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2016 TRILATERAL ECONOMIC REPORT

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Statement

The report was outsourced to Prof. ITOH Motoshige, Professor of Faculty of International Social Sciences, Gakushuin University for Japan, Dr. WEI Jigang, Research Fellow, Research Department of Industrial Economy, Development Research Center of the State Council (DRC) for China, and Dr. JUNG Kyu Chul, Fellow, Department of Macroeconomic Policy, Korea Development Institute (KDI) for ROK.

The contents (including policy recommendations) of the report expressed by the three authors do not necessarily reflect the positions of the Trilateral Cooperation Secretariat (TCS).

Foreword



I am glad to introduce the 2016 Trilateral Economic Report, which is an annual flagship report of Trilateral Cooperation Secretariat (TCS). With an aim to follow up and have comprehensive understanding on the economic development and integration among China, Japan and the Republic of Korea (ROK), the 2016 Trilateral Economic Report was outsourced to three prominent scholars of the three countries: Prof. ITOH Motoshige, Professor of Faculty of International Social Sciences, Gakushuin University for Japan, and Dr. WEI Jigang, Research Fellow, Research Department of Industrial Economy, Development Research Center of the State Council (DRC) for China, and Dr. JUNG Kyu Chul, Fellow, Department of Macroeconomic Policy, Korea Development Institute (KDI) for ROK.

With a long history of trilateral cooperation, the three countries are making remarkable progress in advancing the economies of the three countries. I hope that 2016 Trilateral Economic Report will also provide useful information to give guidance for understanding the economic development and trilateral cooperation among the three countries.

A handwritten signature in black ink, consisting of stylized Chinese characters, likely 'Yang Houlan'.

YANG Houlan
Secretary-General
Trilateral Cooperation Secretariat

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Executive Summary

The international economy is facing difficult conditions. International trade is stagnant: the growth rate of world trade has been lower than that of world gross domestic product recently. Many emerging countries are experiencing a slowdown in growth and developed countries are suffering from secular stagnation. China, Japan, and the Republic of Korea (ROK) face similar conditions. However, some developments provide hope. Declining resource prices, especially oil and gas prices, offer better supply-side conditions for the three countries, which rely heavily on imported oil and gas. Developments of new technologies such as artificial intelligence, the internet of things, and robotics, which transform industries and society, will offer significant opportunities for the three countries to advance.

Distance is an important factor in international economic relations. China, Japan, and ROK, which are geographical neighbors, have been expanding trade and investment among themselves. Increasing trade and investment are essential for their economic development, and they have created deeper integration and highly developed division of labor. Trade and investment within China, Japan, and ROK has naturally been affected by their own macroeconomic changes. The rapid economic growth of the Chinese economy was a driving force for trade expansion within the three countries. However, the influence of China's recent slowdown on trade and investment in the region must be monitored carefully.

China, Japan, and ROK are in the midst of structural economic changes. China is moving toward the so-called "new normal," under which domestic consumption and service sectors are playing increasingly important roles and lower economic growth is acceptable. The shifting trend of the Chinese economy will change the pattern of trade and investment by Japan and ROK. Companies in Japan and ROK perceive China as an expanding market rather than a good location for processing, as they did before. The composition of direct investment in China has been shifting from the manufacturing sector to the non-manufacturing sector. The shares of commerce and finance in inward investment to China are quite large. Japan, who has been struggling to depart from deflation, has suffered from stagnant international trade. Expanding exports and inward foreign direct investment are considered to be critical for stimulating the stagnant economy. Japan's trade balance shifted from a large amount of deficit to surplus thanks to declining oil and gas prices. ROK also suffered from stagnant international trade. ROK's dependence on trade was highest among the three countries and its high dependence on its exports to China made ROK very sensitive to the trend of international trade.

Increasing numbers of free trade agreements (FTA) have emerged in the last 20 years in various parts of the world. Asia is no exception. China, Japan, and ROK did not have any FTA at the turn of the millennium, but have sped up FTA negotiations and concluded many FTAs since then. However, they have not been able to conclude an FTA among themselves. The three countries could expand trade and investment among themselves without an FTA, but an FTA would accelerate the trend of increasing investment and trade. China, Japan, and ROK are facing similar challenges and opportunities. The three countries will gain from cooperation to solve these problems, such as in the following areas: environmental issues and global warming, adjustments to demographic changes, expanding regional transportation networks, and developing and absorbing new technology, like artificial intelligence and Robotics. Although an FTA among the three countries would not cover all of these areas, concluding an FTA would be an important step toward increasing cooperation among the three countries in these areas.

Chapter I

Economic Profile

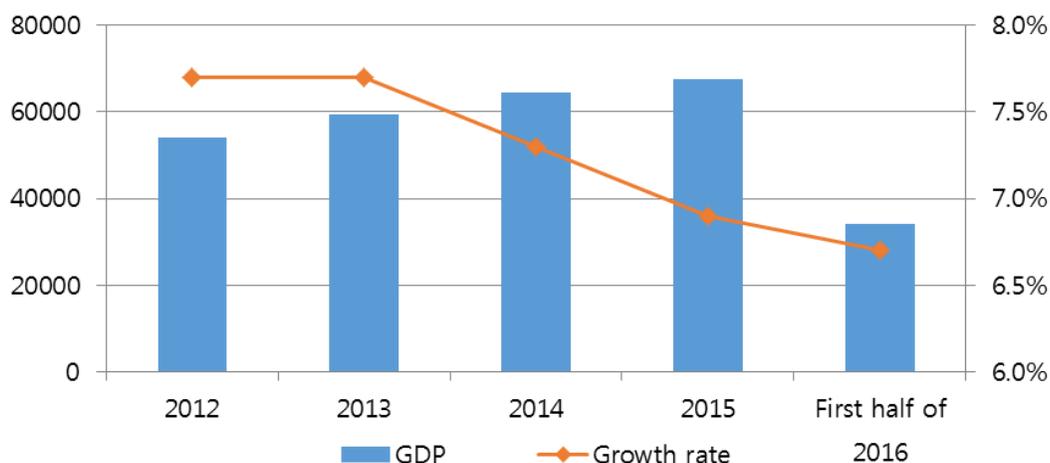
1. Macroeconomic Performance in China, Japan, and ROK

1.1 China (Dr. Wei Jigang)

In recent years, China's economy has shown a gradual slowdown, although its economic structure has continued to optimize and its investment-driven economy has become innovation-driven. All these developments indicate that China is entering the so-called "new normal." Five main characteristics can be observed from China's economy in recent years.

First, China has a steady economy overall. As shown in Figure I-1, although China's gross domestic product (GDP) growth has slowed down since 2012, its gross GDP has showed steady growth year by year. Its gross GDP in the first half of 2016 was 34.06 trillion RMB, representing year-on-year growth of 6.7%.

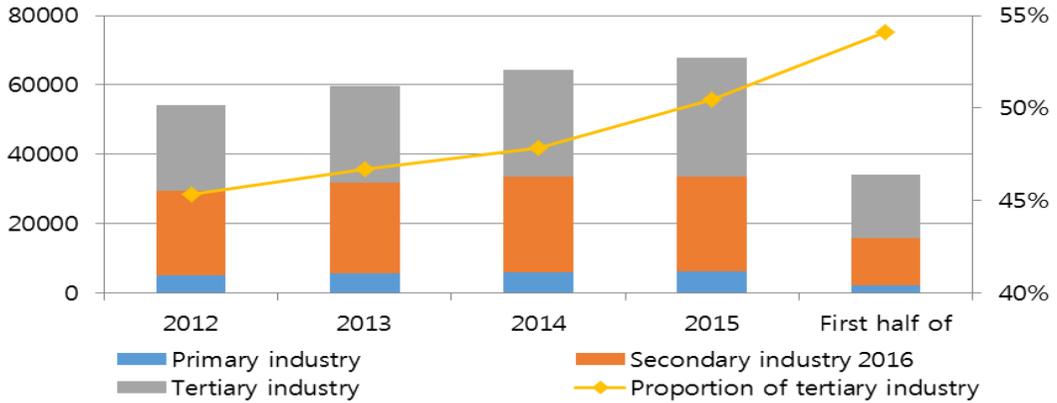
Figure I-1 GDP and GDP growth rate in China since 2012



Source: National Bureau of Statistics of the People's Republic of China

Second, there has been continued optimization of economic structure. As shown in Figure I-2, in the industrial structure, the added value of the tertiary industry grew year by year, with a significant increase in its proportion of the entire economy's added value. The proportion of tertiary industry in GDP reached 54.1% in the first half of 2016, with year-on-year growth of 1.8%. Meanwhile, the pattern of demand improved further, and the final consumption expenditure contribution to GDP growth accounted for 73.4% in the first half of 2016, with a 13.2 percentage point increase over the previous year.

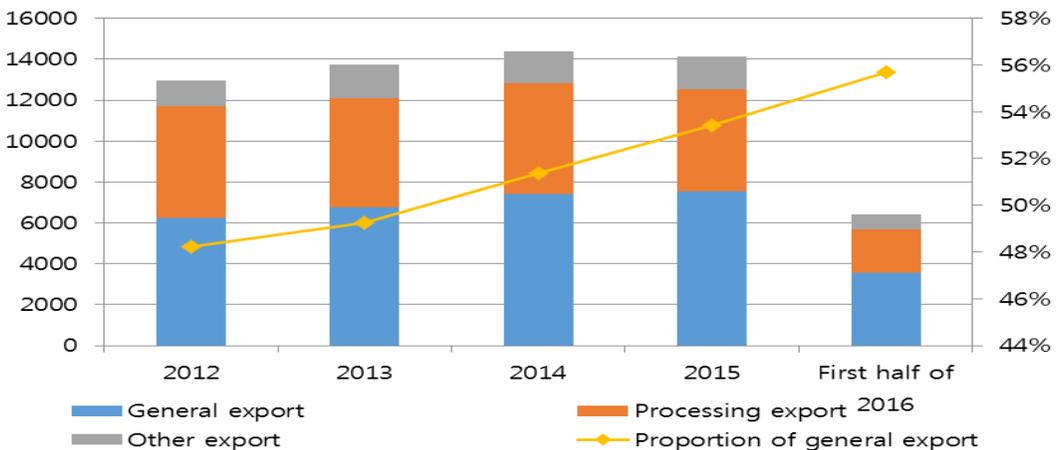
Figure I-2 Three industrial structural changes in China since 2012



Source: National Bureau of Statistics of the People’s Republic of China

Third, there has been an increased proportion of ordinary trade in total trade. Since 2012, the amount and proportion of general exports have continued to grow, as shown in Figure I-3. In the first half of 2016, the total import and export proportion of general trade accounted for 56.4%, representing year-on-year growth of 1.2%, of which general exports accounted for 55.7% of total exports, an increase of 1.3%.

