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World Openness Report 2024

Institute of World Economics and Politics, CASS
Research Center for Hongqiao International Economic Forum

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List of Abbreviations

AB	appellate body
AI	artificial intelligence
AIIB	Asian Infrastructure Investment Bank
APEC	Asia-Pacific Economic Cooperation
BRI	Belt and Road Initiative
CIIE	China International Import Expo
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
DEPA	Digital Economy Partnership Agreement
DS	Dispute Settlement
FDI	foreign direct investment
G20	Group of Twenty
GDP	gross domestic products
GVCs	global value chains
IEA	International Energy Agency
IMF	International Monetary Fund
IRENA	International Renewable Energy Agency
JSI	Joint Statement Initiative
OECD	Organization for Economic Cooperation and Development
RCEP	Regional Comprehensive Economic Partnership
STRI	Services Trade Restrictiveness Index
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program

UNIDO	United Nations Industrial Development Organization
UNWTO	United Nations World Tourism Organization
USMCA	United States-Mexico-Canada Agreement
WB	World Bank
WTO	World Trade Organization
MC13	13th Ministerial Conference
RTA	regional trade agreements
EU	European Union
LDC	least developed country
S&D	special and differential treatment
SDG	sustainable development goal
FOCAC	Forum on China-Africa Cooperation
CELAC	Community of Latin American and Caribbean States
ASEAN	Association of Southeast Asian Nations
ETS	Emissions Trading System

Gather Light of Opening-Up to Illuminate the Way Ahead

Only by developing an open world economy can mutually benefit and win-win outcomes be achieved. Due to opening up, trade flourishes, innovation surges, economy booms, and culture fuses. Ever since its birth, human beings have explored the outer world and expanded the boundaries of their activities by trampling the sands of rivers, climbing the ridges of mountains, and crossing oases of deserts.

The magnificent architecture of Rome witnesses its integration with Greek culture. The light of Arab wisdom ignited the flame of the Renaissance. The Four Great Inventions of China have propelled the wheel of human civilization forward steadily. Christopher Columbus and Ferdinand Magellan opened the door to the New World, tightly connecting the old and new continents … Human beings learn in opening up, grow in exchanges, and innovate in integration. Only through opening up can human beings embrace a broader world; only through communication can we create a better future.

In 2021, the *World Openness Report* (hereinafter referred to as the report) was officially launched, which adheres to the gene of openness, promotes the concept of openness, innovates the practice of opening up, and resolutely advocates the common opening-up of all economies, jointly builds an open world, and promotes the process of world modernization.

At the crossroads of economic globalization, the report's global vision, scientific attitude and wise views have attracted wide attention from all walks of life at home and abroad. Over the past three years, the compilation of the report has gradually improved, the perspective has become more precise, and the insights have become more pertinent. It has become a "barometer" for the world's opening-up.

A Nobel laureate in economics spoke highly of the report: "It should become a standard reference for anyone interested in economic development and international economic relations."

The *World Openness Report 2024* is in line with the previous reports and has some innovations. It accurately compiles the World Openness Index, which provides a panoramic picture of the world's opening up over the past year and measures the progress or retreat of 129 economies in

opening up. It gathers open wisdom from all parties and, for the first time, by sending questionnaires to experts in academia, politics, and business worldwide, analyzing main factors affecting opening up and seeking the truth to solve the problem of opening up.

The report responds to the world's "changes" with an "unchanging" opening up, explores the transformation of global economic governance, and witnesses the changes in driving forces of opening up such as the Global South and multilateral trading system. It captures the hotspots on opening up worldwide, where the opening-up of digital activities, green industry, and service sector complement each other, becoming highlights of opening up.

The report firmly sends out strong voices of China on opening up. The China International Import Expo (CIIE), the Belt and Road Initiative (BRI), high-level opening up, and in-depth reform have become the "bright card" in opening up of China.

Exploration with Patience: Portraying Panoramic Trend in Opening-Up Worldwide

Looking back on the past year, the pace of economic globalization is still faltering, the force of expanding opening-up continued a tug of war with that of isolation on a global scale. Our world, our times, and history are changing in ways like never before. Various forms of unilateralism and protectionism are on the rise, global economic growth is slowing down, many economies are increasing tariffs and non-tariff measures, geopolitical risks are intensifying, and combined with the shocks such as the COVID-19 pandemic, the world's "opening-up deficit" is being at a high level.

Nevertheless, the forces driving opening-up are constantly gathering. Like a strong east wind, the rapid development of modern technology provides an unassailable force for opening up. The yearning of people worldwide for a better life is illuminating darkness like an eternal lighthouse and pointing the way for opening up.

All economies are called on to efficiently foster resources available for opening up based on their respective resource endowments, and **enhance their capacity for opening up while expanding international cooperation**.

Each economy would accurately grasp the golden combination of opening up and modernization, especially that of expanding opening up and promoting higher-level modernization, so as to realize warranted openness and even optimal openness. Economies would strive to reverse the downward trend of world opening up by understanding the path of opening up, gathering the power of opening up, upholding policies on opening up, and alleviating difficulties of opening up.

The latest openness index and global trend in opening up presented in the first three chapters of the report indicate that the pressure for world opening up still exists, the road ahead is difficult and long, and only through unremitting efforts can we see the dawn.

The status quo of and trend in opening up worldwide is worrying. In 2023, the World Openness Index decreased by 0.12 percent year-on-year to 0.7542. After several years of cold winter and turbulence, the world's opening up has yet to recover to its pre-pandemic level. Compared with 2019, the World Openness Index dropped by 0.38 percent, and by 5.43 percent compared with 2008. Although the social openness index increased by 1.7 percent, the economic openness index decreased by 0.2 percent and the cultural openness index decreased by 2.4 percent. There is an obvious trend of shrinkage in the world opening up.

The effectiveness of the opening up did not meet expectations. In 2023, the world openness policy index rose by 0.7 percent, but the world openness performance index fell by 1 percent. This shows that although the policies on opening-up has improved, their strength and effects are not that remarkable. The internal impetus of market opening-up remains weak, the "heart-to-heart" exchanges of social and cultural dimension is still bitter. With an increase of 0.3 percent in the openness index for emerging market and developing economies and an decrease of 0.3 percent for advanced economies, the role of advanced economies in promoting opening up needs to be better played.

The environment for opening up is getting colder. The contradictions, problems, risks, challenges on opening up encountered by the world still exist and even intensify while various factors hindering the opening-up increasingly renovate.

With the help of the "super election year," protectionism and populism are resorting to any means necessary. Regional conflicts and wars continue, the security situation is further volatile, and "de-risking" has become the biggest risk, causing bottlenecks in cooperation on global industrial and supply chains.

From 2021 to 2023, the number of global trade intervention measures exceeded 4,700, significantly higher than levels before 2020. The World Trade Organization (WTO) model predicts that if the world falls into the worst-case scenario of comprehensive geopolitical competition, global average income will decrease by 5 percent and average trade volume will decrease by 13 percent.

The way of opening up is as long as the journey is; the destination will be surely reached as long as the first step is taken. The mega-direction of human development and progress will not change, nor will the mega-logic of tortuous world history, nor will the megatrend of shared destiny in the international community sharing the same fate.

According to the latest figures, global value chains have maintained an overall trend of expansion in recent years despite various shocks, with the share of foreign value added in global exports reaching an all-time high of 24 percent in 2022, up 1 percentage from 2021 and 4 percentages from 2009, respectively. This evidence indicates that economic globalization has not undergone a fundamental reversal, and the "small streams" that promote opening-up are still stubbornly converging.

The 13th Ministerial Conference (MC13) of the WTO was held in Abu Dhabi, known as the "Land of the Gazelle" in Arabic, achieving a pragmatic outcome of "1 + 10." Multilateralism achieved the long-awaited "Leap of the Gazelle" in the "Land of the Gazelle."

Reform and Innovation: Capturing Hotspots of Opening Up in Depth

Faced with the ever-changing world political and economic situation, the ship of global opening-up seems to have encountered headwinds. We can't help but ask the question: Against the declining opening up of the world, what other sparks of hope can humanity find? Light is bright but not dazzling; still waters run deep. We are delighted to discover that amid the haze of anti-globalization, there are still resounding highlights of opening up, like twinkling stars in the night sky, bringing new possibilities to the whole world.

We see that sharing by opening-up is the vitality of a digital and intelligent world, the surging source of innovation, the embodiment of fairness and justice, the foundation of interconnectivity, and the guarantee of common prosperity.

We see that "each person sweeps the snow in front of his own door" is not feasible when facing global issues such as climate change and environmental pollution. Only by abandoning prejudices and working together can our common home i.e., the Earth be saved.

We can see that the opening up of service industry is vigorous, breaking down geographical boundaries, promoting capital flow, deepening cooperation and bridging cultural differences.

Chapters 6 and 9 of the report delve into the booming digital, green, and service industries, focusing on their impact on opening up and making policy proposals for future development.

The pulse of the "digit" is getting stronger. Data is regarded as the oil of the digital world, and its value lies in its flow and sharing.

In 2023, the transaction volume of global data marketplace platforms reached $1.192 billion, an increase of 22.6 percent year-on-year. It is projected to reach $3.266 billion by 2028, with an average compound annual growth rate of 22.3 percent from 2024 to 2028.

Global cooperation on digital opening-up is becoming more active. According to United Nations Conference on Trade and Development (UNCTAD) estimates, the global trade in services which can be digitally delivered grew by 8.5 percent year-on-year in 2023, with its share in global trade in services rising to 56.8 percent.

Cross-border e-commerce platforms are rising rapidly, and new formats such as overseas warehouses are flourishing. With its unique power, digitization has become a bright color against the background of anti-globalization.

The "Green" is leading the way. Global cooperation on environmental and climate governance continues to move forward, and the role of green industries in macro development strategies of various economies is further highlighted. Green development is not only about interests and well-being, but also about life safety.

The green transition in major economies has accelerated, with more than 140 economies announcing or considering a net zero target by the end of 2023, covering nearly 90 percent of global emissions.

In 2023, the global installed capacity of renewable energy increased by nearly 50 percent year-on-year, the fastest rate in past two decades; global investment in low-carbon energy has

surged by 17 percent, investment in hydrogen energy has tripled, and investment in carbon capture and storage has doubled; global green bond sales increased more than 10 percent to $492.3 billion.

The concept of green development has deeply penetrated people's hearts, an open consensus is gathering, and a global cooperation plan will be formed at an accelerated pace.

Opening up of service is more prominent. The service industry has become an important pillar of the global economy. The value-added of the global service industry accounts for two-thirds of GDP (gross domestic products), and global trade in services exceeds $15 trillion, much faster than the growth rate of trade in goods. In 2023, international aviation connectivity (global flight frequency) increased by 28 percent, and international passenger traffic grew by 41.5 percent.

In all countries, the Service Trade Restrictions Index has fallen amid the turmoil, suggesting that services are expanding opening-up amid the ups and downs. In 2023, the notifications of regional trade agreements (RTAs) involving services to the WTO accounted for 75 percent of the total increase.

The opening up of the service industry involves deeper social and cultural exchanges, which can break down the barriers of fixed thinking. It is difficult to advance, but its benefits are endless.

The Ocean Embraces All Rivers: Fully Gathering Momentum of Opening up Worldwide

The report calls for opening-up, advocates for opening-up, and embraces it. In the complex chaos of globalization, the golden rule of opening-up should be investigated like reeling silk from cocoons or plucking a pearl by groping about the chin of the black dragon.

We believe in the power of openness. By grasping the global trend, tracking historical trends, and holding high the torch of opening up, we can reshape the confidence in opening up. Confidence is more important than gold, seeking certainty in uncertain times.

Faced with a half-full cup of water, some people see "half cup of water" while others see "half of an empty cup." For the current opening up, pessimists see the waver and hesitation of globalization after reaching a certain stage of development, while optimists see new momentum to gather and a new round of globalization looming.

We pursue the dream of openness and cheer for technological innovation to generate tremendous momentum for opening up. The emergence of technologies such as Jenny spinning machines and power looms enabled the textile industry to move out of the confines of family workshops and into the world. The invention of steam engines, internal combustion engines, and computers broke through the limitations of space and gradually reduced the world into a "global village." The force of opening up is accumulating and will eventually gather into a trend that moves forward courageously.

Chapters 4, 5, and 8 of the report focus on depicting the Global South, the WTO, and the new quality productive force, which are sailing against the tide with extraordinary firmness.

The power of the states has undergone a transformation. The widespread rise of countries in the Global South has become an important force on the international stage, exerting great influence on the world economic pattern and economic globalization. The pattern of overall capability between the South and the North is evolving from "four to six" to "six to four."

Meanwhile, countries in the Global South have more diverse and urgent demands in the landscape of international economic governance.

As we previously judged, advanced economies used to dominated globalization as drivers of opening up of the world, but now emerging economies are actively participating with their more diverse demands for opening up.

"In spring the trees in the forest begin to put young leaves forth by hastening the departure of old leaves; the waves in front of the rolling water give way to the waves behind." The Global South should and will become the backbone of expanding opening up.

The power of rules is steadily evolving. As a tool for promoting economic globalization, economic and trade rules are extending from "cross the border" to "behind the border." The current economic and trade rules are increasingly focusing on behind-border barriers, which not only involve economic factors but also non-economic factors, for example, trade in services, intellectual property, competition policy, e-commerce, national security and other post-border rules.

In the open world, even across vast distances, the European Union (EU) can influence the standards for timber harvesting in Indonesia, honey production in Brazil, and pesticide use in Cameroon through the establishment of international economic and trade rules.

Unified rules on international economic and trade are the cornerstone of promoting common opening-up among economies, ensuring fairness, transparency, and predictability of global trade and investment.

The power of technology is poised to take off. The relationship between new quality productive force and the cooperation on opening-up is like wind and sail. The wind borrows the strength of the sail, and the sail takes advantage of the wind. The new quality productive force embodies the general trend of a new round of technological revolution and industrial transformation.

Economies are conducting extensive cooperation in areas such as green and low-carbon, new generation of information technology, and quantum information. From 2011 to 2020, 149 economies worldwide conducted research collaborations on the base of academic papers on advanced manufacturing technology. The year 2023 is often referred to as the "year of artificial intelligence," and the emergence of GPT series models brings about significant changes. It requires massive amounts of data for continuous learning, making opening-up a key factor in the development of artificial intelligence (AI).

New quality productive force, characterized by its distinctive "openness," will pool the wisdom on opening-up of all parties, shape future technology, build the cornerstone of win-win cooperation, and help the world economy take off.

Perseverance: Telling the China Story on Opening up of China

Openness is the gene that runs through China. Twenty-one hundred years ago, Zhang Qian, a royal emissary, made a journey to the West from Chang'an (present-day Xi'an in Shaanxi Province), opening an overland route linking the East and the West, writing the legend of the Silk Road. Thirteen hundred years ago, with openness and inclusiveness, by swallowing anything and everything, the Tang Dynasty (AD 618–907) achieved the prosperous scene that "visitors met together in Chang'an from thousands of miles away." A thousand years ago, in the ports of Quanzhou and Guangzhou during the Song Dynasty (AD 960–1279), merchants from various countries gathered and goods piled up like mountains. Six hundred years ago, Zheng He, the famous Chinese navigator of the Ming Dynasty (AD 1368–1644), made seven voyages to the Western Seas, spreading peace and friendship, exchanging culture and technology, and enhancing identity and understanding. Even in the increasingly reclusive Qing Dynasty (AD 1616–1911), the Thirteen Hongs of Canton were the window for China's dialogue with the world. More than 40 years ago, reform and opening up sounded like the thunderclap in spring, unleashing endless vitality and creativity in China. China and the world, and the world and China, became an inseparable community of shared destiny. Countless historical facts tell us that "openness brings progress while closure inevitably leads to backwardness," and "China's door to openness will not be closed, it will only open up wider and wider."

Opening up is a distinctive symbol of Chinese modernization. This country has long adhered to the fundamental state policy of opening up. By opening up to the outside world, China promotes reform, development and win-win outcomes, emancipating and developing social productive forces, stimulating and enhancing social vitality, and developing itself through integration into the world and benefiting the world. China's history of struggle from standing up, getting rich to becoming strong is also a history of opening up to the outside world.

A journey into the woods begins by clearing a path through the thickets. In the new era, China has secured historic achievements and seen historic changes by implementing a more proactive strategy on opening-up. As of 2023, China's trade in goods has been ranked first in the world for seven consecutive years, trade in service ranks among the top in the world, and digital trade is growing rapidly. The status of a major country in two-way investment is increasingly consolidated, the structure of utilizing foreign capital is continuously optimized, and outbound investment is steadily developing. Bilateral, multilateral and regional arrangements on economic and trade cooperation have achieved fruitful results.

Practice has fully proved that opening up to the outside world is a key to China's development and the source of progress of human civilization. Chapters 10–12 of the report focus on

China's practices of opening up, presenting a panoramic view of China's practical measures and remarkable achievements in opening up in the new era.

The belief in opening up is much firmer. This country always firmly believes that only an open China can become a modernized China. China's determination to expand opening up is as solid as a rock, and the pace of expanding opening up has never stopped. The remarkable Third Plenary Session of the 20th Central Committee of the CPC drew up a new blueprint for reform and opening up, laying out a "construction map," a "road map" and a "long-term vision map" for China to promote high-level opening up.

China will steadily expand institutional opening up, promote alignment with high-level international economic and trade rules, deepen the reform of foreign trade system and that of management system of international investment, optimize the layout of regional opening up, and improve the mechanisms of high-quality cooperation under the BRI.

Measures on opening up are more forceful. China has always adhered to the creed that "words must be followed by actions, actions must be taken," and has promoted opening-up to the outside world with more concrete measures, greater efforts, and higher standards, overcoming obstacles and achieving success.

- "One List." Compared with the 2021 version, the 2024 version of the negative list of restrictions on foreign investment in China has been reduced from 31 to 29, and all restrictions on foreign investment access in manufacturing sector have been completely lifted, continuing to stimulate market vitality.
- "One Window." Build a "Single Window" for international trade, no longer allowing enterprises to log in to multiple systems, fill out multiple documents, and travel to and from ports multiple times, effectively improving the efficiency and transparency of customs clearance at the port.
- "One Market." The market construction has achieved remarkable results, and is forming an efficient, standardized, fair competition, and fully open national unified market.

Platforms on opening up are more diverse. For more than ten years, the building of the Belt and Road has flourished in spring and reaped in autumn, achieving a historical leap from bilateral to multilateral, from regional to global, and from cooperation to governance. It recreated the bustling scene of untiring envoys and businessmen over land and countless ships calling at ports along the ancient silk routes. It has contributed China's wisdom and strength to the openness, diversity, and stability of the global economy.

The CIIE provides the world with four major platforms for international procurement, investment promotion, people-to-people exchange, and cooperation on opening-up, vividly fulfilling the commitments of a great power by enabling market connectivity, industrial integration, cultural promotion, and ideological intersection.

One walks on a boundless journey ahead just like a solitary pillar of smoke rises against the vast desert. Looking back at the process of human transformation of nature, society, and self, hu-

mans are like tiny dust in the vastness of the universe. Therefore, the choice becomes particularly important: whether to open up and cooperate, walk hand in hand, or go their separate ways and treat their neighbors as beggars?

Faced with common unknown challenges and infinite mysteries, on this lonely and long journey of exploration, human unity is the brightest light, while human cooperation is the most solid bridge.

Just as the China's Five-hundred-meter Aperture Spherical Radio Telescope welcomes scholars worldwide to listen to the deep murmurs of the universe, the European Hadron Collider joins hands with scientists from all over the world to unveil the mysterious veil of the microscopic material world, and the space station near to the earth accommodates multi-national astronauts living and working together …

The main theme of openness, communication, accommodation, and cooperation has always run through the development of human civilization, not only resisting the cold of the universe, but also igniting the flame of hope.

Let us firmly believe in our shared destiny, work together in times of adversity, gather the glimmer of opening-up, cultivate the strength of cooperation, ignite the torch of development, and illuminate the path of the world harmony.

World Openness Index 2023

After years of fluctuations, the World Openness Index continued to decline in 2023, indicating that openness is still tightening. The openness index scores for the 2008–2021 period align with the results published in the *World Openness Report 2023*; the estimated score for 2022 is revised and that for 2023 is provided.

I. Overview of World Openness Index

1. Contraction of world openness continues

In 2023, the World Openness Index was 0.7542, down by 0.12 percent year-on-year; it was 0.38 percent lower than the 2019 score and 5.43 percent lower compared with 2008.

The index was 0.7551 in 2022, down by 0.29 percent year-on-year; it was 0.26 percent lower than 2019 and 5.32 percent lower compared with 2008.

See figure 1.1 for the index scores from 2008 to 2023.

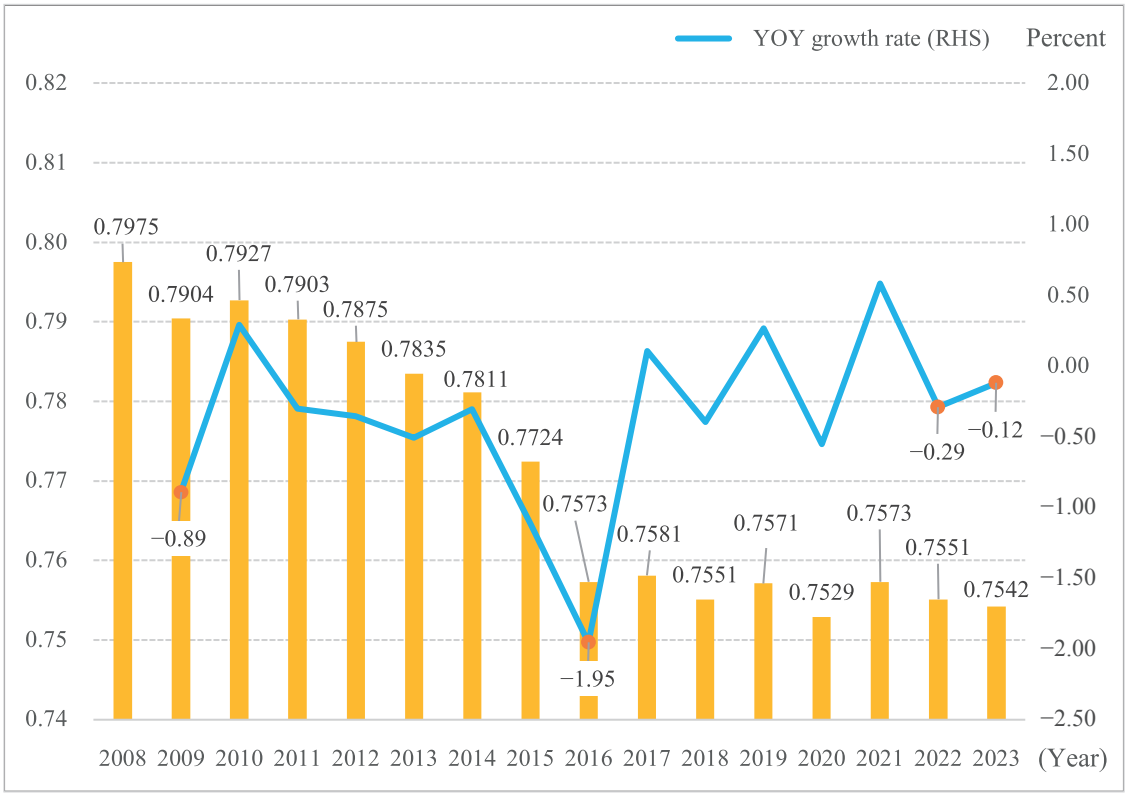

Figure 1.1 World Openness Index: 2008–2023

China has achieved remarkable results in its expansion of opening-up. Between 2008 and 2023, its openness index rose to 0.7596 from 0.6789, up by 11.9 percent, which was among the biggest advancements globally. In 2023, China ranked 38th in terms of openness index among 129 economies, one place up compared with 2022.

2. Top 20 most open economies

Singapore was the most open economy in 2023, topping the list of 129 economies in terms of openness index. Over the past 16 years since 2008, Singapore has consistently been the world's most open economy for nearly a decade (from 2015 to 2023), while it ranked second in the preceding seven years (from 2008 to 2014).

Ireland ranked second in the openness index rankings in 2023, moving up two positions compared to 2022.

China's Hong Kong SAR ranked third, followed by Germany, the Netherlands, the United Kingdom, Switzerland, Malta, Belgium, and Luxembourg.

Australia, Cyprus, Canada, France, New Zealand, Austria, China's Macao SAR, Sweden, Rep. of Korea, and Denmark ranked 11th to 20th, respectively.

For detailed World Openness Index rankings of these economies in 2008 and the 2019–2023 period, please refer to table 1.1.

Table 1.1 Top 20 most open economies: 2023
(sorted by 2023 ranking)

	2023	2022	2021	2020	2019	2008
Singapore	1	1	1	1	1	2
Ireland	2	4	3	4	4	11
Hong Kong SAR, China	3	2	4	3	2	4
Germany	4	3	2	2	3	3
Netherlands	5	5	10	11	7	9
UK	6	9	11	7	5	5
Switzerland	7	7	9	8	8	12
Malta	8	6	6	9	9	7
Belgium	9	8	14	14	14	13
Luxembourg	10	14	5	12	16	49
Australia	11	10	8	6	6	25
Cyprus	12	13	12	15	15	16
Canada	13	11	7	5	11	8
France	14	12	15	13	13	10
New Zealand	15	20	17	17	17	21
Austria	16	15	18	21	20	19
Macao SAR, China	17	26	34	41	24	34
Sweden	18	22	22	24	25	20
Rep. of Korea	19	21	13	10	10	55
Denmark	20	17	20	25	23	26

The World Openness Index scores and rankings of the 129 economies are provided in the appendix of this report.

II. Openness Indexes on Certain Subjects

Openness in relevant areas (economy, society, and culture)[1] and performance and policies[2] in recent years is demonstrated as follows.

1. Economic and culture openness both narrowed, while social openness widened

Economic openness tightens. The world economic openness index stood at 0.9112 in 2023, marking a year-on-year decrease of 0.2 percent, but it increased by 3 percent compared with 2019, and a decline of 5.0 percent compared with 2008 (see fig. 1.2).

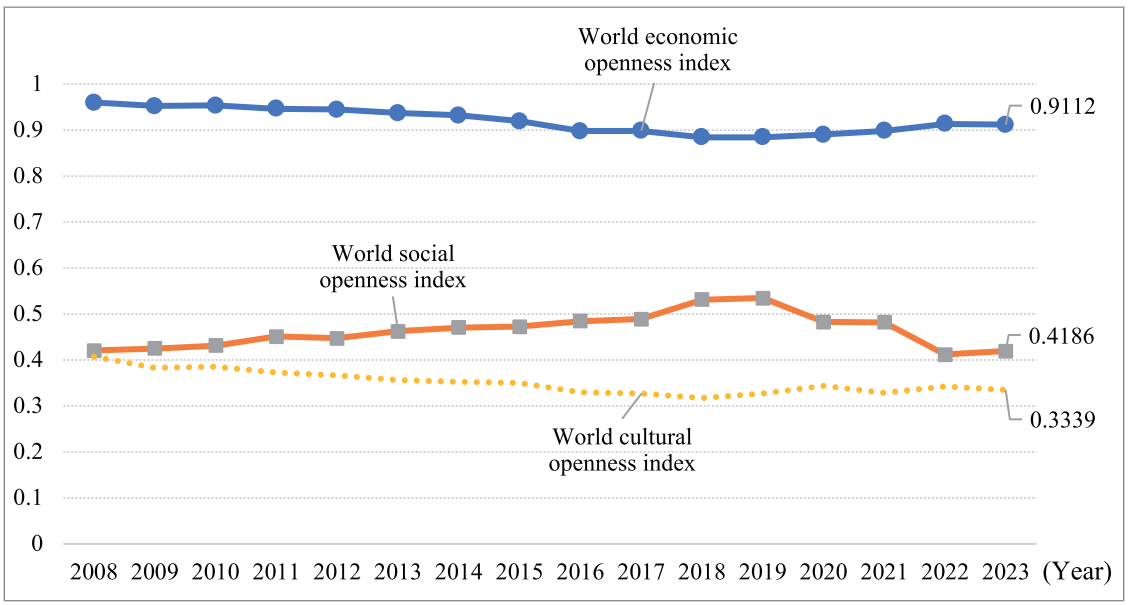

Figure 1.2 World economic, social, and cultural openness index: 2008–2023

1 Economic openness covers indicators such as international trade in goods and services, international direct investment, and securities investment. Social openness covers indicators such as international tourists, international students, and immigrants. Cultural openness covers indicators such as international trade in intellectual property rights, patent application, scientific literature citation, and international trade in cultural goods.

2 Openness policy refers to cross-border opening-up policies in economic, social, and other dimensions. Openness performance refers to the flow of cross-border economic, social, and cultural open carriers, reflecting the immediate results of opening-up. For the concepts, theories, methods, and data of the World Openness Index, please refer to part IV of the appendix of this report.

In 2023, the top ten economies with the highest economic openness index were China's Hong Kong SAR, Ireland, Germany, Singapore, Switzerland, the United Kingdom, Malta, Belgium, France, and the Netherlands.

From 2008 to 2023, economies with the largest increases in the economic openness index score were Nepal (93 percent), Iceland (15.4 percent), Rep. of Korea (11.1 percent), Cape Verde (10.3 percent), and China (9.8 percent).

Cultural openness narrowed. In 2023, the world cultural openness index stood at 0.3339, down by 2.4 percent year-on-year, but compared with 2019, it marked an increase of 2.1 percent, and a decline of 17.9 percent compared with 2008.[3]

The top ten economies with the highest cultural openness index scores in 2023 are as follows: the United States, Ireland, China's Hong Kong SAR, Luxembourg, Singapore, China, the Netherlands, Germany, Japan, and Cambodia.

The economies with the largest increases in the cultural openness index between 2008 and 2023 are Greece (366 percent), Armenia (343.2 percent), Azerbaijan (262.4 percent), Luxembourg (196.8 percent), and Sudan (87.3 percent).

Social openness widened. In 2023, the world social openness index stood at 0.4186, up by 1.7 percent year-on-year, but it declined by 21.6 percent compared with 2019 and 0.3 percent over 2008. In 2022, the world social openness index fell by 14.5 percent year-on-year, the largest decline since 2008.

In 2023, the top ten economies with the highest social openness index scores are China's Macao SAR, Singapore, Australia, Luxembourg, Austria, Cyprus, the United Kingdom, Switzerland, Malta, and Canada.

From 2008 to 2023, the economies with the largest increases in social openness index scores are Cape Verde (1,842.1 percent), Albania (187.1 percent), Georgia (153.5 percent), Bosnia and Herzegovina (152.9 percent), and Cambodia (141.1 percent).

2. Opening-up policies improved, but opening-up performance weakened

Opening-up policies have continued to improve, but their performance has gradually weakened. In 2023, the world openness policy index stood at 0.7736, marking a year-on-year growth of 0.7 percent, and up by 3.5 percent rise compared with 2019; compared with 2018, it declined by 4.4 percent. Since 2021, the world openness policy index had risen for three consecutive years; however, the increase in 2023 was lower than that of the previous two years (see fig. 1.3).

In 2023, the top ten economies with the highest openness policy index scores are Singapore, Switzerland, Latvia, Lithuania, Finland, Spain, Italy, Czech Republic, Austria, and Sweden.

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3 In the World Openness Index system, the data for the basic indicators related to cultural openness are updated relatively slowly. Missing values are estimated based on general statistical methods, which may result in lack of variation in the estimated results of the cultural openness index in recent years.

From 2020 to 2023, all 107 economies implemented policies to expand openness, among which the five economies with the largest cumulative increases in opening policy index scores are China (12.2 percent), China's Macao SAR (7 percent), Fiji (6 percent), the United States (5.6 percent), and India (5.1 percent). The collective openness expansion by the world's economies helps mitigate the severe impacts of the COVID-19 pandemic and geopolitical tensions.

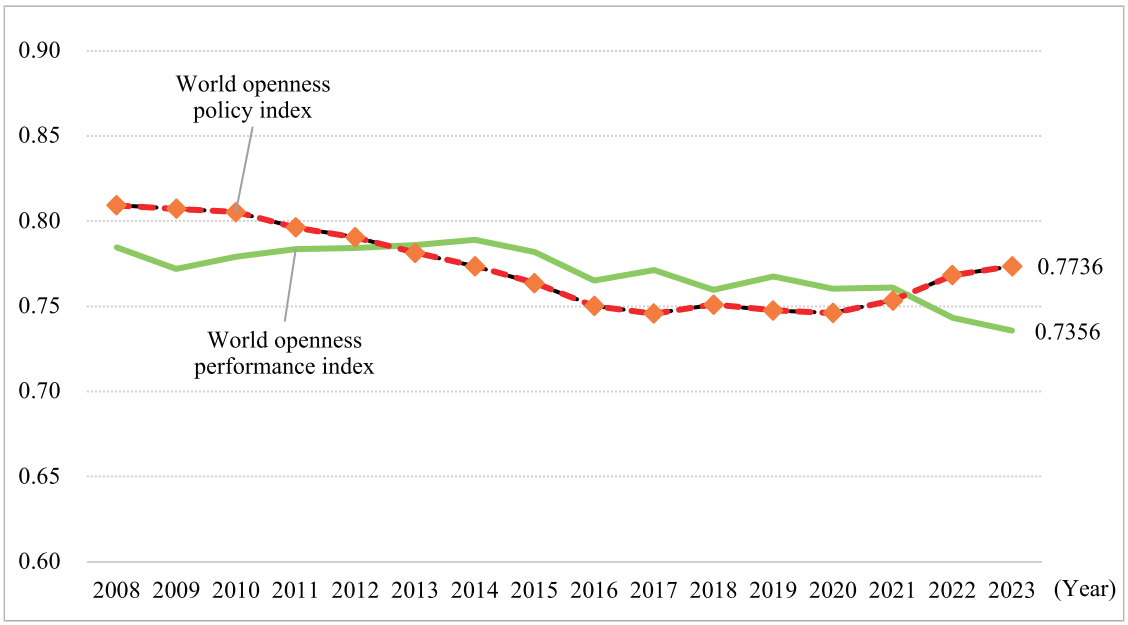

Figure 1.3 World openness performance and policy index: 2008–2023

From 2008 to 2023, the economies with significant increases in the openness policy index scores are Nepal (114.2 percent), Cape Verde (18.4 percent), Iceland (17.7 percent), China (15.4 percent), and Rep. of Korea (15.4 percent). China ranks the first among all major economies.

The openness performance index has been declining continually. In 2023, the world openness performance index stood at 0.7356, a year-on-year decrease of 1 percent; it was 4.1 percent lower compared with 2019 and down by 6.3 percent over 2008. Over the past two years, the world openness performance index has continued to decline, with relatively deep decreases annually.

In 2023, the top ten economies with the highest openness performance index scores are the United States, Singapore, China's Hong Kong SAR, Ireland, Luxembourg, Germany, China, the Netherlands, China's Macao SAR, and the United Kingdom.

From 2008 to 2023, the economies with significant increases in the openness performance index scores are Nepal (53.3 percent), Luxembourg (22.1 percent), Ireland (12.3 percent), Georgia (11.6 percent), and Cape Verde (10.8 percent).

The world openness policies have continued to improve, but the openness performance has weakened continually, reflecting problems such as insufficient growth momentum in international economic and trade, strong openness capacities but inadequate openness willingness and efforts of some economies, and low level of coordination in international openness policies.

III. Openness Index of Economies in Different Groups

The 129 economies covered by the World Openness Index can be grouped as follows: by geographical region; by income level; by degree of development; economies involved in the BRI; the Group of Twenty (G20); and the BRICS countries (Brazil, Russia, India, China, and South Africa). Among these groups, the grouping by geographical region and by income level is from the World Bank (WB), while the grouping by degree of development is from the International Monetary Fund (IMF). For the list of member economies in those groups, please refer to appendix V of this report.

1. Openness rebounded in regions such as East Asia and the Pacific

In 2023, regions ranked by openness index from highest to lowest are Europe and Central Asia, North America, East Asia and the Pacific, Latin America and the Caribbean, Middle East and North Africa, South Asia, and Sub-Saharan Africa (see fig. 1.4).

In 2023, four regions registered an increase in openness: East Asia and the Pacific (with a 1 percent year-on-year increase in the openness index), Latin America and the Caribbean (up 0.32 percent), Middle East and North Africa (up 0.31 percent), and Sub-Saharan Africa (up 0.1 percent). Three regions saw a decline in their openness index: South Asia (down 0.5 percent), North America (down 0.49 percent), and Europe and Central Asia (down 0.15 percent).

From 2019 to 2023, two regions saw their openness improve: North America (with a 0.6 percent year-on-year increase in openness index score) and Sub-Saharan Africa (up 0.3 percent). The Middle East and North Africa experienced the largest contraction (down 4 percent), while East Asia and the Pacific and Europe and Central Asia saw the smallest decline in openness index (down 0.3 percent).

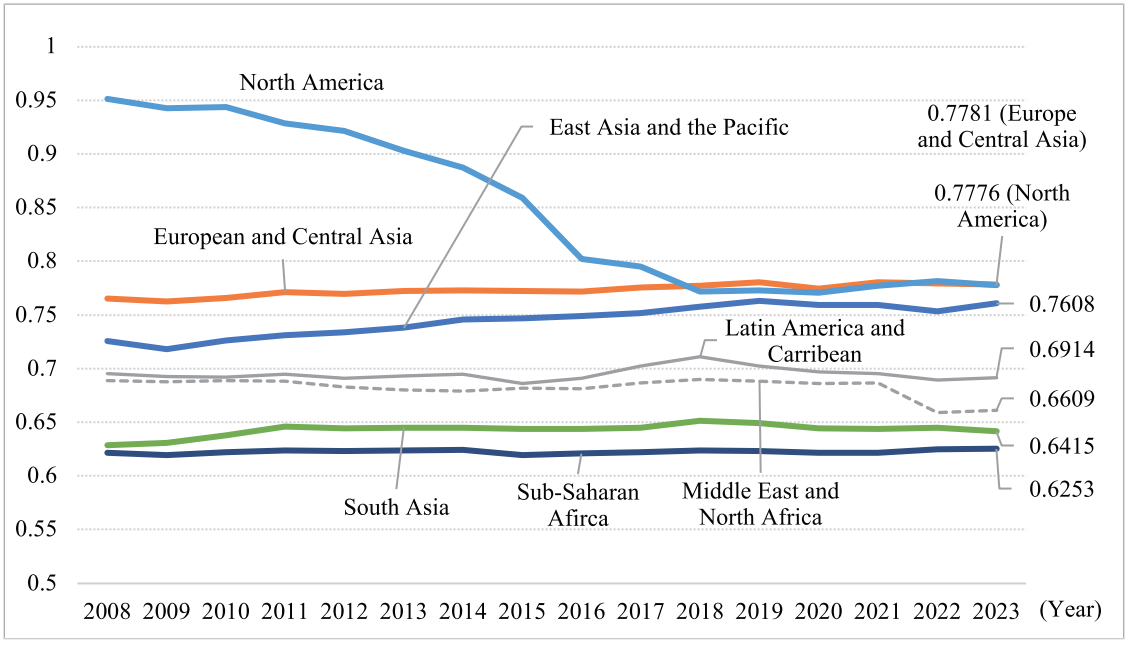

Figure 1.4 Openness index of seven regions: 2008–2023

From 2008 to 2023, the four regions that saw improvement in openness were East Asia and the Pacific (with its openness index score up by 4.8 percent year-on-year), South Asia (up 2.1 percent), Europe and Central Asia (up 1.7 percent), and Sub-Saharan Africa (up 0.6 percent). In contrast, the three regions that saw a contraction in openness were North America (down 18.3 percent), the Middle East and North Africa (down 4.1 percent), and Latin America and the Caribbean (down 0.6 percent).

2. Openness expanded in upper-middle-income economies but contracted in other groups

In 2023, the openness indices for high-income economies, upper-middle-income economies, lower-middle-income economies, and low-income economies were 0.7858, 0.7247, 0.6085, and 0.6494, respectively (see fig. 1.5). Among them, high-income economies had the highest openness index, while lower-middle-income economies had the lowest.

In 2023, only upper-middle-income economies expanded their openness (with the openness index increasing by 0.5 percent year-on-year), while openness contracted in the other three groups, with the high-income group experiencing the largest decline in the openness index (0.3 percent).

None of the economic groups have recovered to their 2019 level of openness. From 2019 to 2023, the openness indices of all four groups declined, with the high-income and low-income

groups each falling by about 0.17 percent, and the upper-middle-income and lower-middle-income groups each falling by about 0.1 percent.

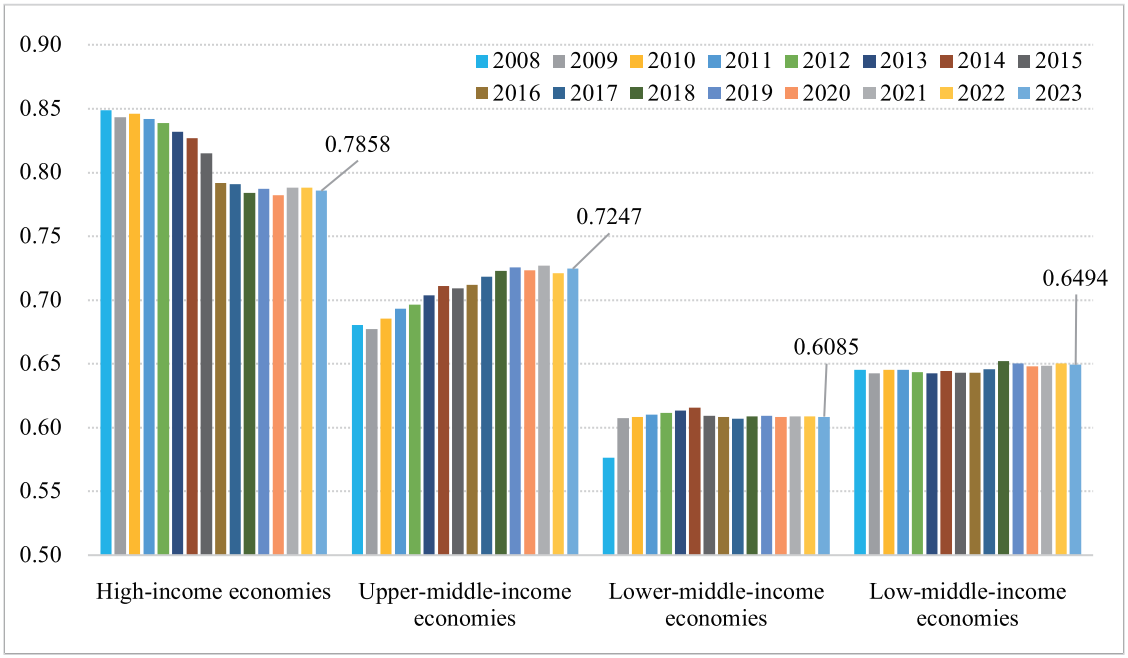

Figure 1.5 Openness index of economies by income groups: 2008–2023

Since 2008, openness has contracted in high-income economies, while it has expanded in the other three economic groups. Between 2008 and 2023, the openness index for high-income economies declined by 7.4 percent, while it increased by 6.5 percent, 5.6 percent, and 0.6 percent respectively for upper-middle-income, lower-middle-income, and low-income groups. Over the past 16 years, the openness index of upper-middle-income economies has shown significant year-on-year increases for 12 years, indicating a very steady pace of expanding openness; in contrast, high-income economies have experienced openness contraction for 12 years (see fig. 1.5).

3. Openness contracted in advanced economies but expanded in emerging-market and developing economies

The IMF categorizes global economies into advanced economies and emerging market and developing economies. Currently, there are 41 advanced economies and 155 emerging market and developing economies worldwide,[4] with 36 and 93 of them respectively being sampled for the World Openness Index.

4 IMF World Economic Outlook Database, select country groups, https://www.imf.org/en/Publications/WEO/weo-database/2024/April/select-aggr-data.

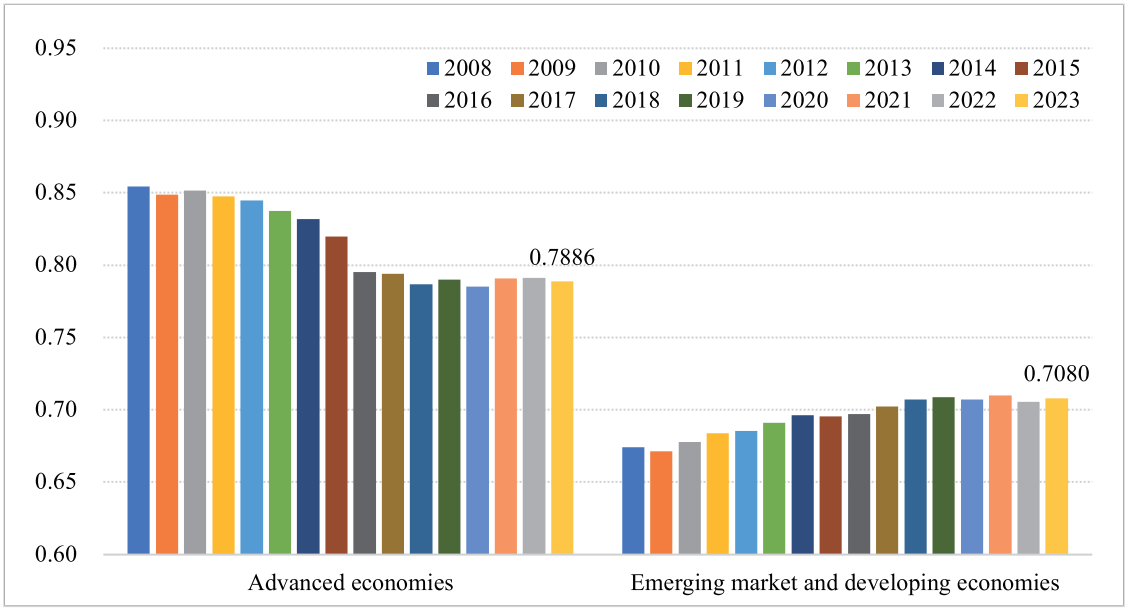

Figure 1.6 Openness index of advanced economies, emerging market and developing economies: 2008–2023

In 2023, the openness index for advanced economies was 0.7886, a year-on-year decrease of 0.3 percent, while the openness index for emerging market and developing economies was 0.7080, a year-on-year increase of 0.3 percent (see fig. 1.6).

The openness of both economic groups has not recovered to their 2019 levels. From 2019 to 2023, the openness index for advanced economies declined by 0.2 percent, and the openness index for emerging market and developing economies decreased by 0.1 percent.

Between 2008 and 2023, the openness index for advanced economies fell by 7.7 percent, while it rose by 5.0 percent for emerging market and developing economies. During these 16 years, advanced economies experienced openness contraction for 11 years, while emerging market and developing economies expanded their openness for 11 years. Since 2016, the openness levels of both have been relatively stable overall.

Among advanced economies, the EU acts as an important driving force for stabilizing or expanding global openness. In 2023, the year-on-year decline of openness indices of the EU, the Euro Area, and the G7 ranged from 0.35 percent to 0.43 percent. Compared with 2019, the openness index of the EU in 2023 slightly surpassed its 2019 level, but the Euro Area and the G7 still lagged slightly behind. From 2008 to 2023, the openness indices of the EU and the Euro Area rose by around 2.7 percent, while the G7 experienced a significant decline of 10.9 percent (see fig. 1.7).

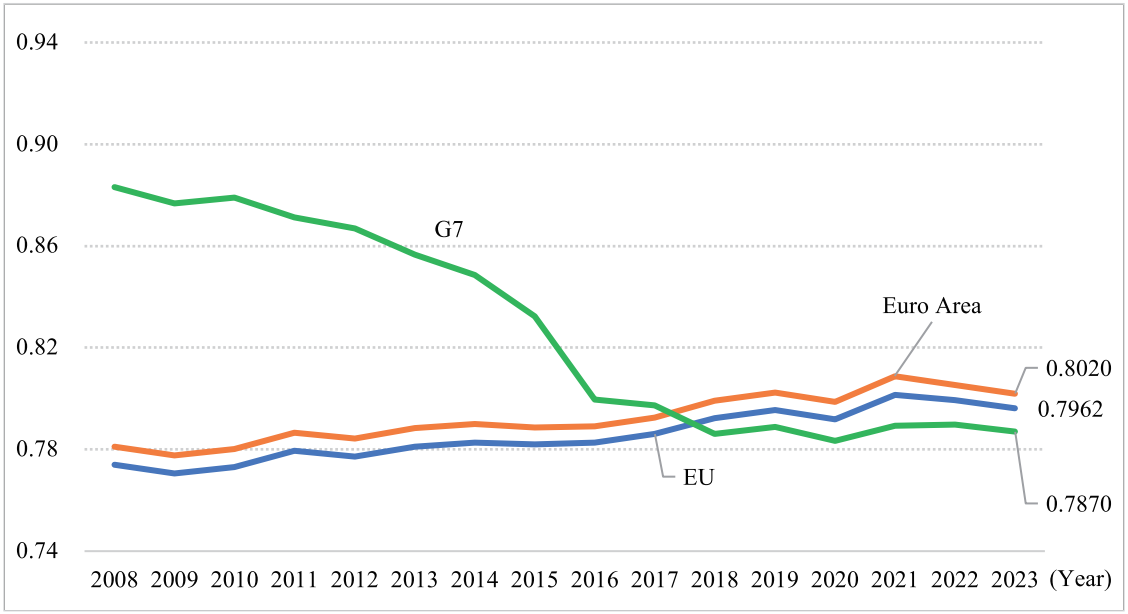

Figure 1.7 Openness index of EU, Euro Area, and G7: 2008–2023

4. Contraction of opening-up of G20 slowed down

All 19 member states of the G20 are sampled in the World Openness Index. Their openness index as a whole is shown in figure 1.8.

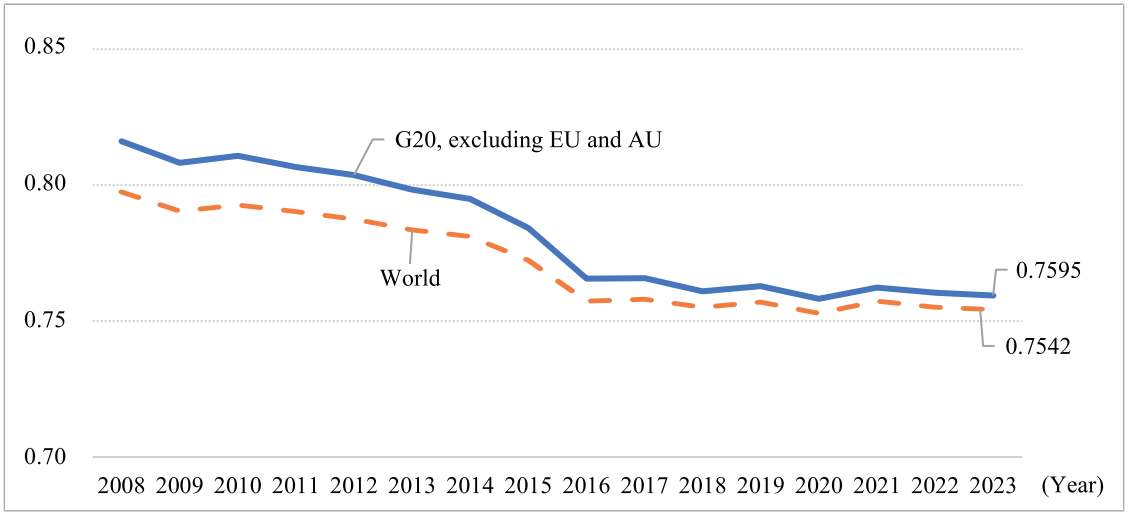

Figure 1.8 Openness index of G20: 2008–2023

In 2023, the G20 openness index was 0.7595, down by 0.1 percent year-on-year decrease; compared with 2019, it declined by 0.4 percent, and it dropped by 7.1 percent compared with 2008.

Over the past 16 years, the contraction of openness among G20 economies was concentrated mainly in the first half of the period (2008–2016), with their collective openness index falling by 6.3 percent. In the second half of the period (2017–2023), it fluctuated within a narrow range of 0.758 to 0.766, with a cumulative decline of 0.8 percent. Roughly corresponding to this trend, the ratio of the G20 Openness Index to the World Openness Index fell from 1.023 to 1.018 from 2008 to 2017 and stabilized at around 1.008 in the past six years (2018–2023).

5. Openness of BRI economies expanded

More than 150 countries have participated in the BRI, with 99 of them being sampled for the World Openness Index. Their openness index as a whole is shown in figure 1.9.

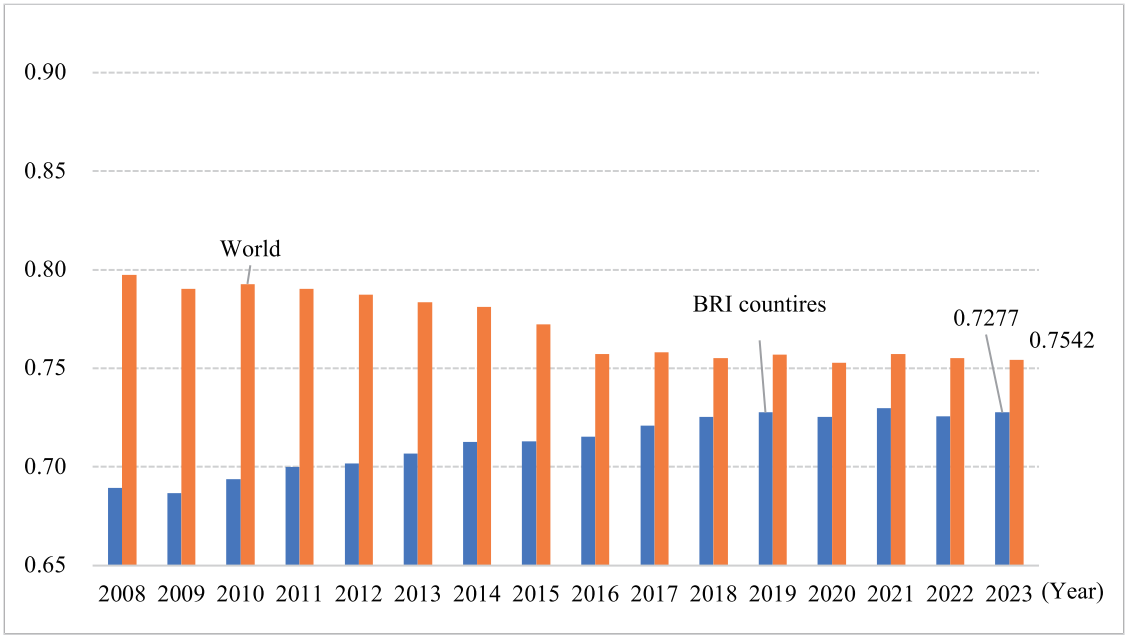

Figure 1.9 Openness index of BRI countries: 2008–2023

In 2023, the openness index for countries participating in the BRI was 0.7277, a year-on-year increase of 0.3 percent, unchanged compared with 2019 and up by 5.6 percent compared with 2008.

The openness of the BRI countries has maintained a high level of itself in recent years. Over the past 16 years, the ratio of the openness index for these countries to the World Openness

Index rose from 0.86 to 0.96 from 2008 to 2018 and remained unchanged for the following six years.

6. Openness of BRICS hit historically high

There are currently nine member countries in the BRICS group, with five of them (Brazil, Russia, India, China, and South Africa) sampled for the World Openness Index. Their collective openness index is shown in figure 1.10.

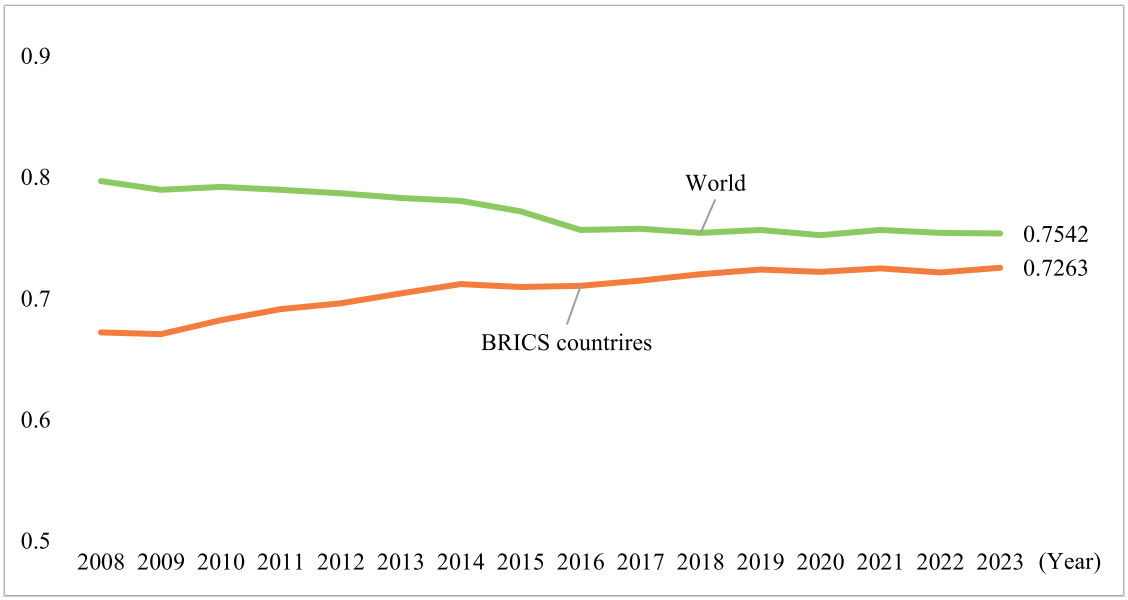

Figure 1.10 Openness index of BRICS countries: 2008–2023

In 2023, the openness index for BRICS countries was 0.7263, a year-on-year increase of 0.5 percent, and it rose by 0.2 percent compared with 2019, and by 7.7 percent compared with 2008.

Since 2008, the openness index for BRICS countries has risen rapidly from 0.6728 (the 2008 level). In six years (by 2014), it rose by 5.9 percent to 0.7124, and surpassed 0.72 four years later in 2018, and has since fluctuated between 0.72 and 0.73, reaching a historic high in 2023.

The openness gap between the BRICS countries and the world average has been continuously narrowing. The ratio of China's openness index scores to the world average level rose from 0.84 in 2008 to 0.96 in 2018 and has subsequently fluctuated slightly around 0.96.

Box 1.1 Result of a questionnaire on opening-up worldwide

From August through September 2024, the WOR Team invited nearly 800 professionals, including officials of international organizations, global business leaders, world-class scholars, and top think tank experts, to share their wisdoms on the status quo and prospects of opening-up worldwide. Here are some of the findings:

- The overall situation of opening-up worldwide since 2023 is not optimistic:
- The share of respondents who believe that the world economy has been "more open" from 2023 to present is only 40.3 percent, while the share of the respondents believe that the world economy has been "less open," "no change" or "uncertain" is 59.7 percent.
- The share of respondents who believe that the world culture is "more open" is only 43.3 percent.
- The share of respondents who consider the world society has been "more open" is only 42.5 percent.

