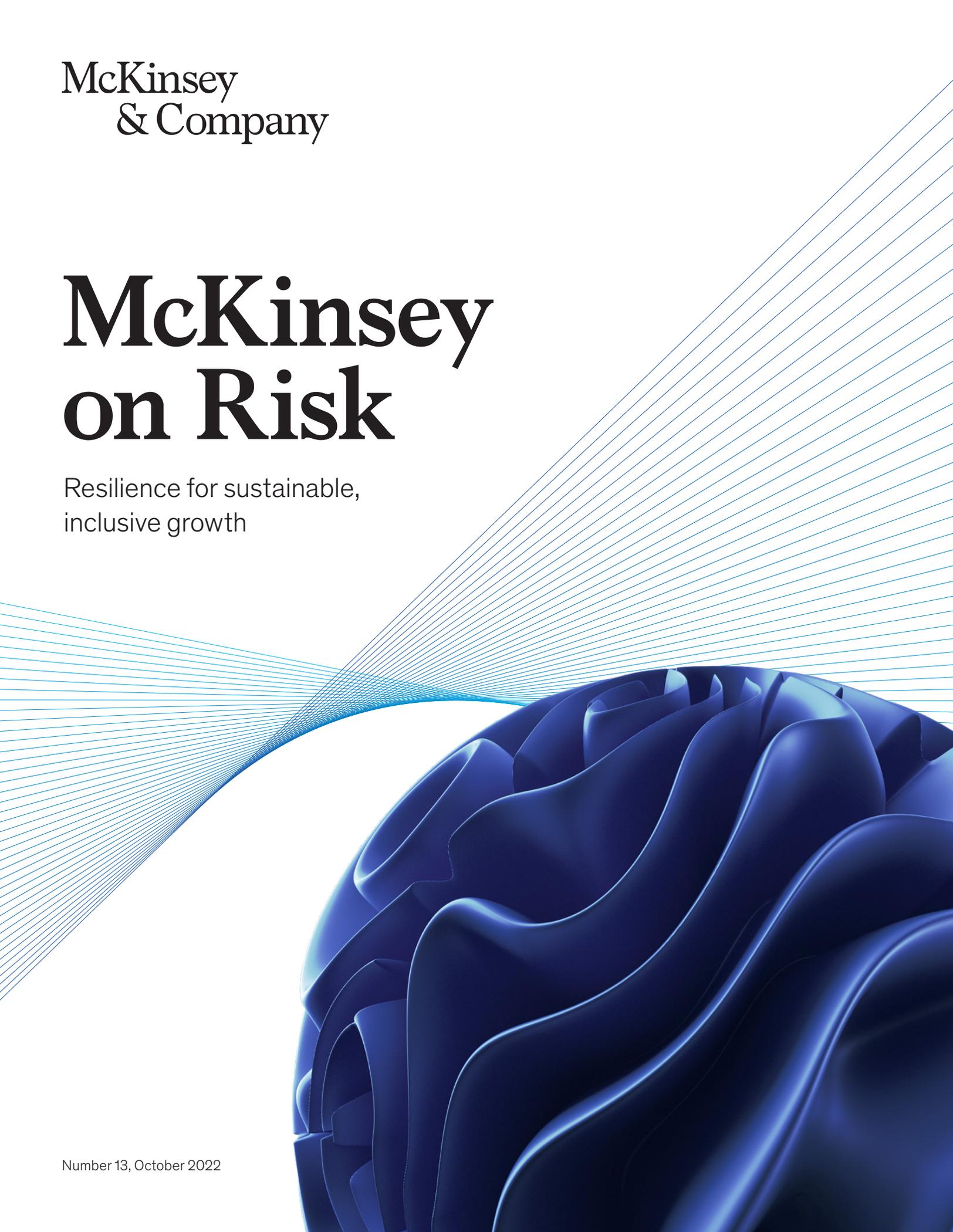


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McKinsey on Risk

Resilience for sustainable,
inclusive growth



The articles in *McKinsey on Risk* are written by risk experts and practitioners from McKinsey's Risk & Resilience Practice and other firm practices. This publication offers readers insights into value-creating strategies and the translation of those strategies into company performance.

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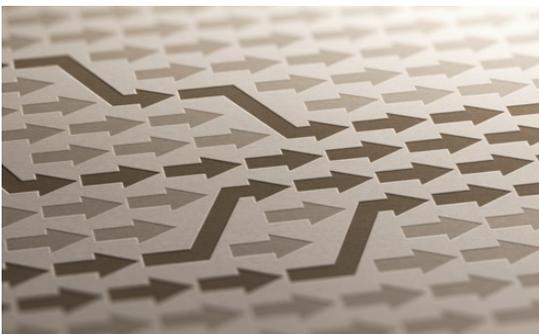
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Introduction

Today's business and public-sector leaders face an economic landscape disrupted at levels that few have seen before and none has ever confronted as an executive. The dislocations set in motion by the COVID-19 pandemic conspired to accelerate inflation rates to levels not seen for decades. Russia's invasion of Ukraine—in addition to taking a tragic humanitarian toll—stoked inflation dynamics, sending energy prices into the upper stratosphere. The war in Europe also revealed vulnerabilities in global supply networks, most glaringly in energy products but also in grain and industrial commodities. Some of these effects emanate from geopolitical shifts, but they intersect and magnify pandemic-related disruptions. This crowded tableau of overlapping disruptions appears, moreover, in a natural environment that is in severe crisis, with no geographical region exempt.

Our times are thus being shaped by the interplay of complex disruptions, with their disparate origins and long-term consequences. Recognizing that many familiar crisis responses are no longer effective, leaders have turned to *resilience* as the essential operative principle. They are asking: how can their organizations arrive at a resilient stance—alert to what is over the horizon and ready to withstand shocks? How can we protect what we have, adapt, and accelerate into the next reality?

We have reached a defining leadership moment. Executives need to take a step back and rewrite the playbooks. As a resource in this necessary effort, *McKinsey on Risk* presents some of McKinsey's latest thinking and recommendations on risk and resilience. Our discussions range from nuanced strategies for navigating the fragmented global order to a road map of large-scale risk transformations. We explored and defined the concept of resilience jointly with the World Economic Forum this year, at the annual Forum meeting at Davos and beyond. We are honored to present some of the findings here, in "Resilience for sustainable, inclusive growth," a shortened version of the position paper written by the World Economic Forum and McKinsey.

That multifaceted understanding of resilience underpins the close look we take in these pages at the special challenges European companies are facing right now. Also in this issue, we share perspectives on inflation risk and additionally discuss building more resilient supply chains. The importance of cybersecurity talent and the challenges of ESG—the environmental, social, and governance agenda—are dissected in dedicated, cutting-edge articles.

In all areas, our thinking is designed to help leaders better interpret our disrupted environment and prepare for the future by implementing needed change. We hope you enjoy these articles and find in them ideas worthy of application.

Let us know what you think at McKinsey_Risk@McKinsey.com and on the McKinsey Insights app.



Thomas Poppensieker
Senior partner and chair,
Global Risk & Resilience Editorial Board

Resilience for sustainable, inclusive growth

Resilience should be seen as the ability to deal with adversity, withstand shocks, and continuously adapt and accelerate as disruptions and crises arise over time.

by Børge Brende and Bob Sternfels

The following article is a shorter but substantively complete version of the paper of the same title first published by the World Economic Forum and McKinsey & Company in May 2022. The full paper is available on [WEForum.org](https://www.weforum.org) and [McKinsey.com](https://www.mckinsey.com).



At the 2022 annual meeting in Davos, Switzerland, the World Economic Forum launched the Resilience Consortium, an initiative to gather committed leaders from the public and private sectors to build resilience globally—across regions, economies, and industries (see sidebar, “A call to action: The Resilience Consortium”). The context and objectives of the Resilience Consortium are explored in depth in “Resilience for Sustainable, Inclusive Growth,” the position paper created by Børge Brende, president of the World Economic Forum, and Bob Sternfels, global managing partner of McKinsey. This shorter article distills some of the central ideas presented in the longer paper.

Economies and societies are enduring several crises simultaneously, all of which have a major humanitarian impact and potentially long-lasting second- and third-order effects. Climate change, the COVID-19 pandemic, a weak recovery, the danger of stagflation, and Russia’s invasion of Ukraine all pose urgent questions of societal and organizational resilience that cannot be adequately addressed in isolation. These world-shaping events overlap in time, magnifying their impact. Our era is increasingly defined by the interaction of complex disruptions, as they emerge from disparate origins, cross paths, and effect long-term consequences. Institutions are not fully prepared for the new reality. Many react separately to each disruption in all-consuming responses. Before they can recover, the next crisis is at the door.

The stakes in developing resilience as an essential capability are consequently high. The United Nations, World Economic Forum, McKinsey Global Institute, International Monetary Fund and other leading organizations estimate that the pace of annual GDP growth partly depends on the degree to which organizations and societies develop resilience. Growth differentials of 1 to 5 percent globally can be expected depending on how leaders respond to the many challenges, including climate change, the energy transition, supply chain disruptions, healthcare availability, and income, gender, and racial inequalities. Against this environment of continuous disruption and uncertainty, sufficient investment and new capabilities are required to build a new “resilience muscle.”

Meeting the challenges crises pose to sustainable, inclusive growth

The experience of past crises and disruptions has taught essential lessons on meeting challenges to sustainable, inclusive growth.

Managing disruptions defines sustainable growth more than managing continuity

Crisis damage institutions and communities, but the process of rebuilding can create stronger foundations for future growth. The financial crisis and recession of the late 2000s, for example, led to actions by banks and regulatory changes that made the banking system stronger. The system has remained robust through subsequent economic disruptions. Likewise, changes introduced during the COVID-19 pandemic can provide new impetus for accelerated growth: the shift toward digitalization, new hybrid working models, the rethinking of supply chains, and the acceleration of public investments toward climate goals. These are the kinds of structural shifts that crises often force on otherwise recalcitrant institutions. Resilience is thus more than protective measures—it is also the ability to reinvent and innovate in response to disruptions.

Crisis evolve across categories and do not have single-point solutions

Significant crises are not single-issue events confined to rigid categories. They break through predefined areas of expertise and responsibilities, gaining momentum as they grow in scope and across regions. The COVID-19 pandemic spread worldwide as a public-health crisis but quickly evolved into an economic, social, and—in places—organizational crisis. The issues that trigger crises, and the public- and private-sector responses to these primary issues, have initial effects and produce secondary and tertiary effects. These can give rise to a new primary issue. To navigate these rapid interactions, organizations need to respond with sets of correlated solutions that can be adjusted as conditions evolve.

Networks hide interdependencies, accelerating crises (although they can also enable faster recovery)

The extent of networks within the global economy, societies and industries is only partly visible. In a disruption, hidden interdependencies can emerge, unexpectedly accelerating the impact. Supply chain

A call to action: The Resilience Consortium

The World Economic Forum Resilience Consortium comprises leaders from the public and private sectors committed to working together to build resilience globally, across regions, economies and industries. It is guided by the following objectives:

- *Develop a common resilience framework for public- and private-sector organizations that can help them achieve more sustainable, inclusive growth.* The common resilience framework provides the basis for developing stronger institutional capabilities—the elements of the new resilience muscle.
- *Develop a shared understanding of the drivers of resilience and a prioritized resilience agenda to align public- and private-sector approaches and efforts.* The prioritized agenda can also support current initiatives from the perspective of the wider resilience framework.
- *Identify potential public-private partnerships to build more resilient societies and economies and take common action to support sustainable, inclusive growth.* Prioritize investments and scale solutions that help mitigate risks for future shocks. Use leadership positions in the public and private sectors to advocate for a cultural

change in organizations and societies as society moves away from narrowly focused, short-term responses toward long-term value creation.

The Resilience Consortium is committed to shaping a new resilience agenda based on adaptability and decisiveness. Now is the time for action, because the policy decisions and financial commitments made today will determine the future course of the planet, economies and societies. A shared, comprehensive view of resilience and its drivers will help policy makers and business leaders recognize the opportunities and act to lay the foundations of sustainable and inclusive, long-term global growth.

disruptions affect production, availability, and prices more quickly. The war in Ukraine threatens food security in low-income countries in the Middle East and North Africa. New and hidden interconnectivity makes systems more vulnerable. On the other hand, networks that provide more flexibility and reduce interdependencies permit a wider range of solutions to emerge and be shared quickly. Understanding networks and connections better in today's environment is a key aspect of resilience.

Inadequate responses and unpreparedness can magnify the damage of crises

A poor response can easily magnify the damage directly caused by a crisis. An effective response, on the other hand, can significantly limit the damage. Decisions are crucial, and past crises have certainly produced their share of bad ones. Even highly successful organizations make decisions that, in

hindsight, were wrong. However, few probe more deeply about why bad decisions are made. It may seem obvious, but the reason is usually that the decision was not well-thought-out. Under pressure, leaders tend to favor action that can be implemented quickly, eschewing a slower, more thoughtful course. Decisions made under pressure and at speed can entail unintended consequences. This article is part of an effort to create a resilience framework, which will provide space for thoughtful decision making. Organizations need to know when to move quickly, to slow down, and to test decisions in a given crisis with people outside of the core leadership network.

Crisis disproportionately affect the most vulnerable

Discontinuities cut deeper in poorer countries, among more marginalized and vulnerable population segments, and in fragile and conflict-affected states.

Inequalities in income, wealth, social mobility, health, access to services, and learning opportunities create unequal baselines for building resilience. In developed economies, the recovery from the pandemic has been supported by ample government stimulus spending. Low-income countries must rely on development assistance and emergency loans from international financial institutions, which can increase sovereign-debt vulnerability.

Stimulus measures in richer countries also magnify global demand, putting further pressure on pandemic-disrupted supply chains. This dynamic has resulted in higher commodity prices and consumer inflation, which, in turn, have hit lower-income countries hardest. Other global developments, as positive as they are for richer countries, can cause hardship in poorer countries, including the accelerated shift to the digital economy and pressures to reduce carbon emissions.

Resource scarcity or refugee crises created by wars or climate change emphasize the crucial importance of inclusive growth. Exposed populations must not be left behind on a shared planet. The disruptions should be seized upon as opportunities to ramp up collective efforts to improve habitats, food and water security, public health, and social and technical infrastructure where these are most needed. A resilience muscle must ultimately serve the broader goal of sustainable, inclusive growth. Growth is sustainable insofar as it supports the health and repair of the natural environment; it is inclusive when it meaningfully improves the livelihood of wider population segments.

Crisis preparedness goes beyond financial reserves and buffers

Optimal crisis preparedness includes defensive measures such as buffers and financial reserves but equally important are active response capabilities. These enable organizations to quickly adapt, grow into the new conditions, and move fast on new opportunities. Crises have accelerated the growth of the digital economy, with more organizational and societal buy-in for remote meetings, cloud computing, and digital banking. In the automotive industry, production of electric vehicles is expanding as governments set emissions targets, offer subsidies, and install charging infrastructure.

In the public and governmental spheres, many national healthcare systems and pandemic-response programs are overstressed; success in applying emergency plans has varied. The difficulties underscore the importance of combining defensive buffers (stockpiles of supplies and financial resources) with flexibility and less centralized approaches. Geopolitical crises can have serious implications for supply chains and energy supplies. Buffers provide only partial, temporary solutions. Response capabilities and adaptability therefore matter as much as preparedness. In crises, half the impact arises from the crisis itself, while the other half, good or bad, is determined by the response.

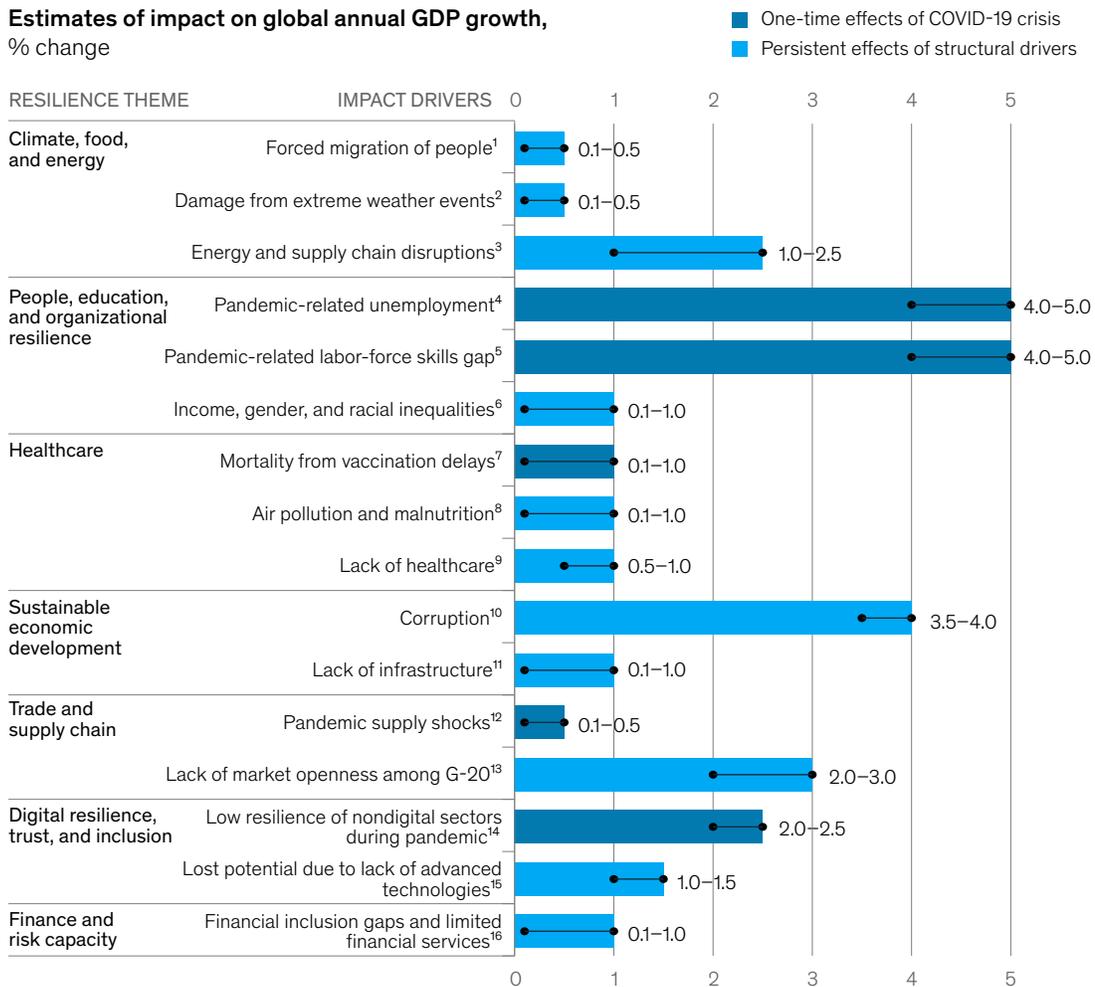
Resilience perspectives of the public and private sectors

Resilience is a broadly used term covering many aspects of organizational health and operations within governments and public foundations as well as corporations and financial institutions. The World Economic Forum and McKinsey endorse the strategic view of resilience, emphasizing the long-term capabilities organizations and economies need to deal with disruptions, withstand shocks, and adapt as the events change over time.

Resilience failures cost. Our research suggests that the impact of resilience (or lack of it) on annual GDP growth is 1.0 to 5.0 percent globally. Amid the COVID-19 pandemic, for example, workforce attrition may have shaved 3.6 percent off growth in some countries. In addition, low vaccination rates in developing countries have reduced growth by 1.0 percent. Beyond the pandemic, income, gender, and racial inequalities likely reduce growth by between 0.6 and 1.0 percent, while extreme weather events are taking 0.4 percent off the pace. On the other hand, success in reskilling and upskilling the labor force in the digitizing economy could increase growth by 4.5 percent annually to 2030. Proportionate economic improvements can be captured through successful responses to the major risks and impact drivers in each of seven resilience themes. Given the interconnectedness of these themes, the enhancements will have a varied impact by economy, industry, and population segment (Exhibit 1).

Exhibit 1

Impact on global GDP growth across resilience themes ranges from 1 to 5 percent.



¹International Organization for Migration, UN Migration, 2020; Internal Displacement Monitoring Centre, 2021. ²World Economic Forum, 2022. ³Kiel Institute for the World Economy, 2022; Organisation for Economic Co-operation and Development (OECD), 2022; International Renewable Energy Agency, 2020. ⁴International Labour Organization, 2020. ⁵World Economic Forum, 2021. ⁶International Monetary Fund, 2020; OECD, 2014; McKinsey Global Institute, 2020. ⁷United Nations Development Programme, 2021. ⁸OECD 2016; Global Panel for Nutrition, 2016. ⁹McKinsey Global Institute, 2021. ¹⁰World Economic Forum, 2018. ¹¹World Bank, 2019. ¹²European Central Bank, 2021. ¹³The Hongkong and Shanghai Banking Corporation, 2020. ¹⁴UN Conference on Trade and Development, 2021. ¹⁵McKinsey Global Institute, 2018. ¹⁶McKinsey Global Institute, 2021; EY, 2018.
Source: McKinsey Consumer Sentiment Survey, 2022

Business resilience

Resilient organizations and economies accelerate from inflection points. Crises and disruptions expose weaknesses, separating the resilient from the unprepared. Our research indicates that companies that may be evaluated as more resilient generated greater shareholder value than less resilient peers

across the entire life cycle of the major economic shocks of the past two decades.¹

In the world financial crisis of 2007–09, resilient companies generated around 20 percent more shareholder returns, an advantage that accelerated to around 50 percent in the turnaround years of

¹Resilience in a business context was mainly measured according to margin improvement, revenue growth, and optionality (retained additional optional investment opportunities). These criteria proved more important than stock market performance: see Cindy Levy, Mihir Mysore, Kevin Sneader, and Bob Sternfels, "The emerging resilient: Achieving 'escape velocity,'" McKinsey, October 6, 2020; and Martin Hirt, Kevin Laczowski, and Mihir Mysore, "Bubbles pop, downturns stop," *McKinsey Quarterly*, May 21, 2019.

2009–11 and 120 percent during the stable period of 2011–17. Two equally important dimensions of resilience emerged: financial strength (cash reserves, a flexible cost base, and profitability) and decisive adaptations to the business model through divestments and reinvestments.

A study of the performance of 1,500 companies during the financial crisis revealed that 20 percent of companies in every sector emerged from the trough of the downturn a little ahead of the rest. They then converted that small advantage into clearly superior performance against peers for the next decade. Assumptions that the better performance resulted from long-entrenched advantages did not withstand close inspection. The resilient companies had not been the clear leaders before the disruption and most did not have preexisting businesses that the disruption advantaged. What the 20 percent did have was a self-made advantage, which they acquired by moving quickly and decisively in the disruption. This

was no accident: strategies had been worked out in advance to protect margins (rather than revenue) or to buy good businesses at deflated prices and use them to catalyze growth as the downturn shifted to recovery.

In the downturn and disruptions of the COVID-19 pandemic, furthermore, resilient companies performed better than peers. The “resilients” generated 10 percent more total return to shareholders during the economic downturn of fourth quarter 2019 to second quarter 2020. During the period of economic recovery (second quarter 2020–third quarter 2021), the differential accelerated to 50 percent. The resilients adapted more flexibly in the economic slump and pivoted quickly to meet the resurgence in demand. They embraced digitized business models, organizational flexibility, and business portfolio changes (Exhibit 2).

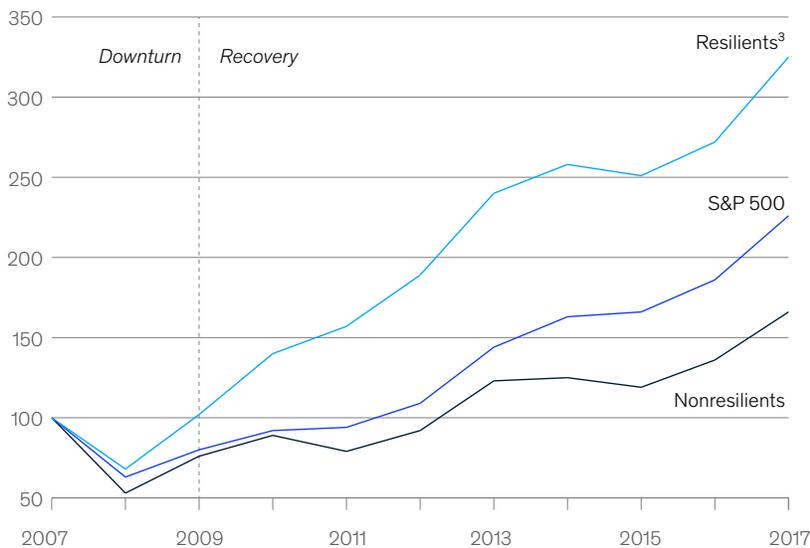
Business leaders will play a crucial role in steering society toward this more prosperous, sustainable and

Exhibit 2

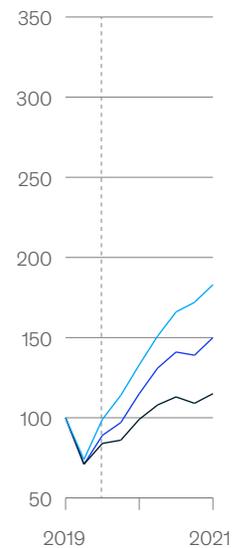
Resilient companies did better at the outset of the downturn and after.

Total shareholder returns performance

Financial crisis,¹ index
(100 = 2007 year-end)



COVID-19 crisis,² index
(100 = 2019 year-end)



Note: This analysis excludes financial institutions.

¹Total shareholder returns (TSR) calculated as average of subsector median performance of resilients and nonresilients; includes 1,140 companies (excludes financial institutions and real-estate-investment trusts).

²Calculated as average of subsector median performance of resilients and nonresilients; includes 1,796 companies (excludes financial institutions and real-estate-investment trusts).

³Resilient companies defined as top geometric mean TSR quantile by sector.

Source: CPAAnalytics; McKinsey analysis

inclusive future. The business sector drives 72 percent of GDP and as much as 85 percent of technology investment and labor productivity growth.²

Economic and societal resilience

Similar patterns can be observed at the level of economies and societies, with financial measures or public health interventions, for example. Once the COVID-19 pandemic struck, countries that combined fiscal stimulus with effective management were able to stabilize local economies and protect societies. Many countries recovered quickly, but the pace varied from country to country.

While economic resilience can be measured by overall long-term growth, an important aspect considers societal resilience as a reflection of social, gender, and racial-ethnic inequalities. The Organisation for Economic Co-operation and Development (OECD) estimated the relationship between income inequality and GDP growth per capita. It found that the change over time in income inequality (measured as the ratio of top- to bottom-income deciles) has a significant impact on GDP per capita on average across OECD countries: an increase in income inequality of 1 percent lowers overall GDP potential by 0.6 percent to 1.1 percent.³

The World Bank measures the economic cost of gender inequality globally at \$160.2 trillion, an astonishing number. The research discovered that women possess only 38 percent of individual wealth overall and less than 33 percent in low- and lower-middle-income countries. The study emphasized that investments in advancing education and opportunity for girls and women make economic sense since closing the gender wealth gap is essential for sustainable, inclusive development.⁴

Much the same can be said of wealth gaps based on racial inequality. In the United States, the median wealth of White families is ten times that of Black and Hispanic families, whose wealth did not essentially change between 1992 and 2016, a 24-year period.