Figure I-3 Export trade proportion in China since 2012

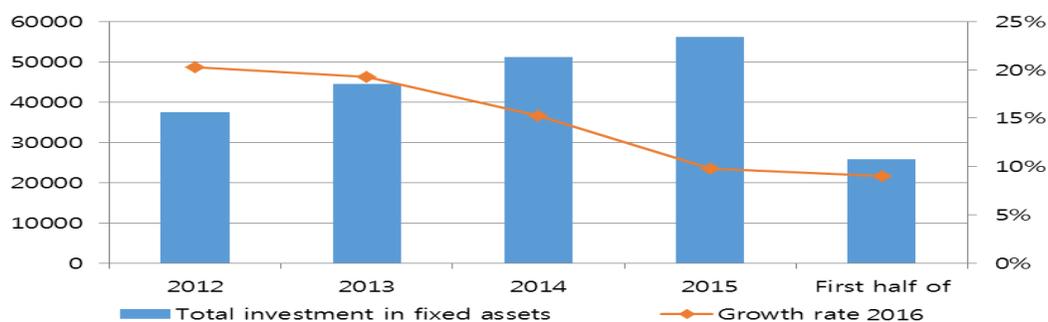


Source: National Bureau of Statistics of the People’s Republic of China

Fourth, there has been a slowdown in fixed asset investment growth. As shown in Figure I-4, since 2012, the growth rate has dropped significantly, although fixed asset investment across the country grew steadily. In the first half of 2016, total investment in fixed assets showed year-on-year growth of 9%, which was

1.7 percentage points lower than the growth rate in the first quarter of 2016. The nominal growth of investment in real estate development across the country was 6.1% in the first half of 2016, which was 0.1 percentage points lower than the growth rate in the first quarter of 2016.

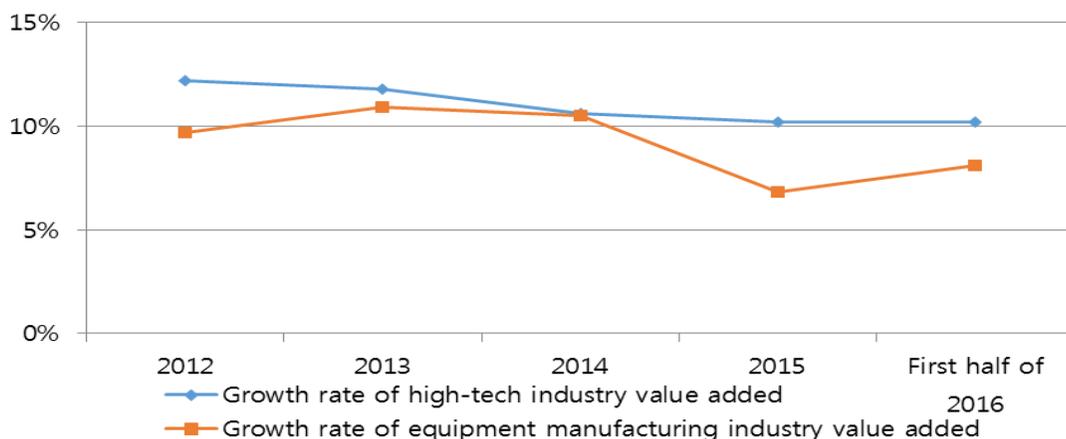
Figure I-4 Total investments in fixed assets in China since 2012



Source: National Bureau of Statistics of the People's Republic of China

Fifth, there has been rapid growth of emerging industries. Since 2012, the growth of emerging industries has been significantly higher than the GDP growth rate. As shown in Figure I-5, in the first half of 2016, the added value of high-tech industries and the equipment manufacturing industry showed year-on-year growth of 10.2% and 8.1% respectively, which are 4.2 and 2.1 percentage points higher, respectively, than the growth rate of industrial enterprises above designated size.

Figure I-5 Growth rates of high-tech industry and equipment manufacturing industry in China since 2012

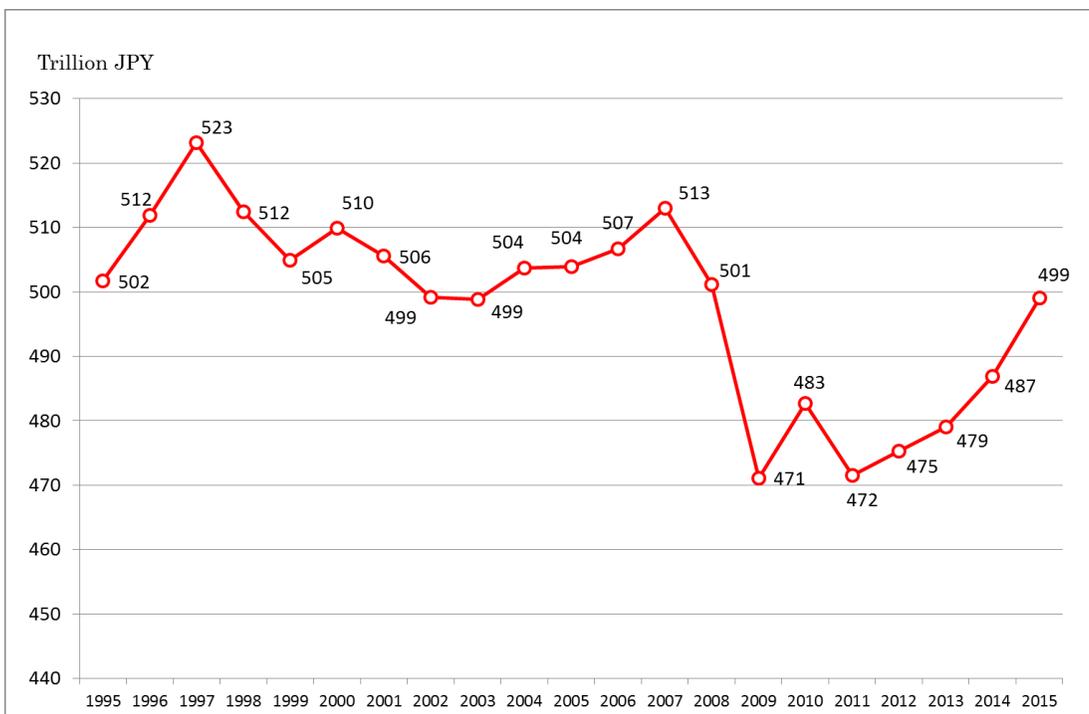


Source: National Bureau of Statistics of the People's Republic of China

1.2 Japan (Prof. Itoh Motoshige)

Japan has experienced deflationary economic conditions for more than 10 years. The fact that nominal GDP in 2015 was lower than that in 1997 indicates how serious Japan's deflation was during this period. Figure I-6 shows the trend of Japan's nominal GDP since 1995. Abenomics, the macroeconomic policies of the Abe Cabinet, declared the end to deflation as the most important economic policy target. Abenomics introduced the so-called "three arrows," that is (1) aggressive monetary policy, (2) flexible fiscal policy, and (3) growth strategy that promotes private investment.

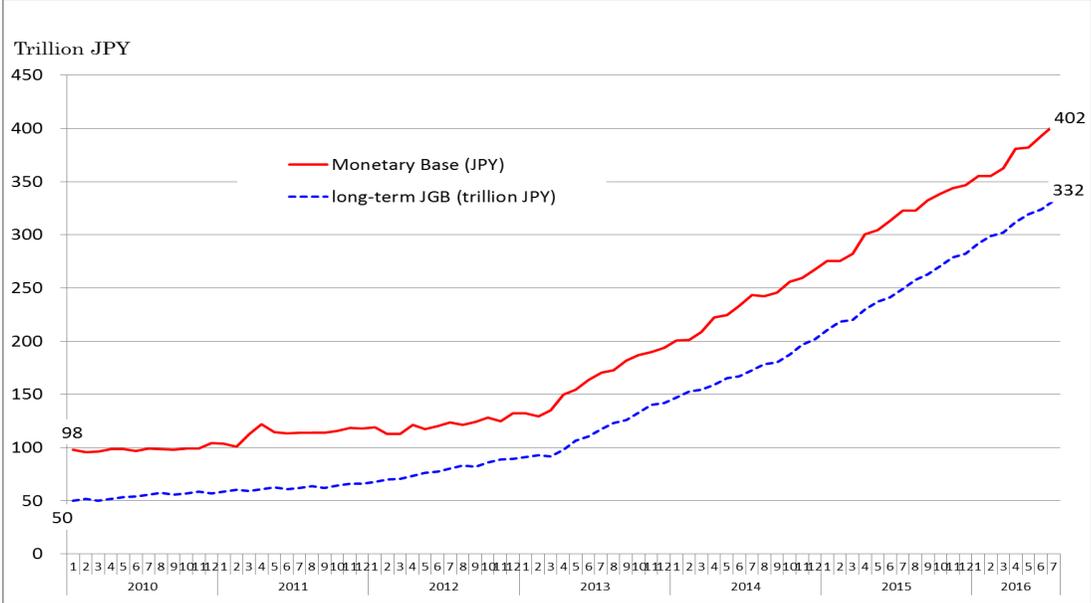
Figure I-6 Japan's nominal GDP (unit: trillion JPY)



Source: Cabinet Office of Japan

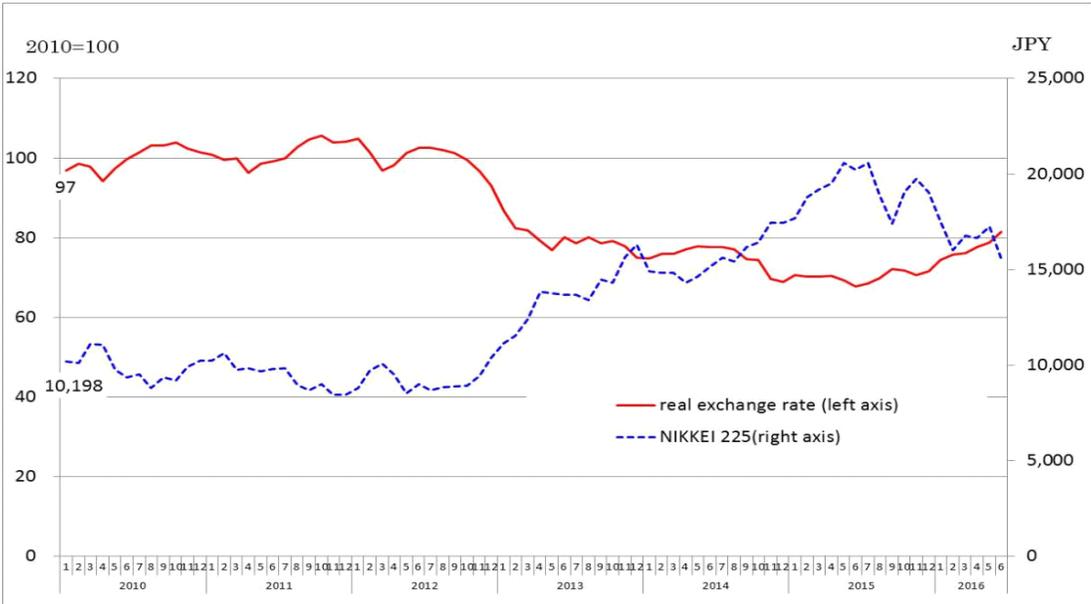
Figure I-7 shows the trend of the monetary base and long-term Japanese Government Bonds in the balance sheet of the Bank of Japan (BOJ) in recent years. These numbers have shown a dramatic increase since 2013. Many economic indicators responded very quickly to this change in monetary policy. The JPY depreciated dramatically, Tokyo stock market prices surged, and the long-term interest rate declined further (see Figures I-8 and I-9). As shown in Figure I-6, nominal GDP also started rising from 2012, and is expected to exceed 500 trillion JPY in 2016 for the first time after the 2008 financial crisis triggered by the collapse of Lehman Brothers.

