

Four Futures for Economic Globalization: Scenarios and Their Implications

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Introduction

From the vantage point of 2022, history seems at a turning point. An ongoing pandemic, the climate crisis, the war in Ukraine and related geopolitical realignments stand out among the many factors contributing to the current volatility and uncertainty. These rapidly evolving challenges are nested amid simmering global issues, such as rising inequalities and an urgent need to adapt societies to an inevitable digital and green transition. Different global centres of political and socio-economic gravity are being challenged to demonstrate the legitimacy, effectiveness and efficiency of their existing institutions and systems in dealing with these simultaneous epidemiological, environmental and geopolitical crises and their socio-economic consequences. As a result, the global economy is undergoing a fundamental transformation.

In an increasingly uncertain global environment, many countries are turning inward and looking at new strategies to increase security, sustainability, national coherence and resilience. Before the pandemic and the latest geopolitical disruptions, globalization had created significant opportunities and lifted millions out of poverty, while also creating significant inequality and economic disruption. With the increased societal fallout from the last two years, policy-makers, opinion leaders and business executives are questioning the exclusive focus on growth and competitiveness, and reconsidering the impact of economic incentives on human well-being and environmental outcomes.

At the same time, technological innovation in recent years has transcended borders and old ideas of the possible. The virtual space has emerged as a fully fledged sphere of economic interaction and policy-making in its own right.¹ With global economies and societies spending much of the past two years trying to insulate themselves against epidemiological, environmental and geopolitical disruptions emanating from the physical space, they have begun shifting work online, reconfiguring supply chains and aiming to govern digital information flows.

The convergence of physical and virtual forms of economic globalization is no longer a given.² How different economic centres of gravity will choose between physical and virtual integration, fragmentation or isolation will shape the fate of economic globalization in the years to come.

The intensification of rivalry between major global centres of political and socio-economic gravity and systemic disruptions induced by the pandemic are among the many forces driving the global economy's fragmentation. As the traditional drivers of globalization have reached a critical juncture, a new phase of increased economic volatility and structural reset of the global system is beginning. The ever-accelerating digitalization of economies and societies, however, means that the rivalry between the global centres is rapidly expanding from the physical to virtual space. Competition over physical factors of production and the geography that shaped previous globalization waves are thus being mirrored and subsumed by growing competition over the control of technology and information networks. The latest World Economic Forum "Chief Economists Outlook"³ suggests a shift to a new phase of high volatility and polarization of the global economy, with strong consensus among the respondents on the higher fragmentation across goods, technology and labour markets. With the increasing politicization of technology, new strategic alignments are likely to be shaped by convergence on values as well as economic and digital interoperability, rather than geography alone.

With the help of four narrative scenarios, this White Paper presents an illustrative selection of conceivable states of the global economy in 2027. Rather than predicting what is likely, the aim of this paper is to provide a simple framework for possible trajectories in order to start a conversation. What is next for globalization? What should our collective economic future look like? What roads lead there? The answers to these questions are difficult, complex and nuanced. They can only be found in conversation and collaboration, not in isolation. Having this conversation now is imperative to meet humanity's collective challenges.