During this time, the median wealth of white families expanded by more than 50 percent. McKinsey's research suggests that this gross disparity will cost the US economy trillions in lost consumption and investment in the next decade.⁵

A coordinated public- and private-sector response

Crises and disruptions require a coordinated response by the public and private sectors. In fact, the world's most pressing crises are breaking down traditional divisions in how and when public and private organizations respond. Increasingly, business, economic, and societal resilience are interlinked. A consensus has emerged lately among leaders of both sectors that neither can go it alone—the world and its organizations are too interconnected (Exhibit 3).

A common resilience framework

The current resilience discussion is still characterized by differences in interpretation and opaqueness on objectives, measurability, and areas for action. Consequently, the prerequisite for a coordinated, systematic approach to resilience is a common resilience framework. Such a framework, similar to environmental, social, and governance (ESG) frameworks, would provide organizations with a common resilience language, structure, and objectives. It would also provide guidance on how to protect and enhance sustainability and inclusivity in an environment of more frequent crises and disruptions. With the framework as a basis, organizations can enhance their mostly reactive risk management practices, harness strategic thinking, and take a more forward-looking view.

The framework would prioritize human capacity above all, while recognizing essential reskilling and upskilling requirements. It will foster an active stance, an adaptive, tech-enabled supply chain, and financial and fiscal buffers as defensive supports. Within the framework, organizations can identify preventative actions, proactive investments, and areas to deepen public- and private-sector cooperation. Like ESG

² "A new look at how corporations impact the economy and households," McKinsey Global Institute, May 31, 2021.

³ Orsetta Causa, Alain de Serres, and Nicolas Ruiz, "Growth and inequality: A close relationship?," Organisation for Economic Co-operation and Development working paper, 2014.

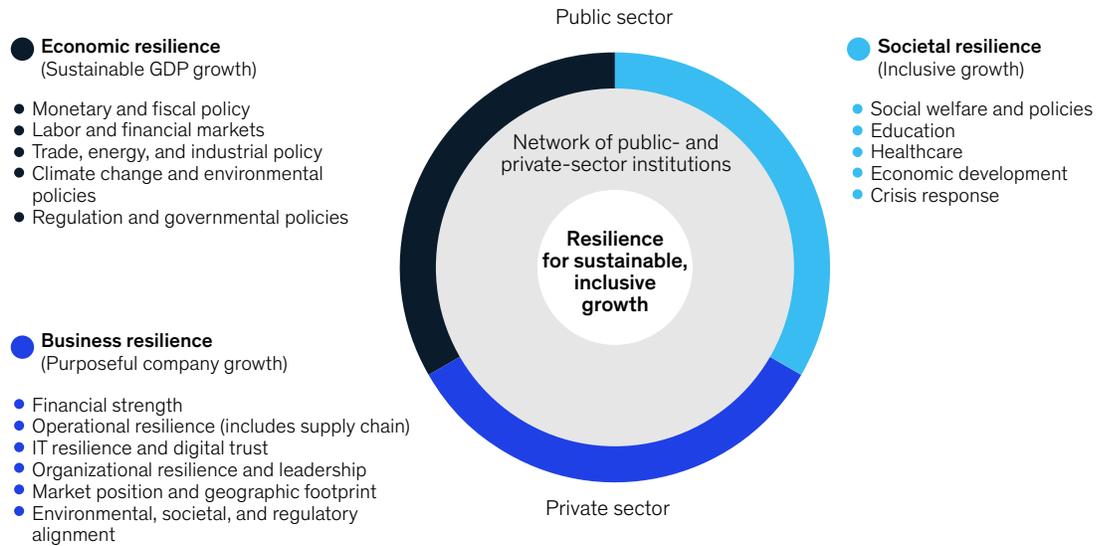
⁴ Bénédicte de la Brière and Quentin T. Wodon, "Unrealized potential: The high cost of gender inequality in earnings," World Bank, May 30, 2018.

⁵ Nick Noel, Duwain Pinder, Shelley Stewart, and Jason Wright, "The economic impact of closing the racial wealth gap," McKinsey, August 13, 2019.

Exhibit 3

Business, economic, and societal resilience are interlinked.

The links between economic, societal, and business resilience



Source: World Economic Forum; McKinsey analysis

frameworks, the resilience framework is designed to help leaders see past the immediate bottom line and short-term financial goals.

The resilience framework must be supported by assessment and measurement capabilities. These will allow leaders to understand and weigh the costs and benefits of particular resilience-building actions. Inaction will certainly be more costly than an agenda of preventive actions, but resource allocation needs to be linked to real and inclusive wealth creation, whether that is reflected in shareholder value, renewable energy growth, or the eradication of poverty. Approaches to calculating ROI by expected value losses can underestimate the extent of investment needed for true resilience. A more suitable approach, used by insurers and ratings agencies to calculate risks in a business, focuses on reducing the tail value at risk. Another potentially useful measure is to identify disruptions likely to occur in the next decade and calculate the ROI based on the overall avoided loss.

Finally, the resilience framework will, by design, foster the cooperation of public- and private-sector organizations in supporting sustainability and inclusiveness across societies. For companies,

resilience will translate into sustainable business growth; for societies, resilience both enables and depends on meaningful economic growth, emphasizing improved quality of life, equality, and inclusiveness. Wealth creation becomes meaningful when it also elevates the standing of the most vulnerable and poor populations, in economies of all developmental stages. Without sustained social advancement, societies are less resilient and secure.

Building a resilience muscle

To move beyond reactive approaches, governments and companies need to develop a more preventive position, taking a wider view of potential disruptions. More flexible societal, industrial, and corporate structures are needed to enable more effective responses to disruptions and changes in the environment. The resilience muscle will consequently support growth-oriented strategies: buffers become protection against immediate impact and challenges that resist more immediate answers.

The resilience muscle fosters an orientation toward quality growth, supporting climate goals and inclusiveness, helping to ensure that crises do not widen equality gaps. An active strategy is based on

flexibility and speed, allowing organizations to take on more risk rather than less. The resilience muscle allows the enhanced response—prepare, perceive, propel—depicted in Exhibit 4.

Prepare

Prepare is about investing ahead of large disruptions to reduce the magnitude and speed of the impact. Three types of actions can usually be taken:

- **Designing flexibility** means investing to create viable alternatives in products and processes (for instance, by having multiple suppliers across several geographic regions).
- **Building buffers** means adding redundancy (for instance, increasing safety factors in products or maintaining higher stock levels for critical resources).
- **Strengthening networks** means building better solutions by relying on networks to share information and develop tools and capabilities

(to counter increasingly sophisticated cyberthreats, for example).

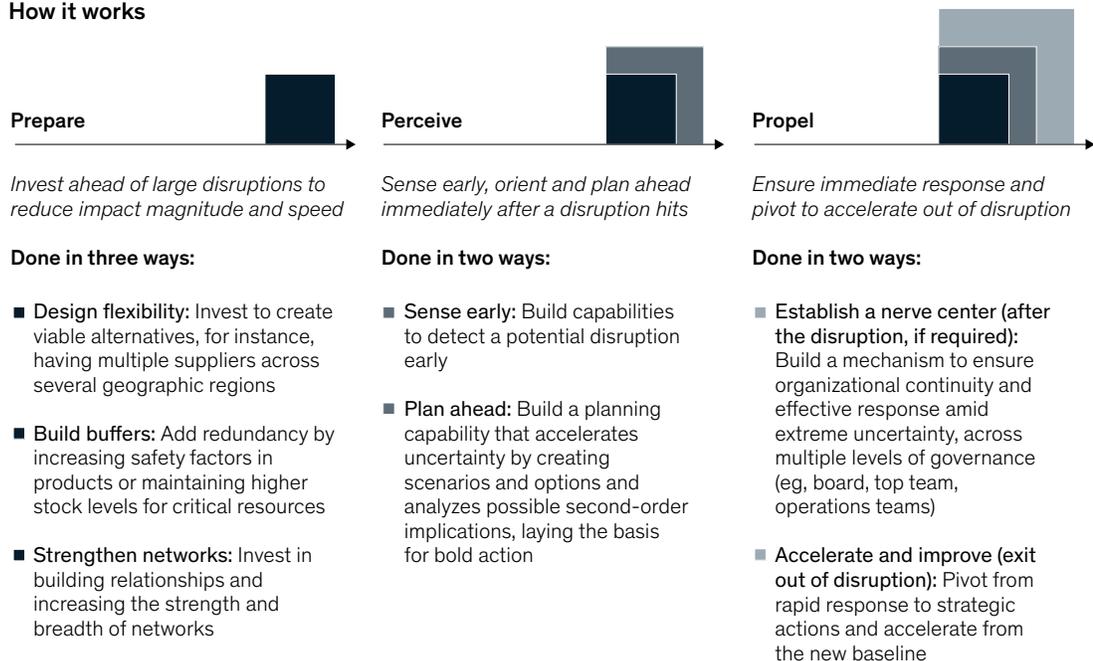
Perceive

Perceive is the part of the resilience muscle that detects a present disruption, quickly discovers its extent and implications, and defines the appropriate response. This is best managed when risk and crisis management are united within a business resilience framework. A planning team can build on the early sensing of disruptions, using scenarios to convert uncertainty from a long list of issues to categorized risks that can be acted on. The best scenarios consider a wide range of potential social, geopolitical, climate, and technological disruptions. Planning and scenarios should also be applied to supply chains, with triggers based on practical actions, including specific thresholds for escalation to senior managers or the top team. Finally, networks and dependencies (which are sometimes hidden) create new vulnerabilities. These should be included in pressure testing as the organization probes and evolves its strategies.

Exhibit 4

Building the resilience muscle is the necessary work of businesses, economies, and societies.

How it works



Source: World Economic Forum; McKinsey analysis

Propel

Propel is the part of the resilience muscle that enables public- and private-sector organizations to move quickly, ensuring an effective response early in the disruption and pivoting to accelerate out of the disruption faster than peers. Two operational moves are recommended:

- **Create cross-functional teams.** A structure that can function in extreme uncertainty will be a critical component of a successful response.
- **Cut through silos.** To propel organizations toward recovery, the responsible teams need to cut through silos without destroying trust.

Seven resilience themes that are shaping the future

Public- and private-sector leaders taking an appropriately broad view of resilience encounter risks and challenges addressed in isolation, whether labor shortages, digital risks, supply chain disruptions, inflation, or inequality. A single-minded approach will tend to pass over the many interdependencies within our multirisk environment while failing to engage with the systemwide, longer-term trends driven by climate change, societal developments, and geopolitical dynamics. A model alternative to one-off approaches was advanced by the European Commission in its Recovery Plan for Europe.⁶ The plan emphasizes the interdependencies between education, healthcare, housing, climate change, economic growth, competition, and jobs, and addresses them in a holistic framework. The difficulties encountered in implementing such plans will be a measure of what it will take to bring along everyone in society.

The enhanced resilience agenda must take a broad view, addressing the specific challenges but also their interconnectedness. The effort must be based on the private and public sectors acting together to develop mutually reinforcing solutions. The World Economic Forum's activities and initiatives addressing the challenges from current crises and disruptions

can be grouped into seven resilience themes, with fundamental cross-cutting business, economic and societal implications (Exhibit 5).

Climate, food, and energy

Climate change is triggering more frequent and severe droughts, flooding, and wildfires, damaging crop and grazing lands, and ultimately increasing global levels of hunger and food insecurity. The damage is compounded by additional shocks, including the COVID-19 pandemic and inflation. Biological diversity is threatened, with scientists estimating that nearly one million species of plants and animals are headed for extinction in the coming decades.⁷ According to the UN, undernourishment is on the rise, harming 9.9 percent of the world population in 2020 (8.4 percent in 2019). Nearly one-third of the world's population—2.37 billion people—do not have access to adequate food.⁸ The problem will likely worsen due to the direct and indirect effects of Russia's war in Ukraine because the two nations are among the world's largest exporters of grain.

The United Nations Climate Change Conference (COP26) in Glasgow in 2021 drew attention to global commitments to reduce greenhouse gas emissions. Research shows that on the path to net zero, cumulative carbon emissions to 2050 will have to be limited to 1,000 gigatons or less if global average temperatures are to remain within 2°C of preindustrial levels.⁹ This great transformation will be possible only through the replacement at scale of the global economy's productive asset base with nonemissive technologies.

Companies and governments have long developed business cases for the low-carbon transition, including scenarios for various speeds, accounting also for inflation and extreme price volatility in energy markets. The shortfall to a net-zero economy remains very great. Yet the continual ramping up of fossil fuel exploration, production, and delivery will accelerate global warming and promote economic dependence on energy commodities for both producers and consumers.

⁶ "Recovery plan for Europe," European Commission, 2020.

⁷ "Halting the extinction crisis," Center for Biological Diversity.

⁸ "UN report: Pandemic year marked by spike in world hunger," World Health Organization, July 12, 2021.

⁹ "Climate math: What a 1.5-degree pathway would take," *McKinsey Quarterly*, April 30, 2020.

Exhibit 5

Sustainable, inclusive growth depends on companies, economies, and societies building resilience across a network of seven themes.

The 7 resilience themes reach across the public and private sectors

Resilience themes	Private sector	+	Public sector	Resilience topics	
1 Climate, food, and energy				Protect people and assets, reduce carbon and vulnerabilities, mobilize finance and insurance	
2 People, education, and organizational resilience				Support education for all, foster inclusive leadership and talent, build dynamic operating models	
3 Healthcare				Act on the pandemic's lessons to improve public health through global healthcare resilience	
4 Sustainable economic development				Promote industrial and economic growth, invest in education and technology, build risk management	
5 Trade and supply chain				Design a more flexible, "just in case" supply chain, building redundancy in supply routes and sources	
6 Digital resilience, trust, and inclusion				Digitally integrate societies, erase inequality of access and opportunity, protect digital assets	
7 Finance and risk capacity				Develop funding for climate change transition and capital for innovation and growth, ensure risk capacity and resilience of monetary system	
	Economic resilience (GDP growth)	+	Societal resilience (Inclusive growth)	+	Business resilience (Company growth)

People, education, and organizational resilience

A requirement for ensuring sustainable, inclusive growth globally is an educated population. In 2021, the UN estimated that one-third of young people were not receiving secondary education; 617 million youth worldwide do not have basic mathematics or literacy skills. As of 2016, 750 million adults were illiterate, two-thirds of whom were women. Furthermore, millions of refugee children were out of school completely, including nearly half the estimated total of 7.9 million refugee children in the care of the UN refugee agency.¹⁰ The UN's education goal emphasizes the economic benefits of investments in education for all, calculating that each additional year of schooling adds 0.37 percent to GDP. The benefits of a widely educated population multiply this advantage for society and the economy, with better personal health, higher workforce productivity, and readiness for more highly skilled jobs.¹¹

Healthcare

Building on the lessons of the COVID-19 pandemic, governments and healthcare providers can revitalize healthcare systems and improve the state of global public health. Health crisis preparation and response can be improved at the national and regional levels. Crisis protocols should be adjusted and crucial supplies stockpiled, for example. Improvement areas include government financing models for healthcare systems, digital innovation, distributed and virtual care, regulatory harmonization for new technology, investment in preventative care, workforce reskilling, and changes in incentive structures to pay for value-based outcomes. Healthcare professionals, furthermore, need governments and providers to improve the conditions of healthcare work. This can be done while building a flexible workforce of the future, with skills optimized for cross-country and cross-sector cooperation to meet demand surges during crises.

¹⁰ "Sustainable Development Goal 4: Quality Education," United Nations.

¹¹ "Education counts: Towards the Millennium Development Goals," UNESCO, 2010.

For developing economies, resilience building is a form of economic advancement, benefiting businesses, government, and society while reducing historical vulnerabilities.

Sustainable economic development

For developing economies, resilience building is a form of economic advancement, benefiting businesses, government, and society while reducing historical vulnerabilities. Massive investment is needed, but many local projects can be completed in increments at a relatively low cost. Primary objectives must include improvements in housing, agricultural diversity and food supply, water infrastructure, and sewerage. Furthermore, due to income loss during the pandemic, the number of people without access to energy in the Global South increased. This was the first such increase in more than a decade and highlights the continued gap in energy access that must be closed.

Trade and supply chain

The effects of pandemic-related supply shocks continue to appear as a result of trade policy changes, workforce scarcity, and inflation. While no supply chain can be completely disruption-proof, governments and companies can work cooperatively toward flexible designs.

The solutions will likely combine several elements: a limited just-in-case approach with redesigned inventory holding; an expanded supply base, including diverse regions and routes; vertical integration where appropriate; radical transparency across supplier tiers; and new operating models and partnerships. Governments can help by establishing connections across segregated data, using accelerated regulatory approvals to advance adoption and innovation (such as 3-D

printing for flexible production close to point of use). Collaboration and coordination by the public and private sectors is needed to target investment and avoid duplication of effort.

Digital resilience, trust, and inclusion

Many companies and financial institutions are sustaining operations in the COVID-19 pandemic through digitally enabled remote working arrangements. Research suggests that the digital economy accounts for 15 percent of global GDP today and could expand to 26 percent by 2040.¹² Digital inclusivity is thus a growth imperative. Investments are needed in digital education, equipment, and infrastructure so that poorer nations and excluded populations can connect to and share in the prosperity of the digital ecosystem.

Effective, integrated cybersecurity measures are also needed to minimize risks and improve resilience. Accelerating developments in cloud computing, robotics, process automation, and the industrial Internet of Things all affect aspects of productive activity. Healthcare, mobility, materials sciences, and energy production are being reshaped and new vulnerabilities are emerging. Processes, plans, and mechanisms must be developed to ensure operational continuity during a cyber incident. The need for cyber resilience is pronounced in systemic critical infrastructure; sectors crucial to societal and economic security and stability should be prioritized by public institutions and private companies.

¹² Ian Goldin, Robert Muggah, and Rafal Rohozinski, "The dark side of digitalization – and how to fix it," World Economic Forum, September 23, 2020.

Finally, digital trust means that companies and governments make their own systems and data secure against cyberthreats using the most advanced approaches. Organizations need to reflect the values of wider society, safeguarding personal data while ensuring reliable services. Many companies have yet to discover the competitive advantage of digital trust. Developing and promoting digital trust can transform security into a value proposition. Unless users can trust digital systems, the advantages of the digitized economy will be lost.

Finance and risk capacity

The financial sector has an enormous role in building a resilient, sustainable future. The world economy

demonstrated financial resilience through the pandemic, as companies relied on access to funding, including historic levels of government support. The importance of capital buffers at the company level and fiscal and monetary capacity in the public sector has not diminished, their extent being the subject of continuous debate, especially since the return of inflation. By far the financial sector's greatest responsibility in the coming decades, and largest growth opportunity, is in financing the transition to a low-carbon future.¹³ Most of the investment will come from the private sector, with the public sector playing an important role in mitigating risk for renewable energy projects.

¹³ "New energy outlook 2021," BloombergNEF, July 2021; "Aligning portfolios with climate goals: A new approach for financial institutions," McKinsey, November 1, 2021.

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A defining moment: How Europe's CEOs can build resilience to grow in today's economic maelstrom

Can leaders lift their companies to the next frontier of resilience—not only to survive but also to thrive?

by Hemant Ahlawat, Hodayoun Hatami, Maria del Mar Martinez, Alfonso Natale, Thomas Poppensieker, and Andreas Raggi



A confluence of crises and disruptions has darkened European skies. The energy crisis is already dire and could get worse. The war in Ukraine continues, an unabated humanitarian tragedy. The cost of life's essentials has gone through the roof—prices in some countries have risen eightfold. Business signs are weakening. In July and August, purchasing managers' indexes indicated contraction for the first time since early 2021. China, a key supplier and customer, is wrestling with its own economic problems. The effects of climate change are pronounced across the continent, with drought and extreme heat curtailing hydropower and even putting industrial production at risk. The energy crisis threatens to derail the net-zero transition. Semiconductor shortages, technological shortfalls, and labor shortages remain. The latest McKinsey scenarios, undertaken in partnership with Oxford Economics, suggest that European GDP will most likely contract overall in 2023 (Exhibit 1).

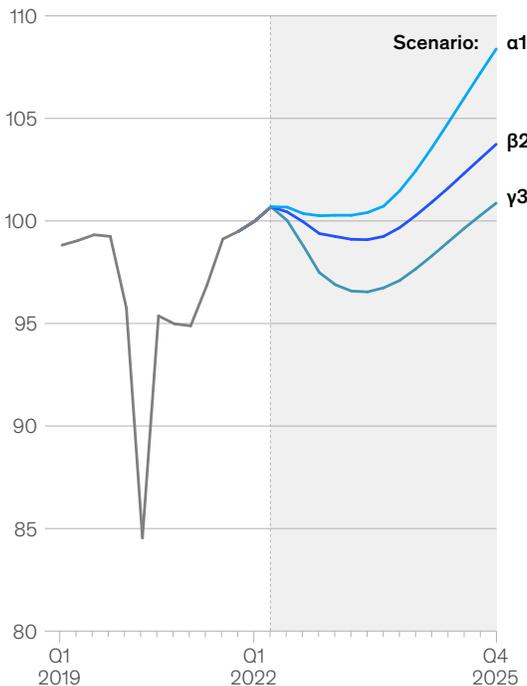
How will Europe's business leaders respond? This is a defining moment for a generation of executives who have never been tested in quite this way. Yes, today's leaders have faced down the global financial crisis, the euro crisis, Brexit, and the COVID-19 pandemic. All were challenging in their own way; each crisis called for ingenuity, grit, and determination. Many business leaders met these challenges exceptionally well. But today they face a unique confluence of crises that is of another magnitude. The playbooks of the past will be only moderately helpful.

Businesses need new approaches to build the resilience required in these decisive times, through a perceptive *response* to current challenges, *foresight* to anticipate the next round of disruptions, and capability for *adaptation* that will set the business on a foundation for successful growth.

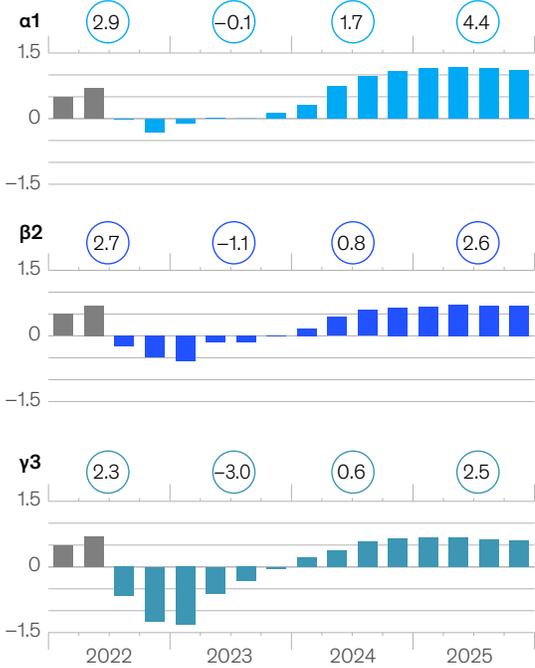
Exhibit 1

Economic scenarios plot potential impact of disruptions on the eurozone GDP growth path for 2022–25.

Real eurozone GDP growth, 2022–25,¹
index (Q1 2022 = 100)



Real eurozone GDP quarterly and annual change, %



¹McKinsey and Oxford Economics scenarios, Sept 12, 2022.
Source: National statistics agencies; McKinsey, in partnership with Oxford Economics

A defining leadership moment

No crisis is ever the same as the previous one; neither can it be managed in the same way. Likewise, no industry is affected the same way in different crises (Exhibit 2). With the exception of pharma, no sector showed positive returns throughout the pandemic and the more recent period of geopolitical turmoil. Moreover, in the current confluence of crises, the vast majority of companies have produced negative returns.

Executives have reacted to each disruption separately but with all-consuming responses; they're fighting fires. But before they can recover from one, the next crisis is at the door. This approach is not sustainable in a context of continuous disruptions. Leaders are now discussing *resilience* as the essential condition. How can organizations arrive at a resilient stance, alert to what is over the horizon and ready to withstand shocks and accelerate into the next reality?

Some think of resilience as the ability to recover quickly, but it is more than that. *Resilience is the ability to deal with adversity and shocks and to continuously adapt and accelerate for growth.* Consequently, truly resilient organizations bounce back better than before and go on to thrive in a hostile environment. They play defense well, and they also go on offense.

This is indeed a defining leadership moment. The last remotely comparable moment was the energy crisis of the early 1970s, an event that no CEO of today experienced as a leader. Here are a few of the practices that we've seen leading executives use recently:

1. ***Don't follow the old rules.*** Setting up a crisis task force, for example, the go-to move in past years, is a waste of time; it will be outmoded before it is up and running. Leaders need to find a more flexible and consequently durable stance, engaging the whole organization by embedding a crisis-resistant DNA over time.
2. ***Prepare for the recession, but at the same time, prepare to exit it.*** Recessions may be shallow and brief; companies can accelerate through the

downturn. This is essential: resilient organizations open an early lead, however small, in comparison with peers. This lead can be significantly widened during the following recovery and growth period. The early advantage can help companies succeed in the long run.

3. ***Use scenarios rather than forecasting.*** Forecasting has failed to adequately capture many key events of recent decades, including slowing globalization, the COVID-19 pandemic, the supply chain disruption, and the return of inflation. Learn to plan with scenarios and triggers, regularly revisiting and adjusting them.
4. ***Develop a resilience agenda*** that addresses burning short-term issues (for example, financial flows, supply chain disruptions) as well as longer-term challenges (for example, geopolitical shifts or the speed of organizational adaptations). Ensure that resilience is measured, so progress can be tracked and return on resilience investments can be maximized.
5. ***Focus on resilient growth*** by reviewing your competitive position and finding strategic opportunities in the current environment (such as acquisitions or new business-building ideas).

