16 Serkan Arslanalp and Chima Simpson-Bell, “US Dollar Share of Global Foreign Exchange Reserves Drops to 25-Year Low,” IMF Blog, May 5, 2021, <https://www.imf.org/en/Blogs/Articles/2021/05/05/blog-us-dollar-share-of-global-foreign-exchange-reserves-drops-to-25-year-low>.

17 *Central Bank Digital Currency Tracker*, Atlantic Council, accessed February 10, 2023, <https://www.atlanticcouncil.org/cbdctracker/>.

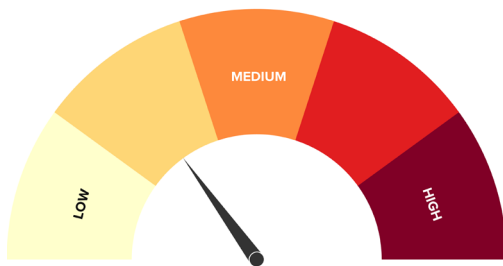


**Josh Lipsky, Senior Director, GeoEconomics Center**

Lipsky previously served as an advisor at the International Monetary Fund and speechwriter to Christine Lagarde, and as an appointee at the State Department, in the role of special advisor to the undersecretary of state for public diplomacy. He worked in the Obama White House helping plan the president’s participation at the G-20 and other global summits.



**New momentum builds for US withdrawal from the Middle East—and this time it doesn’t meet resistance**



Despite recurring pressures over the decades for US withdrawal from the Middle East, US interests in the region have remained stable and US and Middle Eastern leaders have repeatedly sought to overcome the challenges that could precipitate such a withdrawal. But my fear is that the stars align for that pattern to finally change in 2023.

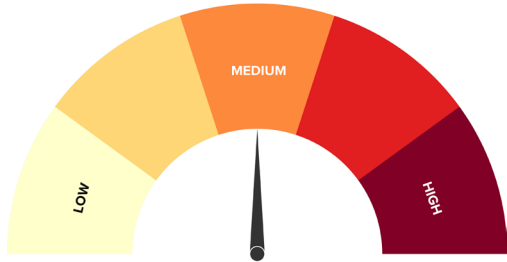
In Washington, those advocating for less US action or presence abroad have growing influence in both parties, though to date they have been largely held at bay by the Biden administration. In Riyadh, relations with the United States are increasingly strained, with each side too often publicly expressing unreasonable expectations of the other. In Jerusalem, the most right-wing government in the country’s history is about to take office, bringing with it predictable challenges for the US-Israel relationship. In Tehran, the regime continues to extend its malign activities outside the region and violently repress its people, all while the most dangerous internal elements jockey for position amid the looming succession of the supreme leader. In this context, the central policy question that has driven US-Iran relations for three consecutive US administrations—should the United States favor or oppose the 2015 nuclear agreement with Tehran—becomes irrelevant. Longstanding regional partners too frequently deprioritize US concerns over China and Russia in an effort to hedge against the prospect of US withdrawal, which only serves to increase the probability of that outcome. Several of these partners are perceived to have taken sides in US partisan politics, which contributes to the trend of US policies shifting along with election results. So the questions must now be asked: Over the course of the coming year, will US and Middle Eastern leaders still recognize a strategic need to prevent US withdrawal from the region? If so, what preferences are they willing to subordinate to that end?



**William Wechsler, Senior Director, Rafik Hariri Center and Middle East Programs**

Wechsler’s career in government focused on military, law enforcement, and financial efforts to combat transnational crime networks and terrorist groups. His most recent government position was deputy assistant secretary of defense for special operations and Combatting Terrorism.

# 10 **Developing countries suffer a wave of defaults and economic hardship**



The world is moving toward a global recession. That will mean less demand and a lower price for non-energy exports from developing countries. At the same time, the cost of energy and food is rising, in part as a result of the global fallout from the war in Ukraine. Developing countries are therefore about to get squeezed—making less money on what they’re selling and paying more money for what they’re buying. At the same time, interest rates are going up everywhere and lenders are showing less tolerance to assume risk in their dealings with developing countries.

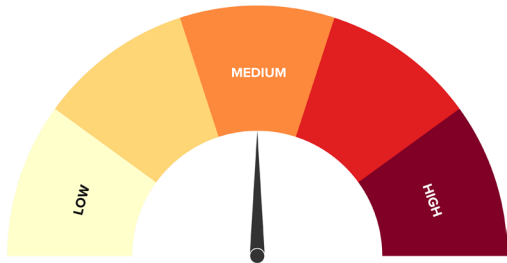
All this will make it harder for developing countries to service and refinance their debt, which will increase the likelihood of sovereign and corporate defaults. Defaults, in turn, could have broader knock-on effects such as stoking authoritarianism and insecurity in politically fragile countries. The poorest countries will fare the worst with these trends in the coming year.



**Dan Negrea, Senior Director, Freedom and Prosperity Center**

Negrea was the State Department’s special representative for commercial and business affairs from 2019-2021, and he held the economic portfolio in the secretary of state’s Policy Planning office from 2018-2019. He began his career as an official in the Ministry of Finance in Communist Romania, then defected to the United States and went on to a three-decade career on Wall Street.

# 11 **A growing trust deficit destabilizes democracies from within**



Many democratic countries are heading into 2023 with highly divided societies, shaky institutions, and question marks hanging over their political leaders. In Brazil, Jair Bolsonaro stoked rumors of voter fraud and rigged elections throughout the country’s 2022 presidential campaign and took his time conceding to Luiz Inácio Lula da Silva, who resumes the presidency after spending time in prison on corruption charges. In Israel, the fifth election in four years returned Benjamin Netanyahu to power by a razor-thin margin of victory. The United Kingdom is now on its third prime minister in months.

The serious threat of political violence persists in a politically polarized United States.

What happens when the democratic world is led by people whose electorates

largely don't<sup>18</sup> trust<sup>19</sup> them<sup>20</sup>—or even the elections that brought them to power? The potential outcomes include repeated leadership changes, continued chaos around elections, and more contestation of the validity of election results. In parliamentary systems especially, frequent elections introduce volatility that the world can ill afford. If the top of a democracy is unsteady enough, eventually it will shake the foundations.

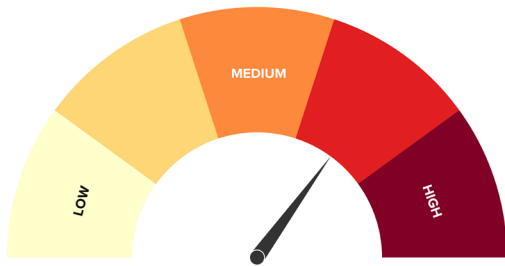


**Jonah Fisher, Senior Director, Millennium Leadership Program**

Fisher has been an executive and convener in leadership and social innovation around the world. He was the founding director of GATHER, Seeds of Peace's social innovation arm, worked on regional economic development in Israel, and coached and consulted for the climate-finance team at the Hewlett Foundation and the social innovation team at Kaiser Permanente.

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**US tech policy toward China drives a wedge in the transatlantic relationship**



European companies could soon have to choose between the Chinese and US markets. While questions of economic relations and technological development are mostly understood as commercial activities in Europe, they are increasingly viewed through the lens of national security in the United States. In China, too, the ability to manufacture advanced technologies such as semiconductor chips is seen as vitally important to the country's development and security.

Xi Jinping's speech to the 2022 Party Congress made clear that he intends to double down on developing indigenous technological capabilities, which would not only enable further military advances but create more Chinese technology products that are able to compete with US suppliers. Historically, after developing strong domestic production capacity in a particular area, China has gone around the world and undercut other markets and suppliers. The risk this situation poses to US and European competitive advantage is compound: Companies usually fund research and development (R&D) as a fraction of their sales, and if sales drop then R&D funding declines and innovation slows. The United States is attempting to assert its technological leadership and hinder China's technological advancement in two ways: promoting (through measures such as the 2022 CHIPS and Science Act) and protecting (through measures such as export controls) domestic industry. But both methods carry significant risks of unintended consequences. By reducing revenue for US companies that do business in China, for example, the "protect" strategy is likely to reduce the capital available from the private sector that the US government is counting on to reshore or "friend-shore" manufacturing capacity, putting US industry further behind Chinese industry in R&D investments. Some US partners are already so dependent on China either as a market for their domestic industries or as a supplier of critical technologies that full-blown tech decoupling won't be possible without risking their economic health. This dependence might lead to worsening transatlantic relations and increasing disputes over how to deal with a rising China, which may even contribute to a splintering of the alliance supporting Ukraine.

18 Joe Davidson, "American trust in government near 'historic lows,' Pew finds," *The Washington Post*, June 9, 2022, <https://www.washingtonpost.com/politics/2022/06/09/american-trust-government-pew-survey/>.  
 19 "Public Trust in Government: 1958-2022," Pew Research Center, June 6, 2022, <https://www.pewresearch.org/politics/2022/06/06/public-trust-in-government-1958-2022/>.  
 20 *2022 Edelman Trust Barometer*, Edelman, January 18, 2022, <https://www.edelman.com/trust/2022-trust-barometer>.



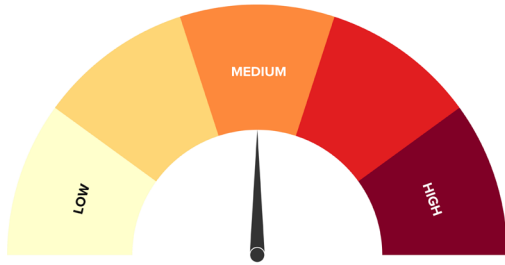


**Lloyd Whitman, Senior Director, GeoTech Center**

Whitman had a distinguished federal career in science and technology research and policy. His most recent post was at the National Science Foundation as assistant to the director for science policy and planning, where he worked closely with the White House to promote US leadership in emerging technologies.

# Top opportunities

## 1 Ukraine wins—and becomes part of the institutional West



We should pay attention to Putin’s efforts to use Russian energy supplies as a weapon to break Western support for Ukraine. But that support has held steady even as temperatures have started dropping and as the Nord Stream pipelines carrying Russian gas to Europe have suffered apparent sabotage. These are among the many signs presaging support that lasts the winter, which could result in Western arms continuing to flow into Ukraine and the Russian military continuing to struggle on the battlefield.

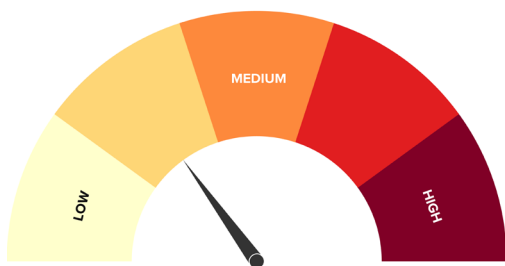
If Ukraine wins the war in 2023—a big if, but not the unthinkable prospect it was a year ago—and eventually joins the European Union and NATO, the upside potential is enormous. And not only for Ukraine: Such developments would represent a huge success for US leadership in Europe and the future of the rules-based international system.



**Matthew Kroenig, Senior Director, Scowcroft Center for Strategy and Security**

Kroenig currently sits on the Congressional Commission on the Strategic Posture of the United States. He served in defense and intelligence roles in the Bush, Obama, and Trump administrations. From 2017 to 2021, he was a senior policy adviser to the Office of the Assistant Secretary of Defense for Strategy, Plans, and Capability/Nuclear and Missile Defense Policy.

## 2 The transition away from fossil fuels reaches an inflection point



Net-zero greenhouse-gas emissions could be within sight by 2050 if we play our cards right. The 2022 Inflation Reduction Act alone represents the single largest investment in climate and energy in American history, presenting an unprecedented opportunity for the United States and its friends and allies to establish durable and secure supply chains that will accelerate the world’s march to net-zero emissions. Add to this the Bipartisan Infrastructure Law and the renewed focus in Western capitals this past year on diversifying away from reliance on Russian and Organization of the Petroleum

Exporting Countries (OPEC) energy supply, and 2023 could be a bellwether year for the clean-energy transition.

