

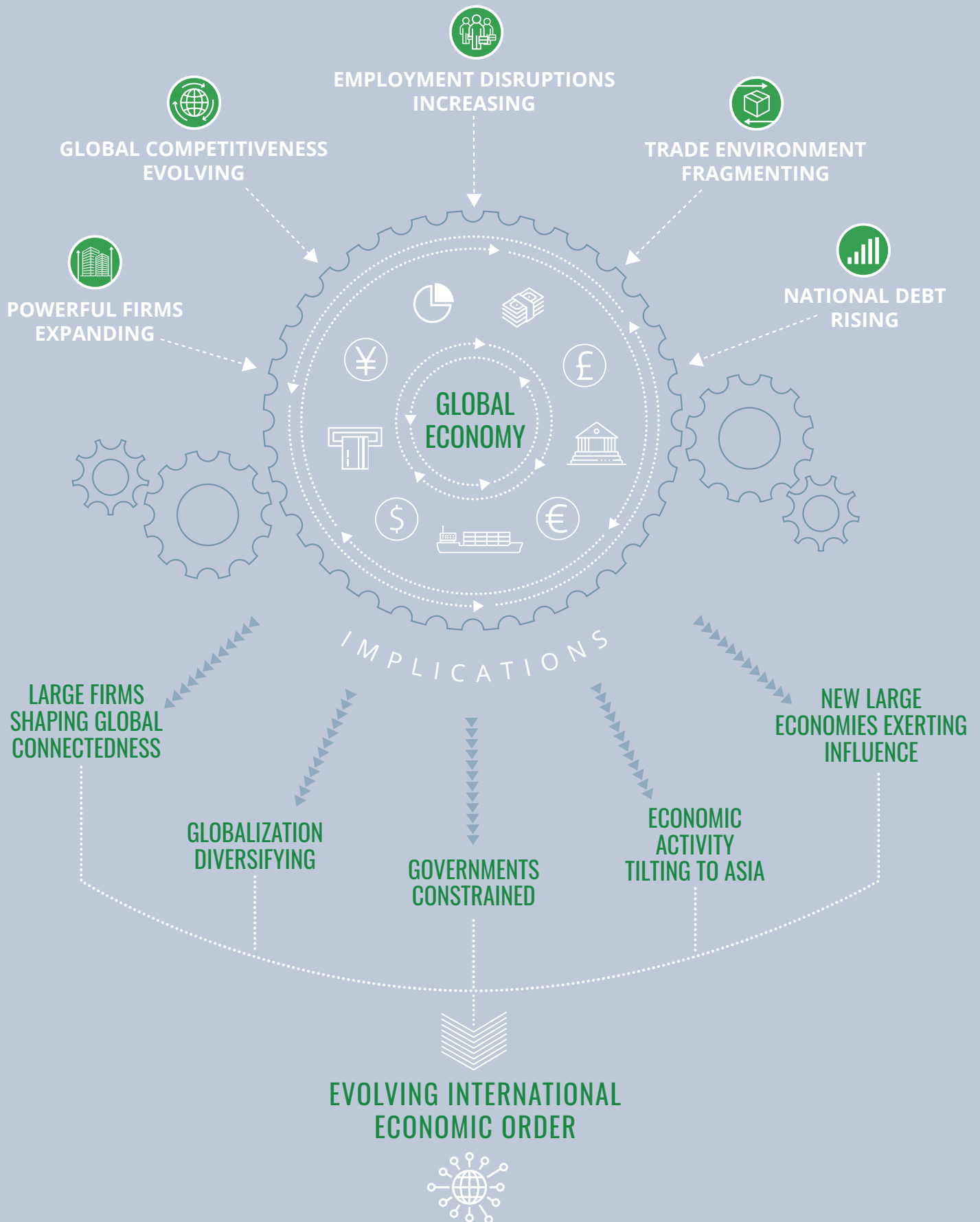
STRUCTURAL FORCES

ECONOMICS

Key Takeaways

- ⦿ During the next two decades, several global economic trends, including rising national debt, a more complex and fragmented trading environment, the global spread of trade in services, new employment disruptions, and the continued rise of powerful firms, are likely to shape conditions within and between states.
- ⦿ Many governments may find they have reduced flexibility as they navigate greater debt burdens, diverse trading rules, and public pressure to deal with challenges that range from demographic shifts to climate change.
- ⦿ Asian economies appear poised to continue decades of growth, although potentially at a slower pace. Productivity growth will be a key variable globally; increased growth rates in the Organization for Economic Cooperation and Development (OECD) countries would help governments deal with economic, demographic, and other challenges; and increased growth rate in Asia could help countries avoid the middle-income trap.