Exemplary moves

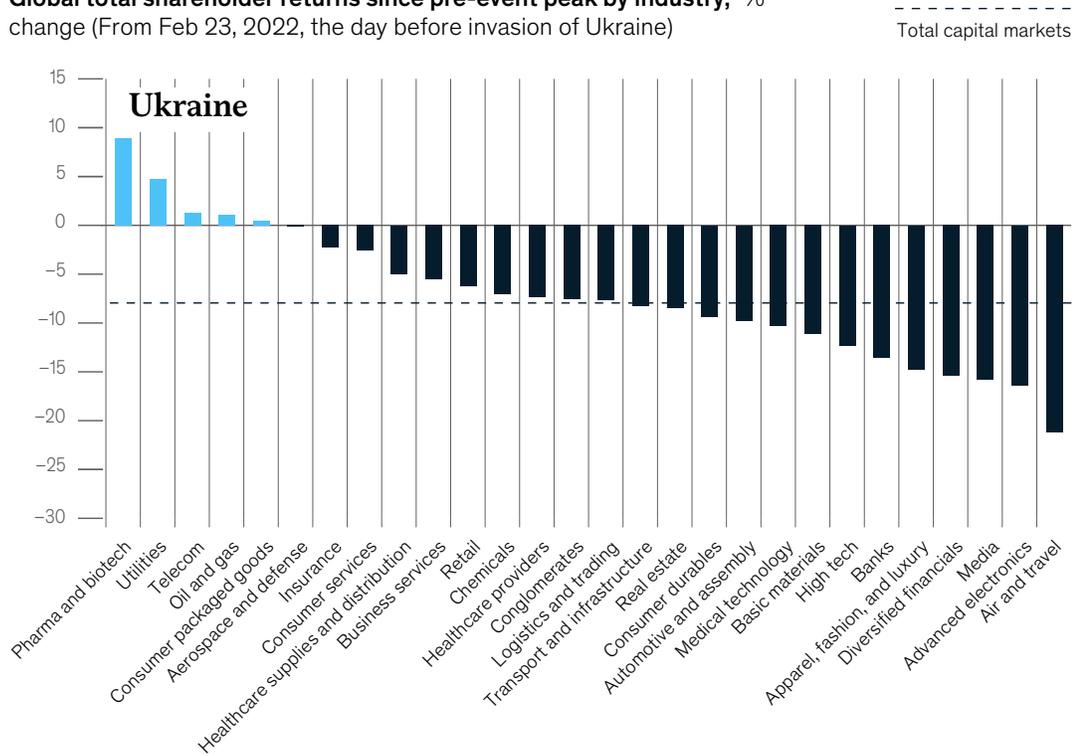
Leading companies are already making resilience a reality, defending their franchise while also accelerating growth through the disrupted environment. Here's what they've done in the recent past:

- ***Restructuring the balance sheet.*** An automotive supplier wanted to achieve a particular credit rating, a target that required an increase in the amount of debt it could service under stress. Presenting the new capital structure to investors, equity analysts, and the rating agencies, the company was able to make an additional €3 billion in investable assets available to implement a five-year strategy.
- ***Reconfiguring the supply chain.*** To achieve operational resilience, a global electronics manufacturer with a global production footprint (more than ten plants) and a large multitier

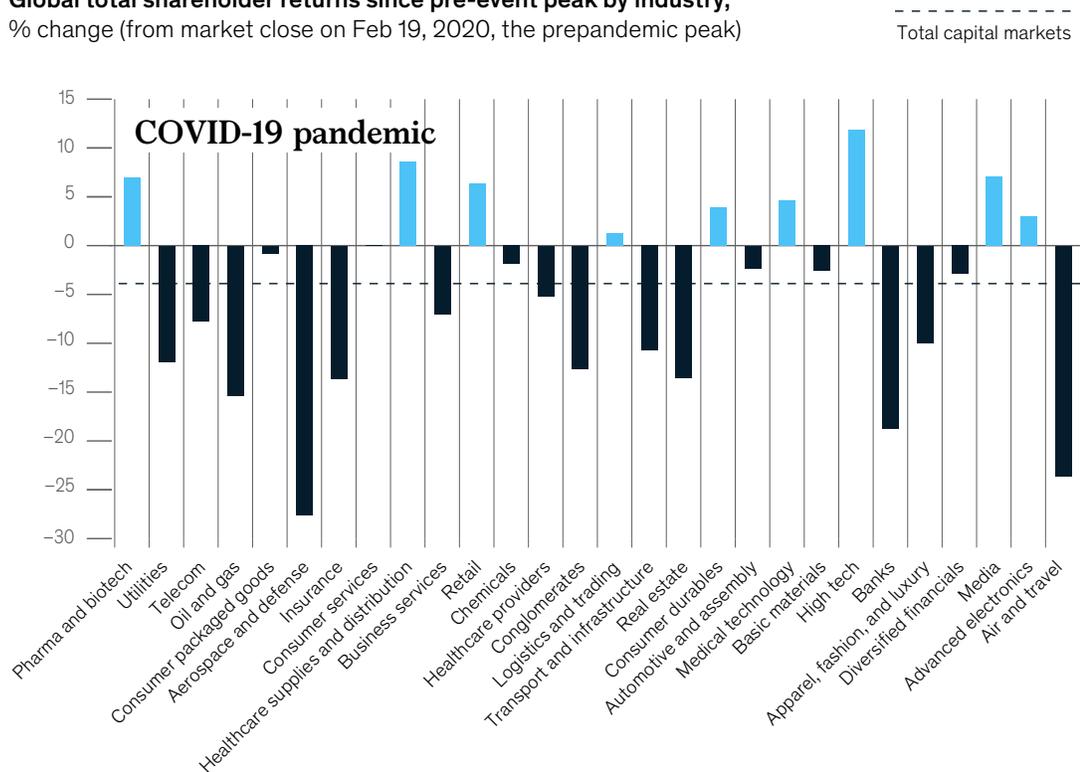
Exhibit 2

Impact on capital markets from Russia’s invasion of Ukraine is of a different order than the COVID-19 impact, and uneven across sectors.

Global total shareholder returns since pre-event peak by industry,¹ % change (From Feb 23, 2022, the day before invasion of Ukraine)



Global total shareholder returns since pre-event peak by industry,¹ % change (from market close on Feb 19, 2020, the prepandemic peak)



¹As of July 6, 2022.
Source: S&P Global; Corporate Performance Analytics by McKinsey

supply base assessed the relative vulnerability of 5,000 unique supplier and plant combinations. The company identified around 100 high-risk suppliers and then discovered that 25 percent of its spending was concentrated in this segment. By reconfiguring the supplier network, the company reduced the higher-risk spending by more than 40 percent.

- ***Decarbonizing core assets.*** A global mining company with dozens of mines worldwide sought to embed ESG along its value chain into the core business. The company defined targets and adopted strategic initiatives to create a pathway to net-zero emissions across the enterprise. Detailed decarbonization plans were developed for each site, with steps to reduce greenhouse-gas emissions by 30 percent by 2030. Once implemented, the plan will lead to large reductions in both operating and capital expenditures.
- ***Derisking manufacturing analytics.*** A global agriculture products leader wanted to deploy advanced analytics within its supply chain and manufacturing operations. Aware of the potential data and analytics risks this entailed, the company made derisking and safeguarding critical data and analytics through data governance and model risk management an integral part of the effort. The move built enterprise-wide confidence in analytics resilience and allowed the company to capture the full potential of the effort.
- ***Next-generation scenario planning.*** A leading automotive company created two hypothetical scenarios (a technological disruption and market breakdown), then assessed the potential impact on the business and the resilience levers that would best mitigate that effect. The analysis suggested that up to 60 percent of sales losses could be mitigated. This led to a decision to diversify geographically and reduce the risk of dependence on single sites, set up some anticipatory information mechanisms, and reduce the fixed-costs intensity in some production locations.
- ***Anticipating the future.*** A utility with annual costs of \$5 billion was facing rising prices from

suppliers, in particular for basic materials. To address cost pressures strategically, the utility created an “inflation nerve center,” using tech-enabled analytics. The center identified spending priorities, anticipated and quantified inflationary risks, created live dashboards showing inflationary impact, and established a proactive process and set of levers to manage inflationary pressures. This helped the company understand the magnitude of inflationary risks across its cost base using an analytics-driven approach.

- ***Turning a crisis into a growth opportunity.*** A global pharma company addressed the recent disruptions in healthcare supply chains, services, and access to healthcare professionals. The company designed a home-delivery system to help patients with rare diseases continue receiving treatment in the safety of their own homes. They further created a partnership with a start-up company to provide patients with physical therapy programs through virtual channels. These innovations allocate and deploy resources more effectively; they also inspired the company to undertake a groupwide agile and lean organizational transformation.

Why resilience matters: What still works and what doesn't

Companies cannot effectively respond to the current economic crisis in precisely the same way as they did in earlier crises. But some basic lessons can be drawn from past experience. McKinsey research on the financial crisis of 2007–08 shows that resilient companies not only perform better than their peers through a downturn and recovery—they also accelerate into the new reality, leaving peers further behind (Exhibit 3).

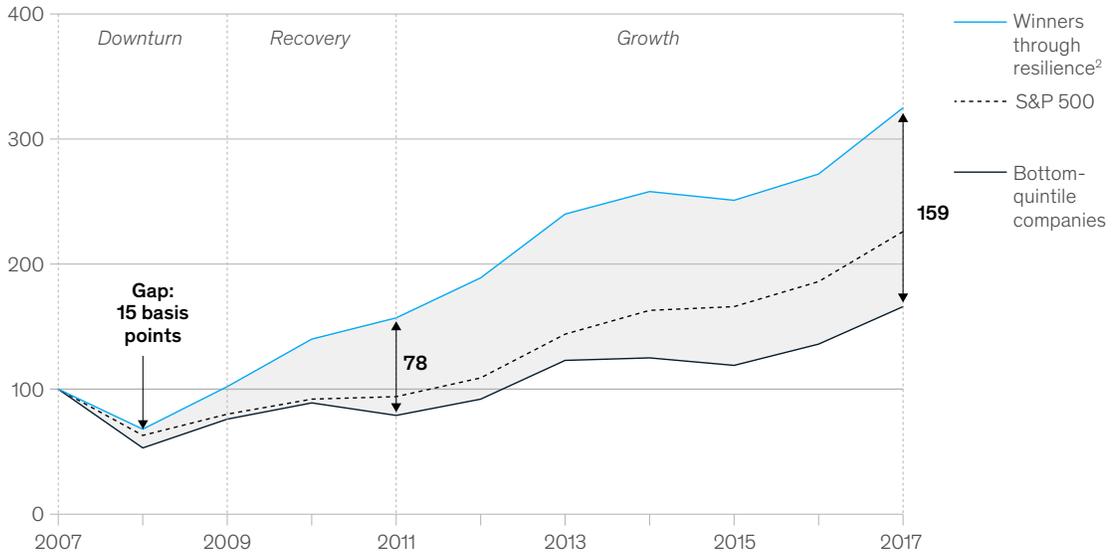
The research indicated that companies that win through resilience do three things well in a disrupted environment:

1. They make faster and harder moves in productivity, preserving growth capacity.
2. They create more operational and financial optionality in their balance sheets, adjusting leverage or cleaning legacies.

Exhibit 3

Resilient companies play defense and offense simultaneously.

Total shareholder returns of 1,140 global companies,¹ 2007–09 financial crisis, index (2007 = 100)



¹Calculated as average of subsector median performance. Includes 1,140 companies (excludes financial institutions groups and real-estate investment trusts).
²Winners through resilience defined as top geometric mean total shareholder returns quintile by sector.
 Source: MSCI; Corporate Performance Analytics by McKinsey; McKinsey analysis

3. They act swiftly on divestments in the downturn phase of disruption and on acquisitions at the inflection point of recovery.

Not only do leading companies do these three things well, they also do them at the most decisive time for their future well-being. They react in the downturn when it matters most and are therefore able to open an early lead in comparison with peers, which can be widened significantly during the recovery and growth period. Recovery and growth periods following downturns are often longer than the actual downturn, so leading companies are well positioned to outperform the others in the long run. A turn in the cycle is a moment that requires true leadership to embark on either offense or defense. But the best-performing companies don't wait for that turn to finally reveal itself—or not: they act with intentionality and courage in the face of profound uncertainty about the macroeconomy.

The next frontier of resilience

Faced with overlapping disruptions and a complex European situation, executives need to decide where

to concentrate their forces now, over the next six months, and beyond. The key questions to answer are about response, foresight, and adaptation:

1. **Response:** Do I have the right capabilities and am I acting on all resilience levers to respond adequately to the current situation?
2. **Foresight:** Can I anticipate what is going to happen next?
3. **Adaptation:** Am I able to adapt fast to a new situation?

To answer these questions, leaders must take a step back and apply a comprehensive resilience lens. Forward-looking companies have begun to structure their resilience agenda across the three activities—response, foresight, and adaptation. They are further differentiating their response, targeting actions in the six dimensions of the enterprise. Whether moving to defend or advance, companies may pull from a large range of resilience levers that are tailored to their specific profile, industry, and starting position. With fast adaptation, companies can meet their longer-

term goals of sustainable and inclusive growth for customers, employees, investors, and the larger community.

Let's take a closer look at response, foresight, and adaptation.

Response

First things first. With severe challenges pressing, companies may have to address immediate gaps in their resilience profiles. They may face financial challenges such as liquidity constraints, or they may have to resolve disruptions in their supply chain, such as missing key inputs for their products. Before jumping into action mode, companies may take a step back and consider an initial resilience assessment to gain the needed perspectives on the six dimensions of institutional resilience (Exhibit 4).

How prepared is the company to withstand repeated shocks and disruptions? What short-term growth opportunities are within reach, and what will it take to capture them? What changes will enable the company to make that crucial pivot to accelerate into new realities? In domain after domain, and capability by capability, the assessment will discover where

investment in resilience is needed and identify the actions that will close the gaps, defend value, and advance to new growth.

As illustrated in the exhibit, each of the six resilience dimensions will have its own specific set of levers that allow a company to play offense or defense. For example, in digital resilience, a robust digital, analytics and cyberrisk framework may help to safeguard the company against digital failures or cyberattacks on the defense, while on the offense it may pay dividends in at-scale digital transformation by ensuring robust and scalable business application of data and analytics.

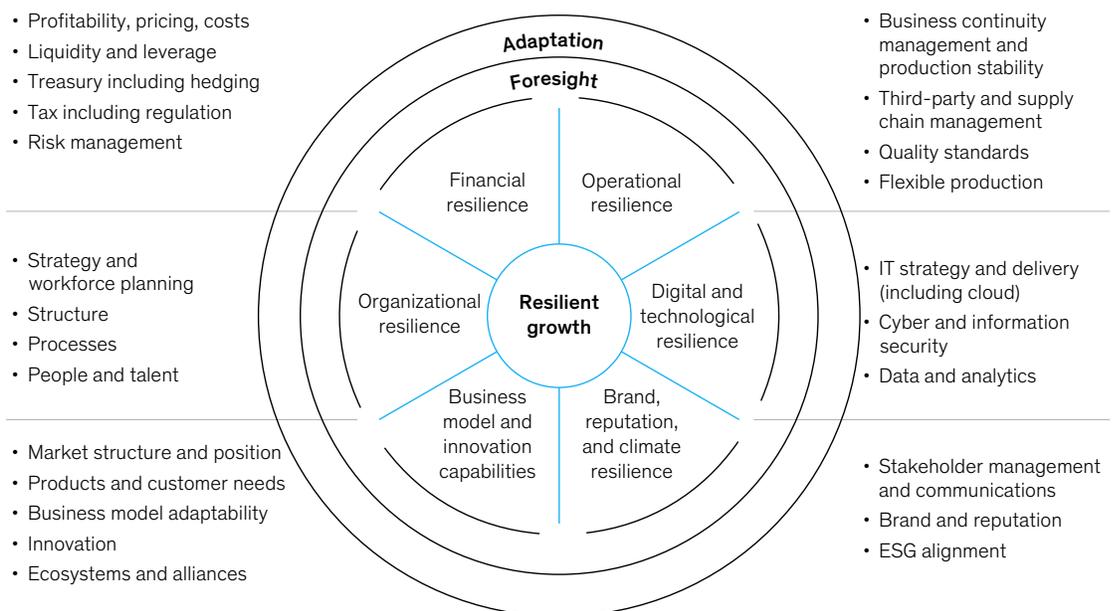
It is essential that companies understand the levers available to them across the dimensions, the offensive or defensive capabilities, and the time horizon for creating impact. The specific nature of resilience levers and their relative importance is also a function of the industry a company is operating in.

Foresight: Moving beyond targeted responses

As companies weather the storms of today, they must also anticipate and prepare for larger and possibly stranger events to come. To anticipate and respond

Exhibit 4

The key levers of a resilient response lie across six enterprise dimensions.



to crises and opportunities, scenario analysis has proven to be the most effective tool, as long as it is supported by the required data and state-of-the-art analytics. Scenario narratives should be accordingly developed, stress-tested in analytics-based simulations, and connected to early-warning systems based on key indicators.

Crucial variables must be factored into the scenarios, including, for example, the evolution of semiconductor prices, energy costs, and the availability of critical raw materials. Management decisions have to be based on more than purely qualitative discussions. To understand the impact of hypothesized scenario inputs on financial outcomes (such as EBITDA, for example), an analytics-based approach can produce a reasonably accurate data-driven fact base in a timely manner.

That is the approach taken by financial institutions in response to the stringent regulation (such as stress-testing requirements) triggered by the financial crisis of the early 2000s. Companies can take the approach as a starting point, widening the scope of the scenarios, thinking outside the box on possible inputs, and increasing the depth of analytics engines across a large number of industries.

It is crucial to embed such an approach—data and analytics-based scenario and stress-testing—into the ongoing strategic-planning process and management dialogue. This process must also be revisited regularly and assumptions and scenarios adjusted to the changing environment. This will ensure that appropriate mitigation and management actions will be derived on a regular basis. A one-time analysis will simply not suffice.

Adaptation: Not just surviving but thriving

Foresight may help a company anticipate potential future outcomes through simulation and early-warning indicators. Only so much can be predicted and prepared for in advance, however. This is where adaptation, the third key activity of resilience, comes in. The resilient organization is flexible, able not only to react but capable also of adapting to new situations, especially the unforeseen ones.

Adaptation to the new environment requires deep investment in resilience. Adaptive companies are able to capture growth opportunities under adverse

conditions. To confront the toughest times, leaders must possess a strong, resilient mindset, acting as role models, communicating an entrepreneurial spirit, and encouraging free thinking across an agile organization. Leaders send the right messages, providing strategic clarity and acting based on early-warning and foresight analytics. They are creating institutional resilience in the following five areas:

- **Speed of response.** The organizational structure and operating model is set up in an agile and flexible way, to facilitate collaboration across teams, with a bias toward action over bureaucracy. Decision-making and escalation processes are fast, roles are clear, and decisions are effectively executed once made.
- **“Owners” mindset.** A strong sense of ownership pervades the organization. Curiosity and humility prevail; learning and adaptation are continual. Rather than avoiding challenges, people strive to innovate and explore new opportunities. The company pushes its own boundaries and questions the status quo and long-held beliefs. Individuals are empowered to think and develop in an entrepreneurial spirit, reskilling and upskilling as the business environment changes. Knowledge-sharing across the organization is encouraged, through cross-functional collaboration, mentorship, and open communication. Empowerment and decentralization are fostered, with only the most strategic decisions going to the senior leadership team.
- **Workforce planning and skill set of the future.** To execute new, adaptive strategies, the company will need to do some resource planning. Find the best people with the right skill sets and give them the resources they need to cope with present and future needs. Resilience strength resides in an organization’s people. Hear what they have to say and value their experience. Let them adapt to new realities, so that talent can be strategically reallocated as needs change. The positive feedback this creates will attract more top talent to the company.
- **Capital redeployment.** Resilient organizations can make investment decisions and reallocate

capital quickly, based on changing scenarios. These decisions can be taken with a forward-looking perspective on expected scenarios; the decisions are then effectively communicated across the organization.

- **Crisis response.** Clear and effective responses need to be activated in crises. Resilient companies have a well-defined and understood response tool kit; roles and responsibility are set. An effective, timely response is ensured by a fast-mobilizing organization. Leadership accountability is clearly defined and communicated, ensuring full alignment on delegation of authority and escalation mechanisms in the event of disruptions. Leaders ensure that risks are assessed at all stages of the value chain, and they instill resilience throughout business operations.

From adaptation to growth

A company's own resilience assessment will help identify areas of strong resilience, which typically will serve as the catalyst for a growth initiative. Resilience has to be measured, so that progress can be tracked to ensure return on resilience investments. For example, companies may act from a position of strong financial resilience with a strong balance sheet and liquidity positions to create room for inorganic growth moves, particularly when target valuations are low in their industry. Or in sustainability, they may leverage an above-peer ESG position to double down on new growth opportunities. This could involve deeper transition to greener asset and product portfolios, which protect them against customer attrition as standards continue to tighten. The result for such a company will be still greater differentiation—and

better position to gain market share and seek price premiums. In another situation, a strong, resilient digital backbone can help elevate companies' ambitions to adopt an aggressive digital agenda to raise their operating model and ways of working to new, more competitive levels.

The resilient company, beyond operating under "business as usual" scenarios, shows its mettle in crises and disruptions, using foresight to shift gears fast, swerve from danger, and then accelerate into new opportunity through adaptation. The enabling mechanisms are its agile organization design and decision-making structure—with clearly defined roles and responsibilities. Everyone should know what to do when storms come. Whether this moment leads to a turn in the business cycle or to a continuation of recent inflationary trends, it is a time when companies can make the kind of pivot through their resilience that strengthens their growth trajectory for the next several years.

European business leaders face a deeply unsettled economy, with potentially existential risks for those companies that enter the crisis with weaknesses in their balance sheet and business model. We've found that most senior executives are highly capable of playing defense in volatile and uncertain environments. Protection is a must, but opportunities for growth are also emerging. The exceptional leader finds the path to the next frontier of resilience, answering essential questions of where to shore up defenses and where to place bets on the future. The resilience framework we've outlined can help leaders see and understand gaps and identify growth opportunities even in the heaviest of seas.

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Using analytics to address inflation risks and strengthen competitive positioning

In the new inflationary environment, company leaders can protect their business and gain competitive advantage by deploying analytics-aided strategies.

by Renzo Comolli, Arvind Govindarajan, Chetan Venkatesh, and Yushan Zhang



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During 2021 and 2022, consumer inflation accelerated in most developed and emerging economies. In the United States, the consumer price index (CPI) rose from 2.6 percent in March 2021 to 8.5 percent in March of this year. In June, the pace reached 9.1 percent, the fastest in 40 years, while producer prices have increased faster still. In the eurozone, consumer inflation reached 8.6 percent in June 2022, its highest-ever level (exhibit).

Investors, economists, and forecasting institutions expect inflation to ease, but only gradually. (July measurements were somewhat lower in the United States but higher still in the eurozone.) The return of inflation is linked to the pandemic—the public-health measures taken to contain the spread of the virus and the economic and fiscal measures taken to mitigate the disruption this caused. The Russian invasion of Ukraine is exacerbating the inflationary dynamics.

Inflation accelerated in an environment of strong consumer demand, supply shortages, production shortfalls, and rising energy prices. The main inflation driver, energy prices, increased in Europe

by 38 percent in April and by 45 percent in March. In June, the core inflation rate in the eurozone (inflation excluding energy, food, alcohol, and tobacco) was 4.2 percent, a record level but one that underscores the lopsided composition of the overall rate.

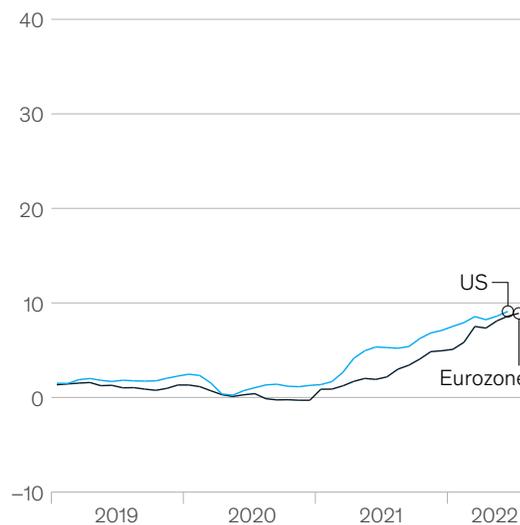
For many companies, a high-inflation environment is an unstable and insecure one to operate in. Responding to inflation is of paramount importance now, but responses must carefully account for future inflation, impact on the company business model, and the time lag for any response to manifest.

Analytics can be used to improve decision making in a high-inflation environment, with the level of analytics sophistication determined by the business requirements. In sectors where businesses are highly specialized and margins are thin—such as consumer packaged goods—analytics will need to be more precise to aid in developing a nuanced understanding of exposures. On the other hand, high-margin enterprises (software development or luxury goods, for example) can benefit from a more conceptual approach, without building deep analytics.

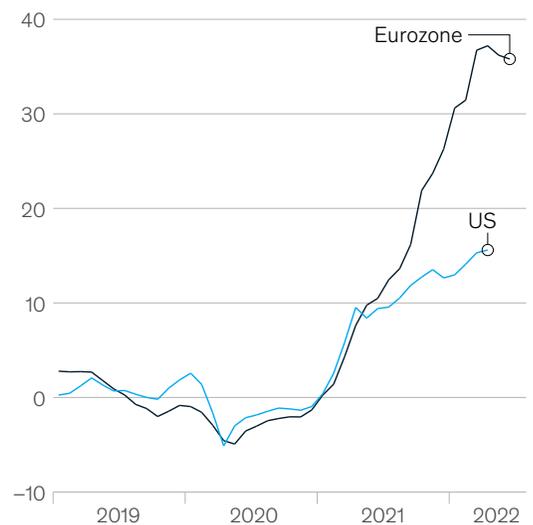
Exhibit

Both consumer- and producer-price inflation surged in the United States and the eurozone in 2021 and 2022.

Consumer price indexes , % year on year (monthly)



Producer price indexes , % year on year (monthly)



Source: Eurostat; national-statistics websites; McKinsey's Global Economics Intelligence analysis

Companies can use a flexible, analytically sophisticated method to help determine how and when to react to high-inflation environments.

Inflation forecasting is a separate and complex topic of its own, and in developing inflation responses, most organizations use forecasts and scenarios developed externally. Analytics for decision making, on the other hand, cannot be outsourced. Without resorting to direct inflation forecasting, companies can use a flexible, analytically sophisticated method to help determine how and when to react. The approach includes assessing the extent of exposure and breaking down the types of exposures.

Assessing the extent of inflation exposure with simulations and scenarios

Analytics can help companies estimate their exposure to inflation. Mitigation strategies can then be prioritized based on the estimates. To assess exposure, companies can associate drivers of cost—such as commodity prices, foreign-exchange rates, labor costs—to actual costs. The association can be made in detail, potentially down to the subproduct level. A variety of analytical methods can produce simulations and scenarios for the drivers of costs. The estimates should be historically accurate as well as forward looking. The estimates should maintain consistency across factors: for example, the prices of construction commodities such as steel and copper tend to be correlated.

Once companies have assessed their exposure, they can prioritize risk factors with the largest exposure and then overlay and select potential mitigation strategies. Proper exposure assessment requires

capabilities for scenario analysis, stochastic simulations, predictive modeling, and well-established, repeatable analytical methods.