To fully capitalize on the momentum, however, Washington needs to get out of its own way. There is a need to build conventional and clean-energy infrastructure, but that can't happen until Congress passes permitting reform that would make it easier to produce oil and gas resources and move electrons from clean-energy sources in the United States. Such permitting reform has bipartisan support, but the odds of a polarized Congress passing it remain low—jeopardizing the country's ability in 2023 to scale investment and seize this potential inflection point in the global transition from fossil fuels to clean energy.

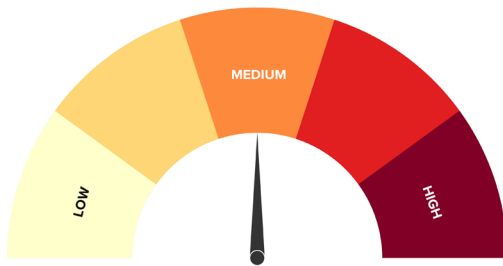


**Landon Derentz, Senior Director, Global Energy Center**

Derentz is the former director of Middle Eastern and African affairs at the US Department of Energy. He served in energy-related roles at the National Security Council and National Economic Council, and under three energy secretaries.



### Turkey emerges as a security guarantor in the Black Sea



NATO had a strong interest in a more stable Black Sea region even before Russia invaded Ukraine, but in 2023 securing the region will only grow in importance. As the Alliance's second-largest military power and the country controlling the only way in and out of the Black Sea, Turkey has a pivotal role to play in ensuring the region's stability and security.

There have been signs in 2022 that Ankara is willing to put this influence to good use, leveraging its connections with both Ukraine and Russia to push for direct peace talks between the two sides. Turkish Bayraktar drones have been instrumental in Ukraine's defense, while Turkey has also leveraged its longstanding relations with Russia to facilitate, alongside the United Nations, an agreement with Moscow and Kyiv that unlocked the export of Ukrainian grain and lowered the risk of a global food crisis. Turkey is likely to continue to push for a settlement to the war in 2023. Should one start to take shape, Turkey could emerge as a security guarantor and regional counterweight to Russia. Turkish gas discoveries in the Black Sea also have the potential to bolster regional energy security and diversify energy supplies.

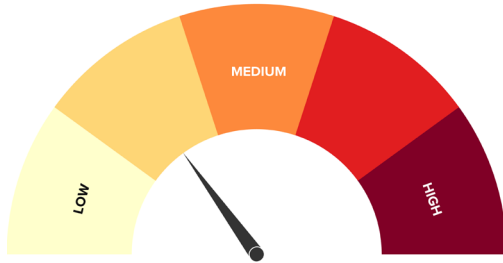
There have been signs in 2022 that Ankara is willing to put this influence to good use, leveraging its connections with both Ukraine and Russia to push for direct peace



**Defne Arslan, Senior Director, Atlantic Council in Turkey Program**

Arslan is an economist and energy expert based in Turkey, with long experience liaising between regional governments and the private sector. Arslan worked as a senior economist at the US embassy in Ankara and was the founding coordinator at the Turkish International Cooperation Agency.

## 4 The United States demonstrates that “America is back” economically in Asia



If the United States were to reassert its economic leadership in Asia, which it more or less relinquished after the Trans-Pacific Partnership trade pact fell victim to domestic politics in 2017, it would serve as a response to the economic influence that China has racked up there in the intervening years. It would also represent an important shift from the US government’s primarily security-focused approach to the region.

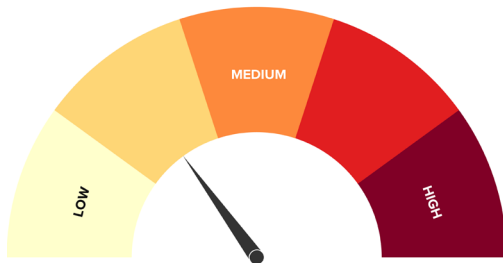
Look for significant progress in US efforts to bolster economic ties in Asia by the time of the Asia-Pacific Economic Cooperation forum in San Francisco next November. Of particular note would be the finalization of negotiations on the Indo-Pacific Economic Framework as well as significant progress in negotiations on the 21st Century Trade initiative between the United States and Taiwan, which is meant to be a move closer toward a free-trade agreement. Collectively those achievements would show that the Biden administration is making good on its rhetoric about US commitment to the Indo-Pacific going beyond China to focus on benefits for countries across the region. It would also indicate that the United States is resuming its role of regional economic integrator and is prepared to offer a robust alternative to the China model.



**David Shullman, Senior Director, Global China Hub**

Shullman oversaw the International Republican Institute’s work building the resilience of democratic institutions around the world against the influence of China, Russia, and other autocracies. For nearly a dozen years he was one of the US government’s top experts on East Asia, most recently as deputy national intelligence officer for East Asia on the National Intelligence Council.

## 5 Putin loses—abroad and at home



Putin is in deep water as the Russian military flounders in Ukraine. If the transatlantic community maintains its policy of support for Ukraine and pushback against the Kremlin—and especially if such support increases, leading to Kyiv regaining control of most of mainland Ukraine —don’t rule out Putin’s departure from power in 2023. The chances of that occurring, in fact, might be as high as 25 percent. Such a development would most likely flow from increasing economic pain and war casualties producing civil unrest in Russia, all of which

prompts insiders to band together to push Putin out of office.

Some fear that any plausible replacement would be worse than Putin. But if past is prologue, the chances of Putin’s removal producing a political and diplomatic opening of some kind is significantly higher than that of an even more brutal and aggressive Kremlin policy emerging. If Putin’s failure in Ukraine leads to more than the already-unusual public discontent on display now in Russia, and to real

political change in the country, that raises the possibility of at least limited liberalization and normalization of bilateral ties with the United States.

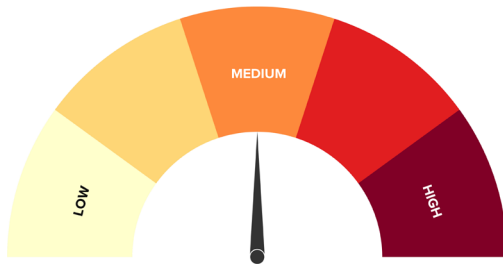


**John Herbst, Senior Director, Eurasia Center**

Herbst's 31-year career in the US Foreign Service included time as US ambassador to Uzbekistan, other service in and with post-Soviet states, and his appointment as US ambassador to Ukraine from 2003 to 2006. In that role he helped ensure the conduct of a fair Ukrainian presidential election and prevent violence during the Orange Revolution.



## The European Union starts acting like a great power



Three factors could push Europe to move from debate to action on the question of a more geopolitical European Union. The first is Putin's aggression in Ukraine. The second is China's global assertiveness. The third is the potential return of Donald Trump to the US presidency in 2024.

For many European leaders, the past year's dramatic developments answered some of the unresolved questions about European strategic autonomy. Russia's war unequivocally underscored the United States' indispens-

able role in European security. It also killed any remaining illusions about a European special relationship with Russia and converted even the most dovish proponents of that position in Berlin. Europeans are now much more strategically aligned on the question of the European Union's relationship with power, even if the EU's instruments for exercising hard power are still lacking. More hawkish views on China are on the ascendancy in the region as well. The coming year will be about how to put these ideas into practice geopolitically, diplomatically, and especially militarily. What might that look like exactly? If EU military aid continues to flow to Ukraine, that would be an indication that the shift to a more geopolitical EU is happening in practice. In Berlin, it could take the form of operationalizing the government's ambitious *Zeitenwende* concept<sup>21</sup> for how to engineer a turning point in German foreign and defense policy. Elsewhere, watch for the European Peace Facility (the security-assistance fund from which EU military support for Ukraine is drawn) to be replenished.



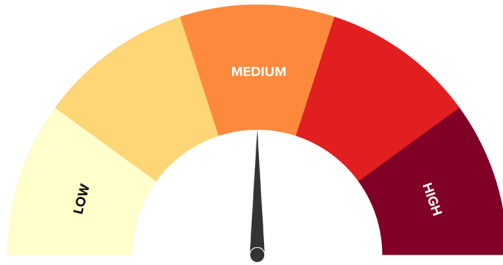
**Jörn Fleck, Senior Director, Europe Center**

Fleck was chief of staff for a member of the European Parliament and then director of the Transatlantic Policy Network. At the Atlantic Council he continues his work liaising with US and EU lawmakers on diplomatic relations, trade policy, and EU foreign and security policy.

21 Rachel Rizzo and Jörn Fleck, "Germany can't afford to fumble the 'Zeitenwende,'" *Atlantic Council New Atlanticist*, November 3, 2022, <https://www.atlanticcouncil.org/blogs/new-atlanticist/germany-cant-afford-to-fumble-the-zeitenwende/>.

7

**A push for EU expansion boosts the democratic world**



Authoritarian Russia’s war against democratic Ukraine has had a boomerang effect on the Kremlin by prompting NATO’s expansion to the north to include Finland and Sweden. Now it may have a similar effect by propelling the European Union’s expansion to the south. As I know from experience in my native Romania, many former communist countries view EU membership as a means of escaping their oppressive Soviet past and the Russian sphere of influence with all its pathologies, including corruption, authoritarianism, and arbitrariness—as a way, in other words, of moving to a Western world of democ-

racy, free markets, and rule of law.

Just as the Ukrainian government applied to join the EU within days of Russia’s further invasion of the country, leading the EU to speedily accept Ukraine’s candidacy (and that of Moldova), the conflict may well accelerate the EU membership bids of the Western Balkans countries in the coming year. Albania, Bosnia, Kosovo, Montenegro, North Macedonia, and Serbia will likely feel increased urgency to obtain the greater prosperity and security that they believe EU membership would provide, and EU leaders could be more inclined to embrace them—as Germany’s chancellor, for example, has recently signaled.<sup>22</sup>

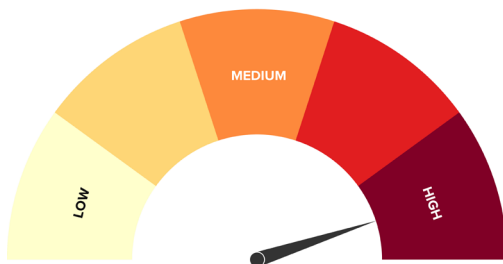


**Dan Negrea, Senior Director, Freedom and Prosperity Center**

Negrea was the State Department’s special representative for commercial and business affairs from 2019-2021, and he held the economic portfolio in the secretary of state’s Policy Planning office from 2018-2019. He began his career as an official in the Ministry of Finance in Communist Romania, then defected to the United States and went on to a three-decade career on Wall Street.

8

**Venezuelan oil comes online, relieving pressure on global energy markets**



Beginning with the November 26 announcement that the United States will issue a new license for Chevron to pump oil in Venezuela, the political space is opening for the United States to further lift the oil sanctions it imposed in 2019 in response to the increasing authoritarianism of Venezuela’s leader Nicolás Maduro. The interim government of Juan Guaidó, which the United States and more than fifty other countries recognized as the country’s legitimate leadership, will cease to exist in January when Guaidó’s term ends.

22 Damir Marusic, Maja Piscevic, and Jörn Fleck, “Germany steps up in the Western Balkans. Will the EU follow its lead?,” Atlantic Council New Atlanticist, November 3, 2022, <https://www.atlanticcouncil.org/blogs/new-atlanticist/germany-steps-up-in-the-western-balkans-will-the-eu-follow-its-lead/>.

And the normalization of Maduro as Venezuela’s president is already underway across Latin America; even Colombia, once staunchly opposed to Maduro, reestablished diplomatic relations with his government in 2022. There are other signs pointing to a thaw as well, including Maduro’s participation at the COP27 climate-change conference and a prisoner swap between Venezuela and the United States in the fall. Talks between the Maduro government and its political opposition in Mexico City could foster a deal in which Maduro makes concessions—such as releasing political prisoners, granting opposition candidates access to traditional media outlets, and complying with the recommendations of election observation missions—regarding Venezuela’s 2024 presidential elections in exchange for the United States removing additional sanctions. That pact might include production-sharing agreements between US companies and the Venezuelan state oil company PDVSA as well as the creation of a fund for revenue from Venezuelan oil sales that prevents the proceeds from going to the Maduro government itself. Global energy markets will welcome this news—especially in Europe amid its energy crunch—since Venezuela has the world’s largest proven oil reserves. The country’s oil sector has grown dilapidated over the past decade. But with the right investments, in the span of a couple years, the world could have a significant new source of supply.