Figure I-7 Trends of monetary base and long-term JGB (units: trillion JPY)



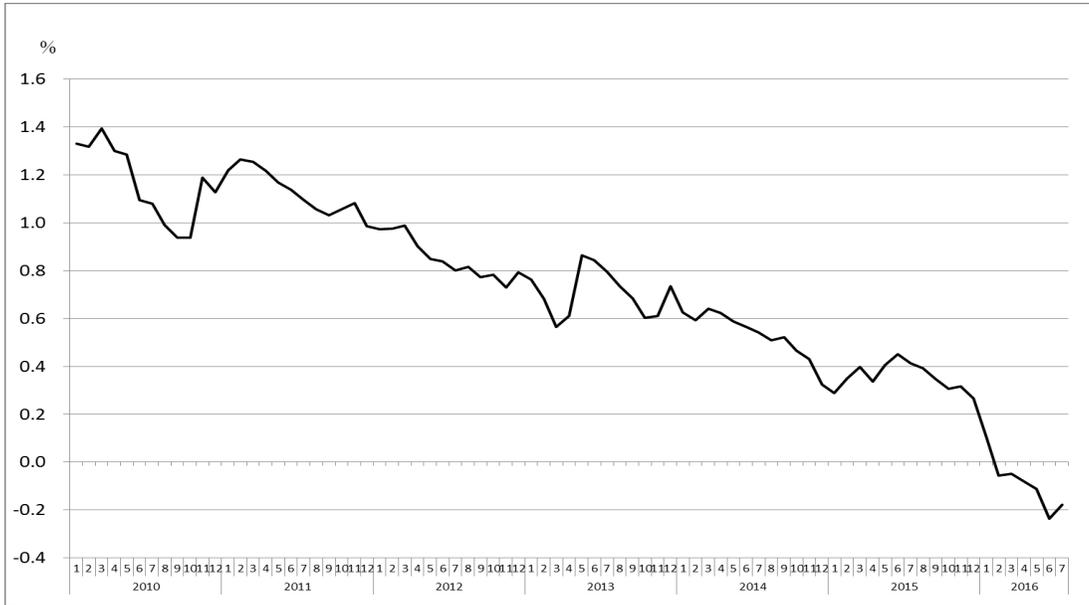
Source: BOJ

Figure I-8 Trends of real exchange rate and market stock price



Sources: BOJ and Nikkei Inc.

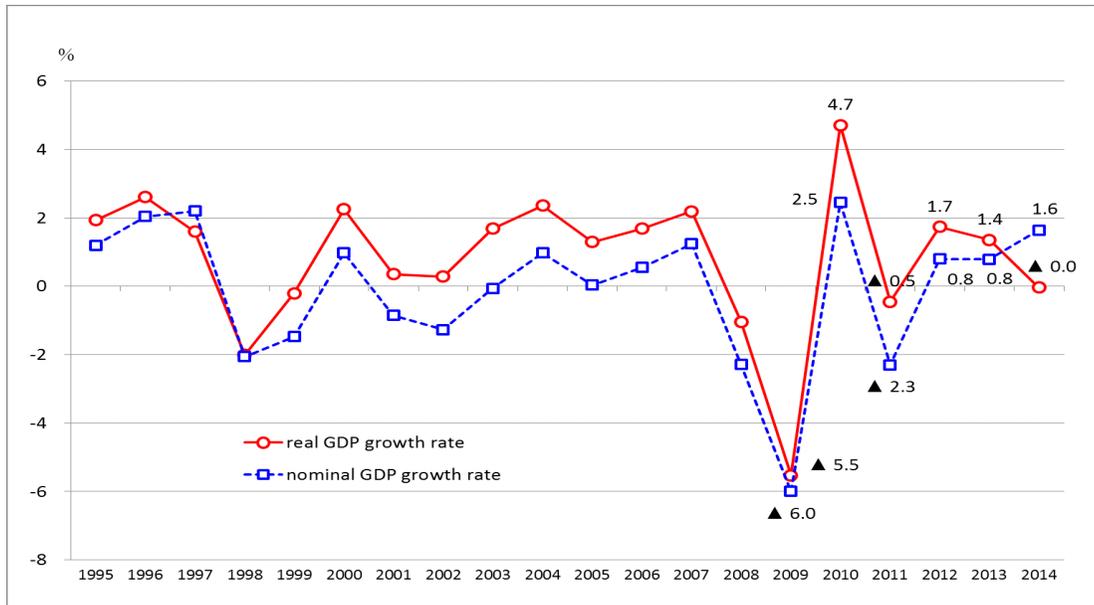
Figure I-9 Trends of long-term interest rate (unit: %)



Source: Ministry of Finance, Japan

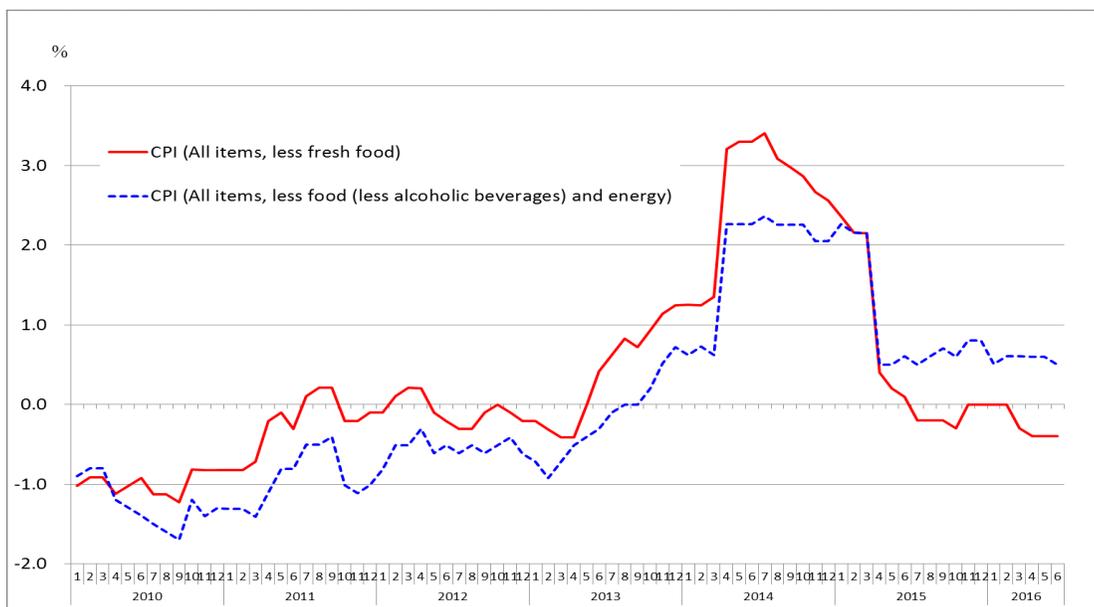
There have been various signs of recovery of the Japanese economy following the introduction of Abenomics. Figure I-10 shows the real and nominal growth rates, which showed some signs of recovery. Consumer price indexes moved from a negative inflation range to a positive inflation range, although the consumer price inflation (CPI) rate, including energy prices, has shown a declining trend since the middle of 2014 due to a drastic fall of world oil and gas prices. Corporate profits have kept rising since 2012, and many companies have experienced record high profits (Figure I-13). In addition, employment data has shown signs of recovery: the unemployment rate reached a low of 3.1% in June 2016, and the job-offer/job-seeker ratio is the highest in the last 24 years (Figure I-14).

Figure I- 10 Trends of real and nominal GDP growth rate (units: %)