The share of respondents who believe that the world will be "less open" in the next 1–3 years is 31 percent, surpassing the share of those who consider it "uncertain" and those who consider it "more open" (both shares are 25.4 percent), while the other 18.3 percent of respondents believe that the world's opening-up "will not change significantly."

The main forces driving the trend of world opening-up since 2023 are Asian economies (29.9 percent of respondents), North American economies (24.6 percent), European economies (24.6 percent), and African economies (11.5 percent).

The above trend in opening-up worldwide resulted from the trade-off between positive factors and negative factors.

The main positive factors that have expanded opening up of the world since 2023 are as follows:

- "The continuous progress of digital technology provides more convenience and opportunities for international exchanges and cooperation" (supported by 29.9 percent of respondents).
- "Green development continues to accelerate, opening new areas of international opening cooperation" (19.4 percent).
- "The rise of the Global South increases the support for the world to expand its openness" (19.3 percent).
- "Major multilateral international institutions are working hard to promote their reforms and help improve the global governance system" (16.8 percent).
- "The deadline for the United Nations 2030 Sustainable Development Goals is approaching, and the need for opening cooperation is becoming more urgent" (11.9 percent).

The main negative factors leading to the tightening of world openness since 2023 are as follows:

- "Expansion of international geopolitical conflicts" (22.5 percent of respondents).
- "Overstretching the concept of national security" (16.8 percent).

- "Rise of anti-globalization and de-globalization" (16.8 percent).
- "Increase of unilateralism and bullying practices" (16.8 percent).
- "Intensification of the inward-looking trends of some countries" (15.9 percent).
- "Weakened cross-cultural identity and intensified international ethnic confrontation" (10.9 percent).

Looking ahead, the respondents still have expectations for development of humanity by opening-up. For the next ten years, most respondents expect that the power of openness and inclusiveness is greater than the power of closure and exclusion, the power of peace and stability is greater than the power of fighting turmoil, the power of win-win cooperation is greater than the power of zero-sum game, and the power of development and prosperity is greater than the power of stagnation and recession.

It is a long and arduous task to expand opening up of the world. Currently, the urgent tasks include the followings:

- "Enhance international political mutual trust and cooperation, and promote world peace," which is regarded by the respondents to be of the highest priority (scoring 81).
- "Increase the growth rate of the world economy, improve the world economic structure, and optimize the international economic order" (scoring 76.3).
- "Enhance mutual understanding, recognition, identity and inclusiveness among different international ethnic groups" (scoring 74.2).
- "Promote mutual learning between different cultures, improve cultural diversity, and enhance the development capacity of human civilization" (scoring 72.7).

CHAPTER 2

Evolution of Comparative Advantages and Improvement in Capacity for Opening Up

The capacity for opening up is a key factor determining a country's warranted and optimal openness. Improving this capacity requires not only the guidance of scientific concepts and the support of high-quality systems, but also the careful and efficient cultivation of resources available to be opened up. The improvement in a country's capacity for opening up depends, to a large extent, on comparative advantages of its resources available to be opened up; while the evolution space and opportunities for a country's comparative advantages benefit from international cooperation on opening up.

I. Comparative Advantages Have a Profound Impact on a Country's Capacity for Opening up

The modern world economy is based on division of labor and specialization among individuals, businesses, and countries.[1] From the division of labor perspective, national comparative advantages have a bearing on a country's capacity for opening up, which can be understood through two mechanisms: the country's capability to engage in cross-border production, distribution, circulation, consumption, investment, and finance, etc., and support from the country's systems, institutions, and mechanisms, etc., for the former capcity for opening up.

1. Comparative advantage determines the basis of capacities for opening up

A country's opening up is all-round, with opening up in the economic fields, including cross-border production, trade, investment, consumption, and finance, etc., being the most important

1 Findlay, R., "Comparative advantage," in Eatwell, J., Milgate, M., and Newman, P., eds., *The World of Economics. The New Palgrave*. (London: Palgrave Macmillan, 1991).

form of opening up, which are mostly reflected by flow and transaction of such factors as goods, services, personnel, capital, technology, and data. Whether the flow and transaction behavior will occur depends on whether the country has a comparative advantage in terms of those factors.[2]

A country's comparative advantage can be either exogenous based on factors such as natural resource endowments, or endogenous based on factors such as produced resources or/and human resource (see box 2.1). In reality, a country's comparative advantage can be a combination of multiple sources of advantages. The evolution of a country's comparative advantage can be roughly divided into the following stages: stage mainly based on natural resources, stage mainly based on produced resources, stage mainly based on human resources or human capital, and stage mainly based on knowledge capital.[3]

The national comparative advantage will increase or decrease over time. A country's development is based on specific comparative advantages, and cross-stage sustainable development is based on the dynamic transformation and upgrading of different comparative advantages. Otherwise, it will be locked in specific comparative advantages, falling into the "comparative-advantage trap," and the country's development will stagnate and even step backward.

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2 In economics, comparative advantage is one that a specific decision-maker has as he or she, compared with other decision-makers, has a lower opportunity cost when rationally choosing a specific option. A country's comparative advantage is one that producers within this country have as they boast a lower opportunity cost of producing specific goods than their competitors in other countries.

3 There are many methods to divide a country's development stages, and the typical ones are as follows: First, economic growth can be divided into six stages: traditional society, preconditions for take-off, taking-off, driving to maturity, age of mass-consumption, and search for quality. See Rostow, W. W., "The Five Stages of Growth: A Summary," in *The Stages of Economic Growth: A Non-Communist Manifesto* (Cambridge: Cambridge University Press, 1960), pp. 4–16; Rostow, W. W., *Politics and the Stages of Growth* (Cambridge University Press, 1971). Second, economic development can be divided into the following four stages: initial stage, high investment stage, middle-income stage, and independent innovation stage. See Fan Gang, "Comparative Advantage and Late Mover Advantage," *Management World*, no. 2 (2023): pp.13–21, 37.

Box 2.1 Theories on Comparative advantage

As early as in ancient times of various civilizations, people have discovered the benefits of specialization. For example, China's Huainanzi-Sima Qian Theorem has advocated "trading what you have for what you don't," "trading what you are rich in for what you lack," and "trading what you are good at for what you are bad at," which reveals the secret of cross-border division of labor and its benefits.[4]

Since the 18th century, economists have proposed the theories on absolute advantage and comparative advantage. The specific forms of the latter include theories on factor endowment, on economy of scale, on division of labor, and on institution, which have combined to deepen humankind's understanding of division of labor, especially economic division of labor, and to clarify sources of national comparative advantages from multiple perspectives:

- **Theory on absolute advantage.** Adam Smith believed that if the production cost of a certain product in a specific country is absolutely low, that country will have an "absolute advantage." If the country produces that product through specialization and export it, it will be able to import products for which it has an absolute disadvantage in terms of production cost, and then it would gain an absolute advantage. Absolute advantage is an extreme case of comparative advantage.
- **Theory on technological comparative advantage.** David Ricardo held that if a specific country specializes in the production of products for which its production costs are relatively much lower, and trade the products in international market for products for which its own production costs are relatively higher, then it can gain a comparative advantage.
- **Theory on factor-endowment comparative advantage.** Eli Hecksher and Bertil Ohlin argue that when production technologies are the same (globalization leads to the diffusion and convergence of international technologies), a specific country has a comparative advantage in the production of products that intensively relies on the country's relatively abundant and cheap factors. That country can gain a comparative advantage through specialized production and export of the above-mentioned products and import of products whose production intensively uses domestically scarce factors.
- **Theory on comparative advantage of economies of scale.** Paul Krugman and Elhanan Helpman argue that when there is an effect of increasing returns to scale in the production of a specific product in a specific country, as the production scale expands, the cost of unit product decreases and a cost advantage is obtained; and that country can gain a comparative advantage through specialized production and export of the above-mentioned products.

4 The book *Huainanzi* was written by Liu An (179–122 BC), ruler of Huainan in the Western Han Dynasty (206 BC–AD 24), and his disciples. Sima Qian (145/135 BC–?) is a great historian, writer and thinker during the Western Han Dynasty in China. *Shiji*, or *Historical Records*, was his most important work. See Zhang Yuyan, *The 40th Anniversary of China's Opening Up to the Outside World* (Beijing: Economy and Management Publishing House, 2019).

- **Theory on comparative advantage of division of labor.** Yang Xiaokai argues that through division of labor and professional learning, or technological innovation and experience accumulation, a specific country can accumulate human capital and knowledge, thereby increasing productivity, promoting the country's sustained trade and economic development, leading to a comparative advantage.
- **Theory on institutional comparative advantage.** Because the quality of institutions inherently determines productivity, specific institutions in a specific country may have varying impacts on technological progress in different industries. In the short term, institutions influence industry productivity through mechanisms such as the supply and demand of intermediate inputs, the level of division of labor, and the choice of production process and technology. In the long run, institutions determine the trajectory of technological progress through a series of more complex mechanisms to form comparative advantages.

2. Expanding opening up can effectively enhance comparative advantages

The unleashing and dynamic evolution of a country's comparative advantages require some prerequisites, such as the continuous provision of new sources of advantages, adaptation to new environment, perfect market competition, free and convenient transactions, and diverse and symbiotic markets.[5] These conditions need to be formed, acquired and accelerated in cross-border opening up.[6]

To give full play to their national comparative advantages, countries must not only build a unified domestic market, but also adhere to the policy to open up to the outside world, expand the international market, and form a more inclusive world market; they should also implement international free trade policies, fully diversify market supply and demand, and make their goods and services different from those of other countries.

By expanding opening up, countries can identify and cultivate their own specific comparative advantages, further deepen the division of labor and collaboration based on the country's overall development, and expand the international division of labor among different industries, within specific industries, among different products, and among the various production processes of specific products. So long as the markets connected by relevant countries through opening up are large enough and their opening up is wide enough, the diversity would be greater, and the international division of labor will be more refined.

5 Deardorff, A. V., "How Robust Is Comparative Advantage," Research Seminar in International Economics, The University of Michigan, *Discussion Paper*, no. 537 (2005).

6 Fan, G., "Comparative Advantage and Late-Comer Advantage," *Management World* (In Chinese), no. 2 (2023): pp. 13–21.

II. Accelerating Evolution of Comparative Advantages Using Resources Available

National opening up capacities include philosophy and systems or institution on opening up as well as resources available to be opened up. The impact of resources available to be opened up on the evolution of comparative advantages exceeds the other two. According to WB estimates, 117 countries had a total of $1,122 trillion worth (constant 2018 $) of resources available to be opened up in 2018, an increase of 29.7 percent over 2008 (see fig. 2.1).

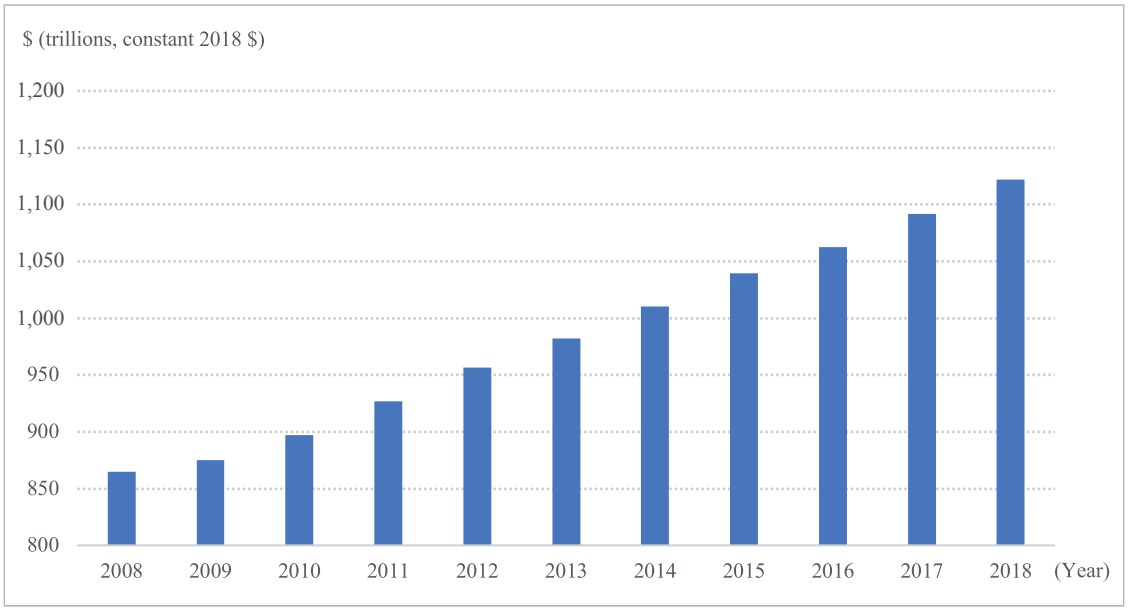

Figure 2.1 Resources of the world available to be opened up: 2008–2018

Source: Data from the WB database on wealth accounts.

A country's resources available to be opened up include human resources, produced resources, natural resources and net external assets. From 2008 to 2018, among the total resources of the world available to be opened up, human resources accounted for the highest proportion, accounting for about two-thirds; produced resources accounted for about 30 percent, equivalent to half of human resources (see table 2.1).

Table 2.1 Components of resource of the world available to be opened up, selected years between 2008 and 2018

Unit: percent

	2008	2012	2015	2016	2017	2018
Total resources	100.0	100.0	100.0	100.0	100.0	100.0
Of which: Human resource	62.1	62.3	63.2	63.6	63.9	64.1
Produced resource	31.3	31.2	31.1	31.3	31.3	31.4
Natural resource	7.0	7.2	6.2	5.6	5.2	5.0
Net foreign assets	−0.4	−0.6	−0.5	−0.4	−0.4	−0.5

Source: Calculated based on WB data on wealth account.

1. Human resources playing a decisive role

In 2018, among the 117 sample countries, 88 countries saw their human resources accounting for more than 50 percent of their respective resources available to be opened up. The figure was 73.2 percent for China and 71.2 percent for the United States. Their ratios are not only the highest among major countries, but also among the highest among all sample countries. Therefore, China and the United States stood out in terms of comparative advantage of human resource (see fig. 2.2).

Human resources refer to the quantity and quality of the population. The quality and quantity of a country's human resources determine the scope of production activities that country can undertake and its ability to integrate into the mid- and high-end sections of global industrial chains, supply chains, and value chains. The openness of human resources is generally measured by the level of cross-border population mobility. The inflow of high-quality overseas populations can not only influence the total amount of human resources in the incoming country, but also help optimize the quality of that country's human resources, thereby having a positive bearing on the country's comparative advantage. For example, the number of international students as carriers of cross-border knowledge flow increased significantly in during the period 2008–2023, which made the World Openness Index on inbound students growing by 49.1 percent, increasing the quantity and improving the quality of human resources in relevant countries.

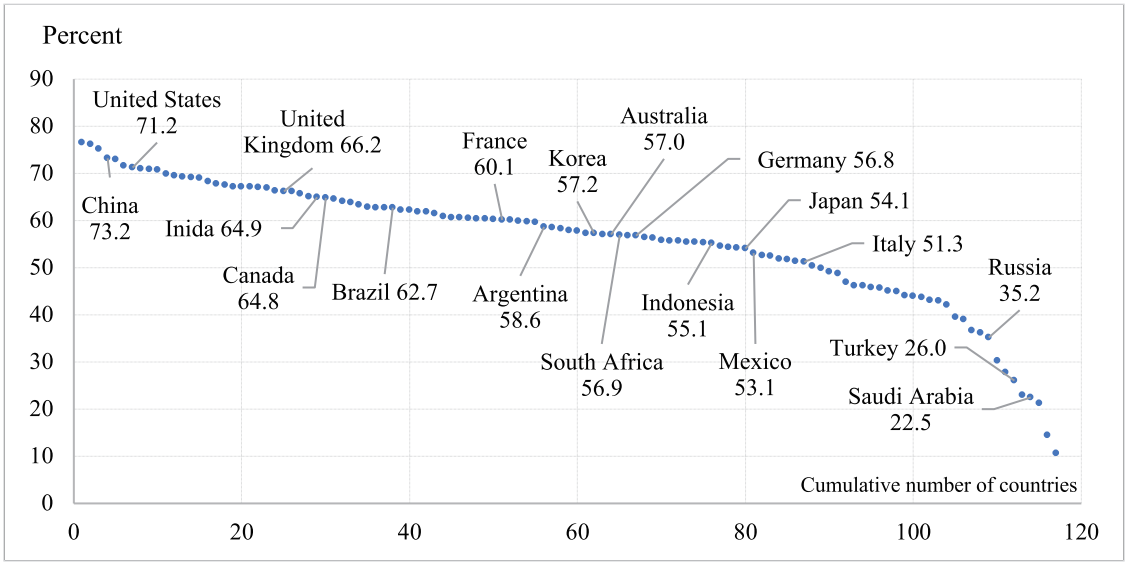

Figure 2.2 Share of human resources in national resources available to be opened up (selected countries): 2018

Source: Calculated based on WB data on wealth account.

2. Produced resources acting as an important force

In 2018, among 117 countries, the produced resources of 30 countries, such as Turkey, Italy, Russia and Mexico, accounted for more than 40 percent of their respective total resources available to be opened up, and the share exceeded 50 percent in 10 of those countries (Turkey is the only G20 member) (see fig. 2.3). As a result, those countries have had relatively obvious comparative advantages in terms of regional industrial division of labor and in some specific fields.

Produced resources include tangible resources, such as machinery, buildings, equipment, urban land (for residential and non-residential use), among others, as well as intangible resources, such as intellectual and financial resources (education, research and development [R&D], among others). The formation and accumulation of those resources not only determine the basic conditions for the formation of a country's comparative advantages, but also determine the ability of the country's market entities to participate in local, regional and global industrial chains, supply chains, and value chains.

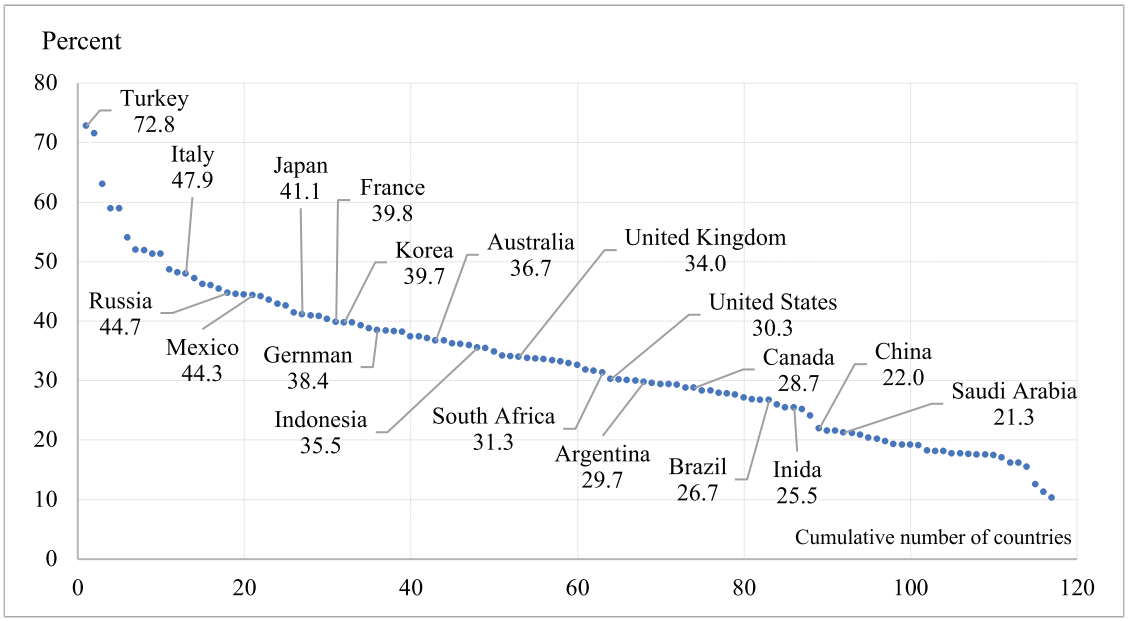

Figure 2.3 Share of produced resources in national resources available to be opened up (selected countries): 2018

Source: Calculated based on WB data on wealth account.

3. Natural resources being a necessary support

In 2018, among 117 countries, only 4 countries' natural resources accounted for more than 50 percent of their respective resources available to be opened up; 10 countries accounted for more than 40 percent, and 17 countries accounted for more than 30 percent (see fig. 2.4). As a result, the comparative advantages of those countries are relatively weak and have not been transformed into sufficient international division of labor and industrial advantages.

Natural resources include renewable natural resources and non-renewable natural resources, reflecting a country's ability to support and sustain population and economy of a specific scale. The development, acquisition and utilization of natural resources are a necessary prerequisite for national wealth accumulation and an important part of a country's opening up capacity; it can play a role in the country's comparative advantage, but its durability and influence are mostly limited. Especially with the advancement of science and technology and the global allocation of resources, the impact of natural resources on the evolution of comparative advantages will gradually weaken.

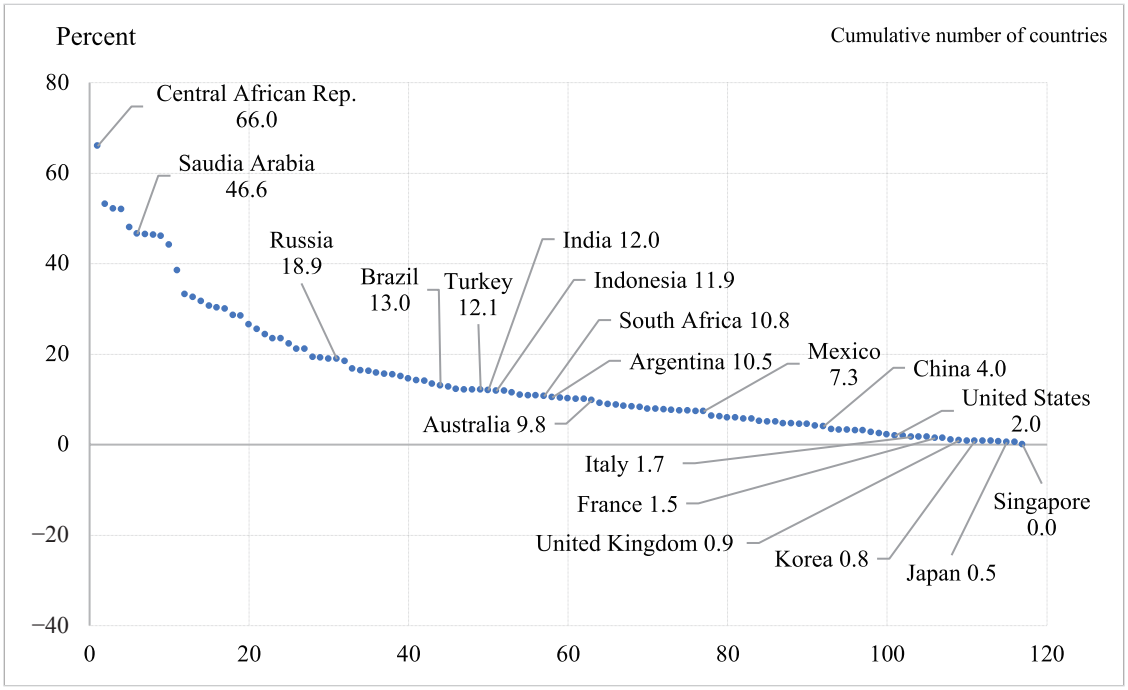

Figure 2.4 Share of natural resources in national resources available to be opened up: (selected countries): 2018

Source: Calculated based on WB data on wealth account.

4. Optimizing the allocation of resources available to be opened up

Optimizing allocation of human resource. Opening up of education should be promoted. Two-way cross-border opening up of education at all levels, especially higher education, should be encouraged. Cross-border flow of professionals should be promoted. Global recruitment should be carried out to select professionals with international vision and cross-cultural communication skills. Flexible employment mechanisms for remote working and project cooperation should be established. Labor training, including labor discipline training, should be strengthened to nurture a workforce that adapts to the requirements of modern production.

Optimizing allocation of produced resource. The potential of existing produced resources should be fully tapped and international trade and direct investment should be increased. The efficiency of utilizing produced resources should be improved and industrial upgrading and restructuring should be promoted. Intellectual property protection should be strengthened and capability of indigenous innovation should be cultivated. Professional skills and innovation ca-

pabilities should be improved and various knowledge spillovers from multinational corporations and international organizations should be absorbed in an efficient manner.

Optimizing allocation of natural resources. Cross-border development and utilization of natural resources should be carried out and cooperation mechanisms that are influential in international affairs should be improved. Location as one kind of resource should be effectively utilized to promote international connectivity. Appropriate ways should be adopted to allocate globally resources in an orderly manner and promote the shift of the country's main driving force for its development from natural resources to produced resources, finally to human resources, ultimately leading to the dynamic evolution of comparative advantages.

III. Enhance Capacity for Opening Up amid Expanding International Cooperation

National opening up is an integral part of world opening up. The national philosophy and systems on opening up and resources available to be opened up together constitute the global system of opening up. The evolution of comparative advantages will interact with this system. Countries need to improve their capacities while expanding international cooperation and achieve warranted openness even optimal openness.

1. Expanding international cooperation with a more open mindset

The law of dynamic evolution of national comparative advantages reveals that in the medium to long term, international opening up is mainly based on international cooperation rather than international competition, and national capacities for opening up need to be improved in international cooperation. Compared with a closed and exclusive small clique, a world system of opening up composed of all countries has obvious advantages. In a world where international connectedness is ever increasing, there are often differences among different countries in terms of areas of opening up, content of exchanges or transactions, and subjects of cooperation, but countries can learn from each other's strengths and complement each other based on their respective advantages.

Concerned parties need to maintain an open mindset, expand international cooperation in politics, economy, science and technology, education, culture, humanities, among others, build consensus on opening up, form a synergy for opening up, enhance capacities for opening up, and achieve diverse development goals by opening up. Some countries that lead in terms of capacities for opening up, even if they have reached or even passed their warranted openness, or are temporarily at a disadvantage in the distribution of opening up profit and loss, should still make full use of their strong opening up capacities to improve dynamic equilibrium of world opening up and, together with other countries, achieve their respective optimal openness, so that

they can, at a higher level of openness, help promote the building of a community with a shared future for humankind.

2. Working together to build an open, fair, equal, inclusive, and mutual benefits-based world

The trend toward a more open world will not change. Also the rend of shared destiny in the international community will not change. The rapid development of modern technology and the universal aspiration of humanity for a better life provide a solid foundation for global opening up from both the supply and demand sides. In recent years, economic globalization has encountered some setbacks, but it continues to move forward. An open world must be built through consultation, collaboration, and shared benefits among all countries. The world is composed of the people of all nations, and building an open world through consultation, collaboration, and shared benefits is not only the right of the people of all countries but also their expectation.

To build an open world together, it is essential to have the right philosophy on opening up. Both history and reality have proved that only being fair and equal, inclusive and beneficial to all, and based on cooperation and mutual benefit can create a favorable international order for opening up of all countries and effectively build a global opening up system and cultivate resources available to be opened up. International organizations will play an irreplaceable role in this process. It is necessary to accelerate efforts to establish and improve relevant mechanisms, optimize the balancing and sharing of globalization benefits, help developing countries enhance their comparative advantages, and enhancing their capacity for opening up.

CHAPTER 3

Global Trends in Opening Up and Evolution of Opening-Up Policies

In recent years, economic globalization has advanced amid challenges, leading to profound adjustments in the international trade and investment landscape, with increasing instability and uncertainty. The opening-up policies of various countries are not only significant variables affecting the globalization process but also crucial factors influencing international cooperation and shared development. To stabilize global openness and promote steady growth in the global economy, all parties should actively strengthen the coordination and interaction of opening-up policies, appropriately respond to global issues and challenges, and continuously boost confidence and expectations in the international community.

I. Economic Globalization and Process of World Economic Recovery

In 2021, global trade rebounded rapidly from the impacts of the pandemic, with a growth rate significantly surpassing that of GDP, causing the ratio of merchandise trade to GDP to rise to 46.6 percent. In 2022, the growth rate of merchandise trade was comparable to that of GDP, with this ratio increasing to 50.5 percent, reaching its peak since the financial crisis. However, in 2023, global GDP grew by 2.7 percent, while global merchandise trade experienced negative growth (see fig 3.1).

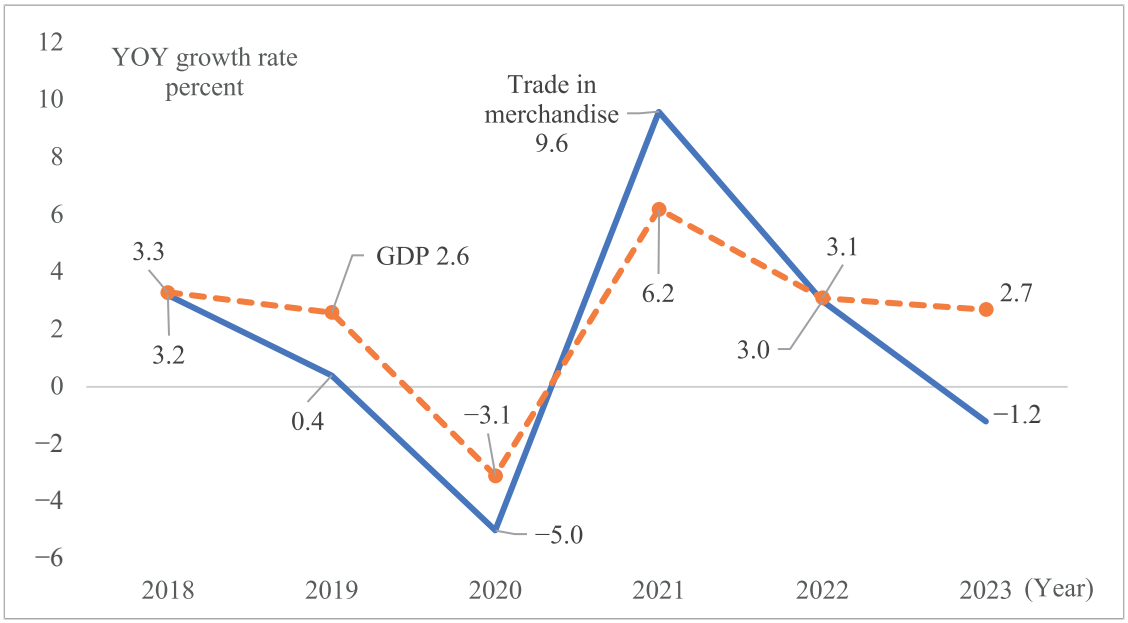

Figure 3.1 Global merchandise trade and real GDP growth rates: 2018–2023

Source: WTO, "Global Trade Outlook and Statistics," accessed April 2024, https://www.wto.org/english/res_e/publications_e/trade_outlook24_e.htm.

The momentum of global economic recovery hinges on the balance between the positive effects of increased openness and the negative effects stemming from regional conflicts and other factors. The year 2023 remains an adjustment and recovery period following the pandemic. Influenced by multiple factors such as the Federal Reserve's interest rate hikes, financial turbulence, regional conflicts, and the restructuring of global industrial and supply chains, the global economic and trade landscape has worsened compared to 2022, with major trading countries experiencing significant shocks. The WB[1] forecasts that global economic growth in 2024 and 2025 will be around 2.6 percent, remaining flat compared to 2023, with nearly 60 percent of economies representing over 80 percent of the global population projected to grow below the average levels of 2010–2019. The IMF[2] points out that rising geoeconomic fragmentation and the surge in trade restrictive and industrial policy measures have weakened the medium- to long-term growth prospects for the global economy, diminishing its resilience.

A comprehensive analysis of the post-pandemic actual economic and trade growth of various economies shows that while opening-up has, to some extent, raised economic risks, its role in

1 World Bank, "Global Economic Prospect" (June 2024), http://hdl.handle.net/10986/41536.

2 International Monetary Fund, "World Economic Outlook: Steady but Slow: Resilience amid Divergence" (April 2024).

enhancing economic resilience is more significant. Weighing the two, the benefits of opening-up outweigh its drawbacks.

According to the 2022 World Openness Index rankings, we define the top third of economies as highly open economies, while the bottom third are categorized as less-open economies. Examining the 129 economies included in the World Openness Index from a cross-sectional perspective reveals a trend of "high openness—high resilience."

Increasing openness contributes to better shock absorption. Taking the rate of change in GDP growth from 2019 to 2020 as an example, the variation in the openness index of the 129 economies shows a significant positive correlation with changes in economic growth rates. Economies with reduced openness witnessed a more significant decline in GDP growth during the pandemic, while economies that enhanced their openness experienced relatively lesser declines in GDP growth.

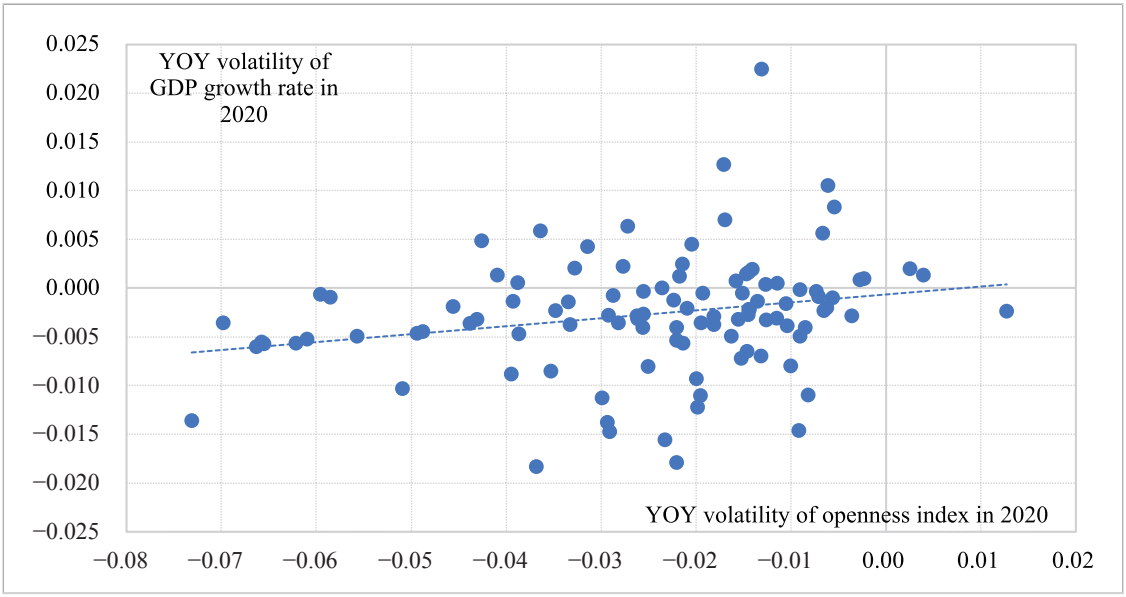

Figure 3.2 Relationship between volatility in openness index and volatility in GDP growth rates: 2020

Source: WB, "DataBank World Development Indicators," https://databank.worldbank.org/source/world-development-indicators; World Openness Index from annual *World Openness Report*.

The level of openness is highly correlated with strong recovery. Using the average growth rates from 2017 to 2019 as a baseline and measuring economic recovery capability through the rate of change from the average growth rates of 2020 to 2021 compared to the baseline, a significant positive correlation is observed between the openness index of the 129 economies

and their economic recovery capability (see figs. 3.2 and 3.3). The more open the economy, the faster the recovery.

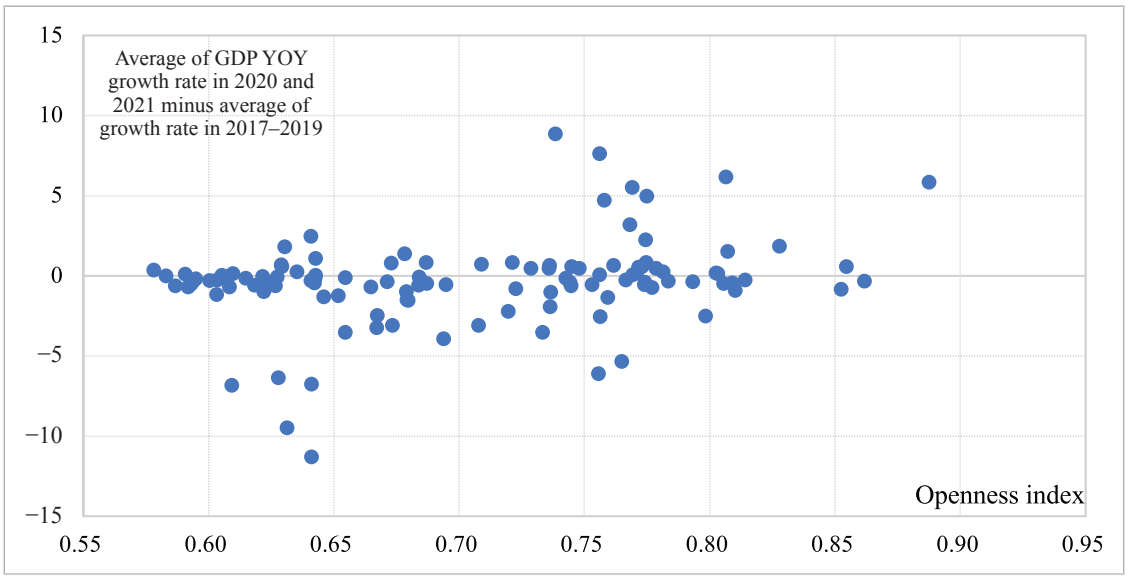

Figure 3.3 Relationship between openness index and relative changes in GDP growth: 2020

Source: WB, "DataBank World Development Indicators," https://databank.worldbank.org/source/world-development-indicators; World Openness Index from annual *World Openness Reports*.

II. Analyzing Trend in Opening Up from the Perspective of Opening-Up Policies

Opening-up plays a crucial role in promoting the global economic recovery. However, the both policy and performance sub-indexes of the latest World Openness Index indicates that global opening-up policies are undermining openness performance.

1. An increase in restrictive measures

The Global trade alert data shows that from 2021 to 2023, the number of global trade intervention measures exceeded 4,700, significantly higher than levels before 2020 (see fig. 3.4).

According to the UNCTAD,[3] there were 21 restrictive measures in the global investment sector in 2019, and those numbers from 2020 to 2023 increased to 50, 40, 39, and 38 respectively, far surpassing pre-pandemic levels (see fig. 3.5).

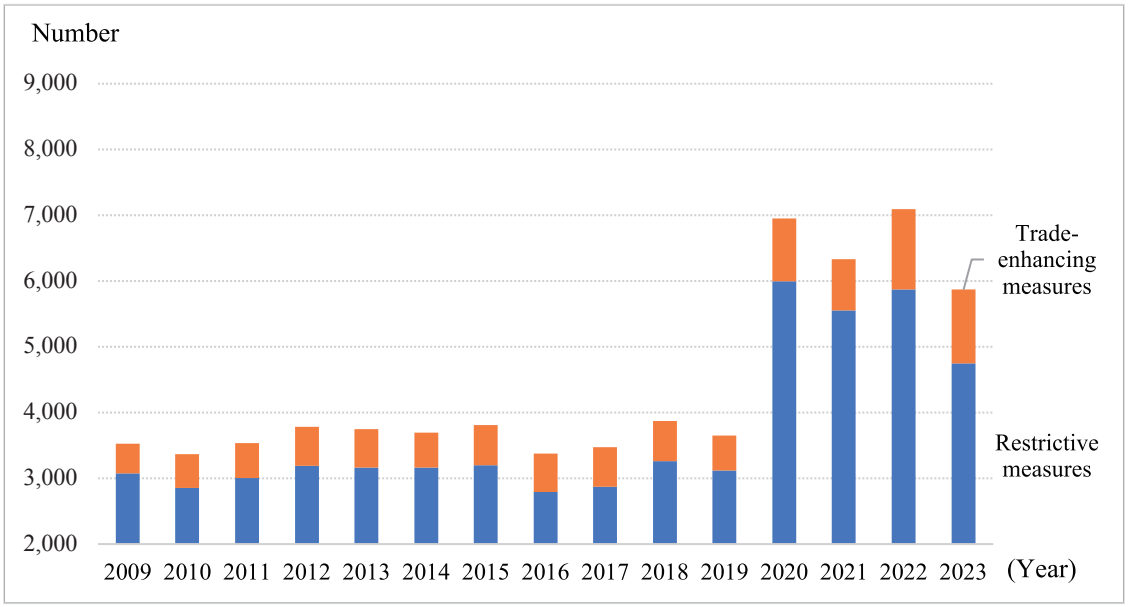

Figure 3.4 Global trade intervention measures: 2009–2023

Source: Global Trade Alert, https://www.globaltradealert.org/.

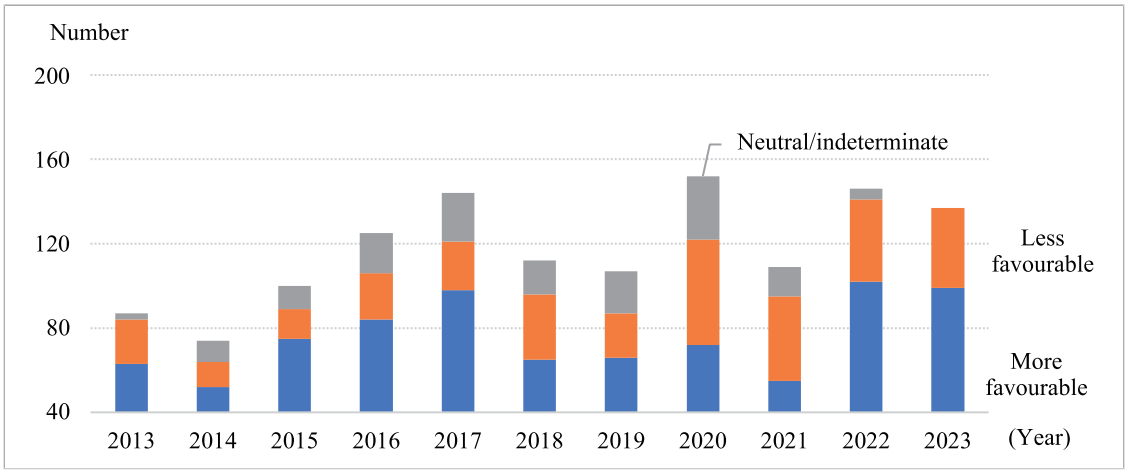

Figure 3.5 Global investment policy measures: 2013–2023

3 UNCTAD, "World Investment Report 2024: Investment Facilitation and Digital Government" (June 29, 2024).

Source: UNCTAD, *World Investment Report 2024: Investment Facilitation and Digital Government,* fig. II.2, p.47 (June 20, 2024).

2. The exclusionary nature of regional trade rules

Certain RTAs exhibit discriminatory practices. In recent years, a new generation of high-standard RTAs, represented by the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), has emerged. While these agreements are more open in areas such as market access, they also entail stricter entry conditions and more stringent rules of origin, negatively affecting trade relations between member countries and non-member economies. The introduction of "poison pill clauses" in the United States-Mexico-Canada Agreement (USMCA) could potentially extend to future trade agreements, creating significant restrictions for third parties wanting to establish bilateral trade agreements with member countries.

Certain regional cooperation frameworks carry an exclusionary tone. Recently, so-called "minilateral" regional cooperation mechanisms have begun to rise, such as the Quad (the US, Japan, Australia, and India) and the trilateral security partnership between Australia, the United Kingdom, and the United States. Compared to open and inclusive multilateralism, "minilateralism" often leads to risks of fragmentation and division in the international order. Experts have pointed out that one major risk of minilateralism is its exclusivity; ongoing expansion could create numerous conflicting agreements, making global coordination to address common challenges (such as climate change, food security, and nuclear proliferation) increasingly difficult and hampering efforts by international organizations like the United Nations (UN) to promote peace and stability.[4]

3. Increasing risks of fragmentation in global supply chains

The introduction of various trade and investment restrictions has triggered a restructuring of supply chains, exacerbating the risks of fragmentation. IMF has indicated that such restructuring of industrial chains could lead to a deterioration of the business environment, hinder companies' entry into overseas markets, increase trade uncertainty, and cause a rise in protectionism and more trade frictions.[5] Statistics from the UN Commodity Trade Database indicate that trade dependencies between the United States and China—two of the world's largest economies and critical poles in the global value chain—have significantly declined. The WTO economists

4 Mladenov, N. E., "Minilateralism: A Concept That Is Changing the World Order," *Gulf News* (April 13, 2023), https://gulfnews.com/opinion/op-eds/minilateralism-a-concept-that-is-changing-the-world-order-1.95096716.

5 International Monetary Fund, "World Economic Outlook: Navigating Global Divergences" (October 10, 2023).

estimate that if the global economy becomes divided, real income could decrease by 5.4 percent, with the highest opportunity costs borne by the least developed countries (LDCs), followed by other developing economies.[6] At the same time, fragmentation in the economic and trade landscape is also reflected in the fragmentation of governance rules.

4. More variables brought by a "super election year"

The year 2024 is a "super election year" for the world, with over 70 countries and regions holding significant elections, affecting more than half of the global population and bringing greater uncertainty to global openness. For one thing, changes in government and policy adjustments may lead to significant changes in existing opening-up measures, bringing global openness to a new "crossroad." To mitigate risks, businesses are adopting a wait-and-see approach regarding overseas operations. For another thing, against the backdrop of rising populism and anti-globalization sentiments, some political parties may propose or promise more radical trade and investment restrictive measures to gain electoral advantages and please voters. In some countries, presidential candidates have indicated that they will impose additional tariffs upon election to protect domestic industries and jobs.

The history of economic globalization shows that the tightening of opening-up policies resulting from anti-globalization sentiments is primarily driven by domestic politics; it does not imply a fundamental alteration in the function of globalization, which is to promote global welfare. Human beings' shared aspiration for a better life, and the rise of progressive forces such as digital technology and green low-carbon developments will, in the medium to long term, dominate the historical trends. These trends are expected to encourage the majority of countries to enhance their opening-up policies, resulting in a deeper, broader, more inclusive, and more contemporary "re-globalization" (see box 3.1).

Box 3.1 International organizations propose "re-globalization"

The WTO introduced the concept of "re-globalization" in its World Trade Report 2023 (hereinafter referred to as the report).

- The report assesses and addresses the following question: In order to address matters of economic and geopolitical security, poverty and inclusiveness, and environmental sustainability, should we choose fragmentation or re-globalization?

6 Métivier, J., Bacchetta, M., Bekkers, E., and Koopman, R., "International Trade Cooperation's Impact on the World Economy," *Journal of Policy Modeling* 45, no.4 (2023): pp. 713–744.

- The report argues that the world economy is at risk of fragmentation, but the notion of "de-globalization" has been greatly exaggerated. A better alternative to fragmentation is re-globalization, which aims to expand trade integration to more people, economies, and sectors.
- The report notes that the multilateral trading system, with the WTO at its core, has adhered to the principle of "interdependence among nations through increased trade and economic ties would foster peace and shared prosperity" for the past 75 years. In recent years, some have suggested that globalization has intensified the risks faced by participating countries. This perspective has influenced policymakers, leading to a surge in unilateral trade policies, which ultimately contributes to global economic fragmentation.

Progress has been made in global trade regarding digitalization, greening, and inclusivity, with trade policies also improving. Only through re-globalization can we address the three major global challenges of security, poverty, and climate change. A revitalized WTO, following the reform, is expected to play a central role in this process.

The theme of the 2024 WTO Public Forum is "Re-globalization: Better Trade for a Better World." On September 10, a panel "Re-globalization: Trade in a Geopolitical World" was held, bringing together insights and proposals from four continents. The panel was addressed by Ngozi Okonjo-Iweala, WTO Director-General, and hosted by Richard Baldwin, a senior fellow at the Peterson Institute for International Economics. Baldwin pointed out that it is lazy thinking that thinking the trade is deglobalizing. Globalization is not ending, but is evolving. Anabel González, Vice President for Countries, Inter-American Development Bank, proposed three measures to promote re-globalization: reclaiming the role of trade policy as a catalyst for economic growth and development, rebalancing national security concerns, and a tangible commitment to rebuild trust and update the WTO rules to today's realities. Yi Xiaozhun, former Deputy Director-General of the WTO, pointed out that the silent majority of WTO members, such as small and medium-sized economies, want to expand their trade to accelerate their growth, and to strengthen the rule-based system.

At the 2024 Boao Forum for Asia annual conference, experts and scholars from various countries, including Long Yongtu, China's chief negotiator for WTO entry and former Vice Minister of Foreign Trade and Economic Cooperation, gathered to discuss and seek new directions for "re-globalization."[7]

Pierre-Olivier Gourinch, the Chief Economist of the IMF, argues that the global economy is not in a phase of "de-globalization," but rather at a "globalization plateau."[8]

Mark Leonard, Director of the European Council on Foreign Relations, notes that an increasing number of people believe that due to accelerated reforms in energy and technology, the world is experiencing "re-globalization" rather than "de-globalization."

7 Leonard, M., "The Next Globalisation." *Project Syndicate* (January 25, 2023).

8 Gourinchas, P-O., "Transcript of January 2024 WEO Update Press Briefing" (January 30, 2024).

Harold James, an economic historian at Princeton University, contends that people will not stop transacting across borders, implying that the world is always in a state of "re-globalization." The current bottlenecks and shortages in the world could lead to deeper ties between different sets of nations.[9]

Marianne Schneider-Petsinger, a senior research fellow at Chatham House, believes that trade policies can play a positive role in supporting re-globalization by coordinating and strengthening the resilience of supply chains, allowing countries to benefit from the twin transitions to green and digital economies.[10]

All above parties believe that the WTO's advocacy for "re-globalization" not only affirms the historical process of globalization but also signifies confidence in the inevitable deepening of globalization in the future.

III. Global Common Opening-Up and National Economic Security

Currently, some countries are formulating trade and economic policies with increasing emphasis on security considerations, showing a trend of generalization. The most representative area is in investment, where security review systems have widely proliferated globally. In 2019, eight economies established or expanded their security review systems. In 2020, the number of countries implementing new security review systems amounted to 22, a year-on-year growth of 175 percent. In 2021 and 2022, the number of countries implementing new security review systems and expanding their established ones reached 17 and 15, respectively, far exceeding levels prior to 2019 (see fig. 3.6).

9 Livni, E., "'Reglobalisation' to the Rescue?" *New York Times* (April 08, 2024).

10 Schneider-Petsinger, M., "The New Era of Reglobalization" (January 30, 2023), https://www.chathamhouse.org/2023/01/global-trade-2023/new-era-reglobalization.

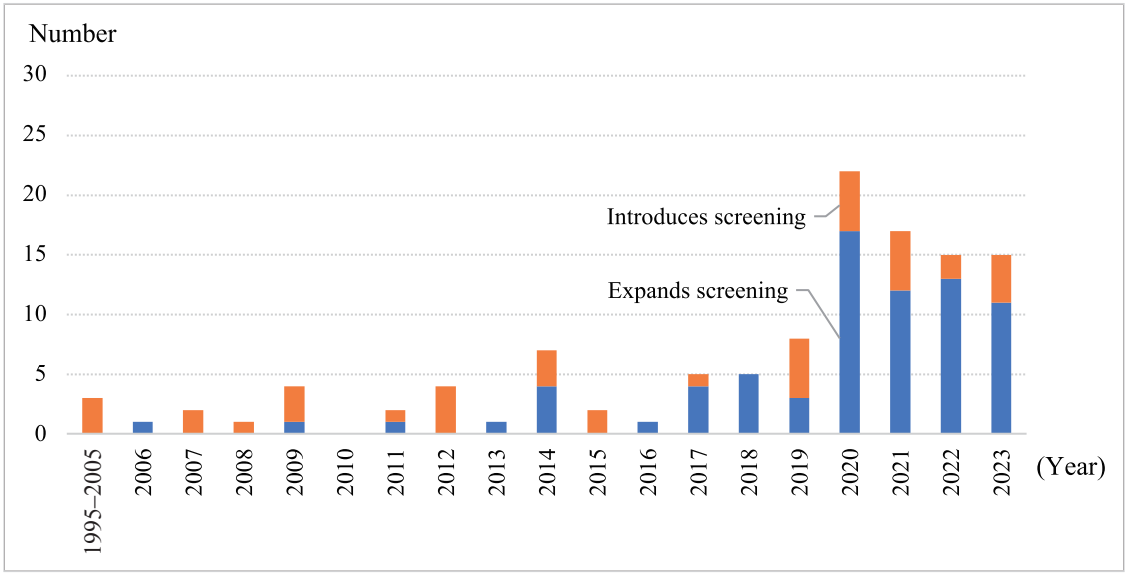

Figure 3.6 Global investment screening regimes: 1995–2023

Source: UNCTAD, *World Investment Report 2024: Investment Facilitation and Digital Government* (20 June 20, 2024), 57.

How to understand and balance the relationship between opening-up and security has become a focus for countries. Theoretically, opening-up has both positive and negative effects on security; practically, openness has shown to be more beneficial for economic security and stability in responding to shocks such as the COVID-19 pandemic and geopolitical conflicts, indicating that security issues need to be addressed within the context of opening-up and development.

1. Theoretical perspective: The overall effect of opening-up on risk is uncertain

Opening-up can simultaneously produce both positive and negative effects on risk, with the final outcome depending on the magnitude of these opposing effects.

Trade-offs between enterprise security and development. Some argue that opening-up exacerbates risks, contending that it exposes enterprises to greater external shocks. They suggest domestic cooperation as a replacement for international collaboration. However, the primary risk enterprises face in their development is whether or not they can survival in fierce market competition. By opening-up and engaging in international operations, enterprises can significantly lower costs of production, which is vital for their survival. Overemphasizing risk prevention may lead companies away from the most cost-effective global allocation and endanger their price competitiveness, hence creating greater risks.

Trade-offs between complementarity and substitutability in supply chains. Some believe that with the increase in global instability and uncertainty, maintaining the resilience of supply

chains is crucial. They worry that highly open global industrial divisions may amplify the effects of external shocks, where disruptions in any one part of a supply chain could disrupt the entire chain. For instance, if the timing of external shocks varies, it could continuously affect the recovery of the industrial chain. However, the premise implied in this viewpoint is that different countries complement each other in the supply chain, while in reality, parts of global industrial divisions are substitutable. Even if a supply chain is impacted locally, alternatives can still be identified, thus ensuring the normal operation of the entire supply chain. Therefore, more open industrial cooperative divisions contribute to the stability of global supply chains.

2. Practical perspective: Global opening-up effectively responds to shocks

In recent years, amid geopolitical conflicts and natural disasters, opening-up has not only failed to exacerbate risks but also been advantageous in responding to shocks and maintaining economic stability. WTO used Ethiopia as an example to emphasize the role of trade in resisting geopolitical disturbances. Ethiopia imports 45 percent of its wheat from Russia and Ukraine. Following the onset of the geopolitical conflict between the two, wheat imports from Russia and Ukraine dropped by 75 percent and 99.9 percent, respectively. However, by increasing imports from other countries, Ethiopia successfully filled the wheat import gap, thus averting a food crisis.[11]

3. Effects: various restrictive measures lead to significant economic losses

First, the adjustment of supply chains disrupts the original structure based on comparative advantages, resulting in increased production costs and loss of efficiency. Second, the adjustment itself brings disturbances and rising costs, especially since modern production often involves "relationship-specific investments." Companies will incur substantial costs when seeking new trade partners. According to McKinsey's estimates, supply chain disruptions over an average period of ten years can lead to annual profit losses exceeding 40 percent for companies.[12]

IV. Promoting International Coordination on Opening-Up Policies

Despite improvements in the latest Global Opening-up Policy Index, global opening-up remains under pressure. In the face of a complex international environment, all parties should

11 WTO, "One Year of War in Ukraine: Assessing the Impact on Global Trade and Development" (2023), https://www.wto.org/english/res_e/booksp_e/oneyukr_e.pdf.

12 Lund, S., Manyika, J., Woetzel, J., Barriball, E., Krishnan, M., Alicke, K., Birshan, M., George, K., Smit, S., Swan, D., and Hutzler, K., *Risk, Resilience, and Rebalancing in Global Value Chains* (McKinsey Global Institute, August 6, 2020).

adopt a more rational, comprehensive, and objective view of the relationship among opening-up, development, and security. It is important to actively coordinate trade and investment policies, enhancing the scientific, stable, cooperative, and inclusive nature of policy-making, and truly inject more positive energy into economic globalization.

1. Enhancing the openness of regional trade and economic rules

Opening-up within regions should serve as a complement to global opening-up rather than a barrier; regional cooperation mechanisms should encourage members to expand opening-up instead of exacerbating fragmentation of global economy and trade. It's important to promote regional trade and economic cooperation while enhancing openness, and ensure that countries outside the region have the opportunity to join and benefit from relevant mechanisms, thus avoiding the targeting and isolation of countries outside the region. At the same time, efforts should be made to create conditions that gradually elevate the high-standard trade and economic rules within regions to the level of multilateral rules, facilitating effective connections among global economic and trade rules, systems, and standards, and preventing fragmentation.

2. Exploring a more inclusive global cooperation framework

A decline in openness can adversely affect economic recovery and pose challenges to poverty elimination and industrial upgrading in developing countries. There is a need to strengthen and promote the BRI, BRICS cooperation mechanisms, and Global South cooperation mechanism, to align with the multi-level development needs of countries, therefore providing more opportunities for industrial division and collaboration. It's also important to support developing countries to extensively participate in international economic and trade activities, thus enabling them to integrate into the global value chain and share in the benefits of globalization.

3. Strengthening communication and coordination of international economic and trade policies

Focusing on the security interests of an individual economy does not necessarily contradict the promotion of global opening-up. However, an overly unilateral pursuit of security through restrictive economic and trade policies can bring unprecedented risks and losses to the global economy. Countries should enhance communication and coordination with stakeholders when formulating economic and trade policies, seeking more mutual interest to avoid trade friction and conflicts such as "trade wars." By adopting a more open mindset, countries can advance inclusive and shared economic globalization.

CHAPTER 4

Rise of the Global South and Transformation of Global Governance System

The Global South stands out with a strong momentum, playing a vital role in promoting human progress. After a long and arduous exploration like "decolonization," "dependency on development aid," and "amplifying their voices at global stages," Southern countries have achieved unprecedented accomplishments while still facing some challenges. China has always been committed to promoting South-South cooperation. In pursuing its own development, China has continuously injected impetus into the modernization process of the world, particularly in the development and revitalization of the Global South.

I. Rise of the Global South Profoundly Impacts the World

The Global South refers to a collection of emerging markets and developing economies. Geographically, developing countries are mainly located in the southern hemisphere or the southern parts of the Northern Hemisphere, and the international community often refers to them as Southern countries. From the perspective of political attributes, since the 1950s, the concept of the South has been used to highlight systemic inequality between the vast majority of developing countries and the North countries represented by industrialized countries. Global South is an extension of the concept of the South.

1. Gradual strengthening of the Global South

A difficult beginning. Throughout the 1950s and 1960s, the topic of North-South relations was decolonization. The Bandung Conference was a harbinger for South-South cooperation. The founding of the Non-Aligned Movement and establishment of the Group of 77 marked the beginning of comprehensive South-South cooperation. In the 1960s and 1970s, North-South dialogues and efforts to establish a new international economic order achieved periods of

success. After the 1980s, North-South relations shifted more toward economic interdependence and cooperation. The North's aid to the "underdeveloped" countries in the South was more based on considerations of the competition for strategic resources between the East and the West during the Cold War.

