What does China's declining trade dependence mean?

-Superiority stemming from market size and industrial concentration, and the consequences of this-

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Summary

1. China has been a key factor in the so-called "great trade collapse" and "slow trade." The rapid rise in China's dependence on trade was caused by its emergence as the "world's factory" and the proliferation of "Made in China" goods following its accession to the WTO, while the subsequent decline in dependence has been caused by the market shares of "Made in China" goods hitting a ceiling and by the growth of internal manufacturing.

2. The advance of internal manufacturing in China can also be seen in the increase in value added domestically as a percentage of exports (domestic value added ratio). This rise has been fueled by the fact that the electrical and electronics industry has replaced the textile industry as the leading export sector.

3. The decline in China's trade dependence caused by irreversible factors other than the financial crisis, namely internal manufacturing. That is attributable to the size of its economy and expectations of its growth potential, as well as China's unique advantage in terms of depth of industrial concentration. The financial crisis then hastened internal manufacturing.

4. Although China's economic growth is expected to slow in the medium term, the "slow trade" issue will not be easily resolved, as the country's dependence on trade is expected to continue to gradually decline. As China builds its presence as a "global market," companies will likely ramp up internal manufacturing.

5. More than ever before, firms that rely on global value chains (GVCs) are finding themselves at the mercy of supply chain disruptions originating in China. A short-term risk that is a cause for concern is that the Omicron strain or another new COVID variant could start spreading in Guangdong, Jiangsu, or other provinces with industrial production and export facilities, leading to frequent lockdowns.

6. China's declining dependence on trade means that its export industries are maintaining high levels of competitiveness due to internal manufacturing, which will stall the economic development of less developed countries (LDCs) that are following China (least-industrialized countries), i.e., stand in the way of Asia's "flying geese" model of development.

7. From a GVC perspective, it is unlikely that China will move aggressively toward dividing the world into isolated economic blocs. China has emerged as an exporter of intermediate goods as well as finished goods, and has become an indispensable presence in GVCs. This means not only increased technological capabilities, but also greater dependence on developed country markets. China is also the world's largest importer of intermediate goods. The world's manufacturing industry cannot exist without China, but China's manufacturing industry cannot survive without the rest of the world, either.

Introduction

China is the world's largest exporter and second largest importer after the U.S., and has a growing presence in world trade. Yet at the same time, its trade dependence has declined significantly. Its ratio of trade in goods and services to GDP was 34.5% in 2020, down 30.0 percentage points from 64.5% in 2006. World trade has been stagnant since the financial crisis triggered by the Lehman Brothers collapse in September 2008, it is definite that China has been a significant factor in this due to the sheer scale of the decline in its dependence on trade.

The decline in trade dependence means that the its mutual dependence on foreign countries has waned relative to the size of its economy. The decline in China's trade dependence is occurring with both imports and exports. The fall (relative to GDP) in exports is the result of companies becoming more oriented toward the domestic market, while the drop in imports is the result of them shifting away from reliance on overseas suppliers to internal manufacturing. In other words, the decline in trade dependence is the result of domestic transactions replacing cross-border transactions.

China's declining dependence on trade is regarded as a factor in the so-called "great trade collapse" and "slow trade" that has become apparent since the financial crisis, so it has also affected world trade. The term "great trade collapse" refers to the decline in world trade relative to world GDP, while "slow trade" refers to a situation in which the growth rate of world trade volume is less than the growth rate of world real GDP.

A number of papers have viewed the "great trade collapse" and "slow trade" as global problems and explored their causes (Kato and Naganuma [2013]; Takatomi, Nakajima, Mori, and Ohyama [2016]; Cabinet Office [2019a, 2019b]). However, I have not been able to find any papers that discuss, from the Chinese perspective, the extent to which internal manufacturing has progressed in China and how will affect global value chains (GVCs) and the world economy.

The decline in China's trade dependence has characteristics that cannot be discussed in the same context as that of other countries, such as the fact that the extent of the drop is massive and that it was already taking place before the financial crisis. Why has China's trade dependence declined so rapidly, what does this mean for the Chinese economy, and will its trade dependence continue to fall? With China's GDP on the verge of overtaking that of the U.S., coming up with answers to these questions is essential for making predictions about the future of China, the rest of Asia, and the world economy.

In this paper, I will begin by confirming that China has been part of the reason for the stagnation of world trade (1.), after which I will employ Chinese trade data to explore the factors behind the stagnation (2.). Next, I will elucidate how far the shift to internal manufacturing in China has progressed and what is behind it (3.). I will then consider the impact of China's declining dependence on trade on the emergence of "slow trade," and assess the implications for supply chains and Asian economic development (4.). Finally, I will examine whether the decline in trade dependence will lead to the creation of economic blocs of authoritarian countries on the one hand and democratic countries on the other, a matter that has become a concern as a consequence of Russia's invasion of Ukraine.

1. China's declining trade dependence

In this chapter I will investigate the role China has played in bringing about the "great trade collapse" and "slow trade."

(1) The "great trade collapse" and China

The world's dependence on trade, or the ratio of trade in goods and services (total value of imports and exports) to GDP, fell sharply to 52.5% during the 2009 financial crisis from 61.6% the previous

year, a situation that has been dubbed the "great trade collapse" (Fig. 1). Although dependence subsequently recovered and the "great collapse" passed, it has slowly declined again since 2011, falling to 51.6% in 2020 due to the global spread of the novel coronavirus (COVID-19).

It is unlikely that the world's trade dependence will return to its pre-financial crisis trajectory of steady growth. China's "zero-COVID" policy of imposing lockdowns the moment infections are discovered has caused headaches in China and abroad, with factories having to temporarily shut down due to delays in procuring components, while rising resource prices due to Russia's invasion of Ukraine is putting downward pressure on consumer spending. For these reasons, in 2022 there is no prospect of a return to upward movement in trade dependence.

The "great trade collapse" was mainly caused by a chain-reversal contraction of trade through global value chains (GVCs) in the wake of the financial crisis (Bems, Johnson and Yi [2012]). The term GVC means a value-adding chain of discrete,



Fig. 1 Changes in the Trade Dependence of the World, Developed Countries, LDCs, U.S. and China

Notes: Value of trade in goods and services is the total of imports and exports. Data is not available for developed countries in 1985-1995 and LDCs in 1985-1996.

Source: Prepared by JRI based on data from the World Bank and IMF

globally-distributed production processes. GVCs are established through the relocation of production facilities via direct investment (offshoring). Many industries are based on the premise of utilizing GVCs, such as the manufacture of automobiles, which have about 30,000 parts; electrical and electronic equipment such as smartphones, for which components are increasing in number as more features are added; and semiconductors, which are produced using a wide variety of materials and fabrication equipment.

The chain contraction along GVCs meant that demand for trade-intensive durable goods was reduced by the financial crisis, causing trade to shrink. An example of trade-intensive durable goods is automobiles, for which components are procured based on a global division of labor, with the finished goods manufacturer (automaker) at the top. Indeed, global auto exports have been sluggish since the financial crisis, and remain below the value of exports that would be expected given their elasticity with respect to world GDP (Fig. 2).