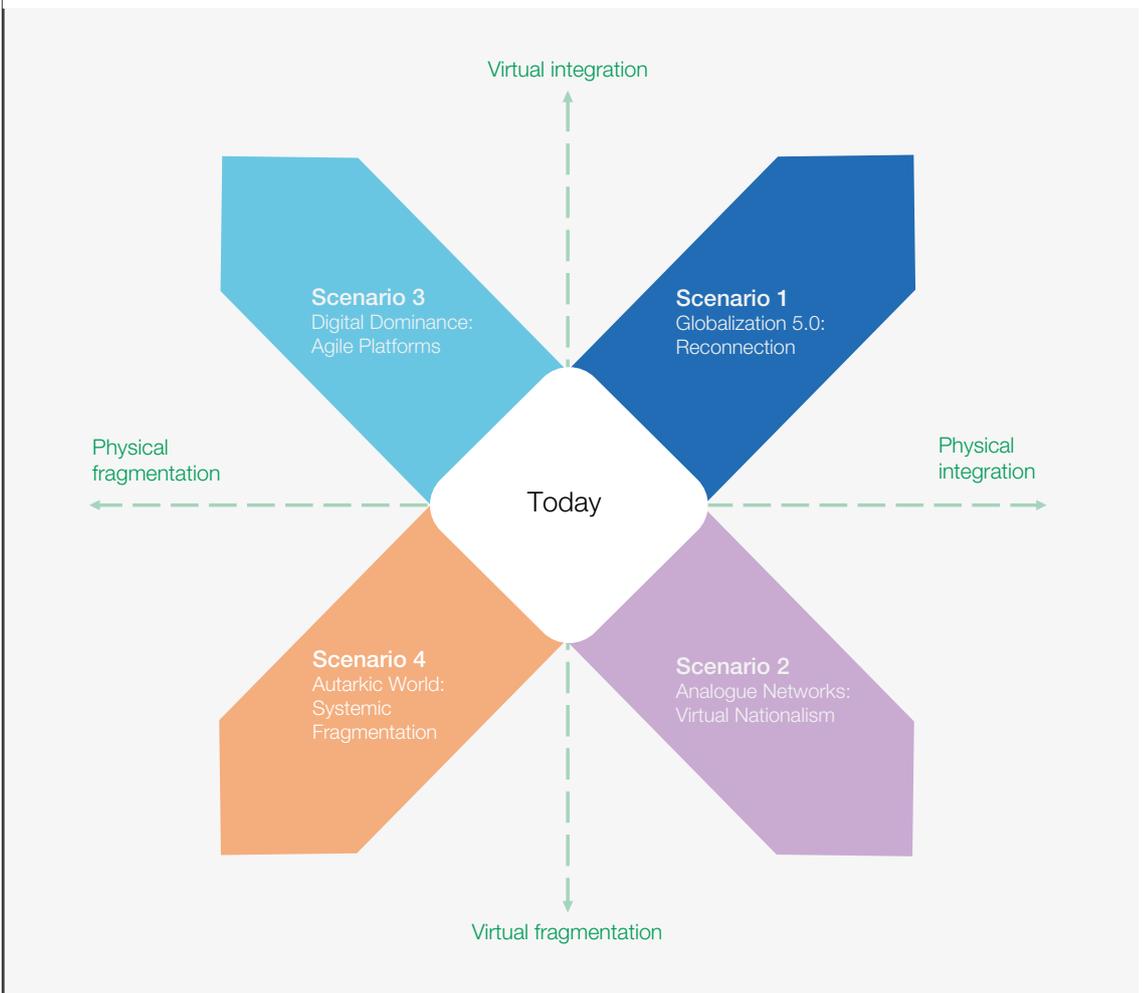
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Framework

As the global economy's future trajectories are being shaped by the interaction of physical and virtual forces, scenarios can be conceptualized based on a simplified framework exploring changes across the physical and virtual dimensions of globalization. The scenarios are not intended to predict the future but to present snapshots of a range of possible futures. These scenarios should thus be considered as a useful supporting tool for thinking through and navigating trends, uncertainties, opportunities and trade-offs, in simple terms, and for determining what actions might be taken today to support better decisions and outcomes in the future.

Using a 2x2 matrix structured along integration and fragmentation pathways creates four scenarios for the future of globalization (Figure 1). Each scenario offers a simple framework for exploring the likely new contours of global issues' key dimensions: the economy, the impact on the green transition and human capital. While treated separately, these components are naturally highly interdependent, and the directionality and strength of their potential spillovers will determine the extent of their implications.