Accelerated development. After the 1990s, some Southern countries proactively integrated into globalization, achieving rapid economic growth. The rise of emerging markets such as China, India, Brazil, Turkey, and Indonesia enhanced the overall strength and international standing of the Global South Since 2000, the economic power of the Global South has risen, and the voice in international affairs has also strengthened. In contemporary political and military hot spots, the Global South maintains an independent stance, making self-determined proposals and becoming an important force in shaping the international order.

Remarkable achievements. According to the IMF, in 2007, the GDP of emerging markets and developing economies, measured by purchasing power parity, surpassed that of developed economies for the first time, reaching 50.04 percent. In 2023, the share of emerging markets and developing economies' GDP rose to 58.82 percent, while that of developed economies declined to 41.18 percent. The role of the Global South in global trade and investment has increased. According to the WTO, the South-South trade i.e., trade among the emerging and developing economies of the Global South—has grown from 8 per cent of world trade in 1995 to around 25 per cent today, and at current trends it could reach 30 per cent by 2030. World Investment Report 2024 of the UNCTAD reveals that in 2023, global foreign direct investment (FDI) flows reached $1.3 trillion, with over 70 percent of that going to developing economies, a record high.

2. New challenges faced by the Global South

Significant development tasks. According to the global Multidimensional Poverty Index by the UN Development Program, 1.1 billion people are multidimensionally severe poor across 110 countries covering 6.1 billion people. Of those, five out of six live in Sub-Saharan Africa (534 million people) and South Asia (389 million people). Some Southern countries remain economically fragile, making it difficult for them to effectively respond to shocks like financial crises, pandemics, and climate change. According to International Debt Report 2023 of WB, about 60 percent of low-income countries are at high risk of debt distress or already in it due to rising interest rates.

Challenging external environment. Currently, the international situation is fraught with both instability and change. Anti-globalization sentiment is rising, unilateralism and trade protectionism are on the rise, global economic recovery is sluggish, and the development processes of some countries are being disrupted. The momentum of international development cooperation is being weakened, and the external pressures on the Global South have significantly increased.

II. The Global South Actively Participates in Transformation of Global Governance System

The current global governance structure was established at the end of World War II. With the rise of the Global South, the current governance system can no longer fully reflects changes in global power dynamics. Its ability to resist various global risks has declined, and it is unable to effectively constrain emerging governance areas. The Global South has been building consensus and seeking strength through unity to promote the formation of a more just and reasonable international political and economic order.

1. To adhere idea on fair and reasonable governance

Global South countries highly value a fair and reasonable international economic order, focusing on development issues such as poverty eradication, economic recovery, debt relief, development financing, reform of the international financial system, and public health. They pursue a vision of global governance featuring shared growth through discussion and collaboration, calling for equal rights, equal opportunities and equal norms for every country, and practicing true multilateralism. Increasingly, countries of the Global South support equal consultation, peaceful resolution of disputes, and joint responses to global challenges in non-traditional security areas like terrorism, public health, climate change, and cybersecurity. The Global South actively promotes effective global governance, advancing pragmatic and efficient cooperation initiatives.

Box 4.1 Current state of global governance system

The world today is undergoing unprecedented changes, with the global landscape rapidly adjusting and evolving. The current global governance system is unable to manage global affairs comprehensively and effectively, resulting in the continuous emergence of global issues and contradictions, as well as the accumulation of governance deficits.

Current global governance system fails to fully reflect the rise of the Global South. Since the 21st century, the collective rise of the Global South has become an irreversible trend. With its growing strength, Countries of the Global South have an urgent need to reform the global governance system. The Global South has driven phased and localized reforms of the global governance system, partially correcting its unfair and unreasonable structures, leading to changes in the international governance landscape that favor the Global South However, the North-South gap in global governance remains significant, and the current global governance system is unable to adequately reflect the rise of emerging markets and developing economies or the changes in global power dynamics.

Current global governance system lacks sufficient risk resilience. Due to the relative decline in comprehensive strength, as well as the rise of protectionism and unilateralism, developed countries are unwilling to shoulder more international responsibilities and obligations, reducing the space for providing global public goods. Moreover, the continuously changing environment has weakened the risk resilience of global governance. As the multilateral trading system with the WTO at its core faces significant challenges, the fragmentation of international trade rules has intensified, signs of "group politics" have emerged, and the concept of national security has been overstretched. Adjustments in the monetary policies of major Western countries have increased the volatility of financial and capital markets in emerging economies and developing countries. Geopolitical risks are also intensifying, and the current global governance system cannot ensure international security. The obvious of the deficit in global development and disparity in income distribution, as well as unequal development opportunities, have become prominent issues in global economic governance.

Current global governance system cannot effectively regulate emerging governance areas. A new round of technological and industrial revolutions is underway, bringing significant changes to global production and lifestyles. The demand for international rules has increased significantly in many areas, including oceans, polar regions, cyberspace, climate change, energy security, and AI. However, these emerging governance fields currently lack universally accepted and binding regulations, creating governance gaps. For instance, WTO has not yet established globally unified e-commerce rules, and ongoing e-commerce negotiations still face disagreements on issues such as cross-border data flows, source code, and permanent duty-free electronic transmissions. Over the years, international climate governance has continued to move forward amid difficulties. The intensified competition among some countries in key zero-carbon technologies and key metal minerals has hindered the normal advancement of global climate governance.

2. Promoting reforms in major governance platforms

International organizations such as the UN, IMF, WB, and WTO play a pivotal role in the global governance system and serve as the primary channels for global governance. In recent years, the Global South has actively promoted rationalization of global governance platforms, pushing for reforms in the IMF and WB regarding quotas and voting power to ensure the rational distribution of resources and the fairness of governance structures.

The Global South also supports maintaining the multilateral trading system with the WTO at its core, urging all parties to preserve the stability of this system. Regarding the issue of WTO reform, BRICS has expressed their intention to constructively participate in necessary reforms, advocating for special and differential treatment (S&D) for developing countries, the establishment of a fair, market-oriented agricultural trade system, and the immediate initiation of the process for selecting members of the appellate body (AB).

The Global South also pushes for strengthening of South-South cooperation within the UN system and enhancing its institutional discourse power. For instance, the United Nations Industrial Development Organization (UNIDO) has strongly supported Brazilian President

Lula's proposal to establish a "Global Alliance to Eliminate Hunger and Poverty." In July 2024, the demonstration center for the China-Africa (Ethiopia)-United Nations (UNIDO) Cooperation was established. This is a tripartite demonstration project jointly implemented by China, African countries, and UN agencies, which will significantly improve Ethiopia's development in sectors including agriculture, industry, digitization, and energy. Additionally, the United Nations Development Program (UNDP) supports developing countries in popularizing the use of clean and renewable energy. For example, it supports Sri Lanka in reducing greenhouse gas emissions through biogas and solar energy technology demonstration projects, and promotes the application of 262 renewable energy technologies. UNCTAD has also launched projects to assist four southern African countries—Mauritius, Mozambique, Zambia, and Tanzania—in enhancing their economic growth capacity and strengthen the regional integration process in southern Africa.

3. Building new platforms for regional cooperation

The G20, established in 1999, aims to promote reform of the international financial system and discuss substantive issues between developed economies and emerging markets. After the global financial crisis, the G20 was elevated to the G20 Summit, becoming the world's most representative economic cooperation mechanism and an international cooperation mechanism with significant influence. Countries of the Global South use major agenda setting to promote reforms in global governance in fields such as macroeconomic policy coordination, financial cooperation, trade liberalization, and low-carbon economic cooperation. 2016 G20 Hangzhou summit placed sustainable development at the core of its agenda, adopting the G20 Global Trade Growth Strategy and the world's first multilateral investment rule framework, the G20 Guiding Principles for Global Investment. This was a landmark summit for promoting the transformation of the G20. 2023 G20 New Delhi summit further proposed enhancing the inclusiveness and transparency of multilateral systems, reforming the WTO, and strengthening global food security.

The BRICS cooperation mechanism has become an essential mechanism platform for the Global South The first BRICS leaders' meeting was held in June 2009, officially launching the BRICS cooperation mechanism, with South Africa joining in 2010. The cooperation mechanism has yielded fruitful results, such as the establishment of the New Development Bank and the Contingent Reserve Arrangement. 2023 BRICS Johannesburg Summit approved the accession of Saudi Arabia, Egypt, the United Arab Emirates, Iran and Ethiopia, achieving a historic expansion. More than 40 countries have expressed interest in joining, and over 20 countries have formally applied, creating the BRICS+ cooperation model, which provides broader development and cooperation opportunities for more Global South countries.

Moreover, South-South cooperation platforms including the Shanghai Cooperation Organization (SCO), the Group of 77 + China, and the Non-Aligned Movement have also become important international platforms for the Global South to voice its concerns.

4. Participating in rules making in emerging fields

Countries of the Global South have become more proactive in fields like energy security and climate change, moving away from the passive acceptance of arrangements by Western developed countries. They now actively participate in the creation of governance rules for emerging areas.

For example, cooperation on climate change has become a key focus for the Global South. In response to the efforts of the Global South, the 27th Conference of the Parties of the UN Framework Convention on Climate Change (COP 27) in 2022 established a dedicated fund for Loss and Damage to help developing countries cope with the adverse effects of climate change.

In the energy sector, countries of the Global South are also strengthening cooperation. In 2021, the African Union launched the African Single Electricity Market, and the African Power System Master Plan became a flagship project of the Agenda 2063, aiming to connect sub-regional electricity grids and improve Africa's energy efficiency. At the 2023 Africa Climate Summit, the UAE pledged $4.5 billion to support Africa's clean energy development. Additionally, The Africa Energy Bank, which was established by the African Export-Import Bank and the African Petroleum Producers Organization in 2024, addresses the funding crisis in the African for energy resource development.

III. Rise of the Global South Helps Achieve the UN 2030 Agenda

The UN 2030 Agenda is a global development goal and a key part of the transformation of the global governance system. With the active participation of Global South countries, the UN Sustainable Development Agenda has made certain progress. Extreme poverty and child mortality rates have continued to decline, progress has been made in the fight against diseases like HIV and hepatitis, and certain gender equality goals are achieving positive results. Access to electricity in the poorest countries is on the rise, and the proportion of renewable energy in the energy mix is also increasing. Global unemployment rates have returned to pre-2008 financial crisis levels.

However, the global development deficit is becoming more prominent, and the prospects for achieving the 17 sustainable development goals (SDGs) on time are not optimistic. Global progress in reducing extreme poverty has stagnated. Poverty alleviation and other development issues remain the core demands of the Global South.

Standing at a new historical starting point, the Global South should be more open and more inclusive, and join hands together to take the lead in building a community with a shared future for humankind.

1. Contributing to livelihoods and development

China is home to nearly one-fifth of the world's population. Its complete eradication of extreme poverty—the first target of the UN 2030 Agenda for Sustainable Development—ten years ahead of schedule, is a milestone in the history of humankind, making an important contribution to the cause of global poverty alleviation.

According to the 2023 Global Multidimensional Poverty Index report by the UN, 415 million poor people moved out of poverty from 2005 to 2021 in India, and Indonesia lifted 8 million people out of poverty from 2012 to 2017.

The African Union is vigorously promoting the Action Plan for Accelerated Industrial Development in Africa (2007), which seeks to address long-standing social problems like economic fragility, poverty, unemployment, inequality, and the wealth gap through accelerated industrialization. According to the Africa Industrialization Index (AII) jointly published by the African Development Bank and the African Union in 2022, 37 African countries have improved their level of industrialization over 11 years, making progress in 19 areas, including manufacturing performance, labor quality, business environment, and infrastructure. China has fought a decisive battle against poverty that is unprecedented in scale and intensity and has benefited the largest number of people in human history (see box 4.2).

Box 4.2 China's rural revitalization starts a new chapter

China is promoting the development of agricultural and rural modernization in the new era, advancing comprehensive rural vitalization in a strong and effective manner.

Agricultural production capacity has significantly increased, and rural industries are developing across the board. In 2023, China's total grain output reached 0.7 trillion kilograms, with per capita grain possession standing at 493 kilograms, consistently exceeding the world average for many years. The total output value of agriculture, forestry, animal husbandry, and fishery continue to grow, with the industrial structure further optimized. The per capita disposable income of rural households was RMB 21,691, a 40.1-fold increase compared to 1956.

Rural infrastructure construction has made solid progress, and the level of rural development has steadily improved. By the end of 2023, 96.0 percent of villages had access to tap water, and 98.7 percent of rural households had access to safe drinking water. Electrification in rural areas continued to advance, with the total length of rural roads nationwide increasing to 4.6 million kilometers, greatly improving transportation conditions. The proportion of villages with centralized waste disposal reached 87.6 percent, and the issue of rural wastewater discharge has been effectively addressed. Digital rural construction is also deepening, with 74.5 percent of villages having e-commerce distribution sites, greatly improving the convenience and comfort of rural residents' lives.

The rural public service system has been continuously improved, and the effectiveness of rural governance has significantly increased. In 2023, there were 1.953 million full-time teachers in rural compulsory education, with a more reasonable teacher-student structure. Rural healthcare and medical insurance systems have seen in-depth development, with the insurance participation rate for low-income and poverty-stricken rural populations stabilizing at over 99 percent, and the quality of coverage has steadily improved. The elderly care service system has been continuously refined, ensuring public well-being more effectively.

2. Addressing global challenges

Climate change is a quintessential global issue which needs a global response. Many developing countries are the hardest hit by climate change, with many countries most vulnerable to climate change, particularly small island countries and LDCs, already bearing the consequences beyond their adaptive capacities. Cooperation and development among the Global South are of strategic importance in addressing global issues such as climate change.

On the one hand, China actively coordinates the positions of countries within climate negotiation blocs such as the BASIC countries (Brazil, South Africa, India, and China), the Like-Minded Developing Countries, and the Group of 77 and China. On the other hand, China is working with relevant countries to implement the Belt and Road South-South Cooperation Initiative on Climate Change, establish the Belt and Road Energy Partnership, and facilitate actions on ecological conservation and climate change.

3. China's significant contributions

As a member of the Global South and a major driver of South-South cooperation, China has consistently adhered to the principles of sincerity, real results, amity and good faith and the principles of pursuing the greater good and shared interests. China has proposed and implemented the Three Global Initiatives, and strengthens solidarity and cooperation with developing countries. In June 2024, at the commemoration of the 70th anniversary of the Five Principles of Peaceful Coexistence, President Xi Jinping announced a series of major initiatives supporting cooperation within the Global South (see box 4.3).

Box 4.3 China's major initiatives to support cooperation within the Global South

China will establish a Global South research center, providing 1,000 scholarships under the Five Principles of Peaceful Coexistence Scholarship of Excellence and 100,000 training opportunities to Global South countries in the next five years, and launching a Global South youth leaders program.

China will further leverage the China-UN Peace and Development Fund, the Global Development and South-South Cooperation Fund, and the Climate Change South-South Cooperation Fund, and working with interested parties to set up a tripartite center of excellence for implementing the Global Development Initiative, so as to facilitate growth in Global South countries.

China will also renewing the China-IFAD South-South and Triangular Cooperation Facility and making an additional Renminbi contribution equivalent to $10 million to be used to support agricultural development of the Global South. China is willing to discuss free trade arrangements with more Global South countries, continuing to support the WTO's Aid for Trade initiative, renewing contribution to the WTO's China Program, and welcoming more Global South countries to join the Initiative on International Trade and Economic Cooperation Framework for Digital Economy and Green Development.

From 2024 to 2030, China's import from fellow developing countries is expected to exceed $8 trillion.

For many years, China has steadfastly supported regional international organizations like BRICS, the SCO, the Association of Southeast Asian Nations (ASEAN), the African Union, and the Community of Latin American and Caribbean States (CELAC) in playing important roles on the global stage. It has carried out practical cooperation with organizations such as UNIDO, UNCTAD, and UNDP to help more Global South countries integrate into trends such as digitalization, intelligence, and green development. By the end of 2023, China had signed more than 200 BRI cooperation agreements with more than 150 countries and 30 international organizations, yielding a number of signature projects and small-scale yet impactful projects.

China has actively participated in South-South cooperation within the UN framework, establishing a $4 billion Global Development and South-South Cooperation Fund. China has been upgrading its foreign assistance to a model of international development cooperation, transitioning from traditional aid to a more multifaceted approach involving multilateral and bilateral partnerships, diverse actors, and multiple resource inputs. This helps other developing countries reduce poverty, improve people's livelihood, and promote the narrowing of the development gap between the North and the South and the elimination of the development deficit.

China has long been committed to deepening comprehensive cooperation with Africa, injecting more positive energy into promoting peace and development in Africa. At the China-Africa Leaders' Dialogue in August 2023, China announced the launch of the Initiative on Support Africa's Industrialization, the implementation of the China-Africa Agricultural Modernization Plan, and the China-Africa Talent Development Cooperation Plan. These three initiatives cover the key areas where Africa urgently needs support to achieve modernization. At the successful 2024 Forum on China-Africa Cooperation (FOCAC), President Xi Jinping emphasized that China and Africa would work together to promote modernization of the Global South with China-Africa modernization, and joint hands to bring about a bright future of peace, security, prosperity and progress for our world.

CHAPTER 5

Multilateral Trade System and Inclusive Development of World Trade

In 2023, global trade experienced a downturn due to factors such as weak demand from Europe and the United States and increased geopolitical risks, with a 5 percent decrease in merchandise trade value and a 1.2 percent decline in trade volume. Against this backdrop, the MC13 of the WTO achieved several practical outcomes in March 2024, marking yet another significant victory for multilateralism. This demonstrates that the multilateral trade system, centered around the WTO, continues to play an important role in global economic governance. In the face of increasing global challenges, all parties should further improve the multilateral trade system to foster inclusive development of world trade.

I. Practical Outcomes of the MC13 of the WTO

From February 26 to March 2, 2024, MC13 was held in Abu Dhabi, UAE. After intensive discussions, the conference achieved a "1 + 10" practical outcome (see box 5.1). The conference issued the Abu Dhabi Ministerial Declaration and achieved ten specific outcomes, focusing on improving multilateral trade rules, advancing negotiations in various areas, and expanding the accession of new members.

Box 5.1 MC13 achieves practical outcomes of "1 + 10"

The MC13 issued a ministerial declaration known as the Abu Dhabi Ministerial Declaration, in which members committed to strengthening the multilateral trading system and continuing WTO reform.

The ten specific outcomes are as follows:

- 1. Investment Facilitation for Development Agreement. This responds strongly to the demands of a wide range of developing members for attracting foreign investment and developing their economies.
- 2. Ministerial Decision on Dispute Settlement (DS) Reform. This aims to restore the normal functioning of the dispute resolution mechanism within the year.
- 3. The Work Program on Electronic Commerce. This extends the moratorium on customs duties for electronic transmissions until the next Ministerial Conference, providing a stable regulatory environment for the development of global digital trade.
- 4. Implementation of the negotiation on Services Domestic Regulation. This continues to reduce costs associated with global trade in services.
- 5. Approval of Comoros and Timor-Leste's Accession to the WTO. This enhances the representativeness of the multilateral trading system. The admission of these two LDCs brings the total membership of the organization to 166, covering 98 percent of global trade.
- 6. The WTO Smooth Transition Support Measures in Favor of Countries Graduated from the LDC Category—Ministerial Decision. This helps relevant countries to better integrate into the multilateral trading system.
- 7. Strengthening Regulatory Cooperation to Reduce Technical Barriers to Trade—Ministerial Declaration. This is the first ministerial declaration on technical barriers to trade since the establishment of the WTO.
- 8. The Work Program on Small Economies—Ministerial Decision. This effectively enhances the capacity of vulnerable members to participate in WTO processes, aiding their integration into the multilateral trading system, especially in addressing issues like the digital divide, food crises, climate change, and disasters.
- 9. Declaration on the precise, effective and operational implementation of S&D provisions of the Agreement on the Application of Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade—Ministerial Declaration. This helps developing members, particularly LDCs, effectively enhance their capacity to engage in related sanitary and phytosanitary measures and technical barriers to trade.
- 10. TRIPS Non-Violation and Situation Complaints—Ministerial Decision.

1. The world's first multilateral investment agreement

The Investment Facilitation for Development Agreement (hereafter referred to as the agreement) is the world's first multilateral investment agreement, the first agreement centered on development, and the first investment negotiation led by developing members. This initiative was initiated in 2017 by China and other developing members through a Joint Statement Initiative (JSI). On February 25, 2024, 123 members convened a specialized ministerial meeting on investment facilitation in Abu Dhabi, where they officially announced the conclusion of the agreement.

The agreement primarily includes measures to enhance the transparency and predictability of investment measures, to simplify and expedite administrative approval processes, and to promote sustainable investment. Once effective, it will help improve the level of global investment facilitation, improve the investment environment, better respond to the strong desires of many developing members to attract foreign investment and develop their economies, therefore further boosting the confidence of global investors, and promoting stable growth in global investment (see box 5.2).

Box 5.2 China promotes the conclusion of Investment Facilitation for Development Agreement

In December 2023, at the WTO General Council meeting, approximately 120 WTO members, including China, announced that the final text of Investment Facilitation for Development Agreement has completed its legal review. They called on all members to promptly fulfill the necessary procedures to incorporate the agreement into the WTO legal framework.

The agreement is centered on development and comprises 7 sections with 45 articles, primarily focused on enhancing the transparency and predictability of investment measures, streamlining and expediting administrative approval processes, and promoting sustainable investments. It reflects the shared desire of numerous members to promote development through investment and represents an important achievement under the WTO's development agenda.

The issue of investment facilitation is a major topic proactively set and led by China in collaboration with relevant developing members within the WTO, initiated in 2017 by China and other developing members through a JSI. Negotiations concluded in July 2023. Currently, 129 WTO members are participating in it, exceeding three-quarters of the total membership, which is of significant importance for the formulation of WTO rules. Throughout the negotiation process, China has been leading the construction of high-standard international rules with Chinese proposals, and has played a pivotal role in facilitating dialogue, reconciliation, and consensus building. China, along with Brazil, Nigeria, Kazakhstan, and other developing members, formed a "Friends of Investment Facilitation" group and maintained close communication with other participants, resulting in more than 110 members joining the negotiations. In line with the transformation of government functions and comprehensive deepening of reforms, China has submitted 15 formal proposals to lead the establishment of high-standard international rules. During critical stages of negotiation, China has repeatedly proposed practical solutions to address challenges, receiving high recognition from all parties.

Currently, geopolitical tensions, inflation, and pessimism in financial markets are exerting significant downward pressure on global FDI. The agreement, as the world's first multilateral investment agreement, helps optimize the investment environment, attract high-quality investments, promote economic development, and achieve the UN' 2030 Sustainable Development Agenda goals. It enhances the stability and predictability of global investment regulatory policies, boosts global investor confidence, and supports stable growth in global investment.

This innovative negotiating approach is beneficial for revitalizing the WTO's negotiating functions and ensuring that the WTO keeps pace with the changing times.

2. Improving environment of service trade

The WTO forecasts that the share of services trade in international trade will increase from the current 22 percent to over 33 percent by 2040. Currently, the transaction costs of international services trade are twice those of traditional goods trade, with approximately 40 percent of these costs arising from regulatory factors within member countries.

MC13 successfully brings into force the outcome of the negotiations on domestic regulation in services trade. This marks the first multilateral agreement on services trade since the establishment of the WTO, with 72 participants covering over 90 percent of global services trade volume. The effectiveness of this agreement will optimize the licensing and approval processes in the services sector of member countries, significantly reduce costs in international services trade, and improve the business environment for global services trade. WTO Director-General Ngozi Okonjo-Iweala stated that the effectiveness of the domestic regulation on services trade is expected to save $125 billion in trade costs annually, with low-income economies expected to save 10 percent and middle-income economies expected to save 14 percent.[1]

3. Promoting sustainable development

The WTO plays a significant role in promoting sustainable development. Over 50 percent of WTO members, accounting for more than 85 percent of global trade, support initiatives for environmental sustainability and plastic pollution and fossil fuel subsidy reform. 78 members issued a ministerial statement during the Dialogue on Plastic Pollution, identifying areas for international cooperation on plastic pollution at the trade level. These areas include voluntary individual and collective actions, with a call to achieve practical and effective outcomes by the time of the MC14 meeting.

The initiators of the Trade and Environmental Sustainability Structured Discussions and the Fossil Fuel Subsidy Reform initiative also released statements. It advocated enhancing transparency and promoting sustainable reforms by fully leveraging the trade policy review mechanism.

At the same time, the WTO approved the accession of Comoros and Timor-Leste, the least developed economies.

MC13 vividly demonstrated the determination of WTO members to take effective action in prioritizing development in the face of an expanding development gap. It showcased the ability of WTO members to unite and cooperate in addressing global challenges amid a complex and severe international situation, thereby boosting the international community's confidence in the multilateral trade system and injecting strong momentum into the promotion of global trade and investment liberalization and facilitation.

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1 WTO, "New Disciplines on Good Regulatory Practice for Services Trade Enter into Force" (February 27, 2024), https://www.wto.org/english/news_e/news24_e/serv_27feb24_e.htm.

II. Multiple Challenges Faced by Multilateral Trade System

While progress has been made in the multilateral trade system, there have been challenges in various areas, including agricultural trade, fisheries subsidies, and dispute resolution mechanisms.[2]

1. Geopolitical challenges

Geopolitical conflicts have increased trade frictions and restrictive measures, heightened the risks of fragmentation within the multilateral trade system, raised costs of production, transaction, and innovation for economies, exacerbated anxieties and difficulties for small and medium-sized economies, increased domestic inflation and employment pressures, and reduced the potential of reaching international agreements to address global crises. Such challenges can undermine trust and confidence in the multilateral trade system.[3] The global geopolitical risks are surging sharply, with the daily average of the global geopolitical risk index reaching 133.14 from January to September 2024, a 28.2 percent increase compared to the same period last year.[4]

2. Mechanical challenges

Mechanical issues and barriers hinder the WTO's deliberative function in global trade.[5] For instance, the limited flexibility of decision-making mechanisms could further complicate consensus-building as membership expands. Initiatives proposed by individual members or groups often struggle to achieve multilateral consensus.[6] WTO negotiations resemble a "marathon"—long, arduous, and technically complex—where results can only be achieved through cooperation and compromise.[7] Issues like the deadlock in the dispute resolution mechanism remain unresolved. If the WTO dispute mechanism cannot be fully restored, it will be challenging to curb the "weaponization" of trade. Whether it's unilateral violations of binding tariffs or unreasonable

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2 Rockwell, K. M., "Six takeaways from WTO MC13" (March 5, 2024), https://www.hinrichfoundation.com/research/article/wto/six-takeaways-from-wto-mc13/.

3 Zhang, X., "The Evolution of the International Landscape and WTO Reform" (August 9, 2024). Presented in the 2024 Annual Conference on WTO Reform and High-Level Opening-Up, held by the Institute for Service Economy and Digital Governance at Tsinghua University, https://mp.weixin.qq.com/s/5yAE4WGUWuwZn4sCeKak_w.

4 Country-Specific Geopolitical Risk Index, https://www.matteoiacoviello.com/gpr_country.htm.

5 Drabek, Z., "Is the WTO Terminally Ill? Threats to the International Trading System," *Asia and the Global Economy* 4, no. 1 (2024), article 100078.

6 Steger, D., "Strengthening the WTO Rulemaking Function" (May 11, 2020), https://www.cigionline.org/articles/strengthening-wto-rulemaking-function/.

7 Lacey, S., "Ten Things We Learned at the WTO's Trade Meeting in Abu Dhabi" (2024), https://www.weforum.org/agenda/2024/03/what-we-learned-at-the-wtos-trade-meeting-in-abu-dhabi/.

reliance on GATT Article 21 to restrict trade under the guise of "essential security interests," trade policies can become weaponized.[8] Since 2009, trade restrictive measures by G20 members have increased more than tenfold.

3. Challenges of new rules

Currently, the rapid development of the digital economy and the green economy presents significant challenges, as the WTO's multilateral rule-making in digital trade and green trade cannot fully meet practical demands. There are considerable disagreements regarding digital cross-border flows, privacy protection, and intellectual property rights.[9] For instance, the WTO has not clearly defined the attributes of goods and services in digital trade; there is a lack of specific legal regulations addressing digital trade barriers; and the carbon border adjustment mechanisms adopted by some economies have raised disputes about whether they constitute trade barriers. The WTO needs to keep pace with the times, strengthening rule-making and multilateral governance in relevant areas.

III. Long Road Ahead for WTO Reform

The WTO is a crucial pillar of multilateralism and an important platform for global economic governance. There is a common consensus that reforms of the WTO are imperative and in line with the general direction of global trends. All parties should firmly uphold authority and effectiveness of the WTO-centered multilateral trade system, as well as promote reforms to establish an inclusive, transparent, open, non-discriminatory, and fair multilateral trade regime. This includes strengthening the centrality of development issues in WTO's work, actively promoting the restoration of the dispute resolution mechanism, maintaining the fundamental principles of the WTO, supporting inclusive global trade development, and advancing the construction of an open world economy.

1. Advancing reform by phases and sectors

The reform entails readjusting rules and redistributing member interests, necessitating a gradual and categorized approach. In the short term, the top priority is to restore the normal functioning of the dispute resolution mechanism and make progress in areas with fewer disagreements, such as institutional efficiency, to continually enhance members' confidence in the reform. In the

8 Heydon, K., "MC13 Success Critical to the Liberal Trading Order" (September 26, 2023/August 09, 2024), https://eastasiaforum.org/2023/09/26/mc13-success-critical-to-the-liberal-trading-order/.

9 OECD, "Global Forum on Trade 2023 'Making Digital Trade Work for All: Key Issues in Digital Trade'" (October 2023).

medium term, members need to achieve more results on timely updating rules and improving mechanism, which include establishing priorities and schedules for the reform, deciding how to create relevant mechanisms to advance the reform, and whether to establish reform groups within the WTO framework, letting G20 and other institutions play their role.

2. Leveraging constructive role of major economies

Major economies should work together, discard the "zero-sum mindset," and adhere to the principles of openness, inclusiveness, and win-win cooperation while continuing to uphold the multilateral trade system. At the same time, they should address issues related to the individual abuse of the principle of consensus, which obstructs negotiation on key agendas. Regarding development issues in the WTO reform, all members should focus on the world's shared openness and prosperity, strive to eliminate various discrepancies and conflicts, progress step by step from specific points to broader issues, build greater consensus, and take unified actions to provide more opportunities for inclusive global trade development.

3. Fully utilizing the plurilateral negotiation model

Plurilateral negotiations serve as a second-best option for multilateral negotiations, characterized by their effectiveness in breaking negotiation deadlocks and reducing complexity. This approach can help overcome the fragmentation of agreements, advance multilateral trade rules under suboptimal conditions, and provide flexibility by integrating different policies from regional and bilateral trade agreements, thereby reducing division and discrimination in specific areas and improving trade conditions among relevant parties. For issues where a multilateral consensus cannot be formed in the short term, parties can break the negotiation deadlock through mechanisms like JSI, hence gradually pushing the WTO to restore its legislative function, as exemplified by the establishment of Investment Facilitation for Development Agreement. Additionally, providing more technical assistance and capacity-building support to members who have not yet participated in the JSI will sequentially encourage broader participation, particularly among developing members.

China has always placed great importance on the work of the WTO, firmly upholding the multilateral trade system centered around the organization. It has been actively participating in its reform, promoting the restoration of the normal functioning of its dispute resolution mechanism, and advancing discussions on issues such as trade and environment. During the ninth Trade Policy Review on China in July 2024, the WTO Secretariat and many WTO members highly praised China's contributions to deepening reform and opening-up, promoting global economic growth, and maintaining the multilateral trade system. China will support the WTO to play a greater role in addressing global challenges and continue to firmly oppose unilateralism and protectionism. It will work with all parties to resist the politicization, weaponization, and

excessive securitization of economic and trade issues, and promote the establishment of a community with a shared future for humankind (see box 5.3).

Box 5.3 Advancing the WTO reform in specific areas with action

Accelerating reforms in areas with broad consensus. At present, consensuses or significant agreements have been achieved in the following areas:

- **Fisheries subsidies negotiations.** The pressure of this negotiation currently stems from India. In 2017, India blocked a potential agreement to eliminate subsidies for illegal fishing and again in 2022 rejected a WTO solution addressing subsidies that lead to overcapacity and overfishing. During the MC13, India demanded a 25-year transition period and stricter oversight and penalties for members providing substantial fisheries subsidies, which has caused the fisheries negotiations to reach an impasse. Certain South Pacific economies and Brazil have attempted to review the fisheries agreements between the EU and third countries and exert pressure on members with developed fisheries to grant additional exemptions for their own fishing fleets. However, developed members have refused to grant unconditional exemptions for subsidies provided by poorer members, resulting in a lack of consensus on fisheries subsidies.
- **Plurilateral negotiations.** This serves as a second-best option for multilateral negotiations. For one thing, it can help to break negotiation deadlocks and reduce complexity. Plurilateral negotiations act as the greatest common divisor within the WTO, greatly clustering a small number of like-minded members and fostering a sense of community based on shared interests, thus advancing progress in areas where consensus among all members is unattainable. For another thing, it can overcome the fragmentation of agreements and advance multilateral trade rules under suboptimal conditions. While the number of members involved in plurilateral negotiations is smaller, the negotiations still occur within the WTO framework based on rules, inclusiveness, and openness, rather than transitioning to fragmented negotiations outside the WTO. This creates opportunities for policy innovation and enables a progressive approach to modernizing trade rules. Plurilateral negotiations offer some flexibility to lower-developed members within the existing JSI negotiations and integrate various policies from regional and bilateral trade agreements to better coordinate practices among WTO members, reducing fragmentation and discrimination in specific policy areas. They improve trade conditions for all.

- **Sustainable development and environmental protection.** This is one of the works with top priority of the WTO in the future. Developing members can push for fairer trade rules through engagement in WTO negotiations, safeguarding their long-term interests. Developed members need to collaborate with developing members to tackle environmental challenges and hope to utilize the WTO mechanism to open markets in developing economies, seizing the massive opportunities in green technology and clean energy. There is a strong willingness for both groups of members to jointly address environmental and energy crises. The former WTO Director-General Renato Ruggiero stated, "Trade liberalization can and must become an important ally of sustainable development, but mere market freedom alone cannot solve all the complex environmental and social issues we face." Thus, "broader solutions lie in achieving global consensus and enforceable global agreements and standards in these areas."

Promoting negotiations step-by-step in areas with significant disagreements. Currently, the following areas exhibit considerable divergence:

- **Reform of the DS mechanism.** There are disagreements over the power of the AB, the selection of members, and other related issues. The DS mechanism is currently in a state of paralysis, primarily due to the United States. The US continues to obstruct the selection of AB members by arguing that there are structural problems in the AB as its members continue deciding appeals after the expiration of their term or/and after the mandatory deadline of appeals, making findings on issues of facts beyond its authorization, and so on. It does not agree to commence the selection of AB members before these problems solved. Most members, especially developing ones, hope for a more robust role for the AB to enhance multilateral dispute resolution. They wish to refine the DS mechanism and address to support developing members' capability for their own development by maintaining the AB's independence, neutrality, and flexibility. A step-by-step negotiation can first establish consensus on the fundamental principles of the reform, followed by discussions on specific procedural reforms, ultimately allowing members to gradually make progress in various areas of complex divergence.
- **Development issues.** Developing members such as the Group of 90 have requested that S&D provisions be more precise, effective, and operational. However, developed members such as the United States are unwilling to provide S&D to all developing members and hope to limit and reduce S&D's beneficiaries and concrete content. In the future, the MC13 approach can be followed to deal with relevant issues in a step-by-step manner based on certain agreements.

CHAPTER 6

Global Digital and Green Cooperation Development

As the two new driving forces of global economic growth, digital economy and green low-carbon economy have developed rapidly in recent years. New tracks, industries, and models are emerging in the context of cooperative competition. The construction of relevant rules and governance systems is becoming increasingly complex, attracting significant attention from the international community.

I. Increasing Cooperation on Digital Opening-Up

In recent years, the global digital economy has flourished, becoming a significant engine of global economic growth. On the material level, digital trade, data elements, and digital infrastructure have achieved remarkable results. On the institutional level, a tripartite global digital economy governance system has taken shape.

1. Rebound in growth of digital trade

Digital services trade[1] is developing rapidly. According to UNCTAD estimates, from 2014 to 2023, the global trade in digital services grew at an average annual rate of 6 percent, with a growth rate of 8.5 percent in 2023. During the same period, global digital services trade increased from $5.36 trillion to $8.67 trillion, with its share in global trade in services rising from 51.2 percent to 56.8 percent (see fig. 6.1).

1 The *Handbook on Measuring Digital Trade*, jointly compiled by the OECD, the IMF, the UNCTAD, and the WTO, defines digital trade as trade that can be digitally delivered and digitally ordered. It mainly includes digital services trade (also known as "trade in digitally deliverable services") and cross-border e-commerce (including both goods and services transactions).

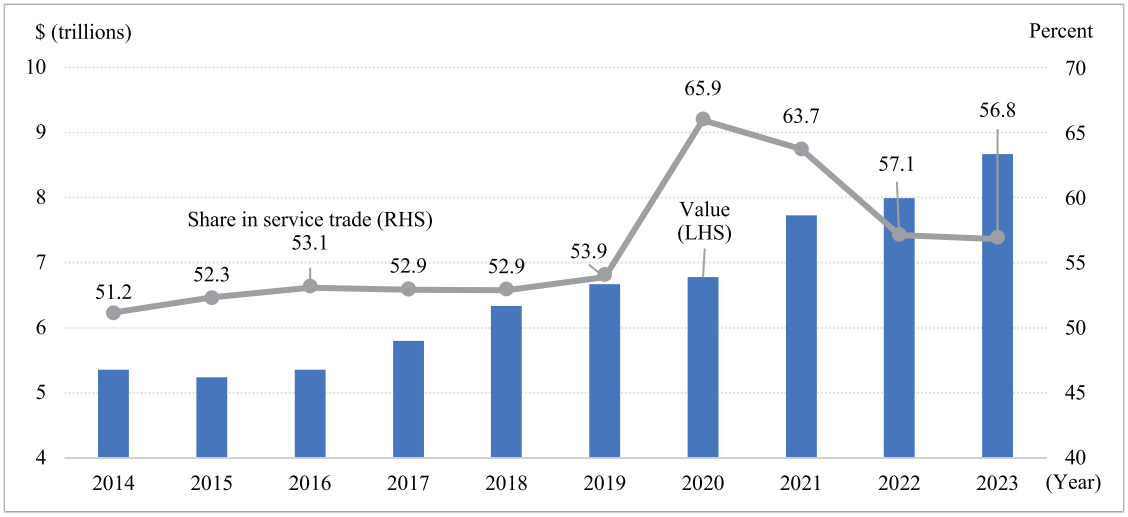


Figure 6.1 Global digital services trade: 2014–2023

Source: UNCTAD Database.[2]

In 2023, the leading economies in digital services trade included the United States (12.9 percent), Ireland (8.4 percent), the United Kingdom (7.9 percent), Germany (6.2 percent), China (4.9 percent), and the Netherlands (4.8 percent), among others. The rankings of countries leading in digital services exports and imports are shown in figure 6.2.

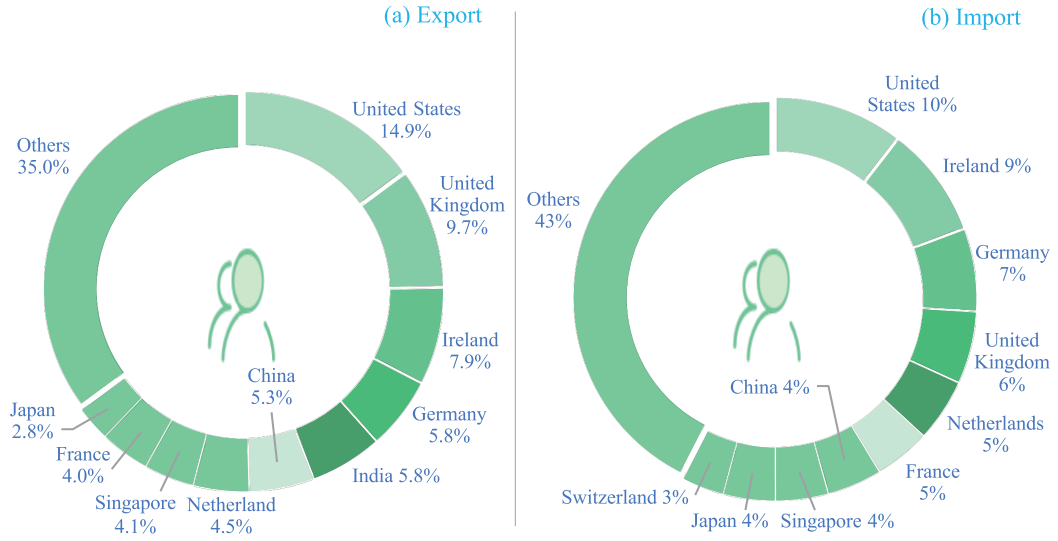


Figure 6.2 Share of digital component in service trade of top ten economies: 2023

2 https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=158358.

Source: UNCTAD Database.

Cross-border e-commerce is experiencing strong growth.[3] From 2014 to 2023, the global retail e-commerce sales grew at an average annual rate of 17.9 percent. Due to the impact of the pandemic, the growth rate temporarily slowed down. In 2023, global retail e-commerce sales exceeded $5.7 trillion, an increase of 8.9 percent year-on-year, showing signs of recovery (see fig. 6.3). The values of this indicator for major countries are shown in figure 6.4.

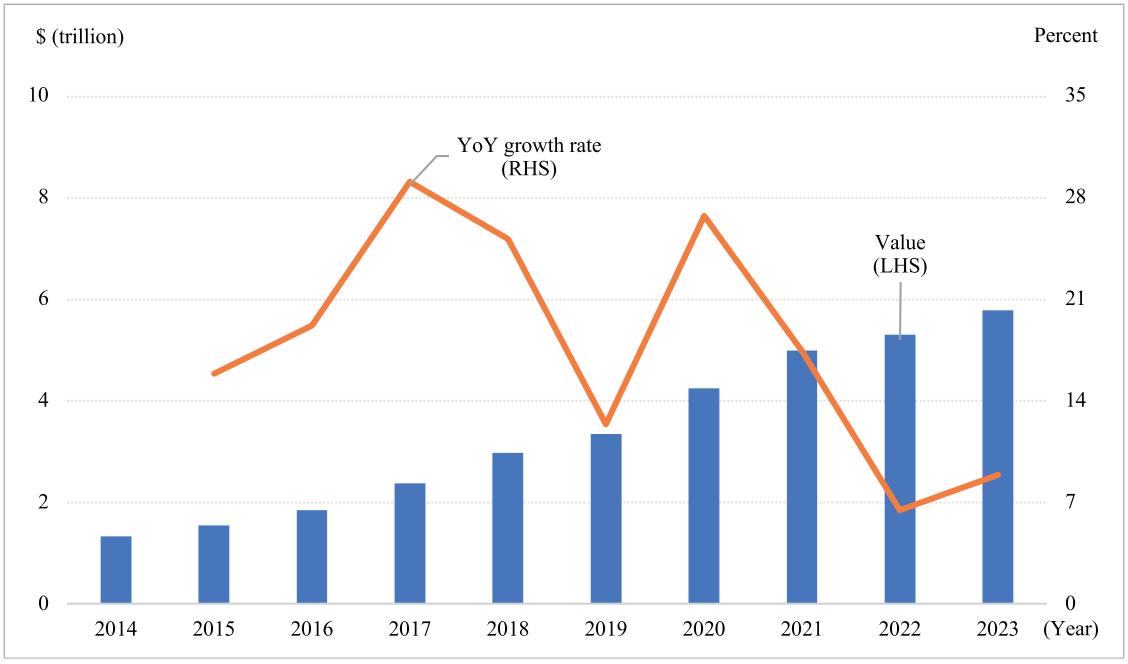


Figure 6.3 Global retail e-commerce sales and growth rates: 2014–2023

Source: Statista, https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/.

3 Due to the lack of a consistent statistical standard for cross-border e-commerce worldwide, this section uses global retail e-commerce sales for international comparisons.

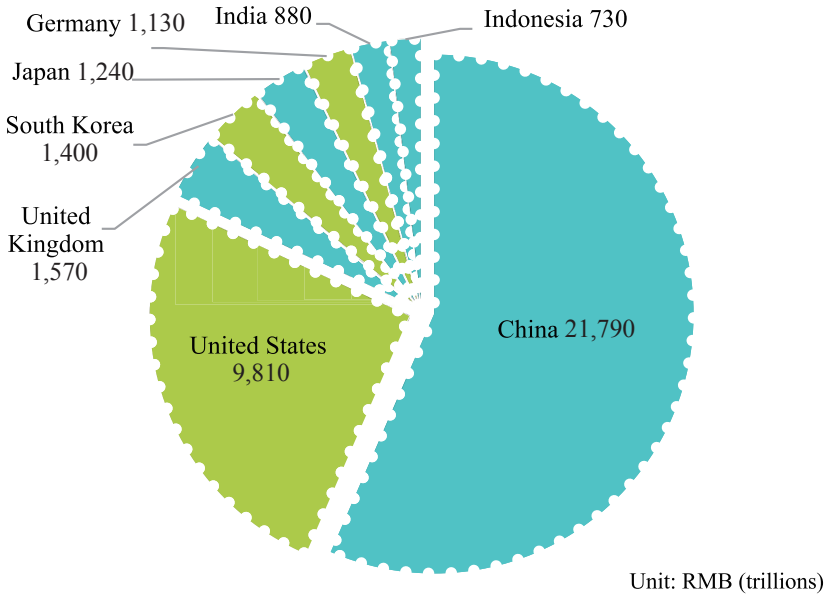


Figure 6.4 Retail e-commerce sales of major countries: 2023

Source: Statista, https:www.statista.com/chart/amp/32159/revenues-in-the-e-commerce-segment-by-country/.

From 2018 to 2023, China's cross-border e-commerce import and export volume grew at an average annual rate of 17.6 percent to RMB 2.38 trillion (of which exports were RMB 1.83 trillion and imports were RMB 0.55 trillion), maintaining a rapid growth momentum. China is the largest online retail market in the world,[4] with retail e-commerce sales reaching $2.18 trillion in 2023, an increase of 11 percent year-on-year.

2. Accelerated development of data element storage and utilization

The volume of data is growing rapidly. In 2023, the global data generated amounted to 128 ZB, and it is projected to reach 381.3 ZB by 2028, with an average annual growth rate of 24.4 percent (see fig. 6.5).

4 Regular press conference held by the Ministry of Commerce of China on January 11, 2024, https://www.mofcom.gov.cn/xwfbzt/2024/swbzklxxwfbh2024n1y11r/index.html.

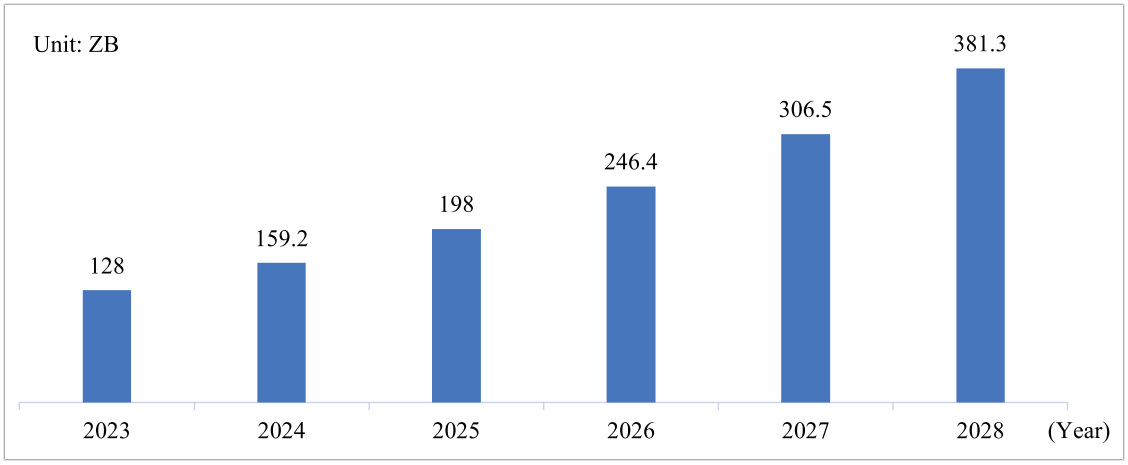


Figure 6.5 Global data volume: 2023–2028

Note: The data for the period 2024–2028 are estimated.
Source: IDC, https://www.idc.com/getdoc.jsp?containerId=US52076424.

The massive amount of data has driven the construction of data centers and data spaces. As of March 2024, the global total of data centers has surpassed 10,000, predominantly located in the United States, Germany, the United Kingdom, and China. Among these, the United States accounts for 5,381 centers, significantly exceeding those of other countries (see fig. 6.6).

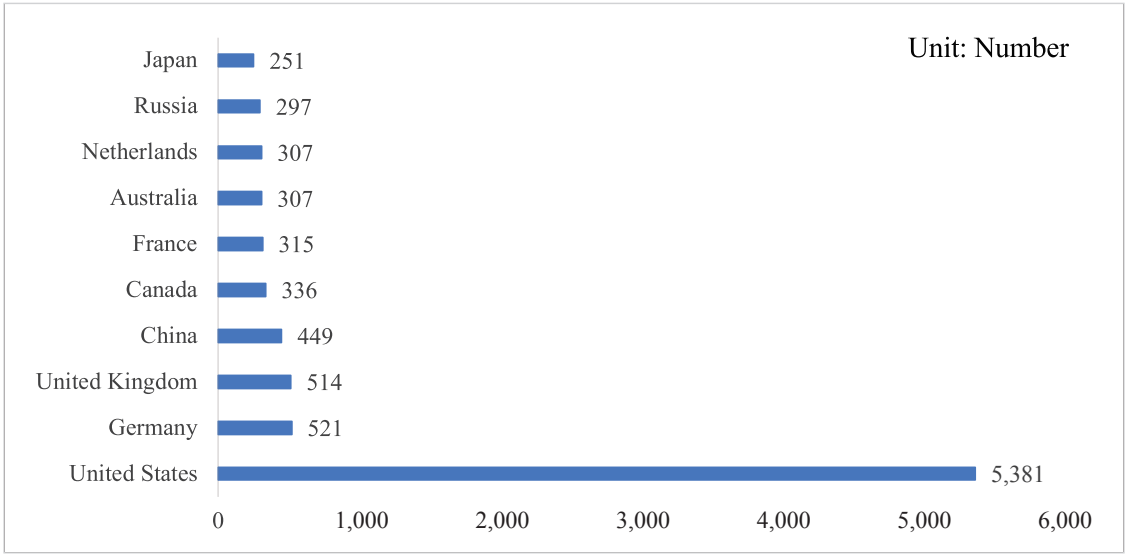


Figure 6.6 Number of data centers in major countries as of March 2024

Source: Statista, https://www.statista.com/statistics/1228433/data-centers-worldwide-by-country.

The concept of data space[5] was first proposed by the United States in 2005 and was practically implemented in the industrial sector in Germany in 2015. The EU has made significant progress in building data spaces, with 134 established by 2023, including 17 general data spaces, 34 industry-specific data spaces, 71 testbeds,[6] along with initiatives aimed at promoting the sharing of both general and industry-specific data, as well as exploring enterprise application scenarios.

The utilization of data elements for value creation is growing rapidly. The scale of data marketplace platforms[7] can effectively measure the value and utilization of global data resources. In 2023, the transaction volume of global data marketplace platforms reached $1.192 billion, an increase of 23.2 percent year-on-year. It is projected to reach $3.266 billion by 2028, with an average compound annual growth rate of 22.3 percent from 2024 to 2028 (see fig. 6.7).

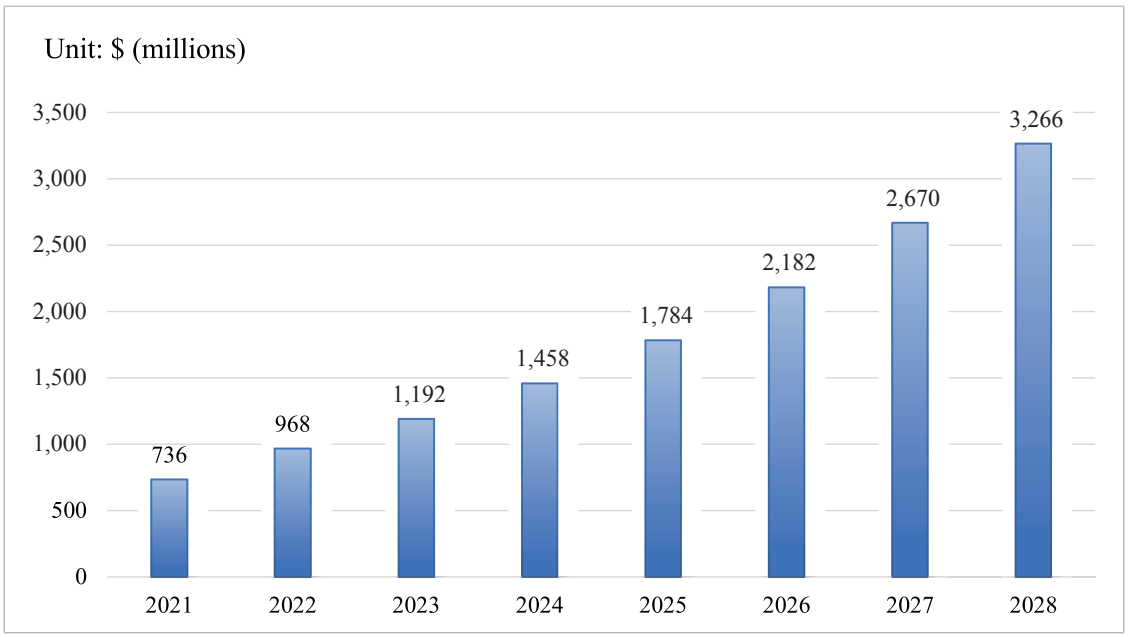


Figure 6.7 Transaction of global data marketplace platforms: 2021–2028

5 The International Data Spaces Association defines a data space as a trusted distributed data ecosystem infrastructure for data sharing and circulation based on commonly agreed principles. Supported by four key principles—data autonomy, fair competition in data sharing and exchange, trustworthy governance, and interoperability—a data space aims to construct a sustainable, open, and interconnected data ecosystem that promotes the reasonable use of data and maximizes the release of data value.

6 Alliance of Industrial Internet, https://www.aii-alliance.org/index/ c189/n4729.html.

7 A data marketplace platform is a digital ecosystem that allows businesses, organizations, and individuals to buy, sell, or trade data in a secure and standardized environment. These platforms often offer features like data quality assessment, compliance checks, and pricing mechanisms.

Note: The data for the period 2024–2028 are estimated.

Source: Imarcgroup, https://www.imarcgroup.com/data-marketplace-platform-market.

3. Rapid development of digital infrastructure

Telecommunication Networks. From 2019 to 2022, global mobile broadband traffic increased from 419 EB to 913 EB, while global fixed broadband traffic rose from 1,991 EB to 4,378 EB. The average annual growth rate for mobile and fixed broadband traffic from 2019 to 2023 was approximately 30 percent (see fig. 6.8). As of 2023, 304 operators from 119 countries and regions had launched commercial 5G networks, with 53 new commercial 5G networks added. By 2023, there were over 5.17 million global 5G base stations, with an annual increase of 1.53 million.[8] The details on penetration rates of 5G i.e., shares of 5G users in total number of mobile users, in six regions and China, can be detailed in table 6.1.

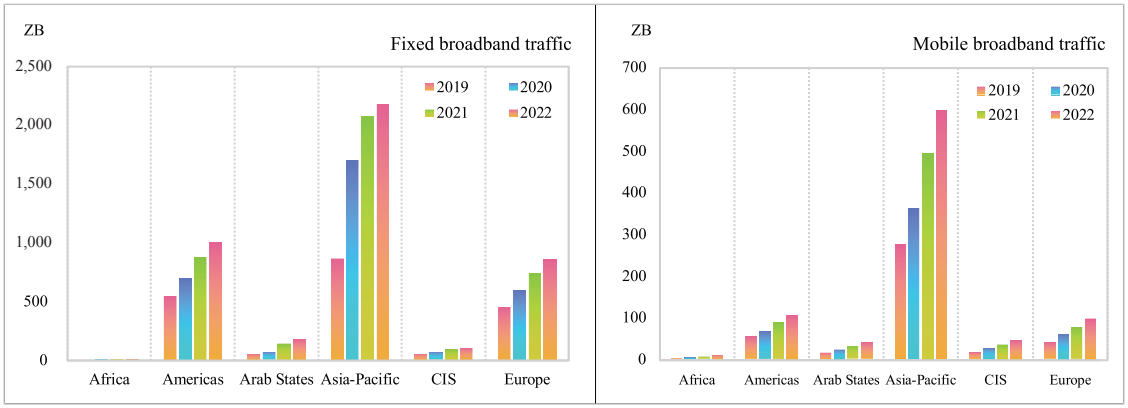


Figure 6.8 Global broadband traffic: 2019–2022

Source: International Telecommunication Union, *Facts and Figures 2023*.[9]

8 https://www.tdia.cn/Home/article/detail/id/573.html.

9 https://www.itu.int/dms_pub/itu-d/opb/ind/d-ind-ict_mdd-2023-1-pdf-e.pdf.

Table 6.1 5G penetration rates by region worldwide: 2022 and 2023

Unit: percent

Region	2022	2023
North America	39	53
China	36	45
Europe	11	20
Asia-Pacific (excluding China)	4	10
Latin America	1	5
Middle East and North Africa	3	4
Southern Africa	<1	1

Source: TDIA, "GSMA: The Mobile Economy (2024)."[10]

Technological Infrastructure. In the field of AI, global private investment in AI by enterprises reached $189.2 billion in 2023, with the United States contributing $67.22 billion, which is 8.7 times that of China ($7.76 billion) (see table 6.2). In terms of detailed categories, global private investment in generative AI amounted to $25.23 billion, nearly nine times that of 2022 and about thirty times that of 2019. The United States launched 61 prominent AI models, surpassing the EU (21) and China (15). China contributed 61 percent[11] of the global AI patent count and ranked first in the number of robot installations.

Regarding public cloud infrastructure, Asia (142) remains in the first tier, North America (91) and Europe (72) are in the second tier, and South America, Oceania, and Africa (all less than 20) are in the third tier① (see table 6.3).

10 https://www.tdia.cn/Home/article/detail/id/573.html.

11 Stanford Institute for Human-Centered Artificial Intelligence, "Artificial Intelligence Index Report 2024" (April 2024), https://aiindex.stanford.edu/.