This chain contraction occurs because of the bullwhip effect. This refers to the phenomenon that as companies face unforeseen circumstances and make inventory adjustments, such as building



Fig. 2 World Automobile Exports

Notes: Automobiles means code HS8703. Source: Prepared by JRI based on data from UN Comtrade and the World Bank up or drawing down inventories, the extent of the adjustment is amplified as it moves up the supply chain (Altomonte et al. [2012], Cabinet Office [2019a]). A bullwhip is a whip used to drive bulls, and the name "bullwhip effect" comes from the fact that just a small movement of the hand causes a large movement of the tail of the whip.

Trade stagnation is more severe in $LDCs^{(1)}$ than in developed countries. Fig. 1 above shows that developed countries' trade dependence is higher than that of the rest of the world, while LDCs' trade dependence has been consistently lower. Of note is that China's trade dependence, which reached 64.5% in 2006, has fallen by 30 percentage points to 34.5% in 2020, and it has been a key factor in the "great trade collapse" and subsequent trade stagnation.

It should be noted, however, that the decline in trade dependence does not mean that trade in goods and services has been tepid, but rather only that trade has shrunk relative to GDP. China's trade in goods and services grew with its accession to the World Trade Organization (WTO) in 2001, and its share of world trade in goods and services has risen sharply (Fig. 3). Its trade dependence rose along with its share of world trade, but began to decline around 2005 as its GDP expanded at a faster pace than trade.

The same can be said about China's declining dependence on trade when imports and exports are looked at separately. Export dependence (exports/GDP ratio), which reached 36.0% in 2006, was just 18.5% in 2020, down 17.5 percentage points (Fig. 4, left). During this period, foreign companies' share of exports also declined by 22.2 percentage points, from 58.2% to 36.0% (Fig. 5). However, since it is not the case that all that has happened is that the performance of foreign firms has deteriorated, it can be assumed that the decline in export dependence is the result of many companies in China, both foreign or Chinese owned, shifting their target markets from overseas to China itself.

Import dependence also fell 12.4 percentage points from 2007 to 16.0% in 2020 (Fig. 4, right). During this period, foreign companies' share of imports also declined in tandem with their share of exports (Fig. 5 above). The degree of dependence on imports and exports, and foreign firms' share of imports and exports are all linked, but the decline with respect to imports has been smaller than that with respect to exports, and the decline in foreign firms' share of imports has been more moderate than that of exports.



Fig. 3 U.S and China's Share of World Trade in Goods and Services

Source: Prepared by JRI based on data from the World Bank



Fig. 4 Export and Import Dependence of the World, Developed Countries, LDCs, U.S. and China

Source: Prepared by JRI based on data from the World Bank and IMF



Fig. 5 Foreign Companies' Share of Imports and Exports

Source: Prepared by JRI based on data from the CEIC (original source: NSB)

This is due to the fact that internal manufacturing has not necessarily extended to encompass all industries, as can be seen from China still being the world's largest importer of semiconductors, and the fact that the country's economic structure is such that imports have not fallen as much as exports, as can be seen from imports accounting for $73.5\%^{(2)}$ of oil consumption and $58.9\%^{(3)}$ of natural gas consumption as of 2020.

Fig. 1 and 4 show that China's trade dependence peaked not immediately before the financial crisis, but in around 2005, and that only China has decreased its dependence, albeit intermittently, since then. This alludes to an irreversible phenomenon other than the financial crisis, i.e., that trade dependence began to decline as a result of increased internal manufacturing, and the financial crisis simply accelerated this process.

The financial crisis led to an across-the-board economic collapse in developed countries, with the U.S. growth rate falling to -2.6% in 2009, while Japan's sunk to -5.7% in the same year, piling downward pressure on the world economy. Meanwhile, China's massive RMB 4 trillion stimulus package maintained growth at 9.4% over the same period, which meant that China was helping to keep the world economy afloat. The contrast in growth rates between China and developed countries, which became clear after the financial crisis, raised expectations for the Chinese market and contributed to the acceleration of internal manufacturing.

(2) "Slow trade" and China

A concept similar to the "great trade collapse" and one that is also indicative of the stagnation of world trade is "slow trade." "Slow trade" refers to a situation in which the growth rate of world trade volume (real imports) slows to below the growth rate of world real GDP. It captures the level of trade activity by comparing the volume of trade (as opposed to the value of trade), which is less sensitive to price fluctuations, with real GDP. The main causes of "slow trade" are said to be changes in the structure of global demand, the increasing in internal manufacturing in China, a decline in the income coefficient of trade attributable to such factors as the slowing GVC expansion, and the effects of short-term negative shocks (Takatomi, Nakajima, Mori, and Ohyama [2016]).

"Slow trade," too, emerged in the wake of the financial crisis. Although the growth rate of world trade volume increased significantly in 2010 as it rebounded from the previous year, it fell below world real GDP growth in 2011, a situation that continued through 2016 (Fig. 6). Trade volume growth has lacked resilience, with "slow trade"

Fig. 6 World Real GDP Growth Rate and Trade Volume Growth Rate (YoY)



Notes: Trade volume is real imports.

being barely escaped in 2017-2018 before revisiting in 2019. Although trade volume growth exceeded real GDP growth in 2021, it is reasonable to view this as a rebound from the previous year, as was the case in 2010.

Considering the substantial increase in demand for information and communication technology (ICT) equipment, such as personal computers (PCs), due to proliferation of teleworking during the COVID-19 pandemic, the growth rate of trade volume remains fairly muted. According to U.S. research firm Canalys, shipments from major PC makers had been falling year on year (YoY) since 2012, but climbed 11.1% YoY to 297.61 million units in 2020⁽⁴⁾, and the share of ICT equipment in global goods imports also exceeded that of fuel (Fig. 7). Nevertheless, the fact that trade volume growth fell below GDP growth is a clear indication of how serious "slow trade" is.

Unsurprisingly, "slow trade" is most serious in LDCs. While developed countries have not experienced a significant divergence between the growth rates of trade volume and real GDP since 2011, in the LDCs the divergence has been marked (Fig. 8).

Fig. 7 Shares of Information and

Communication Technology



Notes: Fuel is the total for Category 3 (Mineral fuels, lubricants and related materials) in the Standard International Trade Classification (SITC). Source: Prepared by JRI based on data from the World Bank

Source: Prepared by JRI based on data from the IMF and Netherlands Bureau of Economic Policy and Analvsis



Fig. 8 Developed Countries / LDCs / U.S. and China Real GDP Growth Rate and Trade Volume Growth Rate (YoY)

Notes: Trade volume is real imports.

Source: Prepared based on data from the IMF and Netherlands Bureau of Economic Policy and Analysis

The degree of divergence in China has been especially large, making it clear that China has been a factor in "slow trade" globally. China's trade volume accounted for 11.6% of the world's trade in 2021, second only to the U.S. at 14.2%.

2. Background to declining trade dependence

The rise and fall of China's trade dependence has coincided with the process of proliferation and firm establishment of "Made in China" products in developed country markets. I will examine this issue using trade statistics by countries/territories and by types of good.