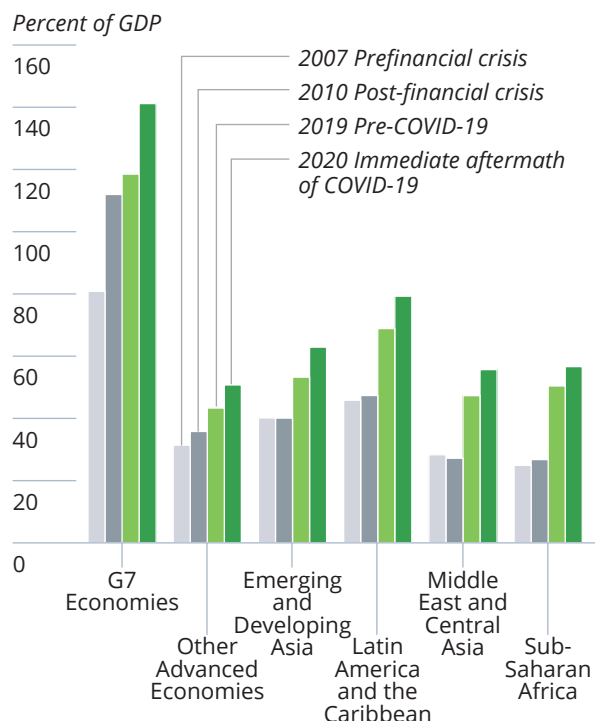
Over the next few decades, the economic costs of aging will strain public finances in all G20 economies, unless difficult decisions are made to either reduce benefits and/or raise taxes.

Economic trends during the next two decades probably will vary more than trends in demography and climate. Economic forecasting is inherently uncertain and highly connected to other key trends, including technology, as well as government policies. In this section, we focus on several longer term economic trajectories that are creating both opportunities and challenges for states and nonstate actors.

HIGH NATIONAL DEBT ENDURING, RISING

National debt levels have risen in almost every country since the 2007-08 global financial crisis and are likely to continue to face upward pressure through at least 2040. Strong borrowing in response to the COVID-19 pandemic, rising old-age dependency burdens in most of the largest economies, and increased demands on governments to spur economic growth as well as respond to other global challenges have all contributed to the debt levels. National debt to gross domestic product (GDP) ratios were higher in 2019 than in 2008 in almost 90 percent of advanced economies, including the United States and Japan, and leapt upward in 2020 because of the pandemic and government responses. Average debt ratios in emerging markets in 2019 were comparable to those that prevailed during the debt crisis wave of the mid-1980s and 1990s. In 2019, the International Monetary Fund (IMF) assessed

NATIONAL DEBT AS A PERCENTAGE OF GDP



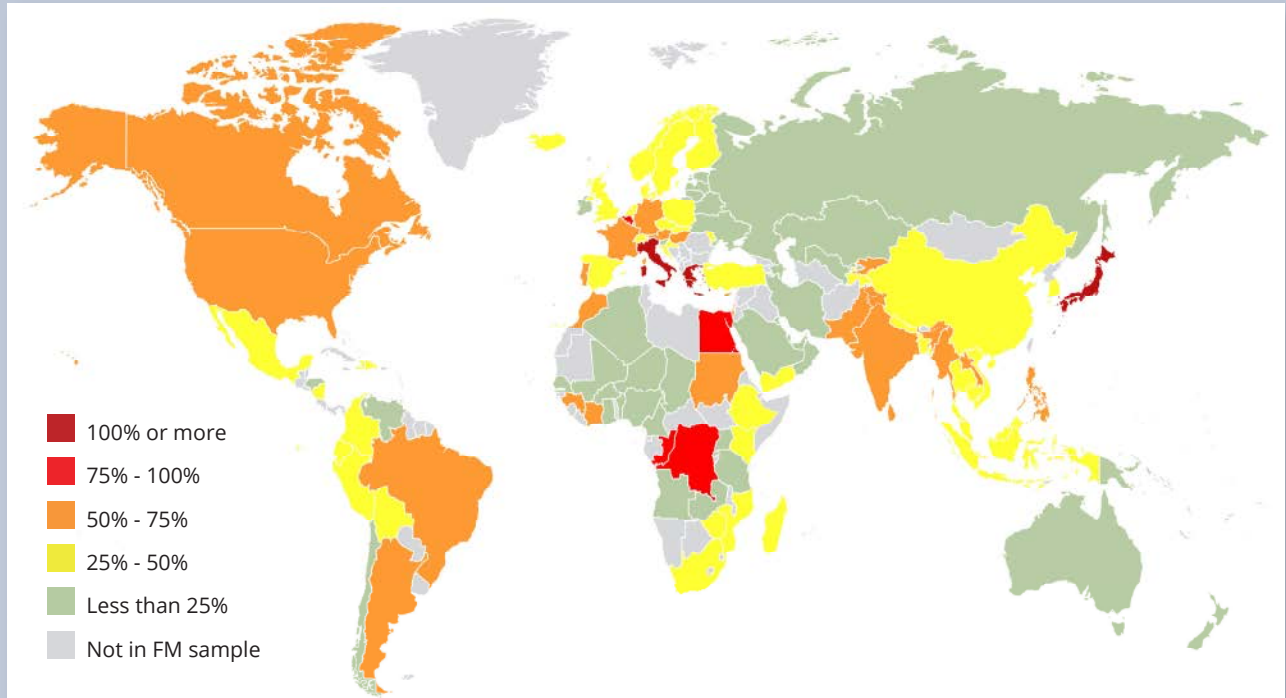
Source: WEO 2020 Database.