FIGURE 1 Four scenarios for the future of economic globalization by 2027



Source: World Economic Forum

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Scenarios

Scenario 1

Globalization 5.0: Reconnection

Scenario 2

Analogue Networks: Virtual Nationalism

Scenario 3

Digital Dominance: Agile Platforms

Scenario 4

Autarkic World: Systemic Fragmentation





Scenario 1

Globalization 5.0: Reconnection

Physical and virtual integration

Increased socio-economic and technological integration has led to strengthened regional and global alliances, the recovery and diversification of supply chains, high labour and data mobility, as well as the proliferation of innovation in goods and services. Following the disruptions caused by the global pandemic and major conflict in the early part of the decade, recognition of the shared prosperity derived from a rules-based order has grown. Yet there is a marked trend away from the globalization of the past, as local economic and social resilience become critical considerations. Countries invest in particular in greater support for local workers, preparing them to compete in a more global market or aiding their transition away from disrupted sectors. Supply chains are also both more resilient and more politicized, as countries and multinational companies have become wary of returning to highly globalized ultra-efficient supply and distribution. Most aim to strike a balance between diversified local, regional and global supply chains. Technology platforms have both increased their global reach and achieved greater convergence in technology governance and privacy regulations across localities, with the global tax agreement in the early part of the decade spurring greater collaboration across countries on more similar approaches to competition. Greater physical and virtual economic integration across economies serves to remind global powers of the gains to be reaped from continued cooperation.

Implications

The deeper integration of strengthened regional and global alliances and the increased diversification of supply chains for commodities (e.g. food, energy and strategic manufacturing components) have reduced the likelihood of prolonged supply and price shocks. Strategic competition for oil and gas has been partially offset by the diversification and greater adoption of renewable energy and by cooperation in the sourcing of green metals.

Enhanced stability and global cooperation across physical and virtual trade routes have eliminated the risk of economies experiencing a stagflationary spiral in the earlier part of the decade. Longer-term investments in digital, social and green transformations are fuelling a new wave of inclusive, sustainable growth. Developing countries have benefited from the greater diversification and integration of supply chains and a commodity trade revival, and have attracted and retained global talent. Technological leapfrogging and the adoption of new technologies (e.g. blockchain, artificial intelligence, fintech, edtech, greentech, healthtech) have intensified across borders. The integration of virtual services has been facilitated by the greater international alignment of national data policy regulations.

Global climate action has been facilitated by physical and virtual integration, as overall cooperation between the key CO₂ emitters increases. The accelerated shift to renewables, in part as a response to earlier geopolitical shocks, has increased competition for key components, including critical metals and rare-earth elements. With 60% of global rare-earth elements in 2019 produced in China,⁴ and natural diversification constraints for critical metals like lithium, cobalt and nickel, the geo-economic map is redrawn. Industries relying on less diversifiable components, including critical metals-based electronics and automotive industries, have had to rely on vertical integration to strengthen resilience.

The labour market is more globalized with a high degree of digitalization of skills and tasks, easier relocation, greater remote work options and increased short-term and flexible employment, facilitated by the cross-border convergence of labour market and tax regulations, which have led to global competition and opportunities for the highly skilled workforce. Lower-skilled workers or those disrupted by the new forms of global economic activity expect better outcomes than the consequences of previous waves of globalization as governments invest more heavily in safety nets and human capital development through higher taxation.



Scenario 2

Analogue Networks: Virtual Nationalism

Physical integration, virtual fragmentation

While physical integration is reinvigorated by the resumed trade in goods, especially strategic commodities such as food, energy and metals, there is a splintering of technology across borders. As a result of the health, economic and geopolitical shocks of the earlier part of the decade, many governments recognize the benefits of cooperation in ensuring their populations have affordable access to food, fuel and other goods. Yet, as a tech race between major power centres heats up, some governments seek to exert greater control, companies face conflicting regulations across countries and cybersecurity concerns create further fracturing. Growing discontent over competition, cultural and security considerations has led to a backlash against global digital platforms and technology firms, viewed as sources of increased vulnerabilities and divergence. Several splinternets have emerged, with stronger state control over digital freedom of speech, new firewalls, inadequate privacy regulations and an increased risk of misinformation. Some of these technospheres have digital services and fintech, healthtech, edtech, biotech and artificial intelligence applications as well as digital currencies but, in many cases, state-sponsored monopolies exist, and the diffusion of innovation and competition are limited. The cross-border interoperability of technologies and IP sharing are restricted.

Implications

Economic cooperation becomes more complex with splintered digital systems. Virtual fragmentation has meant long-term stagnation of collaborative innovation in technology, services and production systems. The greater integration of trade flows allows the diversification of supply of key commodities yet remains fragile amid contested digital spaces and cyberattacks. At the same time, a fracturing of digital financial services undermines trade facilitation and the deeper international integration of trade flows.

