

Resist, reframe, or reimagine?

Confronting uncertainty and the **new speed of adaptation**

Making sense of potential futures



Attempting to predict the future might seem futile, especially given the breadth of data and signals to contend with. Reframing the conversation can help.

Looking inwardly and questioning your organization's culture, its leadership capability, and your uncertainty threshold is a crucial step in adapting to this next wave of change.

But we also need a fresh way of framing the signals we're seeing in our external environment.

We need a way of thinking about the issues that may define both our near- and midterm futures—**an approach that takes us beyond generic macroenvironmental assessments** and provides executives with a clear picture of how themes and tensions might play out as they overlap.

The future won't unfold from a single isolated signal.

The macro forces at play

Our earlier thesis suggested that organizations are still grappling with a different **mindset** toward change shaped by the last 40 to 50 years; digitally powered change over the past 15 to 20 years; and the continued fallout from a once-in-a-century global health crisis.

These challenges notwithstanding, the world has continued to turn.

Leaders' uncertainty **thresholds have continued to be challenged** in ways small and significant, gradually and seemingly all at once. Geopolitical and supply chain disruptions and dependencies. Economic stresses and generational change. Wealth distribution and aging populations. Technology developments and climate change.

Just reading these categories can feel overwhelming, if not slightly abstract, without some way of filtering or framing them into meaningful, structured discussion topics—particularly given their intersecting and interdependent nature.

Through our analysis and sense-making of the various signals and trends we're observing, we see three primary themes combining and intersecting to shape the next wave of change:

Driving resource efficiency—scarcity, abundance, and the pursuit of infinite productivity,

The changing human-technology relationship and the evolving human, and

Shifting centers and structures of power, and decentralization.



The paradox of productivity

To suggest that resource efficiency will be a defining attribute of this next wave of change is hardly novel. **Efficiency has endured, if not increased**, as an organizational priority over the last century or so—with production, technology, and automation innovations activating the "more with less" mantra.

In coming years, however, efficiency will take on an almost paradoxical form.

On one hand, organizations (and society at large) will need to contend with **scarcity of natural resources, scarcity of labor, and scarcity of capital**. (In many cases, they already are.)

Yet on the other hand, this scarcity will likely be the **catalyst for creativity and innovation**. In concert with advances in technology, production, and automation, these forces will enable new forms of abundance to emerge.



Take renewables.

We're in the early throes of a critical transition away from fossil fuels to renewable and alternative energy sources. As our reliance on oil is set to decline, minerals like cobalt, graphite, and lithium are estimated to require production increases of 450% by 2050 to accommodate the battery production requirements for electric vehicles and other green tech.¹

To satisfy these increases, technological advances will intersect with a drive for greater productivity, lower costs, and environmental **impacts** of materials extraction—sparking new innovations in the process.

Or take labor scarcity.

Developed nations are grappling with aging populations and declining birth rates, leading to potentially systemic challenges to the workforce.

One of the starkest examples is Japan, where by 2070, the country is expected to lose about 30 million workers, or 40% of its working-age population compared to 2020 levels.²

This scarcity, however, is **converging with our pursuit of infinite productivity**—namely, advances in technology, AI, and automation, which are already showing their very real potential to augment or displace significant swaths of knowledge and manual workers. The seemingly unlimited potential of who or what can be made more productive raises the specter of stark societal implications.

As we move toward the next wave of change, our efforts to address scarcity won't simply manifest in the digital world. New energy sources and synthetic biology, for example, will create the potential for abundance in the physical world.

This won't happen overnight or all at once. Executives will need to simultaneously **balance challenges of** scarcity in some areas and abundance in others. further compounding the complexity of leading into and through change.



Questions to consider

Where is our supply chain suffering

most from the effects of scarcity, and how could we harness technology to alleviate those pressures?

In a state of scarcity, what substitutes might be needed?

How should we prioritize our efforts to improve workforce productivity? Where should this be targeted, and what are the implications for our people, as well as for skillsets today and new talent tomorrow?

How will abundance enable us to create new products?

What partnerships are needed to leverage the full power of an abundant future?

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The evolving human

Humankind's relationship with technology has never stood still, and it's only picking up pace.

In less than a generation, we've witnessed nothing short of a tectonic shift in the relationship between humans and machines.

In the last half century, we've moved from seeing technology primarily as an optional tool of efficiency to one permeating most aspects of our lives to a source of potential harm. Today, various commercial enterprises are developing advanced artificial intelligence capabilities **despite a lack of international** policy coordination or regulation. Without such guardrails, these enterprises could put us on an irreversible course toward technology that no longer serves humans (or even requires input from us at all).

The dystopian and utopian narratives at either extreme of discourse aren't necessarily helpful. In reality, what's emerging is a hierarchy of benefits and tradeoffs in **the rapidly evolving** relationship between humans and technology. This applies to the individual and to the organization.

This relationship only looks set to deepen and in ways we are only beginning to predict. What's critical for leaders is to consider technology's risks and downsides, as well as its **potential for** improving competitiveness or enriching individuals' lives.

Déjà vu.

We've seen what happens when new technologies are greeted with unfettered enthusiasm, without full consideration or understanding of the potential downsides.

Only this year, U.S. Surgeon General Vivek Murthy issued an Advisory stating "we cannot conclude social media is sufficiently safe for children and adolescents" and, for the first time, adopting an official position linking significant youth social media usage with increased risk of mental health problems, including depression and anxiety.

From an organizational standpoint, consider the dramatic rise of generative AI. While the **potential productivity and efficiency improvements are compelling** even in the earliest, bug-laden iterations, the increased risks of cybersecurity, IP theft, copyright infringements, and disengaged employees must be considered before meaningful steps are taken.