that approximately two-fifths of low-income developing countries were at high risk of, or in, debt distress. During the next few decades, the economic costs of aging will strain public finances in all G20 economies, unless difficult decisions are made to reduce benefits or raise taxes.

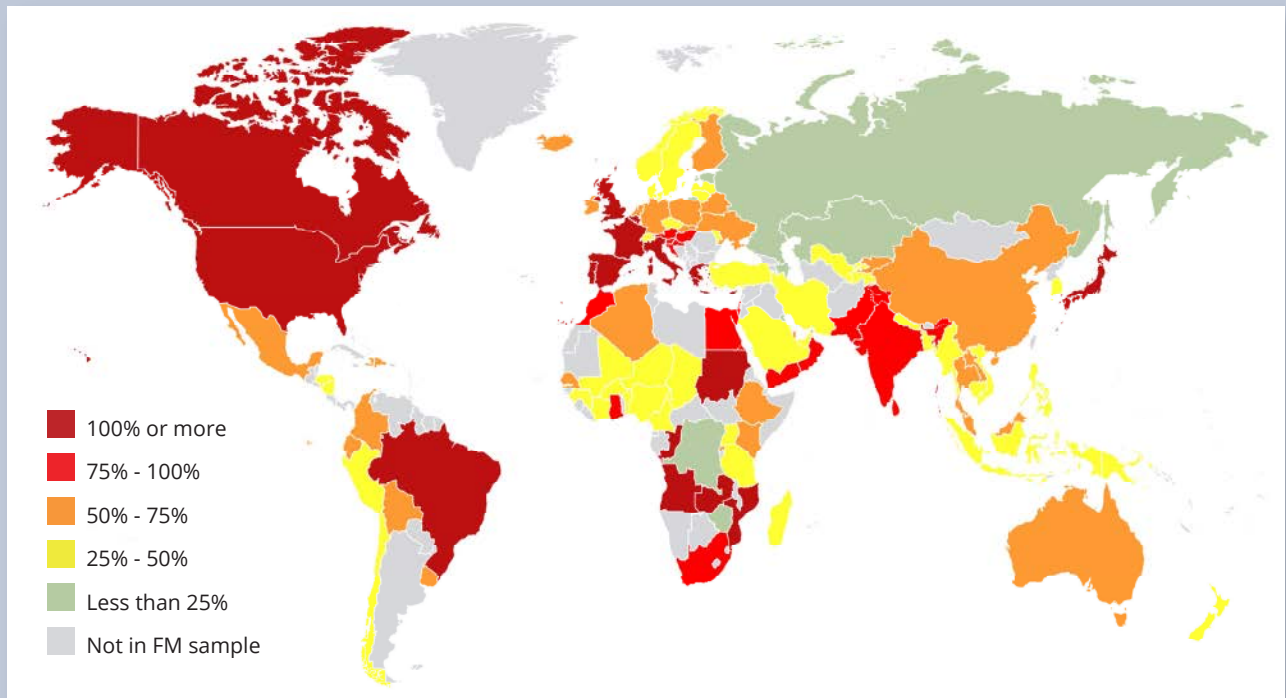
Reducing national debt ratios during the next 20 years is likely to be even more challenging than during the decade that followed the financial crisis. The cost of providing health-care and pensions in most of the largest economies, as well as paying for other social programs, will remain a drag on discretionary spending without major productivity gains or a reduction in the cost of these services. Slow economic growth in some economies could reduce tax revenues and impair governments' ability to reduce spending because of the need to invest in economic recovery and infrastructure or respond to the effects of climate change.