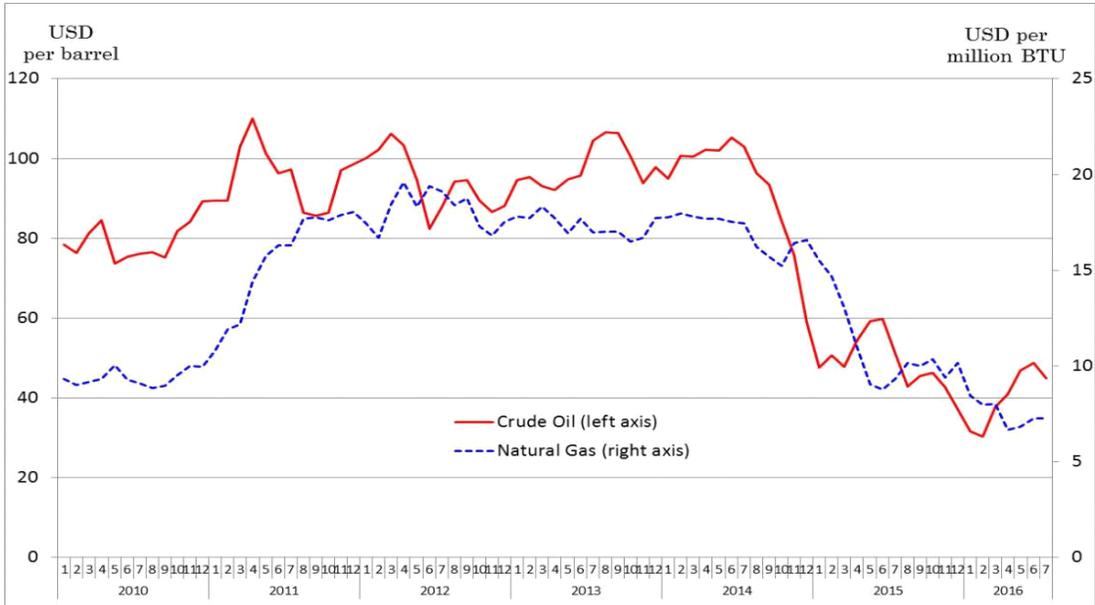
Source: Cabinet Office of Japan

Figure I- 11 Trends of CPI



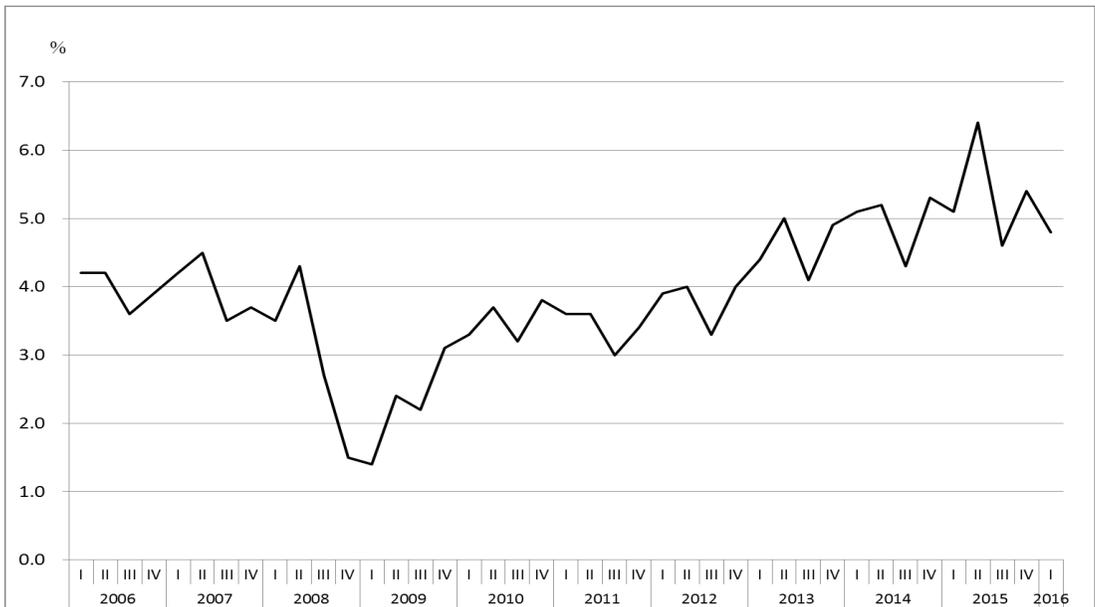
Source: Statistics Bureau, Japan

Figure I - 12 Trends of crude oil (WTI) and liquefied natural gas in Japan



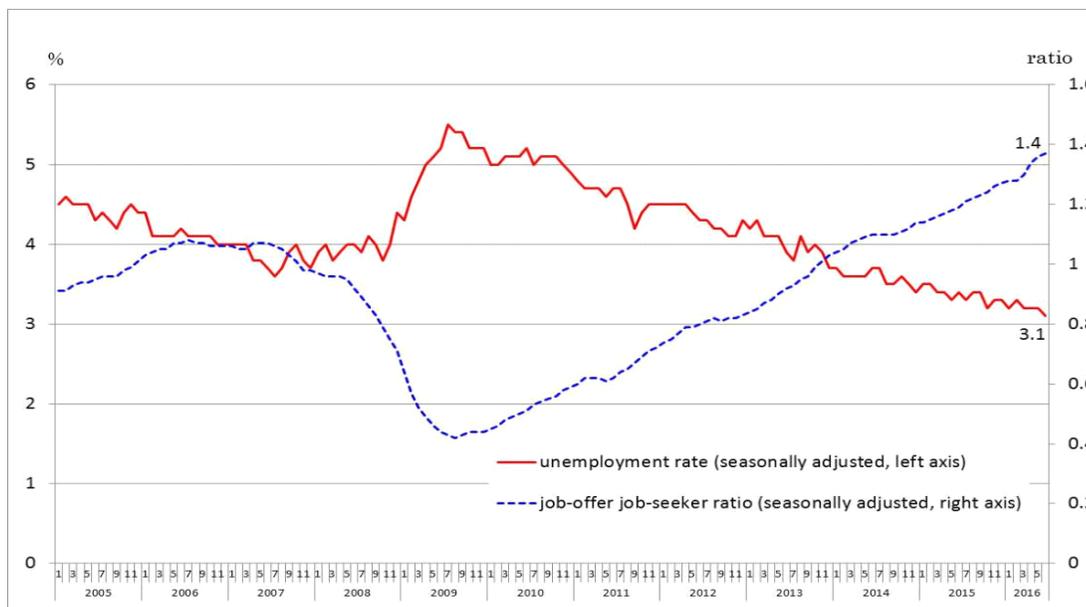
Source: IMF Primary Commodity Prices

Figure I - 13 Trends of ratio of current profit to sales



Source: Ministry of Finance, Japan

Figure I - 14 Trends of unemployment rate and job-offer/job-seeker ratio



Sources: Statistics Bureau and Ministry of Health, Labour and Welfare, Japan

The economic trend changed slightly after consumption tax (value-added tax) was raised from 5% to 8% in April 2014. Consumption responded negatively to the tax change. The JPY exchange rate started appreciating from mid-2015, responding to various international events, such as China's declining growth rate, monetary policy of the United States, falling oil prices, and political events, such as Brexit. World oil prices, which have fallen more than 70% from the peak, have had a negative effect on the inflation rate. Although falling oil prices provided overall better supply-side conditions for the Japanese economy, they have forced the timing of inflation targeting by the BOJ to be postponed. As a result of these changes, the BOJ decided to introduce a negative interest rate policy in January 2016. The government decided to postpone the consumption tax increase to 10% until October 2019, and announced an additional fiscal stimulation package in August 2016.

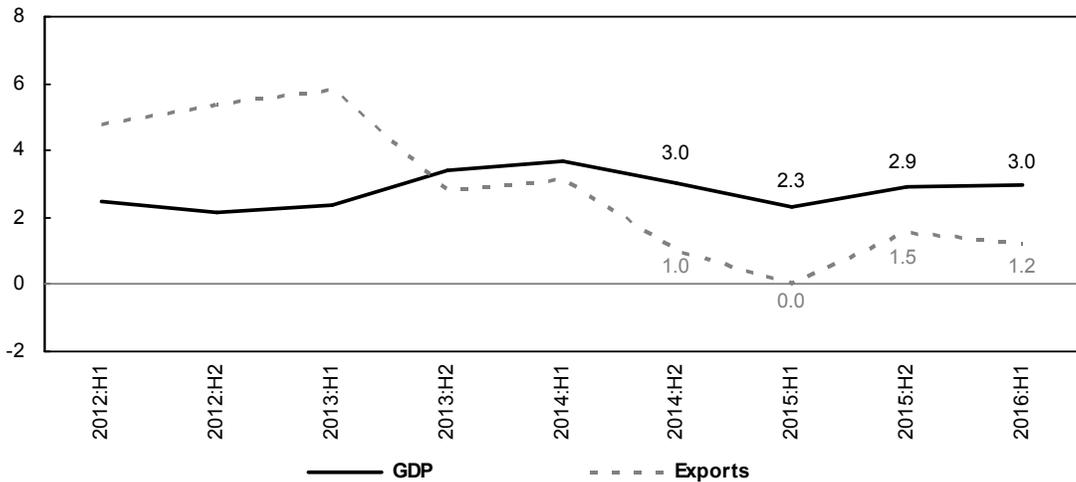
1.3 ROK (Dr. Jung Kyu-Chul)

The Republic of Korea (ROK) has grown at a low economic growth rate since the second half of 2014 mainly due to stagnating exports. The export-dependent country is struggling with slow global growth. Its aging population has dragged down potential growth and economic conditions appear to be in a short-term slump.

ROK's real GDP growth was recorded at about 3% in the second half of 2015 and the first half of 2016, with growth in the former period helped by the government's consumption stimulus and growth in the

latter period by the base effect of the contraction a year ago. This implies that ROK's growth momentum is weak at present.

Figure I - 15 Real gross domestic product and exports (year-on-year percentage change)



Source: Bank of Korea

Private consumption has improved gradually since the second half of 2015, thanks to government measures, such as an excise tax cut program, although not at a steady pace. Import prices have shrunk, improving the terms of trade significantly, but sharply increased real gross domestic income has failed to boost private consumption. Rising life expectancy highlights the necessity for vigorous preparation for post-retirement years, making households increasingly reluctant to spend despite the rise in income; household consumption has not risen as much as income has increased.

Facilities investment has been on the decline, which is mainly attributable to currently sluggish exports, since demand for facilities investment relies heavily on exports. The capacity utilization in manufacturing has remained very low, indicating poor demand for facilities investment. On the other hand, construction investment has been on a fast rise. After the government embarked on alleviating loan-to-value and debt-to-income regulations in the second half of 2014, the real estate market has been booming. The rapid increase in pre-sale houses since the second half of 2015 helped construction investment gain double-digit growth in the first half of 2016.

Exports have remained in a slump on the back of the slowing global economy and ROK's weakening global competitiveness. In addition, ROK exports are more susceptible to global investment demand than exports of other countries are. The global investment slump that has appeared in the wake of the global financial crisis has had negative impacts on ROK's exports. In addition, imports are on a slow growth trajectory, as exports and facilities investment remain feeble.

Table I - 1 Macroeconomic indicators in ROK (year-on-year percentage change, unless noted otherwise)

	2012	2013	2014	2015 ^P	2016 ^P
	Annual	Annual	Annual	Annual	1 st half
GDP	2.3	2.9	3.3	2.6	3.0
Total Consumption	2.2	2.2	2.0	2.4	3.0
Private Consumption	1.9	1.9	1.7	2.2	2.7
Total Fixed Investment	-0.5	3.3	3.4	3.8	4.2
Equipment Investment	0.1	-0.8	6.0	5.3	-3.5
Construction Investment	-3.9	5.5	1.1	3.9	10.2
Total Exports	5.1	4.3	2.0	0.8	1.2
Goods Exports	4.4	4.5	1.1	0.5	0.1
Total Imports	2.4	1.7	1.5	3.2	2.5
Goods Imports	1.9	1.3	0.5	2.0	0.6
Current Account (USD billion)	50.8	81.1	84.4	105.9	50.0
Headline Inflation (%)	2.2	1.3	1.3	0.7	0.9
Core Inflation (%)	1.6	1.6	2.0	2.2	1.7
Unemployment Rate (%)	3.2	3.1	3.5	3.6	4.0

Note: p denotes preliminary estimates

Source: Bank of Korea

The current account, the gap between domestic savings and investment, is running a huge surplus on continued low oil prices. Households are responding to rising life expectancy and longer post-retirement years by saving more. On the other hand, companies have slashed their investment plans as business has weakened. This has led to a huge surplus in the current account.

Headline inflation has exhibited long-term persistence at a very low level on the back of low oil prices. Core inflation, excluding agricultural and petroleum products, is higher than headline inflation, but remains low, which reflects poor domestic demand in the ROK economy. The protracted span of below-target inflation has pushed the expected inflation of private economic agents sharply lower.

The unemployment rate has inched up mainly in manufacturing as exports have weakened. A particularly sharp rise is observable in regions where corporate restructuring is now underway.

2. Economic Adjustment of China, Japan, and ROK

2.1 China (Dr. Wei Jigang)

As China's economy is entering a period of adjustment, innovation, coordination, greening, and opening-up have become key words for guiding China's economic development and these concepts can be observed throughout recent policy documents that have been issued (see Table 1 - 2).

As the main driving force of China's economic development in the new period, innovation has become the core of recent economic policies. In the report of the 18th CPC National Congress in 2012, the idea proposed was "scientific and technological innovation is strategic support for improving social productive forces and overall national strength; therefore, it must be the focus of overall national development¹." In addition, the *Decisions of the CPC Central Committee on Some Major Issues Concerning Comprehensively Deepening the Reform* (hereafter, the *Decisions Concerning Reform*) published at the end of 2013 also mentioned the concept of "accelerating the construction of an innovative country²," in particular to drive the market to allocate elements of innovation by deepening scientific and technical system reform. In June 2015, the State Council issued *On Several Policy Measures Concerning the Vigorous Promotion of Entrepreneurship and Innovation*, in which it expected that "promoting the funding chain can guide the entrepreneurship and innovation chain, and the entrepreneurship and innovation chain can support the industry chain, while the industry chain can drive the employment chain³."

Coordination is an intrinsic requirement for sustainable development, and frequently appears in recent economic policies. The report of the 18th CPC National Congress proposed the full implementation of the five-in-one overall layout of economic construction, political construction, cultural construction, social construction, and ecological civilization construction, as well as the promotion of the coordination of China's modernization construction and the relations of production and productivity, that is, the superstructure and the economic foundation. In addition, the *Thirteenth Five-Year Plan for National Economic and Social Development of the People's Republic of China* (hereafter, the *Thirteenth Five-Year Plan*) published in 2016 clarified that in the coming 5 years, China has to enhance the coordination of its development, including increasing consumer contribution to economic growth, increasing investment efficiency and business efficiency, improving urbanization quality, and promoting balanced development between regions.