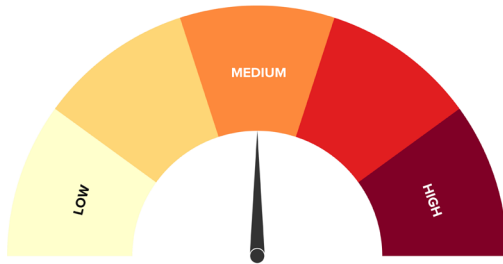


**Jason Marczak, Senior Director, Adrienne Arsht Latin American Center**

Marczak has over twenty years of expertise in Latin American economics, politics, and development, working with policymakers and private-sector executives to shape public policy. He is an adjunct professor at the George Washington University’s Elliott School of International Affairs where he teaches on Central America and US immigration policy.



## High-skilled visa reform finally happens in the United States



The chances that the US Congress could reform immigration law to allow more high-skilled immigrants to stay and work in the United States are now better than they have ever been. In the United States, many of the college and graduate students in the most in-demand science, technology, engineering, and math (STEM) fields are residents of other countries and have difficulty obtaining visas to remain and work in the United States after graduation.

From the US technology sector’s point of view, graduate degrees in STEM fields should come with a green card attached. Democrats and Republicans generally agree on the need for high-skilled visa reform, but the two parties have been unwilling to decouple this shared interest from other matters of immigration policy where they fundamentally disagree. The issue that might break this logjam is China, whose technological ambitions came into sharper focus during the 2022 Chinese Communist Party Congress. The national-security implications of falling behind Beijing could finally spur some limited reform. A legislative breakthrough that grants lawful permanent resident status for certain advanced STEM degree holders—perhaps as part of the National Defense Authorization Act—would be a big win for the US tech sector and the future of US innovation in emerging technology.

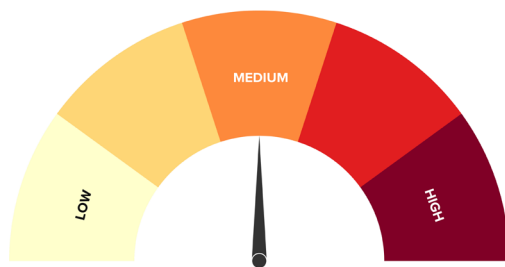


**Lloyd Whitman, Senior Director, GeoTech Center**

Whitman had a distinguished federal career in science and technology research and policy. His most recent post was at the National Science Foundation as assistant to the director for science policy and planning, where he worked closely with the White House to promote US leadership in emerging technologies.



**Funding for climate adaptation and resilience dramatically accelerates and doubles in size**



One of the most significant outcomes of this past year’s United Nations COP27 climate-change conference was that it produced a path forward for the 2015 Paris Agreement’s Global Goal on Adaptation.<sup>23</sup> That includes \$230 million<sup>24</sup> (admittedly still a drop in the bucket compared with an expected need<sup>25</sup> of hundreds of billions of dollars per year) in new pledges by governments and development agencies to help countries adjust to a changing climate, as well as the announcement of the Sharm el-Sheikh Adaptation Agenda<sup>26</sup> to enhance resilience in the world’s most climate-vulnera-

ble places by 2030.

Outside the official negotiations at COP27, I witnessed numerous efforts to accelerate investment in climate resilience, including new initiatives to mobilize capital for adaptation to extreme heat and for cooling food, medicine, and buildings through methods ranging from light surfaces to green spaces and roofs to machines powered by renewable energy. The select non-governmental “Climate Champions” at COP27 also endorsed existing projects where the insurance industry is taking risk-transfer approaches to advance climate adaptation along with disaster preparedness and response. European Union regulators, meanwhile, have developed a taxonomy<sup>27</sup> for the financing of climate adaptation, helping refine how to measure such investments. Less than 10 percent<sup>28</sup> of total climate finance currently goes to climate adaptation. But the stage is set for an innovative cast of public and private actors to make 2023 a breakthrough year in which investments in climate adaptation more than double to account for a quarter of total climate finance.

23 “Key aspects of the Paris Agreement,,” United Nations, accessed February 10, 2023, <https://unfccc.int/most-requested/key-aspects-of-the-paris-agreement>.

24 Sharm El-Sheikh, “Adaptation Fund Receives Nearly US\$ 243 Million Mobilized in 2022 for the Most Climate Vulnerable at COP27 Event,,” Adaptation Fund, last updated December 22, 2022, <https://www.adaptation-fund.org/adaptation-fund-receives-over-us-230-million-mobilized-in-2022-for-the-most-climate-vulnerable-at-cop27-in-egypt/>.

25 “More funding needed for climate adaptation, as risks mount,,” United Nations News, November 3, 2022, <https://news.un.org/en/story/2022/11/1130142>.

26 Climate Champions, “COP27 Presidency launches Adaptation Agenda to build climate resilience for 4 billion by 2030,,” United Nations Framework Convention on Climate Change, November 8, 2022, <https://climatechampions.unfccc.int/cop27-presidency-announces-ambitious-climate-resilience-agenda/>.

27 “Financing Climate Adaptation: Sustainable investments in adaptation are harmonized in a European Union taxonomy,,” European Climate Adaptation Platform Climate-ADAPT, December 9, 2021, <https://climate-adapt.eea.europa.eu/en/news-archive/financing-climate-adaptation-sustainable-investments-in-adaptation-are-harmonised-in-a-european-union-taxonomy>.

28 Barbara Buchner et al., *Global Landscape of Climate Finance 2021*, Climate Policy Initiative, December 14, 2021, <https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/>.



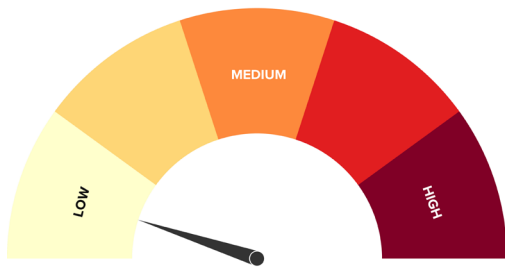


**Kathy Baughman McLeod, Senior Vice President and Director, Adrienne Arsht Rockefeller Foundation Resilience Center**

Baughman McLeod was a global environmental and social risk executive at Bank of America, and a former managing director of climate risk and resilience at The Nature Conservancy. She was an energy and climate commissioner of the state of Florida.



**Climate change accomplishes what nothing else will: Unite South Asian nations**



The nearly 2 billion people living in South Asia, one of the world’s least economically integrated regions, all face a much higher-than-average risk from climate change, as was poignantly on display during Pakistan’s deadly floods this past year. One recent study,<sup>29</sup> for example, found South Asia to be the region most at risk of suffering economic losses from climate change.

The threat has become dire enough that, as my colleague Harris Samad has pointed out, climate change may be the one chance to generate constructive

transnational conversations in South Asia over the coming year. The catch that makes major progress unlikely? These conversations would need to occur among civil-society organizations, since the governments in the region have effectively closed down all cross-border scientific cooperation. Still, collaboration of any kind—from standardized climate curricula to a public-private forum for data-sharing to common strategies for building climate-resilient infrastructure —would present an opportunity to save countless lives. At the regional and local levels, it would also serve as a model for how to counteract climate change despite deep geopolitical divisions.



**Irfan Nooruddin, Senior Director, South Asia Center**

Nooruddin is the Hamad bin Khalifa Al Thani Professor of Indian Politics in the School of Foreign Service at Georgetown University. He researches and publishes widely on the political economy of development, trade, and investment, and the challenges of democratization in the 21st century.

29 Marc Jones, “How hard could climate change hit the global economy, and where would suffer most?,” World Economic Forum, April 29, 2022, <https://www.weforum.org/agenda/2022/04/climate-change-global-gdp-risk/>.



# Six ‘snow leopards’ to watch for in 2023

We don’t see them, but they’re out there.

Rare, elusive, and well-camouflaged, snow leopards are exceptionally hard to spot. When sighted, these majestic cats seem to have come out of nowhere. And yet they were around us all along.

In the discipline of global foresight, as the Atlantic Council’s Peter Engelke wrote last year,<sup>30</sup> a “snow leopard” is “a known but underappreciated—perhaps even forgotten—phenomenon” that has the potential to change the world and shape its future even though appearances might suggest otherwise.

The snow leopards discussed here are not predictions, but rather prompts for us to scrutinize overlooked phenomena. A technological breakthrough, for example, may not seem world-changing when still in development. Other phenomena might be so woven into our daily lives that they’ve become invisible to us, as with the recommendation algorithms highlighted below. The actors involved also influence how much weight we give to events and trends: If a head of state were to announce a country’s economic disengagement from China, we would sit up and pay attention, but companies deciding one by one to proceed with such “decoupling” may fly under the radar.

Our next-generation foresight experts at the Scowcroft Center for Strategy and Security brought a fresh perspective to the task of spotting the hard-to-spot. Check out their list of six snow leopards to watch closely in the year ahead.

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30 Peter Engelke, *Six ‘Snow Leopards’ to watch for in 2022*, Atlantic Council, <https://www.atlanticcouncil.org/content-series/atlantic-council-strategy-paper-series/six-snow-leopards-to-watch-for-in-2022/>.

# The tightening regulation of algorithms

Algorithms are everywhere yet almost invisible, serving as the silent sifters and sorters of our lives. Their influence is baked into everything from email and smartphones to GPS and government services. On search engines and social media, “recommendation algorithms” leverage user data and history to curate information for billions of people. In their simplest form, algorithms are instructions or sets of rules—often used by computers—for completing a task. At their most complex, they drive machine learning and enable artificial intelligence (AI) to grow smarter and more sophisticated by the second.

With such sweeping capacity to shape how individuals and societies order and consume information—from the mundane recommendations of photo feeds and shopping lists to the grave amplification<sup>31</sup> of extremist conspiracy theories that cause real-world terror—algorithms (and their designers) hold some responsibility for the social and political consequences of the content they propagate and the decisions they advance.

The need for AI governance, particularly to rein in algorithms, is increasing—and policymakers have demonstrated an appetite for it. This October, the White House published an AI Bill of Rights<sup>32</sup> with a blueprint for addressing “algorithmic and data-driven harms” and potential remedies. Lawmakers in the US Congress have proposed legislation<sup>33</sup> to limit algorithmic promotion of extremist content by holding<sup>34</sup> social-media platforms liable if certain forms of amplified content lead to offline violence, with other bills<sup>35</sup> on the subject under consideration as well. China implemented a law<sup>36</sup> in 2022 to reduce algorithmic influence on public opinion by enabling users to decline algorithmic recommendations on websites and apps. (The law was part of China’s pursuit of “positive energy”<sup>37</sup> online, under the country’s aggressive censorship.) The EU’s Artificial Intelligence Act<sup>38</sup>, the first major, still-pending regulatory framework for AI that could set<sup>39</sup> global standards, strives to curb<sup>40</sup> algorithmic bias. The EU’s General Data Protection Regulation (GDPR) also offers guidelines<sup>41</sup> on when companies can and can’t use algorithmic automated processing for decision-making—for example, regarding who to offer a loan to or at what interest rate.