Decomposing exposure: Pure inflation, relative price inflation, and idiosyncratic inflation

Companies are exposed to different types of inflation; analytics can be used to establish the levels of exposure to pure, relative price, and idiosyncratic inflation.¹ Their exposure profiles provide a basis for tailoring mitigating actions to manage business in inflationary conditions. A number of robust methods can be employed to estimate the inflation breakdown repeatedly and accurately. Economists sometimes use a two-step method, for example, first separating out exposures to idiosyncratic inflation and then separating pure inflation from what remains (by estimating the proportion of prices that move equiproportionately).

Matching strategies to inflation types

Depending on exposure and inflation decomposition, companies can use analytics to size and prioritize the various risk factors for inflation. Strategies can then be selected according to their efficacy in addressing the risk factors that lead to the greatest company exposure. Among others, potential strategies include hedging to reduce price volatility, vertical integration up the value chain, and

¹ Pure inflation refers to the equiproportional upward movement of prices; relative price inflation refers to disproportionately greater price increases for some goods and services compared with others; idiosyncratic inflation refers to price increases resulting from shocks and disruptions affecting particular regions, industries, markets, and products. See Hie Joo Ahn and Matteo Luciani, "Relative prices and pure inflation since the mid-1990s," Finance and Economics Discussion Series (FEDS), US Federal Reserve, October 2021.

pass-through pricing. The following discussions of hedging and pass-through pricing demonstrate how strategy choices depend on company position and inflation decomposition.

Volatility reduction through hedging: A response to relative price changes

Companies have long used hedging strategies to mitigate and manage the risk of price fluctuations for their businesses. To manage hedging risks, companies can involve different parts of the organization, actively managing inventory price risks and commercial contracts, building analytics capabilities such as scenario testing, and developing governance and policies for oversight. The hedging option will require the strongest analytical capabilities, including forecasting and optimization. It can often mitigate the risks of price fluctuations for feedstock, which mostly relate to relative price changes. For example, a chemical company executed a financial hedge to

lock in natural gas prices, resulting in a significant reduction in risk from rising prices.

This lever comes with risk and requires careful consideration. The danger is that organizations can lock themselves into higher prices or significant margin calls. External early-warning signals (such as a steel price threshold) should be in place and periodically refreshed.

Pass-through pricing: A response to pure inflation

Dynamic pricing levers are an alternative to cost reduction levers. Companies can respond to increases in input costs and price volatility by adopting a dynamic pricing strategy. They can often derive more value from pricing by setting the right price, optimizing discounts and rebates, and managing margin leakage. This option requires strong analytical capabilities, including sophisticated market segmentation and assessment of pricing impact.

Analytics, implementation, and continuous testing: An example sequence

The implementation of strategies to improve a company's posture can follow an analytics-based sequence of steps. Here is an example sequence:

1. Analytically or qualitatively decompose inflation and evaluate the composition and extent of the company's exposure—its inflation fingerprint—according to the relevant inflation factors.
2. Compose the inflation mitigation strategy: using a cross-functional approach, select the levers to be applied according to the company's position.
3. Test potential levers analytically against scenarios, incorporating variable demand, labor costs, commodity prices, energy prices, interest rates, and supply delays. For a risk–reward analysis, evaluate levers with financial and nonfinancial metrics (such as EBITDA and volatility fluctuations, respectively); then prioritize strategies and optimize decision making under uncertainty.
4. When testing strategies against critical scenarios (such as supply chain concentrations or exposure to a foreign-exchange pair), connect actions to early-warning signals (such as a threshold for price increases).
5. Estimate the benefits and costs of actions under different scenarios. (Some steps will not be effective in reality—a contract change will not alter the effects of a country-wide ban on exports of an affected product, for example).

The dynamic pricing response to input cost increases and volatility is a strategy that is relevant for pure inflation. However, a partial price pass-through may be a component of an optimal response to all types of inflation. A manufacturing company, for example, managed granular price increases across thousands of products through customer pattern analysis and ended up with hardly a complaint; by contrast, a packaging company that had not prepared its sales force for price changes experienced double-digit market share losses.

Accelerating your company's analytics journey

Companies will begin with different levels of analytics sophistication. Some have had experience in implementing analytics solutions while others have not (see sidebar, "Analytics, implementation,

and continuous testing: An example sequence"). For the application of inflation analytics, a few guideposts will help companies get up to speed:

1. **Start small.** Start with a single product, business unit, or geography. Most of these analyses are accretive and need not be completed together.
2. **Start simple.** Break down the income statement to drivers of margin. "Stress" these drivers with your view of inflation impact. Not all drivers will be affected by inflation, so they will not need complex analytics solutions.
3. **Start now.** Experience shows that capabilities, data, and know-how are always works in progress. The benefits of starting now always outweigh impact with better resources.

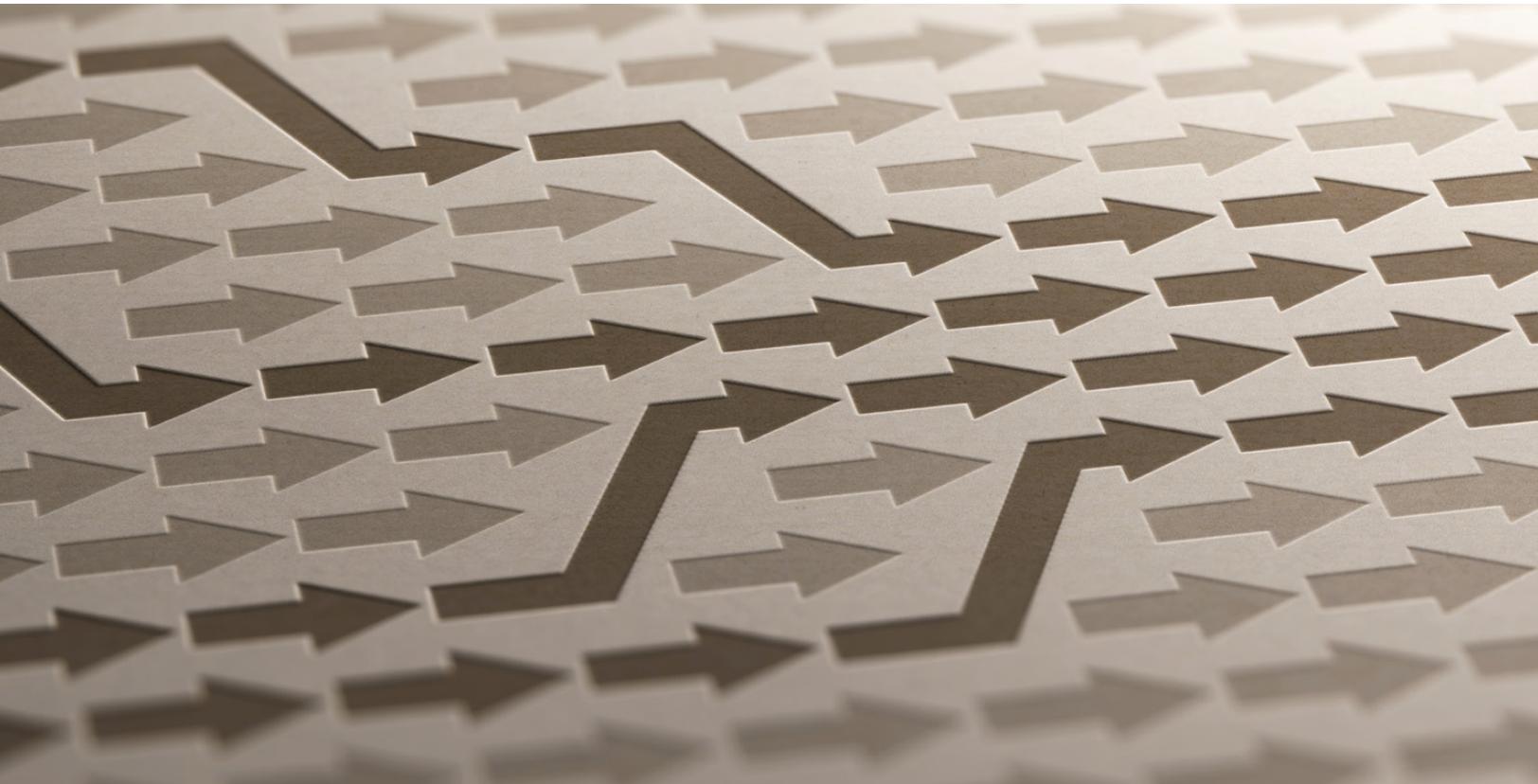
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Supply chains: To build resilience, manage proactively

Supply chain upheavals show little sign of abating. Companies can address them by reconsidering outdated, short-term strategies and beginning the hard work of building structural resilience.

This article is a collaborative effort by Knut Alicke, Cengiz Bayazit, Tim Beckhoff, Tacy Foster, and Mihir Mysore, representing views from McKinsey's Operations and Risk Management practices.



No one would dispute that the COVID-19 pandemic created significant disruption to global supply chains. Nothing like this had happened in decades, and many operators relied on strategies that only partly addressed their challenges. Then came the Russian invasion of Ukraine, which has caused the greatest humanitarian crisis in Europe since the Second World War. Already, thousands of lives have been lost, and millions have been displaced—a tragedy with consequences that will unfold for years to come.

The invasion compounded supply chain troubles in critical sectors, including agriculture, automotive, energy, and food. As the frequency and magnitude of the disruptions increased, applying ad hoc remedies to restore predictability to a system premised on ever-increasing cost optimization became more difficult. To restore the needed resilience, supply chain operators may need to consider a range of options including structural reform.

So with good reason, the rapid decay of a decades-old model of supply chain reliability and efficiency is a key feature of CEO agendas. Over the course of a decade, companies may face disruptions that erase half a year's profits or more. For companies in most sectors, a single prolonged shock to production could wipe out 30 to 50 percent of one year's earnings before interest, taxes, and depreciation. Clogged ports, expensive cargo capacity, and emergency shipments became prevalent during the COVID-19 pandemic. Since then, the conflict in Ukraine has also contributed to product-line closures, transport delays, and spiraling input costs. These issues have contributed to large increases in commodity prices and a troublesome spike in inflation and in expectations for higher prices around the globe.

Yet these immediate effects are only part of the story. In fact, they may be overtaken in the long term by slower-moving but more permanent effects on supply chains occurring beneath the surface. Supply chain leaders could face challenges with short-term shocks while installing the building blocks of deeper structural reform. Nonetheless, structural reform may be the only way for leaders to restore

the resilience that companies depend on from their supply chains, as is evident from several of the short- and longer-term implications of the disruptions.

Key export categories are suffering immediate supply shocks

Today, five categories of exports—agricultural products, chemicals, manufacturing, metals, and oil and gas—face three immediate challenges from the invasion of Ukraine:

- reduced production or shutdowns at many manufacturing plants
- lower purchases of goods sourced from Russia, because of economic sanctions or self-imposed sanctioning by companies
- logistics disruptions across air cargo, ports, road and rail, and shipping

These challenges have had an impact on product lines: for example, multiple automotive companies reduced production in Germany because wire-harness suppliers shut down. Transport delays and spiraling input costs have become more frequent. These immediate effects have spread across export sectors, but the impact appears to be highest for the automotive, chemicals, energy, food and agriculture, and travel and logistics sectors (exhibit). Some particular effects deserve to be highlighted.

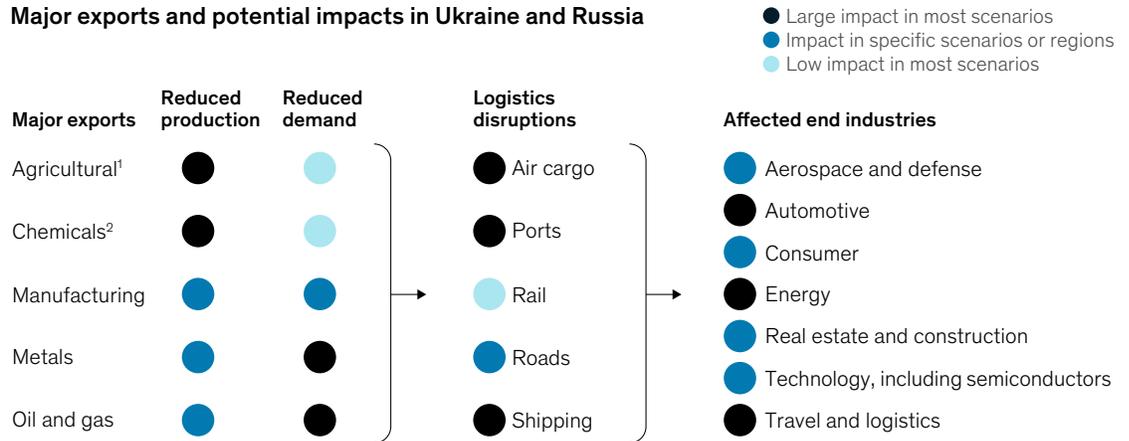
First, since the conflict began, many companies have announced that they are exiting operations in Russia or refusing to carry Russian goods. This level of self-imposed sanctioning is creating several effects, including greater unpredictability, since disruptions are harder to track and estimate.

Second, while many business leaders worry about rising inflation, they are also concerned about the unavailability of critical supply chain inputs because such shortfalls can shut down products and revenues. These effects will likely have a larger impact on companies than inflation but are harder to gauge in many supply chains and can occur quickly.

Exhibit

The Ukraine–Russia conflict is having a major impact on supply chains in five key sectors.

Major exports and potential impacts in Ukraine and Russia



¹Only agricultural production, ie, crops.
²Includes agricultural chemicals and fertilizer inputs.
 Source: McKinsey Resilient Operations Center

Finally, many such effects are still rippling through supply chains, and their full impact may not become obvious for a few months. Some companies, for instance, have safety stocks for exported materials. As those stocks get depleted, disruptions may become more frequent.

These immediate effects are challenging. But leaders may also need to focus on the significant and long-lasting problems developing below the surface for supply chain operators.

The longer-term threat to demand and critical-materials volume

As we have seen during the war in Ukraine, supply chain operators face several emerging developments that could pose a larger, more long-lasting challenge in the medium term. For example, an increased focus, particularly in Europe, on securing food, energy, and other critical materials will probably have a lasting effect on demand supply

chains. Stockpiling items may provide a temporary buffer, but eventually, a guaranteed source of supply—driving up costs—may be needed.

What’s more, lockdowns during the COVID-19 pandemic, which contributed to shifts in consumer spending from services to products, are partly responsible for the current supply chain challenge. As demand begins shifting back to services, demand for products may decline. That could ease some of the pressure—but also adds to the overall uncertainty.

Lastly, demand for suppliers with lower carbon footprints or greener alternatives to existing products could rise as a result of the March 2022 US Securities and Exchange Commission ruling on carbon disclosures¹ (among other announcements), as well as Europe’s continued focus on sustainability. Suppliers may have to shift their inventory management strategies in the coming years.

Taken together, such factors will be a durable underlying source of supply chain disruptions,

¹ On March 21, 2022, the US Securities and Exchange Commission proposed rule changes that would require registrants to include certain climate-related disclosures in their registration statements and periodic reports. This information would include greenhouse-gas emissions, a commonly used metric to assess a registrant’s exposure to climate risks.

which will evolve over time. As the impact of the conflict in Ukraine continues to develop, these problems may even get worse. Therefore, one consideration for business leaders is how to stabilize the immediate disruptions while building resilience against future ones.

Three steps to optimal resilience

Short-term solutions could work at a time when supply chains were more predictable than they are today. Preparing for long-term uncertainty and possible upheaval may encourage companies to build resilience into their supply chains. This process could evolve in three stages:

Firefighting

One potential response to supply chain problems is to focus on short-term, day-to-day actions, such as expedited delivery services to meet demand or speeding up production by purchasing components on an emergency basis. These tactics can help to some degree, particularly for identifying previously overlooked supply chain gaps. However, they don't build resilience and aren't fundamentally new, so overstretched suppliers may be reluctant to use them.

In such cases, CEOs could consider implementing cross-silo efforts that ensure an agile response to fast-moving events. They could also exhort teams and suppliers to not only adopt appropriate short-term measures but also stay the course for the more difficult long-term reforms, which begin during the second stage.

Integrating and streamlining operations

In this stage, three actions can be critical to building resilient supply chains: creating a nerve center for the supply chain, simulating and planning for extreme disruptions, and reevaluating just-in-time strategies.

Create a nerve center to consolidate organizational responses. A cross-functional team for such a nerve center coordinates and manages proactive responses to issues that might range from caring for distressed colleagues to testing financial stability under a range of scenarios. The nerve center could be organized under four categories: people, operating cadence, decision-enabling tools, and an early-warning system, which could, for example, signal potential political developments or cyberthreats, as well as compliance or regulatory issues (see sidebar "Designing an integrated nerve center").

Designing an integrated nerve center

People

- *Nerve center organization:* Outline the response, with clear owners and accountabilities.
- *Decision authority:* Clarify any changes in decision authority needed to guide response.

Operating cadence

- *Weekly meeting calendar:* Set up key meetings to ensure an integrated response and connections across multiple efforts.

Decision-enabling tools

- *Situation report:* Create a regular memo that details the current situation,

how it may evolve, and the immediate decisions needed.

- *Trigger-based actions:* Proactively define strategic actions that may be needed as the situation evolves.
- *Initiative tracking:* Describe the status of cross-silo initiatives that are relevant to the effort.

Early warning system

- *Situational awareness:* Cover any relevant developments and broader economic and social factors.
- *Supply chain disruption monitor:* Serve as a single source of truth for supply

chain disruptions, covering events from source to end market.

- *Sanctions compliance monitoring:* Track the latest sanctions and actions needed for compliance from suppliers, partners, and customers.
- *Cybersecurity monitor:* Ensure readiness for potential attacks and implement advanced threat detection.

Source: McKinsey Resilient Operations Center

Creating long-term resilience in a high-tech supply chain: A case study

After experiencing significant supply chain disruptions from COVID-19, a global telecom company focused on going beyond building up inventory. In its efforts to develop end-to-end supply chain resilience, two areas took priority: changing supplier contracts to ensure maximum agility and transparency, and reducing the share of components sourced from any single supplier. The company already had dual suppliers for components

but decided to go a step further by adding a production model using two different designs for the same products. This dual-source, dual-design strategy would provide the highest level of protection against raw-material shortages.

The next step was to evaluate the R&D outlay for the designs and to balance it with lower inventory-holding costs. The

company conducted a pilot to test this approach and assess its feasibility for other products. It also drew up a sales model based on its exposure to the risks of the dual-design, dual-sourcing effort. In this way, the company developed the flexibility to expand its supplier base if necessary and to increase its sales volumes and gross margins.

Simulate and plan for extreme supply-and-demand disruptions. This second category of actions involves ordering components earlier than usual and allowing extra time for delivery; accounting for the higher cost of energy, materials, and transportation; and checking inventories of critical materials to reprioritize production should shortages seem inevitable. If logistics disruptions are likely, try to get capacity on alternative routes. Another tactic to avoid building up excess inventory is simulating the effects of regional demand shifts on production. Examine the risks in supplier networks, labor, manufacturing, and delivery to determine if any part of the value chain is exposed to internal or external disruptions. Set up controls to minimize their effects.

Reevaluate just-in-time inventory strategies. If a crisis on the scale of the pandemic occurs, the absence of a back stock of inventory or materials can seriously threaten supply chains. Many of today's most pressing supply shortages (semiconductors, for example) occur in supplier subtiers where manufacturers have little visibility. To achieve transparency beyond the first tier, companies could work to identify suppliers from spending data, N-tier mapping, or both. Prioritize them by their importance to the business and assess their vulnerability. Some potential measures to mitigate risk include finding new suppliers, redesigning networks, resetting inventory targets, keeping safety stocks, and sourcing locally or regionally.

Achieving structural resilience

CEOs and other top executives may focus on quick responses during a crisis but may also need to consider the difficult concern of building longer-term resilience. Transparency may be hard to attain. Diversifying the supplier base, though critical for resilience, is expensive. And the cost of keeping safety stocks on hand may be hard to justify if they are not used in several years. These issues are real and can make the task of building resilience in supply chains feel like wading through molasses, but leaders may have to continue to focus on them. (See sidebar "Creating long-term resilience in a high-tech supply chain: A case study," to learn how one global telecom maker structured a strategy to protect itself from shortages of raw materials.)

Some ideas and proven techniques can help with the difficult work of building long-term supply chain resilience, such as the following:

Construct a 'digital twin' of the most critical parts of a supply chain. A digital twin is a virtual replica of a business's operation that allows companies to simulate how a product, process, or service will perform before it is implemented in the real world. If building a digital twin isn't feasible, two models could be constructed: one to estimate the current flow of Ukrainian or Russian commodities and materials that may be going into an organization's products, and the other to show where a product

One option to help mitigate longer-term, more permanent damage from supply chain disruptions is to maintain a strategic focus on customers.

originates in the value chain. This approach can help organizations pinpoint hidden suppliers or materials flows and expose previously invisible interdependencies.

Create and test 'what if' scenarios. Suppose you want to find out what would happen if the shift from rail to sea transport reduced the supply of vessels by 25 percent. One technique you may want to consider is building several what-if scenarios that can be tested quickly and then prioritizing and mitigating the parts of the supply chain that fail most often. It may seem daunting to create a large number of scenarios nearly continuously, at varying levels of detail and impact, but that is critical for this technique to provide insights. The vulnerabilities it reveals may make a big difference, but leaders shouldn't expect any one scenario to play out.

Increase data sharing with suppliers. To minimize risk when sharing data, businesses could consider terms that require the disclosure of data under specific conditions. Even if data sharing is restricted, companies may be able to have clean teams share data with a third-party firm that analyzes the supply chain for weaknesses and provides recommendations.

Consider ringfencing a small part of the supply chain team. Charge this subgroup solely with building long-term resilience, not resolving day-to-day supply chain issues.

Tackling the medium-term challenge

One option to help mitigate longer-term, more permanent damage from supply chain disruptions is to maintain a strategic focus on customers. There are several reasons for this.

First, e-commerce, by itself, doesn't necessarily promote positive outcomes. Our research shows that many retailers whose online sales increased during the COVID-19 pandemic also experienced pressure on supply chains and high fulfillment costs that eroded profitability. One avenue for success in e-commerce is capturing high-value demand at an acceptable margin, depending on product and business model.

Second, the global economy may slow down in the coming year. The United States, for example, is posting strong growth and job creation numbers, but indicators of slackening demand have appeared. Prices in several sectors are spiraling quickly. The US Federal Reserve has raised interest rates to curb rising inflation.² In the eurozone, many observers suggest that a recession may be possible,³ linked to several factors including the ongoing impact of the conflict in Ukraine.

Third, past economic downturns suggest that customers tend to stick with companies that stay closest to their core offerings. During the recession of 2008–09, for example, one company closed a

² Scott Horsley, "The Fed raises interest rates by the most in over 20 years to fight inflation," NPR, May 4, 2022.

³ John Kemp, "Global recession risks rise after Russia invades Ukraine," Reuters, March 6, 2022.

number of stores but increased its investment in those that stayed open, catering especially to its core segment. By contrast, its competitor sought to use the recession to enter a segment that was not part of its historical core. The company that stayed with its core customers emerged from the downturn far stronger than its competitor and grew significantly in the postrecession years.

on visions of long-term resilience to pay for the investments required to achieve it. After the experience of the past two-plus years, chief executives may need to define the circumstances in which they think consumers would pay a premium to ensure the availability of goods. They could also consider exploring whether suppliers will accept discounts to help ensure demand for their products and absorb the costs through more productive operations. Perhaps the hardest task for CEOs could be convincing investors to accept resilience as the new table stakes and to change their view of expected risk-adjusted returns.

CEOs recognize that none of these actions come without costs and that it may be hard to count

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The authors wish to thank Edward Barriball and Yogesh Malik for their contributions to this article.

Russia's invasion of Ukraine in February 2022 is having deep human, social, and economic impact across countries and sectors. The implications of the invasion are rapidly evolving and are inherently uncertain.

As a result, this document, and the data and analysis it sets out, should be treated as a best-efforts perspective at a specific point in time, which seeks to help inform discussion and decisions taken by leaders of relevant organizations. The document does not set out economic or geopolitical forecasts and should not be treated as doing so. It also does not provide legal analysis, including but not limited to legal advice on sanctions or export control issues.

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How to build geopolitical resilience amid a fragmenting global order

Organizations need to strategically invest in capabilities, people, processes, structures, and technology to navigate the risks arising from an evolving and fraught geopolitical landscape.

by Andrew Grant, Ziad Haider, and Jean-Christophe Mieszala



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Geopolitical risk is at the top of the CEO agenda, according to McKinsey's latest survey of global economic conditions. In the face of fragmentation and uncertainty, many business leaders are responding by intensifying their focus on resilience.

For the past three decades, going global meant unlocking specialization and scale, developing markets, and creating multinational corporations. In 2021 alone, low interest rates and ample cash led US firms to spend \$506 billion on foreign mergers and acquisitions.

But the orthodoxy of globalization is under strain. The latest salvo: multiple disruptions triggered by Russia's invasion of Ukraine. The world seems to be tethered to crisis, or the threat of it. CEOs need to know whether they can still remain global players and, if so, how.

Looking ahead, the challenges are likely to only become more acute. According to the US National Intelligence Council's *Global trends 2040* report, in the next two decades, competition for global influence is likely to reach its highest level since the Cold War: "No single state is likely to dominate all regions or domains, and a broader range of

actors will compete to advance their ideologies, goals, and interests."

Amid these challenges, the value of resilience is on the rise. That is why McKinsey and the World Economic Forum launched the Resilience Consortium earlier this year. The consortium aims to convene government ministers, chief executives, and heads of international organizations to develop a common resilience framework for public- and private-sector organizations. Leveraging the principles set out in the framework, the consortium can hope to achieve more sustainable, inclusive growth amid external shocks.

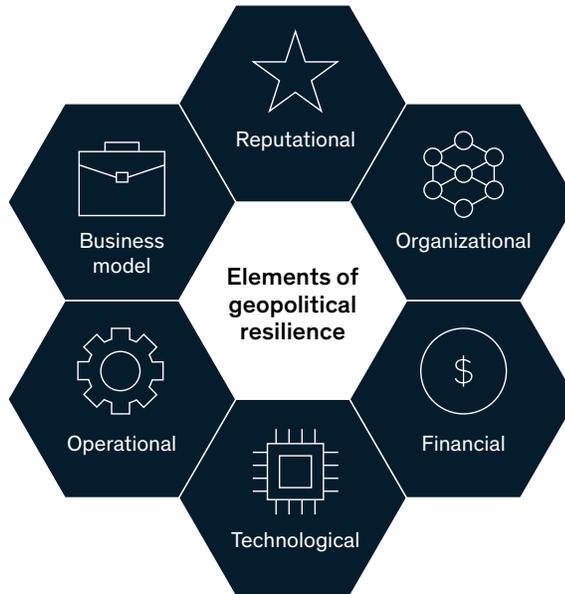
To be sure, many global executives have an intuitive sense of where to focus initially to build resilience. However, most are seeking a more rigorous and analytical approach to fostering *geopolitical resilience* and to creating an enterprise-wide "resilience premium."