Table 6.2 Private investment in AI of top 15 economies: 2023

Unit: $ (billions)

Rank	Country	Investment amount	Rank	Country	Investment amount
1	United States	67.22	9	Korea, Rep. of	1.39
2	China	7.76	10	India	1.39
3	United Kingdom	3.78	11	Singapore	1.14
4	Germany	1.91	12	Japan	0.68
5	Sweden	1.89	13	UAE	0.41
6	France	1.69	14	Australia	0.37
7	Canada	1.61	15	Spain	0.36
8	Israel	1.52			

Source: Stanford University, *AI Index Report 2024*.②

Table 6.3 Public cloud infrastructure of six regions: 2024

Unit: Number of units

	Asia	North America	Europe	South America	Oceania	Africa	Total
Public cloud infrastructure count	142	91	72	18	17	7	347

Source: Compiled by the author based on data published by TeleGeography.[12]

Computing Infrastructure. The total volume of global data and the scale of computing power continue to exhibit rapid growth.[13] In terms of both infrastructure support index and computing power index rankings, the United States, China, and Japan consistently rank at the top. Among the top 15 economies globally, 11 are developed countries, while the remaining four are BRICS nations: China, India, Brazil, and South Africa (see fig. 6.9).

12 https://www.cloudinfrastructuremap.com/#/service/cloud-regions.

13 http://www.caict.ac.cn/kxyj/qwfb/bps/202309/P020240326630458153765.pdf.

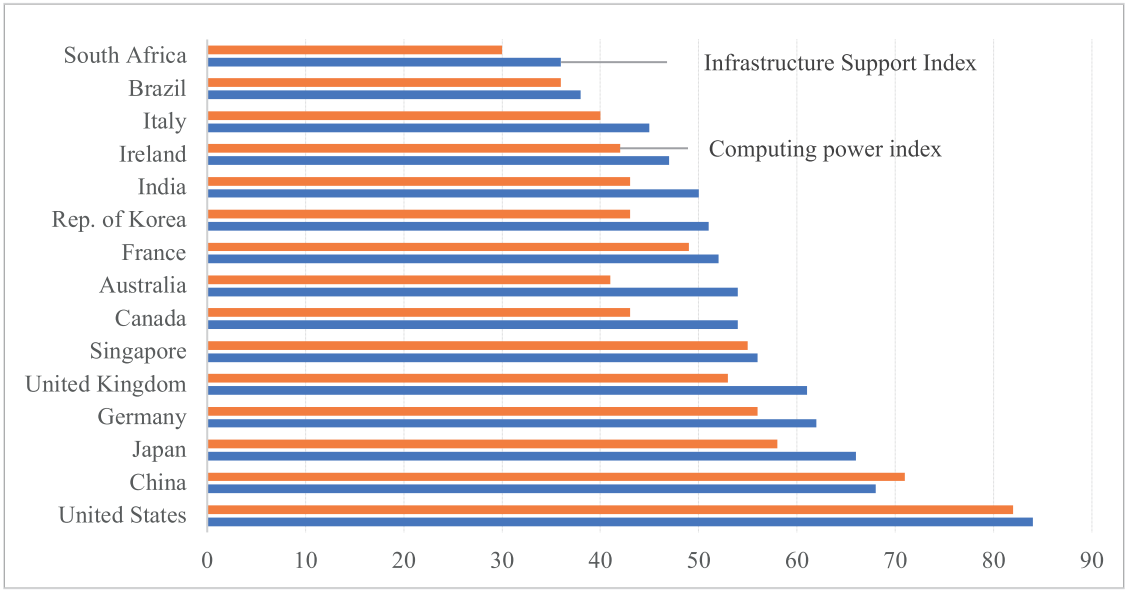


Figure 6.9 Infrastructure support index and computing power index of top 15 countries: 2023

Source: IDC, Inspur Information, Tsinghua University Global Industry Research Institute, *2022–2023 Global Computing Power Index Evaluation Report*.[14]

Countries have made significant progress in infrastructure development and interconnectivity in areas such as 5G, cloud computing, and computing power. However, the "Global South" still lags behind developed economies overall.

4. Rules and standard systems gradually taking shape

Currently, global competition over digital trade rules among major economies is intensifying. A "tripartite" structure has emerged, characterized by vertical evolution across 1.0, 2.0, and 3.0 versions led by the United States, with the "American template" and "European template" coex-

14 https://www.igi.tsinghua.edu.cn/info/1019/1321.htm.

isting horizontally, and the "Asia-Pacific template" rising as a significant new player. The specific features of these three major templates[15] are detailed in table 6.4.

In the realm of digital trade rules, three distinct models have emerged globally:

Gradual Reshaping + Inside-Out Promotion Model, represented by the United States. "Gradual reshaping" refers to the US's slow, step-by-step approach to reshaping rules, characterized by ongoing, small-scale adjustments and innovations. "Inside-out" means that rules first take shape and mature domestically, becoming national laws and regulations before being included in bilateral or RTAs, eventually evolving into multilateral frameworks. See figure 6.10.

Table 6.4 Comparison of three major templates of rules on digital trade

		American template	European template	Asia-Pacific template	
				Singaporean template	Chinese template
Digital trade	Degree of liberalization	Very high	Relatively high	Very high	Relatively high
	Degree of facilitation	Very high	Relatively high	Very high	Very high
Data sharing		Relatively high level	Average level	Very high level	Average level
Data flow		Very high level	Average level	Very high level	Average level
Digital governance	Information governance	Very high level	Extremely high level	Very high level	Relatively high level
	Intellectual property	Very high level of protection	Relatively high level of protection	Relatively high level of protection	Average level of protection
	Internet platform governance	Development-oriented	Regulation-oriented	Regulation-oriented	Balanced between regulation and development

(Continued)

15 The American template is represented by agreements such as the CPTPP, the USMCA, and the US-Japan Digital Trade Agreement. The European template is represented by agreements like the EU-Singapore Digital Partnership Agreement, the Japan-EU Economic Partnership Agreement, and the EU-Canada Comprehensive Economic and Trade Agreement. The Asia-Pacific template can be further divided into the Chinese template (represented by the RCEP) and the Singaporean template (represented by the Digital Economy Partnership Agreement, DEPA).

		American template	European template	Asia-Pacific template	
				Singaporean template	Chinese template
Digital governance	Technology governance	Not addressed internationally	Not addressed internationally	Addressed internationally	Not addressed internationally
	Industry governance	Not addressed internationally	Not addressed internationally	Addressed internationally	Not addressed internationally
	Security measures	High level	Average level	Relatively high level	Relatively high level
	Cooperation and dispute resolution	Low level	Low level	High level	High level

Source: Compiled by the author.

2001
US-Jordan Free Trade Agreement (FTA)
← The first e-commerce clause was introduced, which is quite simple, consisting of three sub-clauses and is relatively more symbolic.

↓

2003
US-Chile FTA
← E-commerce was addressed in a dedicated chapter, with the relevant provisions further enriched. It contains six articles and one annex concerning the electronic provision of services and duty-free treatment of digital products.

↓

2004
US-Australia FTA
← This agreement provides a limited expansion on the US-Chile FTA, including a total of 8 articles, such as the electronic provision of services.

↓

2012
US-Rep. of Korea FTA
← This agreement also builds upon the US-Chile FTA, encompassing nine articles, which include electronic certification, electronic signatures, and online consumer protection.

↓

2016
TPP Agreement
← The basic framework and core provisions of digital trade rules were established, containing a total of 16 articles, including personal information protection and domestic electronic transaction regulatory frameworks.

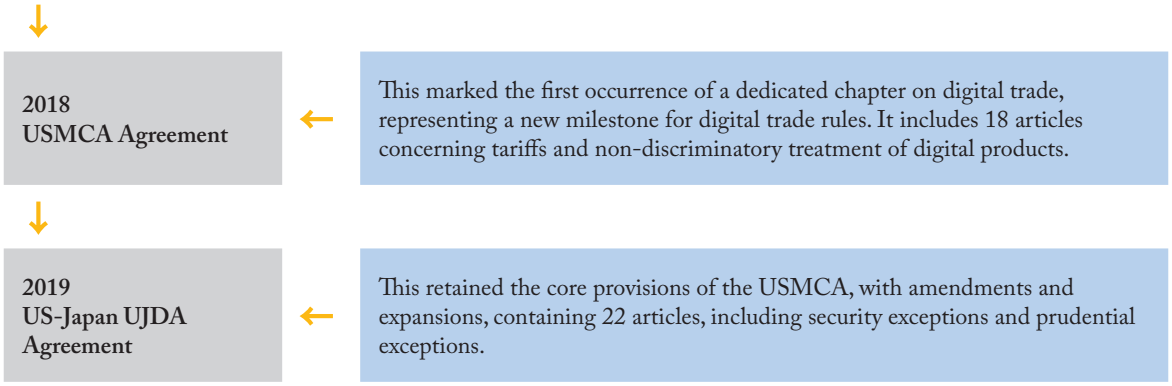


Figure 6.10 Evolution of US promotion model on digital trade rule: 2001–2019

Source: Compiled by the author.

This model is closely tied to the US's leadership role in shaping digital trade rules. The US is not only a pioneer in digital trade rules but also a leader in international trade regulations, with most rule creation and adjustments initiated by the US.

Focused Efforts + Inside-Out Regulation Model, represented by the EU. "Focused efforts" means concentrating on a specific field to promote institutional innovation over a period. For example, through regulations like the General Data Protection Regulation and the Directive on Security of Network and Information Systems, the EU has established leading rules for data protection and information security. It has also created regulatory frameworks for Internet platforms, particularly large ones, through laws such as the Digital Markets Act and the Digital Services Act. The EU has also established a leading regulatory framework in the AI sector through the AI Act, the world's first comprehensive legislation on AI.

"Inside-Out" refers to the fact that the rules proposed by the EU are largely rooted in the internal needs and traditional values of European society. For instance, the regulation of Internet platforms primarily aims to protect the EU digital market from the dominance of large external tech companies, ensuring a fair competitive environment and deriving corresponding benefits, reflecting the EU's need to build a unified digital market. The focus on traditional values is evident in the high level of protection for personal privacy and the comprehensive regulation of AI. These stringent legislative measures demonstrate the EU's commitment to enhancing the protection of human rights. The EU emphasizes internal institutional development and imposes strict regulations on stakeholders with interests in Europe, thereby amplifying the influence of its rules.

The formation of the EU model is primarily due to two reasons. First, limitations in practical application, meaning that the sources of institutional innovation and their use cases are not as abundant as in the US, preventing the development of a large, comprehensive regulatory

framework, thus requiring a focus on specific areas. Second, the influence of humanism, with leading legislation on individual rights.

Integrated Innovation + Bidirectional Alignment Model, represented by China. "Integrated innovation" refers to China's leapfrog approach to rule-making, taking major trade negotiations as a breakthrough point for significant institutional innovations or adjustments in regulatory frameworks (see fig. 6.11).

"Bidirectional alignment" refers to China's focus on aligning domestic laws with high-standard international trade rules while promoting international digital rule-setting in areas where China holds an advantage. China is currently working to join the CPTPP and DEPA, taking a more open stance in global digital rule-making. China has also introduced documents on establishing a foundational data system, creatively proposing a "three-tier rights framework," which separates resource ownership, processing rights, and product management rights. This framework provides institutional design for areas such as data ownership, profit distribution, and security governance, offering valuable insights for the development of global digital economy regulations.

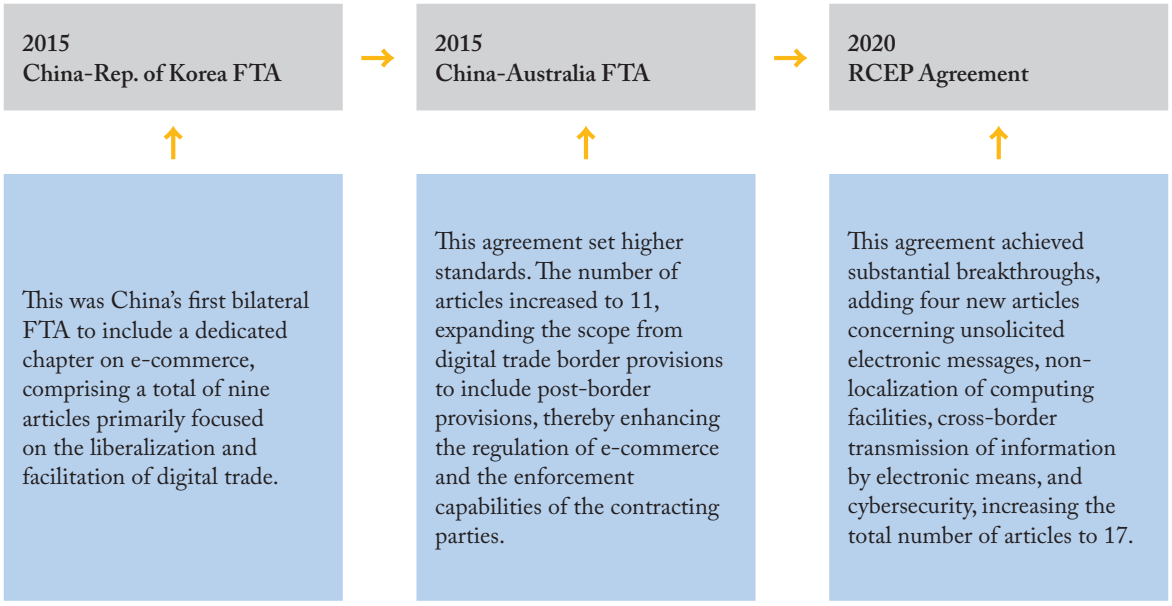


Figure 6.11 Evolution of China's alignment model on digital trade rules: 2015–2020

Source: Compiled by the author.

5. Deep intertwined Competition with cooperation

Global competition and contention in digital technology are intensifying. To prevent technological spillover, leading countries are increasingly employing export controls, expanding their scope from the chip industry to sectors such as quantum computing devices, advanced semiconductor manufacturing, and additive manufacturing technologies. The characteristics of the digital technology open-source ecosystem are becoming more pronounced, marked by an "open-source internally, closed externally" approach.

The multilateral governance of cross-border data flow is becoming increasingly challenging. In WTO multilateral negotiations, there is a trend toward grouping regulations on cross-border data flow, with free movement within groups but high barriers to movement between them. Members exhibit significant policy differences regarding the regulation of international large Internet platforms, making it difficult to reach a consensus on digital service taxes. Many countries lack awareness and capability for digital security governance, while some others place a high emphasis on digital security governance, expanding data security regulations from trade to areas such as port operations, connected vehicles, and various energy infrastructures, including power grids, wind energy, and solar energy.

Significant progress has been made in digital economy cooperation. Ten countries, including the United States, Australia, Canada, France, Japan, and the United Kingdom, have reached a consensus on the common principles for the R&D of 6G wireless communication systems, supporting the realization of open, free, global, interoperable, reliable, resilient, and secure connections. The world's first legally binding international treaty on AI—the Framework Convention on AI, Human Rights, Democracy, and the Rule of Law (referred to as the AI Convention)—has been signed, aimed at ensuring that all activities throughout the life cycle of AI systems fully comply with human rights, democracy, and the rule of law.

China is vigorously promoting the value development of data elements, the digital transformation of industries, and the integrated development of the digital economy with the real economy. It advocates for deep domestic and international cooperation to share the benefits of digital transformation. This includes formulating the Data Security Technology—Rules for Data Classification and Grading, signing memoranda on the cross-border flow of data with specific countries, and establishing mechanisms for digital policy dialogue to facilitate the safe and orderly cross-border flow of data. Furthermore, in-depth discussions on global digital governance rules related to AI and other technologies are being conducted to promote the development and improvement of relevant regulations.

II. Continuous Deepening of Global Green Transition

Since 2023, global cooperation on environmental and climate governance has progressed, with major economies introducing policies, refining plans, and increasing investments to accelerate

the development of offshore wind power, solar energy, and sustainable transportation. The role of green industries in the macroeconomic strategies of various countries has become increasingly prominent. At the same time, the Green Divide between the Global North and South has widened, with a growing momentum for green trade protection. The complexity, severity, and uncertainty of global environmental governance have increased, presenting significant challenges for promoting global sustainable development and building a clean, beautiful world.

1. Accelerated green transition in major economies

According to Climate Action Tracker, as of the end of 2023, approximately 145 countries have announced or are considering achieving net-zero targets, covering nearly 90 percent of global emissions. Addressing climate change has become a priority for green transition, and countries are gradually improving their policy frameworks in this area.

The EU has recently focused its green low-carbon actions around the Fit for 55 package and the RePowerEU plan (see table 6.5), among which enhancing renewable energy capacity and accelerating related technological breakthroughs are the core of its energy transformation. The EU's Recovery and Resilience Facility has allocated €1.9 billion to expedite the deployment of renewable energy. Additionally, the EU Innovation Fund utilizes revenues from the EU carbon trading scheme to provide €3.6 billion in funding support for large-scale clean technology projects.

Table 6.5 Development goals and policies for key sectors in the EU

Sector	Development goals and policies
Energy and electricity	1. In March 2023, the renewable energy target for 2030 was raised from 32 percent to 42.5 percent of total energy, with an additional indicative target of 2.5 percent. 2. In August 2022, eight Baltic countries committed to increasing offshore wind capacity from 3 GW to 20 GW by 2030. 3. In April 2023, an agreement was reached to increase installed capacity in the North Sea from 30 GW in 2022 to 120 GW by 2030 and 300 GW by 2050.
Industry	1. The Net Zero Industry Act, passed in March 2023, mandates that by 2025, Europe should achieve a domestic manufacturing capacity of 30 GW for the solar photovoltaic value chain, and by 2030, the domestic production share of key green industries, such as photovoltaics and batteries, should increase to 40 percent. 2. The Green Hydrogen Strategy aims for the EU to produce up to 10 million tons of green hydrogen by 2030. The European Hydrogen Bank was established in March 2023 to support this goal. 3. In May 2023, the Carbon Border Adjustment Mechanism entered its transitional phase and will be officially implemented starting in 2027. 4. A key reform of the EU Emissions Trading System (ETS) involves the gradual phasing out of free quota allocations for certain sectors.

Sector	Development goals and policies
Transportation	1. Sectoral renewable energy targets are implemented, along with the introduction of new CO_2 emission standards for vehicles to reduce emissions in the transport sector. 2. Starting in 2027, road transport emissions will be included in the EU ETS. 3. In March 2023, the European Parliament issued directives for the deployment of alternative fuel infrastructure, mandating an increase in charging infrastructure. 4. Stricter emissions standards for heavy-duty vehicles will be enforced, requiring all new heavy-duty vehicles (including trucks, buses, and trailers) to reduce carbon emissions by 90 percent from 2019 levels by 2040. 5. The targets for the aviation and maritime sectors are enhanced, with a requirement for the share of sustainable aviation fuels to be progressively increased from 2 percent in 2025 to 70 percent by 2050.
Construction	1. The REPowerEU plan from May 2022 requires that all new public and commercial buildings must be equipped with solar installations starting in 2027; existing public and commercial buildings must be equipped starting in 2028; and all new residential buildings must be equipped starting in 2030. 2. Starting in 2027, the building sector will be included in the EU ETS II.
Agriculture	The Common Agricultural Policy (CAP) is one of the main mechanisms through which the EU supports emission reduction actions. The new CAP, which began in January 2023 and will continue until 2027, allocates 40 percent of its funding to climate action.

Source: Compiled from official EU documents.

The US has enacted specific legislation and established various green tax credit programs and energy efficiency standards to reduce greenhouse gas emissions and accelerate the transition to clean energy (see table 6.6). With the support of related legislation, investment in infrastructure and clean energy projects in the US has significantly increased over the past two years. The Department of Energy allocated $36 million to advance thin-film solar technology, $52 million to strengthen the domestic solar supply chain, and $30 million to fund solar grid integration technology.

Table 6.6 Development goals and policies for key sectors in the United States

Sector	Development goals and policies
Energy and electricity	1. $21 billion in the IIJA is allocated for plugging and cleaning up abandoned coal mines and oil and gas wells. 2. In 2022, the Department of Energy launched the Building a Better Grid Initiative and activated a $6 billion loan program to assist soon-to-be-closed nuclear power plants. 3. The fiscal year 2022 budget allocates $1.65 billion, $463 million, and $825 million for nuclear energy, the grid, and climate mitigation, respectively. 4. The Department of the Interior announced a plan to deploy 30 GW of offshore wind energy by 2030 and provide $3 billion in federal loans. 5. Thirty-one states and the District of Columbia have enacted mandatory Renewable Portfolio Standards, and ten states have established carbon markets.
Industry	1. In October 2021, a target for limiting hydrofluorocarbons (HFCs) was established, aiming for an 85 percent reduction in HFC production and imports by 2036. 2. In 2022, $24.9 million was announced to support the R&D of blue hydrogen. In March 2023, approximately $1.779 billion was invested to support low-carbon energy R&D, with $750 million dedicated to hydrogen production technology, aiming to reduce the cost of hydrogen by 80 percent within ten years, bringing it down to $1 per kilogram.
Transportation	1. Promote clean transportation focused on the electrification of light-duty vehicles (LDVs). In April 2022, the National Highway Traffic Safety Administration called for an annual fuel efficiency increase of 8 percent for LDVs in 2024–2025, and a 10 percent increase in 2026. 2. Encourage the electric vehicle industry and infrastructure. The IIJA of 2021 includes $39 billion for public transit modernization; $66 billion for climate-friendly railway investments; $110 billion for roads, bridges, and other transportation projects; $7.5 billion for clean buses and ferries; and $7.5 billion for electric vehicle charging stations. 3. States and automakers have set a target for 100 percent of new zero-emission vehicle sales by 2030–2035. 4. In 2022, the Defense Production Act was authorized to promote the domestic supply chain of critical minerals used in electric vehicle batteries.
Construction	1. Release new federal building energy regulations and propose new standards for household appliances. 2. The IIJA includes $3 billion in funding to improve home energy efficiency and electrification upgrades.
Finance	1. Establish a new Treasury Climate Center and Climate Adviser. 2. The White House requires comparable and accurate disclosure of climate-related financial risks. The Securities and Exchange Commission is conducting public consultations on information disclosure.
Agriculture	1. Commit to reducing emissions from forestry and agriculture while enhancing carbon sinks through a series of ecosystem plans and measures spanning from forests to agricultural soils. 2. The Department of Agriculture has developed a climate-smart agriculture and forestry strategy that encourages the voluntary adoption of climate-smart practices in agriculture and forestry.

Source: Compiled from documents on the White House website.

In 2023, Japan proposed five initiatives to achieve a green transformation (GX), which include fully operating a carbon market by 2026, issuing approximately 20 trillion yen in transformation bonds over the next decade, imposing gradually increasing carbon surcharges on fossil fuel importers, developing transformation finance to promote decarbonization in high-carbon industries, establishing an Asian Zero Emissions Community, and developing next-generation nuclear power plants while supporting research and utilization of hydrogen and ammonia. One-third of the funds for the GX will be allocated to establishing an international hydrogen and ammonia supply chain.

In 2023, Rep. of Korea passed its 10th Basic Electricity Plan, aiming to increase the share of renewable energy in electricity generation from 6 percent in 2020 to 21.6 percent by 2030, raise the share of nuclear power to 32.8 percent, and reduce coal's share to 21.2 percent.

Australia has developed a hydrogen strategy and is seeking to significantly reduce emissions from fossil fuel-intensive sectors, committing to provide nearly AUD 25 billion in funding for clean energy and other low-carbon technology projects.

Major emerging economies are intensifying their green policy efforts. India has introduced nearly 30 policies to support the development of renewable energy, launched the National Green Hydrogen Mission, and established Production-Linked Incentive schemes for automotive and auto parts production, as well as advanced chemical battery storage initiatives.

Brazil has initiated a new version of the Accelerated Growth Program, expected to invest around $347 billion to support energy transition, sustainable cities, sustainable transportation, digital connectivity, health, and education.

In July 2022, South Africa announced a series of actions to address its electricity crisis, including removing licensing requirements for distributed energy generation and establishing a Just Energy Transition Partnership, with the goal of building over 100 GW of new generation capacity by 2050, incorporating solar, wind, nuclear, and coal power.

2. Accelerated popularization and application of clean technologies

The installed capacity of renewable energy has rapidly increased. In 2023, global renewable energy capacity grew by nearly 50 percent year-on-year, reaching almost 510 GW, marking the highest growth rate in the past 20 years. The global solar photovoltaic capacity surged by over 80 percent, breaking a new record of more than 420 GW. Meanwhile, global wind power capacity saw an almost 60 percent increase, with China accounting for over 60 percent of the global wind expansion.

Nuclear energy is entering a new phase of accelerated development. New technologies and directions, represented by advanced nuclear technologies and controllable nuclear fusion, are receiving unprecedented attention. An international nuclear regulatory association comprising nine countries—the US, UK, France, Germany, Japan, and Rep. of Korea—issued a joint statement to promote international cooperation in the generic design assessment and licensing of small modular reactor technologies.

The cost of clean energy has significantly decreased. According to the Renewable Power Generation Costs in 2022 by International Renewable Energy Agency (IRENA), the global weighted average electricity costs for newly installed grid-connected solar photovoltaic, onshore wind, concentrated solar power, bioenergy, and geothermal power all saw declines in 2022. The largest drop was observed in solar photovoltaic, with the levelized cost① of electricity plummeting from $0.445 per kWh in 2010 to $0.049 per kWh in 2022, which is 29 percent lower than the cost of fossil fuel power. The reductions for onshore wind, concentrated solar power, and offshore wind were around 60 percent (see table 6.7). China has been a key driver behind the falling costs of solar photovoltaic and onshore wind worldwide.

Table 6.7 Changes in total installed costs, capacity factor and levelized cost of electricity for global renewable energy technologies: 2010 and 2022

	Total installed cost ($/kW in 2022)			Capacity factor (percent)			Levelized cost of electricity ($/kWh in 2022)		
	2010	2022	Change (percent)	2010	2022	Change (percent)	2010	2022	Change (percent)
Bioenergy	2,904	2,162	–26	72	72	1	0.082	0.061	–25
Geothermal energy	2,904	3,478	20	87	85	–2	0.053	0.056	6
Hydropower	1,407	2,881	105	44	46	4	0.042	0.061	47
Solar photovoltaics	5,124	876	–83	14	17	23	0.445	0.049	–89
Concentrated solar power	10,082	4,274	–58	30	36	19	0.380	0.118	–69
Onshore wind power	2,179	1,274	–42	27	37	35	0.107	0.033	–69
Offshore wind power	5,417	3,461	–34	38	42	10	0.197	0.081	–59

Source: IRENA, *Renewable Power Generation Costs in 2022*.

3. Rapid development of green investment and financing

Low-carbon energy investments are on the rise against the odds. In 2023, global investments in low-carbon energy surged by 17 percent to reach $1.77 trillion.[①] This includes $634 billion for transportation electrification, $623 billion for renewable energy, and $310 billion for grid investments. Investments in the global clean energy supply chain reached a record high of $135 billion. Hydrogen investments doubled, while carbon capture and storage investments nearly doubled as well. China, the EU members along with the UK, and the United States led the way with energy transition investments of $676 billion, over $410 billion, and $303 billion, respectively.

A variety of green financial products and tools continue to emerge. According to the Climate Bonds Initiative, global green bond sales surged from $446.18 billion in 2022 to $492.3 billion in 2023. As of 2023, the issuance of green, social, and sustainability use of proceeds bonds has surpassed $4.2 trillion. Data from the private equity transaction database PitchBook shows that climate-focused private equity transactions grew from around $75 billion in 2019 to $196 billion in 2022, with an average annual growth rate of about 40 percent. China leads the world in green credit and green bond balances, with the total balance of green loans in both domestic and foreign currencies reaching RMB 30.08 trillion by the end of 2023, a 36.5 percent increase from the previous year.

Multilateral development banks are increasing climate financing. According to the 2023 Joint Report on Multilateral Development Banks Climate Finance, multilateral development banks provided $60.9 billion in climate financing to low- and middle-income economies in 2022, mobilizing an additional $15.4 billion in private funding, setting a new historical record. The Asian Infrastructure Investment Bank (AIIB) plans to allocate 50 percent of its total financing approvals to climate-related projects by 2025. The WB has committed to using 45 percent of its loan volume for climate-related projects in the fiscal years 2024–2025.

Global carbon pricing revenues continue to rise. According to the WB's State and Trends of Carbon Pricing 2024, the total number of carbon pricing instruments has increased to 75, covering 24 percent of global carbon emissions. In 2023, carbon pricing revenues reached a record of $104 billion, with more than half allocated to funding climate and nature-related projects. Brazil, India, Chile, and Colombia have made significant progress in carbon pricing, with emerging sectors such as aviation, shipping, and waste management increasingly participating. Governments are increasingly leveraging carbon credit frameworks to attract more funding through voluntary carbon markets. China is the world's largest carbon market, and by the end of 2023, the cumulative trading volume of national carbon emissions allowances reached 442 million tons, with a total transaction value of RMB 24.919 billion.

4. A wider gap between the Global North and South

Imbalance in Clean Energy Investment. The UNCTAD estimates that developing countries require approximately $1.7 trillion in renewable energy investment each year. However, the actual investment received in 2022 was only $544 billion. Most developing countries' clean energy expenditures remain at the levels of 2015. The lack of clear policy frameworks and market designs, weak infrastructure such as power grids, and high interest rates are the primary constraints on green investment in these countries.

Significant Climate Financing Gap. According to a McKinsey report, developing countries will require approximately $2 trillion in additional investment annually by 2030 to drive energy transitions, scale up sustainable agriculture, and restore natural capital and biodiversity. Additionally, $3 trillion is needed for investments in human capital and broader infrastructure to achieve their development goals. However, climate funding currently allocated by developing countries amounts to only 20 percent of the required funds for 2030, leaving a funding gap of 60 percent (approximately $1.1 trillion annually) that must be sourced externally. Developed countries previously pledged to provide $100 billion annually in climate financing to developing countries by 2020; this target has now been extended to 2025, but progress on fulfilling this commitment remains disappointing. To achieve a global green transition, all parties should focus on promoting open cooperation and bridging the North-South divide.

Clear Discrepancy in Green Low-Carbon Technologies. Green innovation is a key factor in addressing climate change, encompassing a range of solutions including renewable energy, electric vehicles, and carbon capture and storage. Currently, the majority of global R&D for green technologies is concentrated in developed economies in the Northern Hemisphere. According to recent patent data from China Economic Net, from 2016 to 2022, Europe led the world in the number of overseas authorized green low-carbon patents, totaling 74,000, followed by Japan (61,000), the United States (52,000), and Rep. of Korea (25,000).[16] These countries are at the forefront of global green technology development. In contrast, countries in the Global South and the LDCs face significant challenges due to a lack of financial and human capital resources necessary for developing and adopting critical technologies, making them heavily reliant on green technologies from developed nations.

5. China's positive contributions to global environmental governance

China has entered a high-quality development phase focused on accelerating green and low-carbon initiatives. In recent years, China has coordinated efforts to enhance the top-level design and institutional framework of ecological civilization, rolling out a series of fiscal, tax, financial,

16 China National Intellectual Property Administration, "Report on Statistical Analysis of Green and Low-Carbon Technology Patents Worldwide (2023)" (July 06, 2023), https://english.cnipa.gov.cn/art/2023/7/6/art_3262_186148.html.

investment, and pricing policies to support green and low-carbon development. These initiatives include the introduction of an environmental protection tax, the establishment of a green finance system, the implementation of emissions trading, and the operation of the world's largest carbon emissions trading market, all aimed at synergistically promoting carbon reduction, pollution control, green expansion, and economic growth.

The rapid deployment of clean energy has led to an exponential growth in China's renewable energy capacity. According to a report by the International Energy Agency (IEA), in 2023, China contributed over half of the world's new renewable energy capacity, making a significant impact on global renewable energy generation. Currently, China is the largest hydrogen producer in the world and prioritizes improving accessibility and electrification in its transportation system. In 2023, sales of new energy vehicles in China reached 9.495 million units, a year-on-year increase of 37.9 percent, with a market share of 31.6 percent. New energy vehicles have also become an important vehicle for the application of new technologies such as green energy, AI, the Internet, and big data.

A high-quality ecological environment is an important symbol of a Beautiful China. China is accelerating the establishment of a responsibility system for ecological environment governance, a regulatory system, a market system, and a legal and policy framework, while setting specific green development goals for various sectors to comprehensively promote GX (see table 6.8).

Table 6.8 Green development goals and corresponding policies for key sector in China

Sector	Development goals and policies
Energy and electricity	1. "Strictly controlling coal consumption" by 2025, and with a "gradual reduction of coal consumption" during the 15th Five-Year Plan period (2026–2030). 2. By 2025, renewable energy is expected to account for half of the total installed capacity in Chins and half of the growth in electricity demand. 3. Electrification of end-use industries is also a strategic priority for China, with the share of electricity in final energy consumption reaching 30 percent by 2025.
Industry	1. The goal for the industrial sector is electrification and efficiency improvement to meet demand and reduceww dependence on fossil fuels. 2. Key emitting industries such as cement, steel, and aluminum are likely to be the first targets for expansion under the country's carbon ETS. 3. CCS/CCUS and hydrogen solutions are priority strategic areas for China's industry. The national hydrogen energy strategy (2021–2035), released in 2022, confirms the critical role of this technology in China's future energy system and emissions reduction efforts, with a target of producing 100,000 to 200,000 tons of renewable hydrogen by 2025, and up to 100 million tons by 2060.

(Continued)

Sector	Goals and policies
Transportation	1. Priority is given to improving the accessibility and electrification of public transport systems, expanding the national high-speed rail network and local electric public transport systems. 2. The development of new energy vehicles is prioritized, including battery electric vehicles, plug-in hybrid electric vehicles, and fuel cell electric vehicles. 3. The high-speed rail network will be extended by 120,000 kilometers by 2035, covering over 95 percent of cities with populations exceeding 500,000 by 2025. 4. A city pilot program will be launched to procure around 2 million electric buses by 2035.
Construction	1. The 2025 goals include setting limits on energy consumption for building operations, with energy efficiency improvements of 20 percent for new public buildings and 30 percent for new residential buildings. 2. Goals are set for energy-saving renovation of 350 million square meters of existing buildings and the construction of 50 million square meters of ultra-low or zero-energy buildings. 3. By 2025, the use of solar and geothermal energy in new buildings will be expanded, and more than half of the energy consumed by urban buildings will come from electricity.
Forestry	1. By 2025, achieve the goal of planting 36,000 square kilometers of new forests annually to increase the national forest coverage rate.
Finance	1. Further expand the scope of the carbon market. 2. Rapidly accelerate the development of green finance and the green industry catalog.

At the international cooperation level, according to China's Action Plan for Carbon Dioxide Peaking Before 2030, China's priorities are as follows: first, deeply engaging in global climate governance, fully implementing the UN Framework Convention on Climate Change (Paris Agreement), and actively participating in international shipping and aviation emissions reduction negotiations; second, promoting green trade, technology, and financial cooperation, enhancing the import and export of energy-saving and environmentally-friendly products and services, expanding green technology and financial cooperation, and actively participating in international macro coordination on carbon pricing mechanisms and green finance standards; third, advancing the green BRI and promoting the South-South Cooperation Program on climate change.

III. Promoting International Cooperation on Digitalization and Green Development

Digitalization and greening are inevitable trends. Looking ahead, all parties should enhance international cooperation in regulation, policy, technology, and standards to achieve new breakthroughs in the digital green sector, thereby injecting new momentum into global economic recovery and open development worldwide.

Strengthen digital empowerment for the GX. The integration of information and communication technologies with big data analytics will bring more opportunities for green and low-carbon development. Government departments should create an ecosystem conducive to digital green innovation, including policy and regulatory frameworks, business environments, incubators, accelerators, and education and training programs. All parties should deepen economic and technological cooperation, accelerate the coordinated development in emerging fields, promote data capability building, and enhance infrastructure such as data centers, communication networks, and power grids. This will facilitate the complementary and mutually reinforcing development of digitalization and greening.

Explore digital green and other institutional rule innovations. A sound data foundational system can help continuously amplify the empowering effects of data elements on the economy. All parties should strengthen the alignment of rules, standards, and systems, and expedite the exploration of an institutional rule system that aligns with local digital development realities. Efforts should be made to accelerate the fulfillment of the Paris Agreement, promote institutional communication and technological exchanges in the green and low-carbon sectors, enhance relevant green standards and norms, and facilitate the resumption of WTO negotiations on environmental products and the expansion of APEC environmental products.

Bridging the digital and green North-South divide. The global development of digitalization and greening presents both opportunities and challenges, particularly imposing higher demands on developing economies. International cooperation is crucial for incentivizing green innovation and facilitating the dissemination of green technologies. All parties should actively respond to the concerns of Southern countries, enhance support policies that promote digital industrialization, industrial digitalization, green industrialization, and industrial greening, and help Southern countries manage transition risks and improve their digital governance capabilities. Efforts should be made to establish efficient, convenient, and secure mechanisms for cross-border data flow, focusing on eliminating trade barriers in areas such as energy products and low-carbon technologies. Additionally, international platforms like multilateral development banks, the Green Climate Fund, and the Global Environment Facility should strengthen knowledge sharing and technical assistance to support the green transition of developing economies.

CHAPTER 7

Changes in Global Value Chains and International Division of Labor

The rise and evolution of global value chains (GVCs) reflect the inherent rationale of economic globalization and the underlying logic of modern international trade, illustrating historical trends in the adjustments of the international economic landscape. Currently, the world is undergoing major changes unseen in a century, with economic globalization encountering significant challenges. GVCs are entering a phase of restructuring, leading to shifts in the positions of countries in the international division of labor.

I. Current Status of and Trends in GVCs

With advancements in global technology and the deepening of the international industrial division of labor and cooperation, GVCs are currently in a dynamic adjustment of simultaneous expansion and contraction, influenced by factors such as geopolitical tensions, financial crises, and the COVID-19 pandemic. Some countries are inclined to build close and self-sufficient production systems within specific regions, while certain industries and segments of GVCs are experiencing contraction, with increasing signs of regionalization.

1. Progress of GVCs amid Challenges

Due to the impact of the 2008 global financial crisis, both forward and backward GVC participation[1] dropped to historic lows in 2009. Gradually, GVCs then recovered and expanded gradually amid fluctuations, reaching a peak in 2018, with forward and backward participation being 22.89 percent and 22.03 percent, respectively. However, due to the escalation of the US-China trade frictions and the global spread of COVID-19, global trade and economic activities were severely affected in 2019 and 2020, leading to a decline in GVC participation. After 2021, as the pandemic situation improved and with the positive influence of digital technologies and other factors, GVCs entered a new phase of expansion, with GVC participation reaching historic highs (see fig. 7.1).

This trend shows that although economic globalization has been hit by various shocks such as economic crises, geopolitical tensions, trade policy adjustments, and pandemics, it continues to advance, driven by strong underlying momentum from technological progress and market demand, without any fundamental reversal.

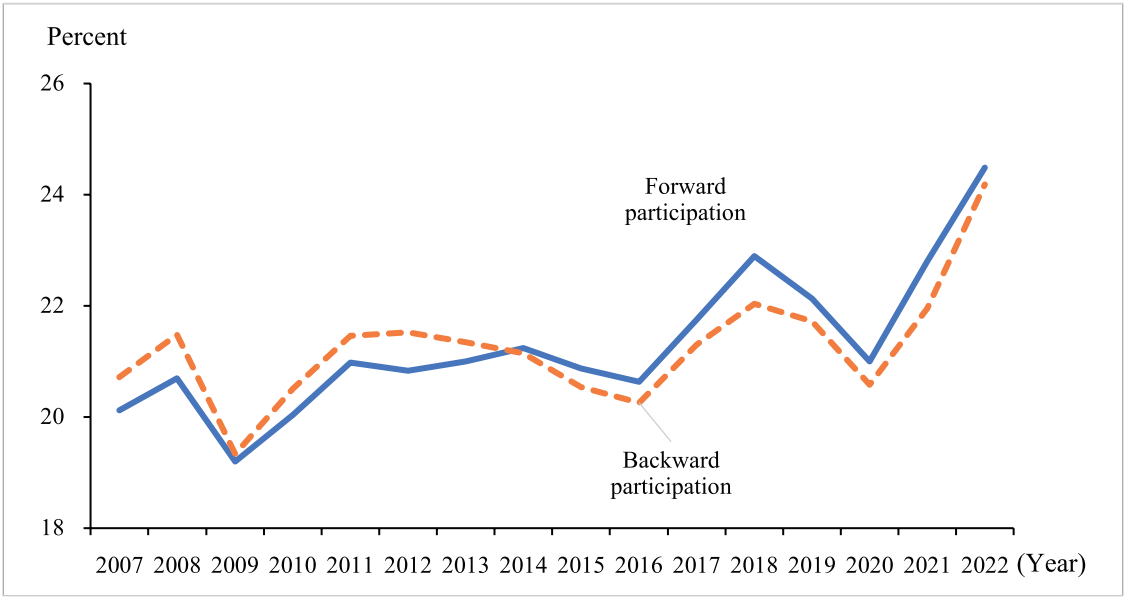


Figure 7.1 Forward and backward GVC participation: 2007–2022

1 The forward participation represents the share of value-added in intermediate goods exported by an economy, indicating its upstream position in the GVCs and contribution to other economies' supply chains. A higher forward rate suggests a stronger focus on exporting intermediate goods. Likewise, the backward participation measures the share of value-added from imported intermediates, reflecting an economy's downstream reliance on foreign inputs for final product production. A higher backward rate signals greater dependence on external imports in its production process.

Note: Forward participation = Average forward participation of all countries. Backward participation is calculated similarly.

Source: The Global Value Chain Database of the University of International Business and Economics, ADBMRIO 2024 version.

2. Increasing regionalization of GVCs

In response to a complex and ever-changing global environment, countries are actively promoting diversification of their domestic industrial and supply chains, leading to a more pronounced trend of regional cooperation in supply chains. Three major regional value chains gradually took form: North America, Europe, and Asia, among which the North American value chains, centered around the United States, and the East Asian and Southeast Asian value chains, centered around China, are particularly prominent.

For example, in the case of the electronics manufacturing industry, a tripartite regional structure has emerged in the Asian GVCs, with China, Japan, and Rep. of Korea being its pillars, while in North American GVCs, the regional pattern is centered around the United States. Moreover, within the East Asian value chains centered on China, the relative scale of Japan and Rep. of Korea is smaller than that of China; similarly, within the North American value chains centered on the United States, Canada and Mexico are comparatively smaller (see fig. 7.2).

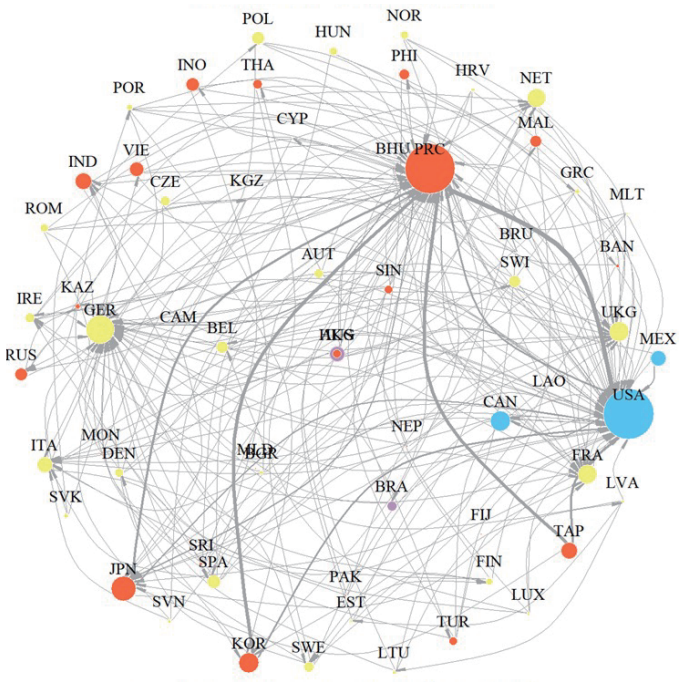


Figure 7.2 Network of the division of labor within GVCs in the electronics manufacturing industry: 2021

Note: The three-letter code in the figure is the standard country code defined by the International Organization for Standardization, for example, PRC stands for China, USA stands for the United States, JPN stands for Japan, and KOR stands for Rep. of Korea.

Source: Xiao et al. (2020).[2]

Within Asia, in the export of ASEAN, the proportion of value-added contributed by intermediate goods from China, Japan, and Rep. of Korea increased from 21.1 percent in 2007 to 32.3 percent in 2022 (see fig. 7.3). In the future, advancements in digitization, intelligentization, green development, and the deepening of regional cooperation will further promote the development of these regional value chains, enhancing the economic resilience and international competitiveness of the region.

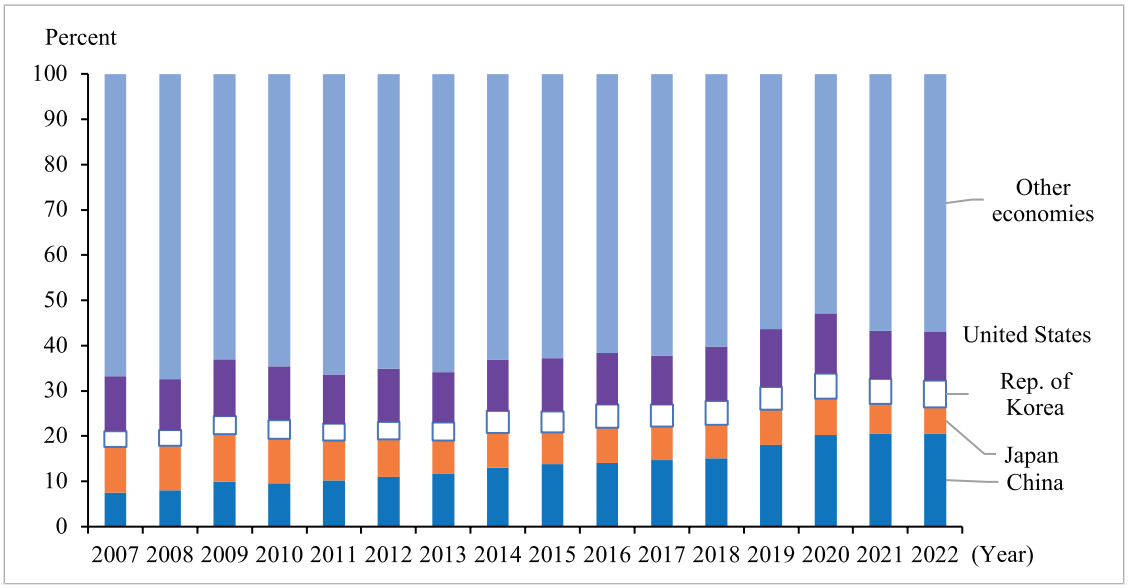


Figure 7.3 Sources of foreign value added in ASEAN exports of selected economies: 2007–2022

Note: The proportion of value added from abroad in exports = total value added from abroad in exports / total value added from the world in exports.

Source: Global Value Chain Database of the University of International Business and Economics, ADBMRIO 2024 version.

2 Xiao, H., Meng, B., Ye, J., and Li, S., "Are Global Value Chains Truly Global?" *Economic System Research* 3, no.4 (2020): pp. 540–564.

Regional economic integration has become an important buffer for Asia against global shocks. Developing economies in Asia are actively participating in the division of labor within the regional value chains. From 2017 to 2019, the year-on-year growth rate of imports and exports of intermediate goods between developing economies in Asia and China remained positive, indicating an ever-expanding scale of intermediate goods trade. However, due to US-China trade frictions and the pandemic, the volume of intermediate goods trade among developing Asia saw a slight decline in 2020.

To maintain stability in regional supply chains, Asian countries are promoting the establishment of "fast lanes" for personnel exchanges and "green channels" for cargo transportation. In 2021, China's imports and exports of intermediate goods from/to other developing economies in Asia grew by 27.4 percent and 32.7 percent, respectively. In 2022, there was a slight decline, but regional supply chains in Asia continued to adjust and recover amid fluctuations (see fig. 7.4). In the context of rising protectionism and increasing risks of global fragmentation, value chain cooperation among Asian economies helps enhance economic and supply chain resilience and achieve mutual benefits.

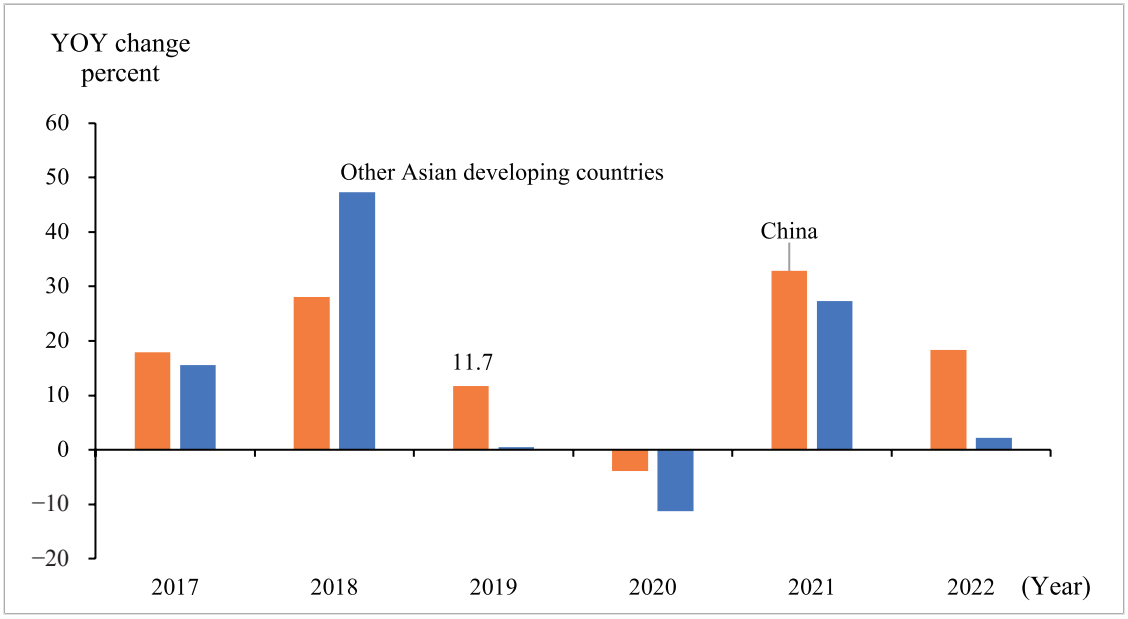


Figure 7.4 Value-added of trade in intermediate goods of China and other developing countries within Asia: 2017–2022

Note: Developing economies in Asia include Bangladesh, Bhutan, Brunei, Cambodia, Fiji, India, Indonesia, Kazakhstan, Kyrgyzstan, Laos, Malaysia, Maldives, Mongolia, Nepal, Pakistan, China, the Philippines, Sri Lanka, Thailand, and Vietnam.

Source: Calculated based on the Asian Development Bank's Multi-Regional Input-Output Database.

The United States leads the world in the domestic value-added of the exports. As shown in fig. 7.5, from 2007 to 2022, the share of domestic value added in US exports averaged between 85 percent and 90 percent, surpassing that of other economies, including China, the EU, and Japan. Since 2020, with a few exceptions such as China, this indicator has consistently declined for most economies (see fig. 7.5).

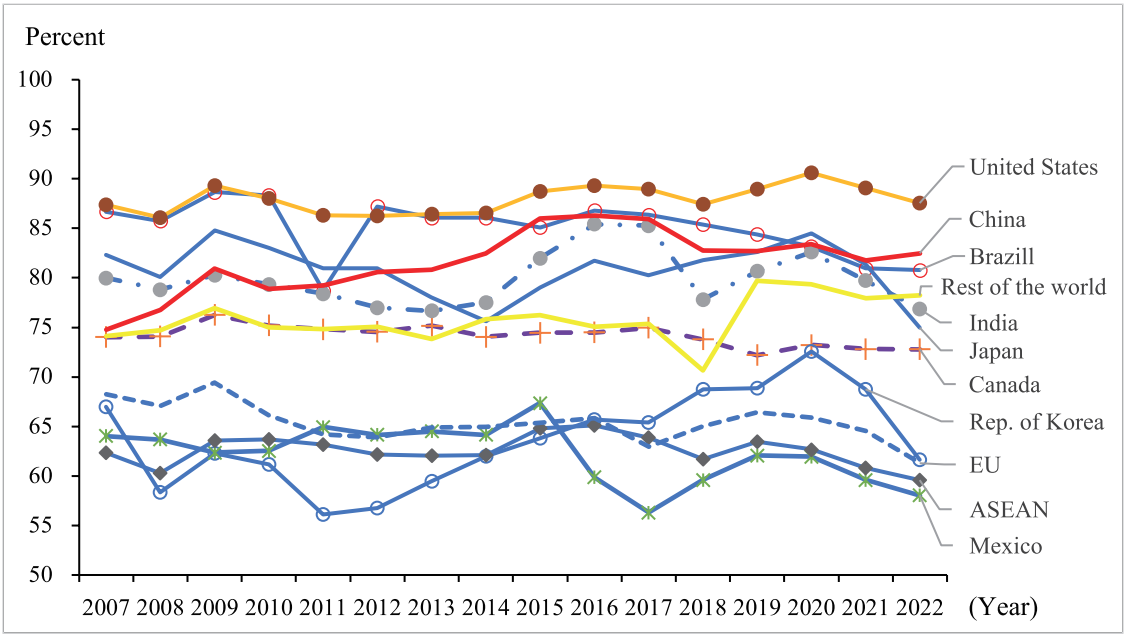


Figure 7.5 Shares of domestic value added in total exports of selected economies: 2007–2022

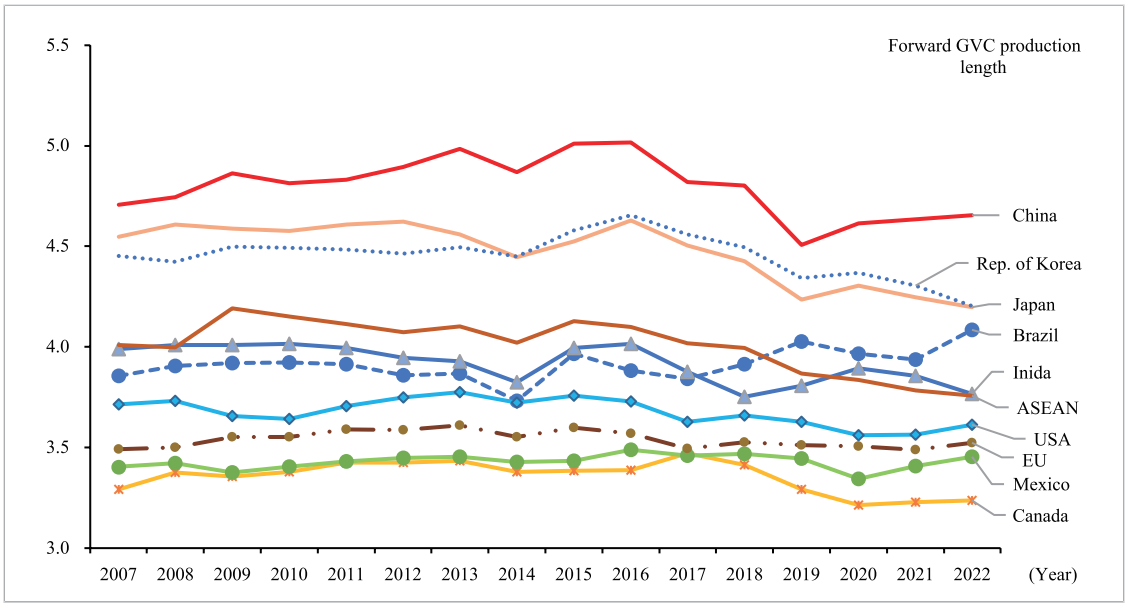
Source: Global Value Chain Database of the University of International Business and Economics, ADBMRIO 2024 Version.

3. Increasing shortening of GVCs

The forward and backward production lengths are key indicators of a country or region's position and role in GVCs. Specifically, they reflect the relative number of production stages involved in the entire process from the input of raw materials to the output of final consumer goods. Economies with longer forward production lengths are further upstream in the GVCs, closer to primary producers and further away from the final consumers, while those with shorter lengths

are further downstream and closer to the final consumers; the opposite is true for backward production lengths.[3]

Most economies have experienced a decrease in production lengths. Figure 7.6 illustrate the continuous fluctuations in forward and backward production lengths, which mostly move in sync. From 2016 to 2019, due to factors such as the slowdown of economic globalization, major economies—particularly Asian countries such as China, Japan, and Rep. of Korea—showed a significant reduction in both forward and backward production lengths. This indicates that the distance from raw inputs to the final product reaching consumers has gradually shortened, presenting a trend of "shortening chains."



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3 The length of GVC production indicates the average number of production stages from initial value-added inputs to the final goods used for consumption in a specific industry within a specific economy. This metric reflects the complexity of participation in GVCs; a greater number of stages signifies a more complex division of labor. GVC participation can be categorized into forward and backward participation based on the value chain's direction. A higher forward production length indicates proximity to upstream activities, while a longer backward production length suggests closeness to downstream activities.

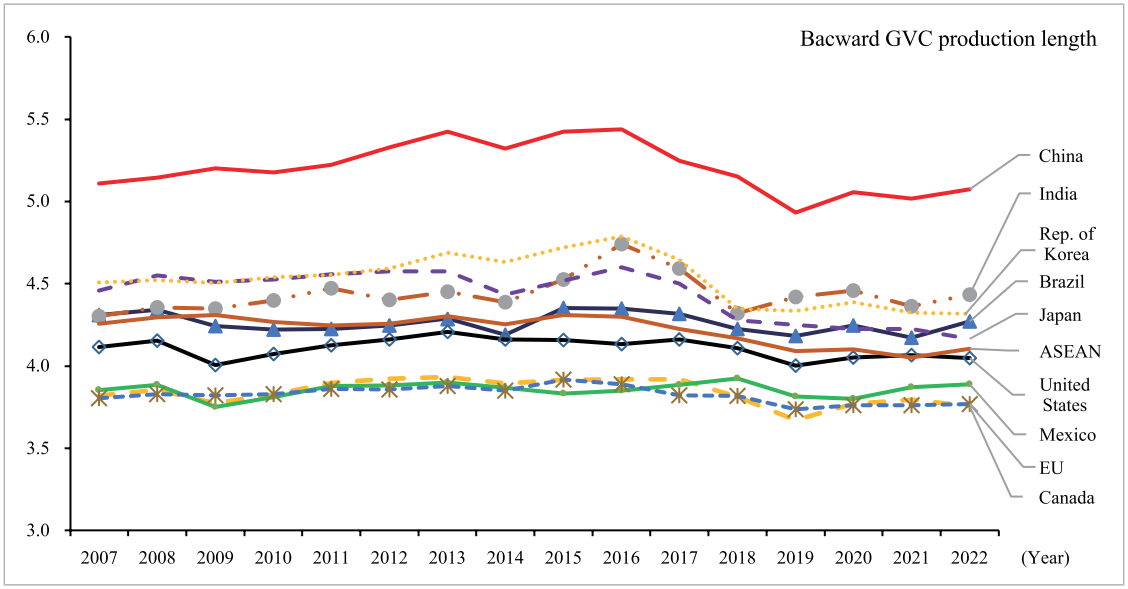

Figure 7.6 Length of forward and backward production in manufacturing GVCs of selected economies: 2007–2022

Source: Global Value Chain Database of the University of International Business and Economics, ADBMRIO 2024 Version.