Many developing economies without well-developed digital infrastructure are disadvantaged by the lack of connectivity to global information and technology flows and are often forced to align with one of several technospheres, shaping their digital future for years to come. The promise of the digital economy, with previous projections that 70% of the new value created in the global economy between 2020 and 2030 would come from digitally enabled business models,⁵ is unrealized.

The recovery of regional value chains following the disruptions in the decade's early years is undermined by strategic competition for technology, the gradual divergence of industry standards and productivity stagnation resulting from virtual fragmentation. While tech-driven industries, including aviation, electric vehicles, electronics and medicine, become highly

clustered within smaller regional hubs, their global output is significantly reduced over time. Technology disintegration and limited virtual talent mobility lead to disparities in the quality and availability of virtual and physical services.

Reduced greentech innovation runs the risk of slowing down the global transition to renewable energy sources, thus undermining the optimization of available green solutions and increasing the reliance on carbon-based energy sources in the mid to long term, thereby applying greater cost-of-living pressure on households. The emergence of virtual blocs especially affects the global commodity trading of green metals, and impacts faster progress in developed and emerging economies alike towards sustainable development.

Growing political rivalry further reinforces virtual fragmentation through increased IP and knowledge protectionism, greater divergence in data and virtual services regulations, stronger limitations on freedom of speech, and intensified misinformation and cyberwarfare. Global labour mobility and the movement of people are at risk in technospheres with high levels of online misinformation. Even highly skilled talent finds opportunity primarily within their technospheres, and overall investment in skills and human capital development is reduced as a result of virtual fragmentation.



Scenario 3

Digital Dominance: Agile Platforms

Virtual integration, physical fragmentation

Import restrictions, subsidies and competition for food, energy and other commodities have heightened, following the shocks that occurred in the early part of the decade. Manufacturing is highly localized and forward and backward global value chain components⁶ are shaped by political alliances and rivalries. While the focus on these concerns has been intense and protectionist rhetoric has generally surged, technology platforms and online services have multiplied, with rising economic and political importance. Many major economies have aligned on digital services tax frameworks, cybersecurity and privacy regulations, and online labour laws, unleashing a wave of global activity in technology-enabled work, and data and research cooperation. The revaluation of technology assets in the early part of the decade led to the more measured development of technology-enabled services and products based on realized value over speculative potential. In some areas, competition is strong, with small and large players competing to offer the best services. In others, the largest platforms form global dominions, and their dominance raises political and societal concerns about unchecked power and market concentration.

Implications

The fragmentation of global supply chains among strategic allies (e.g. United States–European Union; China–Russia) creates the risk of prolonged supply shortages and a cost-of-living crisis as price shocks squeeze heavily indebted governments, corporations and households. Smaller and trade-dependent countries, as well as countries reliant on extractive resources, suffer the highest losses from a lack of essential imports or reduced export gains. The growing share of digital services and knowledge-intensive value chains is likely to partially offset the economic losses from physical fragmentation through the shift to “anything as a service” business models.⁷ The surge in the global platform economy is likely to further concentrate market power and increase the economic and political importance of global tech giants. Intangibles (e.g. artificial intelligence), data markets and digital services gain greater economic importance, while innovation in manufacturing is undermined by physical blocs, leading to divergences in manufacturing quality and premature deindustrialization in less-developed economies.

Developing economies would need to have invested heavily in expanding their digital infrastructure in this scenario to keep up with the speed of the global economy’s digitalization. Current targets aim for 60% internet access in developing economies by 2023.⁸ Such progress would need to accelerate rapidly. Additionally, developing countries that have invested in stronger human capital development

would benefit from Fourth Industrial Revolution dominance; others are at risk of being left out of the global economy if they are unable to convert digital infrastructure into opportunity for their populations. Larger economies with large domestic markets and local or regional sources for key materials would not be as deeply impacted in this scenario.

While the shift to cleaner energy would be supported by global greentech innovation, its scale and accessibility are undermined by global restrictions on natural resources and physical components produced by a handful of countries. The energy transition would be particularly complex for those economies that do not have local carbon-intensive energy sources or access to raw materials for greener energy sources in this scenario.