Factors by country/territory - developed countries/territories still most important

Tracing the changes in China's trade by country/territory in five-year periods from 2000 to 2020 shows that the main factor has been stagnation in trade with developed countries/territories in terms of both exports and imports. In 2005, exports had grown by a colossal 205.7% over 2000 (Table 1). Looking at the contribution of major countries/territories, developed countries/territories (Taiwan and Hong Kong are included, so the term "territories" is added) accounted for 160.9 percentage points, or nearly 80%, of the rise. By 2020, however, the contribution of developed countries/territories was significantly lower at 6.3 percentage points, with exports only growing by 13.9% in 2020 compared to 2015. The contribution of LDCs also fell from 44.9 percentage points to 7.6 points, but the decline in contribution was much larger for developed countries/territories.

China has expanded its exports by focusing on LDCs as well as developed countries/territories. This is evidenced by the fact that the contribution of LDCs in 2020 was 7.6 percentage points, higher than the 6.3 points of developed countries. However, Vietnam, which stands out among LDCs in terms of contribution, uses raw materials and components imported from China to produce clothing and smartphones, which it exports to Western countries (Miura [2021a]). The actual contribution of LDCs needs to be regarded as

overstated, since a portion of exports to LDCs are ultimately destined for final consumption in developed countries/territories.

In addition, since the financial crisis, the growth rates of LDCs have clearly slowed faster than those of developed countries/territories, with the degree of divergence between their growth rates and those of developed countries/territories narrowing (Fig. 9), so developed countries/territories are expected to continue to be the most important markets for China. The lower U.S. contribution in 2020 owed a great deal to the tariff hikes imposed by former U.S. President Trump in 2019. The U.S. and European Union (EU) still accounted for 32.6% of China's exports in 2021, although this share had declined from a peak of 38.1% in 2005.

As for imports, the slowdown in growth can also be attributed to developed countries/territories. Imports in 2005 were 193.2% higher than in 2000, but the contribution of developed countries/territories to this jump was 117.4 percentage points, meaning that these countries/territories accounted for 60% of the increase. In 2020, however, the contribution of developed countries/territories fell to 14.0 percentage points, so imports

(Top row: growth rate, %, Second and subsequent rows: contribution, % points									
	Exports			Imports					
	2000- 2005	2005- 2010	2010- 2015	2015- 2020	2000- 2005	2005- 2010	2010- 2015	2015- 2020	
World	205.7	107.1	44.5	13.9	193.2	111.1	14.9	28.6	
Developed countries/territories	160.9	65.6	25.0	6.3	117.4	58.8	9.1	14.0	
U.S.	44.6	15.8	8.1	1.8	11.8	8.0	3.1	-0.5	
Eurozone	32.9	16.0	1.0	3.0	17.0	12.0	1.9	3.6	
Japan	17.0	4.7	1.0	0.3	26.2	11.5	-2.4	2.1	
South Korea	9.6	4.4	2.1	0.5	23.8	9.3	2.6	-0.0	
Taiwan	4.6	1.7	1.0	0.7	21.8	6.2	2.1	3.6	
LDCs	44.5	41.1	19.4	7.8	75.8	52.3	5.9	14.6	
Asia	14.9	14.3	9.5	4.9	22.4	12.9	1.9	7.4	
Vietnam	1.6	2.3	2.7	2.1	0.7	0.7	1.2	3.4	
Africa	4.9	4.6	2.7	0.2	6.5	5.8	-0.5	1.2	
Middle East / Central Asia	11.0	8.5	4.3	0.1	11.9	11.4	0.5	1.4	
CIS	7.3	4.2	0.3	1.1	5.9	3.2	0.8	2.0	
Central and South America	6.4	8.9	2.5	0.9	9.3	9.6	1.0	3.8	
Other	0.1	0.5	0.2	0.7	19.9	9.4	2.1	-1.2	

 Table 1 Growth Rate of China's Imports/Exports and Contribution of Major Countries/Territories

Notes: The totals for developed countries/territories and LDCs do not equal the world figures as there are countries/territories that do not fall into eithere category.

Source: Prepared by JRI based on data from IMF DOTS



Fig. 9 Degree of Divergence of Growth Rates of Developed Countries/Territories and LDCs

Source: Prepared by JRI based on IMF, WEO April 2022

increased by only 28.6% over 2015.

Among developed countries/territories, Japan and South Korea are the two countries whose declining contributions stand out. Japan's contribution dropped from 26.2 percentage points in 2005 to 2.1 points in 2020, while South Korea's fell from 23.8 points to zero during the same period. With both countries, this is thought to have been the result of local Chinese firms (companies whose main equity investors are Chinese and are headquartered in China) improving their technological capabilities and growing into competitors, as well as companies in the supporting industries that produce components and the like expanding into China through direct investment, thereby promoting local procurement.

Similarly, Taiwan's contribution has declined substantially from 21.8 percentage points, yet remains high at 3.9 percentage points as of 2020, on par with the Eurozone. The background to this is that semiconductor imports from Taiwan have increased due to the expansion of China's electrical and electronics industry. In China, the rapid expansion of the domestic market has spawned leading companies in both design and manufacturing, but there are no local firms capable of producing the cutting-edge semiconductors used in smartphones and PCs, so imports from Taiwan have risen as a matter of course. Taiwan was China's largest import supplier in 2020 and 2021⁽⁵⁾.

With the contributions of LDCs falling across the board, Vietnam was the only one to see its contribution rise. It increased from just 0.7 percentage points in 2005 to 3.4 points in 2020. This was due to increased reimportation by Chinese and foreign firms operating in Vietnam⁽⁶⁾. On the other hand, countries whose contributions have fallen yet remained high include Australia (3.1 percentage points in 2020), Brazil (2.5), Russia (1.5), and Malaysia (1.3). The main imports are coal and iron ore from Australia, crude oil and other energy resources from Brazil and Russia, and semiconductors from Malaysia.

(2) Factors by type of good: "Made in China" dominates the market

Exploring the background to the slowdown in the China's trade growth rate in terms of changes by type of good over five-year periods since 2000, we find that exports have been affected by (1) machinery and electrical equipment, (2) textiles and textile articles, and (3) base metals and articles of base metal. Machinery and electrical equipment, which accounted for more than 50% of export growth in 2005 with a contribution of 100.0 percentage points, has seen a slowdown in growth, with a contribution of just 8.3 points in 2020 (Table 2).

However, the contribution of machinery and electrical equipment remains high. It is still the main export industry, and accounted for just under 40% of export growth in 2020. The contribution of electrical equipment and parts thereof was the highest at 5.0 percentage points. On the other hand, the contribution of textiles and textile articles fell from 23.4 percentage points to 4.7 percentage points, and that of base metals and articles thereof fell from 16.3 percentage points to zero, indicating significant declines in their importance as export industries.

The slowdown in import growth has also been attributable to machinery and electrical equipment. Although the contribution of machinery and electrical equipment fell from 82.7 percentage points in 2005 to 9.2 points in 2020, it accounted for more than 30% of import growth. The contribution of mineral products also declined, from 30.1 percentage points to 9.3 percentage points, but the drop was relatively small due to increased imports in conjunction with lower self-sufficiency in crude oil and natural $gas^{(7)}$.