Greening contributes to sustainability in economic and social development, and must not be ignored in future economic development. The *Made in China 2025* strategy stressed the principle of green development and pointed out that adhering to sustainable development was an important focal point for constructing a powerful manufacturing base; promoting the popularization and application of energy-saving and environmental protection technologies, processes, and equipment; as well as fully implementing cleaner production. At the end of 2015, the Chinese government proposed reform measures for "supply-side

¹ Report to the Eighteenth National Congress of the Communist Party of China, 2012

² *Decision of the Central Committee of the Communist Party of China on Some Major Issues Concerning Comprehensively Deepening the Reform*, 2013

³ The State Council issued on *Several Policy Measures Concerning the Vigorous Promotion of Entrepreneurship and Innovation*, 2015

structural reform” and the so-called “three out, one drop, one supplement,” which contained the concept of greening. The *Thirteenth Five-Year Plan* even directly declared “greening” as one of China’s development concepts, and proposed that the basic national policies of “economic development must adhere to resource conservation and environmental protection” and the acceleration of constructing a resource-saving and environmentally friendly society.

The opening-up strategy has led to China’s current prosperity, and it should be an unwavering development strategy in the future. The report of the 18th CPC National Congress came up with the idea of “comprehensively improving our open economy,” which is to improve the open economic system of mutual benefit and win-win results, multiple balancing, safety, and efficiency. The *Decisions on Reform* proposed building a new system of open economy, which includes some key initiatives, such as relaxing restrictions on investment access, speeding up construction of free trade zones, and expanding the opening-up of inland and border areas. On the other hand, the *Made in China 2025* strategy has also pointed out the need to improve the level of international development of the manufacturing sector, including improving the level of utilization of foreign capital and international cooperation, enhancing cross-border operation capacity and international competitiveness, deepening international cooperation between industries, and speeding up the “going out” strategy.

Table I - 2 Important economic policies and documents issued by the Chinese government since 2012

Date of Issue	Policies and Documents
November 2012	Report of the 18th CPC National Congress
November 2013	Decisions of CPC Central Committee on Some Major Issues Concerning Comprehensively Deepening the Reform
May 2015	Made in China 2025 strategy
June 2015	On Several Policy Measures Concerning Vigorous Promotion of Entrepreneurship and Innovation
November 2015	Supply-side Structural Reform and Three Out, One Drop, One Supplement
March 2016	The Thirteenth Five-Year Plan for National Economic and Social Development of the People’s Republic of China
May 2016	Strategy Outline of National Innovation-driven Development

Source: Jigang Wei, Senior Research Fellow, Industrial Economic Research Department, Development Research Center of the State Council, P.R. China

2.2 Japan (Prof. Itoh Motoshige)

In addition to the monetary and fiscal policies mentioned in Subsection I.1.2, the Japanese government has introduced a wide range of supply-side policies. These policies are known as the “Growth Strategy to Promote Private Investment.” This implies that supply-side policy is aimed at increasing the potential growth rate as well as reforms for the promotion of private investment (demand side). Adjusting to the trends in the global economy is one pillar of the “growth strategy policies.” Japan launched negotiations for various mega-regional economic partnership agreement (EPA) or FTA negotiations, including the China-Japan-ROK FTA (CJK FTA), Trans-Pacific Partnership (TPP), Regional Comprehensive Economic Partnership (RCEP), and Japan-European Union (EU) EPA. Agricultural reforms are important components of trade liberalization policies, and various reforms, such as agricultural cooperative reform, have started. Increasing the number of foreign visitors to Japan has been successful. The number of foreign guests to Japan has increased more than 90% since 2013⁴. In addition, the Japanese government has introduced various policies to promote inward foreign direct investment to Japan, although these efforts have not been very successful so far.

Labor market reforms are another important pillar of the “Growth Strategy.” A shrinking working population has made it necessary to promote increasing labor participation of various types of workers, especially female and senior labors. Increasing the participation of female laborers is particularly important for Japan for various reasons related to enhancing work-life balance and providing a better environment for childcare. Narrowing the gap between full-time workers and part-time workers is another important policy under labor reform. The government has adopted the slogan “equal labor, equal wage.”

Corporate tax reform and corporate governance policies are two other important areas of Japan’s growth strategy. The effective tax rate on corporate profits was lowered by 6 percentage points within a few years, making Japan’s marginal corporate tax rate lower than that in France and closer to that in Germany⁵. As for corporate governance reform, a corporate governance code was introduced by the Tokyo Stock Exchange, which has been effective at changing the behavior of listed companies.

2.3 ROK (Dr. Jung Kyu-Chul)

ROK embarked on restructuring of indebted companies in order to prevent disturbances in its economic dynamics. The process is designed to downsize surplus facilities and labor mainly in sectors that are experiencing a sharp decline in demand, such as shipbuilding and shipping businesses. However, this restructuring could lead to economic slowdown and higher unemployment in the short run.

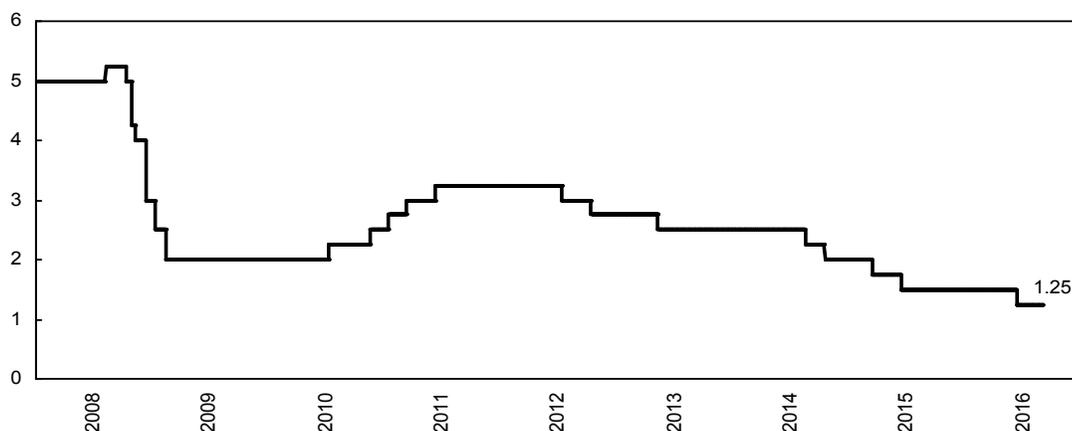
The policy authority has actively implemented macroeconomic policies to sustain economic growth. It drew up a supplementary budget plan for 2016, as it did in 2013 and 2015. The 2016 fiscal budget is already an expansionary one, but the government has decided to put in extra budget considering that the restructuring of the shipbuilding industry might result in a slump and higher unemployment in relevant regions.

⁴ The number of foreign visitors to Japan was 10,363,904 in 2013 and 19,737,409 in 2015 (Japan National Tourism Organization).

⁵ The FY2016 tax reform reduces the effective corporate tax rate to 29.97% (FY2016) and 29.74% (FY2018) in Japan. On the other hand, the effective corporate tax rates of France and Germany are 33.33% and 29.72%, respectively.

In June 2016, the Bank of Korea cut the base interest rate by 0.25% to 1.25% in response to continued low inflation and lagging economic conditions. In addition, the reduction was intended to support a smoother restructuring process.

Figure I - 16 Bank of Korea base rate (%)



Source: Bank of Korea

ROK is struggling with weak economic conditions and persistently low interest rates, leading to more capital flow into the real estate market. Now, risks are looming larger as household debt, mainly home-backed loans, has increased fast. In this regard, the financial regulatory authority drew up loan-screening guidelines making it mandatory for banks to apply more thorough and stricter standards when evaluating a borrower's repayment ability.

3. Economic Prospects

3.1 China (Dr. Wei Jigang)

Looking into the future, China will maintain steady economic growth and a continuously upgrading economic structure. Based on its 30-year history of reform and opening up, with the government's strengthening supply-side structural reform and escalating market demand, China's comparative advantage and its corresponding international industrial specialization will be further enhanced, thereby facilitating China's development as an economic giant with international competitiveness. As the world's second largest economy, changes in China's economic structure will not only undoubtedly have a broad impact worldwide, but also bring many new opportunities to neighboring countries. In particular, under the guidance of "innovative development" and "opening and sharing," there will be an increasing number of opportunities

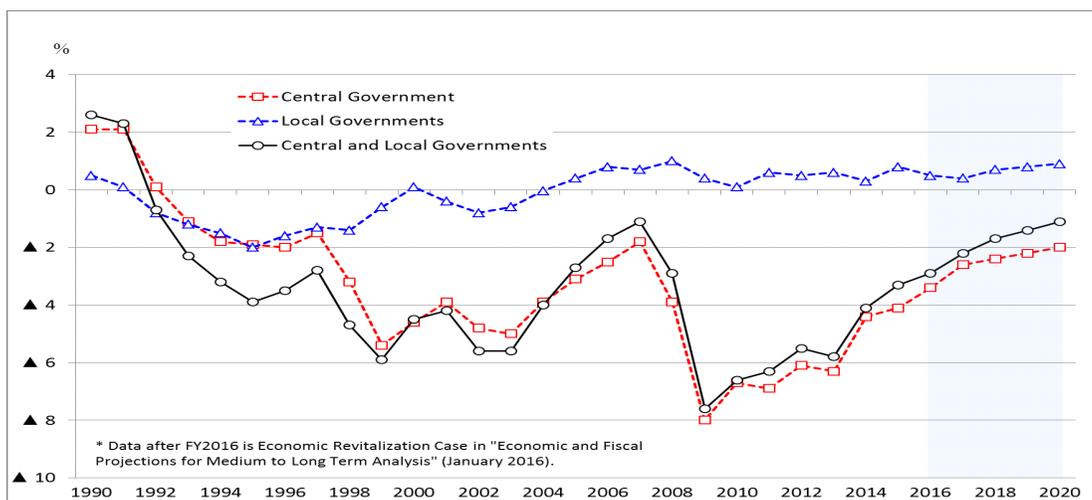
for China's emerging industries to communicate and cooperate with advanced countries (e.g., Japan and ROK), which will lead to a harmonious, mutually beneficial, and win-win situation between these countries' emerging industries.

3.2 Japan (Prof. Itoh Motoshige)

Japan is still in the process of putting an end to deflation. Although Abenomics was quite effective at mobilizing changes in various economic indicators, such as the exchange rate, stock prices, corporate profits, the unemployment rate, government tax revenue, and the interest rate, consumption and investment have not been sufficiently strong to fill the deflationary gap⁶. Furthermore, export demand has not expanded owing to shrinking world demand. Macroeconomic policies face a new period. Negative interest rate policy was finally introduced by the BOJ, and the government has announced an additional fiscal stimulation package in addition to the postponement of the consumption tax increase. As shown in Figure I-9, the long-term interest rate reached a record low after the BOJ introduced the negative interest rate policy. It is too early to assess the effects of these fiscal and monetary policies.

The Japanese government runs a significant budget deficit and suffers from a large amount of debt. Fiscal reform is one of the top priorities of government policies. The government has set a target of achieving a primary fiscal balance surplus by the fiscal year 2020. Figure I-17 shows the changing pattern of primary fiscal balances. Up to 2015, the trend followed the government's targets set in 2010. Further reform in fiscal spending, especially in social security spending is necessary to achieve the 2020 target.

Figure I- 17 Trends of primary deficit of central and local governments (ratio to GDP) (1990-2020)



Sources: Cabinet Office and Ministry of Finance, Think about the Finance of Japan

⁶ Japan Cabinet Office shows the deflationary gap is -1.1% in 2015.