To address the geopolitical risks of the present—and future—leaders should challenge their organizations on six key dimensions of resilience: business model, reputation, organization, operations, technology, and finance (exhibit).

The orthodoxy of globalization is under strain. The world seems to be tethered to crisis, or the threat of it. CEOs need to know whether they can still remain global players and, if so, how.

Exhibit

There are six key dimensions of geopolitical resilience.



1. Business model resilience

“Organizations that take a serious, systematic, and senior-driven approach to political risk management are likely to be surprised less often and recover better.”

– Condoleezza Rice and Amy Zegart, *Political Risk: How Businesses and Organizations Can Anticipate Global Insecurity* (Hachette, 2018)

Building business model resilience starts with the board. To exercise effective oversight and decision making, boards need to first develop an understanding of geopolitical developments that are material to the organization.

While most board members will have a “high altitude” perspective on specific risks, individual members may vary in their insight and interpretation, and the aggregate view may fluctuate as board membership evolves. To

establish a benchmark for resilience, organizations should take a systematic approach to radiating insights on geopolitical developments and trends to the board and leadership team. This may take the form of analytical products, briefings, or scenario exercises—anchored not on the “what” but on the “so what” and “now what.”

Second, the sheer pace and volatility of geopolitical developments means that boards should not waiver in paying attention. They should dedicate time at each meeting to discussing relevant topics, and convene as necessary in the interim.

One way to focus and structure the board discussion is to identify priority geopolitical risks. Boards could leverage a tiered approach, with tier five denoting markets with the highest level of geopolitical risk and tier one denoting markets with localized risks that can be managed by local leadership and teams.

For many boards, the higher-tier markets are often identifiable. Questions we hear from CEOs on business model resilience in high-tier markets include:

How should I think about my corporate footprint and intellectual property amid geopolitical tensions?

Should I view my operation as a separate region that is carved off to insulate it from geopolitical tensions, or does the lack of direct control itself generate risk?

How should I view my relationship with my joint venture partner in the near, medium, and long term?

How do I manage extraterritorial and/or contradicting legal, tax, or regulatory requirements?

Is there a point where I will be forced to exit, and how I do work backward from that point?

In addition to grappling with these strategic questions in a top-tier market, boards also need to manage the longtail risk of operating across multiple tier-one markets.

To do so requires organizations to establish a mechanism to conduct regular global market scans and to assess in a scorecard fashion across internal teams—legal, security, finance, risk, and communications—the aggregate risk (versus opportunities) of operating in a particular market. These teams can provide recommendations to the board on options to recalibrate market presence or evolve the legal and financial structure of the organization. Their efforts can be coordinated by a dedicated geopolitical risk unit that may sit within an organization's finance, government relations, legal, risk, strategy, or other teams depending on the organization's structure.

Understanding and exercising oversight over geopolitical risk is necessary but not sufficient. The board should drive and direct the development of proactive risk-mitigation measures and crisis response with standing updates from teams on execution and material new issues.

2. Reputational resilience

“While there is a rising call for business to be more engaged in geopolitics, the call also extends to CEOs, who are expected to not only be the face of the new geopolitical corporation but they are also expected to shape policy on societal and geopolitical issues.”

– 2022 Edelman Trust Barometer special report: *The geopolitical business*

A first step to building reputational resilience is to strive for internal alignment around operations connected with geopolitically sensitive markets. In short, organizations need to know what they stand for (and what they are against).

Not every geopolitical crisis will comprise as sharp an inflection point as Russia's invasion of Ukraine, in response to which many organizations have chosen to curtail or halt their Russia operations. In many cases, decisions will be less cut and dried. Therefore, organizations need to step back and parse out their stance on individual situations. One way to do that is to create market-specific assessments, or “compacts,” that fuse corporate strategy and risk management. These compacts should be clear in the organization's priorities in high-risk markets and the criteria on which organizations assess and manage risks. They should also set out how to deploy the criteria in a way that is aligned with operational and performance goals. The risks could come in many guises, including financial, health and safety, legal, political, or reputational—for example, working with the public sector in countries governed by authoritarian regimes.

A clear stance is a prerequisite for the next step in building reputational resilience: developing a coherent values-driven narrative. Indeed, many organizations today are grappling with how to explain not just their stance but their core identity, notably around their presence in markets governed by authoritarian regimes. There is a recognition that the old arguments pegged to globalization and *wandel durch handel* (change through trade) have dimmed.

In the age of instant information, the story told in one market won't stay there. And a narrative that works in one place could inhibit market opportunities in another.

Based on our benchmarking of US-based multinational companies, we see three potential postures: proactive—for example, engagement is important for US competitiveness and leadership; reactive—for example, principled engagement with close attention to supply chain integrity; or silent—meaning generally avoiding public statements.

Whichever narrative an organization chooses, it needs to bear in mind that, in the age of instant information, the story told in one market won't stay there. And a narrative that works in one place could inhibit market opportunities in another, or create sensitivities internally and among regions. In short, there is no silver bullet.

With a clear stance on the core of the narrative, the third step in bolstering reputational resilience is a robust government and public-affairs capability to communicate the narrative to key stakeholders. While the ultimate responsibility of articulating stance and narrative falls on the CEO, government and public-affairs professionals situated across key markets are critical to managing stakeholder relations, cultivating “air cover” in sensitive markets, and providing an escalation mechanism for CEO and leadership-level engagement.

3. Organizational resilience

“Geopolitical tensions are rising, leaving business in the line of fire. Suddenly companies’, and executives’, nationalities matter again. . . . Can

we have peace in the company when the world is in turmoil?”

— *Financial Times* (May 16, 2021)

External geopolitical pressures are increasingly triggering internal pressures. The days of the borderless executive are receding. Indeed, nationality and cultural relativism are coming to the fore in discussions around stance, narrative, strategy, and risk appetite. These discussions can take place on multiple levels: between leadership and teams, regional and local offices, or global headquarters.

Points of internal debate cited by executives include:

- Are we a global organization headquartered in the United States, or are we an American company that is global in its outlook?
- To what extent should assessing the reputational risk around a particular project be indexed to a potential response from Western governments and media outlets in a multipolar era?
- How do we keep a “neutral stance” amid geopolitical tensions? Can a company have no “citizenship”?
- What kind of diversity of geographical cultural norms and standards is feasible

and desirable in a global company when stakeholders (including media and even governments) in many countries increasingly challenge the norms and standards applied in other geographies?

- How should we reconcile perceived “double standards” around how leadership responds to different social and humanitarian crises across markets, from messaging to charitable giving?

In this context, developing organizational resilience is no longer just about maintaining cultural cohesion. It is also about sustaining a global ethos amid powerful centrifugal forces.

Three approaches can be taken to build organization resilience. First, organizations need to ensure they have inclusive governance structures, from the board to risk committees. These must reflect diverse geographic viewpoints and nationalities. If colleagues do not feel they are part of the discussion on shaping direction, or view discussions as indexed to a particular lens, the struggle for retaining global hearts and minds will be lost.

Second, leaders, starting with the CEO, need to have open and honest dialogues in appropriate fora. These should acknowledge global stresses and the ways they are felt internally, empower colleagues to air their views on stance and risk appetite, and create a common sense of purpose. For example, a critical message from corporate leaders amid Russia’s invasion of Ukraine is to differentiate condemnation of the Russian government’s actions from support for Russian colleagues.

Finally, organizations need to consider a range of targeted initiatives to promote connectivity and cohesion, from rotating colleagues in and out of geopolitically sensitive markets to sharing views (particularly as COVID-19-related travel restrictions ease), while also ensuring that screening and “insider threat” mechanisms are sufficiently robust.

4. Operational resilience

The aggregation of trade protectionism, the COVID-19 pandemic, supply chain crunches, and

geopolitical flash points are stress-testing the operational resilience of organizations across the globe.

A priority area of focus has been and must remain protecting and pivoting supply chains. Supply chain operations should consider a range of resilience measures. In the near to medium term, these include creating a nerve center for the supply chain, simulating and planning for extreme disruptions, reevaluating just-in-time strategies, and assessing the resilience of one’s suppliers’ suppliers as part of a full look-through approach. Efforts to diversify and build redundancy in supply chains must critically factor in the political risks of entering any new market through a detailed assessment across multiple risk indicators.

To achieve long-term structural resilience, however, organizations should consider measures such as constructing a “digital twin” of the most critical parts of the supply chain, creating and testing what-if scenarios, and ring-fencing a small part of the supply team to focus on building long-term resilience instead of day-to-day supply chain issues.

Supply chain security must be complemented by the physical security of one’s people. From Ukraine and Russia to Ethiopia to Myanmar, organizations in the past 18 months alone have had to secure and evacuate colleagues globally. Considerations range from maintaining redundancy in communication channels, aligning with security vendors on the ground, and keeping a low profile to mitigate any risk of retaliation should an organization decide to exit. As future flash points arise, investing in early-warning systems and extraction plans is essential.

5. Technological resilience

Organizations today are also confronting the strategic challenge of maintaining the global networks of yesteryear amid geopolitical fragmentation. Building technological resilience in this context requires accelerating planning and taking concrete steps in four key areas.

The first is navigating the “splinternet.” Geopolitical tensions, notably between the United States and China, are resulting in the internet splintering

into regional variants and technology stacks. Companies need to balance segmenting their networks and differentiated use of laptops and devices across markets with maintaining consistent cross-connectivity and user experience.

Complying with data localization requirements is another area testing global IT architectures, as companies need to think through regulatory and other considerations.

A third area is managing data access. Organizations need to ensure appropriate compartmentalization of data as well as manage external cyber intrusions.

Paying close attention to ensuring resiliency against diverse crises is also essential. This includes the ability to effectively respond to cyberattacks, from recovering data to deploying new technological equipment across markets with speed as required.

6. Financial resilience

At the intersection of geopolitical risk and financial resilience are a number of issues that organizations need to carefully manage on an ongoing basis. These range from long-standing foreign exchange (and expropriation) risks to evolving sanctions risks.

Foreign exchange risks are, of course, well known to many organizations. From a rapid devaluation of currency in Sri Lanka amid the country's worst economic crisis to controls on withdrawing funds in Myanmar following a military coup, companies have had to and must be prepared to deal with a range of constrictions, from paying their employees to moving funds. With the global

economy roiled by inflationary and other shocks, these challenges may continue to manifest. Thinking through crisis protocols in advance and building out an early warning system around macroeconomic challenges are key resilience measures to consider.

Global sanctions and regulatory risks, however, are rapidly evolving and testing organizations, since the escalating application of sanctions and counter-sanctions across multiple jurisdictions is today at the core of geopolitical risk. These measures can be existential in terms of a company's ability to operate in a market. Compliance with one jurisdiction's laws can risk running afoul of another's. Resilience in the face of the growing global weaponization of trade and investment requires not just having a precise understanding of ever-shifting regulatory regimes and a robust compliance capability but also driving a culture of compliance with the organization itself on an issue with no room for error.

"We are more conscious of the risks but don't have a lot of good ideas."

For many organizations, this observation by the global head of government affairs of a Fortune 500 company rings true. Yet every organization faces a unique set of circumstances. With that in mind, the above framework is offered as a starting point for internal discussions on how to develop appropriate solutions. The new normal requires a new CEO mindset. That means making geopolitical resilience a strategic priority that will both protect the organization and lay the foundations for long-term competitive advantage.

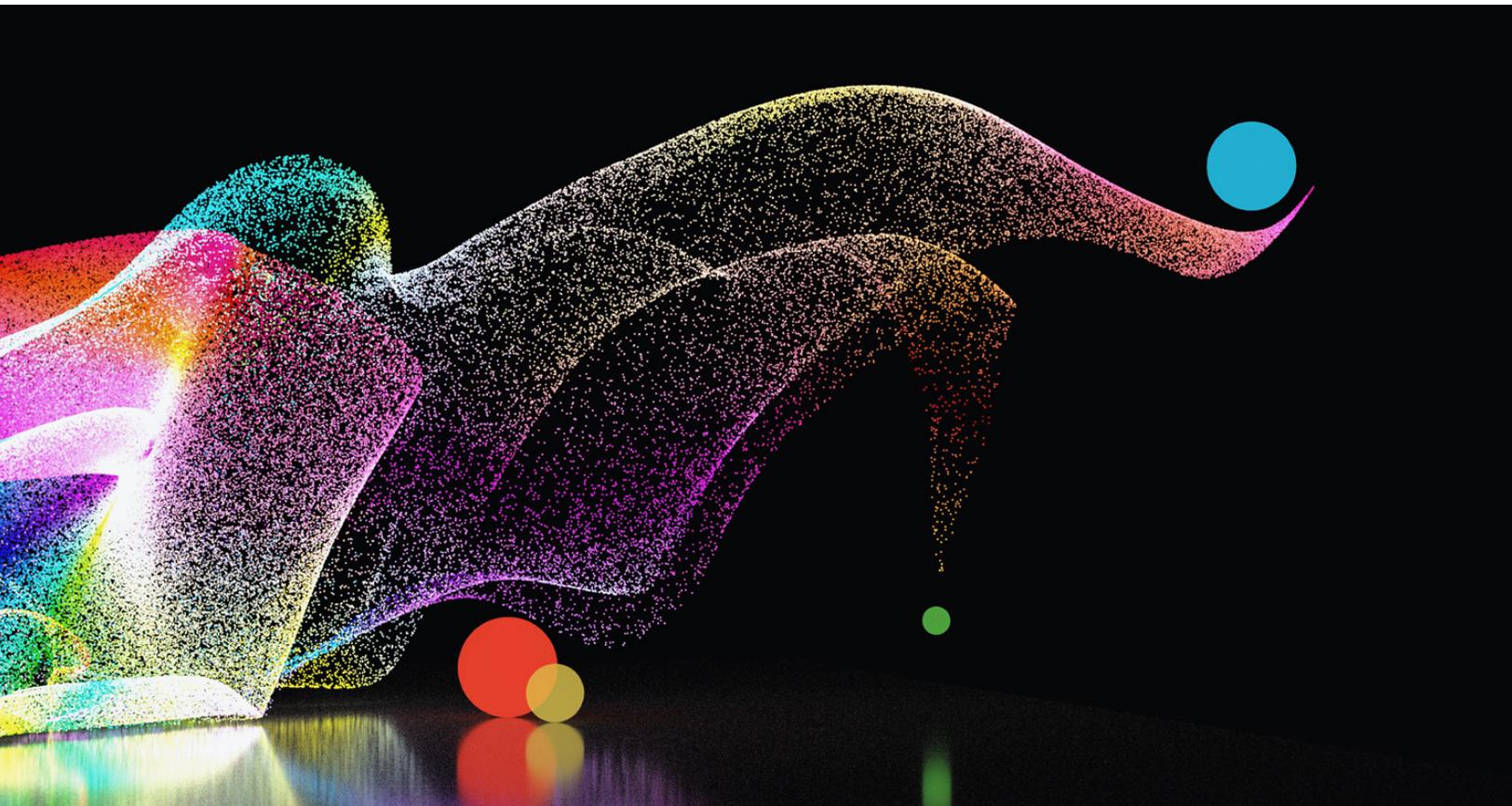
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Risk transformations: The heart, the art, and the science

Successful large-scale risk transformation requires a combination of heart, art, and science to keep the momentum and deliver sustainable outcomes.

by Andreas Hefter, Olivia Loadwick, Thomas Poppensieker, and Anke Raufuss



Many financial institutions have recently undergone major risk transformations that drove universal risk capability uplift and cultural shift. Uplifting risk management capability for financial institutions can be particularly challenging if the required transformation requires coordination across business areas and functions. For two decades, there has been (and still is) an intense focus on nonfinancial risks (NFRs). While regional

or global “super incidents” originally drove the emergence of NFRs as a theme, the evolution of NFR management is ongoing, with variations in form and severity from one region to another (Exhibit 1). NFR can arise from shifting customer or community expectations, change to or breaches of regulations (for example, financial crime, privacy), malicious external attacks (such as fraud, cyber), or external events (for example, the COVID-19 pandemic).

Exhibit 1

Priority nonfinancial risks are constantly shifting, with a greater emphasis in recent years to operational risks.

Top 5 operational risks, 2011–21

Year	1st	2nd	3rd	4th	5th
2011	Regulation	Stress testing and data management	Algorithmic trading	Business continuity	Cyberterrorism
2012	Operational efficiency	Business continuity and disaster recovery	Misselling	Data management	Regulatory compliance
2013	IT sabotage	Reputational damage	Incentives and compensation	Fraud and customer data abuse	Epidemic disease
2014	Data theft	Index rigging	Board overstretch	IT failure	Business continuity in the long term
2015	Cyberrisk	Strategic risk	City failure	Misselling	Conduct risk
2016	Regulator fines	Terrorism	IT failure	Recruitment and retention	Outsourcing
2017	Cyberrisk and data security	Regulation	Outsourcing	Geopolitical risk	Conduct risk
2018	IT disruption	Data compliance	Regulatory risk	Theft and fraud	Outsourcing
2019	Data compliance	IT disruption	IT failure	Organizational change	Theft and fraud
2020	IT disruption	Data compliance	Theft and fraud	Outsourcing and third-party risk	Resilience risk
2021	IT disruption	Data compliance	Resilience risk	Theft and fraud	Third-party risk

Source: Risk.net

¹ For example, in the United Kingdom, the exposure of misselling of payment protection insurance at a handful of institutions became an industry-wide inquiry resulting in about £40 billion in compensation being paid to customers to date. In North America in 2013, what were initially thought to be isolated cases of fraudulent account openings became a full-scale conduct investigation (involving the FBI and the Federal Reserve), finding evidence of misconduct in sales practices in mortgages, credit cards, and insurance. In Australia, the fines and customer remediations arising from the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services industry in 2018 are now estimated at more than \$10 billion AUD.

The implications of a super incident can be significant and include direct financial losses, fines (Exhibit 2), compensation or remediation costs, and reputational damage. Secondary effects could include reduced sales or accelerated disintermediation by other market participants (such as fintechs) due to lost trust.¹

This environment drove financial institutions to initiate major risk transformation programs to address incidents, immediate issues, and deeper root causes. These programs have significant monetary cost. However, the opportunity cost for the organization is much higher, given the amount of management attention and organizational capacity required for successful delivery and sustainable conclusion.

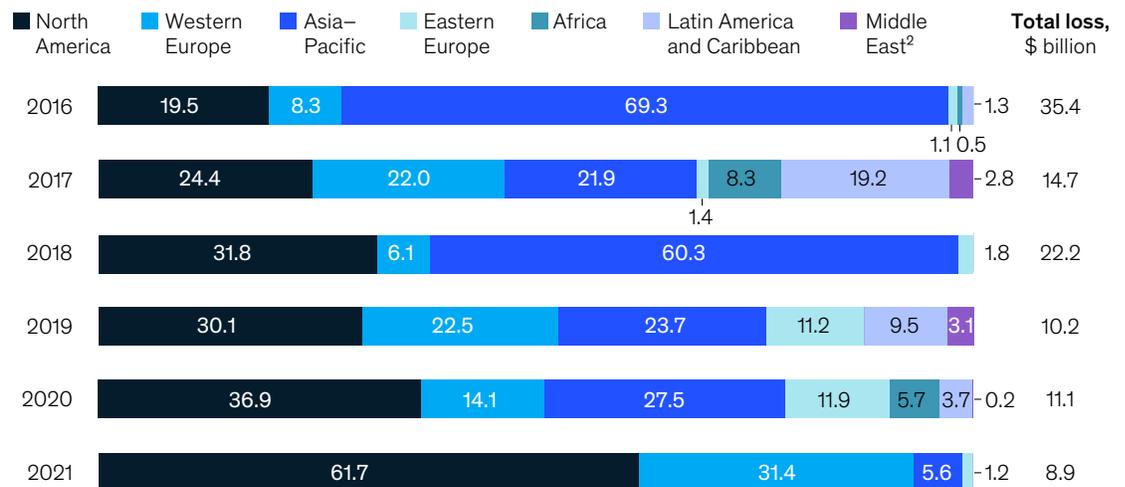
The biggest challenge in starting a risk transformation is often not the “why” or the “what,” but the “how.” Questions include how to set it up and conclude it, and then transition back to enhanced business as usual. Large-scale risk transformations often fail because change is not effectively implemented across the organization: milestones are ticked off without actually improving risk management, addressing underlying culture, or reducing risk.

In this article, we consider different forms of risk transformations and unpack the heart, art, and science of their successful delivery and conclusion. (For more on key success factors for a large-scale transformation, see “An interview with Scott Wharton: Insights from the frontline of large-scale transformations.”)

Exhibit 2

Operational losses from nonfinancial-risk events can be significant and vary over time and by region.

Operational risk losses, by region, % of total losses¹



¹Figures may not sum to 100%, because of rounding.

²Data for Middle East also include one incident from Kazakhstan.

Source: Operational Riskdata eXchange Association (ORX), monthly top 5 losses, Jan 2016–Sept 2021

An interview with Scott Wharton: Insights from the frontline of large-scale transformations



Scott Wharton, Group Executive,
Program Delivery, Commonwealth Bank
of Australia

Scott Wharton's career spans over 20 years in financial services and other industries across Australia, Asia, and the United States. He has led numerous large-scale transformations, including the delivery of Commonwealth Bank of Australia's (CommBank) Remedial Action Plan (RAP), in response to the Australian Prudential Regulation Authority's (APRA) Prudential Inquiry into governance, culture, and accountability in 2018. CommBank is Australia's leading provider of integrated financial services. The Independent Reviewer assuring CommBank's progress over the last three years expressed in their final report¹ that delivery of the RAP was "one of the most comprehensive, if not the most comprehensive, reforms of corporate culture in recent Australian memory."

1. What are three key success factors for a large-scale transformation?

There are a range of factors that influence the success of a transformation. These are three that I've found important.

First, motivation matters. Motivation is the bedrock for the success of any transformation. In the initial stages, you need a clear definition of what success looks like and why change is necessary. Ask what will be better post-transformation, and rally around that vision. We had an imperative to change that helped to rally the organization, and while that was helpful at first, imperatives for change dissipate over time. We maintained our motivation through deliberate interventions, including a strong tone from the top that continually reinforced the importance of what we were doing and why. Transformation is a marathon, not a sprint.

Second, have a detailed and dynamic plan. It is critical to have a detailed plan that sets out what needs to be done and by when. Then, that plan needs to be adjusted as you and your team move through it, embracing learnings and adapting. A plan review cycle can help achieve this. In our case, this cycle occurred quarterly, and considered learnings and reflections from a broad set of stakeholders involved in the transformation. We created an ongoing rhythm of reflect, learn, iterate.

Third, ensure accountabilities are clear. A plan is no use unless it drives outcomes. To enable this, mechanisms need to be put in place so that people understand what they need to get done and by when. Careful architecting of accountabilities, coupled with pragmatic governance, will sharpen

accountabilities by shining a light on both progress and where help or escalation is needed. In my experience, this works best when you also foster a mindset of learning from failures and escalating concerns early.

2. What are typical challenges of a large-scale transformation?

There will be a range of challenges to overcome, and these will differ depending on the context the organization is confronting. Two common challenges are getting the change to permeate throughout the organization and ensuring changes are sustainable.

One key blocker to getting changes to permeate is change fatigue, especially in the middle of the organization where change is crucial. Strong change management and communications to support leaders at all levels is important, as is helping leaders build their own skills to drive the change. Playing back the incremental wins as they happen along the way can also help to inject energy and maintain a sense of progress.

Ultimately a transformation program isn't successful unless the changes are sustainable after the program finishes. Establishing an enduring capability beyond the formal program that can monitor, continuously improve, and sustain the outcomes delivered is often overlooked but is critically important.

3. What role did senior leaders play in the RAP at CommBank?

At CommBank, our senior leaders were deeply involved from the get-go. This helped ensure alignment on, and understanding of, the work ahead.

¹Independent review of the Commonwealth Bank of Australia's Remedial Action Plan: Thirteenth report, Promontory Australia, September 30, 2021.

An interview with Scott Wharton: Insights from the frontline of large-scale transformations (continued)

This level of engagement continued throughout the course of the RAP, including participation in key elements of implementation, ongoing learning, and adjustment of the approach.

As the Independent Reviewer pointed out in their final report on CommBank's transformation, the critical foundation for the program was "strong" and "unified leadership from the board and executive leadership team," which delivered a "consistent and persistent tone from the top."

4. How did you ensure the change landed successfully?

There is a natural tension between the transformation program and the

business's usual priorities. It is important to be mindful of this tension, and do all that is feasible to ensure the business can successfully absorb the change coming from the transformation program with minimal disruption.

One step we took was the creation of a rolling 12-month view of the changes on the horizon. Every quarter we would then spend time with our businesses to gain their feedback on the forward view of change, including working with them to assess their ability to effectively implement what was expected. This enabled us to proactively adjust and re-sequence the overall transformation plans, and identify where additional support was needed.

We also took steps to regularly garner views on the transformation from people at all levels of the organization. This was helpful in shaping effective change management plans, as well as maintaining a broad base of support for the changes being implemented.

5. Any final comments?

Albeit much has been done at CommBank to transform the organization, there is still much more to do. The journey of continuous improvement never ends.

The shapes and forms of risk transformations

There are four broad categories of risk transformations:

- *Business area or end-to-end process capability uplift and remediation (for example, global markets, business banking, mortgages).* These transformations are typically business-led, driven by embedded line-one risk and control teams. Such transformations often include process, system, and control mapping; process simplification, digitization, and automation; documenting, decommissioning, and building ideally automated, preventative controls and monitoring in critical process break points; and clarifying responsibilities.
- *Risk-type-specific capability uplift and/or remediation (for example, financial crime, cyber, privacy, conduct).* These transformations are typically driven by the respective risk experts (such as a money laundering reporting officer for financial crime and chief information security officer for cyber crime) and supported by the risk function. Such transformations often include risk-type framework and operating-model uplift, paired with targeted remediation of severe issues for a specific risk type. They are often triggered by severe incidents, issues, and regulatory scrutiny. Typically, significant resource buildup occurs to work through issues and incidents, as could be observed in financial crime programs at global banks using hundreds and even thousands of case analysts.
- *Risk function operating-model uplift (for example, changes to structure, internal risk functions, and company-wide processes).* These transformations are typically driven by the risk function. Such transformations often include defining the ambition and value proposition of

the risk function; improving the structure of the function (including divisions, risk-type expertise regions, and shared services); simplifying and clarifying the interactions with the business and other functional areas; and identifying and hiring capabilities to deliver.