From the data on trade by country/region and trade by type of good, we can ascertain that exports of electrical equipment and components to developed countries/territories are the key to deciphering China's declining dependence on trade. From 2001 to 2010, China established and then consolidated its position as the "world's factory" after joining the WTO, and "Made in China" products, especially electrical and electronic equipment, dominated the markets of developed countries/territories. The rise and fall of China's dependence on trade is easier to understand if we view the period after 2011 as one in which China's dependence on trade declined as its share of developed country markets hit a ceiling, thereby making the growth rate of developed markets the sole determinant of the growth rate of its exports.

The strength of "Made in China" market dominance can be seen in data on China's main export products as a proportion of global exports. Looking at trends in China's exports and its share of world exports of laptop computers, smartphones, and semiconductors, three products that saw a rapid increase in trade in the 2000s as a result of growing demand associated with digitalization, we see that the value of trade, which was close to

(Top row: growth rate, %, Second and subsequent rows: contribution, %								% points)
	Exports				Imports			
HS classification (section)	2000- 2005	2005- 2010	2010- 2015	2015- 2020	200- 2005	2005- 2010	2010- 2015	2015- 2020
Total	185.9	62.8	20.2	21.6	171.1	76.0	-3.5	29.6
5. Mineral products	4.7	1.2	0.1	0.3	30.1	37.9	-0.1	9.3
6. Products of chemical industries	8.1	5.7	2.0	1.4	14.4	8.2	1.4	2.3
7. Plastic/rubber and articles thereof	6.2	3.5	2.3	1.4	10.0	11.4	-0.1	0.4
11. Textiles and textile articles	23.4	12.1	4.7	0.3	3.1	4.4	0.2	-0.2
15. Base metals and articles thereof	16.3	7.0	4.2	-0.0	16.0	-25.5	-1.1	1.8
16. Machinery and electrical equipment	100.0	49.4	16.9	8.3	82.7	59.1	7.3	9.2
Nuclear reactors, boilers, machinery, and components thereof	49.4	21.0	3.5	3.3	27.5	-0.4	-1.1	2.1
Electrical equipment and parts thereof	50.7	28.4	13.4	5.0	55.2	44.6	8.4	7.1
17. Vehicles, aircraft, vessels, and components thereof	7.7	7.9	1.2	0.1	6.0	2.2	2.5	-0.8
18. Optical, photographic, checking, precision, and medical instruments	7.9	3.7	1.6	0.2	19.1	14.0	0.8	0.0
20. Miscellaneous manufactured articles	11.1	5.7	4.3	1.9	0.5	0.8	0.2	-0.0

 Table 2 Growth Rate of China's Imports/Exports and Contribution of Each Type of
 Good

Notes: Goods for which the contribution to both imports and exports was less than 5% in 2005 are omitted. Some HS category names have been simplified. Because the original source differs from that of Fig. 9, the total figures are slightly different. Source: Prepared by JRI based on data from CEIC (original source: customs statistics)

zero in 2000, surged in the decade to 2010, turning China into a major producer and exporter (Fig. 10).

Since 2010, however, the value of China's exports and its share of world exports have clearly stalled, although to varying degrees depending on the product. China's share of U.S. imports reached 93.2% for laptops in 2010 and 76.7% for smartphones in 2015⁽⁸⁾, making it difficult for the China to increase exports further by capturing market share from firms producing these products in countries other than China. With regard to semiconductors, meanwhile, China is the world's largest exporter, but it is unable to expand its share of world exports due to the large gap with Taiwan, the U.S., Japan, Korea, and Singapore in terms of technological capabilities. For example, China cannot yet produce cutting-edge products.

The rapid decline in China's dependence on trade does not have the negative connotations of the "great trade collapse." It can be seen as nothing more than the process of normalization of the pace of trade expansion after "Made in China"



Fig. 10 Value of China's Exports and China's Share of World Exports

Notes: Laptops means code HS847130, smartphones means HS851712, semiconductors mean the total of HS8452 and HS8543. Figures for smartphones were zero in 2000 and 2005. China includes Hong Kong.

Source: Prepared by JRI based on data from UN Comtrade took over the market. And "slow trade" can be viewed as having emerged with the addition of internal manufacturing. As seen in Fig.7 above, trade in ICT equipment expanded to a scale comparable to that of fuel. The concentration of production and export facilities for laptop and smartphone products in China, as well as the increasing use of internal manufacturing for each, led to the decline in the volumes of Chinese and world trade.

3. China's move toward internal manufacturing

How far has internal manufacturing in China progressed? In addition to answering this question from the perspective of trade in value added, I will also point out that the background to this shift to internal manufacturing is the size of the Chinese market and rising expectations for its future growth potential.

(1) Increase in domestic value added ratio

The Organisation for Economic Co-operation and Development (OECD) develops and publishes Trade in Value Added (TiVA) statistics based on input-output tables and trade statistics for major countries. At the time of writing (end of May 2022), 2018 is the latest year for which TiVA data is available, but even so, because it is based on input-output tables, it is ideal for shedding light on issues related to internal manufacturing, which are difficult to glean from general trade statistics.

The most important feature of TiVA is that it allows transaction-based (gross) trade value to be broken down into value added-based data. Trade statistics are presented on a value-added basis, which provides a detailed breakdown of imports and exports, i.e., which industries in which countries they are coming from. An increase in internal manufacturing is synonymous with an increase in value added domestically as a percentage of exports (domestic value added ratio). I will use TiVA to confirm how China's domestic value added ratio has changed over time.

China's domestic value added ratio bottomed out at 76.2% in 2004 and then rose moderately, with some variation from year to year, to 82.8% in 2018⁽⁹⁾ (Fig. 11). This is very high among LDCs and close to the level of developed countries such as Japan and the U.S. Since China's share of world value added exports reached 17.4% in 2014, higher than the EU's 17.2% (Fig. 12), it can be said that internal manufacturing has been a key factor behind the stagnation of world trade as measured by TiVA.

TiVA also makes it possible to view a breakdown of exported domestic value added by industry. The manufacturing sector is the main exporter in China, and as of 2018, the descending order of share of total value added exports was 1) electrical and electronics industry (27.7%), 2) textile industry (12.6%), and 3) chemicals and non-metallic mineral products industry (12.6%) (Fig. 13). The domestic value added ratios for these three industries also began to rise around 2005 (Fig. 14). Among them, the electrical and electronics indus-





Source: Prepared by JRI based on OECD, TiVA 2021 ed.

try, which has seen a remarkable increase in its domestic value added ratio, rose to replace textiles as the main export sector, and this has contributed to the rise in the overall domestic value added ratio.

China's domestic value added ratio is likely to increase further in the future. This is also evi-



Fig. 11 Domestic Value Added Ratios of Major Countries/Territories

Source: Prepared by JRI based on OECD, TiVA 2021 ed.

Fig. 13 Three Industries' Share of Added Value Exports



Source: Prepared by JRI based on OECD, TiVA 2021 ed.