Regulating algorithms is a broad and complex challenge, and pushback by the tech industry along with legal hurdles<sup>42</sup> could halt even the most ambitious regulators. The public, and even policymakers, often

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- 31 Julia Carrie Wong, “Down the rabbit hole: how QAnon conspiracies thrive on Facebook,” *The Guardian*, June 25, 2020, <https://www.theguardian.com/technology/2020/jun/25/qanon-facebook-conspiracy-theories-algorithm>.
- 32 *Blueprint for an AI Bill of Rights: Making Automated Systems Work for the American People*, The White House, October 2022, <https://www.whitehouse.gov/wp-content/uploads/2022/10/Blueprint-for-an-AI-Bill-of-Rights.pdf>.
- 33 “Reps. Eshoo and Malinowski Reintroduce Bill to Hold Tech Platforms Accountable for Algorithmic Promotion of Extremism,” Congresswoman Anna G. Eshoo, March 24, 2021, <https://eshoo.house.gov/media/press-releases/rep-eshoo-and-malinowski-reintroduce-bill-hold-tech-platforms-accountable>.
- 34 Hearing on Disrupting Dangerous Algorithms: Addressing the Harms of Persuasive Technology, Before the United States Senate Committee on Commerce, Science, and Transportation Subcommittee on Communications, Media, and Broadband, 117th Cong., 1-20 (2021) (statement of Rose Jackson, Director of the Democracy + Tech Initiative in the Digital Forensic Research Lab at the Atlantic Council).
- 35 “algorithm,” Congress.gov, accessed February 8, 2023, <https://www.congress.gov/search?q=%7B%22congress%22%3A%5B%22117%22%5D%2C%22source%22%3A%22all%22%2C%22search%22%3A%22algorithm%22%7D>.
- 36 Tracy Qu, “China’s algorithm law takes effect to curb Big Tech’s sway in public opinion,” *South China Morning Post*, March 1, 2022, <https://www.scmp.com/tech/policy/article/3168816/chinas-algorithm-law-takes-effect-curb-big-techs-sway-public-opinion>.
- 37 Emily Feng, “Why the Chinese government wants more feel-good stories posted online,” National Public Radio, January 10, 2022, <https://www.npr.org/2022/01/10/1071766938/why-the-chinese-government-wants-more-feel-good-stories-posted-online>.
- 38 “The Artificial Intelligence Act,” Future of Life Institute, accessed February 10, 2023, <https://artificialintelligenceact.eu/>.
- 39 Alex Engler, “The EU AI Act will have global impact, but a limited Brussels Effect,” Brookings, June 8, 2022, <https://www.brookings.edu/research/the-eu-ai-act-will-have-global-impact-but-a-limited-brussels-effect/>.
- 40 Melissa Heikkilä, “A quick guide to the most important AI law you’ve never heard of,” *MIT Technology Review*, May 13, 2022, <https://www.technologyreview.com/2022/05/13/1052223/guide-ai-act-europe/>.
- 41 “Are there restrictions on the use of automated decision-making?,” European Commission, accessed February 10, 2023, [https://commission.europa.eu/law/law-topic/data-protection/reform/rules-business-and-organisations/dealing-citizens/are-there-restrictions-use-automated-decision-making\\_en](https://commission.europa.eu/law/law-topic/data-protection/reform/rules-business-and-organisations/dealing-citizens/are-there-restrictions-use-automated-decision-making_en).
- 42 Julia Zorthian, “Washington Wants to Regulate Facebook’s Algorithm. That Might Be Unconstitutional,” *Time*, October 13, 2021, <https://time.com/6106643/facebook-algorithm-regulation-legal-challenge/>.

lack the conceptual clarity to identify, define, and classify algorithms. And because it can be difficult to prove causation between algorithmic decision-making and the behavior or opinions of individuals influenced by it, accountability is hard to track.

Further breakthroughs may happen below the national level. New York City is reviewing the use of algorithms in decision-making across its government agencies and offices. The City Council curtailed the use of AI algorithms in decisions about hiring and promotion.<sup>43</sup> And these steps are just the beginning, as state houses<sup>44</sup> and activists energetically join the race to shape this new frontier.



**Danielle Miller, Assistant Director, Scowcroft Strategy Initiative**

Prior to joining the Atlantic Council, Miller worked in the US House of Representatives and was a research assistant at the University of California Berkeley's Institute of European Studies.

## The rise of preemptive corporate decoupling from China

In the days after the Kremlin launched its illegal war on Ukraine, Western companies based in Russia started fleeing the market<sup>45</sup>, fearing unprecedented transatlantic sanctions, consumer backlash for continuing to do business with an invader country on an imperialist bender, and investor pressure to maintain profit margins. Now, as tensions between the West and China escalate, wary investors and multinational corporations may be starting to preemptively shift their market presence, supply chains, and investments away from China to insulate themselves from similar future impacts should the Sino-transatlantic relationship deteriorate.

Among the most interesting early developments: Apple, which has a huge production footprint in China, has decided to shift production of its iPhone 14 model to India, while some of Google's production for the new Pixel phone will likely be heading to Vietnam.<sup>46</sup> Another space to watch is pension funds, as growing concerns about political risks are prompting discussions<sup>47</sup> about potentially exiting or at least reducing exposure to the Chinese market.

While it's still early to call such decisions formal decoupling, these signs point to Western companies' unease about the state of the Sino-transatlantic relationship, as well as a preemptive, corporate-led fragmentation of markets and supply chains in case tensions between China and Western countries bubble over. The private sector's concerns about China's restrictive zero-COVID policies, which have led to recurring lockdowns and disruptions at factories, may also be a factor in these developments,

- 43 Danielle Moss, Harris Mufson, Gabby Levin, and Meika Freeman, "New York City Enacts Law Restricting Use of Artificial Intelligence in Employment Decisions," *Gibson Dunn*, December 27, 2021, <https://www.gibsondunn.com/new-york-city-enacts-law-restricting-use-of-artificial-intelligence-in-employment-decisions/>.
- 44 "Legislation Related to Artificial Intelligence," National Conference of State Legislatures, August 26, 2022, <https://www.ncsl.org/technology-and-communication/legislation-related-to-artificial-intelligence>.
- 45 "Companies Are Getting Out of Russia, Sometimes at a Cost," *The New York Times*, October 14, 2022, <https://www.nytimes.com/article/russia-invasion-companies.html>.
- 46 Daisuke Wakabayashi and Tripp Mickle, "Tech Companies Slowly Shift Production Away from China," *The New York Times*, September 1, 2022, <https://www.nytimes.com/2022/09/01/business/tech-companies-china.html>.
- 47 Rachel Fixsen, "Pension funds in Nordics stick with China exposure but alert to risks," *Investment & Pensions Europe*, March 23, 2022, <https://www.ipe.com/news/pension-funds-in-nordics-stick-with-china-exposure-but-alert-to-risks/10058796.article>.

but the roots of these corporate moves can be traced back further to extensive tariffs<sup>48</sup> and other economic tit-for-tat measures between China and the West—as well as nervousness about China’s own pursuit of self-sufficiency via efforts such as its “Made in China 2025” initiative. At stake in how these trends play out is nothing less than the future of globalization as we know it, along with the shape of the multipolar geoeconomic order, in which countries such as India will likely play an enhanced role.



### Anca Agachi, Associate Director, Transatlantic Security Initiative

Previously, Agachi worked for the EU’s European Defence Agency on defense capability development projects in the information security and space domains, and served as a United Nations Youth Representative for Romania, focusing extensively on the UN 2030 Agenda and sustainable development goals.

## The battery revolution that will democratize electric vehicles

The two main reasons why consumers are reluctant to buy electric vehicles? They cost a lot and can’t get very far on a charge. But a battery that could make electric cars cheaper, more efficient, and thus more popular may be on the horizon. The next breakthrough could come not by way of an updated lithium-ion battery—the kind that powers most electric vehicles on the road today—but rather by using current battery technology in different form through structural batteries built into a car’s frame. This has the effect of reducing the car’s weight (a chassis made of battery cells isn’t as heavy as a chassis plus a separate battery) and a lighter car can travel farther on a single charge. The potential benefits go far beyond increasing range. Integrating the battery into a car’s chassis could also cut down on manufacturing costs and make cars cheaper, while strengthening the body of the car as well.

Tesla has experimented with structural batteries in its Model Y<sup>49</sup> cars and GM used them in the electric model of its Hummers<sup>50</sup>, but their versions have yet to yield broader adoption. Yet technical development among automakers and other actors is ongoing and promising. Researchers at Sweden’s Chalmers University of Technology, for example, recently developed a more efficient structural battery that performs ten times better<sup>51</sup> than its predecessors. Right now, electric vehicles are driven mostly by the wealthy: In the United States, for instance, 78 percent<sup>52</sup> of federal electric-vehicle credits go to those with incomes over \$100,000. If structural batteries can deliver on their promise, it will result in many more electric vehicles on the road around the world, democratizing ownership.

48 “Biden administration to maintain China tariffs while review continues,” Reuters, September 2, 2022, <https://www.reuters.com/markets/us/biden-administration-maintain-china-tariffs-while-review-continues-2022-09-02/>.

49 Dan Mihalascu, “Musk Says Model Y’s Structural Battery Pack ‘Far From Optimized,’” InsideEVs, July 7, 2022, <https://insideevs.com/news/596775/musk-says-model-structural-battery-pack-far-from-optimized/>.

50 John Huetter, “Electric 2022 GMC Hummer Edition 1 structure relies on battery pack instead of traditional frame rails,” Repairer Driven News, October 30, 2020, <https://www.repairerdrivennews.com/2020/10/30/electric-2022-gmc-hummer-edition-1-structure-relies-on-battery-pack-instead-of-conventional-frame-rails/>.

51 Chalmers Institute of Technology, “Big breakthrough for ‘massless’ energy storage,” *Science Daily*, March 22, 2021, <https://www.sciencedaily.com/releases/2021/03/210322091632.htm>.

52 Molly F. Sherlock, “The Plug-On Electric Vehicle Tax Credit,” Congressional Research Service, U.S. Library of Congress, IF11017, 2019.



**Imran Bayoumi, Assistant Director, Scowcroft Strategy Initiative**

Bayoumi graduated with his master's degree in global affairs from the Munk School at the University of Toronto where he held a Joseph-Armand Bombardier Canada Graduate Scholarship. He also holds a BA from Queen's University in political studies.

## The early glimmers of a global, platform worker-driven labor movement

An uneven post-COVID-19 economic recovery has stoked a labor-rights movement in the United States and efforts to unionize in some of the country's largest corporations—from Starbucks to Amazon to Trader Joe's. Around the world, meanwhile, similar fallout from the pandemic has produced another phenomenon: Platform workers—those who work for organizations that provide services directly to consumers through an online platform—are leading efforts to create better working conditions for themselves. Strikes and other protests from Brazil<sup>53</sup> to the United Kingdom<sup>54</sup> to the Philippines<sup>55</sup> and beyond speak to rising unrest among these workers. The causes for disputes and the types of protest vary across regions, but concerns about pay are often a primary driver of the activity.

Such developments are significant in part because platform workers are a subset of the informal economy, which encompasses economic activities that are not monitored by the state. These activities include a wide range of work—from domestic labor to rideshare driving to market stands. More than 60 percent<sup>56</sup> of the world's adult labor force operates, at least part-time, in the informal sector, and on average that sector represents 35 percent of gross domestic product in low- and middle-income countries. In many cases, particularly in emerging markets and developing economies, platform workers are not aiming to formalize their economic activities. But their budding efforts to improve their working conditions could alter the world of work for the better, more strongly linking them with government protections and helping curb global poverty and precarious employment.



**Caroline Multerer, Deputy Director of Operations, Scowcroft Center for Strategy and Security**

Prior to joining the Atlantic Council, Multerer was a program associate at Jones Group International, a global consulting firm owned by General James L. Jones.

- 53 "The Uprising of Brazilian Food Delivery Riders," Fairwork, October 8, 2020, <https://fair.work/en/fw/blog/the-uprising-of-brazilian-food-delivery-riders/>.
- 54 Sebastian Klovig Skelton, "Uber drivers strike over pay issues and algorithmic transparency: Unionised Uber drivers take industrial action against the company over its failure to pay workers in line with a Supreme Court decision and inflation, as well as the lack of transparency around how it uses their data," ComputerWeekly.com, June 22, 2022, <https://www.computerweekly.com/news/252521871/Uber-drivers-strike-over-pay-issues-and-algorithmic-transparency>.
- 55 Rommel Rebolledo, "General Santos food delivery riders organize union, seek reforms," Rappler, August 15, 2022, <https://www.rappler.com/nation/mindanao/general-santos-food-delivery-riders-organize-union-seeks-reforms/>.
- 56 "Five Things to Know about the Informal Economy," International Monetary Fund, July 28, 2021, <https://www.imf.org/en/News/Articles/2021/07/28/na-072821-five-things-to-know-about-the-informal-economy>.