- **Holistic enterprise-wide risk transformation (for example, uplift of underlying frameworks, governance, risk culture, remuneration, accountabilities).** These transformations are typically board or CEO-sponsored programs involving all businesses and functions and considering all (nonfinancial) risks. Such transformations often include uplifting the risk management framework and policy governance; establishing, improving or operationalizing the risk taxonomy; improving the risk appetite statement, in particular, for NFR metrics cascaded into business and operationalization; uplifting and implementing a code of conduct and consistently operationalizing the three lines of defense model; uplifting risk culture measurement; uplifting remuneration for risk-based adjustments, and so on. Holistic risk transformations generally do not focus on direct risk reduction but rather on changing the general way the business operates—they are broader business transformations.

Risk transformations often take two to three years of dedicated effort, with enterprise-wide transformations typically taking three to five years. While transformation setups differ, most have a central program team of five to ten full-time equivalents (FTEs) for smaller transformations, with holistic risk transformations running central teams of 15 to 50 FTEs that focus on coordination, tracking, quality assurance, sharing of best practices, and support for the most challenging problems, including the coordinated delivery of change across business areas and functions.

After supporting numerous businesses through transformations, we have found that while the science of transformations is crucial to get right, it is the heart and the art that deliver transformation programs to their successful conclusion and sustainably embed the change across the organization (Exhibit 3).

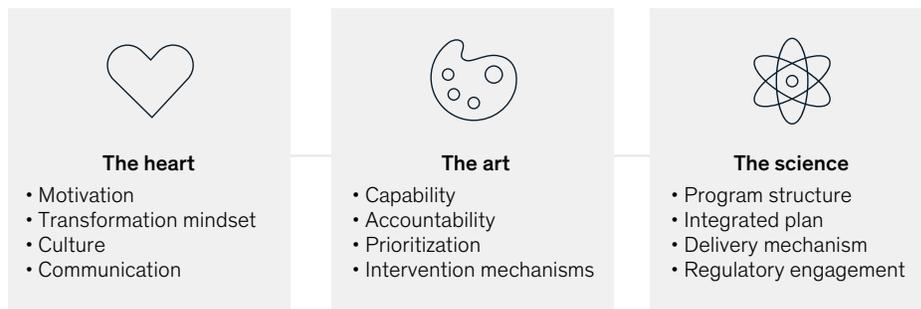
Science speaks to the mechanics that need to be in place around program structure, integrated plan development, delivery mechanisms, and regulator engagement throughout the process.

Art refers to capabilities, accountability, prioritization, and use of targeted interventions to keep the program on track.

Exhibit 3

Heart and art are key to delivering successful transformation programs.

Factors that deliver transformation programs



Heart includes genuine shared motivation or purpose, a transformation mindset, a willingness to challenge cultural norms, and a program of communication that connects with the professional identity of employees. With science and art, the key conditions are in place for a successful risk program. But heart is a prerequisite for deep cultural change, which is required for a sustainable enterprise-wide transformation.

Getting to the 'heart'

While we live in a rationality-driven work environment, human actions and behaviors are driven by deeper mindsets and cultural traits. Driving a transformation that changes those mindsets and cultural traits is hard; it needs to go below the surface and work with what motivates the organization and its individuals.

- **Motivation.** “Because the regulator wants it” is not an intrinsic motivation—one needs to dig deeper and consider the motivations of employees. Successful transformation in any circumstance will require as much of a change in mindset as in any system or process. An in-depth diagnostic of the psychology of the organization can help define a vision of change that connects to the collective motivation and purpose of the organization and ensures that the desired change will stick in the long term. “Serving our customers better” is an example of a collective motivation.
- **Transformation mindset.** The mindset of the transformation needs to balance delivery discipline and accountability; agility and pragmatism; continuous improvement; and a sense of chronic unease. This finely balanced mindset will enable organizations to do what they say while still being able to course-correct and improve when new information becomes available and to quickly spot and address emerging challenges. If a risk transformation is initiated in response to a major incident, an honest appraisal of what drove the failures and adequate humbleness when considering the magnitude of the required cultural change are key.
- **Culture.** Organizations have a variety of cultural traits that help them thrive in transformation but also some that hold them back. Traits that often lead to unsuccessful or stalled transformations include being too siloed or too collaborative. This can lead to change being implemented inconsistently or stopped by a few business areas, or over-collaboration that results in lack of productivity and missed deadlines. Continuous reflection is required to be aware of and address deeply rooted cultural challenges, including honest appraisal of successes and failures, celebration of positive cultural behaviors, and constructive challenging of cultural norms, all while maintaining psychological safety.
- **Communication.** Motivation must reach the hearts and minds of employees. Intensive and continuous dialogue with a broad set of stakeholders allows a transformation program to keep its finger on the pulse while also enabling staff to own challenges and drive solutions. Communication needs to build on the organization and its leadership’s personal motivation—this is what makes it genuine and effective.

Appreciating the 'art'

More basic than the heart but still more fundamental than the science of transformation is the art. The art supports smooth and effective delivery of a program that leads to sustainable change—versus merely delivering a set of activities and milestones.

- **Capability.** The skills required to transform are often not those required to manage. A risk transformation program team must have capabilities across project execution, strategy, and risk management. The team should adopt both an inward- and outward-looking mindset that leverages the experiences of others (for example, learning visits at global peers and regular exchange with local peers). Key roles in the business and the risk function may require new talent to bring fresh impetus to transform or deviate from ingrained practices (that is,

breaking the mold). Targeted external support for expertise and ongoing challenges and advice is reasonable.

- **Accountability.** Large-scale risk transformations require collective accountability: the whole executive team must stack hands to deliver the target outcome. The complexity and duration of these programs makes them hard to execute; they are often costly and feel more like a burden than an opportunity. Balancing the accountabilities of individuals versus the whole organization, and linking program outcomes to remuneration, are both critical. Strong top-down authority from the board and CEO is essential in supporting prioritization, providing advice, and clearing roadblocks.
- **Prioritization.** One of the biggest challenges is managing competing priorities and ensuring that the organization can absorb the amount of change required. This requires clear articulation of short- and long-term milestones to prioritize and sequence change at regular intervals. A radical simplification lens, which addresses gold plating by particular framework teams and over-implementation by the businesses, can reduce the need to deprioritize and descope.
- **Intervention mechanisms.** Means to anticipate hurdles and support course correction must be created: formal mechanisms to identify expected challenges in the form of regular premortem exercises and formal program reviews are essential. The central decision-making body needs the authority to rapidly course correct through reprioritizing or redeploying resources. This is also critical to address change fatigue, which will naturally occur over the course of a three-year program.
- **Program structure.** Banks often consider risk transformation as the accountability of the risk function. However, this setup may just scratch the surface and fail to address root causes and systemic issues. Effective large-scale risk transformation requires particular accountability for the program to be assigned across functional leadership and business areas, where many of the inadequacies in systems, processes, and behaviors originate. Coordination between these stakeholders is essential and often driven by a neutral, central program team that sits outside of lines one and two. The rationale is that the engagement between these lines is often part of the problem, as in the three lines of defense model, and that the capability and mindset of both lines require improvement. The central team intervenes and escalates when the program is off track, with support from a communications team and change infrastructure. While the central team is accountable for coordination, it is important that the accountability for framework design and implementation delivery remains with the business-as-usual owners (line two/functional teams and line one/business teams, respectively).
- **Integrated plan.** Integration of roles, responsibilities, and deliverables within the overall program is challenging. Creating an integrated view of change by using an integrated plan allows for prioritization, sequencing, and interdependency management. It also allows for a clear lineage between relevant problem statements, target states, activities, milestones, and outcomes. Structuring the plan into design, implementation, and embedment is helpful to coordinate delivery and distinguish the shift from the design of framework elements in functional areas to their implementation in business areas. The embedment stage includes ensuring new practices become part of the organization's DNA and smoothly transitioning back to enhanced business as usual.
- **Delivery mechanism.** Implementation of complex change across the business (line one)

Excelling at the 'science'

Last but not least, the science is not merely technical. There are ways to optimize the science of transformation, to excel at it.

is often where risk transformations fail. The best-designed set of change initiatives can fail without an effective delivery mechanism that supports implementation and sustainable embedment of change. Developing a mechanism to ensure appropriate engagement between lines two and one in the design of change initiatives—and a well-coordinated and considered delivery mechanism for supporting line one implementation—is critical. Ideally, this mechanism is aligned with natural business rhythms such as quarterly delivery and performance cycles.

- **Regulatory engagement.** Transparency and continuous dialogue with regulators are important. Proactive, professional, and respectful engagement can enable greater understanding and appreciation for regulators with respect to the challenges faced in large-scale risk transformations and can encourage offers for guidance and positive reinforcement. Regulators might share their own expectations and observations from other institutions and provide insight into their own priorities. It is crucial to understand the regulator’s priorities and motivation—they are large institutions with public profiles, reputations, and individual ambitions.

in a work plan, ending a monitorship, or meeting regulatory commitments. These are important, but genuinely transformative success lies in the smooth shift from programmatic setup to sustainably uplifted business-as-usual operations with embedded mechanisms for further improvement.

For this to happen, the uplifted capabilities need to be fully embedded into the regular business and risk cycles owned by their business-as-usual owners. They need to be regularly reviewed for fit-for-purpose and scope for further improvement. These regular cycles can include annual strategic planning, risk appetite refresh, policy reviews, assurance, audit schedules, quarterly change prioritization, and performance tracking as well as trigger-based uplifts driven by new business, new products, new regulations, and incidents.

The relatively short time frame of a risk transformation allows for improvement of frameworks, processes, and governance, but it takes time and often a few improvement cycles for the organization to fully embrace and internalize them.

Finally, the learnings of the transformation should be captured and shared because the external environment is constantly evolving, and often another risk transformation looms around the corner.

The end is often only the beginning

As the above three elements (heart, art, and science) demonstrate, successfully concluding a risk transformation seldom ends with just milestones

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Does ESG really matter—and why?

Although valid questions have been raised about ESG, the need for companies to understand and address their externalities is likely to become essential to maintaining their social license.

by Krysta Biniek, Vivian Hunt, Robin Nuttall, Lucy Pérez, Hamid Samandari

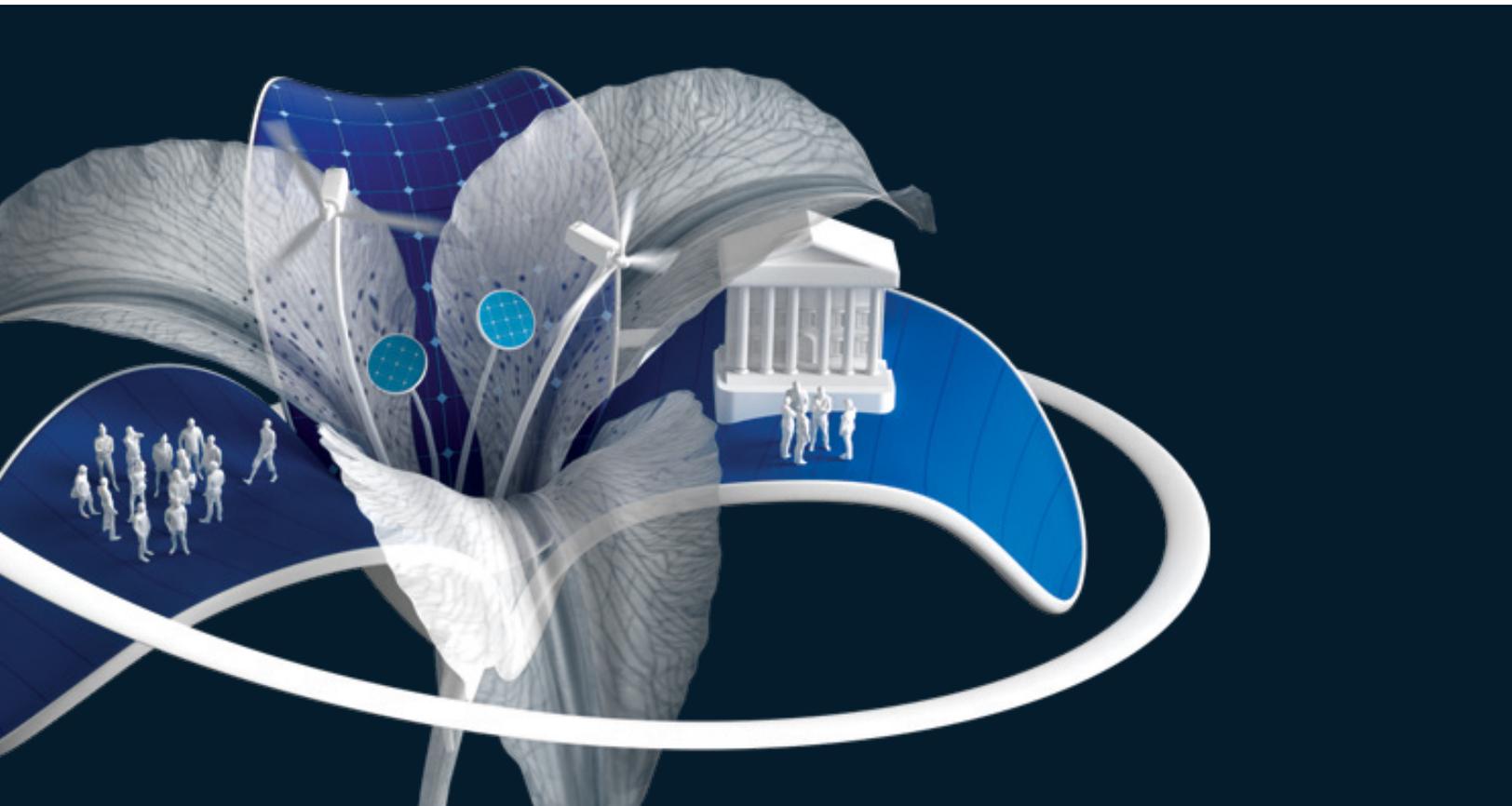


Illustration by Graham Hutchings

Since the acronym “ESG” (environmental, social, and governance) was coined in 2005, and until recently, its fortunes were steadily growing. To take one example, there has been a fivefold growth in internet searches for ESG since 2019, even as searches for “CSR” (corporate social responsibility)—an earlier area of focus more reflective of corporate engagement than changes to a core business model—have declined. Across industries, geographies, and company sizes, organizations have been allocating more resources toward improving ESG. More than 90 percent of S&P 500 companies now publish ESG reports in some form, as do approximately 70 percent of Russell 1000 companies.¹ In a number of jurisdictions, reporting ESG elements is either mandatory or under active consideration. In the United States, the Securities and Exchange Commission (SEC) is considering new rules that would require more detailed disclosure of climate-related risks and greenhouse-gas (GHG) emissions.² Additional SEC regulations on other facets of ESG have also been proposed or are pending.³

The rising profile of ESG has also been plainly evident in investments, even while the rate of new investments has recently been falling. Inflows into sustainable funds, for example, rose from \$5 billion in 2018 to more than \$50 billion in 2020—and then to nearly \$70 billion in 2021; these funds gained \$87 billion of net new money in the first quarter of 2022, followed by \$33 billion in the second quarter.⁴ Midway through 2022, global sustainable assets are about \$2.5 trillion. This represents a 13.3 percent fall from the end of Q1 2022 but is less than the 14.6 percent decline over the same period for the broader market.⁵

A major part of ESG growth has been driven by the environmental component of ESG and responses to climate change. But other components of ESG, in particular the social dimension, have also been gaining prominence. One analysis found that social-related shareholder proposals rose 37 percent in the 2021 proxy season compared with the previous year.⁶

In the wake of the war in Ukraine and the ensuing human tragedy, as well as the cumulative geopolitical, economic, and societal effects, critics have argued that the importance of ESG has peaked.⁷ Attention, they contend, will shift increasingly to the more foundational elements of a Maslow-type hierarchy of public- and private-sector needs,⁸ and in the future, today’s preoccupation with ESG may be remembered as merely a fad and go the way of similar acronyms that have been used in the past.⁹ Others have argued that ESG represents an odd and unstable combination of elements and that attention should be only focused on environmental sustainability.¹⁰ In parallel, challenges to the integrity of ESG investing have been multiplying. While some of these arguments have also been directed to policy makers, analysts, and investment funds, the analysis presented in this article (and in the accompanying McKinsey piece, “How to make ESG real,” August 2022) is focused at the level of the individual company. In other words: Does ESG really matter to companies? What is the business-grounded, strategic rationale?

A critical lens on ESG

Criticisms of ESG are not new. As ESG has gone mainstream and gained support and traction, it has

¹ *Sustainability reporting in focus*, G&A Institute, 2021.

² Release Nos. 33-11042, 34-94478, File No. S7-10-22, US Securities and Exchange Commission (SEC), March 21, 2022. The proposed rule would not come into effect until fiscal year 2023 and could face legal challenges; “We are not the Securities and Environment Commission—At least not yet,” statement of Commissioner Hester M. Peirce, SEC, March 21, 2022; Dan Papsuncun, “SEC’s climate proposal tees up test of ‘material’ info standard,” Bloomberg Law, March 23, 2022.

³ See “SEC response to climate and ESG risks and opportunities,” SEC, modified April 11, 2022; “SEC proposes to enhance disclosures by certain investment advisers and investment companies about ESG investment practices,” SEC press release, May 25, 2022.

⁴ “Global Sustainable Fund Flows: Q2 2022 in Review,” Morningstar Manager Research, July 28, 2022; Cathy Curtis, “Op-ed: While green investments are underperforming, investors need to remain patient,” CNBC, March 28, 2022.

⁵ “Global Sustainable Fund Flows,” 2022.

⁶ Richard Vanderford, “Shareholder voices poised to grow louder with SEC’s help,” *Wall Street Journal*, February 11, 2022.

⁷ Simon Jessop and Patturaja Murugaboopathy, “Demand for sustainable funds wanes as Ukraine war puts focus on oil and gas,” Reuters, March 17, 2022; Peggy Hollinger, “Ukraine war prompts investor rethink of ESG and the defence sector,” *Financial Times*, March 9, 2022.

⁸ Bérengère Sim, “Ukraine war ‘bankrupts’ ESG case, says BlackRock’s former sustainable investing boss,” *Financial News*, March 14, 2022.

⁹ Charles Gasparino, “Russian invasion sheds light on hypocrisy of Gary Gensler, woke investment,” *New York Post*, March 5, 2022; James Mackintosh, “Why the sustainable investment craze is flawed,” *Wall Street Journal*, January 23, 2022; David L. Bahnson, “Praying that ESG goes MIA,” *National Review*, March 17, 2022.

¹⁰ See, for example, “ESG should be boiled down to one simple measure: emissions,” *Economist*, July 21, 2022.

consistently encountered doubt and criticism as well. The main objections fall into four main categories.

1. ESG is not desirable, because it is a distraction

Perhaps the most prominent objection to ESG has been that it gets in the way of what critics see as the substance of what businesses are supposed to do: “make as much money as possible while conforming to the basic rules of the society,” as Milton Friedman phrased it more than a half-century ago.¹¹ Viewed in this perspective, ESG can be presented as something of a sideshow—a public-relations move, or even a means to cash in on the higher motives of customers, investors, or employees. ESG is something “good for the brand” but not foundational to company strategy. It is additive and occasional. ESG ratings and score provider MSCI, for example, found that nearly 60 percent of “say on climate” votes¹² in 2021 were only one-time events; fewer than one in four of these votes were scheduled to have annual follow-ups.¹³ Other critics have cast ESG efforts as “greenwashing,” “purpose washing,”¹⁴ or “woke washing.”¹⁵ One Edelman survey, for example, reported that nearly three out of four institutional investors do not trust companies to achieve their stated sustainability, ESG, or diversity, equity, and inclusion (DEI) commitments.¹⁶

2. ESG is not feasible because it is intrinsically too difficult

A second critique of ESG is that, beyond meeting the technical requirements of each of the E, S, and G components, striking the balance required to implement ESG in a way that resonates among multiple stakeholders is simply too hard. When solving for a financial return, the objective is clear: to maximize value for the corporation and its shareholders. But what if the remit is broader and the feasible solutions vastly more complex? Solving

for multiple stakeholders can be fraught with trade-offs and may even be impossible. To whom should a manager pay the incremental ESG dollar? To the customer, by way of lower prices? To the employees, through increased benefits or higher wages? To suppliers? Toward environmental issues, perhaps by means of an internal carbon tax? An optimal choice is not always clear. And even if such a choice existed, it is not certain that a company would have a clear mandate from its shareholders to make it.

3. ESG is not measurable, at least to any practicable degree

A third objection is that ESG, particularly as reflected in ESG scores, cannot be accurately measured. While individual E, S, and G dimensions can be assessed if the required, auditable data are captured, some critics argue that aggregate ESG scores have little meaning. The deficiency is further compounded by differences of weighting and methodology across ESG ratings and scores providers. For example, while credit scores of S&P and Moody’s correlated at 99 percent, ESG scores across six of the most prominent ESG ratings and scores providers correlate on average by only 54 percent and range from 38 percent to 71 percent.¹⁷ Moreover, organizations such as the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) can measure the same phenomena differently; for example, GRI considers employee training, in part, by amounts invested in training, while SASB measures by training hours. It is to be expected, therefore, that different ratings and scores providers—which incorporate their own analyses and weightings—would provide diverging scores. Moreover, major investors often use their own proprietary methodologies that draw from a variety of inputs (including ESG scores), which these investors have honed over the years.

¹¹ Milton Friedman, “The social responsibility of business to increase its profits,” *New York Times Magazine*, September 13, 1970.

¹² Say-on-climate votes are generally nonbinding resolutions submitted to shareholders (similar to “say-on-pay” resolutions), which seek shareholder backing for emissions reductions initiatives. See, for example, John Galloway, “Vanguard insights on evaluating say on climate proposals,” Harvard Law School Forum of Corporate Governance, June 14, 2021.

¹³ Say-on-climate votes are generally nonbinding resolutions submitted to shareholders (similar to “say-on-pay” resolutions), which seek shareholder backing for emissions reductions initiatives. See, for example, John Galloway, “Vanguard insights on evaluating say on climate proposals,” Harvard Law School Forum of Corporate Governance, June 14, 2021.

¹⁴ Laurie Hays, et al., “Why ESG can no longer be a PR exercise,” Harvard Law School Forum on Corporate Governance, January 20, 2021.

¹⁵ See Owen Jones, “Woke-washing: How brands are cashing in on the culture wars,” *Guardian*, May 23, 2019; Vivek Ramaswamy, *Woke Inc.: Inside Corporate America’s Social Justice Scam*, New York, NY: Hachette Book Group, 2021.

¹⁶ *Special report: Institutional investors*, Edelman Trust Barometer, 2021.

¹⁷ Florian Berg, Julian Kölbel, and Roberto Rigobon, “Aggregate confusion: The divergence of ESG ratings,” *Review of Finance*, forthcoming, updated April 26, 2022.

4. Even when ESG can be measured, there is no meaningful relationship with financial performance

The fourth objection to ESG is that positive correlations with outperformance, when they exist, could be explained by other factors and, in any event, are not causative. It would indeed challenge reason if ESG ratings across ratings and scores providers, measuring different industries, using distinct methodologies, weighting metrics differently, and examining a range of companies that operate in various geographies, all produced a near-identical score that almost perfectly matched company performance. Correlations with performance could be explained by multiple factors (for example, industry headwinds or tailwinds) and are subject to change.¹⁸ Several studies have questioned any causal link between ESG performance and financial performance.¹⁹ While, according to a recent metastudy, the majority of ESG-focused investment funds do outperform the broader market,²⁰ some ESG funds do not, and even those companies and funds that have outperformed could well have an alternative explanation for their outperformance. (For example, technology and asset-light companies are often among broader market leaders in ESG ratings; because they have a relatively low carbon footprint, they tend to merit higher ESG scores.) The director of one recent study²¹ proclaimed starkly: “There is no ESG alpha.”²²

In addition to these four objections, recent events and roiled markets have led some to call into question the applicability of ESG ratings at this point.²³ It is true that the recognized, pressing need to strengthen energy security in the wake of the invasion of Ukraine may lead to more fossil-fuel extraction and usage in the immediate term, and the global collaboration required for a more orderly net-

zero transition may be jeopardized by the war and its aftermath. It is also likely that patience for what may be called “performative ESG,” as opposed to what may be called true ESG, will likely wear thin. True ESG is consistent with a judicious, well-considered strategy that advances a company’s purpose and business model (exhibit).

Yet, many companies today are making major decisions, such as discontinuing operations in Russia, protecting employees in at-risk countries, organizing relief to an unprecedented degree, and doing so in response to societal concerns. They also continue to commit to science-based targets and to define and execute plans for realizing these commitments. That indicates that ESG considerations are becoming more—not less—important in companies’ decision making.

Sustainable performance is not possible without social license

The fundamental issue that underlies each of the four ESG critiques is a failure to take adequate account of social license—that is, the perception by stakeholders that a business or industry is acting in a way that is fair, appropriate, and deserving of trust.²⁴ It has become dogma to state that businesses exist to create value in the long term. If a business does something to destroy value (for example, misallocating resources on “virtue signaling,” or trying to measure with precision what can only be imperfectly estimated, at least to date, through external scores), we would expect that criticisms of ESG could resonate, particularly when one is applying a long-term, value-creating lens.

But what some critics overlook is that a precondition for sustaining long-term value is to manage, and

¹⁸ See, for example, James Mackintosh, “Credit Suisse shows flaws of trying to quantify ESG risks,” *Wall Street Journal*, January 17, 2022.

¹⁹ See, for example, *Chart of the Week*, “Does ESG outperform? It’s a challenging question to answer,” blog post by Raymond Fu, Penn Mutual, September 23, 2021; Gregor Dorfleitner and Gerhard Halbritter, “The wages of social responsibility—where are they? A critical review of ESG investing,” *Review of Financial Economics*, Volume 26, Issue 1, September 2015.

²⁰ Ulrich Atz, Casey Clark, and Tensie Whelan, *ESG and financial performance: Uncovering the relationship by aggregating evidence from 1,000 plus studies published between 2015 – 2020*, NYU Stern Center for Sustainable Business, 2021.

²¹ Giovanni Bruno, Mikheil Esakia, and Felix Goltz, “Honey, I shrunk the ESG alpha: Risk-adjusting ESG portfolio returns,” *Journal of Investing*, April 2022.

²² Steve Johnson, “ESG outperformance narrative ‘is flawed,’ new research shows,” *Financial Times*, May 3, 2021.

²³ See James Mackintosh, “War in Ukraine reveals flaws in sustainable investing,” *Wall Street Journal*, March 27, 2022.

²⁴ “Corporate diplomacy: Why firms need to build ties with external stakeholders,” Knowledge at Wharton, May 5, 2014; and Witold J. Henisz, *Corporate Diplomacy: Building Reputations and Relationships with External Stakeholders*, first edition, London, UK: Routledge, 2014; see also Robert G. Boutilier, “Frequently asked questions about the social license to operate,” *Impact Assessment and Project Appraisal*, Volume 32, Issue 4, 2014.

Exhibit

True ESG is consistent with a company’s well-considered strategy and advances its business model.