Fig. 14 Domestic Value Added / Foreign Value Added and Domestic Value Added Ratio for Exports of Three Industries

Source: Prepared by JRI based on OECD, TiVA 2021 ed.

denced by the rise in the number of local Chinese companies that supply components to Apple. Classifying the company's 200 biggest suppliers in 2020 by headquarters location, we find China (including Hong Kong) in top spot for the first time with 51 suppliers, up 9 from 42 in 2018, the previous time Apple released this data, beating Taiwan with its 50 suppliers⁽¹⁰⁾. The largest Chinese panel manufacturer, BOE Technology Group, was selected as a main supplier of OLED panels for the iPhone 13 in 2021⁽¹¹⁾, and will supply the same panels for high-end iPhone models set to go on sale in 2023⁽¹²⁾. This is an example of the remarkable breakthrough of local Chinese companies.

(2) Size of economy and expectations for growth

The increase in the domestic value added ratio can be attributed to the growing size of the Chinese market and rising expectations for its future growth potential. China's potential growth rate is still quite high compared to developed countries, though the country no longer has the momentum to grow faster than 10% per year as it has lost the "latecomer advantage" that facilitates rapid growth through the introduction of technologies from developed countries, and has a shrinking labor force. Since 2007, when China's economy reached a quarter of the size of the U.S. economy, China's contribution to the nominal growth rate of the world economy has generally exceeded that of the U.S. (Fig. 15).

Some observers of the size of China's economy believe that although it will surpass the U.S. before 2030, it will again fall below the U.S. by the mid-2050s due to rapid population decline⁽¹³⁾. Nevertheless, there is no doubt that the world economy will become increasingly dependent on China for at least the next 30 years, drawn in by the powerful magnetic force of its economic size and growth potential.

In its April 2022 World Economic Outlook, the IMF lowered its forecast for China's growth rate for the same year to 4.4%, down sharply from the 5.6% projection it made in October 2021, due to Russia's invasion of Ukraine and China's zero-COVID policy. Even so, China's economy is expected to reach 94.1% of the size of the U.S. economy in 2027 (IMF [2021, 2022]).

China is and has long been a highly attractive market for companies. In the Japan Bank for International Cooperation's (JBIC) "Survey Report on



Fig. 15 Contribution to the Nominal Growth Rate of the World Economy

Overseas Business Operations by Japanese Manufacturing Companies," China has consistently come out top as a "promising medium-term business destination country (next three years)." Except for 2019, it has been number one every year since the survey began in 1992 until 2021⁽¹⁴⁾. The survey also asks companies why they consider the market promising. During the 1990s, many firms cited "inexpensive labor" as a reason. Later, they mentioned the "future growth potential of the local market" and more recently, they have pointed to the "current size of the local market" (Fig. 16).

The "current size of the local market" is expressed as the product of population size and income level. The decline in the percentage of votes for "inexpensive labor" represents a trade-off against the increase in the percentage of votes for "current size of the local market," and so is not necessarily a cause for pessimism. China's share of the vote for "current size of the local market" was 66.0% in 2021, considerably higher than India's 47.7%.

The growing importance of the Chinese market can also be seen from the change in the percentage of China-made cell phones⁽¹⁵⁾ that are exported. In 2006, 80.3% of China-made cell phones exported, but by 2017 this figure had dropped to





Notes: Multiple answers possible.

Source: Prepared by JRI based on data from the JBIC





24.3% (Fig. 17). This was due to the rapid expansion of the cell phone market in China. In terms of the number of mobile device contracts in major countries/territories, China surpassed Japan in 2000, the U.S. in 2001, and the EU in 2006 to become the world's largest market (Fig. 18). China's cell phone industry has become more concentrated in this period, resulting in the emergence of more and more local manufacturers.

In 2010, the cell phone market in China was flooded with "shanzhai handsets" (copycat phones), which were imitations of devices from major Western manufacturers. Legitimate manufacturers had only a small share of the market, with Samsung, Huawei, and Apple each accounting for just 18.4%, 4.2%, and 3.2%. However, as the market shifted to smartphones, the shanzhai makers were slowly weeded out, such that by 2021, four local manufacturers, vivo, Huawei, OPPO, and Xiaomi had a combined 80% market share (Fig. 19).

The shift in emphasis on the domestic market by companies operating in China (including foreign companies) can also be confirmed from the TiVA data. After identifying the value added in China and the portion of that which was exported for the three industries of electrical and electronics, textiles, and Chemicals and non-metallic mineral products, I determined percentage figures for the latter, i.e., export ratios, and found that in the textiles industry the export ratio peaked at 62.0% in 2006 before declining. Similarly, the ratios for the electrical and electronics industry and chemicals and non-metallic mineral products industry topped out at 51.9% and 38.1% in 2007, and have since fallen (Fig. 20).

In 2018, the export ratios for the electrical and electronics, textile, and chemicals and nonmetallic mineral products industries were 42.7%, 40.3%, and 20.5%, respectively. Over a period of about 12 years, the textile industry has shifted 20% of its value added, and the electrical and electronics industry and the chemicals and nonmetallic mineral products industry have shifted the equivalent of about 10% of their value added from overseas markets to domestic markets. Both electrical/electronics and textiles have been prime examples of export industries, but if an export ratio of more than 50% is considered to be the criterion for an "export industry," neither of them can be said to be an export industry any longer.

The broken line for the export ratio in Fig. 20 is similar to the trade dependency ratios in Fig. 1 and 3 in that it is an inverted U-shape that peaks around 2005, though the degree of kurtosis differs.



Bank

Fig. 18 Mobile Device Contracts in Major Countries/Territories





Notes: Other includes non-mainstream manufacturers such as shanzhai (copycat phone) makers and Nokia.

Source: Prepared by JRI based on data from Splaitor Intelligence



Fig. 20 Value Added in China and the Percentage of That Value Exported

The connectedness of the two suggests that the shift by companies, including foreign firms, to target the domestic market and moves to encourage component manufacturers to expand into China or to use components from low-cost local Chinese firms in order to survive in the highly competitive Chinese market occurred simultaneously.

At the beginning of this paper, I pointed out that the decline in China's trade dependence was triggered by irreversible factors other than the financial crisis. These factors were the Chinese market's size and growth potential, which give the market an advantage. This advantage will not be undermined unless China's potential growth rate falls below that of the U.S., or unless the Indian economy surpasses China not only in growth potential but also in market size. In May 2022, the EU Chamber of Commerce in China released the results of a survey of its local member companies, which revealed that 78% of the firms felt that the zero-COVID policy had made China less attractive as an investment destination, and that 23% of them were considering investing in countries other than China⁽¹⁶⁾. The Chamber noted that the number of companies considering investing outside of China has increased by 10 percentage points from previous surveys, but that just under 80% of firms still plan to remain in China, despite the prospect of frequent lockdowns.

4. Implications of declining trade dependence

While there has been much prior research on China's role in contributing to "slow trade," I have not found any research in the opposite direction, i.e., on how China's declining dependence on trade will affect the future Chinese and world economies. After looking ahead at the impact of this issue on "slow trade," I will also consider the implications for supply chains and economic development in Asia.

(1) "Slow trade" will not be eliminated.

"Slow trade" will not be easily dislodged, as while China's economic growth will slow, its dependence on trade is expected to continue to decline moderately. "Slow trade" is also being catalyzed by the lockdowns under China's zero-COVID policy and Russia's invasion of Ukraine. However, given that the trend is unlikely to reverse, the advance of internal manufacturing can be said to be a long-term, structural problem. As



Fig. 21 Personal Consumption as a Proportion of China's GDP

Source: Prepared by JRI based on data from CEIC (original source: NBS)

China builds its presence as a "global market," companies will likely ramp up internal manufacturing.