NATIONAL DEBT AS A PERCENTAGE OF GDP

2007 | PRE-GLOBAL FINANCIAL CRISIS



2020 | COVID-19



Source: International Monetary Fund.

Sustainable for Some, But Others at Heightened Risk of Default.

A prolonged period of low interest rates, similar to the post-financial crisis period, would increase the affordability of debt for some economies, including advanced economies in Asia, Europe, and North America, allowing them to sustain higher national debt ratios. The world's major central banks, including the European Central Bank, the Federal Reserve, and the Bank of Japan, have pursued an ultra-low interest rate policy for at least the past decade, and most economists expect these countries to be able to sustain high debt ratios because they have borrowed in their own currency. Departures from this policy could increase debt servicing costs and increase the risks associated with high debt ratios.

Emerging and developing economies that have financed at least some of their debt with external borrowing are at increased risk of debt distress and could face a debt crisis, even if global interest rates remain low, because local currency depreciation and increased risk premiums could increase servicing costs. Some governments are likely to face the choice of reining in public spending and risking public discontent, or maintaining public spending, which would further increase debt burdens and borrowing costs and risk local currency depreciation. Facing these choices, some governments are likely to prioritize spending on domestic issues rather than the global commons.

DISRUPTIONS IN EMPLOYMENT

The global employment landscape will continue to shift because of new technologies, notably automation, online collaboration tools, artificial intelligence (AI), and perhaps additive manufacturing. Tasks that once seemed uniquely suited to human abilities, such as driving a car or diagnosing a disease, are

already automated or potentially amenable to automation in the next decade. Studies have estimated that automation could eliminate 9 percent of existing jobs and radically change approximately one-third in the next 15 to 20 years. Emerging technologies will also create jobs and will enable greater virtual labor mobility through Internet-based freelance platforms that match customers with self-employed service providers as well as speed-of-light commercial data and software transmission.

Demographics, specifically aging populations, will promote faster adoption of automation, even with increases in the retirement age. Most of today's largest economies will see their workforces shrink over the coming two decades as aging workers retire. South Korea is projected to lose 23 percent of its working-age population (age 15-64), Japan 19 percent, southern Europe 17 percent, Germany 13 percent, and China 11 percent during this period, if the retirement age remains unchanged. Automation—traditional industrial robots and AI-powered task automation—almost certainly will spread quickly as companies look for ways to replace and augment aging workforces in these economies. Automation is likely to spread more slowly in other countries, with the key being whether it offers cost advantages, including over low-skilled labor.

The number of jobs created by new technologies is likely to surpass those destroyed during the next 20 years, judging from past episodes. One study by the World Economic Forum estimates that by 2025, automation will have created 97 million new jobs and displaced 85 million existing jobs. Several factors, including skills, flexibility, demographic factors, underlying wages, the share of jobs susceptible to automation, and access to continuing education could influence how well individual countries

are able to adapt to automation. For example, countries with growing working-age cohorts are likely to experience more employment dislocations or downward pressure on wages than countries with older populations at comparable levels of automation.

Automation may affect a growing share of the workforce. During the past two decades, it has replaced mostly middle-skill job professions, such as machine operators, metal workers, and office clerks. Automation may increasingly affect more high-income professions, such as doctors, lawyers, engineers, and university faculty. Although new jobs will emerge, there is likely to be a skills mismatch between jobs lost and jobs created. This mismatch could lengthen the period of unemployment for many workers as they attempt to gain the skills required for newly created jobs, and it could further skew the distribution of gains. More youthful economies might be more agile if they are able to provide the education needed to properly train new entrants into the workforce.

MORE FRAGMENTED TRADING ENVIRONMENT

The global trading system is likely to become even more fragmented during the next two decades. Since the creation of the World Trade Organization (WTO) in 1995, little or no progress has been made toward additional global trade agreements. Regional and bilateral trade agreements have proliferated, further fragmenting the global trading environment. Only a single multilateral agreement, the Trade Facilitation Agreement, has been completed since the WTO's inception. Progress has been limited by fundamental differences over agricultural trade and related subsidies and protection of intellectual property rights among member countries as well as by a widening divide between developed and developing countries. Lacking updates, current trade

COULD 2040 BE JOBLESS?

The breadth and speed at which AI could replace current jobs raises questions as to whether economies will have the capacity to generate sufficient new jobs and whether workers will have the requisite skills for the new jobs created.