Description and examples¹

Environmental	Social	Governance
<p>Addresses impact on the physical environment and the risk of a company and its suppliers/partners from climate events</p> <ul style="list-style-type: none"> • Climate change and greenhouse-gas emissions (GHG) • Air pollution (non-GHG) • Water and wastewater management • Waste and hazardous-materials management; circularity • Biodiversity and ecosystems; rehabilitation 	<p>Addresses social impact and associated risk from societal actions, employees, customers, and the communities where it operates</p> <ul style="list-style-type: none"> • Labor practices • Health and safety • Community engagement; diversity and inclusion • Community relations, local economic contribution • Product and service attributes 	<p>Assesses timing and quality of decision making, governance structure, and the distribution of rights and responsibilities across different stakeholder groups, in service of positive societal impact and risk mitigation</p> <ul style="list-style-type: none"> • Business ethics, data security • Capital allocations, supply chain management • Governance structure and engagement; incentives • Policies; external disclosures; position and advocacy

¹Examples are not exhaustive

address, massive, paradigm-shifting externalities. Companies can conduct their operations in a seemingly rational way, aspire to deliver returns quarter to quarter, and determine their strategy over a span of five or more years. But if they assume that the base case does not include externalities or the erosion of social license by failing to take externalities into account, their forecasts—and indeed, their core strategies—may not be achievable at all. Amid a thicket of metrics, estimates, targets, and benchmarks, managers can miss the very point of why they are measuring in the first place: to ensure that their business endures, with societal support, in a sustainable, environmentally viable way.

Accordingly, the responses to ESG critics coalesce on three critical points: the acute reality of externalities, the early success of some organizations, and the improvement of ESG measurements over time. And the case for ESG cannot be dismissed by connections between ESG scores and financial performance and changes in ESG scores over time. (For a discussion about ESG ratings and their relationship to financial

performance, see sidebar, “ESG ratings: Does change matter?”)

1. Externalities are increasing

Company actions can have meaningful consequences for people who are not immediately involved with the company. Externalities such as a company’s GHG emissions, effects on labor markets, and consequences for supplier health and safety are becoming an urgent challenge in our interconnected world. Regulators clearly take notice.²⁵ Even if some governments and their agencies demand changes more quickly and more forcefully than others, multinational businesses, in particular, cannot afford to take a wait-and-see approach. To the contrary, their stakeholders expect them to take part now in how the regulatory landscape, and broader societal domain, will likely evolve. More than 5,000 businesses, for example, have made net-zero commitments as part of the United Nations’ “Race to Zero” campaign. Workers are also increasingly prioritizing factors such as belonging and inclusion as they choose whether to remain with their company or join a competing employer.²⁶

²⁵ See, for example, Sinziana Dorobantu, Witold J. Henisz and Lite J. Nartey, “Spinning gold: The financial returns to stakeholder engagement,” *Strategic Management Journal*, December 2014, Volume 35, Issue 12.

²⁶ “Great Attrition” or “Great Attraction”? The choice is yours,” *McKinsey Quarterly*, September 8, 2021.

ESG ratings: Does change matter?

Among the most sharply debated questions about environmental, social, and governance (ESG) is the extent to which ESG, as measured by ratings, can offer meaningful insights about future financial or TSR performance—particularly when ratings and scores providers use different, and sometimes mutually inconsistent, methodologies. A number of studies find a positive relationship between ESG ratings and financial performance.¹ Other research suggests that while scoring well in ESG does not destroy financial value, the relationship between ESG ratings at any given time, and value creation at the identical time, can be tenuous or nonexistent.² Because of the short time frame over which the topic has been studied, and the resulting lack of robust analyses, conclusions from the analyses should be tempered.³

In exploring the connection between ESG ratings and financial performance, another approach is to look at the effect

of a change in ESG ratings. This approach mitigates issues deriving from differences among various ESG rating methodologies (assuming the methodologies are relatively consistent over time). It stands to reason that demonstrating real improvement—if reflected in the scores—could, in turn, drive TSR outperformance for multiple reasons, including those we explore in this article. Our initial research indicates, however, that it is too soon to tell. We found that on average companies that show an improvement in ESG ratings over multiyear time periods may exhibit higher shareholder returns compared with industry peers in the period after the improvement in ESG scores. We found, too, that the effect of this result has increased in recent years (exhibit). This initial finding is in line with some of the recent academic research and was also generally consistent across data from multiple ratings and scores providers.

Still, the findings are not yet conclusive. For example, only 54 percent of

the companies we categorize as “improvers” and less than one-half of those categorized as “slight improvers” demonstrated a positive excess TSR. The research also does not prove causation. It is important to bear in mind that ESG scores are still evolving, observations in the aggregate may be less applicable to companies considered individually, and exogenous factors such as headwinds and tailwinds in industries and individual companies cannot be fully controlled for.

Most important, this research does not explain the mechanism of TSR outperformance and whether the outperformance is sustainable. We know from decades of research that companies with a higher expected return on capital and growth are ultimately TSR outperformers and that there is clear, statistically significant correlation. Are ESG ratings a sign of greater expected resilience of margins in the transition, an indication of higher growth through green portfolios—or do they suggest something

Exhibit

Changes to ESG scores seem to be correlated to TSR, but given the underlying measurement challenges the result is not conclusive.

TSR by change in ESG score¹

	Median of annualized, excess TSR ² from 2017–21, %	Companies ³ with positive excess in TSR, % ⁴	Number of companies
Deteriorators	-2.8	39	221
Slight deteriorators	-1.5	45	220
Slight improvers	-0.2	49	1,097
Improvers	1.5	54	1,097

¹Based on ESG scores of S&P Global for fiscal years 2017–2021. 2021 data is updated through Jan 18, 2022.

²Annualized TSR is defined as the CAGR of the dividend-adjusted share price between 2017 and 2021 in companies' local currency

³Companies decreasing in S&P Global ESG score are categorized as deteriorators and slight deteriorators. Companies increasing in S&P Global ESG score are categorized as improvers and slight improvers.

⁴Results statistically significant (p-value <0.01) with Mann-Whitney U test between improvers and deteriorators, but not (p-value ~0.2) between slight deteriorators and deteriorators.

Source: S&P Global Sustainable; McKinsey ESG Insights

ESG ratings: Does change matter? (continued)

else? Will these increased expectations relative to peers ultimately materialize, or will they revert to the mean? ESG ratings are very new compared with financial ratings, and therefore, it will take time for them to evolve. We will continue to research these questions as data sets increase and refinements to ESG scores continue to be refined.

Regardless of current ratings scores, many companies are already advancing in ESG to improve their long-term financial performance. High performers consider and seek to learn from ESG ratings, but they do not get unduly distracted or make superficial changes merely to score higher. Companies should focus on ESG improvements that matter most

to their business models, even if the improvements do not directly translate to higher ratings.

Since conclusions about the relationship between ESG ratings and financial performance are not yet certain, they might not be compelling enough, on their own, to persuade executives to invest significant resources in ESG. But there is a tangible cost to waiting. In fact, companies should adopt a bias toward focusing on ESG today; if companies, particularly those with significant externalities (such as high-emitting industries), hold out for perfect data and a “flawless” rating process, they may not have a business in 20 to 30 years.

¹ Florian Berg, Julian Kölbel, and Roberto Rigobon, “Aggregate confusion: The divergence of ESG ratings,” *Review of Finance*, forthcoming, updated April 2022; Ulrich Atz, Casey Clark, and Tensie Whelan, *ESG and financial performance: Uncovering the relationship by aggregating evidence from 1,000 plus studies published between 2015–2020*, NYU Stern Center for Sustainable Business, 2021.

² See *Chart of the Week*, “Does ESG outperform? It’s a challenging question to answer,” blog post by Raymond Fu, Penn Mutual, September 23, 2021; Giovanni Bruno, Mikheil Esakia, and Felix Goltz, “Honey, I shrunk the ESG alpha: Risk-adjusting ESG portfolio returns,” *Journal of Investing*, April 2022.

³ When the ESG characteristic of a company changes, based on MSCI ESG data, it may be a useful financial indicator for generating alpha. Guido Giese et al., “Foundations of ESG investing: How ESG affects equity valuation, risk, and performance,” *Journal of Portfolio Management*, July 2019, Volume 45, Number 5.

Many companies, in turn, are moving aggressively to reallocate resources and operate differently; nearly all are feeling intense pressure to change. Even before the Ukraine war induced dramatic company action, the pandemic had prompted companies to reconsider and change core business operations. Many have embarked on a similar path with respect to climate change. This pressure, visceral and tangible, is an expression of social license—and it has been made more pressing as rising externalities have become more urgent.

2. Some companies have performed remarkably, showing that ESG success is indeed possible

Social license is not static, and companies do not earn the continued trust of consumers, employees, suppliers, regulators, and other stakeholders based merely upon prior actions. Indeed, earning social capital is analogous to earning debt or equity capital—those who extend it look to past results for insights about present performance and are most concerned with intermediate and longer-term prospects. Yet unlike traditional sources of capital,

where there are often creative financing alternatives, there are ultimately no alternatives for companies that do not meet the societal bar and no prospect of business as usual, or business by workaround, under conditions of catastrophic climate change.

Because ESG efforts are a journey, bumps along the way are to be expected. No company is perfect. Key trends can be overlooked, errors can be made, rogue behaviors can manifest themselves, and actions can have unintended consequences. But since social license is corporate “oxygen”—thus impossible to survive without it—companies cannot just wait and hope that things will all work out. Instead, they need to get ahead of future issues and events by building purpose into their business models and demonstrating that they benefit multiple stakeholders and the broader public. Every firm has an implicit purpose—a unique *raison d’être* that answers the question, “What would the world lose if this company disappeared?” Companies that embed purpose in their business model not only mitigate risk; they can also create value from their values.

For example, Patagonia, a US outdoor-equipment and clothing retailer, has always been purpose driven—and announced boldly that it is “in business to save our home planet.” Natura &Co, a Brazil-based cosmetics and personal-care company in business to “promote the harmonious relationship of the individual with oneself, with others and with nature,” directs its ESG efforts to initiatives such as protecting the Amazon, defending human rights, and embracing circularity. Multiple other companies, across geographies and industries, are using ESG to achieve societal impact and ancillary financial benefits, as well.

3. Measurements can be improved over time

While ESG measurements are still a work in progress, it is important to note that there have been advancements. ESG measurements will be further improved over time. They are already changing; there is a trend toward consolidation of ESG reporting and disclosure frameworks (though further consolidation is not inevitable). Private ratings and scores providers such as MSCI, Refinitiv, S&P Global, and Sustainalytics, for their part, are competing to provide insightful, standardized measures of ESG performance.

There is also a trend toward more active regulation with increasingly granular requirements. Despite the differences in assessing ESG, the push longitudinally has been for more accurate and

robust disclosure, not fewer data points or less specificity. It is worth bearing in mind, too, that financial accounting arose from stakeholder pull, not from spontaneous regulatory push, and did not materialize, fully formed, along the principles and formats that we see today. Rather, reporting has been the product of a long evolution—and a sometimes sharp, debate. It continues to evolve—and, in the case of generally accepted accounting principles (GAAP) and International Financial Reporting Standards (IFRS) reporting, continues to have differences. Those differences, reflecting how important these matters are to stakeholders, do not negate the case for rigorous reporting—if anything, they strengthen it.

While the acronym ESG as a construct may have lost some of its luster, its underlying proposition remains essential at the level of principle. Names will come and go (ESG itself arose after CSR, corporate engagement, and similar terms), and these undertakings are by nature difficult and can mature only after many iterations. But we believe that the importance of the underlying ideas has not peaked; indeed, the imperative for companies to earn their social license appears to be rising. Companies must approach externalities as a core strategic challenge, not only to help future-proof their organizations but to deliver meaningful impact over the long term.

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How to make ESG real

While ESG is likely to evolve both in substance and name in the coming years, its underlying impulse is here to stay. Here's how companies can take a more systematic and rewarding approach to ESG.

by Donatela Bellone, Vivian Hunt, Robin Nuttall, Lucy Pérez, and Hamid Samandari

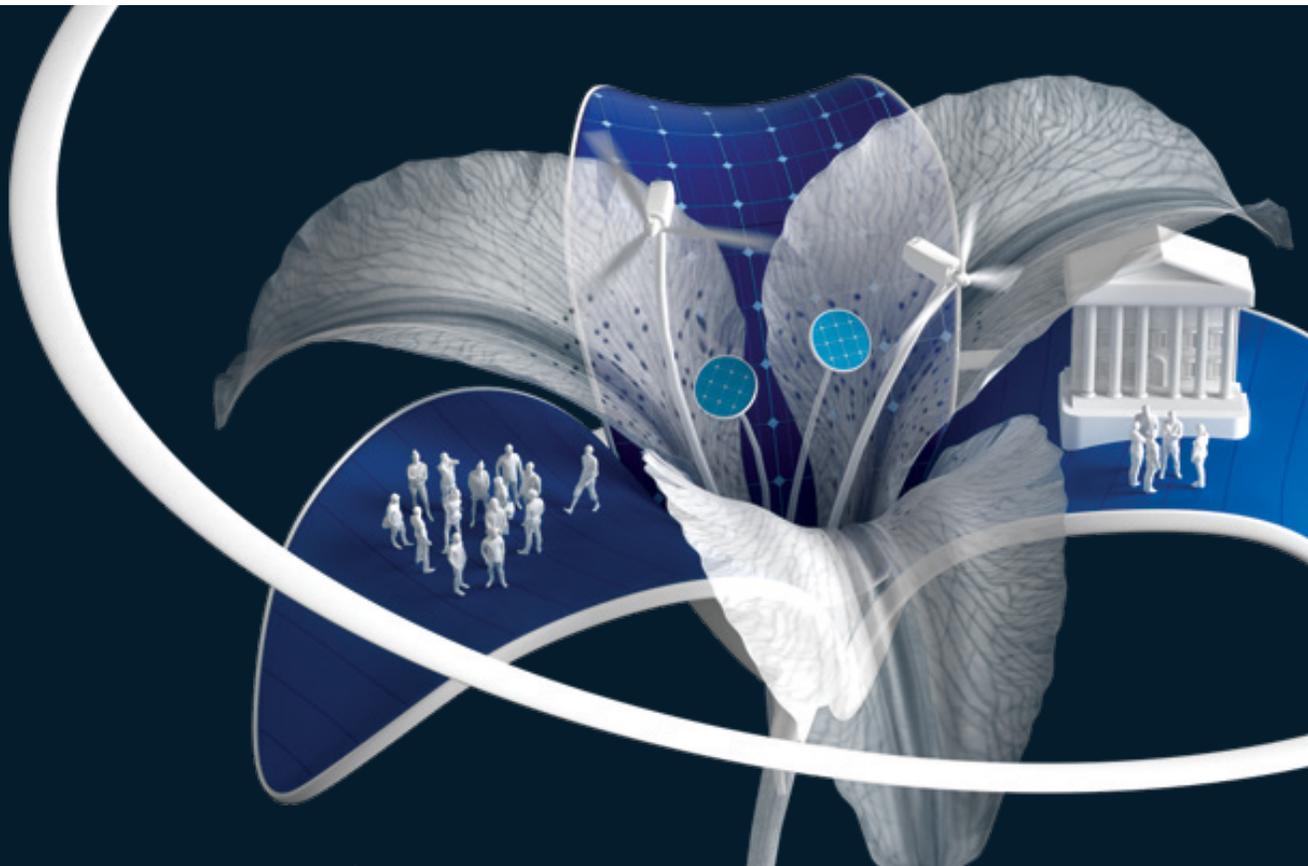


Illustration by Graham Hutchings

The ‘how’ of a company’s environmental, social, and governance (ESG) proposition starts with recognizing what companies should be solving for: maintaining and reinforcing their social license to operate, in the face of rising externalities. Rising scrutiny of how companies address ESG means that a robust approach is more critical than ever, irrespective of whatever name one may choose to give to the attempt to address these externalities, whatever contours one may define for them at a given point, and whatever organizational or governance construct one may put in place for them. Indeed, we believe one may be agnostic to the term ESG but not to its underlying concerns.¹

Not all aspects of “E,” “S,” and “G,” however, are priorities for all companies, and it is unrealistic to expect that companies do not have to make hard trade-offs within and among ESG dimensions, or that they can lead on every topic. It is therefore instructive to observe companies that approach ESG in a rigorous, strategy-driven, socially attuned way. We call these organizations “forward-looking companies.” They make ESG intrinsic to their strategy by defining, implementing, and refining a carefully constructed portfolio of ESG initiatives that connect to the core of what they do. Forward-looking companies also contribute to a competitive landscape where good corporate citizenship is marshaled against existential challenges, not least—but not only—climate change.

When a company determines the dimensions of ESG where it wishes to be good and where it wishes to be excellent, it is making important decisions, with broader second- and third-order consequences. Forward-looking companies approach ESG decisions by seeking to gain a deep, evidence-based understanding of their own business and its broader potential effects. Since by now every major company has begun to embark on an ESG journey, and many have significant programs already under way, it is helpful to consider ESG progress in the context of a maturity curve. The ESG practices of today’s large companies generally cluster along three levels of ambition (Exhibit 1).

Being forward looking in ESG necessarily calls for considering the needs of a range of stakeholders and society more broadly. Stakeholder demands are shifting, and these shifts can over time dramatically affect competitive dynamics. Nor is the rate of change linear. As external shocks such as the COVID-19 pandemic and the war in Ukraine have shown, companies find it hard to move rapidly unless they have an ESG framework that is derived from, and deliberately advances, their strategy. Anticipating risks and opportunities and considering what value stakeholders have at stake requires continuous, judicious analysis; ESG is a process, not an outcome (Exhibit 2).

The approach of forward-looking companies is marked by four reinforcing parts of mapping, defining, embedding, and engaging.

The science of ESG mapping

The term “mapping” is used frequently in other competitive contexts. Mapping for ESG requires a thorough and inclusive exercise. The critical analysis is to figure out how the organization’s specific business model matches against each ESG dimension.

1. Considering what stakeholders have at stake

Comprehensive ESG mapping attempts to take account of who the important stakeholders are and what they value. Purpose is an enabler; it is much easier for a company to operationalize ESG when it has a clearly articulated corporate purpose, moored to the business model. It will not come as a surprise that forward-looking companies actively engage with their shareholders, whose capital is at risk. To unlock opportunities for all of their stakeholders, however, these companies tend to listen to a broad range of constituencies.

Employees rank highly on any list of essential stakeholders. The benefits of engaged employees include heightened loyalty and a greater willingness to recommend the company to others.² Engaged customers are also essential. Consumers hold companies and their brands accountable for the

¹ These issues are addressed in detail in the accompanying article, “Does ESG really matter—and why?,” by Lucy Pérez, Vivian Hunt, Hamid Samandari, Robin Nuttall, and Krysta Biniek, *McKinsey Quarterly*, August 10, 2022.

² For example, see “More than a mission statement: How the 5Ps embed purpose to deliver value,” *McKinsey Quarterly*, November 5, 2020; “Purpose: Shifting from why to how,” *McKinsey Quarterly*, April 22, 2020; Aaron De Smet, Bonnie Dowling, Marino Mugayar-Baldocchi, and Bill Schaninger, “Great Attrition’ or ‘Great Attraction’? The choice is yours,” *McKinsey Quarterly*, September 8, 2021; Arne Gast, Nina Probst, and Bruce Simpson, “Purpose, not platitudes: A personal challenge for top executives,” *McKinsey Quarterly*, December 3, 2020; and Naina Dhingra and Bill Schaninger, “The search for purpose at work,” *McKinsey*, June 3, 2021.

There are three levels of ambition in ESG.

Examples and organizational mindsets are segmented across three levels of an environmental, social, and governance (ESG) practice

Minimum practice	Common practice	'Next level' practice
<p>Risk-mitigation and “do no harm” measures</p> <ul style="list-style-type: none"> • React to trends affecting industry and business • Address external vulnerabilities • Donate resources (financial, in-kind, volunteer) • Meet and report baseline standards • Pledge to minimal commitment levels 	<p>Substantive efforts, mostly outside the core business</p> <ul style="list-style-type: none"> • Track major trends affecting the business with contingency plans in place • Use strengths to deliver increased value across specific ESG goals and metrics • Comply with voluntary industry standards and perform above industry average • Create a comprehensive sustainability policy • Implement inclusive HR practices • Run strategic, high-impact philanthropic programs • Engage with stakeholder groups to understand what matters 	<p>Full integration of ESG into strategy and operations</p> <ul style="list-style-type: none"> • Leverage “superpowers” to move sector standards • Increase social impact via innovation, market, and customer choices • View ESG as a differentiator and core to overall strategy • Link clearly articulated leadership areas (“win the game”) with purpose • Embed ESG in capital and resource allocation • Tie ESG to employee incentives and evaluations • Improve sustainability outcomes internally and externally • Ensure that ESG disclosures cover company’s full operations
Risk management		Impact

impact of their conduct on employees, society, and the environment. Though customer preferences can vary, there are indications about what is likely to matter more for consumers in the years ahead. Our research on Generation Z (born 1995–2010) shows that young consumers are particularly mindful of ethical consumption, transparency, authenticity, and equality.³ One study found that purpose-driven brands achieve more than twice the brand-value growth of brands that focus purely on profit generation.⁴

2. Identifying superpowers and vulnerabilities

The second element of mapping is to identify a company’s superpowers and vulnerabilities. Superpowers are a company’s unique capabilities to have differential impact. Vulnerabilities are the foundational expectations that critical stakeholders will require a company to address, in light of its specific business model. Identifying superpowers and vulnerabilities requires answering questions such as, What do we bring to society that no one else can?

What are the areas of dissonance, where we need to change practices to align strategy with our societal impact? What do we do that is irreplaceable? What “home field” advantage do we have? For example, Natura & Co is a Brazilian-based manufacturer and distributor of cosmetics and other personal-care products, with significant operations in Latin America, Europe, and the Middle East. Its superpower is channeling its “home turf” of the Amazon rainforest; it can tap into its highly motivated base of stakeholders to protect biodiversity and advance global solutions to climate change.

Forward-looking companies test and strengthen their ESG proposition by conducting exercises such as an “ESG teardown.” Teardowns—dismantling a product or service to learn more and to compare it with the offerings of rivals—have long been used in manufacturing. ESG teardowns analyze what a company is doing now, and why. Frequently, the exercise will surface reasons for some initiatives

³ Tracy Francis and Fernanda Hoefel, “True Gen: Generation Z and its implications for companies,” McKinsey, November 12, 2018.

⁴ Erica Sweeney, “Study: Brands with a purpose grow 2x faster than others,” Marketing Dive, April 19, 2018.

Exhibit 2

ESG is a process, not an outcome.

1 Mapping

- Considering what stakeholders have at stake
- Identifying superpowers and vulnerabilities
- Benchmarking regularly and judiciously

4 Engaging

- Using ESG engagement to sharpen strategy
- Showing investors the business proposition
- Making cadence core to the dialogue



2 Defining

- Considering high jumps and long jumps
- Thinking systematically about ESG trade-offs
- Measuring and assessing

3 Embedding

- Syncing ESG with operations
- Following through on initiatives to ensure impact
- Discerning what the numbers do—and do not—say about ESG

that include “it seemed like a good idea at the time,” or “many companies seemed to be doing something similar.” Perhaps these explanations make sense in some cases, yet it is not possible to make a distinctive contribution by merely copying others—and at all events, companies have unique superpowers and vulnerabilities.

Forward-looking companies carefully consider the dimensions in which they have a particular ability to excel and can distinguish them from dimensions where their abilities are comparable to others. For example, a multinational pharmaceutical company may focus on social metrics (such as accessibility and affordability), a renewables company may prioritize environmental metrics (such as reductions in greenhouse-gas emissions, for scopes 1, 2, and 3), and a food company may elevate an equal mix of environmental (emissions reductions, water use, and waste) and social metrics (nutrition, product quality, and safety).

Thorough analysis of ESG quantifies both downside exposure to and upside opportunities. Forward-looking companies measure gaps between their aspirations and achievements. They also focus most intently on mapping how well ESG is reflected in core business practices. One test that all companies can apply after they have arrived at a new ESG strategy is to determine and parse the internal commitments that they have not yet met—and to

ask why they have failed to meet them. Companies can also inquire about whether board meetings are now being conducted differently, with the company’s ESG strategy applied to decision making; whether operating-level meetings are conducted differently; the extent to which ESG considerations are a factor in budgeting, capital allocation, and product choice; and whether some stakeholder groups are expressing particular concerns.

3. Benchmarking regularly and judiciously

Finally, forward-looking companies are exacting about their choices of metrics and peer sets. They are also creative about analyses and research (including the use of research from academia and thought leaders). One informative inquiry tracked the degree to which companies “walked the talk” in their disclosures about broader stakeholders. It found that, controlling for sector-specific effects, stronger stakeholder language about the importance of stakeholders paired with stronger operating performance across a number of metrics over a three-year period.⁵

Forward-looking companies’ selection of peer sets is not constrained by traditional categorizations. While corporations may define themselves by sector, a wide range of stakeholders adopt a much broader approach. Prospective employees, for example, look across industries for companies they would consider

⁵ Ariel Babcock et al., *Walking the talk: Valuing a multi-stakeholder strategy*, FCLTGlobal, January 17, 2022.

joining. There is, as well, a layer of nuance in choosing appropriate peer sets. Looking across geographies and industries is often instructive, but different geographies and industries require different analyses.

The choices in ESG decision making

Forward-looking companies recognize that they cannot be distinctive by pursuing every initiative that qualifies as ESG. To the contrary: because they have a clear understanding of their strategy, and their own strengths and gaps, they focus on identifying initiatives that matter most to their business models. ESG is an essential strategic concern, which means it affects how and where a company competes.

1. Considering high jumps and long jumps

There are two critical decisions that companies confront as they seek to enhance their readiness to address externalities along the ESG dimensions. The first is to decide on high jumps: the levels a company must reach to meet its ESG bar. This is higher than a regulatory bar, such as disclosure standards, environmental compliance, tax obligations, and wage scales—all of which must be met in every case. ESG is “next level” performance; it addresses, for instance, societal insistence on a living wage, environmental demands for net-zero emissions, and communal principles of diversity. These expectations will likely continue to move higher (even though a degree of volatility is to be expected in this regard as well).

The second step is to decide on a company’s long jumps: the one or two ESG areas where the company can take a leadership role and, ideally, affect other players in its ecosystem and beyond. Long jumps are reached by drawing from a company’s superpowers. Depending upon a company’s ecosystem, it may be uniquely positioned to facilitate notable social impact among multiple businesses worldwide. For example, Maersk founded the Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping, which consists of 18 strategic partners from across the shipping value chain that accelerate carbon-neutral solutions for the shipping industry.

The concepts of high jumps and long jumps on the one hand, and superpowers and vulnerabilities on the other, are distinct. While both are rooted in a company’s unique business model and endowment, high jumps and long jumps are the specific courses of action a company takes in light of its superpowers and vulnerabilities. For example, Walmart has the prominent superpower of a large, robust network of suppliers. It uses this superpower to make a long jump in sustainability. The company instituted Project Gigaton, a collaborative program that enables suppliers to reduce their carbon footprints by a collective one billion metric tons (one gigaton) of greenhouse gases by 2030. Thousands of suppliers take part in Project Gigaton by setting targets, reporting on progress, and sharing knowledge. By 2020, the project had already reached more than 40 percent of its goal.