# The risky promise of geoengineering

One approach to combating climate change is geoengineering, or deliberate, large-scale, technologically based interventions in the environment to mitigate some of the effects of climate change. These include removing carbon dioxide from the atmosphere and reflecting the sun's rays back into space. Futuristic though it may sound, geoengineering is already here. China<sup>57</sup> and the United Arab Emirates<sup>58</sup> have undertaken efforts to “seed” clouds by artificially increasing the amount of precipitation they hold and creating rain. Researchers from the UAE's National Center of Meteorology have looked into creating an artificial mountain<sup>59</sup> that would induce cloud formation and rain. Other countries, including China,<sup>60</sup> India,<sup>61</sup> and the United States,<sup>62</sup> are making steady progress in advancing their geoengineering capabilities. The 2022 federal appropriations act, for example directed the US Office of Science and Technology Policy to develop a multi-agency group for coordinating research on solar geoengineering. This form of climate engineering, where sunlight is sent back into space, seems most likely to have the biggest impact on limiting the consequences of climate change and thus most likely to be pursued.

But along with its promise solar geoengineering also brings numerous risks, including the potential alteration of regional weather patterns. There's also the increasing likelihood that, given the pace of climate-driven impacts such as floods, droughts, severe storms, and heat waves, a country or multiple countries will attempt to geoengineer the planet unilaterally, before the underlying science is solidified and before adequate global governance mechanisms are in place.



**Imran Bayoumi, Assistant Director, Scowcroft Strategy Initiative**

Bayoumi graduated with his master's degree in global affairs from the Munk School at the University of Toronto where he held a Joseph-Armand Bombardier Canada Graduate Scholarship. He also holds a BA from Queen's University in political studies.

## The Japan-South Korea rapprochement that could shake up the Indo-Pacific

Although Japan and South Korea normalized diplomatic relations in 1965, their relations have continued to be complicated by the legacy of Japan's colonization of Korea from 1910 to 1945, memories of World War II, and disputes over how to compensate Korean women who were forced into wartime sexual slavery by the Japanese military.

- 57 Shawn Deng, Wayne Chang, and Simone McCarthy, “China is seeding clouds to replenish its shrinking Yangtze River,” CNN, August 18, 2022, <https://www.cnn.com/2022/08/17/asia/china-heat-drought-climate-yangtze-intl/index.html>.
- 58 Alissa J. Rubin, “Cloud Wars: Mideast Rivalries Rise Along a New Front,” *The New York Times*, September 2, 2022, <https://www.nytimes.com/2022/08/28/world/middleeast/cloud-seeding-mideast-water-emirates.html>.
- 59 Tim Kruger, “The UAE wants to build a ‘rainmaking mountain’ – are we all ok with that?,” Oxford Martin School, University of Oxford, May 11, 2016, <https://www.oxfordmartin.ox.ac.uk/blog/the-uae-wants-to-build-a-rainmaking-mountain-are-we-all-ok-with-that/>.
- 60 Tracy Raczek, “Geoengineering: Reining in the weather warriors: A half-forgotten UN convention can be dusted down to mitigate tensions over modifications of climate and weather,” Chatham House, February 15, 2022, <https://www.chathamhouse.org/2022/02/geoengineering-reining-weather-warriors>.
- 61 G. Bala and Akhilesh Gupta, “Solar Geoengineering Research in India,” *Bulletin of the American Meteorological Society* 100, no. 1 (January 2019): 23-30, <https://www.jstor.org/stable/26639248>.
- 62 John Fialka, “U.S. geoengineering research gets a lift with \$4 million from Congress: Study will explore controversial cooling approaches,” *Science*, January 23, 2020, <https://www.science.org/content/article/us-geoengineering-research-gets-lift-4-million-congress>.

Despite this history, deeper reconciliation between the two countries, while politically difficult, is not an impossibility. In one indicator of a coming thaw, a meeting between South Korean President Yoon Suk-yeol and Japanese Prime Minister Fumio Kishida on the sidelines of the 2022 United Nations General Assembly, framed as a brief, informal gathering to avoid setting off domestic opposition at home, marked the first bilateral meeting between the leaders of these nations in three years. In another sign, the Japanese<sup>63</sup> and South<sup>64</sup> Korean<sup>65</sup> publics are coalescing around concern about China. Were such a rapprochement to occur, it would dramatically alter the geopolitical environment in Asia while delivering significant benefits to both countries. Japan and South Korea face common and acute threats from China, North Korea, and Russia. With better relations, the two countries could pursue closer bilateral military ties, reach mutual understandings of regional threats, and develop responses to crises as they emerge. South Korea, one of the world's leading advanced economies, could get more involved in the Quad grouping of Australia, India, Japan, and the United States. The United States would be able to count on both nations to counterbalance China's influence in the region, while the three could promote shared values throughout the Indo-Pacific.



**Imran Bayoumi, Assistant Director, Scowcroft Strategy Initiative**

Bayoumi graduated with his master's degree in global affairs from the Munk School at the University of Toronto where he held a Joseph-Armand Bombardier Canada Graduate Scholarship. He also holds a BA from Queen's University in political studies.

63 Laura Silver, Christine Huang, and Laura Clancy, *How Global Public Opinion of China Has Shifted in the Xi Era*, Pew Research Center, September 28, 2022, <https://www.pewresearch.org/global/2022/09/28/how-global-public-opinion-of-china-has-shifted-in-the-xi-era/>.

64 William Gallo, "In South Korea, Antagonism Toward China Is Growing," *Voice of America*, April 20, 2021, <https://www.voanews.com/a/east-asia-pacific-south-korea-antagonism-toward-china-growing/6204814.html>.

65 Haneul Lee, Tobias Harris, and Alan Yu, "Rising Anti-China Sentiment in South Korea Offers Opportunities To Strengthen US-ROK Relations," *Center for American Progress*, August 2, 2022, <https://www.americanprogress.org/article/rising-anti-china-sentiment-in-south-korea-offers-opportunities-to-strengthen-us-rok-relations/>.



# Appendix – The Global Foresight 2023 Survey: Full results

## Demographic data

### What is your country of citizenship?

Country	Number	Country	Number	Country	Number
Argentina	1	Georgia	1	Netherlands	3
Australia	1	Germany	2	New Zealand	2
Belgium	1	Indonesia	3	Poland	3
Brunei	1	Ireland	1	Singapore	1
Canada	3	Italy	1	Slovenia	1
Chile	1	Latvia	1	South Africa	6
Czech Republic	2	Lithuania	1	Sweden	8
Denmark	1	Malaysia	1	Turkey	2
Finland	1	Malta	1	United Kingdom	14
France	4	Mexico	1	United States	100

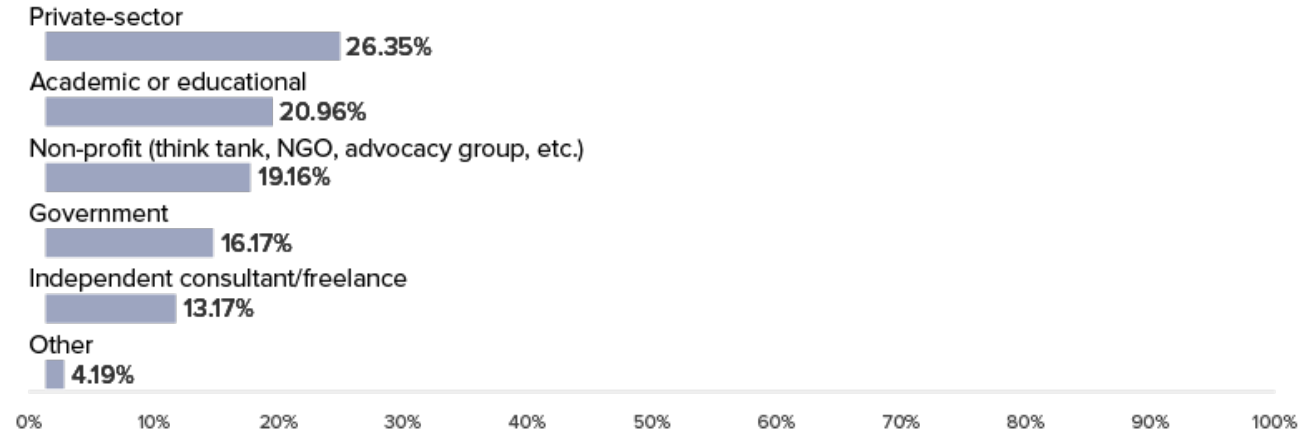
Note: 167 respondents answered this question

### What is your primary country of residence?

Country	Number	Country	Number	Country	Number
United States	102	Czech Republic	2	Latvia	1
United Kingdom	15	Greece	2	Lithuania	1
South Africa	6	New Zealand	2	Malaysia	1
France	4	Poland	2	Mexico	1
Sweden	4	Argentina	1	Netherlands	1
Belgium	3	Brunei	1	Norway	1
Canada	3	Finland	1	Singapore	1
Spain	3	Germany	1	Slovenia	1
Turkey	3	Italy	1		
Australia	2	Kenya	1		

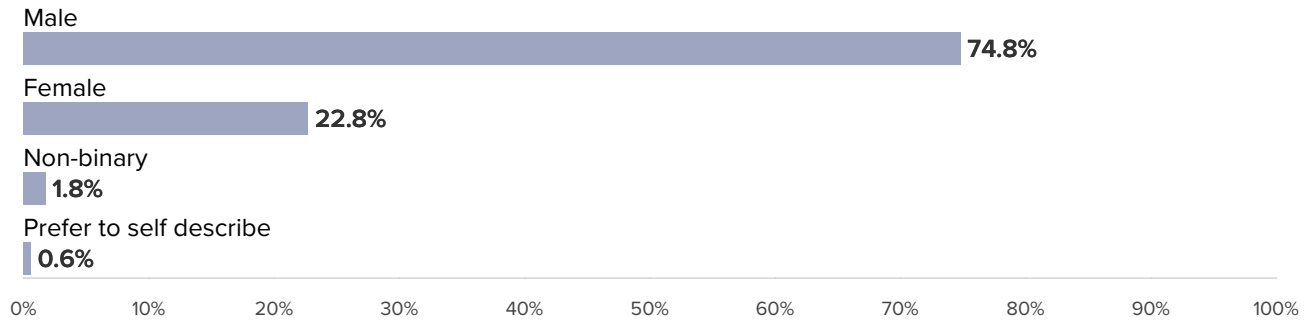
Note: 167 respondents answered this question

**For which type of organization do you work?**



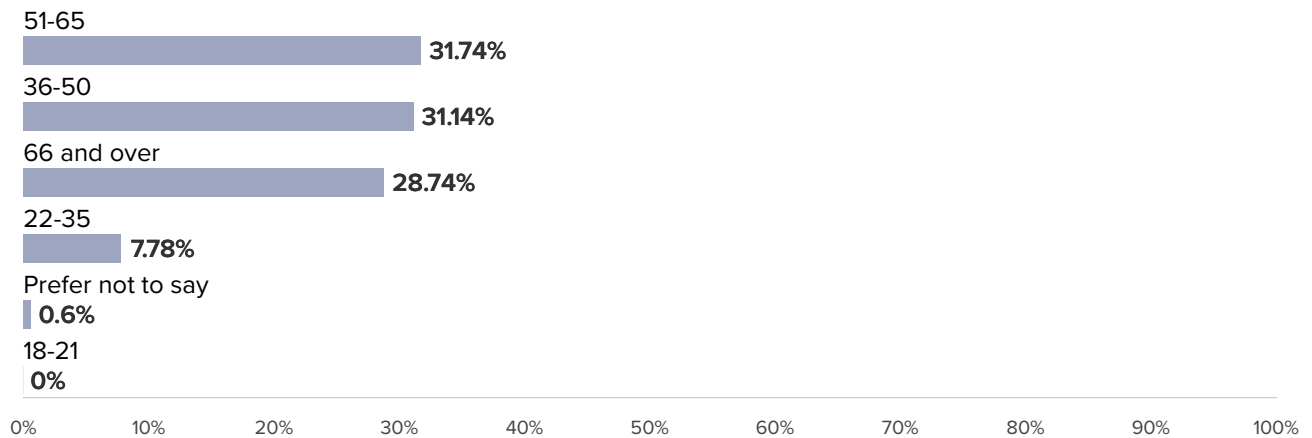
Note: 167 respondents answered this question