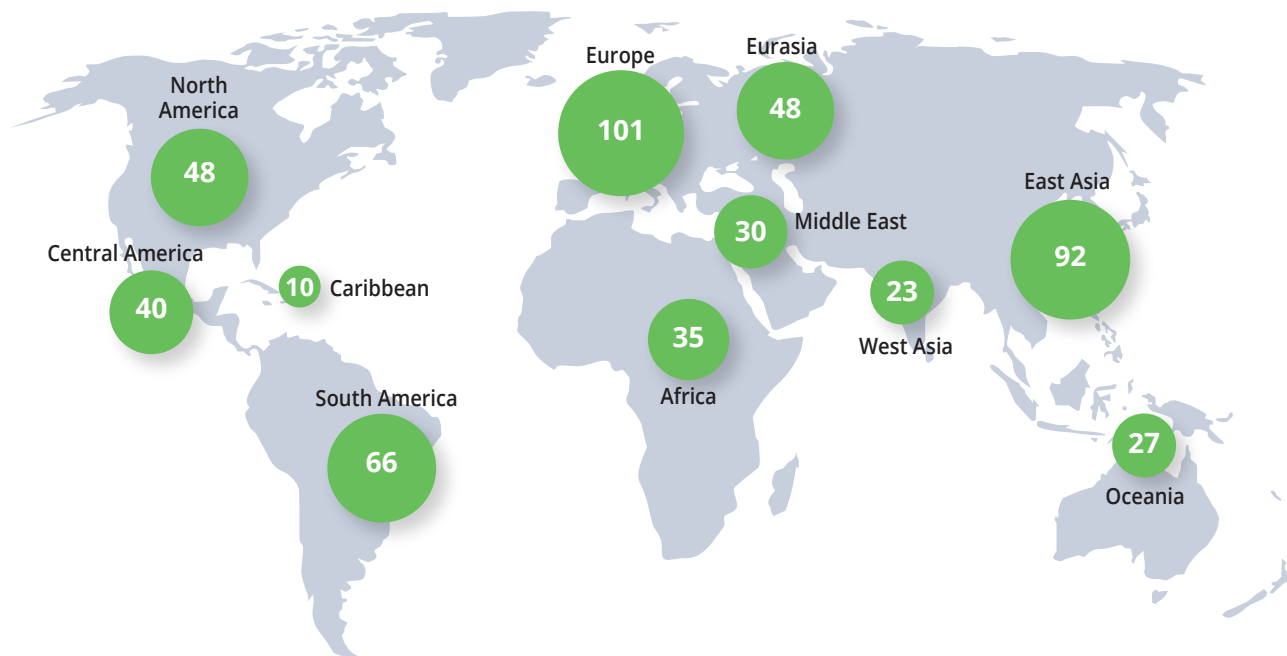
During the next few decades, AI appears likely to follow the trend of previous waves of innovation, resulting in net job creation over time, but it may lead initially to an overall decline if jobs disappear faster than new ones are created.

Alternatively, some economists question whether AI could lead to more continuous disruption to labor markets, as machines rapidly gain in sophistication, resulting in more persistent job losses.

rules are inadequate for new types of flows, including e-commerce and other services. However, barriers to trade in global services, such as data localization rules, and the continued desire to protect domestic agriculture are likely to make future agreements to update the WTO even more difficult.

As WTO rules become increasingly antiquated, future regional agreements are likely to establish new rules and standards, especially for new types of commercial transactions, resulting in further fragmentation of global trade rules. There has been a large increase in the number of bilateral and regional trade arrangements since the formation of the WTO, and more limited progress in sector-specific agreements. Some of these agreements not only cover tariffs and market access but also establish rules and standards in areas not covered by the WTO or other global multilateral agreements, such as the digital trade rules in

REGIONAL TRADE AGREEMENTS IN FORCE



Source: World Trade Organization. Information as of June 2020.

the United States–Mexico–Canada Agreement. Larger agreements, including the Asia-focused Regional Comprehensive Economic Partnership (2020), the Comprehensive and Progressive Agreement for Trans Pacific Partnership (2018), and the Africa Continental Free Trade Area (2020), are likely to boost regional trade and could attract more foreign direct investment to these regions.

Expanding unilateral, often non-tariff trade restrictions, are likely to further complicate international trade for governments and the private sector, limit trade-driven economic growth, and weaken overall growth. Although the US-China trade war has garnered headlines, many countries have increased their use of restrictive trade measures during the past 12 years. Between 2008 and 2018, the number of restrictive trade-related policy measures implemented globally increased by more than 200 percent compared to the previous decade, with Latin America and Asia accounting for 30 percent and 40 percent respectively. In the

Asia Pacific region, for example, non-tariffs measures have increased even as applied tariffs have fallen. With a record number of new trade barriers in 2019, trade restrictions are becoming structurally ingrained in the European Union's (EU) trade relations.