3.3 ROK (Dr. Jung Kyu-Chul)

ROK is forecasted to grow at the mid-2% level in 2016-2017. Its exports and facilities investment will remain weak on the back of the slowing global economy, whereas construction investment will continue to grow strongly, raising domestic demand. Therefore, ROK in 2016-2017 is projected to maintain moderate growth at a similar rate to the 2.6% achieved in 2015.

Private consumption will be low at 2.3% on the protracted influence of ROK's structural factors, such as rising life expectancy, while real income will increase amid continued low interest rates. Facilities investment is expected to drop quite sharply (-3.4%) in 2016 on the back of sluggish exports, whereas construction investment is expected to rise significantly (6.3%) in 2016, taking into account the boom in the pre-sale housing market from the second half of 2015.

Exports are projected to remain in a slump in 2016, as their competitiveness has weakened on the back of the fast catch-up of latecomers in the global market. It is expected that 2016 will exhibit low growth of 1.4% driven by the base effect of the contraction (0.7%) in 2015. Imports will rise only 2.3% on sluggish performance in both domestic demand and exports. The current account is expected to incur a surplus of 110 billion USD on the back of ROK's structural factors, such as rising life expectancy.

Headline inflation is forecasted to remain low at around 1% in 2016, although this is slightly higher than 0.7% in 2015. Core inflation is projected to register 1.6% in 2016, down from 2.2% in 2015. The output gap (actual GDP less potential GDP) will remain negative as economic activities have been weak. The protracted span of below-target inflation will cause the expected inflation rate to be sharply lower, pointing to continued low inflation.

Unemployment is projected to register 3.8% in 2016, marginally up from 3.6% in 2015, as corporate restructuring proceeds.

Chapter II

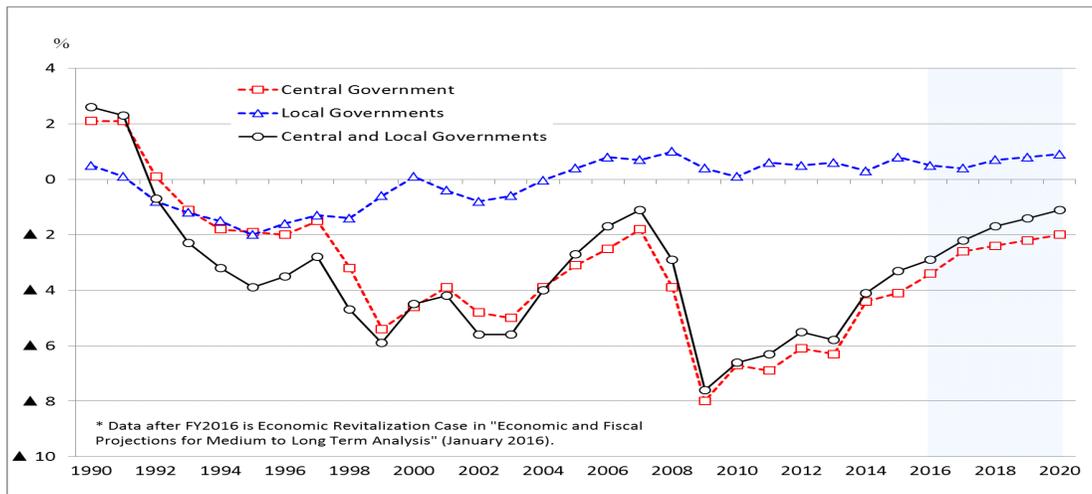
Trade in Goods and Services

1. Trade in Goods

1.1 Trends of Trade in Goods of China, Japan, and ROK

World export growth most generally is higher than world GDP growth. This is also true for the period since 1995, as depicted in Figure II-1. There were only two exceptions: 2001, a year after the IT bubble crash, and 2009, a year after the Lehman crisis. For other years until 2011, world trade expanded faster than world GDP, which means that trade was an important driving force for world economic growth. However, since 2012, world export growth was lower than world GDP growth for 4 consecutive years. World GDP grew at 3.5% in 2012, 3.3% in 2013, 3.4% in 2014, and 3.1% in 2015, while world exports grew at 2.8% in 2012, 3.3% in 2013, 3.2% in 2014, and 2.3% in 2015. Behind the declining trend of export growth rates was the falling GDP growth of emerging countries such as the countries comprising the BRICS bloc. The so-called secular stagnation of industrial countries (Summers, 2016) has been another reason for declining export growth rates. China, Japan, and ROK, whose economies depend heavily on exports, suffered from weak export demand.

Figure II - 1 Trends of world exports and the world economy (unit: growth rate, %)



Sources: IMF, World Economic Outlook Database; WTO, International Trade Statistics Database

The changing trend in world trade is reflected in trade in goods growth in China, Japan, and ROK. The trade amount of the three countries was about 18% of world trade in 2015, and the changing pattern of world trade and that of the three countries showed some similarities.

China's trade, both in exports and imports, expanded until 2014, but declined in 2015. Stagnant world demand and increasing labor costs in China might explain some part of China's shrinking exports in 2015. China's imports showed a similar trend to exports: imports declined for the first time in 5 years by around

18%, with imports declining faster than exports. This was related to the drop of oil and gas prices, as discussed below.

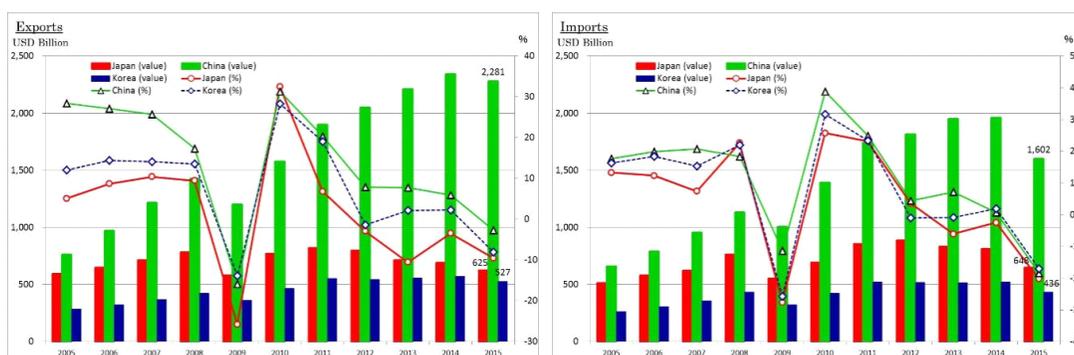
Weak world economic growth and trade have been reflected in Japan's exports, which recovered to pre-Lehman crisis levels by 2011 but continued to decline thereafter. Depreciation of the JPY since 2012 was reflected in the decreasing USD value of Japan's exports in this period, and the JPY value did not decline as much as the USD value. Major export industries, such as automobiles, kept the USD prices of their products rather than cut prices in the face of the depreciating JPY; that is, they chose to increase their profit margins rather than to increase export quantity. Thus, the quantity of Japan's exports did not increase much even under a depreciating JPY.

Another important point in the recent trends of Japan's trade is that imports have declined since 2013. Price declines of oil and gas during this period contributed substantially to this decrease in imports. In 2013, when the world oil price peaked, Japan's imports of oil, coal, and gas were about 28 trillion JPY, about 6% of GDP. After the Fukushima nuclear plant accident in 2011, all nuclear power plants in Japan were shut down and Japan had to increase its imports of oil and gas for power generation. As shown in Figure II-3, this led to a dramatic expansion of Japan's trade balance deficit after 2011. However, the substantial decrease in the world oil and gas price since 2014 contributed to the decrease in Japan's imports since 2014. Japan's trade balance deficits decreased substantially to almost zero in 2015.

China and ROK, whose economies also depend on oil and gas imports, benefited from the oil and gas price drop. The decrease in imports of these two countries from 2014 to 2015 reflected the decreasing import costs of oil and gas.

ROK's exports dropped 8% from 2014 to 2015. China's weakening growth was the most important factor for this change. ROK's imports did not change much in recent years: they were 516 billion USD in 2013 and 526 billion USD in 2014 before dropping to 436 billion USD in 2015. The decrease in ROK's imports partly reflects the weak domestic economy but the drop in oil and gas prices also contributed, like in China and Japan.

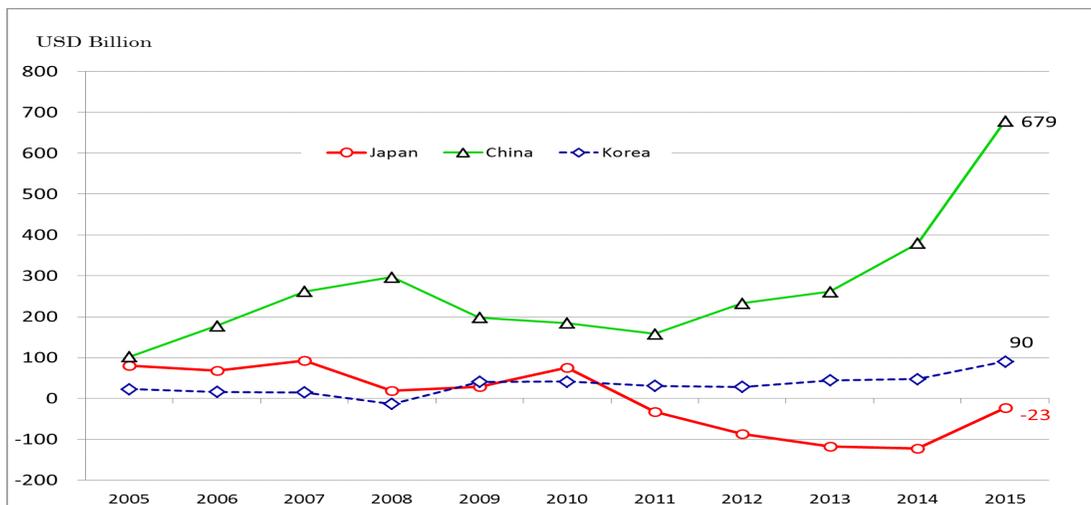
Figure II - 2 Trends of trade in goods of China, Japan, and ROK (units: USD billion, %)



Source: IMF, 2016, Direction of Trade Statistics

As for trade balances, China runs a large trade surplus, which has been increasing rapidly recently and reached 679 billion USD in 2015. The most recent surge in China's trade surplus reflects the price drop of oil, gas, and other resources. China enjoyed improved terms of trade due to cheaper oil prices. Japan, which enjoyed a large trade surplus before the Lehman crisis, experienced a declining trade surplus and then an expanding trade deficit. Its aging population and changing industrial structure were behind these trends. Japan's trade deficit expanded rapidly after 2011 following the Fukushima nuclear plant accident, increasing its dependence on oil and gas for power generation. Japan's trade deficit reached more than 100 billion USD in 2013 and 2014 but fell to almost zero due to the sudden drop of oil and gas prices. ROK continued to have a trade surplus, which in 2015 amounted to 90 billion USD, from 47 billion USD in 2014. The drop of world oil and gas prices contributed to this rapid expansion of ROK's trade surplus.