**What is your gender identity?**



Note: 167 respondents answered this question

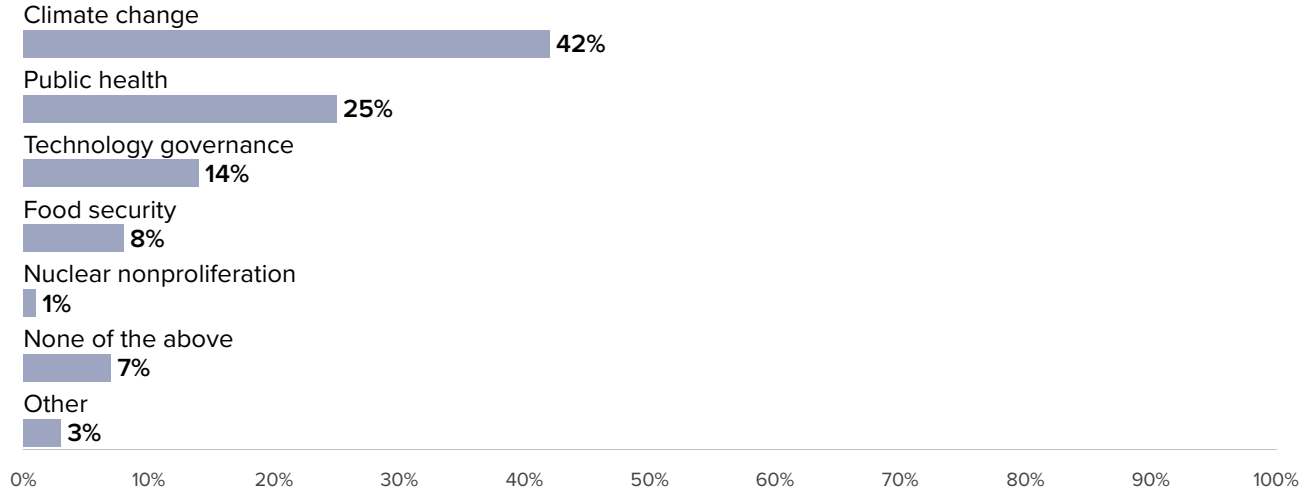
**How old are you?**



Note: 167 respondents answered this question

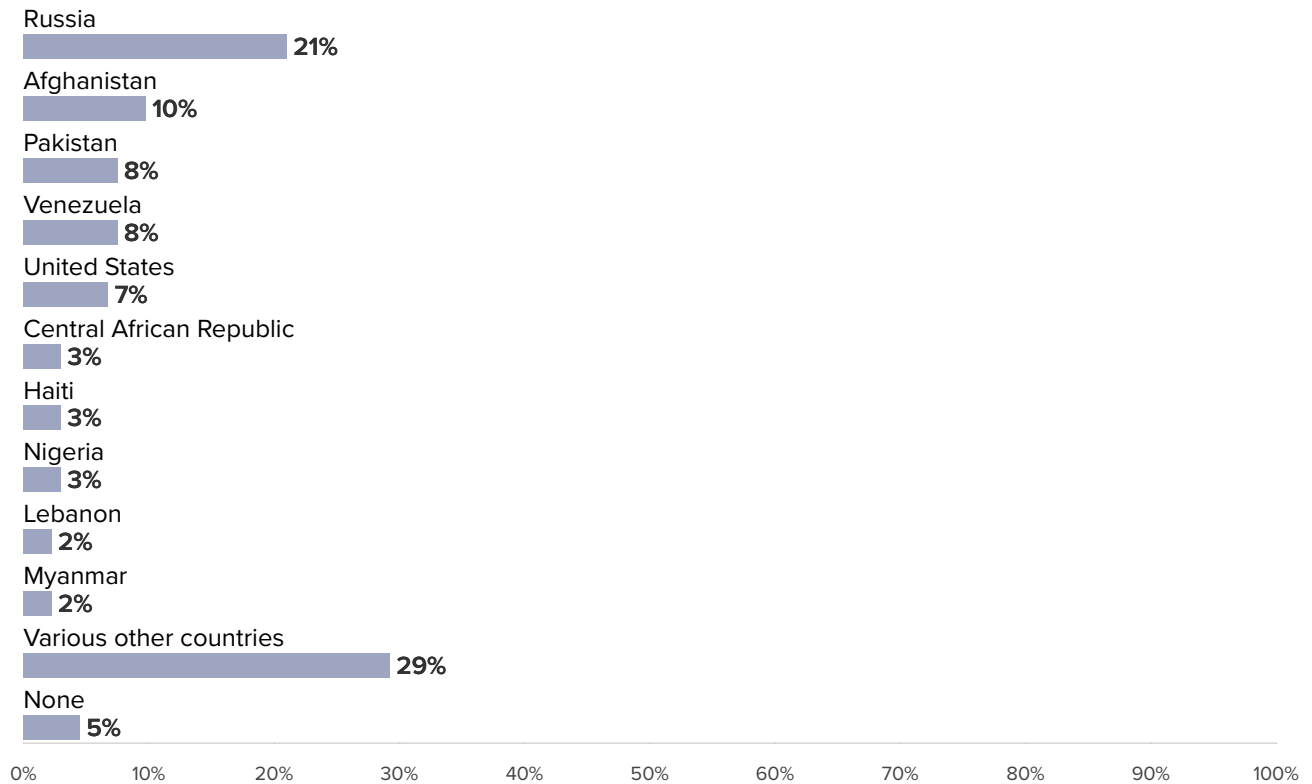
# Survey questions

**In which of the following fields do you expect the greatest expansion of global cooperation over the next ten years?**



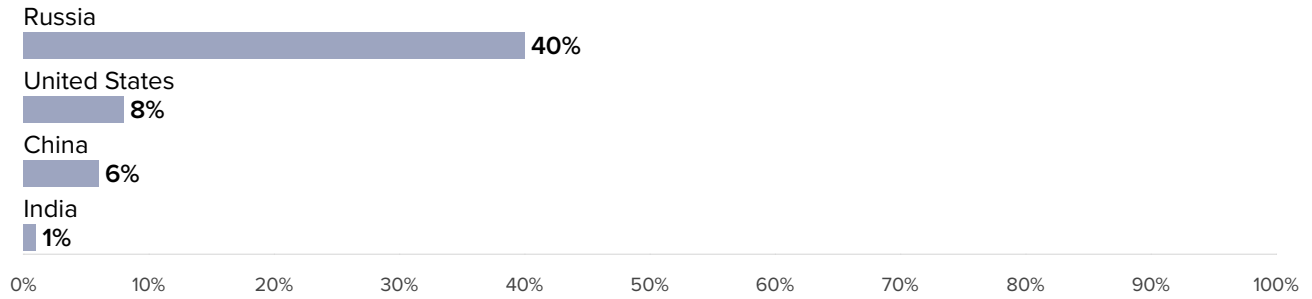
Note: 151 respondents answered this question

**Which country that is not currently a failed state is most likely to become a failed state within the next ten years?**



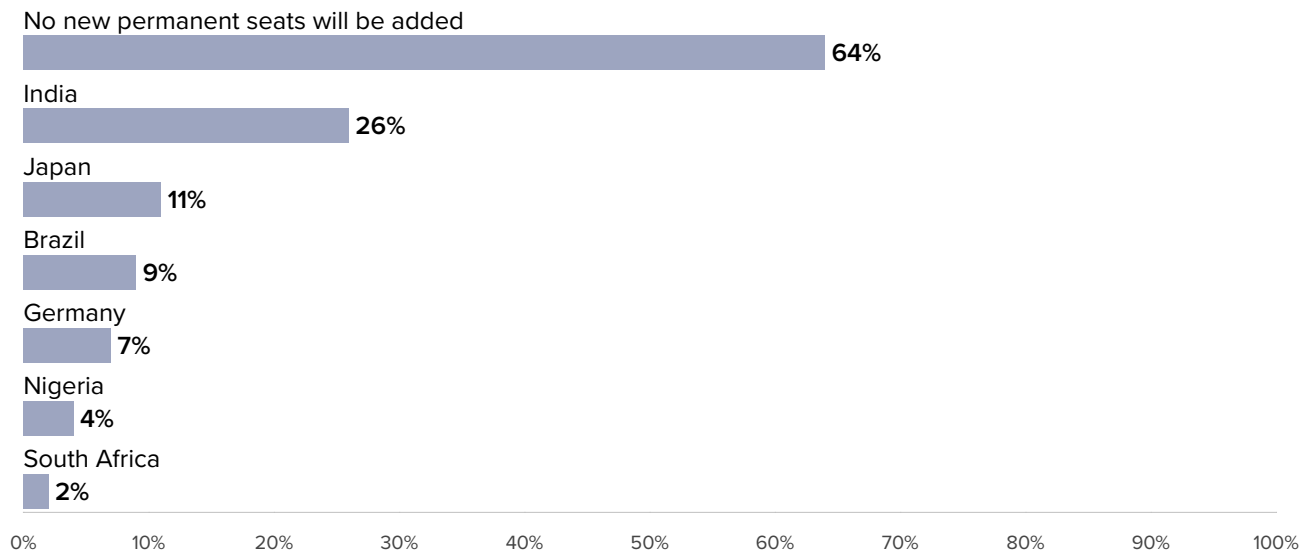
Note: 133 respondents answered this question

**By 2033, do you expect any of the following countries to break up internally for reasons including but not limited to revolution, civil war, or political disintegration?**



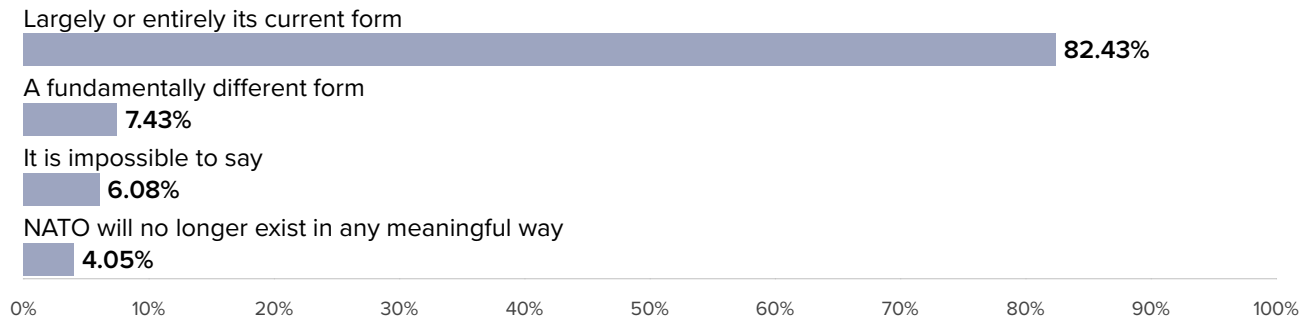
Note: 149 respondents answered this question  
 Respondents were able to make more than one selection

**Which countries will receive a new, permanent seat on the UN Security Council within the next ten years?**



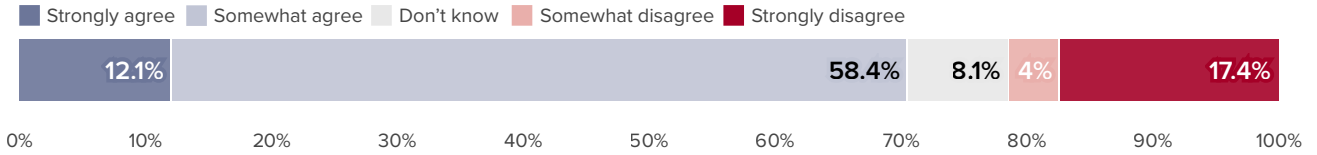
Note: 149 respondents answered this question  
 Respondents were able to make more than one selection