A combination of the desire to protect jobs in the manufacturing sector, concerns about capturing gains from winner-take-all technological progress, and a focus on critical inputs, such as medical equipment and pharmaceutical feedstocks, is likely to further accelerate the use of protectionist trade policies. The anticipated increase in job losses in manufacturing during the next two decades is likely to place pressure on governments, particularly those in advanced and manufacturing-dependent emerging economies, to take protective actions. In addition, a recognition that technologies, such as AI, could lead to sustainable first mover advantages—in which being the first to market a new product provides a competitive advantage—might lead some governments to

intensify their use of trade restrictions as they jockey for global position. Finally, protecting critical inputs and strategic supplies, especially pharmaceuticals in the wake of the pandemic, could lead to greater trade restrictions for these industries.

China, the EU, Japan, and other economic powers will also use their leverage to advance national security goals, further distorting markets. Since 2008, they already have intensified their use of trade restrictions and domestic market regulations for strategic influence. Looking forward, concerns about privacy and control of data streams as well as trade in industrial goods and other technologies are likely to lead to even more activist trade policies for broader national security interests.

ECONOMIC CONNECTEDNESS EVOLVING, DIVERSIFYING

In addition to trade policies, demand for and the increased ability to deliver services across borders and the use of e-commerce platform technologies are likely to further transform economic connectedness, including the shape of global value chains, the location of foreign direct investment, and the composition and direction of trade. Despite the fragmentation of the global trading system, trade in a broad range of services, including financial, telecommunications, information, tourism, and others, is poised to increase during the next two decades. In OECD countries, services account for roughly 75 percent of GDP and 80 percent of employment, but the current value of services trade globally is only one-third of that of manufactured goods, suggesting that there is significant room for growth. The WTO's Global Trade Model estimates that global trade would grow by around 2 percentage points more than baseline growth through

UNCERTAIN FUTURE OF MONEY

The financial sector is not immune from the technological changes that are transforming other industries. Digital currencies are likely to gain wider acceptance during the next two decades as the number of central bank digital currencies increase. China's central bank launched its digital currency in 2020, and a consortium of central banks, working in conjunction with the Bank of International Settlements, is exploring foundational principles for sovereign digital currencies.

The introduction of privately issued digital currencies, such as Facebook's proposed Libra, would further drive acceptance of digital currencies. The extent to which privately issued digital currencies will provide a substitute for the use of national or regional fiat currencies, including the US dollar and the euro, to settle transactions will depend on the regulatory rules that are established.

The US dollar and the euro are also likely to face threats from other fiat currencies, the potency of which will depend on changes in the current international financial architecture and the global importance of international linkages. Privately issued digital currencies could add complexity to the conduct of monetary policy by reducing countries' control over their exchange rates and money supply.

2030 if countries adopted digital technologies, which would facilitate expansion of services trade and provide a further boost to continued growth in economic connectedness.

New Manufacturing Technologies Shifting Trade. The configuration of global supply chains in 2020 largely reflected the importance of economies of scale and labor as a source of value creation in the manufacturing sector, leading to the centralization of production in a few lower wage locations, especially China. A large increase in the use of digital technologies

and additive manufacturing might reduce the importance of economies of scale and labor as an input and encourage firms to move more production closer to markets. These new production technologies could diminish the attractiveness of locating production in China and accelerate the rate at which companies reorient their supply chains.

E-Commerce Platform Economy Firms

Enabling Global Trade. Cloud computing, automation, big data analytics, AI, and other information technologies are enabling new distribution modes that expand access to international markets for all sellers but especially for small and medium-sized enterprises that have historically faced high foreign market entry costs. E-commerce platform firms, which in 2020 included the Chinese firm Alibaba and America's Amazon, are creating a marketplace that matches buyers and sellers independent of geographic location, providing a comparatively low-cost and low-risk way for firms to enter foreign markets, and increasing international trade flows.

E-commerce sales in 2018 were equivalent to 30 percent of global GDP that year, according to data released in 2020. International e-commerce spanned business-to-business and business-to-consumer sales; approximately 25 percent of all online shoppers made cross-border purchases in 2018. Looking forward, increased access to the Internet, falling data costs, growth in smartphone ownership, and a shift to online purchases post-pandemic are likely to result in more e-commerce sales, with many of these sales taking place on large global e-commerce platforms.