Figure II -3 Trade balances (units: USD billion)

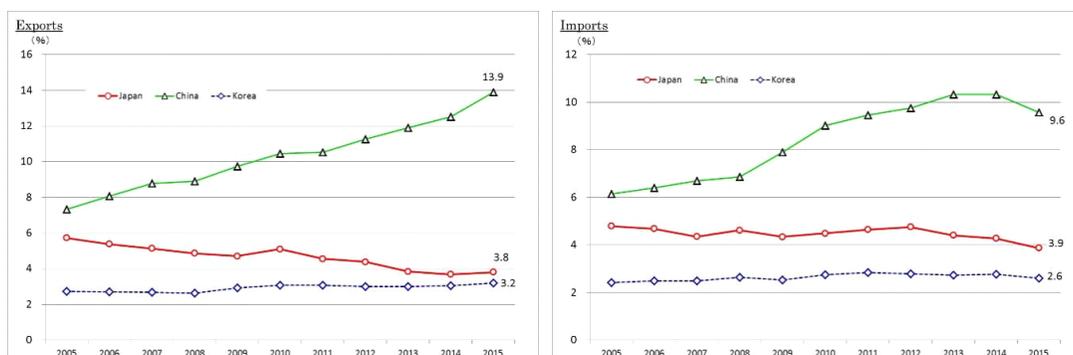


Source: IMF, 2016, Direction of Trade Statistics

China, Japan, and ROK are major global trading countries. In 2015, China was the world's largest trading country while Japan and ROK ranked fourth and eighth, respectively. China was the largest exporter and second largest importer, and Japan was the fourth largest exporter and fourth largest importer, whereas ROK was the fifth largest exporter and ninth largest importer.

China's share of global trade has increased continuously. China's share of exports was 7.3% in 2005 and increased to 13.9% in 2015. Japan's share of global exports has continuously decreased, from 5.7% in 2005 to 3.8% in 2015. However, the decline stopped in 2015; the share in 2014 improved from 3.7% to 3.8% in 2015. ROK's share of global trade mostly increased from 2005 to 2015, when it reached 3.2%. On the import side, the same trends were evident for the three countries except that the share of imports dropped in 2015 for all three countries due to the drop of oil and gas prices.

Figure II -4 Share of world trade in goods of China, Japan, and ROK



Source: IMF, 2016, Direction of Trade Statistics

1.2 Changing Patterns of Trade

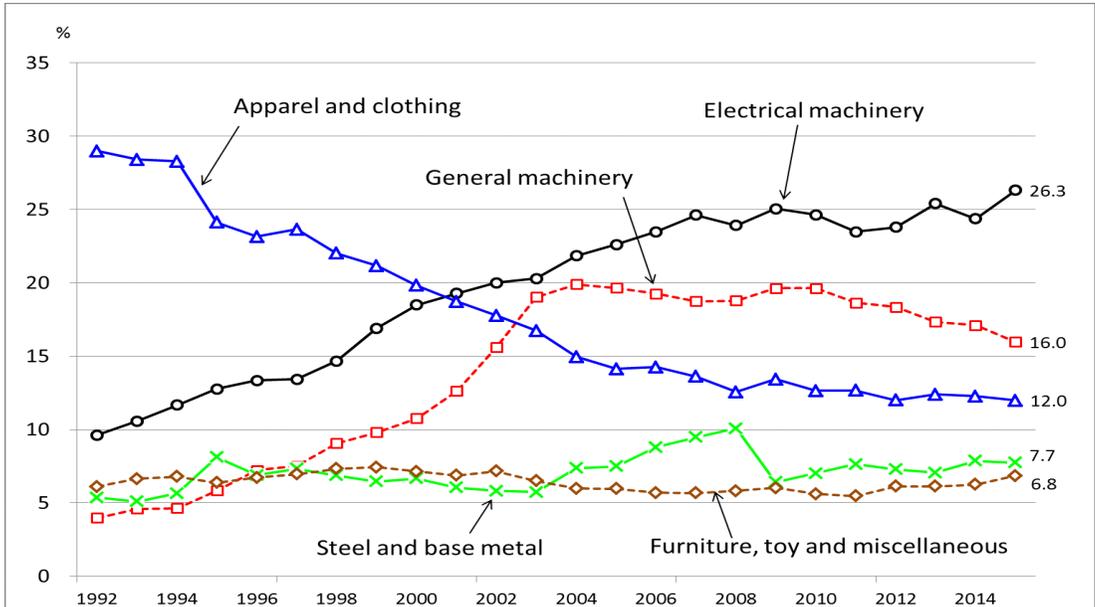
China, Japan, and ROK had quite similar patterns with regard to export product categories. They shared three product categories among their top five export categories in 2015: electrical machinery, general machinery, and steel and base metal. They shared eight product categories among their top 10 export categories in 2015. However, various important differences lurk behind the face-value similarities, and these hidden differences are essential to understand the nature of the division of labor among the three countries.

Table II - 1 Comparison of top China, Japan, and ROK export products in 2015 (HS 2-digit code)

China			Japan			ROK		
HS code	Commodity description	Share	HS code	Commodity description	Share	HS code	Commodity description	Share
85	Electrical machinery	26.3	86-89	Transport equipment	24.2	85	Electrical machinery	26.3
84	General machinery	16.0	84	General machinery	18.8	86-89	Transport equipment	20.9
61-63	Apparel and clothing	8.3	85	Electrical machinery	15.3	84	General machinery	11.8
72-83	Steel and base metal	7.8	72-83	Steel and base metal	8.6	72-83	Steel and base metal	8.4
94-96	Furniture, toy and miscellaneous	6.9	28-38	Chemical products	7.5	39-40	Plastics and rubber	6.7
86-89	Transport equipment	4.7	90-92	Optical instruments and apparatus	6.0	28-38	Chemical products	6.5
28-38	Chemical products	4.7	39-40	Plastics and rubber	5.2	25-27	Mineral products	6.4
39-40	Plastics and rubber	3.8	25-27	Mineral products	2.0	90-92	Optical instruments and apparatus	6.2
50-60	Textiles	3.7	71	Precious metal	1.6	50-60	Textiles	2.7
90-92	Optical instruments and apparatus	3.6	50-60	Textiles	1.2	16-24	Food, beverages and tobacco	0.9

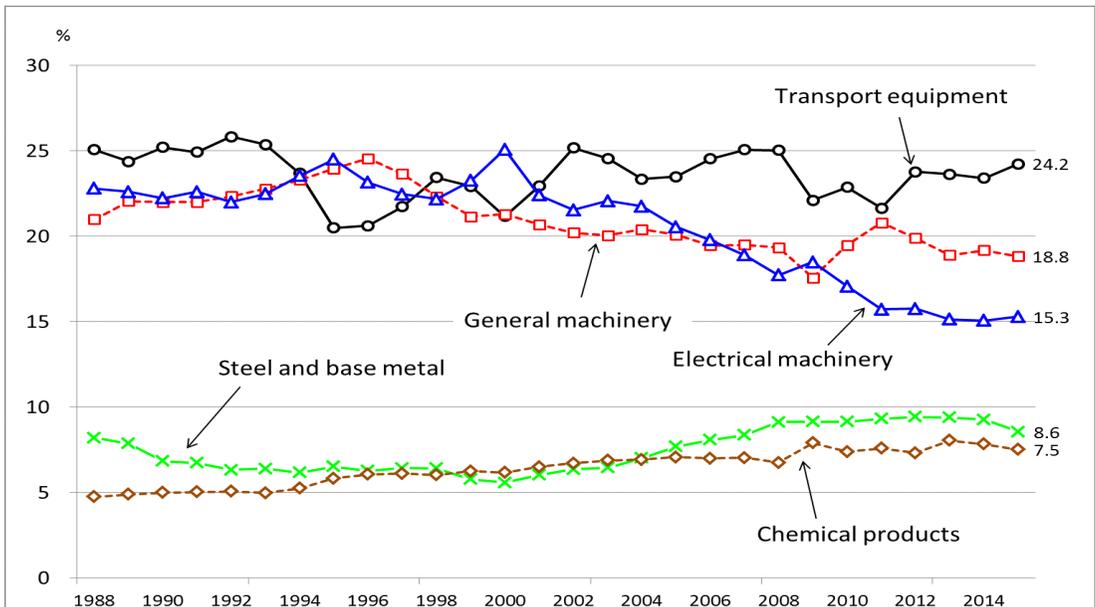
Source: UN Comtrade Database [online]

Figure II -5 Share of China's export products (1988-2015, HS 2-digit code)



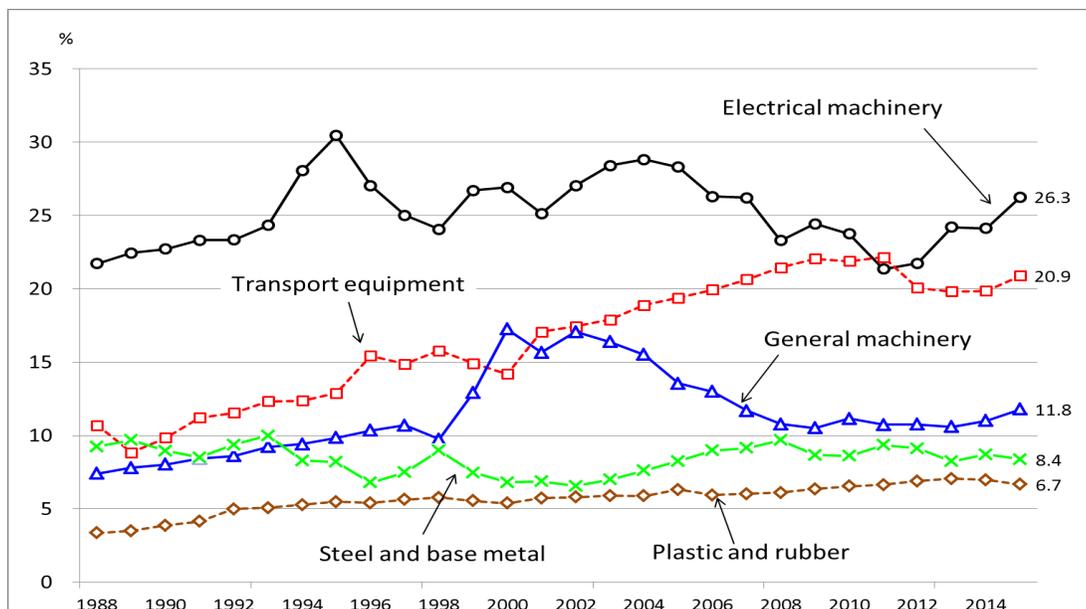
Source: UN Comtrade Database [online]

Figure II -6 Share of Japan's export products (1988-2015, HS 2-digit code)



Source: UN Comtrade Database [online].

Figure II-7 Share of ROK's export products (1988-2015, HS 2-digit code)



Source: UN Comtrade Database [online]

Figures II-5, II-6, and II-7 show the changing trend of trade of China, Japan, and ROK. In China, the share of apparel and clothing has been decreasing and the share of electrical machinery has been increasing. In Japan, the share of electrical machinery has been decreasing. In ROK, the share of transportation equipment has been increasing.