However, the sustainability of this trend remains to be observed. Since 2020, except for Japan, Rep. of Korea, India, and ASEAN, forward and backward production lengths in countries like China, the United States, Canada, Mexico, Brazil, and the EU have increased, possibly due to "reshoring" policies or the post-pandemic recovery of the global economy. In the medium to long term, the primary doubt concerning the shortening of GVCs is that it is inconsistent with the rationale of free and open market economies based on comparative advantages.

II. Impact of Evolving International Situation on GVCs

1. Severe impact of external shocks on division of labor in complex GVCs

Based on the complexity of the production process and the segments involved, value chains can be categorized into simple and complex value chains.[4] This section utilizes a counterfactual analysis framework, specifically an extended computable general equilibrium model,[5] to assess the impact of the COVID-19 pandemic on GVCs. The overall results indicate that from 2019 to 2024, the pandemic is projected to reduce complex GVC divisions by approximately 10 percent and simple GVC divisions by about 5 percent.

Most manufacturing sectors are expected to experience declines between 3 percent and 10 percent, with the decline in complex GVCs being more pronounced. For example, in the agriculture, hunting, forestry, and fishing sectors (S1), which were most affected by the pandemic, complex and simple GVCs fell by 123 percent and 104 percent, respectively, in 2020. In contrast, the postal and telecommunications sector (S15), which was least affected, saw a 4 percent decline in complex GVCs while simple GVCs increased by 0.4 percent. However, in the later stages of the pandemic, both types of value chains experienced varying degrees of decline (see fig. 7.7). This demonstrates that while complex GVCs reflect the high degree of specialization and internationalization in the modern economy, the risks associated with such complexity increase when faced with external shocks.

4 The complex value chain refers to a process that involves at least two or more instances of crossing national borders from the initial input of factors to the formation of final products, while the simple value chain only involves one instance of crossing national borders.

5 The counterfactual analysis framework is a method used to evaluate the impact of decisions or events on outcomes. It explores how results would change if certain conditions or actions were different by constructing a hypothetical scenario. An extended computable general equilibrium model is an economic tool used for counterfactual analysis to study the effects of changes in economic policies on the entire economic system. It predicts the long-term impacts of policy changes on macroeconomic variables such as prices, output, consumption, and investment by simulating the behavior of economic agents (such as households, firms, and governments) under different market conditions. This study primarily focuses on simulating the impact of the COVID-19 pandemic on GVCs, mainly through reduced labor supply, increased trade costs, and changes in consumption preferences, particularly in sectors such as healthcare, electronic information and communication, and public services, as well as a decline in tourism demand.

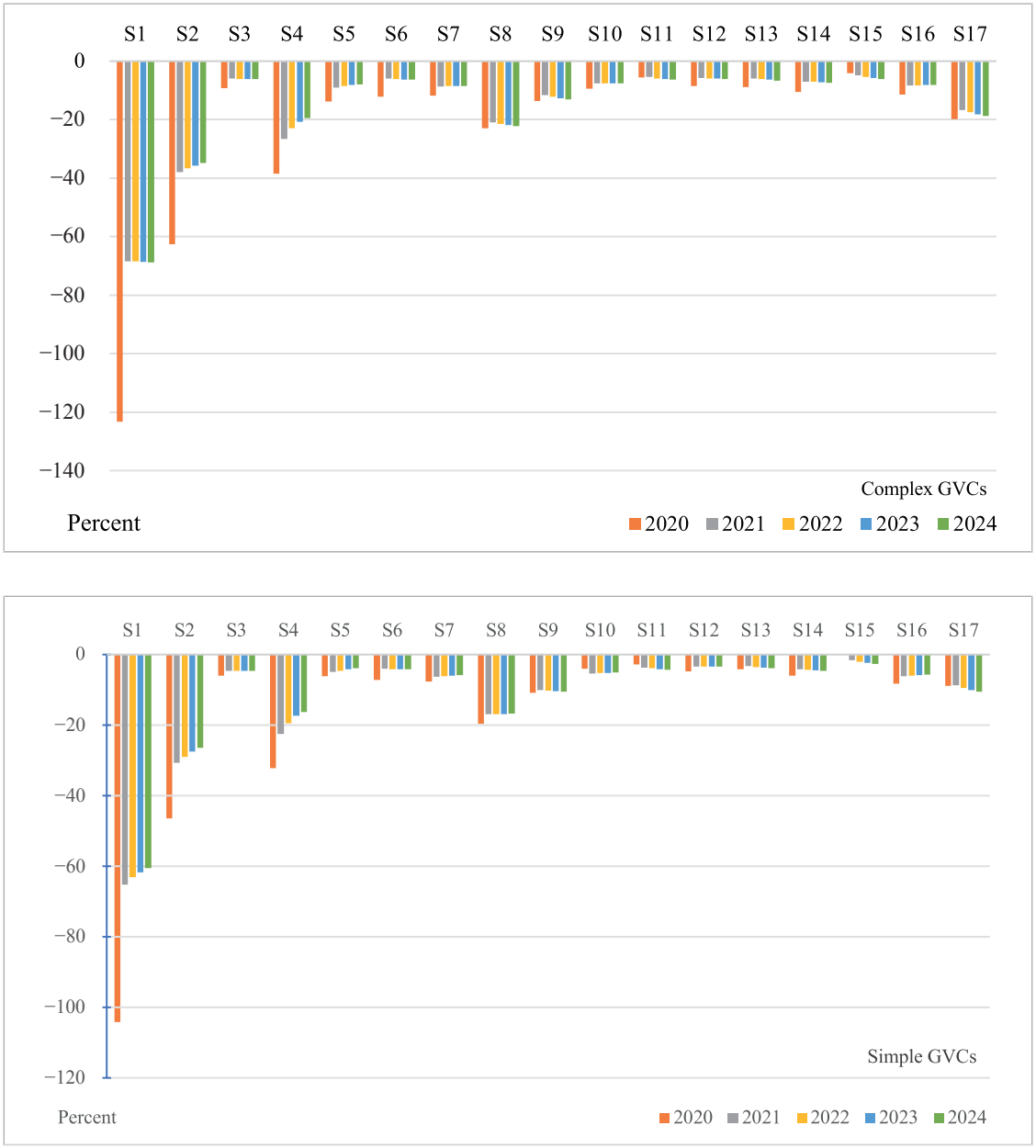

Figure 7.7 Changes in complex and simple GVCs across 17 industries: 2020–2024

Note: The names of the sectors in the figure are as follows: S1 = Agriculture, hunting, forestry, and fishing; S2 = Food, beverages, and tobacco; S3 = Wood, wood products, and paper products; S4 = Coking, refining of petroleum, and nuclear fuel; S5 = Mineral products; S6 = Textiles and clothing; S7 = Chemicals, rubber, and plastics; S8 = Basic metals and metal products; S9 = Transport equipment; S10 = Electrical and optical equipment; S11 = Machinery; not classified elsewhere; S12 = Construction; S13 = Wholesale and retail trade; S14 = Transport activities; S15 = Postal services; S16 = Financial intermediation; S17 = Other services.
Source: Calculated based on the Global Trade Analysis Project version 10.

2. Increasing pressure of geopolitical tensions on vulnerability of GVCs

Geopolitics is a significant factor influencing changes in GVCs. For instance, in the semiconductor industry, US-China trade frictions and a complex geopolitical landscape have prompted many countries to elevate the development of a more self-sufficient semiconductor industry to a national strategic level. The semiconductor value chain is characterized by high capital and knowledge intensity, intricate division of labor, strong inter-dependencies among participants, and lengthy manufacturing cycles. Over the past few decades, these characteristics have interacted to bring about significant changes[6] within the semiconductor global value chain, which include most value-added activities in the value chain are characteristic of an oligopolistic market structure dominated by a few companies; relatively cautious capacity investments in times of economic downturns, relying mostly on existing capacities; and the concentration of certain production processes within specific geographic areas. All these factors have rendered the semiconductor value chain less flexible and resilient in the face of external shocks.

Currently, semiconductors are widely recognized as a critical technological foundation for economic and national security. Enhancing competitiveness in the semiconductor sector and ensuring the safety of supply chains has become a common consensus among countries. However, the extensive industrial policies implemented by certain developed economies to foster global capacity competition in semiconductors have led to the fragmentation of the semiconductor industry, potentially causing issues such as overcapacity and stagnation in innovation (see box 7.1).

Box 7.1 COVID-19, geopolitical shocks, and the reconstruction of the global semiconductor industry

The weaknesses in the resilience of the semiconductor value chain were highlighted and amplified during the COVID-19 pandemic, and have recently been exacerbated by rising geopolitical tensions. This situation has generated widespread anxiety and fueled techno-nationalism in the field, where ideological geopolitical considerations have overshadowed economic efficiency,[7] becoming a dominant force in reshaping the supply chain.[8]

6 Hess, J. and Kleinhans, J.-P, "Governments' Role in the Global Semiconductor Value Chain #2: Recommendations for the EU Chips Act: Long-Term Government Value Chain Mapping," INTERFACE, *Policy Brief* (July 2022); Kleinhans, J.-P. and Baisakova, N., "The Global Semiconductor Value Chain: A Technology Primer for Policy Makers," INTERFACE, *Policy Brief* (October 2022).

7 White House, "Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth: 100-Day Reviews under Executive Order 14017" (DC: White House, 2021).

8 Yeung, H. W., Huang, S., and Xing, Y., "From Fabless to Fabs Everywhere? Semiconductor Global Value Chains in Transition," in *Global Value Chain Development Report 2023* (WTO, 2023), pp. 132–187.

Teno-nationalism is manifesting as a tendency of de-globalization. Since 2022, some developed economies have implemented techno-nationalist industrial policies, encouraging the reshoring, or at least the nearshoring or friend-shoring, of the semiconductor value chain—particularly advanced manufacturing capacities—through direct subsidies and tax breaks. [9] Some economies have even adopted a "small courtyard, high walls" strategy, [10] weaponizing parts of their controlled supply chains through export controls and increasingly unilateral, aggressive, and extraterritorial measures. In the short term, these measures appear to have yielded some results, as companies like TSMC and Samsung have begun investing in advanced fabrication plants in these relevant economies.[11]

However, these measures are unlikely to achieve their long-term goals. The semiconductor industry is characterized by extremely high R&D intensity and capital intensity.[12] Significant investments in R&D capital are required for design, equipment manufacturing, EDA software, and core intellectual property. Additionally, substantial upfront capital investment is necessary for front-end manufacturing. As a result, most value-added activities in the semiconductor value chain are dominated by a few companies operating in an oligopolistic market, where their economic sustainability relies critically on access to global markets. Any disruption to this model poses a threat to the sustainable development of the industry.

Spurred by techno-nationalist industrial policies, the reshoring of semiconductor manufacturing and the global race to build semiconductor fabs locally have begun to lead to the fragmentation of the semiconductor GVCs, resulting in overcapacity and underutilization, global technological bifurcation, and stagnation in innovation, which could, in turn, threaten the highly efficient and innovative business models of the global semiconductor industry characterized by the fine specialization along the GVCs.[13]

9 Luo, Y. and van Assche, A., "The Rise of Techno-Geopolitical Uncertainty: Implications of the United States CHIPS and Science Act," *Journal of International Business Studies* 54 (2023): pp. 1423–1440, https://doi.org/10.1057/s41267-023-00620-3.

10 Sullivan, J., "Remarks by National Security Advisor Jake Sullivan on the Biden-Harris Administration's National Security Strategy" (White House, October 10, 2022).

11 Semiconductor Industry Association, "Emerging Resilience in the Semiconductor Supply Chain" (May 8, 2024), https://www.semiconductors.org/emerging-resilience-in-the-semiconductor-supply-chain/.

12 Boston Consulting Group and Semiconductor Industry Association, "Strengthening the Global Semiconductor Supply Chain in an Uncertain Era" (May 2021), https://www.semiconductors.org/emerging-resilience-in-the-semiconductor-supply-chain/.

13 Yeung, H. W., Huang, S., and Xing, Y., "From Fabless to Fabs Everywhere? Semiconductor Global Value Chains in Transition," in *Global Value Chain Development Report 2023* (WTO, 2023), pp. 132–187.

3. Strong support of emerging technologies to positive evolution of GVCs

Improving technological levels and reducing factor costs are the main pathways for countries to move toward higher-end positions in GVC.[14] Countries are placing significant emphasis on digital inputs in their manufacturing processes. Leading nations such as China, the United States, Germany, Japan, and Rep. of Korea benefit from comprehensive advantages arising from technological innovation, digital infrastructure development, digital transformation of industries, policy support, and talent cultivation. In recent years, the Fourth Industrial Revolution, represented by smart manufacturing, has been evolving, accelerating the digital transformation of global production and consumption. The integration of AI and the digital economy with traditional manufacturing not only alters the production modes at the micro level but is also expected to promote changes in the global production models in the long term (see fig. 7.8).

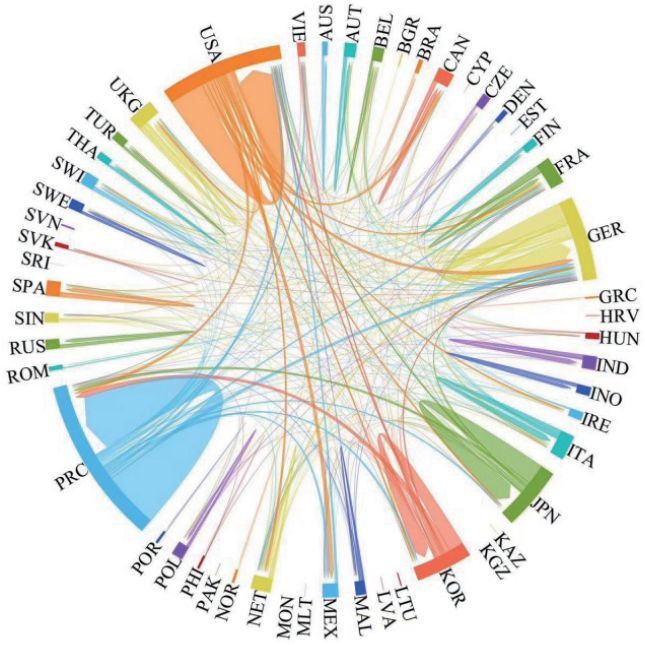

Figure 7.8 Composition of digital inputs embedded in manufacturing exports of selected economies: 2021

Source: Calculated based on the Asian Development Bank's Multi-Regional Input-Output Database.

14 Pol, A. and Alonso, G., "On the Geography of Global Value Chains," *Econometrica* 88, no. 4 (2020): pp. 1553–1598.

Box 7.2 The impact of AI on the division of labor in the GVCs

AI is deepening the GVCs. Specialization in AI can facilitate industrial intelligentization and upgrades in adjacent sectors through interconnections between upstream and downstream industries.

Koopman (2024) analyzes the relationship between AI specialization and the specialization of goods and services exports. He finds that a country's investment in the AI sector has spillover effects on the development and upgrading of other industries. For example, investments in AI-related drones and satellite products can enhance the specialization levels in fields such as chemicals, pharmaceuticals, coal, oil, and intellectual property.

Given the varying economic strengths, export dependencies, and endowments among countries, the positive effects of AI on the GVCs are particularly pronounced in developing countries, countries with high export dependencies, and labor-intensive industries.

III. Enhancing GVCs Collaboration by Deepening Industrial Cooperation

GVCs involve diverse participants and widespread interests in international economic practices. Their core principles are openness, inclusiveness, and win-win cooperation. The development of GVCs relies on the continuous expansion of high-level openness and the acceleration of mutual opening up across the world.

It is crucial to understand the new trends in the development of GVCs. Stakeholders should closely monitor changes in GVCs, actively adapt to and lead these trends, and promote interconnectivity and interoperability in trade, technology and other domains. Strengthening multinational cooperation, establishing a more open and inclusive trade system, promoting technology exchange and knowledge sharing, and facilitating the application of smart manufacturing and advanced technologies are essential. Additionally, efforts should focus on guiding GVCs toward greener, smarter, and higher-end transformations, achieving sustainable and resilient growth in the global division of labor.

Building a more stable global division of labor. The diversified development of GVCs is key to enhancing global economic stability. All parties should actively participate in the global production division system, strengthen economic exchanges and cooperation with neighboring economies, and promote the optimal allocation of resources within regions to create closer trade partnerships, fostering a new international division of labor that is more stable, vibrant, and equitable.

CHAPTER 8

Development of New Quality Productive Forces and Global Cooperation on Open Innovation

The development of new quality productive forces is a significant measure for China to promote high-quality development and advance modernization with Chinese characteristics. It reflects major trends and tides of current global technological revolution and industrial transformation. New quality productive forces primarily rely on innovation and are birthed from revolutionary technological breakthroughs, innovative allocation of production factors, and profound transformation and upgrading of industries. They are fundamentally characterized by advancements of laborers, means of labor, objects of labor, and optimalization of their combinations, and are in alignment with the new development concepts of innovation, coordination, green, openness, and sharing. Openness is a distinctive feature of new quality productive forces. Deepening global cooperation on innovation and opening-up can enhance economic growth momentum of countries around the world.

I. Connotation and Characteristics of New Quality Productive Forces

1. Connotation of new quality productive forces

The essential connotation of new quality productive forces lies in the advancement of laborers, means of labor, objects of labor, and their optimal combinations, which can be summarized as the following four types of advancements:

- **Advancement of laborers.** Laborers are the human elements in relations of production. Technological progress demands that laborers possess higher educational qualifications, stronger learning capabilities, and cross-disciplinary and all-round skills. Laborers suited for new quality productive forces include both strategic science and technology talents and applied talents.
- **Advancement of means of labor.** Means of labor are material elements in relations of production, encompassing all material elements used by people in production and reproduction, including production tools, buildings, roads, canals, etc., with production tools playing a decisive role. Technological revolution imparts increasingly more technological elements to means of labor. New hard technologies[1] and smart production tools, such as generative AI and big data centers, significantly propel the development of productive forces.
- **Advancement of objects of labor.** Objects of labor are also material elements in relations of production, referring to everything that can be processed during the labor process. Data, as a new production factor, is gradually being integrated into various stages of social reproduction, including production, distribution, circulation, and consumption, playing a crucial role in high-quality development of the economy and society.
- **Advancement of combinations of laborers, means of labor, and objects of labor.** Against the backdrop of new technological development, data, as a new production factor, can be optimally combined with various traditional production factors, leading to continuous improvements in the efficiency of production activities and, subsequently, enhancing total factor productivity. For instance, in road transportation, integrating real-time bus location information, ride-hailing vehicle data, and Internet mapping data, while implementing deep AI training, can quickly optimize commuting solutions for intersections and road segments, effectively improving urban traffic efficiency. This exemplifies optimal combination and advancement of data, technology, and labor.

Any single advancement aforementioned can significantly improve social productivity. Therefore, it is essential to focus on enhancing each production factor as well as their synergistic and optimized combinations, striving to achieve multi-dimensional advancements simultaneously to foster overall development of new productive forces.

2. Characteristics of new quality productive forces

New productive forces are characterized by high technology, high efficiency, and high quality, which can be understood from the perspectives of factors, technology, and industry.

1 Hard technology refers to key core technologies that are based on scientific discoveries and technological inventions, require long-term R&D, continuous accumulation, have high technological thresholds and clear application scenarios, are difficult to replicate and imitate, and play a significant supporting role in economic and social development.

Factor dimension: Data as a driving force for new quality productive forces development. Currently, data has emerged as the fifth major production factor after land, labor force, capital, and technology, playing a crucial role in the development of new quality productive forces. The rise of technologies like AI enhances humanity's ability to capture, process, disseminate, and even generate data, accelerating the digitization of objects of labor, the networking of means of labor, and the virtualization of information labor engaged by laborers. The integration of new factors like data with various traditional factors helps improve production efficiency and intelligentization, thereby promoting the development of new quality productive forces.

Technology dimension: Technological innovation as a core element. New quality productive forces are the result of the collaborative development of new technologies. First, "original innovation" in technology is the key driver behind the emergence of new quality productive forces and high-quality development. China places great importance on "building international centers for science and technology innovation." There are over 75,000 national-level high-tech enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area. Second, the transformation of scientific and technological achievements serves as an important bridge connecting innovation with industry. Chinese enterprises are positioned at the forefront of the market, possessing keen insights into market demands and technological trends, which can facilitate the implementation of the transformation. Third, China is equipped with a large number of highly qualified engineers, abundant data resources, and well-developed application scenarios.

Industry dimension: A modernized industrial system as a vital carrier. New quality productive forces require a scientifically structured modernized industrial system for support, so as to comprehensively upgrade traditional industrial clusters to form efficient, rapid, stable, and secure new quality industrial clusters. Now, China boasts 41 major industrial categories, 207 medium categories, and 666 minor ones, making it the only country worldwide with all industrial categories classified by the UN. Additionally, China possesses the world's largest high-speed railway network, extensive expressway network, a world-class port cluster, and the largest and most technologically advanced 5G network, all of which provide favorable conditions for upgrading traditional industries. China is also striving to create digital industry clusters as an advanced form of digital industrial development. The country aims to cultivate large-scale digital industry clusters worth hundreds of billions in areas such as high-end software, smart photovoltaics, and integrated circuits. Additionally, it is prioritizing the development of the intelligent IoT sector as a trillion-dollar industry cluster that combines competitive advantages and scale effects. The future industries indicate a new round of technological revolution and industrial transformation. China has laid a foundation in areas such as smart equipment, biotechnology, future materials, and cutting-edge technology-driven sectors. It's exploring innovation and fostering future industry clusters that support high-quality development.

II. Status Quo of and Trends in Global Cooperation on Open Innovation

The development of new quality productive forces and global cooperation on open innovation are mutually reinforcing. To enhance new quality productive forces requires the impetus from global innovation cooperation, while global innovation cooperation is strengthened and deepened by the continuous progress of new quality productive forces. At present, significant progress has been made in global innovation cooperation in fields such as green low-carbon technology, next-generation information technology, and quantum information. However, challenges remain in global cooperation on innovation and opening-up driven by factors such as restrictions on cross-border data flows and certain economies implementing "technology blockade."

1. Steady progress in cooperations on green and low-carbon innovation

In terms of green energy innovation, a report released jointly by the IEA and the European Patent Office titled "Patents and the Energy Transition: Global Trends in Clean Energy Technology Innovation" indicates that the number of international patent families (IPFs) in low-carbon energy technology (LCE) has increased for three consecutive years (see fig. 8.1).

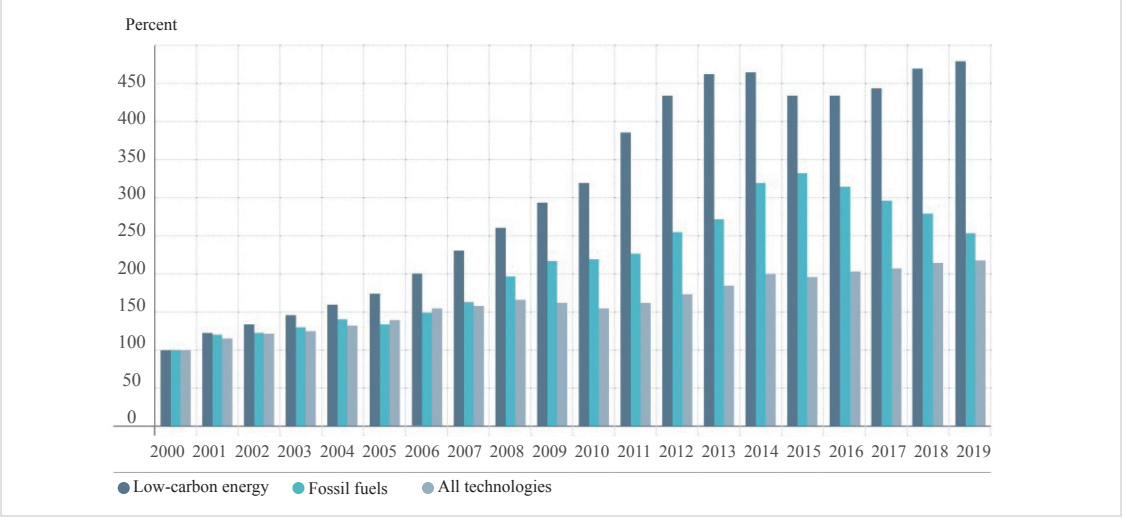

Figure 8.1 Growth rate of IPFs in LCEs: 2000–2019 (base 100 in 2000)

Source: IEA (2021).[2]

2 IEA, "Patents and the Energy Transition: Global Trends in Clean Energy Technology Innovation" (2021), https://link.epo.org/web/patents_and_the_energy_transition_study_en.pdf.

Developed economies play a leading role in LCE cooperation. As shown in figure 8.2, among the ten most collaborative fields, the United States and Europe demonstrate a technological advantage in seven areas, and they are primary partners in most major bilateral collaborations.

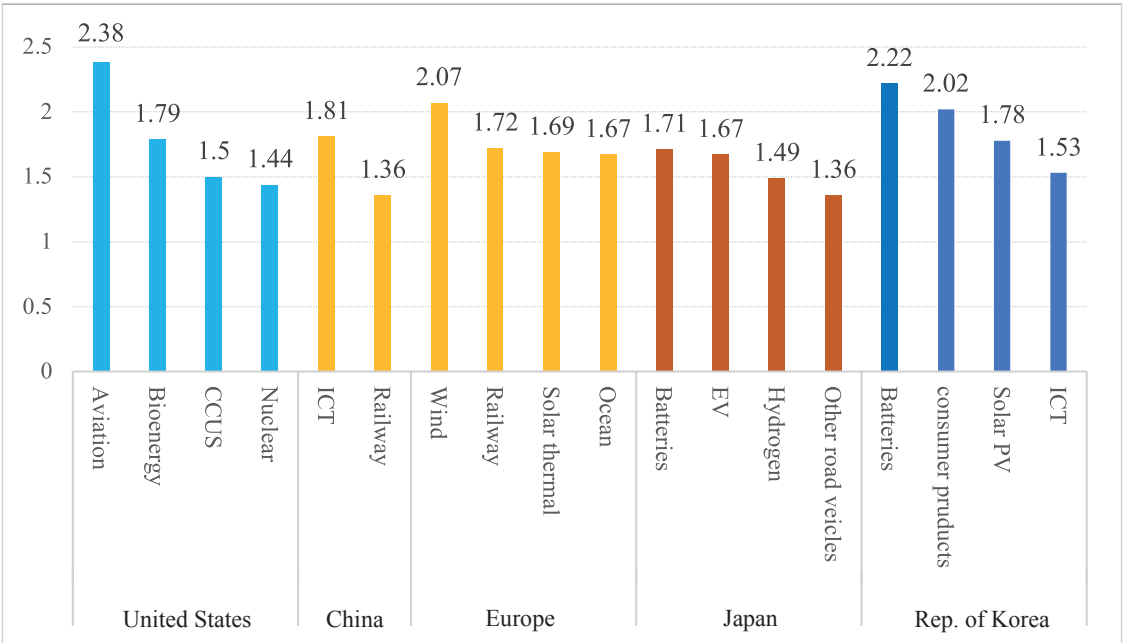

Figure 8.2 Main revealed technological advantage of global innovation centers: 2010–2019

Source: IEA (2021).[3]

China plays an important role in global clean energy innovation cooperation (see box 8.1).

Box 8.1 China deepens international cooperation in clean energy

China's installed capacity for hydropower, wind power, and photovoltaic power generation has maintained the largest in the world for several consecutive years. Its relatively complete supply chain and industrial system for clean energy equipment provide strong support for the GX of countries involved in the BRI.

Within the framework of the BRI, China has engaged in technological innovation cooperation in new energy. Over the years, significant achievements have been made in the field of new energy collaboration.

3 IEA, "Patents and the Energy Transition: Global Trends in Clean Energy Technology Innovation" (2021), figure E9.

In Africa, under the framework of the FOCAC alone, there are more than 100 green energy projects. The "China-Aid Mali Solar Demonstration Village," constructed by Chinese companies, installed 1,195 off-grid solar home systems, 200 solar streetlight systems, 17 solar pump systems, and 2 centralized solar power supply systems in the villages of Koniobla and Karan.

In Asia, Chinese energy enterprises have leveraged their first-mover advantage in international cooperation to achieve mutual benefits. The Lao "Ban Hat-Ban Na-Attapeu 500-kilowatt high-voltage transmission line" project, with a total investment of nearly $149 million, has an annual electricity transmission capacity exceeding 3.2 billion kilowatt-hours, making it Laos' first cross-border 500-kilowatt high-voltage transmission project.

In South America, green energy is a vital area of bilateral cooperation between China and Colombia. Chinese enterprises provide their support in six new energy generation projects, with a total designed capacity exceeding 170 megawatts, creating hundreds of jobs during the construction phase. Once completed, these projects can provide electricity for approximately 25,000 local households annually.

China plays an essential role in global clean energy cooperation. A report from the IRENA highlights that China's wind and photovoltaic products have been exported to over 200 countries and regions worldwide, with cumulative export values exceeding $33.4 billion and $245.3 billion, respectively. Through long-term open cooperation, the average cost per kilowatt-hour of global wind and photovoltaic projects has decreased by over 60 percent and 80 percent respectively in the past decade.

China continues to practice international cooperation in open innovation within the clean energy sector, disseminating new quality productive forces for energy to various regions, alleviating their energy and environmental pressures, and playing a significant role in promoting their sustainable economic and social development.

New energy vehicles has become a new name card of "Made in China" and opening-up and innovation, featuring a complete industrial chain and stable supply chain. Chinese new energy vehicle manufacturers and the smart automotive industry cluster pursue a cooperation through openness, connectivity and mutual benefits, insisting on creating new platforms for international cooperation and participating in the formulation of international standards and regulations. Through partnerships in Southeast Asia and Europe for factory construction and technological innovation, they showcase open innovation in the new energy vehicle sector, fostering technological advancement and market expansion in the global electric vehicle industry. For example, GAC New Energy and Bosch have collaborated, and Volkswagen and Xiaopeng Motors have signed a technical cooperation agreement for joint development of platform and software, with the first two models set to launch in 2026.

2. New changes in innovation cooperation on next-generation of information technology

China continuously promotes global cooperation in information technology. The country has been deepening the progress of the "Digital Silk Road" initiative and establishing a number of

"Digital Silk Road" economic cooperation pilot zones. These collaborations have strengthened cultural exchanges between China and countries along the Silk Road, enhanced mutual recognition among multiple parties and laid a solid foundation for the development of new quality productive forces.

As of 2023, China has signed bilateral e-commerce memoranda of cooperation with 30 countries, creating new channels and highlights for international economic and trade cooperation. In the process of open cooperation, China and partner countries have made significant achievements in digital infrastructure, digital trade and cross-border e-commerce, and digital governance.

In October 2023, at the Third Belt and Road Forum for International Cooperation (BRF), over ten countries, including China, jointly initiated the Beijing Initiative on Belt and Road Digital Economy International Cooperation, reaching 20 consensus agreements on strengthening digital connectivity, promoting industrial digital transformation and other fields. China has also signed multiple memoranda of cooperation with various countries, actively expanding cooperative efforts in the field of data. For example, on August 24, 2021, China proposed the China-Africa Initiative for Building a Community of Shared Future in Cyberspace. On July 5, 2022, China signed a memorandum of understanding on cybersecurity cooperation with Thailand. On May 26, 2024, the Cyberspace Administration of China and Indonesia National Network renewed the MOU on Developing Cybersecurity Capability Building and Technological Cooperation in Denpasar. The achievements of multilateral cooperation in the digital realm between China and partner countries are shown in table 8.1.

Table 8.1 Achievements of multilateral digital cooperations from BRF

	Title
1	The Beijing Initiative on Belt and Road Digital Economy International Cooperation
2	The Global AI Governance Initiative
3	The Beijing Declaration on Building a Digital Silk Road
4	The Belt and Road Conference on Science and Technology Exchange
5	The Belt and Road Ministerial Conference on Science and Technology Innovation
6	The 5th IKCEST "Belt and Road" International Big Data Competition
7	The BRI Environmental Big Data Platform annual conference

Box 8.2 China promoting international cooperation in information technology

Since 2016, Chinese companies have gradually entered markets in Eastern Europe, Central Asia, and Africa. Currently, the network service nodes of Chinese enterprises cover five continents and 160 countries and regions, assisting over 3,000 companies in "going global" and developing in China.

To support high-quality development of the BRI and promote the safe and efficient interconnection of information infrastructure, Chinese companies have deeply engaged in connecting information infrastructure with Southeast Asian enterprises, collaborating with governments in Southeast Asian countries to provide cloud computing services and big data analysis technologies. Chinese enterprises plan to open a second data center in Indonesia within the next year, forming a dual availability zone. These collaborations enhance data management and analysis capabilities in Southeast Asian countries and propel the high-quality development of their digital economies.

Chinese companies are collaborating with the Argentine government to provide advanced big data solutions, offering a fully cloud-based core network solution for the telecommunications sector and actively participating in local 5G network construction. This cooperation aims to enhance Argentina's cybersecurity capabilities and data processing capability, assist in modernizing information infrastructure, and promote digital transformation.

3. Considerable potential for open innovation in quantum information

International collaboration in the field of quantum information is just beginning to take shape. In 2022, China and Rep. of Korea organized a series of forums on innovation and shared benefits to discuss research methodologies and quantitative analysis in quantum subfields. In January 2024, the University of Chicago (the United States), the University of Tokyo (Japan), and Seoul National University (Rep. of Korea) jointly signed a trilateral quantum partnership agreement, which focuses on the cultivation of quantum talent. In May 2024, the United States and Germany issued a joint statement regarding cooperation in quantum information science and technologies, stating that both sides would strengthen collaboration in areas such as quantum computing, quantum networks, and quantum sensing. This includes jointly organizing academic conferences, sharing research methodologies, infrastructure, and data, and co-developing global markets and supply chains.

4. Abundant achievements in international scientific and academic cooperation

In terms of literature composed through international collaboration, the United States, China, the United Kingdom, Germany, France, Canada, Australia, Italy, Spain, and the Netherlands lead the world in the number of internationally cooperated research papers. Notably, the United States and China are fairly dominant, with both countries publishing over one million research collaboration papers each in the past decade, accounting for 37.9 percent and 21.5 percent of

the global total of internationally collaborated papers, respectively. Between 2011 and 2020, 149 countries/regions engaged in research cooperation in advanced manufacturing technology based on academic papers. European countries generally exhibit a higher level of international research cooperation. Asian economies such as China, Japan, Rep. of Korea, and India show significant advantages in research scale (see tables 8.2 and 8.3).

Table 8.2 Internationally coauthored papers in advanced manufacturing technology: 2011–2020

Ranking	Field	Number of papers	Of which	
			Number of internationally coauthored papers	Share (percent)
1	Microelectromechanical systems technology	64,857	10,292	15.87
2	Laser manufacturing	27,707	4,683	16.90
3	Additive manufacturing	22,070	3,797	17.20
4	CNC machine tools	14,963	1,264	8.45
5	Flexible electronics	13,124	2,103	16.02
6	Industrial robotics	12,937	1,538	11.89
7	Very-large-scale integration circuits	7,247	1,082	14.93
8	Smart sensors	6,763	966	14.28
9	Wide bandgap semiconductor	2,111	391	18.52
10	Digital twins	1,233	192	15.57

Table 8.3 International co-authorship in advanced manufacturing technologies of top 20 economies: 2011–2020

Ranking	Economy	Number of papers	Of which	
			Number of internationally coauthored papers	Share (percent)
1	China	49,793	7,406	14.87
2	United States	29,336	8,321	28.36

(Continued)

Ranking	Economy	Number of papers	Of which	
			Number of internationally coauthored papers	Share (percent)
3	Germany	11,922	3,813	31.98
4	Japan	9,771	2,180	22.31
5	India	7,926	1,136	14.33
6	Rep. of Korea	7,369	1,628	22.09
7	United Kingdom	7,189	3,464	48.18
8	France	6,292	2,699	42.90
9	Taiwan, China	6,281	1,016	16.18
10	Italy	5,933	2,096	35.33
11	Russia	4,760	790	16.60
12	Canada	4,704	1,645	34.97
13	Spain	3,676	1,675	45.57
14	Australia	3,256	1,558	47.85
15	Singapore	3,161	1,410	44.61
16	Switzerland	2,381	1,185	49.77
17	Iran	2,275	564	24.79
18	Poland	2,143	599	27.95
19	Netherlands	2,082	1,004	48.22
20	Malaysia	1,904	595	31.25

Regarding international scientific research collaboration, the 2023 Report on the Status of China's International Scientific Research Cooperation estimates that the centrality of international scientific research cooperation of United States far exceeds that of other countries as a global hub for scientific research and cooperation. United Kingdom, Germany, and China rank second to fourth, indicating that these three countries are also significant hubs for global research collaboration. France, Italy, Spain, Australia, the Netherlands, and Canada constitute the third tier in terms of centrality, being key collaborative partners in global scientific endeavors.

In terms of international patent cooperation, search results from the Derwent Database shows that in 2020, approximately 14,800 of the PCT patents applied for globally involved international cooperation among applicants (or institutions), accounting for 5.3 percent of the total PCT patent applications. There is a close patent cooperation relationship among major innovative countries, with United States, China, Japan, United Kingdom, and Germany ranking

among the top regarding the number of PCT patents with international cooperation (see table 8.4).

Table 8.4 Centrality of international scientific research cooperation center: 2020

Countries	Centrality	Countries	Centrality	Countries	Centrality
United States	11.5	Switzerland	2.7	Austria	1.7
United Kingdom	7.4	Sweden	2.4	Rep. of Korea	1.6
Germany	6.4	Japan	2.2	Portugal	1.4
China	5.1	India	2.2	Finland	1.4
France	4.5	Belgium	2.0	Norway	1.3
Italy	4.3	Brazil	1.9	Czech Rep.	1.3
Spain	4.0	Poland	1.8	Turkey	1.2
Australia	3.4	Russia	1.7	Greece	1.2
Netherlands	3.1	Denmark	1.7	Pakistan	1.0
Canada	3.0	Saudi Arabia	1.7	South Africa	1.0

III. Promoting Development of New Quality Productive Forces through Cooperation on Opening Up

Openness is a distinctive feature of Chinese modernization. China adheres to the basic national policy of opening-up, enhances its opening-up capabilities through expanding international cooperation, and builds a new system of a higher-level open economy. As a new round of technological revolution and industrial transformation advances, the international community needs to embrace higher levels of open collaboration to help develop new quality productive forces. This involves transforming and upgrading traditional industries with digital and green technologies, promoting the development of emerging and future industries, and facilitating new opportunities for shared innovation and open development (see box 8.3). Erik Solheim, the former UN under-secretary-general and former executive director of the UN Environment Program, stated that China's exploration of developing new quality productive forces will be a significant advancement for humanity. It injected new momentum into achieving the UN SDGs.

1. Deepen intergovernmental cooperation

Countries should focus on the global trends of the technological revolution and jointly promote the construction of large scientific facilities and new R&D institutions that meet the needs of future industrial development. Collaborative efforts should be made to formulate and implement plans for scientific and technological cooperation. Major projects that benefit the development of new quality productive forces should be deployed in advance. More partners should be encouraged to pay attention to and participate in the development of future industries. Various enterprises should be guided to increase their investments in emerging industries and establish corresponding exit mechanisms.

2. Unleash market vitality

Accelerating the formation of new quality productive forces hinges on cultivating market scale. For instance, China's vast market provides a mature environment for the development of new quality productive forces, including comprehensive support throughout the entire chain such as technology maturation, product pilot testing, and early market applications, along with diverse application scenarios and differentiated niche markets. Partner countries can continually explore regional potentials, accelerate the integration and optimization of production processes and stages, and achieve low-cost, large-scale industrialization, transforming cutting-edge technologies into new quality productive forces.

3. Strengthen collaborative innovation mechanisms in science and technology

Countries should explore the "scientists + entrepreneurs" innovation model to better harness the advantages of scientists and entrepreneurs; actively promote scientific cooperation, cultural exchanges, and business dialogues among partners. It is essential to solidify the technological foundation, creating a complete pathway from theoretical research to engineering design, and ultimately to product commercialization and scaling.

4. Level up patient capital

It's important to support the development of new quality productive forces and cooperation on innovation and opening-up and to facilitate the convergence of various advanced production factors toward the growth of new quality productive forces. The development of new quality productive forces is a long phase, requiring exploration of numerous industrial types; therefore, it necessitates more patient capital. For one thing, countries should establish effective mechanisms that link government funding for scientific research, industry guidance funds, and market-oriented investment funds to accelerate the development of patient capital. For another thing, efforts should be made to encourage and guide social capital to go to emerging and future

industries, urging financial institutions to innovate in supporting the cultivation of new quality productive forces, thereby providing more products and services to ensure the development of future industries and international open cooperation.

Box 8.3 AI and openness

AI is characterized by its advancement, openness, collaboration, and sustainability. It empowers new quality productive forces and meets the concept of new development and the requirements of high-quality development, serving as an important foundation for open development in the new era. In 2017, the State Council of China issued the Development Planning for a New Generation of Artificial Intelligence, which provides institutional support for the development of AI in China.

Research and innovation in AI should be open, public, and transparent, rather than constructing invisible barriers through intellectual property and patents. Moreover, AI should not be politicized. Leveraging the openness of AI technology is conducive to enhancing scientific progress and social well-being.

First, establishing a legal foundation for the openness of AI should begin with legislation. The AI legislation is still in the exploratory stage. The AI draft law, made public in March 2024, showcases the research efforts of Chinese scholars in areas including general principles, development and promotion, rights protection, safety obligations, supervision and management, special application scenarios, international cooperation, and legal responsibilities, laying the groundwork for the open development of AI.

Second, AI has become an important area of international cooperation. In 2023, China proposed the Global AI Governance Initiative, systematically outlining a Chinese approach concerning the development, safety, and governance of AI, and expressing a willingness to engage in extensive international communication and pragmatic cooperation on global AI governance. In May 2024, the first meeting of the China-US intergovernmental dialogue on AI was held in Geneva, Switzerland, with both parties signaling intents for cooperation.

Third, responsible global AI governance is yet to be established. As more people come into contact with and use AI applications, the global flow of data will be further strengthened. AI applications will promote global openness in daily life. The impact of deepfake misinformation on political and economic security deserves attention.

CHAPTER 9

Landscape and Characteristics of Global Service Opening-Up

In today's world, a new wave of technological revolution and industrial transformation is deeply advancing, with service sector becoming an increasingly important pillar of the global economy and playing a vital role in global industrial division of labor and international trade. It is essential to deepen global cooperation in service sector, enhance regulatory alignment and coordination, promote innovation in services and service trade, and foster global economic development.

I. Global Services Sector Has Opened Up More Widely

Easing market access and reducing domestic regulatory barriers in service sector have become key aspects of global service trade liberalization, as well as important directions in the evolution of high-standard international economic and trade rules.

1. Service industry has become the most important pillar of the world economy

The world has entered an era of service economy. According to data from the UNCTAD,[1] in 2022, service sector accounted for an average of 66.6 percent to GDP, with developed economies averaging 75.2 percent and developing economies 54.0 percent. The US and the UK exceeded 80 percent, while South Africa was at 69.4 percent, Russia 59.5 percent, India 53.3 percent, and China 52.3 percent (see figure 9.1).

1 Source from UNCTAD Stat, https://unctadstat.unctad.org/datacentre/dataviewer/US.GDPComponent.

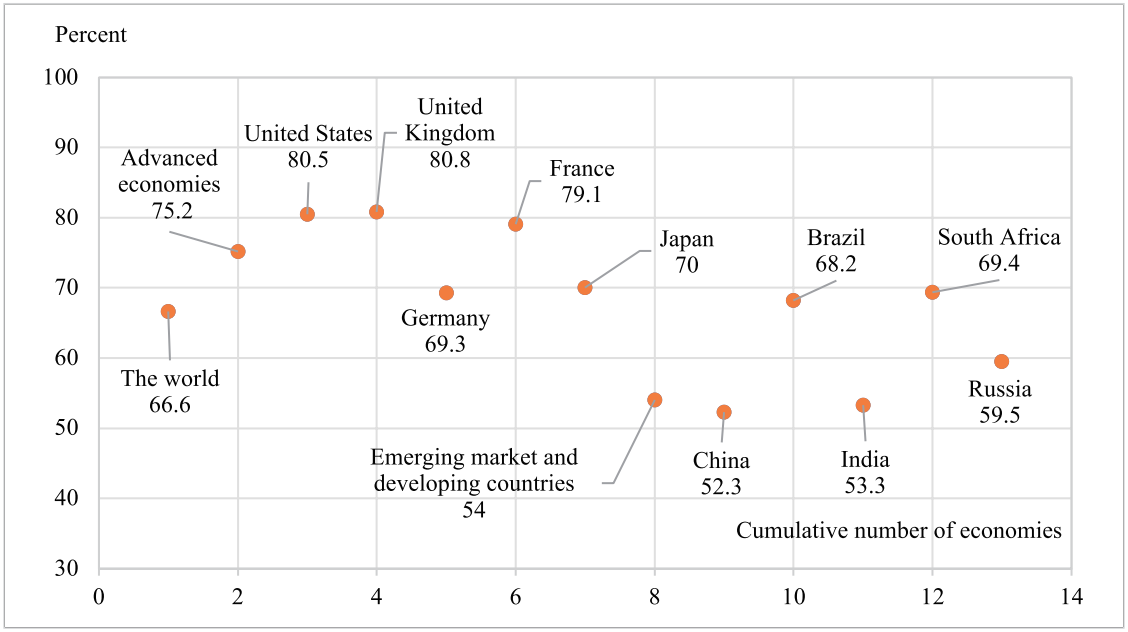

Figure 9.1 Share of service sector in GDP of selected economies: 2022

Source: UNCTAD Stats.

Service industry is gradually dominating global multinational investments. According to UNCTAD,[2] from 2019 to 2023, global FDI inflows into service industry through cross-border mergers and acquisitions and greenfield investments increased from $697.04 billion to $904.56 billion, with an averaging annual growth rate of 6.7 percent, 1.2 percentage points higher than the global FDI rate during the same period. Its share in global direct investment rose from 49.2 percent to 51.4 percent.

International trade in service has become the most dynamic part of global trade. Data from the WTO[3] indicates that in 2023, global service imports and exports totaled $15.25 trillion, a year-on-year increase of 8.8 percent, while global goods trade fell by 5.1 percent. By sector, transport service exports and imports amounted to $300.25 billion, a decline of 8.1 percent, while travel services saw exports and imports of $296.95 billion, a growth of 35.1 percent (see fig. 9.2).

2 Calculated based on UNCTAD Stat, https://unctad.org/topic/investment/world-investment-report.

3 Source from WTO Stats, https://stats.wto.org/.

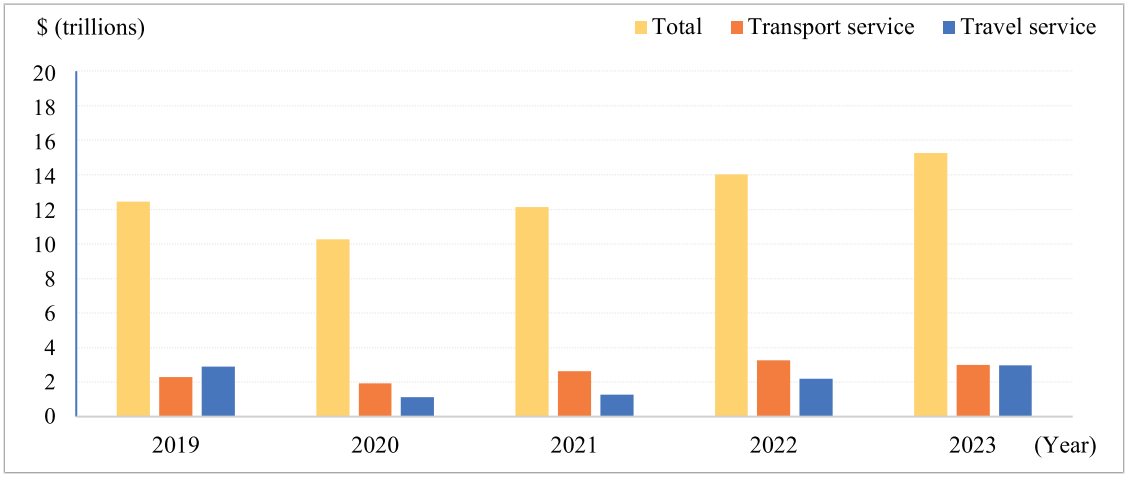

Figure 9.2 Global service trade: 2019–2023

Source: WTO Stats.

2. Opening-up of service industry has made progress despite challenges

In recent years, the overall level of service sector openness has experienced slight fluctuations due to the rise of protectionism and de-globalization. According to the Organization for Economic Cooperation and Development (OECD), the Services Trade Restrictiveness Index (STRI)[4] averaged 0.221 in 2014, increased to 0.226 in 2020, and then fell to 0.215 in 2023. From 2014 to 2023, the average STRI for OECD member countries was 0.196, indicating a higher level of openness among developed economies. And the average STRI for 11 developing countries, including China, Indonesia, Malaysia, South Africa, Thailand, and Vietnam, decreased from 0.317 in 2014 to 0.290 in 2023, reflecting an overall improvement in service sector openness in developing economies.

3. Opening-up of service industry within regions has accelerated

Recently, major economies have intensified efforts to open their service sectors at the regional level. Agreements like the CPTPP, the USMCA, the EU-Japan Economic Partnership Agreement, and the Regional Comprehensive Economic Partnership (RCEP) are all pushing for

4 STRI, developed by the OECD, measures the openness of service industries in various countries. STRI values range from 0 to 1, with 0 indicating complete openness, 1 representing a fully closed market to foreign service providers, reflecting the highest level of restrictions. Established in 2014, STRI now covers 50 countries, up from 40, and includes 22 industries, up from 18.

higher standards of service sector openness and liberalization of service trade. In 2023, the WTO received notifications of six RTAs that include the service industry, accounting for 75 percent[5] of the total new notifications for the year (eight in total). Since 2024,[6] the WTO has received seven such notifications, comprising 53.8 percent of the year's new agreements. These RTAs promote greater openness in more service sectors, facilitating the liberalization and simplification of service trade.

4. Negative List has become a marker of high-standard opening-up of service industry

The negative list significantly enhances openness, transparency, and predictability compared to the positive list. It introduces a "ratchet mechanism," requiring that once a service sector is committed to openness, the level of openness can only increase and cannot decrease. In recent years, high-standard RTAs, such as the CPTPP, USMCA, and EU-JEPA, have increasingly adopted the negative list model for openness in service sector. RCEP member countries have adopted or committed to adopting the negative list for service sector openness within a specified timeframe.

5. Focus of opening-up coordination is moving to behind-the-border

Service trade faces numerous regulatory barriers, with trade costs being twice that of goods trade. According to WTO statistics,[7] costs from regulatory barriers (such as lack of policy transparency and cumbersome approval processes) account for about 40 percent of total service trade costs. Therefore, expanding service sector openness requires not only easing market access but also addressing domestic regulatory issues. On the multilateral front, the WTO adopted the Reference Paper on Domestic Regulation in Services in 2021, aimed at enhancing policy transparency and improving the efficiency of licensing and qualification approvals. In 2023, the WTO reached a consensus on 13 topics, including electronic signatures and certification, online consumer protection, paperless trade, electronic transaction frameworks, and electronic contracts. At the regional level, agreements like RCEP, CPTPP, and USMCA emphasize the unification of standards, coordination of competition rules, and regulatory consistency, while also deepening discussions on post-border regulations related to e-commerce and intellectual property. Issues such as cross-border data flows, personal privacy protection, and source code have become focal points of concern.

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5 Source from WTO Regional Trade Agreement Database, https://rtais.wto.org/UI/PublicSearchByCr.aspx.

6 Data as of August 14, 2024.

7 Source from http://www.mofcom.gov.cn/article/zcjd/jddwmy/202307/20230703420579.shtml.

II. Diverse Opening-Up of Service Industry in Major Economies

Developed economies exhibit high levels of openness in their service sectors, making them strong advocates for global service sector liberalization. In contrast, developing economies are relatively behind in this regard but still hold significant potential.

The United States remains a global leader in foreign investment and service trade. According to UNCTAD, FDI reached $310.95 billion in 2023, with service sector alone attracting over $100 billion.[8] The scale of service trade and its surplus also rank first in the world. WTO data[9] shows that in 2023, service imports and exports totaled $1.71844 trillion, with exports amounting to $999.14 billion, representing 15.7 percent of global exports, resulting in a trade surplus of $279.84 billion. In recent years, US trade policy has shifted from emphasizing free trade to focusing on fairness, with an increased focus on reciprocal openness in service sector. As of 2023, the US had signed FTAs with 20 economies,[10] promoting new rules in areas such as digital trade, intellectual property, government procurement, state-owned enterprises, and regulatory consistency, while maintaining restrictions in more sensitive areas like audiovisual services, shipping, and maritime transport.

The United Kingdom shows a generally open trend in its service sector, with service trade rising to the second largest globally. In 2023, service imports and exports reached $978.16 billion, an 18.1 percent increase year-on-year, moving from fourth to second place globally, behind only the US, with both exports and surpluses ranking second worldwide. Following Brexit, the UK has aimed for a "Global Britain" strategy, actively joining high-standard FTAs and participating in the formulation of high-standard rules for service trade, officially joining the CPTPP in August 2023. The UK provides national treatment for foreign investors, intensifying regulatory reforms in service sector, reducing regulatory barriers, and enhancing its attractiveness to foreign capital. However, in key areas like construction, it implements protective measures through industry standards.

Japan has a relatively high level of openness in its service sector, with increased competitiveness in service trade. In 2023, service imports and exports totaled $432.14 billion, growing 13.3 percent year-on-year, ranking tenth globally. It recorded a deficit of $23.45 billion, down 44.6 percent from the previous year. Under the WTO's General Agreement on Trade in Services, Japan has committed to opening 123 service sectors. By 2023, it had signed or had in effect 21

8 According to data from the US Bureau of Economic Analysis, foreign investment in the service industry accounted for over 35 percent in 2023.

9 Source from WTO Stats, https://stats.wto.org/. Data for other economies, unless otherwise specified, are also sourced from the WTO Stats.

10 Data source from the *Guidelines for Foreign Investment and Cooperation: The US (2023 Edition),* issued by the Ministry of Commerce of China.

FTAs,[11] including major agreements like the CPTPP and RCEP. To protect its domestic market, Japan sets up invisible barriers to foreign investment through industry regulations, technical standards, unique business practices and trading customs.

Hong Kong SAR, China ranks among the world's leaders in service sector openness and trade liberalization. Hong Kong SAR, China operates as a free-market economy, implementing free trade policies and an open investment system, treating all investors equally with no discriminatory or protective measures. Its financial, legal, and judicial systems align with international norms, establishing it as a major global financial, trade, shipping, and multinational operation hub. Hong Kong SAR, China employs a regulatory framework that combines government rules with industry self-discipline, ensuring fairness, transparency, and efficiency (see box 9.1).

Box 9.1 Opening-up of service industry in global free ports

Hong Kong SAR, China as well as Singapore and Dubai of the United Arab Emirates are typical global free ports, characterized by the principles of the "Six Freedoms" and the "Three Taxes."

The "Six Freedoms" refer to the free and convenient trade of goods, free and convenient trade of services, free and convenient investment, free movement of capital, free movement of people, and free flow of data. These freedoms fully highlight the openness of the service industry and a high degree of service trade liberalization in global free ports.

At the same time, free ports implement the "Three Taxes" principle of zero tariffs, low tax rates, and simplified tax systems, attracting a high concentration of global participants in the service industry and service trade. Hong Kong SAR, China as well as Singapore, and Dubai of the United Arab Emirates are all renowned international centers for financial, trade, and shipping.

Hainan is the first free trade port in the Chinese mainland, drawing on global free port development experiences. It actively establishes a policy and institutional framework that facilitates the five freedoms: trade, investment, cross-border capital flow, movement of people, and transportation, while ensuring the orderly flow of data. Moreover, it has increased openness in key service sectors such as tourism, transportation, exhibitions, healthcare, technology services, finance, and telecommunications.

By 2025, Hainan free trade port (FTP) will enter a new phase of comprehensive customs closure and operation across the island, fully aligning with high international standards for economic and trade rules and promoting a high level of institutional openness in the service trade sector.

China's service sector openness has become a key component of its overall openness. From 2012 to 2023, service imports and exports increased from $482.9 billion to $933.1 billion, with an average annual growth rate of 6.2 percent,[12] surpassing the 2.2 percent average growth of goods trade during the same period. Service sector attracted significant foreign investment, rising from

11 Data source from the *Guidelines for Foreign Investment and Cooperation: Japan (2023 Edition),* issued by the Ministry of Commerce of China.

12 Source from the Ministry of Commerce of China.

$60.27 billion in 2012 to $111.92 billion in 2023, with an average annual growth rate of 5.8 percent, outpacing the national average of 2.3 percent. The share of service sector in total foreign investment rose from 53.9 percent to 68.6 percent.[13] Positive progress has been made in opening key sectors such as finance. As of 2023, foreign banks established 41 legal entities, 116 branches of foreign banks, and 132 representative offices in China, totaling 888 operational entities with total assets amounting to RMB 3.86 trillion. Additionally, foreign insurance companies have established 67 operational entities and 70 representative offices, with total assets reaching RMB 2.4 trillion, accounting for 10 percent[14] of the insurance market share. International cooperation in service sector has deepened, with China having signed bilateral service trade cooperation agreements with 15 countries, digital economy investment cooperation memoranda with 13 countries, and bilateral e-commerce cooperation memoranda with 30 countries by 2022 (see box 9.2).[15]

Box 9.2 Comprehensive pilot demonstration for easing opening-up of China's service industry

The comprehensive pilot demonstration for expanding openness in the service industry is a significant initiative by China to promote the opening up of its service sector. The pilot demonstration focuses on "openness" as its theme and "industry" as its main line of development, launching seven rounds of 15 pilot plans and over 1,300 pilot tasks. This effort aims to establish a fundamental framework for expanding openness in the service industry that aligns with international rules and optimizing the ecological development of industries.

Optimizing and improving the open layout. The pilot demonstration began in 2015, with Beijing as the first city for comprehensive service industry openness. By the end of 2023, the pilot demonstration has undergone one upgrade and two expansions, now covering 11 provinces and municipalities, including four directly governed municipalities, Hainan Province, and six sub-provincial cities. This has effectively created an open layout that spans the southeast, northwest, and central regions, leading industrial development.

Continued easing of market access in service industry. The pilot demonstration has progressively promoted the opening of 13 key industry sectors, including technology, telecommunications, culture and tourism, and finance. It has fostered new models and business formats, such as the digital economy and green circular economy. A number of high-quality enterprises have established operations, including the country's first foreign-controlled aircraft maintenance company, foreign-controlled securities companies, wholly foreign-owned currency brokerage firms, and fully foreign-owned licensed payment institutions, as well as Sino-foreign joint venture insurance groups.

13 Source from the Ministry of Commerce of China.

14 Data source from the press conference on "Financial Services for High-Quality Economic and Social Development" held by the State Council Information Office of China on January 25, 2024, http://www.scio.gov.cn/live/2024/33261/tw/index.html.