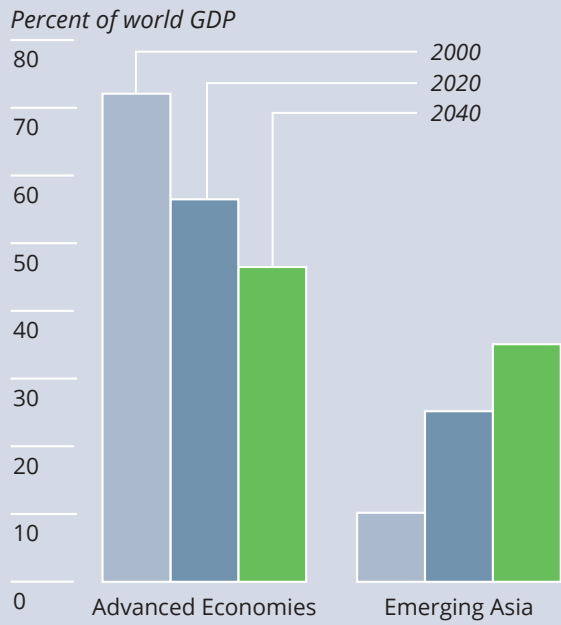
Multinational “Superstar” Firms Perpetuate Economic Globalization. Technology and digitization are also transforming the structure of some industries, increasing the prevalence of oligopolies and near monopolies and resulting

in global superstar or “winner-take-all” firms. Global superstar firms are the world's largest and most profitable across all industries, including pharmaceuticals, consumer goods, and information technology. These firms captured approximately 80 percent of economic profit among companies with annual revenues greater than \$1 billion in 2017 and earned approximately 1.6 times more economic profit than they did in 1997. Superstar firms, while domiciled in a single country, have sales that are global, and growth in the size and reach of these firms is likely to translate into an increase in economic globalization. The economic factors that support the rise of global superstar firms, including high fixed costs, low marginal costs, network and platform effects, and machine learning, are likely to persist through the next two decades.

Further, as technology, including big data and machine learning, and intangibles, such as brand, become increasingly important drivers of value creation during the next two decades, the market dominance of superstar firms is likely to increase. Growth in superstar firms is also likely to affect the division of economic gains between and within countries, potentially leading to friction and uneven regulation as host economies try to capture some of the value created by these firms. The power of these firms beyond business—including control of data and information flows—will encourage government efforts to regulate them, essentially as public utilities, or possibly break them up.

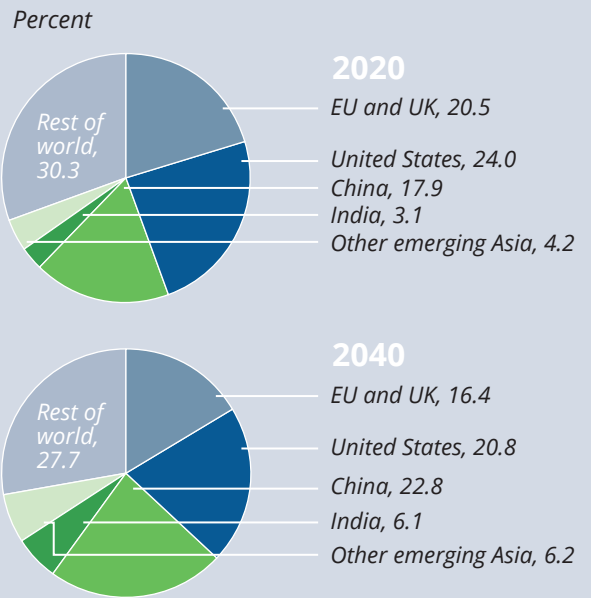
State Owned Multinationals Continue to Expand. State-owned multinationals (SOMNCs), most of which originated in China, India, Russia, Saudi Arabia, United Arab Emirates (UAE), and some EU member countries, almost certainly will continue to be active participants in international commerce. Some SOMNCs

ECONOMIC WEIGHT SHIFTING TO ASIA



Source: Oxford Economics.

FORECAST SHARE OF WORLD GDP



Source: Oxford Economics.

ECONOMIC ACTIVITY FORECAST TO TILT TO ASIA

2040 Population Rank	2020 GDP Rank	2040 GDP Rank
1 INDIA	6	↑ 3
2 CHINA	2	↑ 1
5 INDONESIA	16	↑ 8
6 PAKISTAN	39	↑ 23
8 BANGLADESH	44	↑ 28
14 PHILIPPINES	34	↑ 20
15 JAPAN	3	↓ 4
16 VIETNAM	40	↑ 24

Source: Oxford Economics.