2. Thinking systematically about ESG trade-offs

Forward-looking companies do not ignore trade-offs when approaching ESG. Rather, as they consider their unique business models, they are clear about benefits and costs—including the costs of inaction.

One example is how a company may approach employee compensation. Paying above-market compensation could seem, at first, to be value destroying for shareholders, by potentially reducing investors’ returns, particularly in the short term, yet employee satisfaction can clearly drive better financial performance.⁶ Many companies find that by treating employees better, including by paying them well, they can not only increase productivity but also foster greater trust. Research suggests that this can become a source of competitive advantage.⁷

Yet capital and time are finite. At some point, investing a marginal dollar in one constituency (say, employees, by means of higher salaries) could require increasing prices for another constituency (consumers). Elevating management time for one ESG initiative (for example, reducing waste) could detract from time that can be spent on other initiatives (for instance, community education). There is no one, clearly

⁶ For example, see Alex Edmans, “Does the stock market fully value intangibles? Employee satisfaction and equity prices,” *Journal of Financial Economics*, September 2011, Volume 101, Number 3.

⁷ Alex Edmans, “The link between job satisfaction and firm value, with implications for corporate social responsibility,” *Academy of Management Perspectives*, November 2012, Volume 26, Number 4.

marked path that every business can follow. But there generally is a common marker that distinguishes how forward-looking companies execute ESG: they consider thoroughly, choose deliberately, and then act boldly. As part of that approach, forward-looking companies assess scenarios for not investing in a given area; they analyze the values at risk to determine the costs of standing still. They recognize that social expectations constantly evolve.

3. Measuring and assessing

A key part of making ESG real is not to measure for the sake of measuring but instead to measure what matters. Effective performance management in ESG, like effective performance management in other contexts, approaches shorter-term metrics with a view toward achieving longer-term, strategic goals. It uses clear milestones, pays careful attention to meaningful KPIs, and elevates objectives that tie directly to the business model (for example, water-use reduction, removal of antibiotics from fresh produce, or replacement of diesel machines with electric machines in warehouses).

Assessing progress is most effective when it is done regularly and, with robust data analytics, information can be updated very rapidly. Companies that have a considered process in place to measure their ESG performance are better positioned to respond even in times of rapid change. As the saying goes, “there are decades when weeks happen, and weeks when decades happen.” An informed perspective enables forward-thinking companies to move quickly as realities shift.

The approach to ESG implementation

Just as forward-looking companies make informed choices about ESG based upon their unique business model, they also act purposely to operationalize ESG throughout the organization.

1. Syncing ESG with operations

It can be tempting to approach corporate purpose and then ESG sequentially: that is, to consider that companies should first clarify their purpose, and then create ESG initiatives that accord with their purpose. But it is rare for large, established companies—which

operate under a range of priorities, urgencies, and constraints—to be able to operate in this way. For example, after the big-box retailer Best Buy’s former chairman and CEO, Hubert Joly, had implemented a remarkable turnaround at the company, he observed:

“The question is often, ‘So where do you start and how do you sequence?’ The logical part of our mind would have us start with purpose, then derive the strategy: anchor it in purpose, and transform the organization on that basis.

“My personal experience is different. When we started the turnaround, I was very clear about my philosophy, which was that profit is not the purpose. Purpose is to contribute to the common good. But we did not spend time in the first three years of the turnaround on refining our purpose. We spent the time saving a ship that was sinking, by addressing key operational-performance drivers.”⁸

That does not mean that companies should move ESG to the back burner. There are opportunities for companies to think comprehensively about how they can advance major ESG initiatives as part of their core strategic plan, across 5Ps. We have identified key sources of opportunities:

1. **portfolio strategy and products:** the products and services an organization provides, and the “where to play” and “how to play” choices it makes to best serve its customers
2. **people and culture:** the talent—and the talent management approach—a firm deploys
3. **processes and systems:** the operational processes it adapts to meet ESG-related targets
4. **performance metrics:** the target metrics and incentives used to measure what the company wishes to achieve, how it is progressing, and the way it creates and distributes incentives to realize ESG initiatives
5. **positions and engagement:** how the organization aligns its external positions and affiliations to be consistent with, and consistently deliver on, its ESG priorities

⁸ “Leading with purpose and humanity: A conversation with Hubert Joly,” *McKinsey Quarterly*, June 18, 2020.

Depending upon the company and its business model, the range of key stakeholders can include key regulators and governmental actors, as well as other companies, and the range of initiatives can be far-reaching. Companies that have demonstrable success in ESG make deliberate choices in this regard.

2. Following through on initiatives to ensure impact

Forward-thinking companies then follow through on their initiatives. When ESG fits squarely within strategy, it is likely to have strong support from stakeholders within and beyond the organization. Consider the clothing and outdoor-gear company Patagonia, which has made protecting the natural environment part of its core mission. Initiatives such as facilitating connections to environmental groups; pledging 1 percent of sales to the preservation and restoration of the natural environment; and using only renewable electricity for its retail stores, distribution centers, and regional and global offices function in concert.

One powerful way companies can follow through is with incentives. This includes monetary incentives; indeed, a growing number of corporations are crafting compensation packages, particularly for senior leaders, that condition a portion of compensation on achieving specific ESG objectives (for example, emissions reductions). But monetary incentives are not the only way to encourage positive behavior, nor always the most effective.

An additional lever is “nudging,” which has been validated by behavioral science. Nudges can encourage energy savings and waste reduction, for example, by promoting inclusive behaviors, reminding employees to be mindful of their carbon footprint, or encouraging them to recycle. Forward-looking companies find that by consistently sharing with employees and other stakeholders how the organization is progressing along their prioritized objectives, such as diversity or sustainability—information that can be presented clearly in standardized reports—they can make ESG initiatives part of the business’s daily operations. Companies can celebrate teams that deliver on ESG expectations, or they can spotlight employees who contribute measurably to the organization’s ESG initiatives.

3. Discerning what the numbers do—and do not—say about ESG

Forward-looking companies find that their ESG metrics become more robust—and more refined—the longer and more consistently they use them. They also think carefully about which external ESG ratings agencies or score providers they should track most closely. The optimum is usually two or three and, in particular, the two or three that are most practicable for a business model and help companies meet their objectives. Forward-looking companies are careful not to conflate achieving high scores with realizing specific, strategic goals.

Developments on ESG metrics are shifting in real time. The US regulatory environment is fluid. Outside of the United States, the International Financial Reporting Standards (IFRS) completed its consolidation with the Value Reporting Foundation in August 2022, formalizing the new International Sustainability Standards Board (ISSB).⁹ ISSB houses the Sustainability Accounting Standards Board standards and the Integrated Reporting Framework. Implementation is usually done via the International Organization of Securities Commissions, whose members set standards as listing requirements on their exchanges.

Each of these organizations has a mandate to protect investors and markets. As well, the European Union has asked the European Financial Reporting Advisory Group to propose reporting standards for its Non-Financial Reporting Directive, with a view of materiality on both the investor and civil-society level. Because the European Union supports the IFRS/ISSB initiative, there is grounds to hope that any overlap between IFRS and the European Union will be limited. Though it is not certain that the trajectory will continue, ratings have been converging. The next, great challenge will likely be impact-weighted accounting that reflects a company’s financial, social, and environmental performance.

The engagement and dialogue of social license

While it is relatively easy to map and measure how ESG initiatives align with a business model, it is much

⁹ “IFRS Foundation completes consolidation with Value Reporting Foundation,” August 1, 2022.

harder to track—and to analyze—the maintaining of social license.¹⁰ Companies that are focused on making ESG real have learned, first, to encourage open dialogues with stakeholders rather than to shy away from them; second, to speak directly to stakeholder concerns by showing how their ESG efforts connect to and advance the company's strategy; and, third, to maintain a regular cadence in ESG reporting.

1. Using ESG engagement to sharpen strategy

Forward-looking companies think carefully about communications—not just in terms of what resonates with investors, but with a range of stakeholders; and not just communications for the sake of announcing to others but in order to learn, become smarter, and improve as an organization. Employees are a key constituency and are invariably an important source of insight. Companies can also continuously improve by engaging through trade groups and alliances (the choice of which is itself a rigorous and iterative process), both to better inform their own views and to accelerate impact at scale.

Having an informed sense of opinion helps inure companies to becoming overly defensive. Committed performers embrace the reality that engagement can be a little bumpy. Dick's Sporting Goods, for example—the largest sporting-goods retail company in the United States—endured tremendous pushback when it announced in 2018 that it was discontinuing the sale of assault-style firearms and high-capacity ammunition magazines. The company absorbed both immediate top-line losses and a drop in its share price. Yet the company continued to engage openly with consumers, employees, and investors, stuck to its purpose, and soon saw its earnings and market capitalization surpass previous levels.

2. Showing investors the business proposition

Investors increasingly seek more information about and insist upon more accountability for ESG. They also need to know how a company's ESG initiatives complement and strengthen its strategic plan. Forward-looking companies demonstrate clearly how specific ESG initiatives flow into the business model and have hard metrics to demonstrate progress. They

can also take committed actions such as establishing a task force to identify and collect ESG data points for reporting, dedicating full-time outreach and communications employees to the investor relations team, thoroughly integrating sustainability into company reports (including the annual report), and describing specific ESG initiatives and performance against those initiatives in investor presentations.

Companies have also incorporated ESG directly into capital raising, particularly by issuing green- or sustainability-linked bonds (SLBs). These securities feature structural or financial provisions on predefined KPIs, measured against sustainability targets. For example, England-based fashion house Burberry announced a medium-term sustainability bond in 2020 to finance sustainability-linked projects. That same year, Novartis priced €1.85 billion of SLBs, linked to specific ESG targets. The key, of course, in choosing whether to use such instruments is to consider how they could complement and advance a company's ESG priorities.

Regardless of capital mix, there are clear advantages to greater transparency. Stakeholders, particularly (but not only) investors and regulators, expect and increasingly demand detailed disclosures. While regulations vary across countries and jurisdictions, the global trend is toward more robust information. Companies that succeed in implementing business-driven ESG initiatives, meeting hard targets along the way, demonstrate to stakeholders that they can build and sustain value in the context of regulatory change. ESG is already core to their operating model.

3. Making cadence core to the dialogue

Finally, forward-looking companies find that not just the quality of interactions with stakeholders and the detail of information shared with them but also the pace of communications is essential. Delaying ESG reporting could be interpreted as a signal of lesser commitment.

Meeting a steady ESG cadence is a developable skill, and it is improved the more it is practiced. Mohandas Gandhi once observed that “your actions become your habits; your habits become your values; your values

¹⁰ A call for impact-weighted financial accounts to reflect a company's environmental, social, and financial performance is already building. See, for example, “Impact-weighted accounts,” Harvard Business School.

become your destiny.” That is very much the case with ESG reporting. When ESG is core to the business model, reporting on ESG becomes part of the ordinary course of doing business. External shocks are less likely to present an undue burden on ESG reporting. Just as well-managed companies have accounting information quickly available because it helps them discern their business performance, forward-looking companies have ESG data at the ready before and during challenging periods.

Most companies are engaged in an ESG journey. But a culture of continuous improvement in ESG is unlikely to take hold at a company unless ESG is not just taken seriously but systematized and tightly linked to the company’s purpose. Forward-looking companies approach ESG in a rigorous, evidence-based, and well-considered way. They increasingly and deliberately incorporate and advance ESG considerations as core to their business model—to enable a more sustainable business and to make ESG real.

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Securing your organization by recruiting, hiring, and retaining cybersecurity talent to reduce cyber risk

Shed the conventional methods. Talent-to-value protection defines the most important cybersecurity roles that demonstrate the greatest reduction in risk for the enterprise.

This article is a collaborative effort by Venky Anant, Michael Glynn, Justin Greis, Nick Kosturos, Ida Kristensen, Charlie Lewis, and Leandro Santos, representing views from McKinsey's Cybersecurity Practice.



To meet the security requirements to face evolving threats and changing technology, organizations must adapt and shift how they previously managed cybersecurity. While technical controls and capabilities still remain a priority and a commonly accepted method of securing the environment, adapting to a new approach for hiring cybersecurity talent can solve a leading concern of many leaders in a cost-optimized and risk-effective manner.

Hiring cybersecurity talent normally uses a top-down approach that fills most senior roles first before filling roles further down the organizational chart. However, because of cybersecurity worker shortages and the need to focus on specific capabilities from a talent pool—sometimes with nontraditional backgrounds—the standard hiring approach is less effective in this competitive job market.

While one answer may be to throw money at the problem and hire as many workers as possible to grow your organization over time, this approach does not necessarily lead to reduced risk. No matter what approach to resourcing companies use, the changing nature of cyberrisk means companies need to manage talent flexibly to adapt to new threats.

By preplanning and understanding the organization’s cybersecurity needs holistically, it is possible to lay out a hiring road map that focuses specifically on the most critical cyber initiatives. Assessing risks, understanding priorities,

and then filling those roles based on capabilities and associated skills can reduce risk and protect business value.

Apply talent to value protection

Leading organizations understand the impact and likelihood of cybersecurity and technology risks and seek to reduce those risks to enable the business. It is not just about what capabilities to prioritize, it is also about what skills are needed, if you can find those skills from within the organization, and if you need to hire or outsource.

The talent-to-value-protection approach defines the most important roles that show a maximum reduction in risk or create the greatest amount of security value (Exhibit 1). Priority roles should be filled with the right skills to eliminate risk as soon as possible, utilizing all resources, capabilities, and recruiting efforts.

As a case in point, an organization undergoing a cyber transformation sought to fill more than 150 roles across all capabilities. After applying the talent-to-value-protection approach, the company’s leaders prioritized hiring based on critical business risks and what knowledge and skills were required first to secure the business.

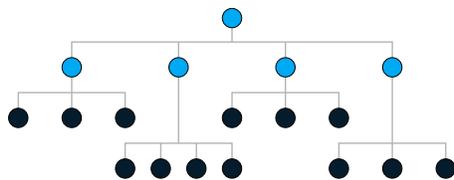
Using talent-to-value protection allows you to move in the right direction and reduce risk through

Exhibit 1

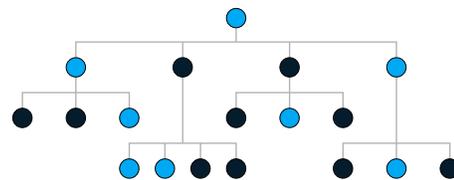
Talent-to-value protection allows organizations to reduce cybersecurity risk with fewer employees and resources.

Comparison of approaches for security talent management

● Priority roles



Traditional security talent management aligns the most experienced personnel with the highest responsibility or span of control; the most important roles are defined by hierarchy



Talent-to-value protection defines the most important roles as those that reduce the maximum amount of risk; this approach allows for ~50% fewer new hires for equivalent risk reduction

focused hiring and talent development. The strategy helps identify which skills and associated roles are the highest priority to reduce cybersecurity risk—or, in other words, which can demonstrate the most “return on risk investment.” It allows you to hire the right person at the right time—ensuring that personnel spending is aligned with where it should be based on growth aspirations.

Understanding where to focus recruiting efforts is important, as the global dearth of qualified security personnel available to hire requires creative approaches to finding talent.

Shortage of cybersecurity workers

There is a global shortage of 2.72 million skilled cybersecurity workers, according to the 2021 Cybersecurity Workforce Study by the International Information System Security Certification Consortium, or (ISC)². Cybersecurity professionals said in the study that the workforce gap remains the number-one barrier to meeting their organizations’ security needs. Sixty percent of respondents report that a cybersecurity staffing shortage is placing their organizations at risk. The consequences of cybersecurity staff shortages are real and create challenges for organizational success (Exhibit 2).

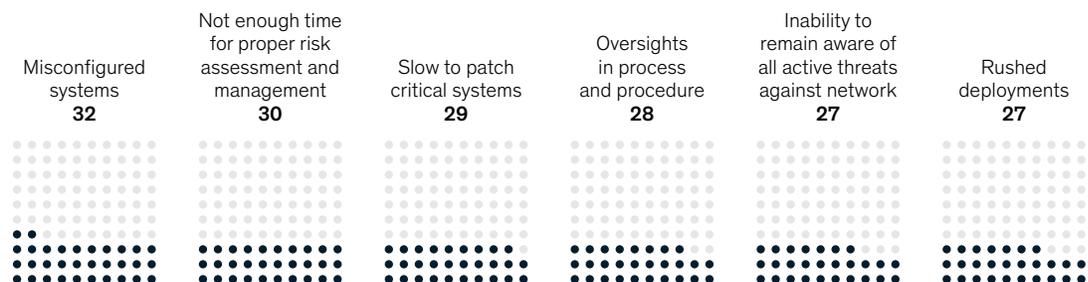
Depending on your type of organization, talent-to-value protection can work in a few different ways:

1. **Early-stage cybersecurity organizations.** For organizations just beginning their security journeys, the first focus is getting key players in place and setting up program management capabilities. This approach focuses on executing strategic initiatives and improvement activities in parallel; it fills management roles proactively and overweighs the importance of leaders (for example, managers and directors) to manage controls and operate capabilities.
2. **Steady-state organizations.** For organizations with well-established cybersecurity capabilities, the main priority is to make continued improvements to protect against emerging risks. This approach focuses on targeted improvement opportunities; it emphasizes high-impact experts or key frontline employees and places less weight on managers and directors because of the existing leadership structure.
3. **Transforming organizations.** Companies undergoing transformations prioritize new hires and skills against where the new risk will be or to protect the most valued part of the new business. This approach prioritizes new hires to safeguard the value gained from a business transformation, finding new talent or new skills to reduce potential risk.

Exhibit 2

Cybersecurity staffing shortages can create real challenges within an organization.

Share of cybersecurity leaders reporting impact due to insufficient cybersecurity staffing, %



Source: (ISC)² Cybersecurity Workforce Study, 2021, (ISC)², 2021 (n = 4,750)

The first priority is to understand what capabilities directly impact the systems and processes that drive business value: the crown jewels.

Protect the crown jewels

The first priority is to understand what capabilities directly impact the systems and processes that drive business value: the crown jewels. The crown jewels are the assets, the data, and the applications that are most critical to business value and operations. Implementing a risk-based approach to protecting these assets requires mapping required controls and selecting the right people to implement them. Organizations can use existing frameworks, such as the National Initiative for Cybersecurity Education (NICE) led by the National Institute of Standards and Technology (NIST), to focus the organization on the types of skills needed for priority controls. This self-examination helps identify personnel who can be upskilled or determine when new hires are needed.

For example, a large Latin American oil and gas company reprioritized its cybersecurity spending, capability development, and leadership after analyzing its crown jewels. The organization identified what mattered most and clearly defined the most critical risks. This crown jewel identification effort helped provide an understanding of the most critical talent needs and allowed the organization to build a targeted recruitment campaign to build its team's capabilities.

As organizations across all industries race to defend their business value, it is critical that they accelerate to close gaps on controls to reduce risk and stay ahead of evolving attackers. According to a 2021 McKinsey survey, only 10 percent of organizations were found to be approaching advanced cybersecurity functions, while 20 percent surpassed mature cybersecurity, which

left 70 percent yet to fully advance to a mature approach—further highlighting the need to prioritize for risk-reducing activities that focus on value protection first (Exhibit 3).¹

Hiring based on assumptions

Less mature organizations often assume they must hire based on cyber roles, regardless of the specific risks they face. Talent-to-value protection focuses on hiring or training the right personnel at the right time, bringing risk in line with the risk appetite of the organization.

Too often, chief information security officers (CISOs), chief information officers (CIOs), and vice presidents of security are inundated by the daily firestorm of cyber activity. Using talent-to-value protection helps leaders gain clarity on where to apply resources to best reduce risk. Instead, leaders can focus on laying out a road map to identify the top security priorities and pair talent against them. Leaders can progressively reduce risk in key areas rather than attempting to mitigate it all at once.

A three-step approach to implementing talent-to-value protection

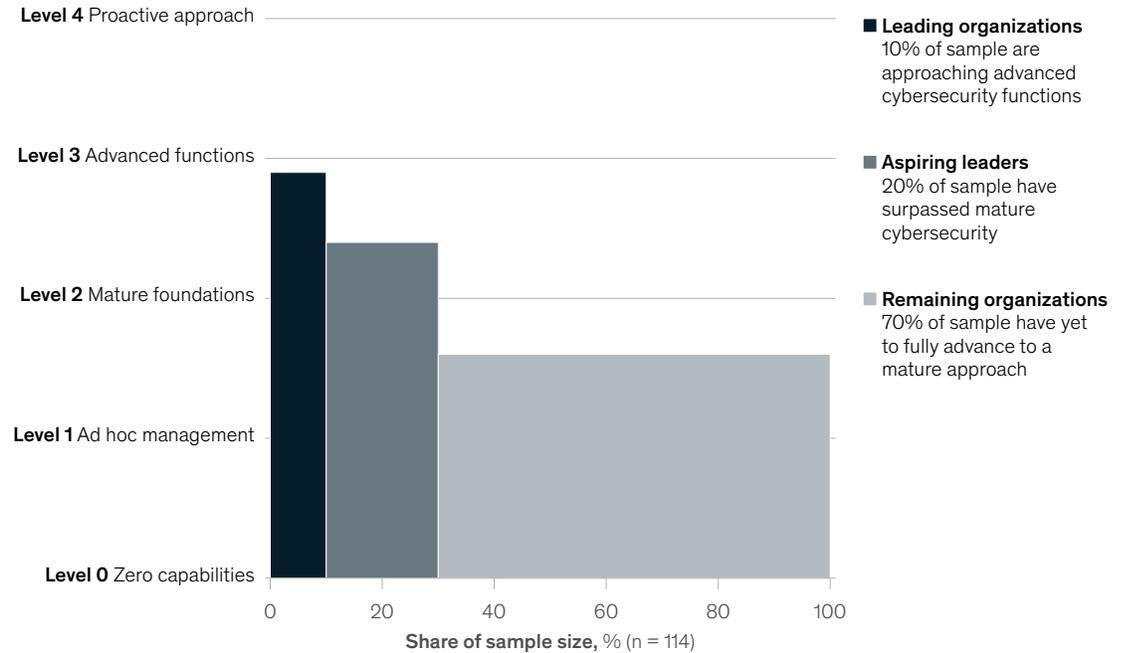
This approach requires a collaborative effort to understand and communicate what the risk is, what will reduce that risk, and who will be needed to reduce that risk. Organizations can use a three-step approach to adopt a talent-to-value-protection framework. First, identify the most important cybersecurity activities based on the needs of the organization and most pressing risks that must be mitigated. Second, define the most important roles

¹"Organizational cyber maturity: A survey of industries," McKinsey, August 4, 2021.

Exhibit 3

Most companies have yet to reach the advanced levels of cybersecurity maturity demanded by today's business environment.

Average cybersecurity maturity level, score (0–4)



that lead to maximum risk reduction. Third, build job descriptions for the priority roles and determine whether upskilling or hiring is the best option for each position.

Step 1: Identifying prioritized activities. Through risk modeling and assigning scores to potential vulnerabilities based on risk, talent-to-value protection makes it possible to create a list of activities to identify top priorities needed to execute on the security strategy. Each organization assigns scores differently—but all should work to assess risk based on the business or operational impact. Risk scores combine the likelihood and intent of an attacker to act and how vulnerable the organization is to that particular risk. For example, a technology organization realized after risk modeling that cloud compromise was one of its top cyberrisks, requiring the company to prioritize activities that brought down the most risk, including implementing cloud security controls over on-premises ones. Through this identification, it then became possible to match activities with

roles needed to hire, which required upskilling, and which should be outsourced.

Step 2: Defining priority roles. The next step would be to define and prioritize security roles needed to fulfill the top risk-based priorities. For the organization mentioned above, it became a priority to fill cloud security roles to execute the activities necessary to implement the most critical cloud controls. Once priority roles are defined, it is possible to create the job descriptions of what the company needs in each role.

Step 3: Building job descriptions and determining to upskill or hire. The final step is to determine if the priority role should be filled by upskilling existing employees or hiring new talent. One way to do this is to develop a job and role architecture that is linked to the organization's security services catalog. Security service catalogs can be built around functional groups like cybersecurity operations, governance, engineering, and service groupings like cloud security or data governance.

The job and role architecture organizes jobs into families, functions, positions, and roles. Roles can end up assigned a category and specialty area sourced from well-known frameworks like NIST/NICE.

Each job description for the priority roles should be described in detail: first, by building a high-level summary of tasks, skills, and background for the person who will fill the role; second, by writing role details; third, by identifying the tasks, knowledge, skills, and abilities relevant to the role.

When the job descriptions for the priority roles are complete, leaders can analyze who in their current cybersecurity team could fit well in those roles. In some cases, it is faster and less expensive to upskill that team member through training. Sometimes, upskilling is not feasible. In that case, leaders can use the detailed job description to jump-start the hiring search—with high confidence in the type of individual they need to recruit. For one technology company, building and filling a variety of cloud-security-engineer job descriptions was a priority. The company quickly recognized a need to hire additional cloud security roles after analyzing the team's knowledge and skills using NIST/NICE frameworks and seeing a gap in the ability to reduce key risks.

In-house or outsource

Even with this approach, building an in-house, organization-specific cybersecurity team may not be feasible due to available talent, resourcing, or another reason. Sometimes it makes sense to outsource talent to accelerate implementation and scale security support faster. For example, while undergoing a large-scale cyber transformation, an oil producer prioritized outsourcing security operations given its geography and the skills that existed on the security team, thereby reducing risk.

The CISO, who had a strong cybersecurity background, built a lean team of several program managers with a general understanding of cybersecurity. Outside of this small team, all other cybersecurity functions were outsourced. By understanding what the organization needed and where to hire talent versus purchase services, the company was able to hit its cybersecurity maturity targets by its deadlines and grow its operational-technology security to new levels.

Template to success

Talent-to-value protection creates a template for the roles and the needs of an organization where companies can start to create a plan on how to attract, retain, and train talent and find the gaps within their security programs and talent pool. It helps prioritize who the organization needs to target for recruiting and how to focus on retaining the most critical personnel. It helps identify new cybersecurity requirements—helping determine whether those needs can be met by upskilling employees. If the organization cannot upskill its teammates, it then can go hire.

Talent-to-value protection helps the company understand what it needs, who it needs to hire, and when. Leaders learn the job specifications and the jobs they have to hire for, which allows them to say, “I don't need a cloud security manager; instead, I need cloud security architects with experience shifting workloads to the cloud.”

In this era of a lack of qualified security personnel, talent-to-value protection allows organizations to be more strategic about their hiring. By tying this into the risk-based approach, an organization will have a prioritized list of roles to hire to build a secure enterprise.

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