There are two sides to this coin. The upsides for both individuals and organizations are compelling-so long as the tradeoffs are considered and mitigated.



The basis and bases of power

West or east. Developed or developing. The G7 or "the other 187."

For generations we've ascribed power or control based on legacy classifications of industrialization, connectivity, modernization, urbanization, and traditional economic indicators. This approach to defining how markets around the world operate and interoperate is fast losing relevance.

Accelerating advances in digital capability and technology are proving themselves the great equalizer of the early 21st century. They are unleashing creative and economic potential outside the traditional focus of both capital and media attention-and enabling innovation to thrive in countries like Kenya or India, which previously may have been viewed as "followers" or "adopters" rather than "leaders."

In simple terms, where you'd expect to find innovation; where capital and investment is flowing; and where potential partners or disruptors are to be found is now a broader and growing list.

Take fintechs.

Silicon Valley, the United Kingdom, Europe, and the Nordics have long been regarded as leaders in this domain, birthing 74% of the more than 300 fintech unicorns in the world today.⁷

Fintechs have also grown up—professionalized, found scale, and established the talent, capital, and intellectual infrastructures needed to nurture innovation.

Meanwhile, the African content is vying for its place as **the newest hub for** emerging tech and digital innovation. After all, it is the only major region worldwide to experience year-on-year growth in deal count during 2022.⁸

Or take population growth.

Between now and 2050, half of all global population growth will come from just eight countries: Democratic Republic of the Congo, Egypt, Ethiopia, India, Nigeria, Pakistan, the Philippines, and the United Republic of Tanzania.⁹

Add to this **the ongoing wealth transfer** from the baby boomer generation to their children, estimated at some \$68 trillion worldwide.¹⁰ This will shift economic security and opportunity to Gen X and Gen Y consumers who have otherwise been considered a "squeezed middle."

In an era facing the conflicting challenges both of growing scarcity and growing abundance—whether in natural resources, talent, labor, or capital our legacy definitions of "power bases" are set to change.

Power begets control.

No discussion about power is complete without a corresponding discussion about control.

As centers of power shift, the implications for **centralized versus** decentralized control will challenge all **aspects** of an organization's ecosystem.

as "extended" (e.g., contractors, gig workers, professional service firms, complementor organizations, and technologies like algorithmic management and artificial intelligence).¹¹ Multiyear rises in portfolio, nomadic, and gig workers and continuing postpandemic disruption to the concept of the workplace raise significant questions for leaders.

Leaders, followers, and laggards in the world order aren't static. Power is shifting, both at an individual and organizational level, while control of that power is under renewed scrutiny.

Consider that **between 30% to 50%** of workforces are now classed

Questions to consider

Thinking about leadership models,

where might your organization fall on a spectrum of directive to democratic approaches?

In considering supply chains

and the risk environment, what is the appropriate balance between offshoring and onshoring?

When it comes to organizational

data, which group should own, manage, and safeguard data?

How is security, access, governance, and trust managed across your supply chain?

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No silver L bullets

In turbulent and uncertain environments, countless new models, frameworks, and paradigms emerge.

This is not one of those. **One size does not fit all**, and these "headline" discussion topics are designed to spark thought and debate, rather than provide answers in and of themselves.

Yet while our research suggests that these themes are universally relevant, **they are certainly not evenly distributed nor understood**. Each will play out to a different rhythm in different markets, different categories, and different contexts.

And they are not mutually exclusive. The intersection between the pursuit of infinite productivity, the evolving human-technology relationship, and decentralization, for example, is **where opportunity and risk will catalyze**—not in any one of these themes in isolation.

It's therefore incumbent on CEOs, their leadership teams, and their boards to **dedicate meaningful time to these topics and these questions**. It's not the time to "relegate and delegate" or kick the proverbial can down the road.

It's time to acknowledge the threshold at which their tolerance for uncertainty can become an impediment—both individually and collectively—and take steps to stretch it.



References

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¹ "The Geopolitical Risk and Strategic Uncertainty of Green Growth after the Ukraine Invasion: How the Circular Economy Can Decrease the Market Power of and Resource Dependency on Critical Minerals," Springer. July 2022

 ² Nikkei Asia / National Institute of Population and Social Security Research, Tokyo, 26 April 2023, https://asia.nikkei. com/Spotlight/Society/Japan-populationto-fall-below-100m-by-2056-new-estimate — accessed 03 August 2023

³ KPMG Economics - kpmg.us/insights/ kpmg-economics/tale-of-two-economiestop-labor-trends-feb-20231.html

 ⁴ "Forecast of the gross federal debt of the United States for fiscal years 2022 to 2033", Statista. February 2023

⁵ "Synthetic Biology Market to record rapid growth with a CAGR of 25.4% during the forecast period, Technological Advancements and Growth Opportunities", Yahoo. January 2023

⁶ "What 250 Years of Innovation History Reveals About Our Green Future", MIT. April 2021

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r	⁷ Statista, April 2023, https://www. statista.com/statistics/1262201/number-of- fintech-unicorns-worldwide-by-country/ — accessed 03 August 2023
	⁸ State of Fintech Report 2022, CB Insights
	⁹ "World population to reach 8 billion on 15 November 2022", United Nations. November 2022
	¹⁰ " Strategies to navigate the \$68 trillion 'great wealth transfer,' according to top- ranked advisors", CNBC. October 2022
	¹¹ David Kiron, Elizabeth J. Altman, Christoph Riedl "Workforce ecosystems and AI"; Brookings; April 13, 2023, Workforce ecosystems and AI (brookings. edu)
	¹² "Global Trends 2040", A Publication of the National Intelligence Council. March 2021
	¹³ "Web3 in Financial Services Explainer", Insider Intelligence. February 2023

¹⁴ "State of Globalization", Harvard Business Review. April 2022

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