COULD AI BOOST PRODUCTIVITY?

Labor productivity growth has fallen in most economies during the past two decades even as there have been large advances in technology. The next wave of technological improvements, including AI could reverse this trend.

AI might have large effects on productivity during the next two decades, in line with the delayed nature of productivity gains from electricity and information technology. The pace of adoption could also affect productivity gains. According to one study, AI could boost global GDP by 1.2 percent per year if 70 percent of companies adopted some form of AI by 2030.

Although any gains are likely to be unequally distributed, both between and within countries, countries that are net gainers from an AI-induced productivity boost would have expanded economic opportunities that could allow them to deliver more services, reduce national debt levels, and finance some of the costs of an aging population.

may distort the global competitive landscape because of the state support that they receive. As the competition for technology leadership intensifies, SOMNCs, including those from China, could increase their reliance on state support to capture and lock-in first mover advantages, prompting private companies to lobby their governments to intervene on their behalf.

CONTINUED TILT TOWARD ASIA

Global economic activity has been tilting toward Asia during the past 40 years, reflecting its higher rate of economic growth in comparison with the rest of the world, large population, and reduction in grinding poverty—a trend that almost certainly will continue through at least 2030 and perhaps

through 2040. Some of the most populous countries in Asia are positioned to be among the world's largest economies by 2040, even as their per capita income lag behind that of advanced economies.

Asia's record growth during the past 40 years has resulted in a convergence between Asian standards of living and those of middle- and even high-income economies. In 2020, China and other developing Asia countries contributed 18 percent and 7 percent respectively to global GDP. If these trends continue, by 2040 developing countries in Asia are projected to account for approximately 35 percent of global GDP, with India and China as the largest contributors at 29 percent of global GDP, according to Oxford Economics.

The faster economic growth in Asia could lead to some of the most populous countries being among the world's largest economies by 2040. For example, faster economic growth in India—on track to be the most populous country by 2027—could propel India into the ranks of the world's three largest economies. Similarly, faster growth in Indonesia, the world's fourth most populous country, could allow it to break into the ranks of the top 10 economies by 2040. However, their standards of living or per capita GDP are likely to remain well below those of advanced economies.

BROADER IMPLICATIONS AND DISRUPTIONS

The economic environment of the future, characterized by increasing national debt, a more complex trading environment, diversified global connections, and employment disruptions, will increase strains on governments. Taken together, these trends are likely

to shift economic influence to a broader range of players, including private corporations and less open economies, led by China.

Straining Contributions to Global

Challenges. High national debt, and associated debt servicing costs, could restrict the financial contribution that governments are able and willing to make toward global public goods and to address shared challenges, including global health and climate change. Wealthy countries might cut back on health assistance programs—or be unable to expand them to match population increases in poor countries. Less investment could delay emissions mitigation measures, and developed countries could backtrack on commitments to provide adaptation financing to the developing world. Slower growth and high debt could also limit the ability of some governments, including those in developing countries most at risk from the adverse effects of climate, from investing in adaptation measures to protect their infrastructure and communities from extreme weather.

Platformization Spurring Economic Growth.

E-commerce platform firms will not only sustain globalization by matching customers and businesses across borders, but they can also facilitate growth in domestic business by offering a marketplace for domestic firms and customers to meet. The rise of e-commerce platform firms could help spur the growth of small and medium-sized enterprises, which have historically made a significant contribution to economic growth and job creation. These small and medium-sized firms often

face funding constraints, but e-commerce platform firms offer lower customer acquisition costs and potentially greater market reach that could reduce costs, increase financing, and enable faster growth. In developing and emerging markets, these platform firms could lower the barriers to entry, help unlock financing, and provide an avenue to formalization of the underground economy. Greater regulation of platform firms—particularly by countries trying to impose trade barriers—might reduce gains.

Increasing Challenges to International

Economic Governance. The number of large but still developing economies and their relative economic weight are likely to increase during the next 20 years. These economies, led by China, could increasingly demand more influence over the direction of economically focused international organizations, altering standards and norms to reflect their economic interests, some of which may be incompatible with the interest of advanced economies. Other frictions might emerge because these economies are large in aggregate but still considered developing based on per capita GDP, giving them access to concessions from the IMF, World Bank, and WTO. These tensions could shape the future orientation and undermine the effectiveness of these organizations, as well as result in the creation of more parallel organizations and increase the influence of developing economies on global economic rules.