**Which of the following best describes the form NATO will have ten years from now?**



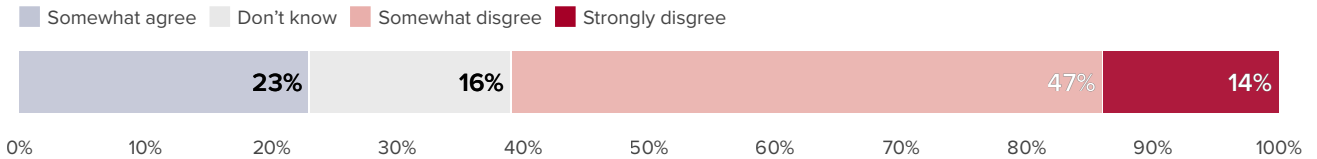
Note: 148 respondents answered this question

**Do you agree with the following statement? Within the next ten years, China will attempt to retake Taiwan by force.**



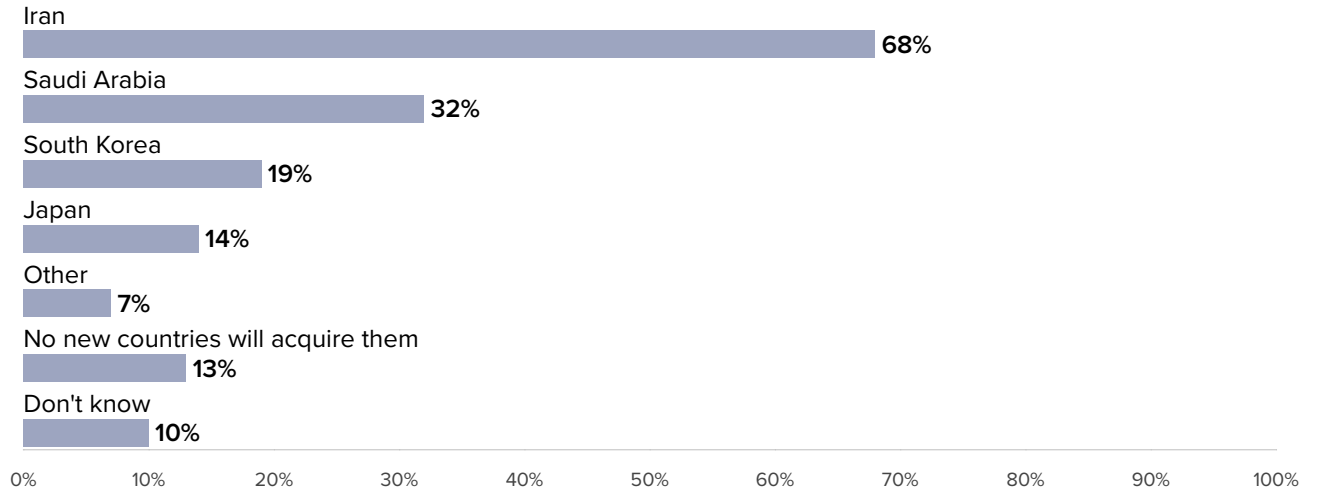
Note: 149 respondents answered this question

**Do you agree with the following statement? Within the next ten years, Russia and NATO will engage in a direct military conflict.**



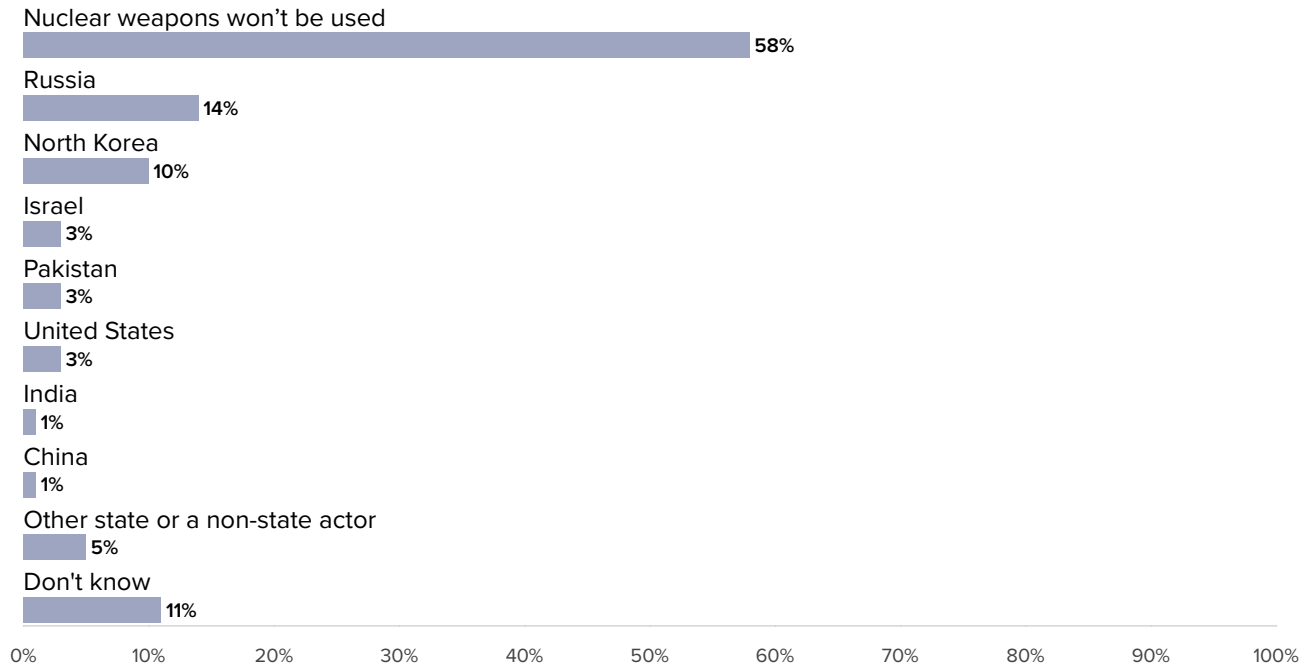
Note: 149 respondents answered this question

**Which of the following countries will have nuclear weapons within the next ten years?**



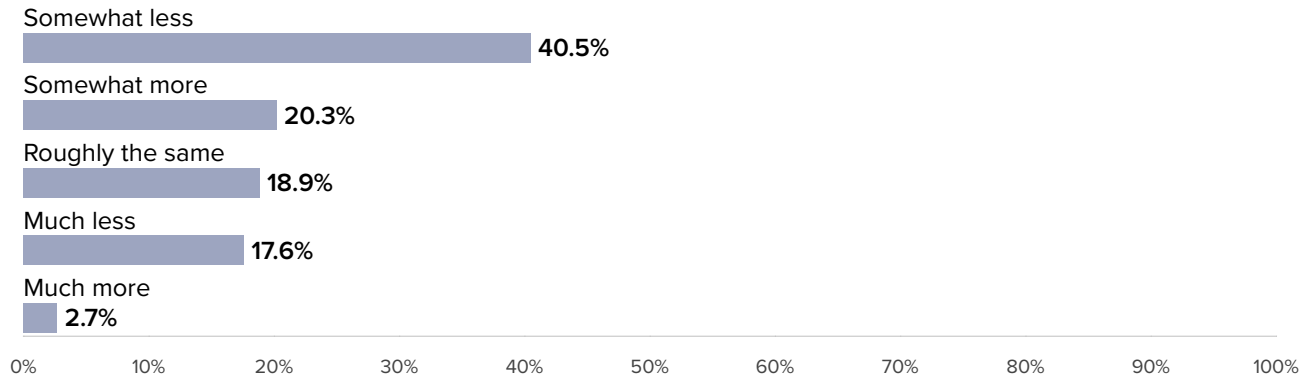
Note: 149 respondents answered this question  
 Respondents were able to make more than one selection

**Which actor(s), if any, do you expect to use a nuclear weapon within the next ten years?**



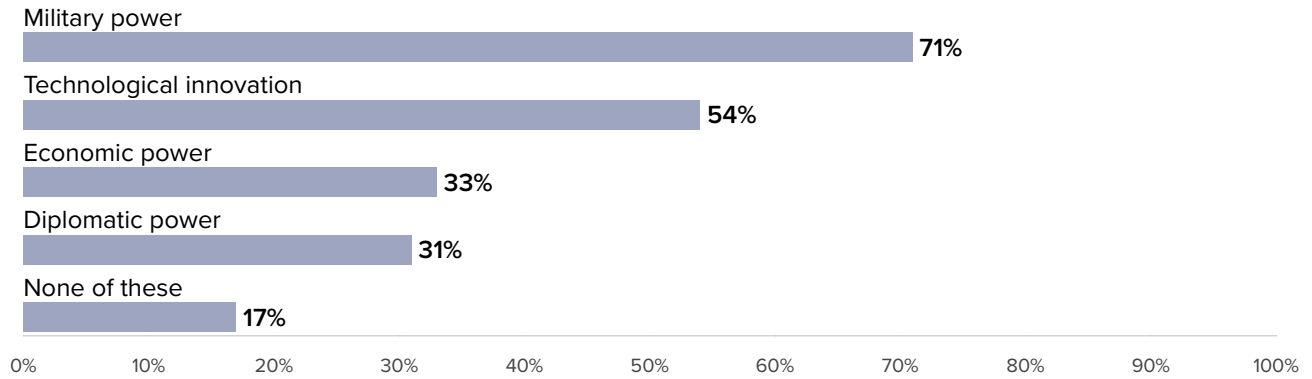
Note: 147 respondents answered this question  
Respondents were able to make more than one selection

**In 2033, will the economies of the United States and China be more or less interdependent than they are today?**



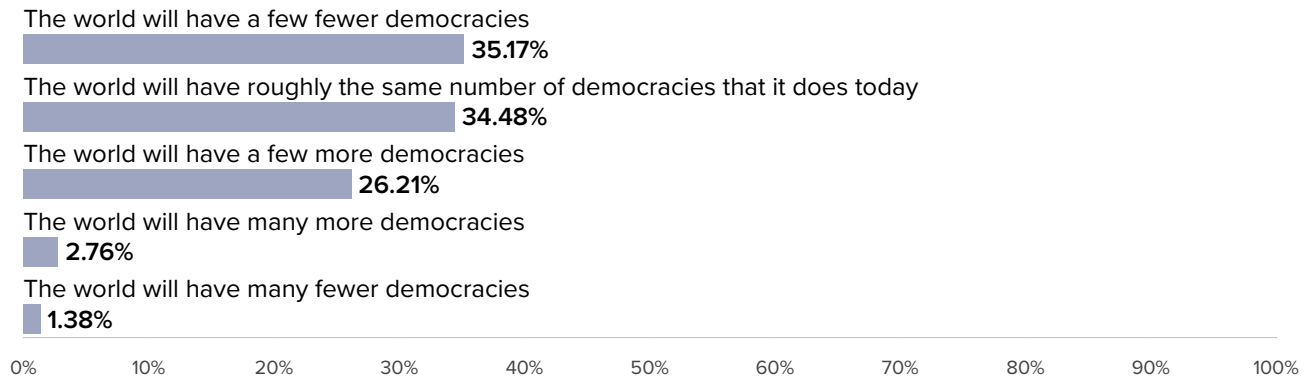
Note: 148 respondents answered this question

**By 2033, in which of the following will the United States be the world's dominant power?**



Note: 150 respondents answered this question  
Respondents were able to make more than one selection

**Which statement best describes what you expect the state of global democracy to be ten years from now?**



Note: 145 respondents answered this question

**Which democratic country today is most likely to become autocratic over the next ten years?**

Those answering “none” are excluded.