The speed of adoption of internal manufacturing is affected by trends in personal consumption. Expectations for Chinese consumer spending are by no means upbeat. Although personal consumption as a proportion of GDP began to rise in 2010, the increase has been tepid (Fig. 21), as income inequality and swelling household debt have weighed on the propensity to consume (Miura [2010, 2019b]). Looking ahead, consumer spending is predicted to remain frail because 1) the zero-COVID policy is expected to cause economic stagnation⁽¹⁷⁾, 2) the "common prosperity" policy touted as a means of correcting inequality will not go according to plan (Miura [2022a]), and 3) house/apartment prices cannot be expected to rise (Miura [2022b]).

Nevertheless, the Chinese market is attractive for companies. While China is inferior to the U.S. in terms of the scale of personal consumption, it is superior in terms of the rate of growth of the same (Fig. 22). The U.S. share of world consumer spending peaked at 34.9% in 2002 and has slowly declined to 29.7% in 2020, while China's share rose from 3.1% to 12.0% over the same period. In



Fig. 22 Personal Consumption in

Source: Prepared by JRI based on data from the IMF and World Bank

terms of market growth potential, China is impossible to ignore.

Therefore, for companies that operate globally, a business strategy that does not include China is unthinkable. It can be said to be a country in which they should concentrate whatever resources they have available. The same applies to local Chinese firms, which can no longer expect exports to grow rapidly as they did in the past due to the deterioration of the external environment, such as worsening relations with the U.S., which has compounded an already narrowing scope for export expansion.

The "dual circulation" strategy of the Xi Jinping administration is also encouraging companies to take on the Chinese market and is a factor in "slow trade." "Dual circulation" is a concept that was put forward at the May 2020 meeting of the Politburo Standing Committee of the Chinese Communist Party. It is a policy that seeks to emphasize the domestic market as well as international markets⁽¹⁸⁾. In the background to the launch of "dual circulation" was concern that the exportdependent growth pattern would not continue due to intensifying trade friction with the U.S. and the global spread of COVID.

Furthermore, the fact that no other country can be found to replace its function as the "world's factory" will also make it difficult to eliminate "slow trade." China accounts for less than 20% of the world economy, but 60% of global semiconductor demand⁽¹⁹⁾. This is because China needs chips for the PCs and smartphones it manufactures. As China remains the world's largest semiconductor market, the "lock-in effect" (Miura [2020b]), whereby concentration attracts new concentration, will magnify, and international trade will continue to be replaced by domestic transactions.

I have already pointed to the Chinese market's advantage in terms of size and growth potential as an irreversible factor in China's declining dependence on trade, but industrial concentration is another of China's advantages in that there are no contenders to replace it. This view is supported by the fact that China's share of U.S. PC and smartphone imports has not declined at all even as trade friction has intensified, showing that de-coupling from reliance on China has proven to be an extremely difficult task (Miura [2021a]).

(2) Increased risk of supply chain disruptions

The decline in import dependence means that China is now able to produce intermediate goods domestically, for which it used to rely on imports. And China has also significantly increased its share of world intermediate goods exports, becoming an indispensable part of GVCs. This leaves companies that depend on GVCs more at the mercy of the risk of supply chain disruptions emanating from China than ever before.

LDCs are forced to rely on imports of intermediate goods such as materials and components because the industrial base required to support export industries has not been sufficiently developed in such countries. However, as export industries develop, or as the domestic market expands, a shift toward internal manufacturing takes place, whereby capital- and technology-intensive intermediate goods that were previously imported are now produced domestically. Internal manufacturing encourages industrial concentration through expansion from primary supplier to secondary and tertiary supplier through increased inward FDI, which eventually allows for the export of intermediate goods.

The risk of supply chain disruptions stemming from China became apparent when the spread of COVID in Wuhan in 2020 caused the import of vehicle components to stall, forcing one Japanese, South Korean, and European auto plant after another to suspend operations. This risk can be avoided by, for example, diversifying production sites to duplicate supply chains, etc., but the associated costs are significant and such strategies are difficult to implement in practice (Miura [2020b]). Therefore, the same problems arose with the 2022 Shanghai lockdown⁽²⁰⁾.

China's transformation from an importer to an exporter of intermediate goods is another develop-

ment that can be confirmed from TiVA data. TiVA divides transaction-based trade value into final goods and intermediate goods, and this data can be broken down by industry and by trading partner country/territory.

Intermediate goods as a proportion of China's imports rose rapidly after it joined the WTO, reaching 79.9% in 2007, 10.8 percentage points higher than in 2002 (Fig. 23). However, that percentage has since gradually declined, dropping to 71.7% in 2018. Looking at China's customs clearance statistics, processing trade as a percentage of imports⁽²¹⁾ has declined rapidly since 2007 (Fig. 24), suggesting that the shift to internal manufacturing has progressed since then.

With the formation of industrial clusters to produce ICT equipment such as smartphones and PCs, China has overtaken the U.S. in terms of its share of world exports of final goods, reaching a level equal to the EU (Fig. 25, left). This is not a big surprise, as we frequently witness the momentum of "Made in China" when we visit appliance stores and other retail outlets. It is noteworthy that China has also come to play the role of supplier of materials and components; in other words, it has emerged as an intermediate goods exporter. Its share of world exports of intermediate goods reached 9.8% in 2018, comparable to the U.S. level of 10.1% (Fig. 25 right).

China's emergence as an exporter of intermediate goods has forced companies using global supply chains to become more conscious than ever before of the risk of supply chain disruptions emanating from China. As foreign companies still account for just under 40% of exports (see Fig. 5 above), China's intermediate goods exports are supported not only by local firms but also by foreign ones.

A short-term risk that is a cause for concern is that the Omicron strain or another new COVID variant could start spreading in Guangdong, Jiangsu, or other provinces where industrial production and export facilities are concentrated, leading to frequent lockdowns. Shanghai's share of exports by producer location was only 6.0% in 2021, while Guangdong and Jiangsu accounted for 26.6% and 14.9%, respectively, and the impact of lockdowns in these provinces would be far greater than that of Shanghai.

Another concern is the possibility of China making clear its support for Russia, which has invaded Ukraine, and thus becoming subject to eco-



Fig. 23 Chinese Imports of Finished

Source: Prepared by JRI based on OECD, TiVA 2021 ed.





Notes: Processing trade is the total of contracted processing and commercial processing. Source: Prepared by JRI based on data from CEIC (original source: customs statistics)



Fig. 25 Major Countries/Territories Share of World Exports of Intermediate Goods and Finished Goods

Source: Prepared by JRI based on OECD, TiVA 2021 ed.

nomic sanctions. In March 2022, the U.S. Biden administration, during talks with Chinese officials, suggested that it might impose an embargo on Chinese semiconductor giants if they do business with Russia against the wishes of the U.S.⁽²²⁾ Although the likelihood of this happening is considered to be extremely low, if such an embargo is actually invoked, production of PCs and smartphones will stop, and the impact of this will ripple throughout the world. And if China were to ban exports to the U.S. and its allies of rare earths and auto components as a retaliatory measure, global supply chains would be thrown into chaos.