Opportunities for the global diversification and digitalization of tasks in knowledge-heavy value chains create high demand for a worldwide high-skilled talent market. Conversely, the cross-border movement of labour is more restricted in this inward-looking scenario, and gradual divergence occurs in the labour force between those who are more geographically bound versus those who are more flexible. Lower-skilled workers in more in-person work sectors particularly suffer from limited opportunities to move, reducing remittances for developing economies and younger workers in ageing economies.

Scenario 4

Autarkic World: Systemic Fragmentation

Physical and virtual fragmentation

The global pandemic and the geopolitical conflict at the beginning of the decade have had far-reaching consequences, and leaders are under pressure to turn attention inwards. Many have placed restrictions on the trade of goods and services, and cross-border flows of capital and investment have slowed. Value chains have become less trade intensive and highly localized or regionalized. Countries seek greater control over information, technology and knowledge. Internet censorship and surveillance are extensive within economies, and misinformation is rising. Physical and virtual cooperation is concentrated within the more restrictive spheres of influence to preserve strategic access to resources and maintain alliances. Between these poles, the militarization of the economy and technology has increased. Several economic and technological “iron curtains” force previously non-aligned economies to pick sides and align their economic fortunes with their cluster of cooperation. Across developed and developing economies, living standards fall and safety nets are reduced, stemming from the pursuit to minimize external dependencies, significant and prolonged price and supply shocks, rising political instability and increased defence spending.

Implications

The pursuit of an inward focus as well as economic independence and decoupling leads to a gradual divergence of knowledge and prolonged stagnation across economies. While the largest economies with large domestic markets are able to fare relatively well for a longer period of time, the smaller and less-developed economies are most affected by supply shortages and the inability to build resilient value chains locally. Heavily indebted governments and corporations have an increased risk of debt defaults. Smaller players with strategic resources are more likely to be exploited by larger economies.

The nationalization of industries becomes more likely for security reasons and to bail out previously export-dependent companies. Global industrial output is significantly reduced; the quality of output differs significantly between regions according to their capacity to establish local value chains and larger local digital markets. At the same time, the degradation of manufacturing and prolonged supply shocks undermine the delivery of essential services (e.g. health, food), and hunger and nutrition crises risk setting back progress for generations.

The overall lack of cooperation, except within the smallest clusters of collaboration, and the resulting economic fallout lead to a deterioration in climate change cooperation and adaptation measures. The risk of further environmental degradation and accelerated climate change is increased due to fragmented (and in some cases redundant) industrial production, the abandonment of global standards, the reversion to carbon fuels for production and the prolonged crisis of multilateralism.

Dual fragmentation in the virtual and physical space leads to the stagnation of talent and the loss of opportunity and wages for high- as well as low-skilled workers in both developed and developing countries. In most economies, the pressure on social safety nets is higher and the demand for government spending is greater amid a tightening fiscal space. Social and political strife in turn are likely to create a higher propensity for authoritarianism and misinformation, less press freedom and reduced privacy.

Finding common ground

This short exploration of potential scenarios shows that the traditional drivers of globalization have reached a critical juncture. There is no optimal scenario, but some are likely to lead to better economic and social outcomes, provided policy-makers and business leaders take proactive decisions to ensure that globalization is not an end in itself but a means to an end.

In the coming years, the most likely outcome is a complex combination of the four scenarios playing out across different areas and markets; some markets and policy areas will be local, some regional and some global. The high likelihood of both global cooperation and economic nationalism occurring concurrently in the near future requires moving beyond the simplistic and ideologically driven narrative of “globalization” versus “deglobalization” and proactively shaping a future that optimizes social and environmental outcomes.

The implications of these alternative realities point to “no-regret moves” for decision-makers from the public and private sectors and beyond. Economic resilience can best be achieved through integration, sharing and diversification. Strengthening regional networks can help countries enhance resilience through cooperation rather than isolationism. Similarly, global cooperation is crucial to manage the climate crisis. In addition, investments in human capital yield benefits for economies in all scenarios and put countries in a better position to manage inequality and adapt to various economic futures. This paper aims to invite further discussion on the ways forward and finding common ground.

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