Note: 137 respondents answered this question

**Which autocratic country today is most likely to become democratic over the next ten years?**

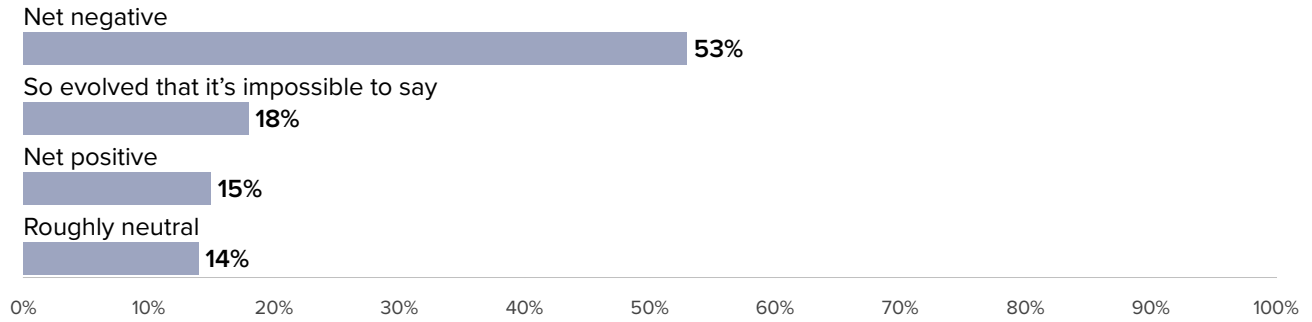
Those answering “none” are excluded.



Note: 136 respondents answered this question

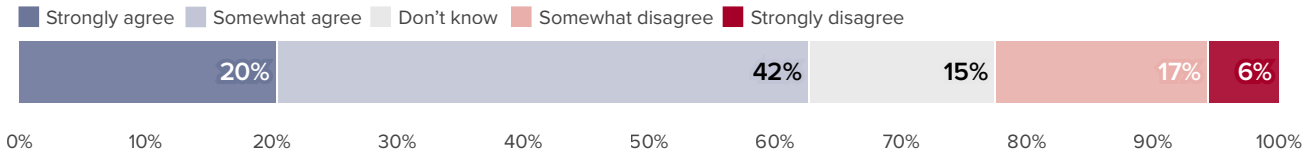


**By 2033, will social media on balance be a net positive or net negative for democracies around the world?**



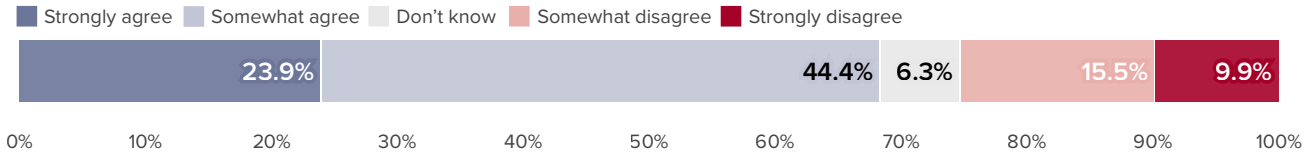
Note: 144 respondents answered this question

**Do you agree or disagree with the following statement about the most likely conditions by 2033? Commercial quantum computers that are faster than conventional computers for everyday, practical applications will be on the market**



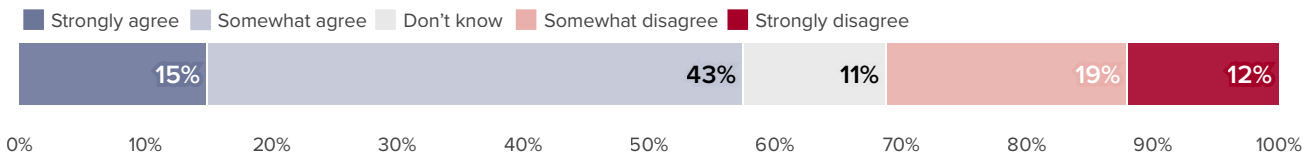
Note: 142 respondents answered this question

**Do you agree or disagree with the following statement about the most likely conditions by 2033? “Level 5” autonomous vehicles (where the vehicle performs all tasks under all driving conditions without the need of human input) will be on the roads of at least one country**



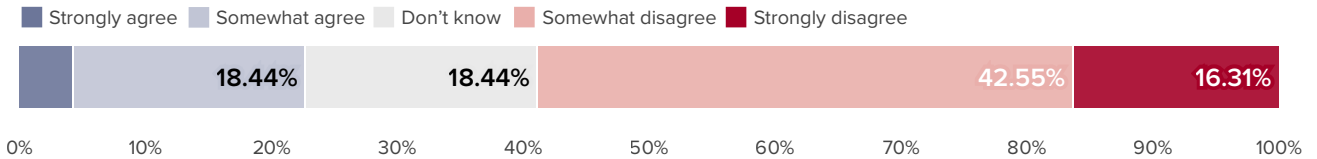
Note: 142 respondents answered this question

**Do you agree or disagree with the following statement about the most likely conditions by 2033? Artificial general intelligence—as in computers and machines exhibiting human-like intelligence and creativity—will exist**



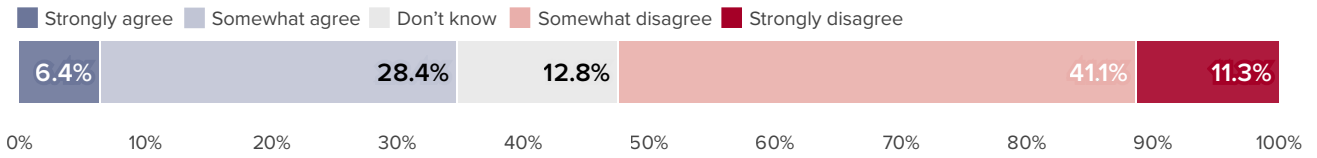
Note: 141 respondents answered this question

**Do you agree or disagree with the following statement about the most likely conditions by 2033? Humans will have safely landed on Mars and returned to Earth**



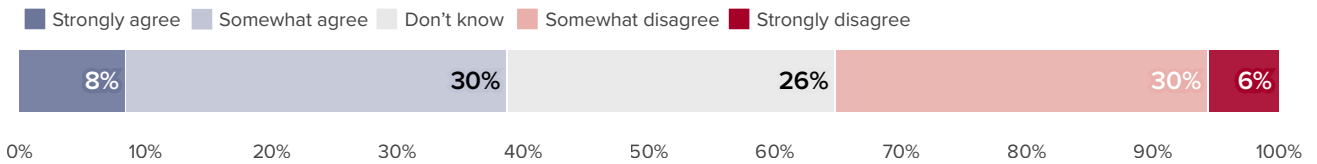
Note: 141 respondents answered this question

**Do you agree or disagree with the following statement about the most likely conditions by 2033? Global greenhouse-gas emissions will have peaked and begun to decline**



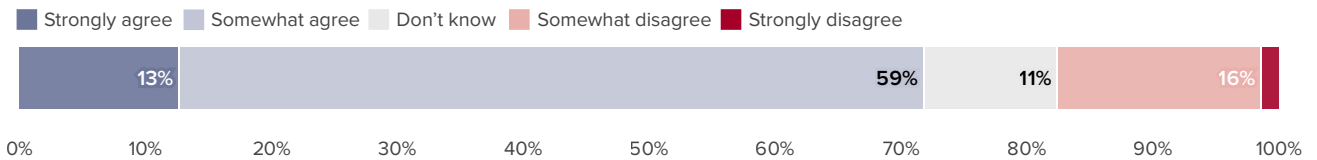
Note: 141 respondents answered this question

**Do you agree or disagree with the following statement about the most likely conditions by 2033? Humans will have begun deliberate, large-scale geoengineering of the planet (for example, seeding the atmosphere with aerosols) in order to reduce the impacts of climate change**



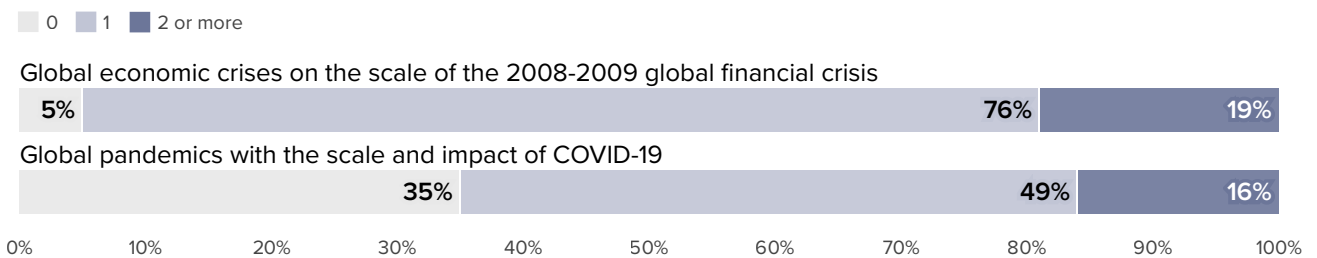
Note: 142 respondents answered this question

**Will economic inequality across countries, as defined by differences in per-capita gross domestic product, increase or decrease over the next ten years?**



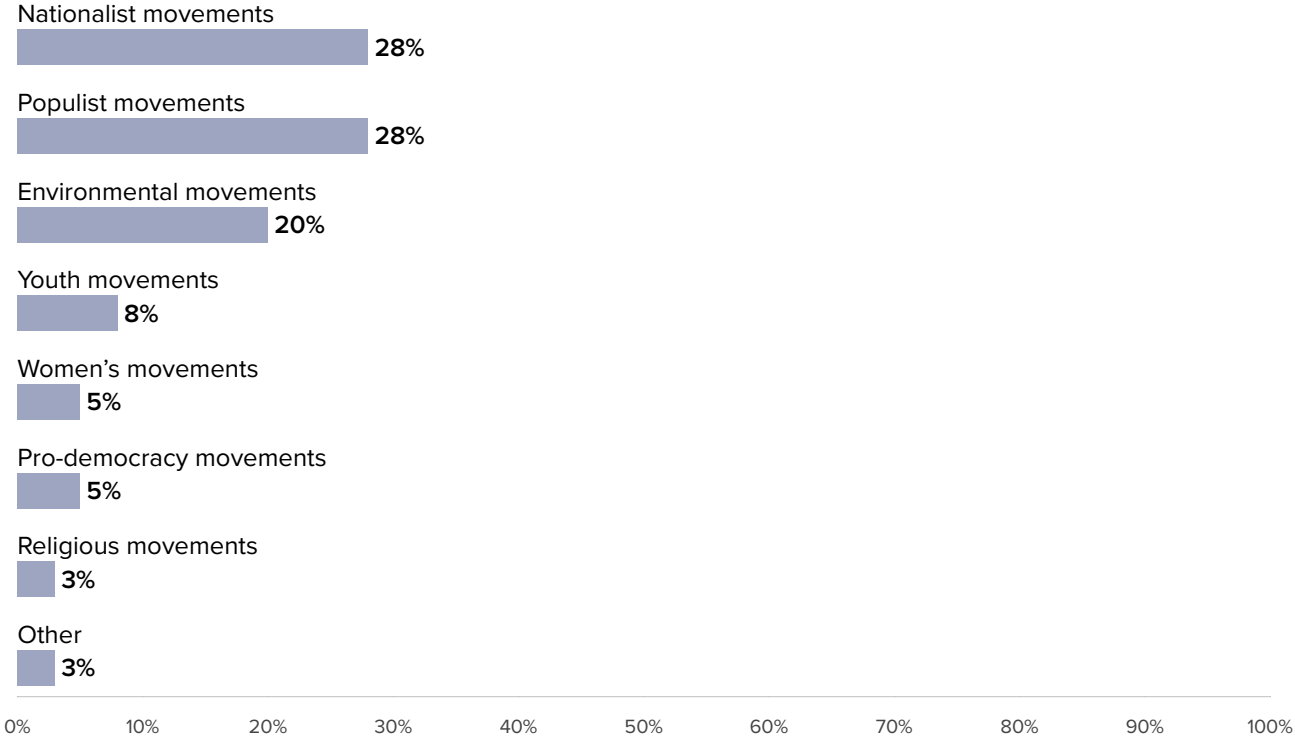
Note: 142 respondents answered this question

**How many of the following do you expect the world to have experienced by 2033?**



Note: 143 respondents answered this question

**Which types of social movements will have the most political influence worldwide over the next ten years?**



Note: 143 respondents answered this question





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*List as of March 6, 2023*



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Atlantic Council

1030 15th Street, NW, 12th Floor, Washington, DC 20005

(202) 463-7226, [www.AtlanticCouncil.org](http://www.AtlanticCouncil.org)