Japan's manufacturing industry has been at battered by the materialization of various supply chain risks, including the Great East Japan Earthquake (March 2011), the flooding in Thailand (October 2011), the increase in tariffs on Chinese products by the former U.S. Trump administration (from March 2018), and the spread of COVID (from January 2020). However, the current deterioration of the China's internal and external environment has forced it to confront risks that outweigh these. How should such China-originating risks be met? This is an urgent question for the world's manufacturing industry.

(3) Stalling of development based on the "flying geese" model

China's declining dependence on trade means that its export industries are maintaining high levels of competitiveness due to internal manufacturing, which will stall the economic development of LDCs that are following China (least-industrialized countries), i.e., stand in the way of Asia's "flying geese" model of development.

The "flying geese" model is a theory of economic development in which industries that have lost competitiveness in Japan, where economic development has been most advanced, are relocated to the NIEs (i.e., the four countries/territories of South Korea, Taiwan, Hong Kong, and Singapore) and original ASEAN member countries such as Thailand and Malaysia, thereby inducing these countries/territories to "take off." Given that processing trade supported the economic development of coastal urban areas in the 1990s, China can be included in the theory.

The reason that economic development in Asian countries has followed the "flying geese" pattern is that industries that lost competitiveness due to factors such as rising labor costs were relocated one after another from countries at a higher stage of development to countries at a lower stage of development, which could be regarded as being located behind them in the "flying geese" formation. The relocation of the Japanese textile industry, which was competitive enough to cause trade friction with the U.S. in the 1970s, to South Korea, and then from South Korea to China and Vietnam, is a good example. Besides the textile industry, "flying geese" development is also stimulated by not only the transfer of labor-intensive, but also the transfer of processes in capital- and technology-intensive industries such as electrical and electronics equipment and automobiles.

There are a number of reasons that "flying geese" development has occurred so vividly in Asia: 1) Development gaps are wide enough to facilitate the relocation of labor-intensive industries from country to country, 2) the size of Japan's economy, which led the flock of geese, was extremely large, from both an Asian and global perspective, at the time, while the recipients of relocation, namely the NIEs and original ASEAN members, had relative small economies, and 3) products such as PCs and smartphones, which encourage division of labor between processes through modularization, have become the mainstay of world trade.

However, the momentum of economic development in the least-industrialized countries has been weak. Unlike China, ASEAN latecomer members such as Vietnam, Laos, and Cambodia, as well as India, have never experienced growth exceeding 10% for a sustained period of time. This is partly due to constraints in each of the countries in relation to political stability, infrastructure development, policies regarding foreign capital, and the size of the labor market, but China's unique advantages have also been reasons. These include the size of its economy and expectations of its growth potential, and the depth of its industrial concentration, for which there are no alternative contenders. These reasons stand in the way of the relocation of industries to the least industrialized countries.

In 1970, when Japan was the main relocator of industry, the ratios of the populations of Japan, NIEs, the original ASEAN members (Thailand and Malaysia), and China were 100:51:46:791, while the ratios of the sizes of their economies were 100:10:5:43. Due to the limited receptive capacity (i.e., ability to accept relocating industries) of the NIEs and original ASEAN members, China quickly emerged as a leading candidate for relocation as it adopted its reform and opening-up policy. China's large industrial clusters and labor market mean it continues to function as a factory, while the attention it has received as a market has made it a popular relocation destination for the long term.

Its biggest weak point, rising labor costs, have not significantly reduced its receptive capacity because of its large regional and urban-rural disparities, which are symbolized by gulf between coastal and inland areas. Although the disparities are narrowing, the pace is very slow. There is a 4.5-fold disparity between Gansu Province, which had the lowest GDP per capita in 2021 (41,046 yuan), and Beijing, which had the highest (183,980 yuan) (Fig. 26). This is a disparity comparable to that between Myanmar and Thailand⁽²³⁾.

In addition, per capita disposable income in rural areas is RMB 18,931, compared to RMB 47,412 in urban areas, a gap of 2.5 times (Fig. 27).



Fig. 26 GDP per Capita in Gansu Province and Beijing and Disparity between the Two

Source: Prepared by JRI based on data from CEIC (original source: NBS)



Fig. 27 Disposable Income in Urban and Rural Areas

Source: Prepared by JRI based on data from CEIC

Fig. 28 Proportion of All Textile Industry Workers in Eight Coastal Provinces and Cities



Source: Prepared by JRI based on National Economic Census data for the relevant years

						(10,000 persons, %	
	2003	2008	2013	2018	Decline (see Note)	Percentage decline (see Note)	
Beijing	7.83	7.12	4.92	2.98	-4.85	-61.9	
Shanghai	22.84	23.00	12.06	4.85	-18.15	-78.9	
Jiangsu	59.95	90.05	75.97	51.54	-38.51	-42.8	
Fujian	29.35	39.65	39.30	38.70	-0.95	-2.4	
Zhejiang	52.19	71.62	61.03	43.62	-28.00	-39.1	
Tianjin	7.30	6.49	11.07	0.75	-10.32	-93.2	
Guangdong	80.53	111.12	100.92	69.22	-41.90	-37.7	
Shandong	27.37	38.36	37.76	28.52	-9.84	-25.7	
Nationwide	331.91	458.70	455.14	455.14	-3.56	-0.8	

Table 3 Textile Industry Workers

Notes: Figures for declines and percentage declines are relative to the respective peaks (shaded areas). Source: Prepared by JRI based on National Economic Census data for the relevant years

The Gini coefficient (or Gini index), which expresses the degree of income inequality, was 0.468 in 2020⁽²⁴⁾, the highest among Asian countries and almost at the same level as Latin American countries, which have the highest Gini coefficients in the world.

The coastal areas are taking advantage of this disparity to maintain labor-intensive industries. According to the National Economic Census conducted every five years by the China's National Bureau of Statistics (NBS), the eight provinces and cities of Beijing, Shanghai, Jiangsu, Fujian, Zhejiang, Guangdong, Tianjin, and Shandong still accounted for 57.5% of the country's textile workers in 2018, despite a gradual decline in this figure since 2003 (Fig. 28). These eight provinces and cities have the highest GDP per capita among the coastal regions. Yet despite this, eight provinces have been maintained the textile industry by absorbing the cheap migrant workers.

However, the degree of decline in the number of textile workers in each of these eight provinces and cities, when examined individually, is quite varied. In Beijing, Shanghai, and Tianjin, the number of such workers has fallen significantly over the past 15 years, indicating that the textile industry has declined in these cities (Table 3). On the other hand, the three provinces of Jiangsu, Guangdong, and Zhejiang still each maintain around 500,000 workers, though the figures are substantially lower than their peaks. As for Fujian, even as of 2018, the number of workers has hardly decreased at all. These outcomes are likely due to the fact that the local governments have different policies on accepting migrant workers from the countryside (peasant workers).