15 Source from the Ministry of Commerce of China.

Ongoing innovation in systems and mechanisms. The pilot demonstration has leveraged local pioneering spirit and engaged in differentiated exploration. For example, Beijing has focused on key core technology R&D, the digital economy, and financial services for the real economy, implementing over 90 policy innovations. Hainan has established the country's first outbound data transfer management system and launched cross-border medical insurance covering special medical services and medicines. Nanjing has introduced a series of policy measures to support industries such as integrated circuits and biomedicine. By the end of 2023, the pilot demonstration has distilled nine batches of over 190 innovative achievements, which have been promoted nationwide.

Brazil has achieved notable success in international cooperation within service sector. In 2023, the total value of service imports and exports reached $127.99 billion, marking a growth of 6.5 percent. The tourism sector is continually recovering, with data from the United Nations World Tourism Organization (UNWTO) indicating that Brazil welcomed approximately 6 million international tourists in 2023, a 62.7 percent increase, and international tourism revenue reached $6.9 billion, up 41 percent,[16] making Brazil the leading destination in South America. As a developing economy, Brazil has a relatively advanced service sector with a high level of openness, with the exception of a few areas such as postal and telegraph services, media, healthcare, and finance.

South Africa is continuously deepening its openness in service sector. In 2023, service imports and exports amounted to $32.61 billion, an increase of 6.1 percent. Africa serves as a strategic focus of South Africa's trade policy, which aims to regional integration through the Southern African Development Community and customs unions, while also signing agreements with the East and Southern African Common Market and East African Community. Economic partnership agreements with the EU and others promote cooperation between South Africa and other economies in service sector. South Africa actively encourages foreign investment in areas such as information and communication technology, business services, and transportation, but cautious openness in strategic sectors like banking, broadcasting, and telecommunications.

Vietnam actively aligns with international high-standard rules. In 2023, service imports and exports reached $48.65 billion, a year-on-year increase of 18.8 percent, exceeding the global average growth rate by 10 percentage points. Vietnam is proactive in signing high-standard FTAs with developed economies to deepen service sector openness. It has signed 15 FTAs,[17] including the CPTPP, RCEP, EU-Vietnam FTA, UK-Vietnam FTA, and Rep. of Korea-Vietnam FTA. Concurrently, Vietnam is accelerating domestic reforms and regulatory frameworks, revising laws such as the Insurance Law, amendments to the Insurance Law, the Intellectual

16 Source from Song Yiran, "Brazil Implements Multiple Measures to Boost Tourism," *People's Daily* (February 28, 2024): p. 15.

17 Data source from the *Guidelines for Foreign Investment and Cooperation: Vietnam (2023 Edition),* issued by the Ministry of Commerce of China.

Property Law, the Education Law, and the Construction Law, while establishing the Law on International Treaties to facilitate the implementation of high-standard rules.

India is gradually and flexibly advancing the openness of its service sector. It is one of the only two developing economies among the world's top ten in service trade, alongside China. In 2023, service imports and exports totaled $592.86 billion, growing 6.1 percent and ranking ninth globally.[18] With the advancement of economic liberalization reforms, India has continuously deepened its openness in service sector. Since joining the WTO, India has revised its commitments to service sector openness several times. It has gradually relaxed foreign access in sectors where it has competitive advantages, such as software and telecommunications, although the breadth and depth of openness in areas like finance, healthcare, and distribution still require improvement.

III. Steady Progress of Cooperation on Opening-Up in Key Areas

In recent years, global cooperation in the service industry has focused primarily on tourism, transportation, finance, telecommunications, professional services, and culture.

Tourism services. First, there has been a significant increase in openness. The UNWTO's 2023 Tourism Visa Report[19] indicates that in 2023, the proportion of travelers requiring traditional visas dropped to 47 percent, down from 77 percent in 2008 and 59 percent in 2018. Additionally, 14 percent of the global population can now apply for visas on arrival, up from 6 percent in 2008, and the proportion of those eligible for e-visas has risen to 18 percent, compared to 7 percent in 2018. The Asia-Pacific region leads in international tourism openness; for instance, China has implemented several visa optimization measures, including a trial visa exemption policy for travelers from Switzerland, Ireland, Hungary, Austria, Belgium, and Luxembourg starting on March 14, 2024. Second, digital enhancements are improving travel convenience. New initiatives such as "digital nomad visas" cater specifically to remote workers and freelancers, allowing them to reside and work abroad for limited periods. Currently, over 60 countries have launched digital nomad visas, with the global population of digital nomads reaching 35 million.[20]

Transportation services. First, there are divergent developments in global ports. In 2023, the cargo throughput of major global ports increased by 4.6 percent, reflecting a 3.7 percentage point[21] improvement compared to 2022. However, port development varies significantly by region: while demand in developed economies has declined, developing economies have emerged as the primary drivers of global port throughput growth. The development of different product

18 Source from WTO Stats, https://stats.wto.org/.

19 UNWTO, https://www.unwto.org/news/un-tourism-reports-openness-is-back-to-pre-pandemic-levels.

20 Source from the UNWTO's 2023 Tourism Visa Report.

21 Source from Global Ports Development Report (2023), released by the Shanghai International Shipping Research Center, http://www.sisi-smu.org/2024/0523/c8807a234827/page.psp.

categories at ports also shows divergence, with container throughput stagnating at 861 million twenty-foot equivalent units (TEUs),[22] a slight decline of 0.2 percent, while bulk cargo surged to 5.508 billion tons, marking a 3.9 percent increase. Second, airline recovery has been driven by the restoration of routes. International air connectivity (global flight frequency) increased by 28 percent[23] in 2023. The industry saw a 41.5 percent growth in international passenger traffic, with the Asia-Pacific region experiencing the strongest growth at 126.1 percent.[24] Despite a 4.6 percent decline in global merchandise exports due to a sluggish economy and geopolitical tensions, air cargo ton-kilometers saw a modest decline of 1.9 percent, with month-to-month performance showing steady improvement. In January, there was a decline of 17.0 percent, while in December, there was an increase of 10.7 percent.

Financial services. First, there are significant disparities in openness among economies. According to the Chinn-Ito Index (KAOPEN),[25] the average KAOPEN value for developed economies was 1.36 in 2021, compared to -0.23 for emerging markets and -0.16 for developing economies. Within developed economies, there are notable differences, with the highest score at 2.30 and the lowest at –1.93, with the US, Germany, the UK, and Japan being the most open. Trends indicate a slight increase in financial openness among developed economies, rising from an average of 1.34 in 2019 to 1.36 in 2021, while the openness levels of emerging markets and developing economies remained unchanged. Notably, Algeria and Belarus experienced the fastest increases in openness, with their KAOPEN values rising by 1.08 in 2021. Second, high-level openness rules are extending into new financial domains. The use of digital technologies has given rise to new financial services, including digital currencies, digital banking, digital insurance, digital payments, and blockchain finance. Currently, over 110 countries are exploring the application of central bank digital currencies,[26] with China leading the world in digital payment adoption. International high-standard trade rules explicitly state that if domestic financial institutions are allowed to offer a new service, foreign institutions must also be permitted to do so.

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22 TEU is the most commonly used unit for measuring container throughput, referring to the number of standard 20-foot-long containers.

23 Data source from Global Outlook for Air Transport, issued by the International Air Transport Association, https://www.iata.org/en/iata-repository/publications/economic-reports/global-outlook-for-air-transport-june-2024-report/.

24 Data source from the Annual Review 2024, issued by the International Air Transport Association, https://www.iata.org/en/publications/annual-review/.

25 Considering data availability, this chapter mainly analyzes global financial openness based on the degree of capital account openness. The Chinn-Ito index (KAOPEN) is an index used to measure a country's level of capital account openness, based on binary dummy variables and compiled from the IMF's list of restrictions on cross-border financial transactions. A higher KAOPEN index value indicates a higher degree of capital openness for a country. As of September 2024, the latest data has been updated to 2021.

26 Georgieva, K., "Central Bank Digital Currency: Emerging Good Practices," remarks by the IMF Managing Director at the IMF-Singapore Regional Training Institute (STI)'s 25th Anniversary Event (November 14, 2023), https://www.imf.org/en/News/Articles/2023/11/14/sp111423-mdremarks-sti25th.

Telecommunications services. First, developed economies generally have a higher level of openness than developing economies. Developed economies are gradually expanding foreign investment opportunities in the telecommunications sector, particularly in value-added services. While developing economies are also advancing telecommunications openness in line with global digital trends, they still lag behind developed economies in terms of competition barriers and foreign investment access. Second, new challenges arising from openness should be given more attention. While increased openness in telecommunications supports rapid global digital economic growth, it also raises new issues related to personal privacy, cybersecurity, and information safety. The digital divide is widening; in 2023, 5G coverage reached 40 percent of the global population, but distribution is uneven, with high-income countries covering 89 percent and low-income countries only about 10 percent.[27] These challenges require collaborative solutions from all nations.

Professional services. First, the fields of law and accounting have low levels of openness. According to the OECD's STRI, legal and accounting services rank second and third among 22 sectors in terms of restriction levels, just behind air transport. The most open countries in the legal field are Costa Rica, Latvia, and Chile, while Poland, India, and Indonesia have the highest restrictions, particularly Poland, which is fully closed to foreign investment in legal services. In accounting, the most open countries are Chile, the Czech Republic, and Latvia, whereas Thailand, Rep. of Korea, and India impose the highest restrictions, with Thailand and Rep. of Korea being nearly closed to foreign investment. Second, there should be an encouragement to enhance mutual recognition of professional qualifications. High-standard trade rules actively promote dialogue among economies regarding the recognition of professional qualifications, licenses, or registrations, facilitating the acceptance of foreign qualifications and simplifying licensing or registration for foreign professionals, such as mutual recognition of engineering and architectural design capabilities.

Cultural services. First, there are diverse attitudes toward cultural openness. The US treats cultural industries similarly to other sectors, advocating for free and open policies. In contrast, countries like Canada and France emphasize the ideological aspects of culture, prioritizing the protection of their cultural industries and restricting foreign investment in cultural industries. Developing economies tend to be more cautious about cultural openness, with countries like Vietnam, Mexico, and Russia imposing limitations on foreign investment in broadcasting, film, and recording. Second, there is a focus on protecting national culture. France prioritizes the protection of cultural heritage and values, prohibiting the use of cultural heritage for overt commercial activities. Germany has established a unified heritage management agency to enhance the protection of cultural heritage. India views cultural heritage as vital for national memory and identity, strengthening protection through funding and talent development initiatives.

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27 International Telecommunication Union, "Measuring Digital Development: Facts and Figures 2023" (2023), https://www.itu.int/dms_pub/itu-d/opb/ind/d-ind-ict_mdd-2023-1-pdf-e.pdf.

IV. Deepening Cooperation on Opening-Up of Service Sector

Cooperation in service sector is becoming an essential force for driving global economic development and enhancing global governance. All parties should strengthen policy coordination, promote the integration of rules, regulations, management, and standards in service sector, advance cooperative mechanisms and platform construction, and effectively improve the environment and conditions for service trade development, thereby providing sustained momentum for global cooperation in the service industry.

1. Creating an open and inclusive environment for international cooperation

All parties should proactively expand openness in service sector based on their own advantages and needs. This includes optimizing the domestic service development environment, reducing entry barriers and removing post-entry obstacles. Efforts should be made to implement the WTO's Reference Paper on Services Domestic Regulations, streamline domestic approval processes for services and service trade, and enhance transparency and predictability. Facilitating cross-border flow of capital, technology, data, and talent, as well as increasing international investment in service sector, will help create an open, fair, just, and inclusive cooperative environment.

2. Cultivating new momentum for cooperation on opening-up of service sector

Strengthening international cooperation in the digital realm is crucial for closing the "digital divide" and enabling countries to share new opportunities for development in the digital age. Joint efforts should be made to promote emerging technologies such as AI, big data, and blockchain, thereby empowering service sector and service trade, and fostering the development of new models and business models. Grasping green development opportunities, service sector and service trade should advance toward low-carbon, environmentally friendly, and sustainable practices. Cooperation in energy conservation, environmental protection, and green finance should be reinforced to promote the development of green services trade.

3. Exploring new rules on opening-up of service trade

Enhancing multilateral and regional frameworks for service sector openness and trade rules is essential. At the multilateral level, support should be given to the WTO to advance service trade negotiations, accelerating the conclusion of key e-commerce discussions. At the regional level, strengthening discussions on labor mobility, mutual recognition of qualifications, and industry standard-setting is crucial. Joint efforts should focus on developing practical international rules in key areas such as government procurement, intellectual property, digital trade, sustainable trade, and finance.

CHAPTER 10

CIIE as a Public Platform for Promoting Global Cooperation on Opening-Up

The CIIE leverages China's vast market advantages and serves as a vital platform for international procurement, investment promotion, people-to-people exchanges, and openness and cooperation. Since its inception, CIIE has significantly contributed to the establishment of a new development pattern and advancing global economic growth.

Over its six successful editions, CIIE has built a broad network of partnerships, alleviating development challenges, strengthening collaboration, promoting innovation, and sharing benefits through openness, thus showcasing its attributes as an international public good, truly benefiting the world through this exhibition. The concurrently held Hongqiao International Economic Forum (Hongqiao Forum) provides an authoritative platform for diverse stakeholders to collaboratively explore solutions to global openness challenges. CIIE and the Hongqiao Forum complement each other and have established themselves as crucial links between China and the world in market connectivity, industrial integration, cultural exchange, and ideological dialogue.

I. CIIE Promotes Global Cooperation on Opening-Up

For six consecutive years, CIIE has transformed exhibits into commodities and exhibitors into investors, fostering the exchange of ideas and innovation while bridging China and the world. CIIE has fully showcased its impact through trade, spillover, outreach, and demonstration effects. The role of its four major platforms—international procurement, investment promotion, cultural exchange, and open cooperation—has become increasingly prominent, making the CIIE an international public good shared globally.

1. Facilitating global trade for significant outcomes

Joint efforts have been made to drive both supply and demand sides. On the supply side, the exhibition area has expanded from 270,000 square meters in the first edition to 367,000 square meters in the sixth edition, showcasing around 2,500 new products, technologies, and services. Notably, over 440 of these were global, Asian, or Chinese premieres. On the demand side, trade delegations conducted a series of efficient and practical activities to expand procurement. The Shenzhen delegation provided extensive international import-export services for businesses, with nearly 1,800 companies participating, a 28.6 percent year-on-year increase. The Beijing delegation organized matchmaking sessions between buyers and exhibitors, leading to 115 intended orders from buyers across 24 countries and regions. The Shanghai Procurement and Cooperation delegation provided services to more than 100 chambers of commerce, achieving an intended procurement volume of RMB 618 million. As preparations for the seventh CIIE were underway, the CIIE Bureau organized roadshows in cities such as Yangzhou and Wenzhou to optimize services and enhance the experience for global businesses, and streamline procurement channels for global enterprises.

Optimizing international procurement network. CIIE opens up a vast domestic market to the world, tapping into China's 1.4 billion population, a middle-income group of 400 million and 163 million market participants. By leveraging the advantages of China's vast market, the CIIE attracts global resources and elements, continuously strengthening the material foundation for global development. CIIE's cumulative intended transaction amount has risen from $57.83 billion in its first edition to $78.41 billion in the sixth, totaling over $420 billion across the first six editions. This event has successfully facilitated precise matching in the global procurement market, allowing multiple suppliers to negotiate with various distributors and select high-quality products online. The CIIE's online "Supply and Procurement Hall" offers functions such as "Information Release," "Trade Matching," "Event Matching," and "Itinerary Arrangement." These functions enable enterprises to access supply and demand information, achieve intelligent supply-demand matching, and schedule online meetings, thereby facilitating efficient communication and cooperation. The CIIE's positioning as an international public good—"buying globally, selling globally, and benefiting globally"—is increasingly reinforced.

2. Enhancing investment cooperation to facilitating positive spillover effects

Announcing significant measures for openness. The CIIE has become a crucial platform for showcasing China's investment promotion policies. Since the inaugural CIIE, a series of significant measures have been announced, including the Foreign Investment Law, reducing the negative list for foreign investment access, the revision and expansion of the Catalog of Industries for Encouraging Foreign Investment, and further ease of market access. These major initiatives have been gradually implemented, resulting in a more optimized environment for foreign investment. The fifth CIIE introduced a special 6,000-square-meter section titled "Transforming Exhibitors

into Investors" to celebrate its fifth anniversary. In the sixth CIIE, the inaugural "Invest in China Year" was launched, featuring investment promotion activities focused on the free trade zone (FTZ), as well as a roundtable for foreign enterprises. These initiatives showcased best practice cases of successful foreign investments, enhancing the confidence of global investors in investing in China.

Building a reciprocal cooperation platform. Over the past six years, the CIIE has emerged as a dynamic international cooperation platform, truly realizing the goals of "working together to make the pie of the global market even bigger, strengthening the mechanisms for sharing benefits globally, and exploring new ways of international cooperation." It has become an important choice for global enterprises seeking long-term partners. The sixth CIIE saw participation from 154 countries, regions, and international organizations, with over 3,400 exhibitors and nearly 420,000 registered professional visitors, including around 300 Fortune Global 500 and industry-leading companies. The CIIE's network continues to expand, enhancing its role as a hub for promoting global industrial and technological exchanges, facilitating the flow and reorganization of market factors, driving the clustering and optimization of supply chains, and maintaining stable regional economic growth (see box 10.1).

Box 10.1 CIIE held a series of local investment promotion events

CIIE Goes to Chongqing. In April 2024, the CIIE hosted the trade and investment promotion event in Chongqing, attracting a total of 117 companies and institutions, including Metro, Samsung, JBS, Panasonic, Bayer, the Korea Small and Medium Enterprises Agency, the Association of German Chambers of Commerce, and the Australian Trade and Investment Commission. The event attracted 188 guests, including 81 representatives from Fortune 500 firms or industry leaders.

In addition to the trade and investment promotion conference and specialized industry matchmaking sessions, the event featured roundtables for foreign enterprises, collective meetings, and on-site visits. These activities effectively strengthened communication and cooperation between Chongqing and Fortune 500 companies, multinational corporations, and renowned business associations, significantly enhancing the level of openness. As a result, several well-known multinational companies expressed their desire to expand investment in Chongqing, while local enterprises established multiple cooperation intentions and found partners during the event.

CIIE Goes to Guangxi. In July 2024, the CIIE hosted the trade and investment promotion event in Nanning, Guangxi, inviting 110 foreign businesses and investment promotion agencies to participate online and off-line, including over 70 Fortune 500 and industry-leading companies.

The activities focused on sectors such as electronic information, green chemicals and new materials, automotive and equipment manufacturing, biomedicine and medical devices, as well as food processing and light textiles. Entrepreneur representatives highlighted Guangxi's unique geographic advantages and significant development potential, noting the event deepened their understanding and communication with Guangxi, further enhanced resource matching and cooperation, and contributed to high-quality development in Guangxi while achieving their own growth.

3. Gathering innovation resources for Significant radiating effects

Bring together industrial innovation factors. The CIIE leverages China's global leadership in manufacturing and consumption to promote the free flow and efficient allocation of innovative resources worldwide. Committed to the principle of "comprehensive exhibition and specialized management," the CIIE effectively integrates and optimizes global industrial innovation resources. The exhibition covers both goods trade and service trade, balancing production and consumption. It not only highlights the products, technologies, and services needed by the Chinese market but also attracts high-quality international resources eager to enter China, creating a comprehensive and in-depth space for display and exchange that serves as a strong driving force for industrial upgrading and technological innovation (see box 10.2).

Box 10.2 Specialized exhibition areas of leading innovation ecosystems

- **Service trade exhibition area drives digital and GX.** The sixth CIIE's service trade exhibition area includes both productive and life services. Productive services encompass financial services, consulting, logistics, supply chain management, and comprehensive services, while life services cover cultural services, tourism, education, entertainment, and licensing. This area addresses the entire life cycle of commercial activities by integrating business flow, logistics, information flow, and capital flow. It features dedicated sections for financial services, consulting, trade platforms, shipping logistics, and cultural tourism. Focusing on new technologies related to green carbon reduction, supply chain stability, and the digital future, it aims to drive digital transformation across industries. Additionally, it provides intellectual support and client conversion opportunities for the five main physical exhibition areas, continuously empowering the real economy through the exhibitor alliance.
- **Medical devices and healthcare exhibition area showcases cutting-edge achievements.** The sixth CIIE's medical devices and healthcare area prioritizes the theme "Health: Sharing a Better Life," focusing on building a healthy China. This area highlights the latest trends and pressing issues in the global healthcare sector, presenting international innovations in medical products, advanced technologies, and related services. Exhibits cover a wide range of fields, including pharmaceuticals, medical devices, nutritional health foods, medical beauty, medical tourism, medical technology, medical services, and healthcare. Two special sections are dedicated to elderly care and public health prevention and control. The exhibition brings together the world's top ten medical device companies and ten Fortune 500 pharmaceutical firms, with new product releases spanning four main themes: medical devices, pharmaceuticals, health products, and elderly care.

Introducing future industry carriers. The CIIE features multiple exhibition areas that provide exhibitors with a platform to showcase cutting-edge technologies and products. Numerous innovative products and technologies representing future industries—such as smart manufac-

turing, green energy, biotechnology, and new materials—make their debut at the expo. This offers participating companies valuable opportunities to learn from and draw inspiration from one another, fostering deep integration and collaborative innovation between domestic and international industries. Such efforts create a conducive international environment for developing new quality productive forces and advancing the future of industry (see box 10.3).

Box 10.3 Specialized exhibition areas attracting new dynamics for future industries

Technology and equipment exhibition area showcasing future technologies. The technology and equipment exhibition area at the sixth CIIE highlighted high-end equipment and cutting-edge technologies, covering nearly 70,000 square meters and attracting 377 companies from 40 countries and regions, including 77 Fortune 500 firms and industry leaders. The area featured four key sections: low-carbon and environmental technologies, digital industrial automation, integrated circuits, and AI, along with other categories such as metal cutting, engineering and agricultural machinery, industrial finished products, and optical printing. This comprehensive showcase provided a high-end platform for global manufacturing to display and exchange ideas.

Innovation incubation zone nurturing innovative capabilities. The sixth CIIE's innovation incubation zone, themed "Global Innovation, Co-creating the Future," featured projects from the automotive, equipment manufacturing, consumer goods, and medical sectors, showcasing 300 projects from 36 countries and regions. This zone exclusively accepted applications from unlisted, growth-oriented, and innovative companies in the seed, startup, or growth stages, offering discounted exhibition rates to support their development needs. The zone not only provided a platform for startups to display their products and network, but also offered venture capital firms and media opportunities to discover and invest in innovative projects. Through this platform, numerous innovative technologies and products were showcased and promoted in the Chinese market, fostering global cooperation and development in technological innovation.

4. Promoting people-to-people bond and highlighting demonstration effects

Showcasing China's rich traditional culture. The CIIE has continuously improved its efforts to promote China's outstanding traditional culture. From establishing the CIIE Cultural Exhibition Center in its first year to setting up the National Exhibition Cultural Creative Pavilion in the second, the event has featured 75 cultural public performances, showcased 239 intangible cultural heritage projects, and highlighted 275 time-honored brands during its fifth edition. It has also developed various cultural creative products. The total display area for cultural exchange activities increased to 32,000 square meters in the sixth edition, with the number of participating provinces and exhibition booths reaching new highs. The China Pavilion expanded to 2,500 square meters, fully showcasing the charm and vitality of Chinese culture.

Introducing international artistic treasures. The sixth CIIE's section on cultural relics and artworks featured the largest scale in its history, with 18 overseas exhibitors from countries and regions including the UK, the USA, Singapore, and Hong Kong SAR, China. This edition featured top international institutions and auction houses specializing in cultural relics and artworks. Covering over 3,000 square meters, the exhibition showcased 131 items, of which 57 were cultural relics. The CIIE highlights the diversity of human civilization, reflecting mutual respect, shared learning, and harmonious coexistence among nations, thereby fostering a more powerful collective cultural force that propels the world toward a brighter future.

II. Hongqiao Forum Delivers Strong Messages for Global Cooperation on Opening-Up

The Hongqiao Forum, held concurrently with the CIIE, focuses on key topics such as global openness and governance. Its goal is to facilitate exchanges, build consensus, and enhance the function of international public goods. The forum's agenda is globally relevant and forward-looking, addressing not just trade and economic issues but also the core challenges to global prosperity and development. Since its sixth edition, the forum has structured its themes around four parallel sessions: "Opening Up for Development," "Cooperation on Opening Up," "Innovation by Opening," and "Opening Up for Sharing." These sessions invite participation from governments, businesses, academia, and research institutions worldwide to discuss strategies for openness and collaboration.

1. Opening up for development: Exploring paths to economic recovery

The sixth Hongqiao Forum centered on the theme of economic recovery, actively addressing international concerns regarding development. The forum emphasized green investment and trade to promote global ecological civilization, with the aim of enhancing the resilience of global supply chains to ensure steady economic growth. It also highlighted opportunities for shared development in agricultural service trade and emphasized the need for financial resources to better serve the real economy, thereby further supporting recovery and sustainable growth. For instance, the subforum titled on "Driving Green Investment and Trade to Jointly Build Global Eco-Civilization" explored the balance between trade development and environmental protection, with participants noting that green trade investment is emerging as a new driving force for global development, crucial for enhancing the resilience of international supply chains and promoting ecological civilization. Several international companies shared their practices and experiences in sustainable development and responses to climate change, providing valuable insights for exploring global economic recovery.

2. Cooperation on opening up: Discussing solutions to global governance

China advocates for the equal and mutually beneficial participation of all countries in global governance, actively promoting economic cooperation and exchanges to facilitate trade and investment liberalization. The sixth Hongqiao Forum delved into issues such as deepening regional collaborative innovation, carrying out international standards cooperation, and new platforms and practices for international cooperation under the BRI. For instance, the subforum titled "International Cooperation on Standards for Prosperous Global Market" convened leaders from international standardization organizations and standardization agencies from the US, UK, and other countries to discuss cooperation, particularly focusing on how standards for new energy vehicles can contribute to the global automotive market. During this period, the State Administration for Market Regulation also held a ceremony to launch foreign language versions of nearly 400 national standards, which will have a positive impact on trade facilitation and international cooperation. The interactive discussions at the Hongqiao Forum offered additional insights for deepening policy coordination and collaboratively addressing risks and challenges.

3. Innovation by opening up: Exploring strategies for high-quality development

The sixth Hongqiao Forum concentrated on cutting-edge technologies and governance challenges within the new wave of technological revolution and industrial transformation. Experts from both China and abroad engaged in comprehensive discussions on the transformation and innovation of smart technologies, the opportunities and challenges in future industrial development, facilitating cross-border flows of innovative resources, and international digital governance, as well as the empowerment of enterprises through open innovation. For instance, at the subforum on "Intelligent Technology and Future Industry Development," speakers from government, academia, and business discussed strategic emerging technologies like AI and information technology, exploring opportunities and practical challenges in fields such as general AI, brain science, and brain-inspired intelligence. The insights shared offered valuable references for global innovation and development.

4. Opening up for sharing: Seeking inclusive and win-win outcomes

The sixth Hongqiao Forum, centered on the core concept of open sharing, explored pathways to achieving inclusive development. At the subforum "Understanding New Consumption Trends and Tapping New Consumption Potential," participants discussed how to tap into the vast potential of the consumer market through openness and sharing, while also addressing topics like global economic growth, the silver economy, pharmaceutical safety governance, and intellectual property protection. Participants reached a consensus that open sharing is crucial for capturing consumer market opportunities, ensuring public safety, and harmonizing internation-

al regulations. Outcomes of these discussions provide fresh perspectives for addressing global development challenges.

III. Enhancing Role of CIIE in High-Level Opening-Up

The CIIE will further strengthen its functions in international procurement, investment promotion, people-to-people exchanges, and cooperation on opening up. It will continuously improve its services as an international public good, thereby amplifying its brand influence in China's high-level openness and global collaboration.

1. Supporting new drivers of opening-up

Focusing on digital economy governance. Developing the digital economy is key to seizing opportunities presented by the new round of technological revolution and industrial transformation. The CIIE will focus on exploring key issues such as enhancing the openness of the digital economy, improving digital governance, and promoting international cooperation in this field. It will deepen exchanges both domestically and internationally in areas like digital technology, standards, applications, supervision, and intellectual property, reflecting the latest advancements in consumer digitization, industrial digitization, infrastructure digitization, and the digitization of government and social governance. This aims to contribute to the creation of an open, inclusive, fair, just, and non-discriminatory environment for digital economic development.

Advancing green and low-carbon transformation. The green low-carbon transition has emerged as a new drive for global economic growth. The CIIE aims to serve as a platform for showcasing and fostering collaborating on global cutting-edge concepts, experiences, solutions, products, services, and technologies related to carbon neutrality. It will lead efforts in global green consumption, enhance exchanges and cooperation in fields such as green technology, green finance, green agriculture, and green energy, and propel global green development into the fast lane.

Deepening collaborative innovation. Innovation-driven development is a key driver of sustainable economic growth worldwide. The CIIE aspires to become an important platform for fostering innovation cooperation between China and other countries, advancing technological and institutional innovations. It will enrich the application of scientific and technological innovations, drive industrial upgrades through innovation, enhance the sharing of innovative outcomes, stimulate the vitality of innovation entities, and realize innovation value, thus accelerating the development of a more competitive open innovation ecosystem.

2. Exploring new mechanisms of opening-up

Leading reforms in trade and investment. The CIIE will fully leverage its initiative and autonomy to steadily share institutional openness opportunities in rules, regulations, management, and standards with countries worldwide. It will enhance customs facilitation, reduce institutional costs in import processes, relax market access for foreign trade and investment, fully implement negative list management, strengthen intellectual property protection, improve the foreign-related legal system, and establish a one-stop trading service platform. This will create a more convenient and friendly business environment for market entities globally, thereby lowering transaction costs, improving the efficiency of international division of labor, and enhancing the quality and level of trade and investment cooperation.

3. Providing new opportunities for collaborative development

In-depth research on global economic issues. The world currently faces four deficits: governance, trust, peace, and development. CIIE and the Hongqiao Forum aims to create a vital platform for addressing these critical issues, allowing all parties to voice their concerns and build consensus. They will elucidate China's openness philosophy and the concept of a community with a shared future for humanity. CIIE will continue to support developing countries, especially the least developed ones, in increasing exports to China and integrating into the global economic and trade network, contributing to trade-driven poverty alleviation, narrowing the global development gap, and enhancing overall global welfare.

Striving to build a global think tank. The Hongqiao Forum aims to become a high-level platform for global intellectual exchange, enhancing its capacity to set agendas and track global events timely, accurately, and comprehensively ensuring that each year's themes and topics are more attractive, forward-thinking, and accurately reflect global hotspots. The Forum will enhance its operational capabilities, providing more globally influential public goods and services, strengthening collaborative research on the *World Openness Report*, and deepening partnerships with international organizations. It will invite representatives of influential international organizations, authoritative experts, and business leaders to participate actively, accelerating the exchange and dissemination of "Hongqiao wisdom."

CHAPTER 11

High-Quality Belt and Road Cooperation and Alignment of National Development Strategies

Belt and Road cooperation, robust and fruitful in its first decade, is now imbued with dynamism and vitality. We must embark with renewed drive and enthusiasm on the new journey toward another golden decade. Ten years on, China and participating countries have all along been committed to promoting common development and prosperity, strengthening openness and cooperation, enhancing cultural exchanges and people-to-people bonds, jointly addressing global challenges, and building a global community of shared future. Significant progresses have been made in infrastructure development, regional connectivity, and lifting the development levels of BRI countries, carrying forward the Silk Road spirit. China has contributed its wisdom and expertise to the openness, diversity and stability of the global economy. The BRI adheres to the principle of extensive consultation and promotes the alignment of development strategies among countries, serving as a synergy and driving force for common development, cooperation and a better future.

I. Eight Steps to Support Joint Pursuit of High-Quality Belt and Road Cooperation

At the Third BRF, China announced eight major initiatives aimed at enhancing high-quality Belt and Road cooperation, with the goal of instilling greater confidence and momentum in the prosperity of participating countries.

1. Build a multidimensional connectivity network

China will speed up high-quality development of the China-Europe Railway Express, the construction of the Trans-Caspian international transportation corridor and the Maritime Silk Road to reduce transportation costs and improve logistics efficiency. China will build multiple

international logistics channels such as the new Asia-Europe Corridor to strengthen the resilience of the supply chain. China will build a comprehensive transportation system, to promote economic integration and accelerate regional economic integration. China will actively integrate ports, shipping and trading services under the Silk Road Maritime, and accelerate the building of the New International Land-Sea Trade Corridor and the Air Silk Road. China will leverage the China-Europe Railway Express Cooperation Forum and other platforms, to strengthen dialogue and cooperation among countries, address challenges in transnational transportation, and build an open and transparent cooperation framework.

2. Support an open world economy

China has set up pilot zones for Silk Road e-commerce cooperation. China has lifted all restrictions on foreign investment access in the manufacturing sector. In the past decade, with the accelerated construction of the network of free trade zones along the Belt and Road, China has signed FTAs with more than 20 countries along the route. In July 2024, the FTA between China and Serbia officially took effect.[1] China plans to intensify efforts to build a network of high-standard free trade areas (FTA) based on the surrounding area, expanding through the BRI and engaging with the world.

3. Upgrade the scale and quality of practical cooperation

Provide robust financing support. The China Development Bank and the Export-Import Bank of China will each set up a RMB 350 billion financing window. An additional RMB 80 billion will be injected into the Silk Road Fund. Collectively, these efforts will provide solid and substantial financing support for various BRI projects.

Improve people's livelihood. China will carry out 1,000 small-scale livelihood assistance projects, and enhance vocational education cooperation through Luban Workshops and other initiatives. China-aided pumping wells and community ponds in Cambodia have solved the problem of clean water in rural areas, improved irrigation conditions, and increased crop yields and farmers' incomes.[2] In the future, small-scale livelihood programs will benefit the local peo-

1 The FTA is the 22nd of its kind for China and the first one inked with a central or eastern European country, and it means that Serbia is now China's 29th free trade partner. See Ministry of Commerce of the People's Republic of China, "China Signed a Free Trade Agreement with Serbia" (October 19, 2023).

2 Zhao, Y., "China-aided rural water supply projects playing vital role in improving Cambodia people's livelihoods," *People's Daily* (January13, 2021): p. 3. Another example is China's construction of numerous projects in Seychelles, covering infrastructure and energy, especially the successful completion of the Lagosi Dam renovation project in June 2023, effectively alleviating local water supply shortage and strongly supporting local economic and social development.

ple and promote the simultaneous sustainable development of the regional economy and the environment.[3]

4. Promote green development

Share expertise in green development. China will practice the Green Investment Principles for the Belt and Road and strengthen personnel training. China will enhance cooperation in areas such as national green infrastructure, green energy and green transportation to promote economic growth and environmental protection. For example, the Mombasa-Nairobi Railway has been developed into an ecological and environmental protection road, and the cooperation with Brazilian water resources has addressed the problem of water ecological balance that has plagued the local area for more than 30 years.[4]

Enhance energy security and efficiency. China will invest in photovoltaic power plants, wind farms and other green energy projects to enhance energy security, reduce reliance on fossil fuels, effectively improve energy efficiency, and significantly reduce greenhouse gas emissions. For example, the Zanatas wind power Station in Kazakhstan has utilized China's wind power technology to increase its power generation by 10 percent, providing stable power to the Gobi steppe.[5]

5. Advance scientific and technological innovation

Create an innovation platform to solve global problems. China has signed agreements for scientific and technological cooperation with more than 80 countries, and establishing over 50 joint BRI laboratories, and facilitating more than 1,000 cooperation projects. China offers desertification control training courses, shares anti-desertification technologies, and works with Africa to combat desertification. Looking ahead, the Belt and Road scientific and technological innovation will further align with the Pact for the Future and its annexes, the Global Digital Compact and the Declaration for Future Generations issued by the UN Summit of the Future, and help to address pressing global issues including climate change, food security, ecological protection and poverty. Young scientists from other countries who come to China for short-term work will also receive support.

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3 Tian, R. and Wang, Z., "Walking through Latin America: Feeling the Pulse of Cooperation between China and Small Island Developing States in Anand Bar," *Xinhua News Agency* (May 31, 2024).

4 The Party Committee of State-Owned Assets Supervision and Administration Commission of the State Council, China, "Show the New Responsibility of Central Enterprises in the New Stage of High-Quality Development of the Belt and Road," *Quishi*, no. 23 (2023): pp. 38–42.

5 Gong, M. and Yu, L., "Promoting Green Development along the Belt and Road," *People's Daily* (January 22, 2024): p. 3.

6. Support people-to-people bond

Foster cultural exchange and understanding. China will enhance cultural exchanges via platforms for dialogue among civilizations, such as the Liangzhu Forum. Since 2023, the Chinese Cultural Center in Bucharest, Romania, has been opened, and China has inked cooperation agreements with Italy, Greece, Honduras and other countries to strengthen museum exchanges and protect cultural relics. Moreover, China has signed memoranda of understanding on film and television industry cooperation with Thailand, which serve as platforms and bonds for cultural exchanges, cooperation and deepening friendships among countries. Additionally, we will continue with the Chinese government scholarship Silk Road Program.

7. Promote integrity among BRI economies

Improve transparency and credibility. The official release of the "Achievements and Prospects of Belt and Road Integrity Building" and the "High-Level Principles on Belt and Road Integrity Building" has established a clear cooperation framework and code of conduct for participating countries. For example, China and Laos have established a government-level supervision and coordination mechanism to promote integrity and make the China-Laos railway a "road of friendship, integrity and happiness."

8. Strengthen institutional building for international cooperation

Strengthen the building of multilateral cooperation platforms covering energy, taxation, finance, green development and other fields. By improving risk management, the quality and sustainability of BRI projects will be guaranteed. The BRF and other platforms provide opportunities for dialogue, and the secretariat for the forum provides consistent support. Cultural, think tank and media cooperation platforms help improve the global governance system.

II. Effective Docking of Development Strategies and Cooperation Plans of BRI Economies

Since the BRI was introduced in 2013, BRI countries have actively sought to align their development strategies, enhanced policy communication, deepened economic and trade cooperation, reached a consensus on economic development, and speeded up the realization of national development goals.

For a list of major development strategies of BRI countries and international organizations, see table 11.1.

Table 11.1 Development strategy of selected BRI countries and international organizations

No.	Country or organization	Development strategy
1	Pakistan	National Priority Sectors Export Strategy (2023–2027)
2	Kazakhstan	Economic Course of a Just Kazakhstan
3	Cambodia	Pentagonal Strategy
4	Laos	Convert from a Landlocked Country to a Land-Linked Hub Strategy
5	Mongolia	Steppe Road Program
6	Saudi Arabia	Vision 2030
7	Tajikistan	Three strategies of invigorating the country through "energy, transportation, and food"
8	Turkmenistan	Prosperous and Happy Times Strategy
9	Uzbekistan	Uzbekistan—2030 Strategy
10	Indonesia	Global Marine Fulcrum Strategy
11	Serbia	Re-industrialization Strategy
12	ASEAN	Master Plan on ASEAN Connectivity 2025
13	African Union	Agenda 2063
14	APEC	APEC Connectivity Blueprint
15	The UN	UN 2030 Agenda for Sustainable Development

Source: Organized by the research group according to information on the Internet.

1. Policy alignment

Head-of-state diplomacy propels the alignment of development strategies. Since the BRI was proposed, President Xi Jinping has met and held talks with leaders of participating countries, conducted high-level strategic dialogues, and had in-depth exchanges regarding the BRI and the alignment of major national development strategies.

In 2023, President Xi hosted the BRF and the China-Central Asia Summit, attended three multilateral summits, made four important overseas visits and held more than 100 meetings and phone calls, discussing friendly cooperation with all parties.

In 2024, President Xi Jinping has presided over the Beijing Summit of the FOCAC, the largest host diplomatic event in recent years. He met with leaders from many African countries attending the Forum and jointly announced that bilateral relations between China and all African countries having diplomatic relations with China have been elevated to the level of strategic relation, and the overall characterization of China-Africa has been upgraded to an all-weather China-Africa community with a shared future for the new era.

President Xi held talks with Vietnamese leaders and witnessed the signing of a number of bilateral cooperation documents. The President held talks with the Pakistani Prime Minister to jointly promote the alignment of high-quality Belt and Road cooperation with Pakistan's development plans.

Head-of-state diplomatic engagements have driven the alignment of China's development strategies with those of participating countries, injecting new impetus into deepening international economic and trade cooperation and improving the global economic governance system.

The enhancement of coordination mechanisms continues. The BRI operates on the principles of equal participation and extensive consultation to foster cooperation agreements. The BRF serves as a crucial platform for multilateral collaboration. By the end of 2023, China had inked over 200 cooperation agreements with over 150 countries and more than 30 international organizations, encompassing all continents and major international entities. Aligned with the UN's 2030 SDGs, BRI has been integrated into outcomes documents of the UN, FOCAC, the China-CELAC Forum and other multilateral mechanisms.

Solid progress has been made in rules and standards cooperation. By the end of 2023, China had signed cooperation agreements with standardization agencies and international organizations from over 60 countries, covering areas such as aviation, climate, and agriculture. The Standard Information Platform Contributed by the Belt and Road Countries spans 149 participating countries, publishing nearly 1,400 national standards and more than 1,000 industry standards in foreign languages (see box 11.1).

Box 11.1 China-Vietnam head-of-state diplomacy deepens and consolidates China-Vietnam cooperation

From August 18 to 20, 2024, To Lam, General Secretary of the Communist Party of Vietnam Central Committee and Vietnamese president paid a state visit to China and held talks with President Xi. On the occasion of the visit, Vietnam and China have issued a joint statement on further strengthening the comprehensive strategic cooperative partnership between the two countries and building a Vietnam-China community with a shared future (hereinafter referred as the statement).

According to the statement, the two sides agree to enhance connectivity between their development strategies, effectively implement the cooperation plan connecting the "Two Corridors, One Belt" Framework with the BRI, accelerate the "hard connectivity" in terms of railways, expressways and border gate infrastructure; upgrade "soft connectivity" in smart customs, and provide direction for deepening practical cooperation between China and Vietnam.

Source: Xinhua News Agency, "Xi Jinping held talk with To Lam, General Secretary of the Communist Party of Vietnam Central Committee and Vietnamese president" (August 19, 2024), http://www.cpcnews.cn; The State Council of the People's Republic of China, "Joint Statement of the People's Republic of China and the Socialist Republic of Vietnam on Further Strengthening the Comprehensive Strategic Cooperative Partnership and Advancing the Building of the China-Vietnam Community of Shared Future," *People's Daily* (August 21, 2024): p. 3.

2. Cooperation on industrial and supply chains

Jointly promote infrastructure connectivity. When it comes to strategic docking, China and participating countries has made infrastructure connectivity a priority, actively providing connectivity products in such fields as transportation, energy and telecommunications, with remarkable results in the construction of the six corridors. The six corridors have achieved remarkable results (see box 11.2), and landmark cross-border connectivity projects have seen significant progress. For example, the Gwadar Port in Pakistan and the Piraeus Port in Greece have successfully begun operation; the Mombasa-Nairobi, China-Laos, Addis Ababa-Djibouti and Jakarta-Bandung high-speed railways have been completed; the progress of China-Thailand railway has been advanced; projects including China-Europe land-Sea Express Line have been completed; the China-Myanmar crude oil Pipeline and the Central Asia-China Gas Pipeline Line C have been put into operation; the China-Myanmar, China-Pakistan and China-Kyrgyzstan cross-border optical cable projects have made progress; projects such as the Asia Pacific Submarine Cable has been accelerated, and the BDS has served a number of countries along economic corridors. China has leveraged the advantages of the China-Europe Railway Express and the new western land-sea corridor to connect the local logistics networks of Central Asian and Central Eastern European hub cities (see figs. 11.1, 11.2, and 11.3).

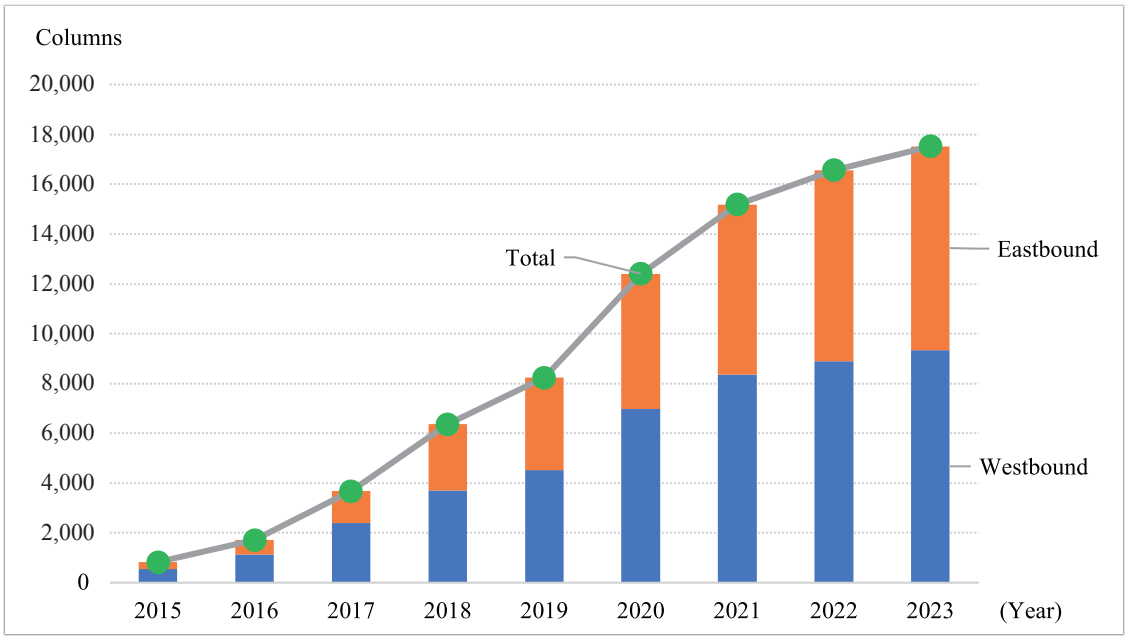

Figure 11.1 Traffic volume of China-Europe Railway Express: 2015–2023

Source: https://eng.yidaiyilu.gov.cn/.

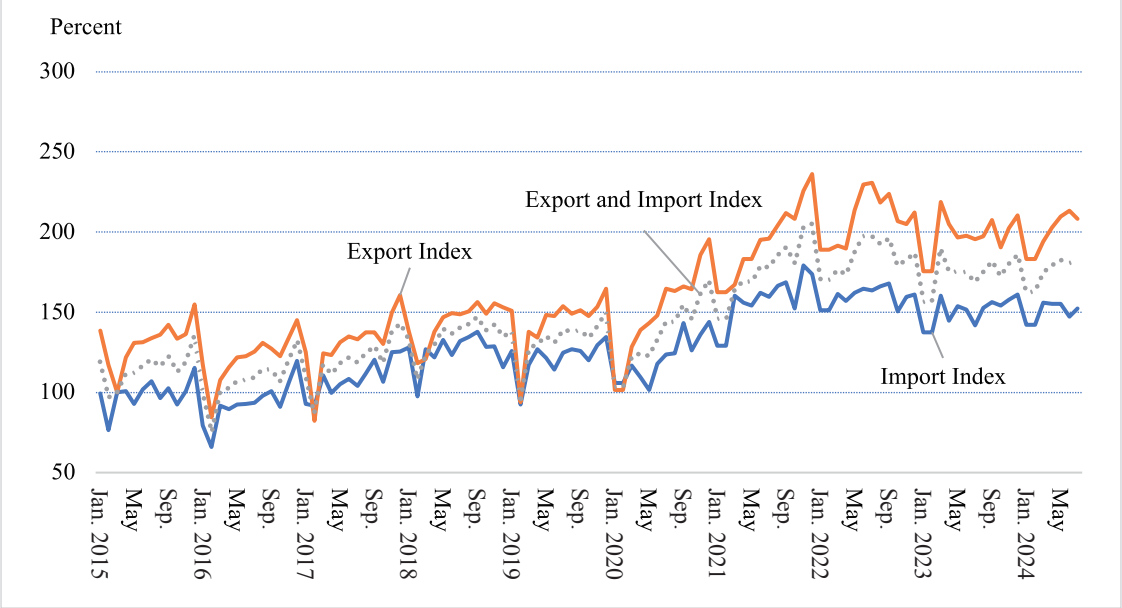

Figure 11.2 Maritime Silk Road Trade Index: Jan. 2015–July 2024

Source: https://eng.yidaiyilu.gov.cn/.

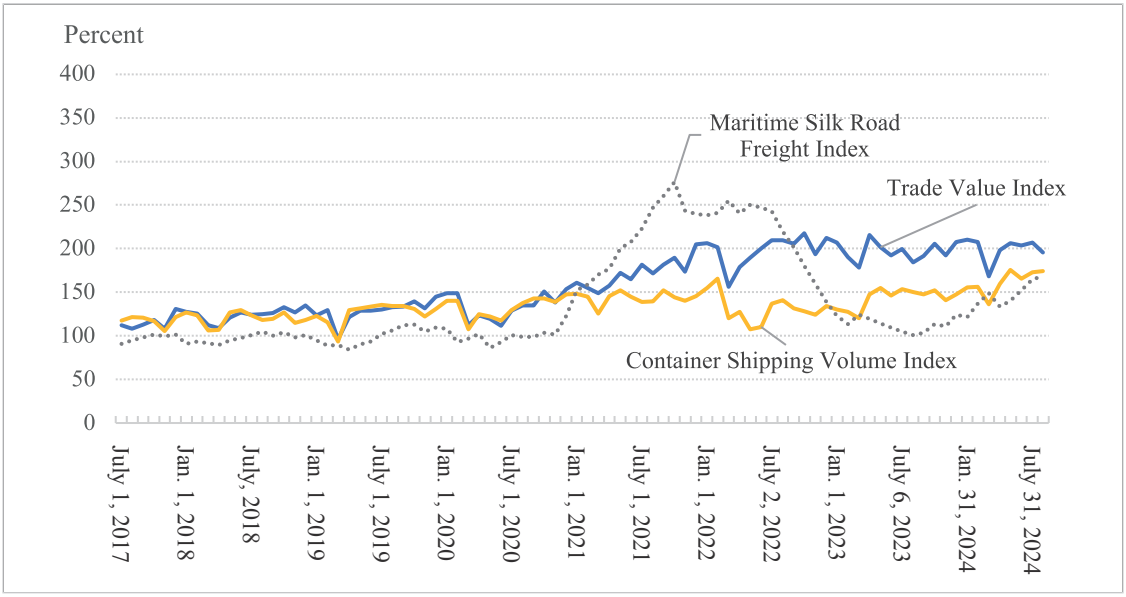

Figure 11.3 Belt and Road Shipping Trade Index: Jan. 2017–Aug. 2024

Source: https://eng.yidaiyilu.gov.cn/.

Box 11.2 The six corridors have achieved remarkable results

The China-Mongolia-Russia Economic Corridor. The Heihe-Blagoveshchensk Highway Bridge and the Tongjiang-Nizhneleninskoye Railway Bridge have opened to traffic, and the China-Mongolia-Russia (Erenhot) cross-border terrestrial cable system has been completed.

The New Eurasian Land Bridge. The Belgrade-Novi Sad Section of Hungary-Serbia Railway in Serbia is now operational, and the Peljesac Sea Bridge in Croatia, a landmark project of China-Croatia Belt and Road cooperation and China-CEEC cooperation, has successfully opened to traffic.

The China–Central Asia–West Asia Economic Corridor. The new railway connecting China, Kyrgyzstan, Uzbekistan and Afghanistan opened; multimodal freight transportation lines are operating on a regular basis; Line A, B and C of the China-Central Asia Natural Gas Pipeline is operating steadily.

The China-Indochina Peninsula Economic Corridor. The first phase of the China-Thailand Railway (Bangkok-Khorat), ten sections of which have started, is under full construction. Mohan Railway Port supervision zone has been completed and put into use, with all eight freight stations in the Lao section in service, freight volume hitting a monthly high.

The China-Pakistan Economic Corridor. The Sukkur-Multan section of the Pakistan Peshawar-Karachi Motorway, Phase II of Karakoram Highway (Havellian to Thakot Section) and Lahore Orange Line have been completed and opened to traffic. The Upgradation of Pakistan Railways existing main Line-1 was approved.

The Bangladesh-China-India-Myanmar Economic Corridor. The Kunming-Dali section of the Trans-Asian railway west line has been opened to traffic, and highways have been built throughout its Kunming-Longling section. The Myanmar-China Oil and Gas Pipelines have been completed and put into operation, and the Padma Bridge and the Dohazari to Cox's Bazar Railway are seeing positive progress.

Promote cooperation among industries with competitive advantages. In the textile industry China and ASEAN countries have engaged in deep cooperation and integrated the production and supply chains. For example, the Sihanoukville Special Economic Zone in Cambodia has introduced 109 enterprises, adding 16,000 jobs; Vietnam's Long Jiang Industrial Park has created 10,000 jobs and many Chinese enterprises have established yarn, dyeing and garment production bases in Vietnam, resulting in remarkable achievements in production and supply chain cooperation.

Enhance collaborative innovation. China collaborates with participating countries to establish platforms for research cooperation, technology transfer, and resource sharing, organize technical training programs, and host young scientists from partner countries for further studies in China. Confucius Institutes and Luban Workshops promote the integration of "soft connectivity" and "hard connectivity." Overseas industrial parks are supported to offer consulting services. Science and technology innovation parks have been built through joint efforts, such as the China-Belarus Industrial Park which actively built an industrialization innovation center of

technological achievements, providing platforms for project incubation and integrating production, finance, and research.

3. Trade cooperation

Significant progress has been made in trade facilitation. In 2023, China's total import and export volume with participating countries reached RMB 19.47 trillion, a year-on-year increase of 2.8 percent, accounting for 46.6 percent of the total trade, both reaching record highs. In terms of trade facilitation, as of May 2024, China had signed Authorized Economic Operator (AEO) mutual recognition agreements with 28 economies, covering 54 countries and regions, ranking first in the world for both the number of agreements signed and the number of countries and regions with which AEO mutual recognition has been achieved. Over 80 countries and international organizations have joined in China's initiative to promote trade facilitation along the Belt and Road (see box 11.3). China actively cooperates in new formats such as cross-border e-commerce to promote B2B exports, encouraging logistics companies like China Post, SF Express, and ZTO Express to collaborate with financial institutions to establish overseas warehouses, so as to enhance overseas logistics capabilities.

Box 11.3 The Thematic Forum on Trade Connectivity of the Third BRF yielded fruitful economic and trade outcomes

Thematic Forum on Trade Connectivity of the Third BRF was held in Beijing, on October 18, 2023. Participants discussed the effectiveness of economic and trade cooperation, sought win-win strategies for cooperation, advocated high-level trade facilitation, and jointly created new spaces for open development.

Over the past decade, a pattern of trade and investment cooperation in which countries jointly participate, develop and benefit from each other has taken shape. It has strongly promoted the free flow of factors and commodities, deep economic integration of countries and continued expansion of common market. For unimpeded trade, the mechanisms have been continuously improved, the platform has been more effective, the environment has been improved, the impetus has been stronger, the channels have been diversified. And cooperation on unimpeded trade has deepened.

The forum proposed that all parties should adhere to the principle of extensive consultation, joint contribution and shared benefits, promote trade cooperation to improve quality and efficiency, improve liberalization and facilitation of trade and investment, ensure the stable performance and smooth operation of global industrial and supply chains, support the innovation of trade forms and models, promote the coordinated development between trade in goods and trade in services, and facilitate the Belt and Road economic and trade practical cooperation to achieve new progress and breakthroughs.

Gerd Müller, Director-General of the UNIDO, said the BRI achieved much in many areas, particularly in infrastructure, trade facilitation and investment promotion, which had made a positive contribution to the global SDG and laid a sound development foundation for the next decade, practical action was needed to address global challenges, and UNIDO was ready for high-quality cooperation with China in more areas.

Justin Yifu Lin, Dean of the Institute of New Structural Economics at Peking University, said that trade is a necessary way to ensure that each country can carry out technological innovation and industrial upgrading in accordance with its comparative advantages to achieve prosperity. The BRI focuses on infrastructure connectivity, making it possible for countries to carry out technological innovation and industrial upgrading, and making it feasible for countries to make full use of both domestic and international markets and resources.

Péter Szijjártó, Minister of Foreign Affairs and Trade of Hungary government, pointed out that the eastern economies are interdependent of and the western economies, "decoupling" is very harmful, "derisking" is the biggest risk. A more prosperous future lies in achieving connectivity by addressing challenges in a cooperative rather than a hostile manner.

Levan Davitashvili, the First Vice Prime Minister, Minister of Economy and Sustainable Development of Georgia, believes that trade connectivity is an important aspect of global economic development, and the BRI has greatly promoted the modern revival of the ancient Silk Road; this forum will bring tangible results and broader regional interests, helping to achieve the goals of BRI.

The forum also launched the Initiative on International Trade and Economic Cooperation Framework for Digital Economy and Green Development, and the Ten Years 2013–2023: China's Trade and Investment Development Cooperation under the BRI.

4. Investment and financing cooperation

The scale of investment cooperation continues to expand. In 2023, Chinese enterprises made direct investment of $31.8 billion in countries jointly building, registering a growth of 22.6 percent. The business volume of contracted projects reached $132.05 billion. The value of newly signed contracts was $227.16 billion, growing by 4.8 percent and 5.7 percent respectively. The stock of direct investment in participating countries exceeded $300 billion. There are over 100 overseas economic and trade cooperation zones, with a cumulative investment of nearly $73 billion. The business volume completed by contracted projects in participating countries totals nearly $2 trillion, accounting for more than 80 percent of the total foreign contracted projects. Chinese enterprises are fully engaged in the construction of major infrastructure in developing countries, effectively improving the conditions for local development strategies and industrialization.

Multilateral financing cooperation platforms are playing a significant role. Multilateral institutions such as the AIIB and the Silk Road Fund provide a stable financing environment for the BRI, guiding capital to engage in the crystalization of development strategies in various countries. As of now, the AIIB has approved nearly 300 projects globally, with a cumulative

financing amount of $53.7 billion and mobilizing over $170 billion in capital. It covers infrastructure projects such as roads, railways, and airports.

International organizations highly commend the effective alignment between the BRI and the development strategies of developing countries. Christine Lagarde, the former managing director of the IMF, noted that the BRI, through stimulating infrastructure investment and developing new global supply chains, can promote physical and financial connectivity worldwide.[6] Robert Lawrence Kuhn, chairman of the Kuhn Foundation, indicated that BRI and the Global Development Initiative can enable relevant countries, particularly developing countries, to widely benefit from China's development achievements and experience.[7]

III. Deepened and More Pragmatic Efforts to Promote High-Quality BRI Cooperation

To jointly pursue high-quality Belt and Road cooperation, China will need to continue to uphold the Silk Road spirit of peace and cooperation, openness and inclusiveness, mutual learning and mutual benefit, further enhance the alignment and cooperation between the BRI and the development strategies of various countries, comprehensively strengthen policy coordination, focus on improving the cooperation mechanism, effectively implement major action plans such as those on scientific and technological innovation, strengthen the building of multilateral cooperation platforms, improve the multidimensional connectivity network, jointly implement major signature projects and "small yet smart" people-centered programs, promote the modernization of all countries in the world, and make unremitting efforts to build a community with a shared future for humankind.

1. Policy coordination to be more refined

Refine policy areas and focus on the key issues. Detailed research will be conducted. Through organizing investigations in various industries, on-site interviews, and think tank studies, China can promptly and accurately understand the development plans and priority areas of the partner countries, and focus on planning and designing practical projects and measures in such fields as industrialization, agricultural modernization, energy cooperation, transportation network facilities, and digital transformation.

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6 Lagarde, C., "The Belt and Road Initiative: Two Key Channels to Achieving Financial Connectivity. Opening Remarks at Belt and Road Forum Session on Financial Connectivity," *IMF News* (April 24, 2019).

7 Yang, S., Mao, L., and Xiong, M., "Interview: China-Proposed GDI Offers What Developing Countries Need the Most, Says Scholar," *Xinhua Net* (September 21, 2023), https://english.news.cn/20230921/4462b001cd13416697a9d1d6bd2dddaf/c.html.

Conduct in-depth dialogue and improve conversation mechanisms. China will have to fully leverage newly established and existing regular policy dialogue mechanisms to provide a communication platform for policymakers. It will timely communicate the formulation and implementation of relevant development strategies, and timely promote the establishment of working mechanisms such as policy coordination, implementation, and evaluation. It will conduct specialized training and consulting activities for key cooperation industries and fields, and refine the implementation plans. A digital platform for BRI policy communication will be established.

2. Infrastructure connectivity to be further strengthened

Promote seamless connection of land-based infrastructure. China needs to align infrastructure planning and technical standards, eliminate bottlenecks and break through constraints. It will improve the conditions of ports and supporting facilities, enhance the efficiency of cross-border railway transshipment, and simplify customs clearance procedures. China should strive to actively promote the construction of inland connection lines and airport expressway networks, while strengthening multimodal transport that integrates sea, land and air.

Promote the in-depth integration of maritime connectivity. China is suggested to strengthen port cooperation, jointly build shipping hubs, and optimize shipping route services and frequencies to improve the efficiency of the maritime shipping network. It will use information technology to optimize the logistics process and reduce operating costs. It will also strengthen international cooperation in the port-vicinity economic zones, jointly exploring a "port + free trade zone" development model.

Promote high-quality development of the Air Silk Road. China will have to focus on cooperation in aviation safety, environmental protection and intelligence, expand air transportation protocols, and raise market openness. China will strengthen the cooperation among civil aviation agencies of various countries and tap the potential of the regional aviation market. It will optimize air cargo services and promote the continuous prosperity of the Air Silk Road.

Promote information infrastructure efficiency and safety. China has cooperated with BRI partners to lay cross-border communication networks and enhance information transmission efficiency.[8] China will need to strengthen the cooperation in information infrastructure projects, improve network connectivity, enhance digital inclusiveness, and strengthen intellectual

8 China Mobile, China Unicom and China Telecom and other telecom operators have built information infrastructure networks in more than 40 BRI countries.

property protection, privacy security and cross-border data flow.[9] Efforts will need to be made to improve the "Belt and Road" Space Information Corridor.[10]

3. Unimpeded trade by removing barriers

Jointly build a high-standard network of FTAs. China should further utilize FTAs and investment protection agreements to promote the freedom and facilitation of trade and investment. China should aim to enhance the ability to promote trade, support BRI partners to expand the import and export of high-quality commodities, optimize the trade structure, and improve the quality and competitiveness of exported commodities.

Jointly promote the innovative development of trade. China will need to step up efforts to establish cooperation mechanism for trade in services, and actively conduct cooperation in areas such as digital trade. China is advised to support new business forms such as cross-border e-commerce and overseas warehouses, and broaden sales channels through platforms like the "Silk Road E-commerce." Jointly hold various major economic and trade exhibitions, deepen trade exchanges, and promote mutual benefit and win-win results.

4. Financial integration to be further deepened

Enhance investment and financing integration mechanisms. Continuous efforts are made to promote the implementation of the Guiding Principles on Financing the Development of the Belt and Road and the Debt Sustainability Framework for Participating Countries of the BRI, among other initiatives, to provide clear financing policy guidance. China should leverage the role of development finance, to facilitate the implementation of high-quality projects.[11] China should continue to encourage financial institutions to participate in green investment, filling

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9 With BRI partners such as Cambodia and Iran, China has signed multiple intergovernmental memorandums of understanding on information and communication technology cooperation, which not only provides an important framework for future cooperation but also emphasizes international cooperation on intellectual property

10 protection, privacy security and cross-border data flow.
In this regard, a successful case is the international cooperation in the Chang'e-6 mission. China's cooperation with BRI partners in space science and technology not only reflects China's open attitude in the field of deep space exploration but also provides valuable opportunities for international partners. By carrying scientific payloads from different countries, countries can jointly collect lunar samples, study the lunar environment and gather relevant scientific data, realizing resource sharing and mutual benefit. This cooperation model is significant for the reference of information infrastructure in the future.

11 Considering that the China Development Bank has provided outstanding financial services to over 1,300 Belt and Road projects by September 2023.
See Wu, C., "The China Development Bank Has Supported over 1,300 Belt and Road Projects" (October 13, 2023), https://eng.yidaiyilu.gov.cn/.

the funding gap. The credit insurance system will be improved to meet diverse financing needs. Steady efforts will be made to advance bilateral currency cooperation.

Give play to the role of diversified cooperation platforms. Through multilateral institutions such as the AIIB, continuous joint financing activities are conducted.[12] Equity investment and government and public-private partnership project financing should be standardized.[13]

Strengthen and improve the risk prevention and control system. China will have to improve the risk prevention and control system for overseas investment, and strengthen monitoring and risk prediction for major projects, to ensure the safety of personnel and property. China can organize training on overseas security risk control to enhance the awareness and ability of enterprises to prevent risks. It will promote the construction of the Integrity Silk Road and improve service levels.

5. People-to-people bond to be more diversified

Organize international art festivals, Cultural Years and other activities to promote the sharing of cultural and artistic achievements and strengthen cooperation in cultural heritage protection. To deepen educational cooperation, China could organize and carry out professional training programs to enhance talent skills. China can support and encourage non-governmental organizations, enterprises, charity groups and other institutions to participate in BRI construction and cooperate in carrying out "small yet impactful" projects covering education, health care and poverty alleviation and other fields. China would continue to actively expand tourism cooperation with its partners, through co-organized activities like tourism years and publicity months, promoting characteristic tourism products of the Silk Road. Wide sports exchange activities will be carried out to enhance people's friendship and understanding. China also should seek to strengthen media exchanges and think tank cooperation.

6. Development of new fields to be further explored

Promote green development. China should aim to fully demonstrate the significant impact of BRI in environmental protection, social responsibility, and debt sustainability, integrating the BRI with the UN SDGs. Focusing on green infrastructure, energy, and transportation, China needs to implement demonstrative green projects, support the construction of renewable energy

12 For example, the syndicated loan model used in the Dubai solar power project brought together the participation of major Chinese banks, major international banks, and major local banks in the Middle East, with a total financing amount of $2.5 billion, providing strong financial support for large-scale infrastructure construction.

13 Taking the Road Annuity Lot 32 Project in Kenya as an example, the loan agreement signed by PowerChina International and Standard Bank fully showcases the positive role of foreign-funded banks in promoting project financing.

bases, green buildings and smart cities in BRI partners, and jointly explores and improves carbon footprint tracking with them. Leveraging platforms such as the BRI International Green Development Coalition, China can hold green innovation conferences to promote green technology transfer and talent training.

Strengthen digital empowerment. China could host activities such as digital economy forums and technical training courses to share the experience and achievements of digital economy development and promote knowledge dissemination and technology transfer. China should work to establish and improve the digital economy regulatory system to enhance regulatory efficiency and transparency. China is ought to help raise the information and communication technology level of developing countries, enhance the competitiveness of BRI partners in the global digital economy, to build an open, fair, just and non-discriminatory digital world.

The BRI vividly embodies the concept of building a community with a shared future for humankind. China has been aiming to unite all parties to promote the in-depth and solid progress of building a community with a shared future for humankind, effectively leading and promoting an equal and orderly multi-polarization of the world and an inclusive and beneficial economic globalization. China and the BRI have brought peace and stability to the global community and enhanced the prosperity and development of all countries, especially developing countries.

CHAPTER 12

Pursuing High-Standard Opening Up to Advance In-Depth Reform and High-Quality Development

Opening up is a defining feature of Chinese modernization. China is committed to its fundamental national policy of opening to the outside world and pursues opening up to advance reform, development, and win-win cooperation, thereby unleashing and developing productive forces, as well as inspiring and enhancing social vitality. Through integrating into the world while developing itself, China achieves mutual benefits and contributes actively to global sustainable development. The new practices and explorations of high-standard opening up in the new era have injected strong momentum into high-quality development and Chinese path to modernization. This also provides strong support for other countries' modernization efforts and promotion to global common development.

I. Pushing In-Depth Reform through High-Standard Opening Up

Reform and opening-up are the path for China's development that must take to uphold and the key move that determines the fate of contemporary China. China's economic development has been achieved with a commitment to opening-up. In the same vein, high-quality development of China's economy in the future can only be guaranteed with greater openness. Since 2012, regarding economic institutions and mechanism reform as the spearhead, China has further enhanced its exploration and pilots for reform and opening up. China has further reformed the foreign economic management system, improved the market economy system, optimized government management efficiency, and modernized its system and capacity for governance, thereby better serving high-quality economic development.

1. New breakthroughs in reform on foreign economic management system

The foreign trade and foreign investment management systems were among the first to break through in economic system reform, playing a positive role in comprehensively deepening reform and optimizing the development environment.

Comprehensive implementation of the "Single Window" for international trade. In 2014, the China (Shanghai) Pilot FTZ, based on the local public information platform (electronic port), take the lead in launching the construction of a single window for international trade. Since its establishment, it has served over 600,000 companies, saved companies billions of RMB in costs, and effectively cut goods declaration time to 30 minutes and vessel declaration time to two hours. It has become a service brand, and has been replicated and extended throughout the country.

The "single window" covers function modules including cargo declaration, means of transport declaration, cross-border e-commerce, and logistics information, achieving centralized functions and information sharing through a digital platform, breaking down information barriers among different departments. At the same time, it promotes the "one declaration, one inspection, one release" model, steadily implements the cargo supervision model of "prioritizing deregulation at the borderline while ensure safe and efficient management at the FTA line," forming a foreign trade supervision system in line with international norms.

Comprehensive promotion of negative list management. In 2013, the Shanghai Pilot FTZ introduced China's first foreign investment negative list, implementing a system of pre-entry national treatment plus negative list management. The list has been continuously revised and narrowed from over 190 items in 2013 to 29 items in 2024 (national version) and 27 items in 2021 (the pilot FTZ version). As of now, the restrictions on foreign investment in manufacturing sector have been fully lifted. In 2021, Hainan FTP launched the first negative list for cross-border trade in services. China has released the national and pilot FTZ versions of negative lists for cross-border trade in services in 2024. With negative list management as the core, China has brought significant improvements to foreign investment and services trade management systems.

New progress in opening up of key sectors. In April 2024, within the pilot areas of Beijing, Shanghai (see box 12.1), Hainan, and Shenzhen lifted the shareholding-ratio restrictions on foreign investment in value-added telecommunications services,[1] allowing wholly foreign-owned

1 The Ministry of Industry and Information Technology, China issued a notice proposing the removal of foreign ownership restrictions in several sectors, including Internet Data Centers, Content Delivery Networks, Internet Access Services, online data processing and transaction services, as well as information services involving information publishing platforms and delivery services (excluding Internet news, online publishing, online audio-visual services, and Internet culture management). Additionally, the proposal suggests removing restrictions on foreign ownership in businesses related to information protection and processing services.

enterprises to provide services. In July 2024, Policies to Support Fujian's Exploration of New Paths for Cross-Strait Integration were introduced, including creating preferred employment and entrepreneurship destinations for Taiwan compatriots, deepening human resource cooperation between Fujian and Taiwan, optimizing social security services, and building a more attractive income distribution system. In September 2024, wholly foreign-owned hospitals (except for traditional Chinese medicine hospitals and excluding mergers and acquisitions of public hospitals) were allowed to be established in Beijing, Tianjin, Shanghai, Nanjing, Suzhou, Fuzhou, Guangzhou, Shenzhen and the whole island of Hainan.

Box 12.1 Shanghai's practices on high-standard opening-up[2]

In the field of trade and investment, Shanghai is the world's largest port city, with imports of consumer goods via Shanghai ports accounting for more than 40 percent of the national total. The Shanghai International Trade "Single Window" covers the entire customs clearance process.

Shanghai is one of favored destinations for foreign investors to establish their production and supply chains. As of the end of June 2024, Shanghai was the regional headquarters of 985 multinational companies and home of 575 foreign-funded R&D centers. Excellent business environment is a hallmark of this metropolis.

In February 2024, the Shanghai Action Plan for Continuously Benchmarking Reforms to Build a World-Class Business Environment (Action Plan 7.0) was released, proposing five actions to optimize business environment, with a focus on collaborative construction. These actions include 150 task measures, further reflecting the nature of integration and comprehensiveness, covering requirements on optimization and improvement in various aspects such as market environment, government public services, regulatory enforcement, and legal protection.

Additionally, Three-Year Action Plan to Improve the ESG (Environmental, Social, and Governance) Capabilities of Foreign Enterprises in Shanghai (2024–2026) was launched, aiming to enhance the ESG capabilities of foreign enterprises and create new advantages in cooperations on opening up.

In financial sector, Shanghai is committed to improving internationalization of its financial markets, attracting more foreign financial institutions, international organizations, and long-term capital to invest and operate here.

- As of the end of 2023, the total number of licensed financial institutions in Shanghai is 1771, of which foreign-funded financial institutions account for nearly one-third. In August 2024, the revised Regulations on Promoting the Construction of Shanghai International Financial Center was officially released, which further clarified the key tasks of Shanghai's financial opening-up in chapter 3, covering key areas such as promoting opening up of more futures and options products to the outside world, developing offshore RMB trading, and enhancing the hub position of Shanghai International Financial Center's asset management and fund distribution.

2 This box is provided by Jiang, L., who serves for Shanghai Institutes for International Studies.

- The Lingang New Area of the Shanghai Pilot FTZ has continuously introduced new initiatives to promote capital freedom. It took the lead in launching a pilot program on high-level opening-up in foreign exchange management for cross-border trade and investment, relaxing currency-matching requirements for cross-border investment and financing and expanding overseas loan limits on non-financial enterprises. It also allows foreign financial institutions to engage in new financial business explicitly authorized by national financial regulatory authorities.
- Currently, the construction of the International Board on Reinsurance in Shanghai is accelerating. According to the Implementation Opinions on Accelerating the Construction of Shanghai Center for International Reinsurance jointly issued by the State Administration of Financial Supervision and the Shanghai Municipal People's Government on August 2, 2024, foreign reinsurance company branches may establish centers for reinsurance operation in the Lingang New Area.

In the field of transportation, Shanghai continues to optimize global system of sea, land, air and rail transportation and distribution around its two major international hubs of seaports and airports. The container throughput of Shanghai Port reached 49 million TEUs in 2023, ranking first globally for recent 14 consecutive years. Shanghai's airports have ranked third globally for air cargo throughput for recent 15 consecutive years. In 2023, cargo and mail throughput at Shanghai Pudong and Hongqiao International Airports rose 15 percent year-on-year to 3.8 million metric tons. The China-Europe Railway Express (Shanghai) now covers major routes between China and Europe, Russia, and Central Asia, connecting over 80 overseas cities and stations. Shanghai has made significant efforts in recent years to establish itself as a green and smart shipping hub, continuously enhancing its shipping capabilities. Shanghai Port has become one of the few ports in the world with liquefied natural gas bunkering service capacity and is working with the Port of Los Angeles to create the first trans-Pacific green shipping corridor.

In terms of personnel mobility, in addition to the unified implementation of visa free transit policies at China's open ports, Shanghai has introduced several measures to promote movement of international personnel.

- First, it launched a new version of Online Portal for Expat Services providing services on authoritative policy, precise information, and personal living for foreigners who come to Shanghai.
- Second, it implemented a 24-hour visa-free transit policy. Travelers with international connecting flights within 24 hours at either of Shanghai's airports, heading to a third economy, can transit without a visa.
- Third, the Shanghai Solution in Convenient Payments has been continuously optimized. In 2023, over 37,000 foreign card point-of-sale (POS) terminals were installed and activated in Shanghai. Currently, Shanghai ranks first nationwide in foreign card POS transaction volumes and transaction values per customer. Shanghai has set up payment service counters in airports, train stations, and other locations.

In terms of data flow, the Lingang New Area, in line with the requirement of national institutional opening-up, has been advancing cross-border flows of data. The first is to build an international industrial park on data economy. The second is to establish a center for cross-border data service evaluation and an all-encompassing service center for cross-border data, which provide comprehensive guidance on data processing, evaluation, and filing for relevant enterprises. The third is to promote and improve institutions on the implementation of three major systems, namely regulations on cross-border data flow, a tiered and classified management system, and operational guidelines for cross-border data flows.

2. New progress in market economy system

Building a high-level socialist market economy system is the top priority of China's economic system reform. Since the reform and opening-up, domestic market mechanisms on supply-demand balancing, pricing, competition, etc., have gradually played a leading role, and the market's decisive role in resource allocation has become increasingly prominent.[3]

Steady progress in building a unified national market. China is speeding up to build a unified national market that is efficient, rule-based, fair and open. On the one hand, it is modernizing infrastructure including transportation, logistics, telecommunications, electricity, and water networks, to promote the formation of a unified domestic market. For example, the logistics standardization pilot program was launched in 2014. By unifying specifications of key logistics facilities and supporting the standardization of information systems, the average vehicle turnover efficiency of enterprises in pilot cities has increased by 1.17 times, and the average time efficiency of loading and unloading has increased by 24 times, effectively reducing logistics costs.[4]

On the other hand, it strengthens the unification of fundamental market rules, focusing on breaking down local protectionism and market fragmentation. In March 2022, the Opinions on Accelerating the Construction of a Unified National Market was issued to unify basic institutional rules in areas such as property rights protection, market access, fair competition, and social credit. In August 2024, the Regulations for Fair Competition Reviews was implemented to strengthen the rigidity of fair competition review system.

Advancing reforms for market-based production factors. 1. On land, China has finished building a national and unified system for real estate registration, and officially launched a national online transaction service platform for the secondary land market. The means for land elements supply have been continuously enriched, with reforms on approval rights about land

3 Huang, Q., *Structural Reform* (CITIC Publishing Group, 2020), pp. 47–55.

4 He, F., Chen, B., and Huang, W., "Logistics Standardization: A New Engine for Promoting the Construction of a Globally Unified Large Market," *Paper News* (August 11, 2024), https://www.thepaper.cn/newsDetail_forward_28225928.

use, land planning management, market entry of collectively-owned commercial construction land, and pilot reforms in rural homesteads being implemented. 2. On labor, unified unemployment insurance transfer procedures have been completed, and reforms in the household registration system, talent mobility, and evaluation mechanisms have been accelerated. 3. On capital, hardware systems between the interbank bond market and the stock exchange bond market have achieved interconnection, and fundamental reforms of the capital factor system have been successfully implemented. 4. On technology, the construction of market and the transformation of results have been vigorously promoted, with legal protections for intellectual property rights strengthened. The newly revised Patent Law and Patent Law Implementation Regulations[5] have been fully implemented, along with the release of the Geographical Indication Products Protection Measures and the Regulations on the Registration and Management of Collective and Certification Marks. China has also deepened its participation in global intellectual property governance, successfully joining the Hague Agreement Concerning the International Registration of Industrial Designs and the Marrakesh Treaty on copyright, and has promoted the conclusion of the World Intellectual Property Organization (WIPO) Intellectual Property, Genetic Resources and Related Traditional Knowledge Treaty.[6] 5. On data, significant progress has been made in the legislation and standardization, with the successive issuance of laws and regulations such as the Cybersecurity Law, Data Security Law, Personal Information Protection Law, and Regulations on Promoting and Regulating Cross-Border Data Flow. 6. On resource and environment markets. The institutional system of resource and environment market has steadily improved, with tasks such as improving the market-based electricity trading mechanism and accelerating the reform of shareholding system of electricity trading institutions being listed as pilot tasks.

Continuous optimization of business environment. China continues to promote its business climate, with its ranking in the global business environment ranking released by the WB (see box 12.2) has gradually improved. Institutional system of business environment has been continuously improved. Laws and regulations such as the Foreign Investment Law of the People's Republic of China, the Regulations on Optimizing the Business Environment, and the Hainan FTP Law of the People's Republic of China have been successively promulgated. Meanwhile, the revised and improved Foreign Trade Law creates a transparent and favorable environment for various business entities.

Guided by business environment evaluation pilots, China has formed a flexible and practical way of government reform guided by central government and feedbacked by local governments.

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5 Li, S., "Significant Achievements in China's Intellectual Property Reform," *Economic Daily* (July 30, 2024): p. 2.

6 Though the government proposed the negative list system for pilot free trade zones, the Lingang New Area in Shanghai, in its practical exploration, introduced a positive list for cross-border data flows based on specific scenarios and a classified management model for general data and important data. This exemplifies the benefits of localized institutional innovation in the pilot free trade zones.

Since 2018, based on the WB's business environment assessment, China has initially established an index evaluating business environment with the Chinese characteristics and internationally comparability. It covers areas such as market access, investment and construction, financing and credit, production and operations, market exit, market supervision, government services, and inclusive innovation. By selecting certain cities for pilot evaluations and iterating relevant indicators, China continuously improves the precision and effectiveness of business environment reform.[7]

The evaluation indicators used to guide and urge local governments continuously optimize their business environments, and the business environment pilots serve as an opportunity to benchmark international standards on business environment. This has established a regular communication mechanism between the government and enterprises[8] and a mechanism for sharing and exchanging best practices in business environment reforms across the country. Integrated reforms have been promoted to streamline administration and delegate power, improve regulation, and upgrade services.

Box 12.2 New features of assessment system for business environment by WB[9]

The B-READY is the WB's latest assessment framework for business and investment climate, which improves upon and replaces the WB Group's earlier Doing Business project (DB) in use for nineteen years. On May 1, 2023, the WB Group published the Business Ready (B-Ready) Manual and Guide and B-Ready Methodology Handbook, replacing DB as a new approach to assessing business and investment climates of economies worldwide.

Focus on the digitalization of government services. From the development of online service platforms to public availability and joint operation of system data, the WB comprehensively assesses the usability of platform, transparency of information, and interoperability of digital government services

Encouraging economies to improve openness. Compared to its previous DB, the B-READY places greater emphasis on the openness of economies. For example, while DB focused only on the cost and efficiency of goods trade, the B-READY introduces indicators for services trade, digital trade facilitation, and more, covering areas such as the signing of international trade agreements, cross-border data flows, and reduction of restrictions on services trade. The WB evaluates the level of openness, encouraging economies to lower barriers and restrictions on the flow of talent, capital, and data.

7 National Development and Reform Commission, ed., *China Business Environment Report 2020* (Beijing: China Map Publishing House, 2020), pp. 1–23.

8 Tang, Y. and Gu, S., "The Evolution, Basic Experience, and Relationship Reconstruction of Contemporary Chinese Government System Reform," *Academics* (In Chinese) (June 2024): pp. 5–16.

9 This box is provided by PwC (China).

Addition of environmental sustainability theme. The B-READY includes a new sustainability theme that spans ten different indicators, referred as "cross-sector indicators." These indicators emphasize green development and cover over 20 topics, including environmental permits, green finance, judicial proceedings on environmental disputes, tariff reductions on environmentally sustainable goods, and cross-border carbon pricing tools.

3. New improvements in government efficiency

Fully promoting reform of "streamlining administration, delegating powers, improving regulation, and upgrading services." It is simply referred to as "*Fang Guan Fu*" (放管服). Taking "*Fang Guan Fu*" reform as the core of administrative system reforms,[10] China focuses on building a service-oriented government and pays attention to the whole process of government management: "delegating power, streamlining administration–strengthening supervision–providing efficient services."

Increasing efforts to streamline administration and delegate powers. Business management-related procedural integration pilot reforms have been carried out, including integration of multiple certificates, one-time declarations, single-window acceptance, one license with one code, separation of license and certificate, commitment-based approvals, and early agency services.

Strengthening interim and ex-post supervision. The government has reduced specific approvals and interventions in micro-level affairs, exploring the shift from pre-approval to interim and ex-post supervision. It has enhanced comprehensive regulation and law enforcement, creating a supervision system centered on credit management.

Optimizing the efficiency of government services. Through initiatives like "one-stop online services" "cross-province services" and "efficient handling of a single task," both the public and business have been able to enjoy high-quality government services. By accelerating the transformation of government functions, China is establishing modern systems of government governance.

Building a "Digital Government." With reform as the guide and digital empowerment as driving force, China promotes the standardization, regulation, and facilitation of government services. The development of digital technologies has broken down traditional information barriers among departments. By integrating government information systems, it has established interfaces for data sharing among departments and regions, facilitating cross-departmental and cross-regional data exchange.

Digital governance has been promoted, such as the application of electronic licenses and certificates across regions, departments, and levels through the National Integrated Government

10 Tang, Y. and Gu, S., "The Evolution Process, Basic Experience, and Relationship Reconstruction of Contemporary Chinese Government System Reform," *Academics*, no. 6 (2024): pp. 5–6.

Service Platform. Taxpayers can easily handle online inquiries and obtain personal income tax records and proof of tax payment.[11]

In response to the new requirements for government governance brought about by the digital economy, China has improved its inclusive and prudent regulatory mechanisms, establishing regulatory rules conducive to innovation of new industries, new forms of business, new technologies, and new models.[12] China successively issued laws such as the Cybersecurity Law, Data Security Law, and Personal Information Protection Law to gradually improve and standardize government regulation of the digital economy.

4. Opening new ground for modern industrial system

Accelerating the development of a modern industrial system through cooperation on opening up. Since the reform and opening-up, China has seized the opportunities presented by the third wave of global industrial transfer, actively introducing foreign capital, advanced technologies, and management experience, while also promoting the "going out" of domestic industries, technology, and information. This has led to a shift from labor-intensive to capital- and technology-intensive industries, laying a solid foundation for the establishment of a modern industrial system.

According the National Bureau of Statistics, in 2023, the export of mechanical and electrical products accounted for more than 58 percent of total export value. Since 2022, electric vehicles, photovoltaic products, and lithium batteries have become new growth points in exports, representing China's achievements in high-tech, high-value-added products driving the GX. On the import side, the share of high-end technical equipment and core components has continuously increased, with high-tech products accounting for 26.6 percent of total imports in 2023.

As China's manufacturing sector upgrades and opening-up of service sector expands, modern service industries in the country have developed rapidly. From 2000 to 2020, knowledge-intensive services accounted for about 32.5 percent of China's total service imports and exports. Between 2020 and 2023, this proportion increased to 42.9 percent. Simultaneously, China's structure of foreign investment utilization has been continuously improving. In 2023, 37.3 percent of the actual foreign capital utilized was directed toward high-tech industries. China has also deepened cooperations on foreign investment and international supply chains, further extending domestic industrial system and expanding international cooperation space.

Developing new quality productive forces to promote technological innovation and industrial upgrading. In line with the trends of green, digital, and intelligent technologies, China is actively exploring how to promote industrial innovation through technological innovation, thereby creating new industries, new models, and new drivers of growth, leading to the devel-

11 National Development and Reform Commission of China, ed., *China Business Environment Report 2020* (Beijing: China Map Publishing House, 2020), pp. 26–27.

12 Ibid., p. 26.

opment of new quality productive forces. China's vast domestic market and strong industrial support not only provide new investment opportunities for global enterprises but also contribute to China's industrial upgrading and value chain advancement.

On the one hand, China leverages its extensive, segmented domestic application scenarios to attract high-quality global resources, continuously improving technological innovation in related fields on the basis of mutual benefit. On the other hand, through mutually beneficial international cooperation, China is expanding new spaces for global industrial chain cooperation. In recent years, through two-way investment (i.e., FDI and overseas direct investment), China has cooperated with Europe, Southeast Asia, and other countries in the fields of new energy vehicles. For example, Tesla's wholly owned enterprise in China has already localized more than 90 percent of its supply chain, which has promoted rapid development of China's electric vehicle industry.[13]

Additionally, green energy, digital technology, and other sectors have become important areas of technological cooperation between China and countries participating in the BRI, helping China's technology application and industrial development while facilitating technology sharing and industrial upgrading in partner countries.

5. New steps in coordinated regional development

Fruitful innovation results of FTZs and FTPs. Since the establishment of the Shanghai FTZ in 2013, China has continuously optimized and improved the layout of FTZs, forming a pattern of reform and opening up that covers the east, west, north, south, and central regions, integrating coastal, inland, and border areas. The layout of pilot FTZs promotes opening up to the east, west, and border regions, with each zone focusing on local development conditions. For example, the Guangxi pilot FTZ, bordering ASEAN countries, pioneered the "border trade + local processing" integrated reform model in China and established a new model for inspection and quarantine called "stratified inspection + pledged removal."[14]

Over the past decade, China has deployed over 3,400 reform pilot tasks in the "experimental fields" of FTZs, summarizing and refining seven batches of reform experiences and four batches of best practice cases at the national level, and replicating and promoting over 300 institutional innovation achievements across the country. In 2023, the aggregated import and export value of 22 pilot FTZs amounted to RMB 7.7 trillion, accounting for 18.4 percent of China's total import and export value, playing a vital role in stabilizing foreign trade.

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13 He, W., "Developing New Productive Forces Requires Further Improvement in the Utilization of Foreign Investment," *21st Century Business Herald* (August 15, 2024): p. 4.

14 Hu. G., "The Guangxi Pilot Free Trade Zone Has Achieved Positive Results in Exploring High-Level Opening Up," *Nanning's Daily* (In Chinese) (August 18, 2024): p. 1, http://nnrb.nnnews.net:8080/nnrb/20240813/html/index_content_001.htm.

Significant progress in two-way opening up between land and sea. In recent years, logistics, transportation, and business environment in the central and western regions have significantly improved. Relying on comparative advantages in labor cost, the concentration of scientific and educational talent, and a solid manufacturing base, foreign trade and foreign investment in these regions have developed rapidly. Between 2012 and 2023, the share of imports and exports of central and western China in the national total increased by 3.7 and 2.8 percentage, respectively.[15]

The BRI has played an essential role in addressing domestic regional development imbalances and strengthening land-sea connectivity while expanding international cooperation. For example, the construction of the New International Land-Sea Trade Corridor has provided western provinces with a convenient new sea route to better integrate into the global economy, shortening trade distances, reducing costs, and creating significant development opportunities for regional enterprises.[16]

The China-Europe Railway Express sees rapid growth. From January and July 2024, the number of train trips through the west (via Alashankou and Horgos ports), middle (via Erenhot port) and east (Manzhouli, Suifenhe, and Tongjiang North ports) major routes rose by 15 percent, 22 percent, and 2 percent year-on-year, respectively. In 2023, the actual utilization of foreign capital in Hubei Province grew by 11.4 percent year-on-year. More than 400 new foreign-funded enterprises were registered in Shaanxi Province in 2023, marking a record high over the past two decades, with a year-on-year increase of 29.3 percent.[17] Through opening-up, the gap between inland regions and the eastern coastal areas has narrowed, significantly promoting coordinated regional economic development.

In the new era, China's high-level opening-up has evolved from pilot testing in specific regions like FTZs like FTZs and key sectors of manufacturing to broader-scale in areas and expanding to services industries. The focus of reform has shifted from commodity and factor flow to institutional opening. The pace of opening up has shifted from the eastern regions leading the way to coordinated opening-up across the eastern, central, and western regions. This has led to unprecedented achievements in the fields, priorities, pace, and scope of opening up.

Correspondingly, China's deep-level reforms have progressed incrementally, in a "small cuts" approach,[18] compatible with its own capacity for opening up. Through reforms in key sectors and critical areas, consensus has been built around opening up and reform, enabling China to

15 From 2012 to 2023, the proportion of the Northeast China in China's trade in goods decreased by 1.3 percentages.

16 Lin, H. and Jiang, X., "Singapore Scholar: China-ASEAN Joint Construction of the New Land-Sea Corridor Will Boost Global Economic Recovery," *China News Network* (September 10, 2024), https://www.chinanews.com/sh/2024/09-10/10283563.shtml.

17 Liu, J. and Dong, Q., "The Central and Western Regions Become a New Choice for Foreign Investment," *Economic Daily* (April 14, 2024): p. 5.

18 Jiang, X., "Based on National Conditions and the Times: Exploring the Path of Openness to Promote Development and Reform," *Economic Research Journal* (In Chinese), no. 6 (2021): pp. 16–22.

explore more practices that meet its own modernization needs while keeping risks under control. Modern governance principles, such as "Everything which is not forbidden is allowed," "what is not authorized by law is prohibited" and "all statutory duties must be fulfilled," have gained widespread recognition and application through opening up.

II. Promoting Global Economic Governance Reform through High-Standard Opening Up

China adheres to high-level opening up, deeply participating in global industrial division of labor, continuously deepening bilateral and regional economic cooperation, and sharing development opportunities with countries around the world. This has played a vital role in maintaining a diversified and stable international economic structure, making China a key promoter, participant, and leader in global governance. As an important force in promoting economic globalization and global economic governance reform, China firmly opposes protectionism and unilateralism through its own actions and actively promotes reform of global governance system to jointly address global challenges.

1. Practical and effective bilateral cooperation mechanisms

China has deepened bilateral cooperation with neighboring countries, Africa, Latin America, and other developing countries, accelerating the establishment and improvement of relevant mechanisms, and supporting the efforts of developing countries to solve governance problems, improve government efficiency, and find development paths suited to their needs through opening-up.

Deepening comprehensive cooperation with neighboring countries. Cooperation between China and ASEAN countries continues to deepen. The high-quality implementation of the RCEP has stimulated the vitality of regional economic development. In 2023, intra-regional trade under RCEP reached $5.6 trillion, and the region attracted $234.1 billion in greenfield investment, a surge of 29.8 percent year-on-year and more than double the number from 2021.

The negotiations on Version 3.0 China-ASEAN FTA are progressing steadily, with significant advancements in discussions on goods trade, investment, standards cooperation, digital economy, green economy, supply chain connectivity, customs procedures and trade facilitation, sanitary and phytosanitary measures, competition and consumer protection, and legal and institutional matters. By September 2024, nine rounds of negotiations had been completed. The cumulative benefits of China's bilateral FTAs with Cambodia, Singapore, and others are continuously being released, further improving the level of trade and investment liberalization and facilitation in the region.

The cooperation mechanism between China and Central Asian countries has been continuously improved, and a mechanism for meetings among the heads of China and Central Asian

countries, secretariat of cooperation mechanism, China-Central Asia emergency management cooperation mechanism have been established. China and Central Asian countries have made new progress in cooperation projects in the fields of metallurgy and mining, energy resources, machinery manufacturing, building materials and chemicals, and infrastructure.

Orderly progress in China-Latin America and China-Africa cooperation. In July 2014, President Xi Jinping attended the first meeting of Chinese and Latin American and Caribbean leaders in Brasília, where the establishment of China-Latin America and the Caribbean Community Forum (the China-CELAC Forum) was announced. Over the past decade, China and Latin America have achieved multi-faceted and comprehensive cooperation.

In terms of trade and economy, under the guidance of the China-Latin America Cooperation Plan, cooperation has focused on three key drivers: trade, investment, and finance. Successful industrial integration has been realized between China and Latin America in six priority areas: energy, infrastructure, agriculture, manufacturing, technological innovation, and information technology.

In recent years, new highlights of cooperation have emerged in high-tech fields such as green economy, digital economy, new energy, aerospace, satellites, AI, and cross-border e-commerce. Investment in new infrastructure, including 5G and cloud technology, is becoming a new element of "soft connectivity" between China and Latin America.

In the cultural sphere, mechanisms such as the China-Latin America People-to-People Friendship Forum and the Bridge to the Future have been established to promote cultural exchange. At the same time, China actively supports African countries in advancing industrialization and achieving modernization, providing development assistance in fields such as talent development, agricultural technology, and healthcare.

Box 12.3 shows the orderly progress in China-Africa cooperation.

Box 12.3 China and Africa join hands to advance modernization

In August 2023, Chinese President Xi Jinping delivered a keynote speech titled "Joining Hands to Advance Modernization and Create a Great Future for China and Africa" at the China-Africa Leaders' Dialogue.

China-Africa economic and trade cooperation has shown strong growth momentum. Since the establishment of the FOCAC more than two decades ago, trade volume between China and Africa, as well as China's investment in Africa, has steadily increased. China has remained Africa's largest trading partner for 15 consecutive years. In 2023, trade value between China and Africa reached a historic high of $282.1 billion, up 1.5 percent year-on-year.

As of the end of 2023, China's direct investment stock in Africa exceeded $40 billion, making it one of Africa's major sources of foreign investment. China's investment projects in Africa include large infrastructure projects such as roads, ports, and power plants, supporting Africa's economic growth and regional integration by addressing its infrastructure needs. With China's assistance, the first photovoltaic power station in the Central African Republic, the Sakai Photovoltaic Power Station, was connected to the country's power grid in June 2022, significantly alleviating the country's power supply crunch and promoting its economic development.

China and Africa are working to complement each other's strengths in resources. China's imports of agricultural products from Africa have become a new growth point. In 2023, China's imports of nuts, vegetables, flowers, and fruits from Africa increased by 130 percent, 32 percent, 14 percent, and 7 percent, respectively, compared to the previous year. Mechanical and electrical products have become China's main exports to Africa. The "new three" products—new energy vehicles, lithium batteries, and photovoltaic products—also saw rapid growth in exports to Africa, increasing by 291 percent, 109 percent, and 57 percent year on year, respectively, strongly supporting Africa's transition to green energy.

China is helping Africa develop local talent. Chinese companies have created numerous jobs in African countries, with most opportunities provided to African workers. While creating jobs, Chinese companies offer targeted training based on different job roles and requirements, helping to enhance skill levels of African workers. For example, in the Zambia Kafue Gorge Lower Hydropower Project, Chinese enterprises established the China Hydropower Training Institute, cultivating urgently needed talents in fields such as civil engineering, machinery repair, welding, and surveying for Zambia's infrastructure construction.

China-Africa cooperation has been widely praised across Africa.

In June 2023, Malawi President Lazarus Chakwera, attending the third China-Africa Economic and Trade Expo, remarked that "China is not just giving fish, but teaching how to fish."

During his visit to China in September 2023, President Hakainde Hichilema of Zambia highly praised the close political and economic cooperation between the two countries since entering a new era.

In June 2024, President Macky Sall of Senegal, during his visit to Hong Kong SAR, China, lauded the friendship and cooperation between China and Senegal and expressed gratitude for China's contributions to Senegal's independent development.

In June 2024, the UN Food and Agriculture Organization hosted a China-Africa Agricultural and Technology Cooperation Seminar in Hainan, aiming to deepen agricultural technology cooperation between China and Africa. African representatives at the seminar highly praised the achievements of China-Africa agricultural cooperation.

The 2024 FOCAC Summit was held in Beijing from September 4 to 6. Under the theme of the summit is Joining Hands to Advance Modernization and Build a High-Level China-Africa Community with a Shared Future, the Summit adopted by consensus the Beijing Declaration on Jointly Building an All-Weather China-Africa Community with a Shared Future for the New Era.

At the summit, President Xi Jinping proposed that bilateral relations between China and all African countries having diplomatic ties with China be elevated to the level of strategic relations, and the overall characterization of China-Africa relations be elevated to an all-weather China-Africa community with a shared future for the new era. Over the next three years, China and Africa will pursue the ten Partnership Action Plans to Jointly Advance Modernization to deepen cooperation and lead the efforts to Global South's modernization.

To support the implementation of the Ten Partner Actions, the Chinese government will provide RMB 360 billion of financial support through the next three years, including RMB 210 billion in credit lines, RMB 80 billion of assistance in various forms, and at least RMB 70 billion of investment by Chinese enterprises in Africa.

2. Further improvement of regional cooperation mechanisms

China actively participates in the construction of regional cooperation organizations in the Asia-Pacific region, unwaveringly promotes regional economic integration, enhances the level of trade and investment liberalization and facilitation within the region, fosters innovative development, accelerates the progress of the Free Trade Area of the Asia-Pacific (FTAAP), fully implements the Asia-Pacific Economic Cooperation (APEC) Connectivity Blueprint, and shares opportunities for regional open development.

Showing vitality in the APEC mechanism. At the 30th APEC Economic Leaders' Meeting, President Xi Jinping proposed four suggestions including staying committed to innovation-driven development, opening-up oriented in development, green development and inclusive development that delivers benefits to all, and called on Asia-Pacific leaders to work together to address global challenges and jointly create for another "golden 30 years" of the region. In November 2014, China successfully hosted the 22nd APEC Economic Leaders' Meeting, which passed documents such as the Beijing Roadmap for APEC's Contribution to the Realization of the FTAAP, APEC Accord on Innovative Development, Economic Reform and Growth, APEC Strategic Blueprint for Promoting Global Value Chain Development and Cooperation, and the APEC Connectivity Blueprint.

In recent years, China has promoted the establishment of APEC-related mechanisms in China, such as the APEC E-Commerce Business Alliance, the APEC Small and Medium Enterprises Service Alliance, the APEC Marine Sustainable Development Center, the APEC Higher Education Research Center, the APEC Green Supply Chain Cooperation Network Tianjin Demonstration Center, and the Asia-Pacific Model E-Port Network. These initiatives provide support for China's various departments and regions to better participate in APEC cooperation, strengthen exchanges and cooperation with APEC members, and promote the overall progress of APEC.

Orderly progress in cooperation of the SCO. Over the past 20 years, the SCO has played an important role in regional economic cooperation, regional security and stability. Guided by

the Shanghai Spirit of mutual trust, mutual benefit, equality, consultation, respect for diversity of civilizations and pursuit of common development, the SCO has endeavored to deepen cooperation in areas such as economy, trade, agriculture, connectivity, and culture. China supports building a demonstration area in Qingdao for China-SCO local economic and trade cooperation. At the SCO+ Astana Summit in July 2024, President Xi Jinping proposed five suggestions for building a common home of solidarity and mutual trust, a common home of peace and tranquility, a common home of prosperity and development, a common home of good-neighborliness and friendship, and a common home of fairness and justice. He emphasized the need to stay firmly on the development paths that suit our respective national conditions and regional realities, and jointly build a more promising home of the SCO.

Continued expansion of the network of FTAs. China-Serbia FTA was officially signed in October 2023 and came into effect on July 1, 2024. The China-Ecuador FTA was officially signed in May 2023 and took effect on May 1, 2024. After the agreements came into force, both sides began gradually eliminating tariffs on approximately 90 percent of tariff items. The China-Honduras FTA negotiations started on July 4, 2023, and an early harvest was achieved, with China implementing the early harvest arrangement tariff rates under the FTA from September 1, 2024. On April 17, 2024, China officially launched FTA negotiations with El Salvador, and on June 28, 2024, China and Peru announced the substantive completion of FTA upgrade negotiations. China will also speed up the negotiations on the China-Gulf Cooperation Council FTA and explore upgrading more bilateral investment agreements.

On July 30, 2024, China participated in the sixth chief negotiators' meeting of the Digital Economy Partnership Agreement (DEPA) working group online, exchanging in-depth views on China's overall progress in joining the negotiations, specific topics such as paperless trade, electronic payments, and cybersecurity cooperation, and the next stage of the negotiation work plan. China is also actively aligning with the CPTPP and DEPA terms and has carried out reforms and pilot projects in related areas in Shanghai and other regions (box 12.4).

Box 12.4 Comprehensively aligning with international high-standard economic and trade rules to promote high-level institutional opening up

In June 2023, China's State Council published an official document titled Notice Regarding the Implementation of Several Measures to Promote Institutional Opening up of Qualified Free Trade Pilot Zones and FTP in Accordance with International High Standards. The measures were first implemented in five pilot FTZs including Shanghai, Guangdong, Tianjin, Fujian, Beijing, and the Hainan FTP. After a year of piloting, the first batch of FTZs has fully implemented high-standard international economic and trade rules, resulting in a slew of leading and pioneering institutional innovations, including several first-of-their-kind institutional innovations, a series of "market-linking" opening-up measures, favorable policies related to reducing costs and improving efficiency for enterprises, and a group of "efficient and transparent" management practices.

In November 2023, the State Council issued the Overall Plan for Promoting High-Level Institutional Opening up in the China (Shanghai) Pilot FTZ. In February 2024, the Implementation Plan for Shanghai to Implement the Overall Plan for Comprehensively Aligning with International High-Standard Economic and Trade Rules to Promote High-level Institutional Opening Up of the China (Shanghai) Pilot FTZ was released. It proposed 117 measures to continuously optimize "border" measures, expand the opening-up of the goods and factors markets, and actively align with "post-border" rules, steadily deepening institutional opening-up.

3. Promoting reforms of multilateral governance system

China actively participates in reforms of global governance system, providing more global public goods, working with other countries to address challenges, building an open world economy, and promoting inclusive and sustainable globalization.[19]

Enhancing quotas and voting power. As one of the founding members of the IMF, China has consistently worked with other countries to promote the reforms on IMF quota so as to improve its representativeness. By the end of 2023, the IMF approved its 16th general review of quotas and approved an increase of IMF members quotas by 50 percent, to be completed by November 15, 2024. As of September 2024, China's quota in the IMF stands at 30.48 billion Special Drawing Rights, accounting for 6.40 percent of the total, ranking third after the United States (17.43 percent) and Japan (6.47 percent), with a voting share of 6.08 percent.[20]

Meanwhile, China's shareholding and voting power in the WB are also steadily increasing, with its shareholding and voting power in the International Bank for Reconstruction and Development at 6.23 percent and 5.91 percent, respectively, placing it third; its voting power in the International Development Association is 2.54 percent, and its shareholding and voting power in the International Finance Corporation are 2.88 percent and 2.75 percent, respectively.[21]

China's growing voice in the IMF and the WB has further expanded the influence of emerging market countries in global financial governance, contributing to the development of a fairer and more reasonable global governance system.

Conducting multi-level exchanges. China has long maintained good cooperation with the IMF. Through annual consultations, high-level visits, technical assistance, and training, the IMF has provided many valuable policy recommendations for China's macroeconomic management and structural reforms, and has trained professionals. China also actively participates in the formulation of international monetary and financial rules and contributes to the IMF's lending and

19 For information related to the WTO, please refer to chapter 5.

20 IMF, "IMF Members' Quotas and Voting Power, and IMF Board of Governors" (September 27, 2024), https://www.imf.org/en/About/executive-board/members-quotas.

21 World Bank, "Voting Powers" (September 27, 2024), https://www.worldbank.org/en/about/leadership/votingpowers.

assistance programs to relevant member countries. In April 2018, the People's Bank of China and the IMF jointly established the China-IMF Capacity Development Center to provide capacity training for China and other developing countries. In June 2024, the IMF Shanghai Regional Center was officially launched, becoming one of the IMF's regional centers worldwide, aiming to further strengthen the IMF's engagement and cooperation with Asia Pacific economies, conduct relevant research in areas of interest to emerging markets and middle-income countries, provide targeted capacity-building support, and safeguard regional and global financial stability.

III. Improving High-Standard Systems and Mechanisms on Opening-Up

President Xi Jinping pointed out that only an open China can become a modern China. To achieve the largest and most difficult modernization in human history, China will give full play to the advantages of ultra-large markets to attract global resource elements, enhance its opening-up capabilities through expanded international cooperation, and strengthen the linkage between domestic and international markets. A higher-level open economic system will be built and the quality and level of trade and investment cooperation will be improved.

1. Steadily expanding institutional opening-up

China will promote the alignment with high-standard international economic and trade rules relating to property rights protection, industrial subsidies, environmental standards, labor protection, government procurement, e-commerce, financial sector, and other areas, in an effort to create an institutional environment that is transparent, stable, and predictable.

China will seize the initiative by opening its markets of commodity, services, capital, and labor wider to the outside world in an orderly manner and unilaterally opening-up wider to the world's LDCs.

China will safeguard the WTO-centered multilateral trading system, actively participate in the reform of global economic governance, and work to restore the normal operation of the DS mechanism, aiming to achieve the first set of multilateral digital trade rules. China will actively participate in global economic governance reforms and provide more global public goods.

China will expand its globally-oriented network of high-standard FTAs, enhance the opening-up level of its FTAs, and actively incorporate rules related to the digital, green, and standards-based economy.

China will establish compliance mechanisms that are aligned with prevailing international rules, strengthen trade policy compliance efforts, and optimize the environment for opening up and cooperation. At the China-Africa Cooperation Forum in Beijing in September 2024, President Xi Jinping announced that China would unilaterally expand market access and grant duty-free treatment to 100 percent of the tariff lines of products from LDCs with diplomatic

ties with China, making China the first developing country and major global economy to implement such a measure (see box 12.3).

2. Deepening foreign trade structural reform

China aims to accelerate its efforts to build a strong trading nation by further enhancing its position in the global division of labor and advancing to the mid-to-high end of GVC. It will better coordinate trade policies with fiscal, tax, financial, and industrial policies, create a set of systems and policies to support efforts to build China into a strong trading nation.

It will develop new regulatory approaches for customs clearance, taxation, and foreign exchange and foster an institutional environment that is conducive to the development of new models and forms of trade, and step up reforms to integrate domestic and foreign trade. The mechanisms for preventing and controlling trade risks will be improved, and its export control framework and trade remedy system will be refined by enacting supporting regulations for export control laws. A multi-stakeholder mechanism to address trade frictions will be established, forming a robust national security safeguard in trade sector.

Promoting optimization and upgrading of goods trade. China will actively expand new trade potentials, such as trade in intermediate goods and green products, and promote international cooperation in standards and conformity assessment for foreign trade products. This country will build commodity trading centers and global distribution centers, support various types of entities in developing logistics facilities overseas in a well-ordered way, and facilitate the development of international logistics hubs, as well as hubs for the distribution of commodities and resources, in areas where conditions allow.

It will adopt innovative measures to boost trade in services and fully apply the negative list for cross-border trade in services. In regions with favorable conditions, China will develop new offshore trade businesses., as well as set up sound systems for cross-border financial services and diversify the supply of financial products and services.

Innovating and developing digital trade. China will promote the development of digital products trade, digital services trade, digital technology trade, and data trade, accelerating the digitalization of the entire trade chain. This country will also promote the development of integrated pilot zones for cross-border e-commerce and organize well events such as the CIIE, the Canton Fair, the China International Fair for Trade in Services, and the Digital Trade Fair.

3. Further reforming management systems for inward and outward investment

China aims to strengthen the "Invest in China" brand by intensifying efforts to attract and utilize foreign investment, adhering to a combination of high-quality "bringing in" and high-level "going out." Continuing to ease foreign investment market access, China will expand the catalog of encouraged industries for foreign investment, appropriately shorten the negative list for foreign investment, remove all market access restrictions in the manufacturing sector, and promote

wider opening-up with regard to telecommunications, the Internet, education, culture, medical services, and other sectors in a well-conceived way.

China will further reform institutions and mechanisms for promoting foreign investment, ensure national treatment for foreign-funded enterprises in terms of access to factors of production, license application, standards setting, and government procurement, and support them in collaborating with upstream and downstream enterprises in industrial chains. China will refine the institutions and mechanisms for promoting and protecting Chinese investment abroad, improve the management and service systems for outward investment, and facilitate international cooperation in industrial and supply chains.

Fostering a first-rate business environment that is market-oriented, law-based, and internationalized. China will further improve the roundtable meeting system for foreign-invested enterprises, promptly resolving their difficulties, and will protect the rights and interests of foreign investors in accordance with the law (see box 12.5). Additionally, China will improve relevant measures to make it more convenient for people to live.

Box 12.5 Conferences on high-level economic opening-up held in multiple regions

Since 2023, several provinces in China have held conferences, work advancement meetings, and symposia on expanding external opening-up, further solidifying consensus and amplifying the message of opening up. These meetings aim to plan and implement practical measures to promote high-level opening up.

For instance, Zhejiang is advancing its No.1 Project of Opening up by upgrading its "Sweet Potato Economy."[22]

Guangdong is promoting the "Five Fs"—foreign trade, foreign investment, foreign contracting, foreign economy, and foreign talent.

Tianjin is focused on shaping new competitive advantages through five types of opening-up: channel-based, platform-based, ocean-based, institutional-based, and city-based.

Guangxi is striving to build a domestic and international dual-circulation market that connects to all corners of the world.

4. Optimizing the layout for regional opening up

China will leverage regional comparative advantages, enhancing the role of opening-up in promoting regional economic development. The country will move faster toward all-around opening up through links running eastward and westward, across land, and over sea. China will grant greater autonomy for reforms, encourage these FTZs to engage in pioneering and integrated explorations, promote full industrial chain innovation, and actively replicate and promote the

22 https://www.zj.gov.cn/art/2023/6/1/art_1229631750_60133632.html.

results of institutional innovation. China will also accelerate the development of the Hainan FTP, further promoting trade and investment liberalization and facilitation.

China will support Hong Kong SAR and Macao SAR playing a greater role in China's opening up to the outside world. Furthermore, China will encourage cooperation between Guangdong, Hong Kong SAR, and Macao SAR in the Greater Bay Area by promoting closer alignment of rules and mechanisms. China will improve relevant institutions and policies to promote economic and cultural exchanges and cooperation across the Taiwan Strait and advance integrated cross-strait development.

5. Improving mechanisms for high-quality cooperation under the BRI

China will deepen economic and trade cooperation, advancing the high-quality implementation of the BRI. This includes establishing more international cooperation mechanisms for trade, investment cooperation, service trade, and e-commerce, as well as promoting the signing of FTAs and investment protection agreements with more countries. China will continue to implement the Belt and Road Science, Technology, and Innovation Cooperation Action Plan and redouble efforts to develop multilateral platforms for cooperation in green development, digital economy, AI, energy, taxation, finance, disaster mitigation, and other areas.

To engage in practical cooperation, China will also improve the integrated framework for land, sea, air, and cyberspace connectivity, build a multidimensional network to connect countries along the Belt and Road, and make coordinated efforts to advance both major signature projects and "small but beautiful" public welfare projects. High-quality overseas economic and trade cooperation zones and other cooperation parks will be built. A pilot zone for Silk Road E-commerce cooperation will be established, and cooperation in green infrastructure, green energy, and green transportation will be deepened.

Appendix

World Openness Index of 129 Economies: Selected Years of 2008–2023[1]

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
Singapore	0.8895	0.8954	0.8875	0.8852	0.8864	0.8757	0.8613	0.8576	0.8651	0.8699	0.8704	0.8651	0.8598
Ireland	0.8463	0.8392	0.8545	0.8427	0.8410	0.8249	0.8272	0.8269	0.8234	0.8175	0.8043	0.7976	0.7811
Hong Kong SAR, China	0.8432	0.8488	0.8524	0.8446	0.8572	0.8646	0.8533	0.8520	0.8551	0.8636	0.8630	0.8554	0.8255
Germany	0.8352	0.8408	0.8617	0.8478	0.8494	0.8478	0.8362	0.8332	0.8315	0.8340	0.8321	0.8271	0.8262
Netherlands	0.8185	0.8279	0.8065	0.7979	0.8070	0.7911	0.7993	0.7988	0.8097	0.7965	0.8037	0.7919	0.7898
United Kingdom	0.8169	0.8057	0.8056	0.8075	0.8186	0.8073	0.8185	0.8055	0.8077	0.8071	0.8105	0.8131	0.8063
Switzerland	0.8164	0.8151	0.8072	0.8061	0.8067	0.8095	0.8043	0.8093	0.8070	0.8046	0.8027	0.8049	0.7785
Malta	0.8153	0.8234	0.8142	0.8059	0.8039	0.8020	0.7884	0.7788	0.7747	0.7887	0.7775	0.7800	0.7944
Belgium	0.8035	0.8080	0.7983	0.7856	0.7867	0.7829	0.7768	0.7760	0.7731	0.7773	0.7778	0.7725	0.7691
Luxembourg	0.8016	0.7908	0.8279	0.7964	0.7789	0.7535	0.7865	0.7590	0.7966	0.7869	0.7780	0.7764	0.7116
Australia	0.7961	0.7952	0.8090	0.8082	0.8107	0.8073	0.7962	0.7921	0.7834	0.7726	0.7634	0.7557	0.7440
Cyprus	0.7946	0.7938	0.8031	0.7851	0.7845	0.7826	0.7576	0.7459	0.7448	0.7430	0.7094	0.7275	0.7567
Canada	0.7922	0.7944	0.8102	0.8083	0.8036	0.8005	0.7940	0.7866	0.7876	0.7908	0.7865	0.7844	0.7908
France	0.7921	0.7941	0.7932	0.7861	0.7943	0.7952	0.7873	0.7840	0.7816	0.7845	0.7837	0.7837	0.7869

(Continued)

1 Due to space limitations, numbers of openness index in this table are rounded to only four decimal places.
The data from 2008 through 2023 can be download from the website http://eniwep.cssn.cn/publications/publications_World_Openness_Report/World_Openness_Report_Data_on_World_Openness_Index/.