On the other hand, the number of workers in the textile industry outside the eight provinces and cities, which was only 450,000 in 2003, had reached 2.15 million in 2018. China's textile industry maintains its competitiveness by utilizing both labor relocation and factory relocation. In other words, the coastal areas receive unskilled labor from inland areas, while the inland areas receive the textile industry facilities relocated from the coastal areas.

There has been much debate over whether the "Lewis turning point," the moment when surplus rural labor has been fully absorbed by the manufacturing sector, had actually been reached in China in 2010 (Miura [2011]), but the number of peasant workers has increased more or less continuously from 222.5 million in 2008, the most recent year for which statistics are available, to 292.51 million in 2021⁽²⁵⁾. But as the number of peasant workers falls, labor-intensive industries

in the coastal areas will be unable to carry on as they are. China's birthrate is declining not only in urban areas but also in rural areas, and the peasant workers are aging rapidly. The percentage of peasant workers aged 50 years or older was 27.3% in 2021, up 15.9 percentage points from 11.4% in 2008.

Still, it is unclear whether rising labor costs will induce labor-intensive industries to relocate overseas. The negative impact of rising labor costs, which could be fatal to such industries, is offset by China's unique advantages, such as its growing importance as a final consumption destination, its depth of industrial concentration, and the ease with which components can be procured.

In fact, looking at the competitiveness of textile products as expressed by the revealed comparative advantage (RCA) index⁽²⁶⁾, Vietnam has consistently outperformed China since 2002, but its share of world textile exports has not grown in proportion to its RCA (Fig. 29). Although China's RCA has shown a declining trend in many products, not just textiles, this does not mean that the share of Chinese products in the world market is declining proportionally.

Among other things, attention needs to be paid to the effect of expansion of the domestic market on lowering the RCA. In a country like China,



Fig. 29 China and Vietnam's Textile Product RCA and Share of World Exports

Source: Prepared by JRI based on WITS data from the World Bank

where industry developed on the premise that its output would be exported, with the domestic market becoming emphasized only later on, RCA figures, or even percentages of world exports, do not serve as measures of the competitiveness of an industry. In 2018, the textile industry employed 4.45 million workers, down only 40,000 from the peak of 4.59 million in 2008. China's domestic infrastructure supporting labor-intensive industries is robust, indicating that relocation of labor-intensive industries to the least-industrialized countries will not occur readily, and that it will not be easy for the least-industrialized countries to enter the Chinese market.

Conclusion: Will "self-reliance and selfempowerment" induce the world to demarcate into economic blocs?

The reduction in trade dependence is in line with the notion of "self-reliance and self-empowerment" promoted by the Xi Jinping administration. The "self-reliance and self-empowerment" concept emerged out of proposals for the 14th Five-Year Plan (2021-2025) released in November 2020. It aims to increase competitiveness through creative innovation unrivaled by any other country, and to deliver autonomous economic development that will not be swayed by the ongoing decoupling from China by developed countries.

At the April 2020 meeting of the Communist Party's Central Financial and Economic Affairs Commission, which took place about six months prior to the unveiling of the plan, General Secretary Xi Jinping stated that by increasing control over supply chains, it would be possible to deepen the "dependence on China" of other countries, and also to acquire "counterattack capability," for responding in kind to supply stoppages by countries opposed to China with supply stoppages of China's own, and "deterrence capability," for discouraging other countries from stopping supplies (Miura [2021c]).

If the Xi Jinping administration believes that it has gained "counterattack capability" or "deterrence capability" by reducing its dependence on trade, it is more likely to trigger a U.S.-China decoupling or even the division of the world into economic blocs. In fact, China's defense of Russia in the wake of the latter's invasion of Ukraine has some concerned about the possible establishment of such economic blocs⁽²⁷⁾.

From a GVC perspective, however, it is unlikely that China will move aggressively toward the creation of economic blocs. China has emerged as an exporter of intermediate goods as well as finished goods, and has become an indispensable presence in GVCs. This is not only due to its improved technological capabilities, but also to its increased dependence on markets in developed countries. China is also the world's largest importer of intermediate goods. The world's manufacturing industry cannot exist without China, but China's manufacturing industry cannot survive without the rest of the world, either.

This is clearly demonstrated by the small scale of semiconductor fabrication by local Chinese companies. China is the world's largest semiconductor market, but its firms accounted for only 4% of global semiconductor production in 2021, if the country in which a company's headquarters is based is regarded as the company's nationality⁽²⁸⁾. Therefore, if the U.S. were to slap an embargo on semiconductors, China would immediately experience smartphone and PC supply shortages. In addition, factories that assemble products or supply components would all be forced to shut down, spreading the impact beyond the demand side to encompass the supply side. Taiwan's Hon Hai Precision Industry (Foxconn) alone is estimated to employ a million people in China⁽²⁹⁾, and its influence is huge.

A smartphone is said to have 300 different components, one of which is semiconductors, and production process of these involves 500 to 1,000 steps⁽³⁰⁾. The development of GVCs has dramatically lengthened and complicated the supply chain along which a industrial product use more compornents. Even if China gets close to "self-reliance and self-empowerment" through creative innovation, it would be unrealistic to expect it to build an economy that is not dependent on GVCs. The decline in trade dependence does not necessarily mean that China has increased its "counterattack capability" or "deterrence capability."

Although local Chinese companies have become Apple's largest suppliers, the core components of the iPhone are still supplied by Japan, the U.S., and South Korea⁽³¹⁾. This is an example of how many industries are dependent on value-added components and processes provided overseas or within China by foreign firms. While domestic production of core components has not progressed, domestic production of non-core components has progressed, which can be interpreted as making China more dependent on GVCs and more vulnerable to the risk of supply chain disruptions than before.

Like Russia, China is an authoritarian state and shares the same anti-U.S. stance, so there are concerns about how far it will heed U.S. warnings, but to date it has only provided non-military assistance to Russia, such as supplying it with communications equipment⁽³²⁾. Regarding the reasons for that, I am aware that political interpretations make sense. For example, with the war expected to be protracted, if they articulate their support for Russia at an early stage, they may lose the chance to "back the winning horse⁽³³⁾." Alternatively, they could be concerned about a deterioration of relations with European countries that have set themselves apart from the U.S. in their diplomacy with China⁽³⁴⁾.

However, we should not overlook the fact that an economic interpretation also makes sense, that being that China, which has strong links with Western nations as a key country in GVCs, would be expected to be cautious about supporting Russia, as doing so would invite condemnation from the West. For China, the worst-case scenario would be the splitting of the world into economic blocks as a result of a cycle of imposition of economic sanctions and subsequent retaliatory measures. China must avoid this at all costs. Today, with GVCs already well developed, there can be no winner in a trade war between interdependent countries. China has likely learned this lesson from its trade spat with the U.S.

End Notes

- The IMF refers to countries other than developed countries as "emerging market and developing economies," but in this paper I use the term "LDCs" to refer to such countries.
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14. As a "promising medium-term business destination country" in the 2019 survey (the survey was conducted in 2018), China received 44.6% of the votes (multiple responses were allowed), giving up the top spot to India, which took 47.8%. However, it returned to the top spot in the 2020 survey with 47.2%, surpassing India (45.8%). In 2021, China's share of the vote remained unchanged at 47.0%, while India's slipped to 38.0% due to the spread of COVID, so China held on to first place.

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