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
New Zealand	0.7842	0.7827	0.7813	0.7790	0.7787	0.7782	0.7665	0.7664	0.7672	0.7627	0.7587	0.7571	0.7466
Austria	0.7836	0.7858	0.7786	0.7680	0.7718	0.7675	0.7627	0.7582	0.7569	0.7595	0.7591	0.7546	0.7504
Macao SAR, China	0.7830	0.7800	0.7600	0.7500	0.7681	0.7634	0.7524	0.7436	0.7439	0.7423	0.7342	0.7236	0.7291
Sweden	0.7826	0.7817	0.7745	0.7664	0.7680	0.7638	0.7578	0.7550	0.7542	0.7575	0.7544	0.7523	0.7480
Korea, Rep. of	0.7814	0.7823	0.8025	0.7980	0.8036	0.8046	0.7954	0.7919	0.7664	0.7627	0.7555	0.7548	0.7001
Denmark	0.7803	0.7831	0.7748	0.7661	0.7683	0.7655	0.7583	0.7563	0.7546	0.7562	0.7550	0.7515	0.7434
Greece	0.7791	0.7827	0.7739	0.7604	0.7609	0.7272	0.7160	0.7112	0.7093	0.7371	0.7346	0.7333	0.7264
Japan	0.7786	0.7830	0.7834	0.7845	0.7993	0.7896	0.7813	0.7827	0.7858	0.7845	0.7804	0.7860	0.7998
Latvia	0.7782	0.7816	0.7681	0.7586	0.7613	0.7594	0.7499	0.7489	0.7434	0.7435	0.7401	0.7390	0.7219
Estonia	0.7779	0.7802	0.7730	0.7633	0.7629	0.7631	0.7545	0.7506	0.7511	0.7515	0.7577	0.7512	0.7322
United States	0.7764	0.7803	0.7747	0.7673	0.7704	0.7694	0.7950	0.8032	0.8649	0.8956	0.9130	0.9332	0.9649
Hungary	0.7763	0.7839	0.7741	0.7725	0.7729	0.7635	0.7581	0.7591	0.7550	0.7563	0.7519	0.7490	0.7433
Spain	0.7761	0.7767	0.7710	0.7622	0.7668	0.7643	0.7595	0.7543	0.7540	0.7551	0.7522	0.7477	0.7462
Italy	0.7747	0.7775	0.7770	0.7687	0.7757	0.7750	0.7700	0.7655	0.7658	0.7680	0.7664	0.7624	0.7575
Lithuania	0.7738	0.7781	0.7692	0.7600	0.7661	0.7552	0.7460	0.7359	0.7219	0.7189	0.7153	0.7126	0.7228
Costa Rica	0.7737	0.7751	0.7690	0.7636	0.7619	0.7614	0.7530	0.7515	0.7466	0.7179	0.7439	0.7306	0.6963
Nicaragua	0.7672	0.7681	0.7563	0.7511	0.7501	0.7498	0.7436	0.7429	0.7423	0.7448	0.7452	0.7320	0.7232
Portugal	0.7669	0.7688	0.7616	0.7576	0.7566	0.7485	0.7414	0.7379	0.7363	0.7380	0.7366	0.7329	0.7296
Finland	0.7659	0.7681	0.7599	0.7511	0.7532	0.7503	0.7446	0.7426	0.7405	0.7431	0.7433	0.7406	0.7343
Norway	0.7647	0.7652	0.7579	0.7567	0.7610	0.7605	0.7556	0.7537	0.7532	0.7530	0.7535	0.7537	0.7655
Czech	0.7636	0.7664	0.7648	0.7622	0.7649	0.7620	0.7561	0.7535	0.7537	0.7538	0.7475	0.7465	0.7335
Bahrain	0.7617	0.7596	0.7560	0.7577	0.7545	0.7534	0.7464	0.7488	0.7498	0.7518	0.7527	0.7474	0.7251
Israel	0.7598	0.7544	0.7716	0.7693	0.7710	0.7717	0.7655	0.7639	0.7634	0.7656	0.7641	0.7628	0.7543
China	0.7596	0.7553	0.7560	0.7511	0.7526	0.7459	0.7413	0.7358	0.7337	0.7323	0.7214	0.7105	0.6789
Panama	0.7595	0.7574	0.7511	0.7491	0.7503	0.7469	0.7450	0.7419	0.7470	0.7487	0.7476	0.7406	0.7297
Mexico	0.7541	0.7546	0.7666	0.7675	0.7664	0.7678	0.7568	0.7535	0.7498	0.7504	0.7473	0.7450	0.7449
Uruguay	0.7538	0.7554	0.7446	0.7442	0.7450	0.7449	0.7369	0.7345	0.7348	0.7347	0.7339	0.7323	0.7281
Chile	0.7534	0.7530	0.7556	0.7537	0.7544	0.7538	0.7384	0.7341	0.7358	0.7334	0.7287	0.7292	0.7511
Peru	0.7533	0.7492	0.7594	0.7580	0.7587	0.7607	0.7466	0.7265	0.7254	0.7254	0.7245	0.7184	0.6943
Georgia	0.7530	0.7544	0.7478	0.7454	0.7454	0.7434	0.7180	0.7144	0.7113	0.7114	0.7031	0.6856	0.6675
Romania	0.7518	0.7531	0.7531	0.7438	0.7521	0.7472	0.7399	0.7370	0.7341	0.7342	0.7298	0.7267	0.7152
Guatemala	0.7510	0.7508	0.7449	0.7399	0.7387	0.7415	0.7334	0.7322	0.7315	0.7328	0.7335	0.7194	0.7160
Iceland	0.7509	0.7524	0.7383	0.7349	0.7382	0.7313	0.7238	0.6940	0.6658	0.6699	0.6662	0.6613	0.6548

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
Slovak	0.7473	0.7518	0.7443	0.7349	0.7465	0.7413	0.7354	0.7323	0.7300	0.7291	0.7276	0.7254	0.7100
Poland	0.7437	0.7464	0.7425	0.7330	0.7350	0.7326	0.7251	0.7215	0.7190	0.6924	0.6923	0.6894	0.6829
Slovenia	0.7434	0.7478	0.7358	0.7255	0.7294	0.7246	0.7170	0.7128	0.7107	0.7091	0.7067	0.7050	0.7216
Croatia	0.7426	0.7420	0.7332	0.7207	0.7269	0.7235	0.7139	0.7093	0.7060	0.7046	0.6982	0.6939	0.6943
Malaysia	0.7404	0.7426	0.7363	0.7331	0.7340	0.7366	0.7220	0.7217	0.7224	0.7251	0.6961	0.6937	0.7441
Trinidad and Tobago	0.7385	0.7379	0.7361	0.7341	0.7342	0.7352	0.7295	0.7452	0.7426	0.7319	0.7322	0.7315	0.7141
Jordan	0.7384	0.7385	0.7286	0.7250	0.7286	0.7277	0.7261	0.7304	0.7293	0.7346	0.7328	0.7321	0.7359
Cambodia	0.7367	0.7440	0.7366	0.7282	0.7298	0.7256	0.7181	0.7186	0.7190	0.6920	0.6884	0.6832	0.6664
Oman	0.7366	0.7349	0.7225	0.7278	0.7346	0.7349	0.7327	0.7317	0.7322	0.7282	0.7278	0.7179	0.7037
Mauritius	0.7344	0.7395	0.7305	0.7171	0.7215	0.7055	0.7138	0.7085	0.7106	0.7091	0.7063	0.7131	0.7142
Antigua and Barbuda	0.7268	0.7272	0.7206	0.7128	0.7248	0.7264	0.7234	0.7228	0.7205	0.7267	0.7134	0.7078	0.6889
El Salvador	0.7250	0.7266	0.7195	0.7156	0.7179	0.7181	0.7098	0.7075	0.7064	0.7074	0.7081	0.7009	0.7202
Bulgaria	0.7227	0.7248	0.7211	0.7121	0.7209	0.7248	0.7429	0.7379	0.7368	0.7384	0.7343	0.7313	0.7257
Kuwait	0.7126	0.7100	0.7089	0.7119	0.7109	0.7126	0.7065	0.7023	0.7004	0.6962	0.6910	0.6826	0.6776
Botswana	0.7029	0.7034	0.7078	0.7094	0.7090	0.7082	0.7039	0.7137	0.7052	0.7038	0.6917	0.7039	0.7038
Vietnam	0.7027	0.6917	0.6948	0.6902	0.6830	0.6790	0.6696	0.6664	0.6634	0.6597	0.6573	0.6545	0.6534
Dominican Rep.	0.7021	0.6756	0.6912	0.6865	0.6857	0.6870	0.6760	0.6685	0.6724	0.6804	0.6812	0.6859	0.6823
Armenia	0.7010	0.6965	0.6792	0.6746	0.6770	0.6758	0.6670	0.6638	0.6775	0.6802	0.6812	0.6792	0.6762
Zambia	0.6949	0.6934	0.6869	0.6886	0.6982	0.6892	0.6816	0.6849	0.6838	0.6905	0.6903	0.6925	0.6750
Mongolia	0.6913	0.6914	0.6797	0.6833	0.6853	0.6839	0.6774	0.6770	0.6748	0.6769	0.6802	0.6811	0.6654
Guyana	0.6890	0.6904	0.6955	0.6928	0.7148	0.7060	0.6948	0.7226	0.7204	0.7257	0.7260	0.7220	0.7119
Gambia	0.6889	0.6899	0.6871	0.6884	0.6885	0.6900	0.6879	0.6843	0.6888	0.6937	0.6892	0.6912	0.6851
Colombia	0.6860	0.6847	0.6938	0.6913	0.6899	0.6902	0.6786	0.6689	0.6541	0.6540	0.6516	0.6433	0.6510
Paraguay	0.6830	0.6819	0.6783	0.6772	0.6798	0.6775	0.6703	0.6668	0.6660	0.6674	0.6685	0.6664	0.6842
North Macedonia	0.6819	0.6843	0.6733	0.6695	0.6722	0.6722	0.6691	0.6670	0.6680	0.6675	0.6631	0.6672	0.6709
Argentina	0.6768	0.6757	0.6790	0.6757	0.6817	0.7355	0.7220	0.6561	0.6406	0.6422	0.6407	0.6365	0.6559
Lebanon	0.6768	0.6704	0.6630	0.6489	0.6515	0.6534	0.6493	0.6506	0.6501	0.6829	0.6836	0.6798	0.6869
Ecuador	0.6756	0.6731	0.6841	0.6809	0.6802	0.6903	0.6863	0.6760	0.6786	0.6553	0.6555	0.6559	0.6993
Honduras	0.6743	0.6748	0.6673	0.6643	0.6667	0.6693	0.6611	0.6584	0.6593	0.6588	0.6567	0.6427	0.6982
Indonesia	0.6699	0.6705	0.6648	0.6632	0.6619	0.6664	0.6549	0.6573	0.6572	0.6596	0.6586	0.6577	0.6796
Saudi Arabia	0.6698	0.6652	0.6839	0.6856	0.6895	0.6909	0.6887	0.6872	0.6893	0.6768	0.6829	0.6800	0.6771
Barbados	0.6645	0.6638	0.6613	0.6664	0.6645	0.6671	0.6649	0.6700	0.6655	0.6658	0.6645	0.6614	0.6352

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	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
Thailand	0.6633	0.6594	0.6824	0.6793	0.6825	0.6583	0.6546	0.6531	0.6528	0.6536	0.6505	0.6517	0.6668
Fiji	0.6613	0.6621	0.6451	0.6383	0.6316	0.6365	0.6301	0.6325	0.6340	0.6333	0.6306	0.6281	0.6290
Ukraine	0.6605	0.6597	0.6518	0.6461	0.6453	0.6507	0.6299	0.6285	0.6284	0.6266	0.6182	0.6192	0.6227
Philippines	0.6587	0.6577	0.6672	0.6675	0.6693	0.6692	0.6669	0.6637	0.6637	0.6640	0.6333	0.6352	0.6576
Morocco	0.6558	0.6568	0.6460	0.6443	0.6458	0.6457	0.6438	0.6410	0.6376	0.6357	0.6339	0.6367	0.6317
Russia	0.6556	0.6532	0.6729	0.6705	0.6827	0.6930	0.6937	0.6946	0.7063	0.7139	0.7143	0.7050	0.6853
Cabo Verde	0.6553	0.6564	0.6488	0.6577	0.6413	0.6343	0.6014	0.5682	0.5678	0.5705	0.5689	0.5706	0.5693
Kyrgyz	0.6545	0.6576	0.6545	0.6465	0.6467	0.6500	0.6462	0.6472	0.6203	0.6266	0.6264	0.6340	0.6788
Lesotho	0.6532	0.6509	0.6425	0.6409	0.6378	0.6299	0.6298	0.6279	0.6168	0.6184	0.6204	0.6157	0.6168
Uganda	0.6517	0.6499	0.6712	0.6762	0.6706	0.6716	0.6706	0.6721	0.6715	0.6762	0.6740	0.6740	0.6703
India	0.6504	0.6546	0.6546	0.6555	0.6608	0.6636	0.6553	0.6542	0.6538	0.6549	0.6561	0.6542	0.6373
Moldova	0.6501	0.6530	0.6410	0.6378	0.6402	0.6418	0.6354	0.6368	0.6361	0.6373	0.6096	0.6090	0.6139
Egypt	0.6492	0.6479	0.6409	0.6366	0.6384	0.6426	0.6423	0.6146	0.6157	0.6175	0.6168	0.6510	0.7086
South Africa	0.6457	0.6435	0.6422	0.6408	0.6412	0.6437	0.6415	0.6410	0.6335	0.6357	0.6349	0.6333	0.6332
Turkey	0.6448	0.6477	0.6408	0.6396	0.6411	0.6414	0.6640	0.6608	0.6621	0.6618	0.6601	0.6572	0.6482
Samoa	0.6441	0.6438	0.6397	0.6327	0.6283	0.6310	0.6252	0.6269	0.6255	0.6238	0.6220	0.6206	0.6145
Bolivia	0.6429	0.6431	0.6426	0.6409	0.6439	0.6448	0.6428	0.6458	0.6471	0.6518	0.6511	0.6543	0.6682
Papua New Guinea	0.6424	0.6415	0.6410	0.6379	0.6299	0.6313	0.6441	0.6434	0.6739	0.6758	0.7018	0.6764	0.6535
Albania	0.6421	0.6416	0.6304	0.6290	0.6619	0.6617	0.6589	0.6551	0.6542	0.6534	0.6534	0.6622	0.6192
Belize	0.6416	0.6430	0.6350	0.6317	0.6398	0.6410	0.6374	0.6378	0.6376	0.6396	0.6361	0.6325	0.6256
Azerbaijan	0.6396	0.6371	0.6279	0.6318	0.6278	0.6271	0.6292	0.6313	0.6257	0.6227	0.6212	0.6213	0.6181
Laos	0.6394	0.6372	0.6267	0.6260	0.6291	0.6294	0.6255	0.6248	0.6254	0.6255	0.6208	0.6202	0.6018
Kenya	0.6389	0.6365	0.6426	0.6387	0.6397	0.6419	0.6434	0.6416	0.6445	0.6486	0.6508	0.6510	0.6530
Bosnia and Herzegovina	0.6386	0.6396	0.6289	0.6279	0.6251	0.6338	0.6268	0.6246	0.6291	0.6331	0.6556	0.6630	0.6777
Belarus	0.6371	0.6355	0.6223	0.6161	0.6201	0.6207	0.6160	0.6128	0.5943	0.5922	0.6079	0.6129	0.6043
Namibia	0.6368	0.6325	0.6273	0.6247	0.6247	0.6205	0.6232	0.6225	0.6175	0.6180	0.6142	0.6123	0.6091
Jamaica	0.6362	0.6375	0.6352	0.6320	0.6592	0.6547	0.6553	0.6802	0.6840	0.6852	0.6847	0.6826	0.7023
Tunisia	0.6307	0.6324	0.6293	0.6258	0.6294	0.6291	0.6285	0.6247	0.6300	0.6340	0.6350	0.6280	0.6284
Sudan	0.6297	0.6336	0.6216	0.6245	0.6210	0.6219	0.6125	0.5865	0.5866	0.5890	0.5835	0.5752	0.5667
Brazil	0.6290	0.6251	0.6314	0.6392	0.6511	0.6536	0.6493	0.6493	0.6494	0.6764	0.6759	0.6751	0.6758
Mozambique	0.6277	0.6374	0.6237	0.6217	0.6262	0.6227	0.6245	0.6276	0.6178	0.6242	0.6229	0.6205	0.6054
Zimbabwe	0.6258	0.6249	0.6220	0.6235	0.6229	0.6218	0.6246	0.6230	0.6322	0.6093	0.6037	0.6293	0.5975
Kazakhstan	0.6222	0.6217	0.6183	0.6195	0.6215	0.6155	0.6114	0.6114	0.6085	0.6087	0.6070	0.6072	0.6197

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
Madagascar	0.6181	0.6184	0.6092	0.6077	0.6096	0.6037	0.6029	0.6003	0.6247	0.6280	0.6296	0.6119	0.6261
Sri Lanka	0.6153	0.6162	0.6034	0.6014	0.5994	0.6001	0.6013	0.6032	0.6048	0.6004	0.5970	0.6278	0.6293
Nigeria	0.6151	0.6139	0.6098	0.6108	0.6131	0.6127	0.6133	0.6130	0.6139	0.6230	0.6227	0.6222	0.6212
Bangladesh	0.6147	0.6155	0.6148	0.6152	0.6158	0.6164	0.6130	0.6124	0.6166	0.6165	0.6141	0.6126	0.6119
Ghana	0.6087	0.6083	0.5936	0.5938	0.6026	0.6027	0.5933	0.5985	0.5932	0.5916	0.5896	0.5956	0.6060
Mali	0.6075	0.6092	0.6083	0.6078	0.6098	0.6081	0.6061	0.6103	0.6090	0.6090	0.6090	0.6060	0.6039
Gabon	0.6073	0.6073	0.6033	0.6058	0.6049	0.6047	0.6020	0.6023	0.6028	0.6027	0.6041	0.6007	0.5918
Pakistan	0.6065	0.6072	0.6053	0.6057	0.6060	0.6072	0.6062	0.6062	0.6080	0.6110	0.6101	0.6106	0.6065
Algeria	0.6042	0.6037	0.6073	0.6097	0.6129	0.6129	0.6131	0.6150	0.6157	0.6153	0.6143	0.6128	0.6104
Congo, Rep. of	0.6018	0.6010	0.5908	0.5926	0.5959	0.5956	0.6039	0.6108	0.6108	0.5957	0.5915	0.5898	0.5918
Tanzania	0.6004	0.5992	0.6005	0.6012	0.6026	0.6028	0.6015	0.6024	0.6059	0.6131	0.6095	0.6088	0.6069
Malawi	0.5989	0.5988	0.5929	0.5926	0.5950	0.5941	0.5925	0.5922	0.5882	0.5916	0.5919	0.5708	0.5801
Ethiopia	0.5975	0.5986	0.5949	0.5934	0.5929	0.5927	0.5894	0.5903	0.5886	0.5982	0.6001	0.5959	0.5891
Nepal	0.5951	0.5950	0.5919	0.5883	0.5891	0.5921	0.5890	0.5895	0.5889	0.5915	0.5764	0.5856	0.3253
Côte d'Ivoire	0.5948	0.5949	0.5831	0.5878	0.5880	0.5865	0.5849	0.5876	0.5818	0.5833	0.5844	0.5848	0.5842
Burundi	0.5895	0.5859	0.5782	0.5781	0.5845	0.5729	0.5794	0.5775	0.5762	0.5794	0.5806	0.5804	0.5726
Central African Rep.	0.5883	0.5884	0.5868	0.5870	0.5875	0.5868	0.5858	0.5873	0.5861	0.5870	0.5873	0.5841	0.5828

Ranking of World Openness Index of 129 Economies: Selected Years of 2008–2023

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
Singapore	1	1	1	1	1	1	1	1	1	2	2	2	2
Ireland	2	4	3	4	4	4	4	4	5	5	6	7	11
Hong Kong SAR, China	3	2	4	3	2	2	2	2	3	3	3	3	4
Germany	4	3	2	2	3	3	3	3	4	4	4	4	3
Netherlands	5	5	10	11	7	12	7	8	6	8	7	8	9
United Kingdom	6	9	11	7	5	6	5	6	7	6	5	5	5
Switzerland	7	7	9	8	8	5	6	5	8	7	8	6	12
Malta	8	6	6	9	9	9	12	14	14	10	14	12	7
Belgium	9	8	14	14	14	14	16	15	15	14	13	14	13

(Continued)

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
Luxembourg	10	14	5	12	16	35	14	20	9	11	12	13	49
Australia	11	10	8	6	6	7	8	9	12	15	17	18	25
Cyprus	12	13	12	15	15	15	25	32	32	34	53	42	16
Canada	13	11	7	5	11	10	11	11	10	9	9	10	8
France	14	12	15	13	13	11	13	12	13	13	10	11	10
New Zealand	15	20	17	17	17	16	18	16	16	19	19	17	21
Austria	16	15	18	21	20	21	20	21	20	20	18	20	19
Macao SAR, China	17	26	34	41	24	26	31	34	33	35	38	45	34
Sweden	18	22	22	24	25	24	24	23	23	21	23	22	20
Korea, Rep. of	19	21	13	10	10	8	9	10	17	18	21	19	55
Denmark	20	17	20	25	23	22	22	22	22	23	22	23	26
Greece	21	19	24	30	34	54	58	58	58	38	36	33	36
Japan	22	18	16	16	12	13	15	13	11	12	11	9	6
Latvia	23	23	30	32	32	32	32	30	34	32	34	32	41
Estonia	24	25	25	27	30	27	29	29	27	28	20	24	31
United States	25	24	21	23	22	19	10	7	2	1	1	1	1
Hungary	26	16	23	18	19	25	23	19	21	22	27	25	27
Spain	27	29	27	28	26	23	21	24	24	24	26	26	22
Italy	28	28	19	20	18	17	17	17	18	16	15	16	15
Lithuania	29	27	28	31	28	33	35	41	50	52	50	51	40
Costa Rica	30	30	29	26	31	29	30	28	31	53	32	40	58
Nicaragua	31	32	38	40	43	38	38	35	36	31	31	37	39
Portugal	32	31	33	35	36	39	40	39	39	37	35	34	33
Finland	33	33	35	38	39	37	37	36	37	33	33	30	29
Norway	34	35	37	36	33	31	28	25	26	26	24	21	14
Czech	35	34	32	29	29	28	27	26	25	25	29	28	30
Bahrain	36	36	40	34	37	36	34	31	28	27	25	27	38
Israel	37	41	26	19	21	18	19	18	19	17	16	15	17
China	38	39	39	39	40	42	41	42	43	44	49	52	69
Panama	39	37	43	42	42	41	36	37	30	30	28	31	32
Mexico	40	40	31	22	27	20	26	27	29	29	30	29	23
Uruguay	41	38	46	44	46	43	44	43	41	39	39	35	35

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
Chile	42	44	41	37	38	34	43	44	40	42	44	41	18
Peru	43	48	36	33	35	30	33	49	48	50	48	48	59
Georgia	44	42	44	43	45	44	56	55	55	55	57	64	80
Romania	45	43	42	45	41	40	42	40	42	41	43	43	45
Guatemala	46	47	45	46	47	45	46	46	45	43	40	47	44
Iceland	47	45	49	48	48	52	51	64	76	75	76	80	86
Slovak	48	46	47	47	44	46	45	45	46	46	46	44	50
Poland	49	50	48	51	49	51	50	53	53	63	61	62	66
Slovenia	50	49	53	54	54	58	57	57	56	56	55	55	42
Croatia	51	53	54	56	56	59	59	59	61	59	59	58	60
Malaysia	52	52	51	50	52	47	53	52	49	51	60	59	24
Trinidad and Tobago	53	56	52	49	51	49	48	33	35	45	42	38	47
Jordan	54	55	56	55	55	53	49	48	47	40	41	36	28
Cambodia	55	51	50	52	53	56	55	54	54	64	66	65	82
Oman	56	57	57	53	50	50	47	47	44	47	45	49	53
Mauritius	57	54	55	57	58	64	60	60	57	57	56	50	46
Antigua and Barbuda	58	58	59	59	57	55	52	50	51	48	52	53	61
El Salvador	59	59	60	58	60	60	61	61	59	58	54	57	43
Bulgaria	60	60	58	60	59	57	39	38	38	36	37	39	37
Kuwait	61	61	61	61	62	61	62	62	63	61	63	67	72
Botswana	62	62	62	62	63	62	63	56	62	60	62	56	52
Vietnam	63	65	64	65	70	73	75	77	79	81	81	84	88
Dominican Rep.	64	73	66	68	68	71	72	74	72	68	70	63	67
Armenia	65	63	73	76	76	75	77	78	69	69	71	71	74
Zambia	66	64	68	66	64	70	69	66	67	65	64	60	76
Mongolia	67	66	72	70	69	72	71	69	70	70	72	68	83
Guyana	68	67	63	63	61	63	64	51	52	49	47	46	48
Gambia	69	68	67	67	67	69	67	67	65	62	65	61	64
Colombia	70	69	65	64	65	68	70	73	84	86	87	90	90
Paraguay	71	71	75	73	75	74	74	76	75	77	75	76	65
North Macedonia	72	70	76	78	77	76	76	75	74	76	78	75	77
Argentina	73	72	74	75	73	48	54	83	91	91	91	93	85

(Continued)

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
Lebanon	74	77	82	85	86	87	88	87	87	67	68	70	62
Ecuador	75	75	69	71	74	67	68	70	68	84	85	83	56
Honduras	76	74	79	81	80	78	81	81	81	83	82	91	57
Indonesia	77	76	81	82	82	81	85	82	82	82	80	81	68
Saudi Arabia	78	78	70	69	66	66	66	65	64	71	69	69	73
Barbados	79	79	83	80	81	80	79	72	77	78	77	79	93
Thailand	80	82	71	72	72	84	86	86	86	87	90	87	81
Fiji	81	80	89	95	100	98	98	97	95	97	97	99	97
Ukraine	82	81	86	87	90	88	99	99	100	101	106	107	101
Philippines	83	83	80	79	79	79	78	79	78	79	96	94	84
Morocco	84	85	88	88	89	90	91	93	93	95	95	92	95
Russia	85	88	77	77	71	65	65	63	60	54	51	54	63
Cabo Verde	86	86	87	83	92	99	121	129	129	129	129	129	127
Kyrgyz	87	84	85	86	88	89	89	89	105	100	99	95	70
Lesotho	88	90	92	89	99	103	100	100	108	107	105	108	106
Uganda	89	91	78	74	78	77	73	71	73	73	74	74	78
India	90	87	84	84	84	82	84	85	85	85	83	86	92
Moldova	91	89	94	97	95	95	97	96	94	93	112	115	108
Egypt	92	92	96	98	98	93	94	109	110	109	107	88	51
South Africa	93	95	93	91	93	92	95	94	96	94	94	96	94
Turkey	94	93	97	92	94	96	80	80	80	80	79	82	91
Samoa	95	94	98	99	104	102	105	102	102	104	102	104	107
Bolivia	96	96	91	90	91	91	93	90	89	89	88	85	79
Papua New Guinea	97	99	95	96	101	101	90	91	71	74	58	72	87
Albania	98	98	102	103	83	83	82	84	83	88	86	78	104
Belize	99	97	100	102	96	97	96	95	92	92	92	97	100
Azerbaijan	100	104	105	101	105	106	101	98	101	106	103	103	105
Laos	101	103	107	105	103	104	104	103	103	102	104	106	118
Kenya	102	105	90	94	97	94	92	92	90	90	89	89	89
Bosnia and Herzegovina	103	100	104	104	107	100	103	105	99	98	84	77	71
Belarus	104	106	109	112	112	110	109	111	120	121	115	109	116

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2008
Namibia	105	108	106	107	108	111	108	107	107	108	109	112	111
Jamaica	106	101	99	100	85	85	83	68	66	66	67	66	54
Tunisia	107	109	103	106	102	105	102	104	98	96	93	100	98
Sudan	108	107	111	108	111	108	113	127	125	125	126	127	128
Brazil	109	110	101	93	87	86	87	88	88	72	73	73	75
Mozambique	110	102	108	110	106	107	107	101	106	103	100	105	115
Zimbabwe	111	111	110	109	109	109	106	106	97	114	118	98	119
Kazakhstan	112	112	112	111	110	113	114	113	115	116	116	117	103
Madagascar	113	113	115	117	117	119	118	120	104	99	98	113	99
Sri Lanka	114	114	119	120	122	122	122	117	118	118	120	101	96
Nigeria	115	116	114	114	114	115	110	110	112	105	101	102	102
Bangladesh	116	115	113	113	113	112	112	112	109	110	110	111	109
Ghana	117	118	123	122	120	121	123	121	121	123	123	121	114
Mali	118	117	116	116	116	116	116	115	114	115	114	118	117
Gabon	119	119	120	118	119	118	119	119	119	117	117	119	121
Pakistan	120	120	118	119	118	117	115	116	116	113	111	114	113
Algeria	121	121	117	115	115	114	111	108	111	111	108	110	110
Congo, Rep. of	122	122	126	125	123	123	117	114	113	120	122	122	120
Tanzania	123	123	121	121	121	120	120	118	117	112	113	116	112
Malawi	124	124	124	124	124	124	124	122	124	122	121	128	125
Ethiopia	125	125	122	123	125	125	125	123	123	119	119	120	122
Nepal	126	126	125	126	126	126	126	124	122	124	128	123	129
Côte d'Ivoire	127	127	128	127	127	128	128	125	127	127	125	124	123
Burundi	128	129	129	129	129	129	129	128	128	128	127	126	126
Central African Rep.	129	128	127	128	128	127	127	126	126	126	124	125	124

Questionnaire on Opening-Up Worldwide

1. Compared to 2022, what changes have occurred in the policies on opening up among all economies in the following areas since 2023? (One answer for each policy category)

	More open	No change	Less open	Uncertain
Policies on cross-border trade, direct investment, and finance				
Policies on cross-border tourism, education, and migration				
Policies on cross-border cultural exchange				

2. What are the main positive factors that have influenced the above changes in the world's openness policy since 2023? (One answer or more)

a. The rise of the Global South increases the support for the world to expand its openness.
b. The continuous progress of digital technology provides more convenience and opportunities for international exchanges and cooperation.
c. Green development continues to accelerate, opening new areas of international opening cooperation.
d. The deadline for the UN 2030 SDGs is approaching, and the need for opening cooperation is becoming more urgent.
e. Major multilateral international institutions are working hard to promote their reforms and help improve the global governance system.
f. Other(s)_____.

3. What main negative factors have influenced the above changes in the world's openness policies since 2023? (One answer or more)

a. Expansion of international geopolitical conflicts
b. Overstretching the "national security" concept
c. Intensification of the inward-looking trends of some countries
d. The rise of anti-globalization and de-globalization
e. Increase of unilateralism and bullying practices
f. Weakened cross-cultural identity and intensified international ethnic confrontation
g. Other(s)_____

4. What are the main regions influencing the world's openness trend so far since 2023? (One answer or more)

a. Asian economies
b. African economies
c. European economies
d. North American economies
e. South American economies
f. Oceania economies

5. **What will happen to world openness in the next three years?** (One answer)
   a. More open
   b. Less open
   c. No significant change
   d. Uncertain

6. **What are the opportunities for world openness in the next decade?** (One answer or more)
   a. Regional economic integration may accelerate, promoting economic globalization in the medium and long term.
   b. A new round of scientific and technological revolution and industrial transformation represented by the digital economy is well under way.
   c. Sustainable development and GX will continue to advance.
   d. The Global South's capability to expand opening-up will increase.
   e. Other(s)_____.

7. **What are the challenges of world openness in the next decade?** (One answer or more)
   a. Insufficient dynamics for world economic growth
   b. Frequent geopolitical conflicts
   c. Rising unilateralism and protectionism
   d. Intensifying climate crisis and severe environmental challenges
   e. Widening global development gap
   f. Limited improvement in global governance effectiveness
   g. Insufficient willingness of some major economies to expand opening up
   h. Other(s)_____

8. **What are your hopes for the world in the next decade?** (One answer or more)
   a. The power of peace and stability is greater than the power of fighting turmoil.
   b. The power of development and prosperity is greater than the power of stagnation and recession.
   c. The power of openness and inclusiveness is greater than the power of closure and exclusion.
   d. The power of win-win cooperation is greater than the power of zero-sum game.
   e. Other(s)_____.

9. **What are some of the more urgent and necessary measures to expand the economic, social and cultural openness of the world?** (Score from 0 to 100)
   a. Increase the growth rate of the world economy, improve the world economic structure, and optimize the international economic order_____
   b. Enhance international political mutual trust and cooperation, and promote world peace_____

c. Enhance mutual understanding, recognition, identity and inclusiveness among different international ethnic groups_____
d. Promote mutual learning between different cultures, improve cultural diversity, and enhance the development capacity of human civilization_____
e. Other(s)_____

10. Which new or strengthened opening-up measures China has introduced since 2018 have impressed you the most? (One answer or more)

a. Hold the CIIE and proactively open the market to the world
b. The overall level of tariff rates has dropped significantly, and customs clearance facilitation has been significantly advanced
c. Make greater efforts to attract and utilize foreign investment
d. Expand high-level financial opening-up
e. Promote the construction of free trade pilot zones and free trade ports
f. Jointly build high-quality development of the Belt and Road and become a popular international public product and international cooperation platform
g. Promote the entry into force and implementation of FTAs such as the RCEP
h. Grant visa-free treatment to more foreigners holding ordinary passports to visit China and improve visa and customs clearance convenience
i. Other(s)_____

11. What are the main bottlenecks and challenges in China's current opening-up to the outside world? (One answer or more)

a. The business environment needs to be more transparent, stable, and predictable.
b. The degree of trade and investment facilitation needs to be further strengthened.
c. There are hidden barriers such as "entry but no operation" for foreign investment in some fields.
d. There is still a lot of room for openings in the fields of telecommunications, the Internet, education, culture, and medical services.
e. The cross-border flow of data is not efficient, convenient, or safe enough.
f. Some economies have adopted discriminatory and restrictive measures on the import and export of Chinese companies.
g. Some economies have adopted discriminatory and restrictive measures on Chinese companies' local investment.
h. Some economies have adopted discriminatory and restrictive measures on Chinese scientific and technological exchanges and overseas study.
i. Other(s)_____.

12. What are the Chinese opening-up policies that the outside world is most looking forward to in the next decade? (One answer or more)

a. Foster a first-rate business environment that is market-oriented, law-based, and internationalized
b. Actively align with high-standard international economic and trade rules and expand institutional opening up
c. Expand the opening-up of the commodity market
d. Expand the opening-up of the services market
e. Expand the opening-up of the capital market
f. Expand the opening-up of the labor market
g. Build a unified national market
h. Unilaterally open China's doors wider to the world's least developed countries
i. Other(s)_____

13. If you are a business leader, what changes do you hope to see in your company's economic and trade relations with China in the next ten years? (One answer)

a. Expand
b. Reduce
c. Remain the same
d. Uncertain

14. Why do you want to make adjustments to your company's economic and trade relations with China? (Fill in the blank)

_____

(Those whose option is 1 or 2 in Question 13 need answer this question)

15. What best practice examples of open development in specific economies and or groups of economies over the course of history would you recommend? (Fill in the blank)

_____

16. Information on yourself. (Optimal)

_____

Brief Introduction to World Openness Index

This section includes the following contents: concept and theory of opening-up to the outside world, indicator system, weight setting and sources of data, and nondimensionalization of indicators.

Concept and theory of opening-up to the outside world

The basic meaning of "opening-up to the outside world" is clear and consistent, that is, the specific entities of at least two economies carry out exchanges at the economic, social and cultural levels to lead to the flow of goods, services, personnel, capital, information, knowledge, and technology. The subject of "opening-up to the outside world," mentioned in this report, mainly refers to the macro-level economy, that is, a specific economy. This means that the openness index takes the entire economy as the basic unit of observation.

The openness index measures cross-border economic openness and the related cross-border social openness and cross-border cultural openness.

In the field of economic openness, cross-border exchanges undoubtedly have the longest history, including, but not limited to, cross-border trade. Economic opening-up has long been dominated by the opening-up of cross-border trade, and cross-border trade has long been dominated by goods. In recent decades, the proportion of services has gradually increased, and it has almost become predominant in some economies. Foreign trade in goods has long been dominated by primary and final products, although the intermediate products have accounted for an increasing proportion and even become the main part of cross-border trade in some economies. Cross-border trade is actually a direct manifestation or extension of a country's endowment of resources (including natural resources and human resources) and production technology endowments. This is exactly the basic principle discussed in the classical theory of international trade. Therefore, this report uses the cross-border trade theory as a starting point to construct a theoretical model of opening-up to the outside world.

Based on the summary of various frontier mainstream cross-border trade models by Costinot and Rodríguez-Clare (2014),[2] price of a product of economy i in economy j can be expressed as function of a number of variables, including those directly related to cross-border opening-up, such as the fixed and variable costs of entry of one economy into another. Those costs and the areas of cross-border opening-up that influence the costs are as follows:

- Variable trade costs for export of final products are mainly influenced by trade opening-up policies of the importing economy, and variable trade costs for imports of intermediate goods are mainly influenced by trade opening-up policies of the importing economy.
- Productivity of production enterprises is subject to influence of the host economy's investment opening-up policies.
- Fixed costs of enterprises' exports and cross-border investments are subject to influence of financial opening-up policies.
- Total factor productivity is subject to influence of cross-border diffusion of knowledge and technology.

2 Costinot, A. and Rodríguez-Clare, A., "Trade Theory with Numbers: Quantifying the Consequences of Globalization," *Handbook of international economics*, no. 4 (2014): pp. 197–261.

- The variable costs of corporate decisions are influenced by the quality of institutions, such as contractual improvement and property rights protection.

Accordingly, the areas affecting cross-border trade and economy can be put in the following three categories: First, it is economic openness, mainly trade openness, investment openness, and financial openness. Second, it is social openness, mainly tourism, studying abroad, and immigration opening-up. Third, it is cultural opening-up, mainly cultural trade and cultural exchange. Those three types of openness all include the opening-up of corresponding systems.

To highlight cross-border institutional openness, cross-border openness is divided into cross-border openness performance and complimentary openness policies, each covering economic, social and cultural openness.

Indicators, weights, and data

- ***Indicators***

The indicator system of external openness measurement is the core content of constructing the World Openness Index, and its setting principles follow the following principles: a. Scientific principle, including the two-way openness balance, the objectivity of openness data, and the heterogeneity of openness contents. b. The principle of representativeness, including the representativeness of openness areas and the representativeness of openness subject. c. The principle of sustainability, characterized by high data accessibility, stable data sources, high quality of data, and broad prospects for expansion and application.

Based on the above-mentioned concepts, theories and principles, the indicator system constituting the World Openness Index is divided into four levels, among which the details of the indicators of the second, third and fourth levels are shown in the table below.

Compared with other openness indicators, the World Openness Index, based on the aforementioned indicator system has the following characteristics. First, it measures economic openness and social and cultural openness that is intertwined with economic openness. Second, it focuses on both internal openness and external openness. Third, it focuses on both openness performance and openness policy.

- ***Weights***

The weight setting the indicator system at each level is based on expert survey. Based on a questionnaire survey of 41 Chinese experts in international economics, the weight setting of the indicator system is shown in the tables below.

The weights in table A.1 are shares of dimension and indicators in 1, visually displaying the relationship among dimensions and indicators, which can be directly comparable with these weights.

Table A.1 Components of openness index and weights

Dimension Indicators		Policy indicators and their weights		Performance indicators and their weights		Subtotal	
		Indicators	Weights	Indicators	Weights	Indicators	Weights
Economic openness	Trade	Weighted applied tariff rate	0.1756	Import of goods	0.0562	15	0.7988
		Non-tariff measures initiated by reporting economy	0.1342	Export of goods	0.0562		
		Inbound openness of concerned FTA(s)	0.0264	Import of services	0.0535		
		Outbound openness of concerned FTA(s)	0.0264	Export of services	0.0535		
		Subtotal	**0.3626**		**0.2194**		
	Direct investment	Inbound openness of concerned international investment agreement(s)	0.0259	Foreign direct investment	0.0469		
		Outbound openness of concerned international investment agreement(s)	0.0259	Overseas direct investment	0.0469		
		Subtotal	**0.0518**	—	**0.0938**		
	Portfolio investment	Financial opening-up policy	0.0518	Inbound portfolio investment	0.0096		
				Outbound portfolio investment	0.0096		
	Subtotal	**7**	**0.4662**	**8**	**0.3326**		
Social openness	—	Cross-border visa opening-up policy	0.0518	Inbound tourists	0.0155	7	0.1337
				Outbound tourists	0.0155		
				Inbound students	0.0176		
				Outbound students	0.0176		
				Immigrants	0.0078		
				Emigrants	0.0078		
	Subtotal	**1**	**0.0518**	**6**	**0.0819**		
Cultural openness	—	(Applicable at appropriate time)	—	Import of IPR services	0.0123	7	0.0675
				Export of IPR services	0.0123		
				Patent applications by non-residents	0.0115		
				Patent applications by residents	0.0115		
				International citation of science literature	0.0074		
				Cultural goods import	0.0061		
				International citations of science literatures	0.0061		
	Subtotal	—	—	**7**	**0.0675**		
Total		**8**	**0.5180**	**21**	**0.4820**	**29**	**1.0000**

The weights of dimensions and indicators are set at each level, as shown in the table A.2.

Table A.2 Dimensions and indicators of openness index and their weights by tiers

Dimensions at the 2nd tier		Dimensions and weights at the 3rd tier		Indicators and weights at the 4th tier	
Dimensions	**Weights**	**Dimensions**	**Weights**	**Indicators**	**Weights**
Opening-up policies	0.518	Economic opening-up policies	0.90	Weighted applied tariff rate	0.3390
				Non-tariff measures initiated by reporting economy	0.2590
				Inbound openness of concerned FTA(s)	0.0510
				Outbound openness of concerned FTA(s)	0.0510
				Inbound openness of concerned international investment agreement(s)	0.0500
				Outbound openness of concerned international investment agreement(s)	0.0500
				Financial opening-up policy	0.1000
		Social opening-up policies	0.10	Cross-border visa opening-up policy	0.1000
		Cultural opening-up policy	—	(Applicable at appropriate time)	—
Opening-up performance	0.482	Economic opening-up performance	0.69	Import of goods	0.1690
				Export of goods	0.1690
				Import of services	0.1610
				Export of services	0.1610
				Foreign direct investment	0.1410
				Overseas direct investment	0.1410
				Inbound portfolio investment	0.0290
				Outbound portfolio investment	0.0290
		Social opening-up performance	0.17	Inbound tourists	0.1896
				Outbound tourists	0.1896
				Inbound students	0.2150
				Outbound students	0.2150
				Immigrants	0.0954
				Emigrants	0.0954
		Cultural opening-up performance	0.14	Import of IPR services	0.1830
				Export of IPR services	0.1830
				Patent applications by non-residents	0.1710
				Patent applications by residents	0.1710
				International citation of science literature	0.1100
				Cultural goods import	0.0910
				Cultural goods export	0.0910

Since 2022, the World Openness Index begins to employ the data on GDP at 2015 constant price to weight economies. However, the data on GDP at 2015 constant price for some economies in recent year(s) have not yet been released by now, which has to be estimated on the base of its/their last GDP data points and available growth rate of real GDP in national currency from IMF's World Environment Organization (WEO) databases.

Compiling openness index of economic group(s) may encounter too many changes in the components of some group(s). For example, the increase or decrease of the members of countries involved in the BRI, or the members of high-income economies, upper-middle-income economies, lower-middle-income economies, low-income economies, will change the sample of openness indexes of corresponding group(s), thus reducing the comparability of these indexes. It is necessary to develop an openness index based on the adjusted grouping in order for readers to timely track the fresh changes of certain grouping.

- ***Data***

Sources of underlying indicator data include the WB, WTO, IMF, UNCTAD, World Tourism Organization, United Nations Educational, Scientific, and Cultural Organization (UNESCO), UN Department of Economic and Social Affairs (UNDESA), WIPO, among others. The detailed breakdown is shown in the table A.3.

Table A.3 Data sources of indicators of openness index

Sources	Indicators
WTO/IMF/WB	Import of goods
	Export of goods
	Import of services
	Export of services
	Foreign direct investment
	Overseas direct investment
	Inbound portfolio investment
	Outbound portfolio investment
	Import of IPR services
	Export of IPR services

Sources	Indicators
UNDESA	Immigrants
	Emigrants
UNCTAD	Inbound openness of concerned international investment agreement(s)
	Outbound openness of concerned international investment agreement(s)
UNESCO	Inbound students
	Outbound students
	Cultural goods import
	Cultural goods export
WB	Weighted applied tariff rate
WIPO	Patent applications by non-residents
	Patent applications by residents
UNWTO/WB	Inbound tourists
	Outbound tourists
WTO	Non-tariff measures initiated by reporting economy
	Inbound openness of concerned FTA(s)
	Outbound openness of concerned FTA(s)
https://web.pdx.edu/~ito/Chinn-Ito_website.htm	Financial opening-up policy
Henley & Partners	Cross-border visa opening-up policy
SCImago	International citation of science literature

Despite the above sources, some values of some underlying indicators remain missing. The following approach was adopted to make up for those missing values:

- When an economy has a value for only one year in the entire sample period, this value is used for all other years.
- When an economy has a value for more than one uninterrupted year in the whole sample period, the data for the other years are taken in accordance with the principle of proximity. For example, if only values of 2011 and 2012 are available, then the value of 2011 is used for the year before 2011 and the value of 2012 is used for the year after 2012.
- For an economy that has a value in more than one year during the whole sample period and there is an interruption, the values between the two interrupted years are taken according to

the principle of proximity (e.g., when only 2011 and 2014 have values, the value of 2011 is taken for 2012 and that of 2014 is taken for 2013); when the values are missing for an odd number of years, the value of the middlemost year is taken as the average of the two values at the two ends (e.g., when only values of 2011 and 2015 are available, the value of 2011 is taken for 2012, the value of 2015 is taken for 2014, and the average of the values of 2011 and 2015 is taken for 2013).

- For a country that has no values during the entire sample period, another country that is most similar to it in terms of economic development, social and cultural conditions, institutional characteristics, and geographical features should be picked so that the values of that country can be taken for the country with missing values.

Nondimensionalization of indicators

- ***Principles***

Dimensionless treatment is a necessary step for underlying index data processing. It should abide by the following principles: the designing of the treatment method should be based on the economics principle of supply and demand.

Opening-up to the outside world is a two-way process. First, it is inward opening-up. That is, economy A opens its market to other economies to meet A's own needs, which is reflected by economy A importing goods, capital, technology, and personnel from other economies. Second, it is outward opening-up of other economies. That is, other economies open themselves to economy A to meet their own needs, which is reflected by economy A exporting goods, capital, technology, and personnel to those economies.

Such a principle is, in essence, to make the openness indicators dimensionless based on market supply and demand conditions. First, if the value of economy A on certain inward opening-up indicator is an absolute one, it should be divided by the total value of this indicator for economy A. Second, if the value of the economy A on one certain outward opening-up indicator is an absolute one, it should be divided by the global value of the indicator after deducting the value of economy A. In this report, it is stipulated that the "corresponding aggregate indicator" for the openness indicator in the economic value category is GDP, and the "corresponding aggregate indicator" for the openness indicator in the headcount category is total population, and the rest can be deduced in the same vein.

- ***Specific methods***

» ***Outflow measured by value***

Such an indicator system includes six indicators, namely, export of goods, export of services, outbound direct investment, outbound portfolio investment, export of IPR services, and cultural product export.

It is calculated as follows:

$$y_{it} = \frac{x_{it}}{\sum_{j \neq i} GDP_{jt}}$$

In the equation, y_{it} is the final value of the indicator of Economy *i* during Period *t*; x_{it} is the original value of the indicator, and $\sum_{j \neq i} GDP_{jt}$ is the GDP summation of all the other economies in the world.

» ***Inflow measured by value***

Such an indicator system includes six indicators, namely, import of goods, import of services, FDI, foreign portfolio investment, import of IPR service, and cultural product import.

It is calculated as follows:

$$y_{it} = \frac{x_{it}}{GDP_{it}}$$

In the equation, y_{it} is the final value of the indicator of Economy *i* during period *t*; x_{it} is the original value of the indicator.

» ***Outflow measured by headcount***

Such an indicator system includes three indicators, namely, outbound tourists, outbound students, and emigrants.

It is calculated as follows:

$$y_{it} = \frac{x_{it}}{\sum_{j \neq i} POP_{jt}}$$

In the equation, y_{it} is the final value of the indicator of Economy *i* during Period *t*; x_{it} is the original value of the indicator; and $\sum_{j \neq i} POP_{jt}$ is the summation of population of all the other economies in the world.

» ***Inflow measured by headcount***

Such an indicator system includes three indicators, namely, inbound tourists, inbound students, and immigrants.

It is calculated as follows:

$$y_{it} = \frac{x_{it}}{POP_{it}}$$

In the equation, y_{it} is the final value of the indicator of Economy *i* during period *t*; x_{it} is the original value of the indicator; and *POP* refers to population.

» ***Patent application***

It includes two indicators: residents applying for patents abroad (*patex*) and non-residents applying for patents within the reporting economy (*patim*).

The *patex* is calculated as follows:

$$patex_{it} = \frac{abroad_{it}}{\sum_{j \neq i}(resi_{jt} + nonr_{jt})}$$

In the equation, $abroad_{it}$ refers to the number of patent applications of Economy *i* filed in other economies in period *t*; $\sum_{j \neq i}(resi_{jt} + nonr_{jt})$ refers to the total number of patent applications approved by countries other than Economy *i* (*resi* refers to residents and nonr refers to non-residents).

The *patim* is calculated as follows:

$$patim_{it} = \frac{nonr_{it}}{resi_{it} + nonr_{it}}$$

In the equation, $nonr_{it}$ is the number of patent applications by non-residents (those from abroad) in Economy *i*; $resi_{it} + nonr_{it}$ is the total number of patent applications in Economy *i*.

» ***Cross-border citations of science papers***

It is calculated as follows:

$$paper_{it} = \frac{Citations_{it} - Selfcitations_{it}}{\sum_{j \neq i} Documents_{jt}}$$

In the equation, $Citations_{it}$ refers to total citations of science papers of Economy *i* in period *t*; $Selfcitations_{it}$ refers to self-citations; and $\sum_{j \neq i} Documents_{jt}$ is the total number of science papers of all the other economies except Economy *i*.

» ***External openness based on international trade and investment agreements***

There are two indicators and it is calculated as follows:

$$T_{it} = \sum_{p} T_{ipt} \frac{GDP_{pt}}{\sum_{j \neq i} GDP_{jt}}$$

In the equation, T_{it} is openness of Economy *i* in period *t*, based on trade or investment agreements; GDP_{pt} is the GDP of the contracting partner; $\sum_{j \neq i} GDP_{jt}$ is the total GDP of all the other economies except Economy *i*; T_{ipt} is a dummy variable; it takes 1 when the agreement is effective for Economy *i* and *p* in period *t*; otherwise it takes 0.

» ***Internal openness of concerned international trade and investment agreements***

There are two indicators, which are calculated as follows:

$$T_{it} = \frac{GDP_{it}}{\sum_{p} T_{ipt} * GDP_{pt}}$$

In the equation, T_{it} is the openness of Economy *i* in period *t*, based on trade or investment agreements; GDP_{it} is GDP of Economy *i*; GDP_{pt} is the GDP of the contracting partner; T_{ipt} is a dummy variable; it takes 1 when the agreement is effective for Economy *i* and *p* in period *t*; otherwise it takes 0.

» ***Non-tariff measures***

It is calculated as follows:

$$X_{it} = ntb_{it} * hs_{it}$$

In the equation, X_{it} refers to non-tariff barriers imposed by Economy *i* in period *t*; ntb_{it} refers to number of non-tariff measures; hs_{it} refers to quantity of concerned products.

» ***Indicators not requiring additional treatment***

They include three indicators, namely, weighted tariff rate, financial openness index, and passport convenience index.

• ***Centralized treatment of indicators***

To achieve consistency in standard indicator dimensions, indicators have been processed as follows:

$$y_{it} = \frac{x_{it} - \min(x)}{\max(x) - \min(x)}$$

In the equation, y_{it} is indicator of Economy *i* in period *t* after the centralization process; x_{it} is the pre-centralization indicator; *max(x)* and *min(x)* are the maximum value and minimum value, respectively, of indicator x during the entire sample period.

For some inverse indicators, such as weighted tariff rate and non-tariff measures, the larger the value is, the lower the level of openness; it is calculated as follows:

$$y_{it} = 1 - \frac{x_{it} - \min(x)}{\max(x) - \min(x)}$$

This calculation method projects all indicators on [0, 1].

Groupings of Economies Gauged by World Openness Index (Sorted by alphabet of economies)

	Economy	Grouping by region							Grouping by income				Others							
		North America	East Asia & Pacific	Latin America & Caribbean	South Asia	Europe & Central Asia	Sub-Saharan Africa	Middle East & North Africa	High income	Upper middle income	Lower middle income	Low income	WTO members	Belt and Road economies[8]	Advanced economies	EU	EA	G20	G7	BRICS
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Albania					√				√			√	√						
2	Algeria							√		√				√						
3	Antigua and Barbuda			√					√				√	√						
4	Argentina			√						√			√	√				√		
5	Armenia					√				√			√	√						
6	Australia		√						√				√		√			√		
7	Austria					√			√				√	√	√	√	√			
8	Azerbaijan					√				√				√						
9	Bahrain							√	√				√	√						
10	Bangladesh				√						√		√	√						
11	Barbados			√					√				√	√						
12	Belarus					√				√				√						
13	Belgium					√			√				√		√	√	√			
14	Belize			√						√			√							
15	Bolivia			√							√		√	√						
16	Bosnia and Herzegovina					√				√				√						
17	Botswana						√			√			√	√						
18	Brazil			√						√			√					√		√
19	Bulgaria					√				√			√	√		√				
20	Burundi						√					√	√	√						
21	Cabo Verde						√				√		√	√						
22	Cambodia		√								√		√	√						
23	Canada	√							√				√		√			√	√	
24	Central African Rep.						√					√	√	√						
25	Chile			√					√				√	√						
26	China		√							√			√	√				√		√
27	Colombia			√						√			√							

	Economy	Grouping by region							Grouping by income				Others							
		North America	East Asia & Pacific	Latin America & Caribbean	South Asia	Europe & Central Asia	Sub-Saharan Africa	Middle East & North Africa	High income	Upper middle income	Lower middle income	Low income	WTO members	Belt and Road economies[3]	Advanced economies	EU	EA	G20	G7	BRICS
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
28	Congo, Rep. of						√				√		√	√						
29	Costa Rica			√						√			√	√						
30	Côte d'Ivoire						√				√		√	√						
31	Croatia					√			√				√	√		√				
32	Cyprus					√			√				√	√	√	√	√			
33	Czech					√			√				√	√	√	√				
34	Denmark					√			√				√		√	√				
35	Dominican Rep.			√						√			√	√						
36	Ecuador			√						√			√	√						
37	Egypt							√			√		√	√						
38	El Salvador			√							√		√	√						
39	Estonia					√			√				√	√	√	√	√			
40	Ethiopia						√					√		√						
41	Fiji		√							√			√	√						
42	Finland					√			√				√		√	√	√			
43	France					√			√				√		√	√	√	√	√	
44	Gabon						√			√			√	√						
45	Gambia						√					√	√	√						
46	Georgia					√				√			√	√						
47	Germany					√			√				√		√	√	√	√	√	
48	Ghana						√				√		√	√						
49	Greece					√			√				√	√	√	√	√			
50	Guatemala			√						√			√							
51	Guyana			√						√			√	√						
52	Honduras			√							√		√							
53	Hong Kong SAR, China		√						√				√		√					
54	Hungary					√			√				√	√		√				
55	Iceland					√			√				√		√					
56	India				√						√		√					√		√
57	Indonesia		√								√		√	√				√		
58	Ireland					√			√				√		√	√	√			
59	Israel							√	√				√		√					
60	Italy					√			√				√	√	√	√	√	√	√	
61	Jamaica			√						√			√	√						
62	Japan		√						√				√		√			√	√	
63	Jordan							√		√			√							
64	Kazakhstan					√				√			√	√						
65	Kenya						√				√		√	√						
66	Korea, Rep. of		√						√				√	√	√			√		
67	Kuwait							√	√				√	√						
68	Kyrgyz					√					√		√	√						
69	Laos		√								√		√	√						
70	Latvia					√			√				√	√	√	√	√			
71	Lebanon							√		√				√						
72	Lesotho						√				√		√	√						
73	Lithuania					√			√				√	√	√	√	√			
74	Luxembourg					√			√				√	√	√	√	√			
75	Macao SAR, China		√						√				√		√					
76	Madagascar						√					√	√	√						
77	Malawi						√					√	√							
78	Malaysia		√							√			√	√						
79	Mali						√					√	√	√						
80	Malta							√	√				√	√	√	√	√			

(Continued)

	Economy	Grouping by region							Grouping by income				Others							
		North America	East Asia & Pacific	Latin America & Caribbean	South Asia	Europe & Central Asia	Sub-Saharan Africa	Middle East & North Africa	High income	Upper middle income	Lower middle income	Low income	WTO members	Belt and Road economies[3]	Advanced economies	EU	EA	G20	G7	BRICS
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
81	Mauritius						√			√			√							
82	Mexico			√						√			√					√		
83	Moldova					√					√		√	√						
84	Mongolia		√								√		√	√						
85	Morocco							√			√		√	√						
86	Mozambique						√					√	√	√						
87	Namibia						√			√			√	√						
88	Nepal				√							√	√	√						
89	Netherlands					√			√				√		√	√	√			
90	New Zealand		√						√				√	√	√					
91	Nicaragua			√							√		√	√						
92	Nigeria						√				√		√	√						
93	North Macedonia					√				√			√	√						
94	Norway					√			√				√		√					
95	Oman							√	√				√	√						
96	Pakistan				√						√		√	√						
97	Panama			√					√				√	√						
98	Papua New Guinea		√								√		√	√						
99	Paraguay			√						√			√							
100	Peru			√						√			√	√						
101	Philippines		√								√		√	√						
102	Poland					√			√				√	√		√				
103	Portugal					√			√				√	√	√	√	√			
104	Romania					√				√			√	√		√				
105	Russia					√			√				√	√				√		√
106	Samoa		√							√			√	√						
107	Saudi Arabia							√	√				√	√				√		
108	Singapore		√						√				√	√	√					
109	Slovak					√			√				√	√	√	√	√			
110	Slovenia					√			√				√	√	√	√	√			
111	South Africa						√			√			√	√				√		√
112	Spain					√			√				√		√	√	√			
113	Sri Lanka				√					√			√	√						
114	Sudan						√				√			√						
115	Sweden					√			√				√		√	√				
116	Switzerland					√			√				√		√					
117	Tanzania						√					√	√	√						
118	Thailand		√							√			√	√						
119	Trinidad and Tobago			√					√				√	√						
120	Tunisia							√			√		√	√						
121	Turkey					√				√			√	√				√		
122	Uganda						√					√	√	√						
123	Ukraine					√					√		√	√						
124	United Kingdom					√			√				√		√			√	√	
125	United States	√							√				√		√			√	√	
126	Uruguay			√					√				√	√						
127	Vietnam		√								√		√	√						
128	Zambia						√				√		√	√						
129	Zimbabwe						√				√		√	√						
	Subtotal	2	19	23	5	43	25	12	49	39	30	11	122	98	36	27	19	19	7	5
	Global total[2]	3	37	42	8	58	48	21	80	54	54	28	164	154	40	27	19	19	7	5

Notes:

① The list of the economies along the "Belt and Road" is as of September 26, 2024 with details from the following source (i).

② The number of global economies is 217 in the World Development Indicators of the WB, 196 in the World Economic Outlook of the IMF, and 221 in UNCTAD data set Output and Income (see https://unctadstat.unctad.org), respectively. Details can be seen from the following source (ii) and (iii).

③ From 2023 to the end of September 2024, the total number of high-income economies has increased from 82 to 86, while the number of low-income economies has still 26. The number of lower middle-income decreased from 54 to 51, and that of upper middle-income economies is still 54, details about this can be seen from the following source (i). Details on regional groups can be sees from the following source (iii). The total number of developed economies has increased from 40 to 41 (including Croatia), and the relevant grouping details can be found in the following data source (ii).

Sources:

(i) The list of economies along the "Belt and Road" from the official website of China's Belt and Road Portal, see https://www.yidaiyilu.gov.cn/country.

(ii) The members of the advanced economies. EU, European Area (EA) or Group of Seven (G7) from the IMF, see https://www.imf.org/en/Publications/WEO/weo-database/2023/April/select-country-group.

(iii) The groupings by region or by income from the WB, see https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups.

(iv) The list of WTO members from the WTO, see https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm.

(v) The list of G20 from the G20 Summit, see https://g20.org/about-the-g20/#about.

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The *World Openness Report 2024* takes building an open world economy as its mission, conducts an in-depth analysis of the World Openness Index with a focus on country's capability for opening-up and evolution of opening-up policies, and calls on all parties to enhance the capacity for opening up while expanding international cooperation. It also covers hot topics such as the trend in world opening-up, impacts of the Global South on global governance, multilateral trading system and inclusive development of world trade, global cooperation on digital and green development, and China's practice on pursuing high-standard opening up to advance in-depth reform and high-quality development.

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