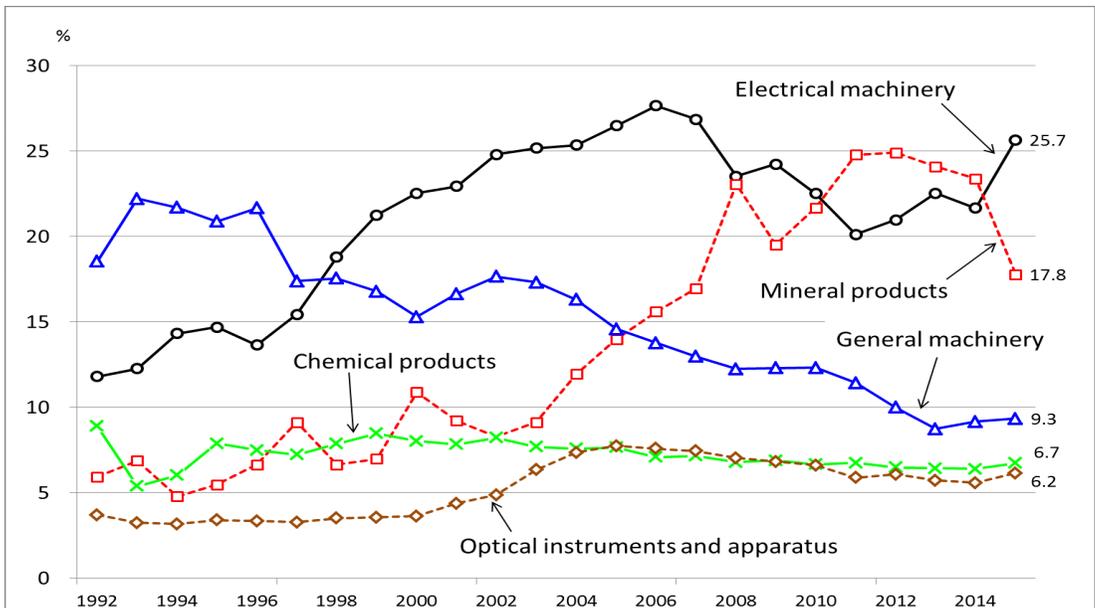
The composition of import product categories among the three countries is also quite similar. In 2015, their top three import product categories were the same, although the order of importance differed. Mineral products were important import products for the three countries, accounting for 17.8% in China, 24.1% in Japan, and 26.7% in ROK. The recent fall in mineral product prices benefited the three countries. Similar shares of exports and imports in the categories of electrical machinery, transportation equipment, and general machinery implies that the three countries were in competitive positions in these industries but at the same time complemented each other through a regional division of labor.

Table II - 2 Comparison of top China, Japan, and ROK import products in 2015 (HS 2-digit code)

China			Japan			ROK		
HS code	Commodity description	Share	HS code	Commodity description	Share	HS code	Commodity description	Share
85	Electrical machinery	25.7	25-27	Mineral products	24.1	25-27	Mineral products	26.7
25-27	Mineral products	17.8	85	Electrical machinery	14.4	85	Electrical machinery	17.8
84	General machinery	9.3	84	General machinery	9.5	84	General machinery	10.6
28-38	Chemical products	6.7	28-38	Chemical products	9.0	72-83	Steel and base metal	8.9
90-92	Optical instruments and apparatus	6.2	61-63	Apparel and clothing	4.8	28-38	Chemical products	8.3
86-89	Transport equipment	5.9	72-83	Steel and base metal	4.8	86-89	Transport equipment	4.9
72-83	Steel and base metal	5.2	90-92	Optical instruments and apparatus	4.3	90-92	Optical instruments and apparatus	4.3
39-40	Plastics and rubber	4.7	86-89	Transport equipment	4.2	39-40	Plastics and rubber	3.2
6-14	Vegetables products	3.6	16-24	Food, beverages and tobacco	3.6	6-14	Vegetables products	2.1
50-60	Textiles	1.5	1-5	Live animals; animal products	3.4	16-24	Food, beverages and tobacco	1.9

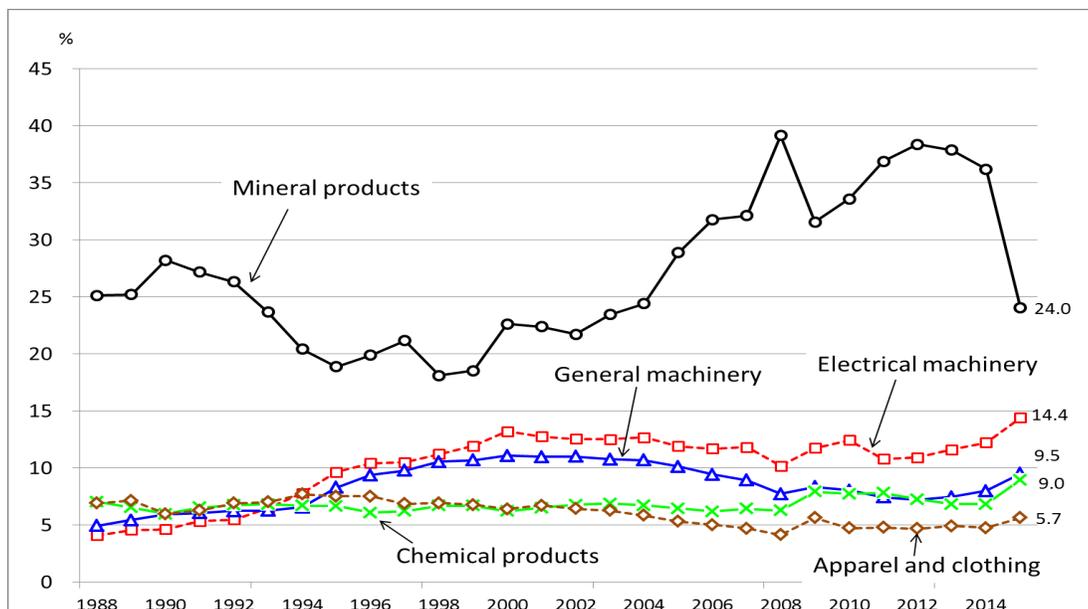
Source: UN Comtrade Database [online]

Figure II - 8 Share of China's import products (1988-2015, HS 2-digit code)



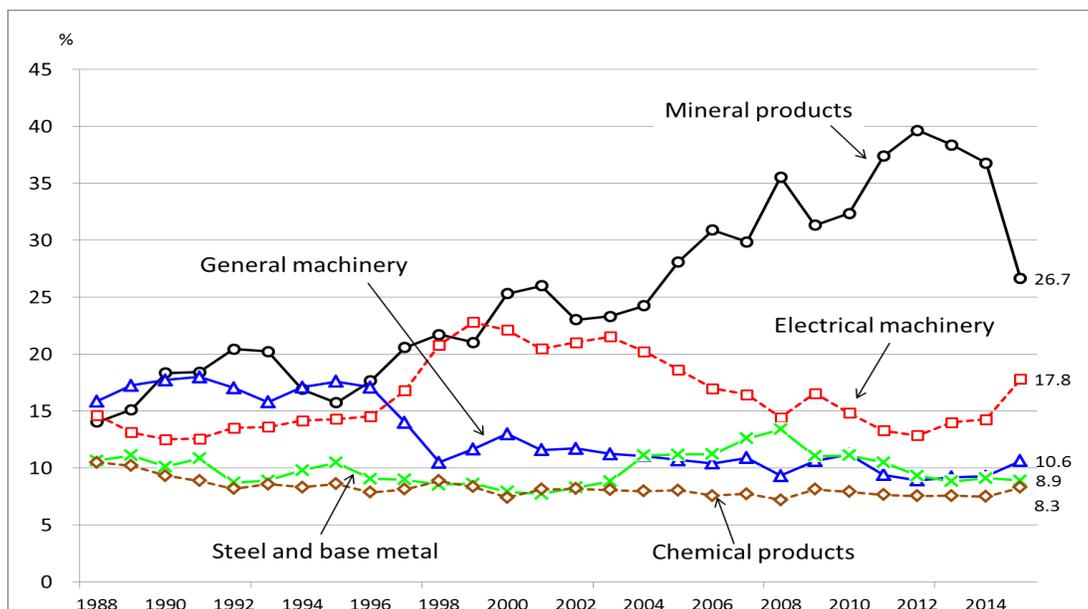
Source: UN Comtrade Database [online]

Figure II -9 Share of Japan's import products (1988-2015, HS 2-digit code)



Source: UN Comtrade Database [online]

Figure II -10 Share of ROK's import products (1988-2015, HS 2-digit code)



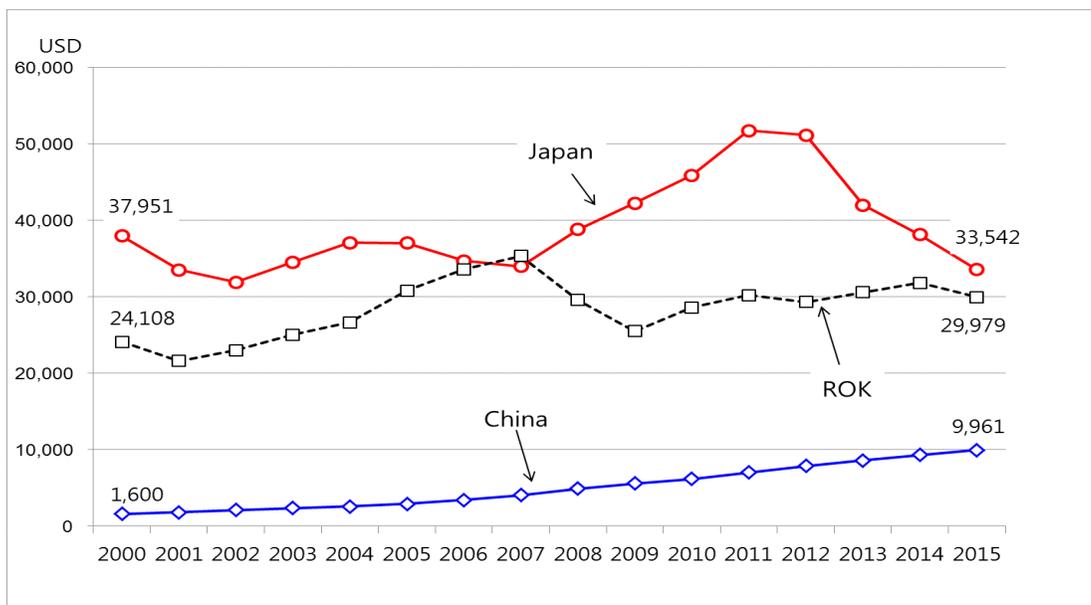
Source: UN Comtrade Database [online]

Figures II-8, II-9, and II-10 show the changing trend of imports for China, Japan, and ROK. Fluctuations of imports of mineral products were very large for all three countries. World mineral prices had large influences on their import structures.

Changing trade patterns mentioned above reflect various aspects of domestic-level transformation, as follows.

China's rapidly increasing wage was perhaps the most important factor driving its changing industrial structure. In the past, China enjoyed strong competitiveness in assembling electronic products and other consumer goods owing to its abundant labor force. Foreign companies took advantage of the abundant labor supply by expanding production activities in China to export products to the rest of the world. China's exports of consumer goods have expanded and contributed to China's high economic growth. However, wages in China have risen rapidly, as shown in Figure II-11. Labor costs increased and labor-intensive sectors in China became less competitive for low-cost products. High labor costs induced foreign firms operating in China to shift their production sites to other countries, such as Vietnam and Bangladesh. The Chinese manufacturing sector can adapt to this trend of higher labor costs by switching to more high value-added products. For example, Chinese brand smart phones, such as Xiaomi and Huawei, have been replacing the iPhone and Samsung in Asian markets.

Figure II - 11 Real wage of Japan, China, and ROK (2000-2015, 2015 base year)



Note: Real wage of China was calculated by using exchange rate and CPI.

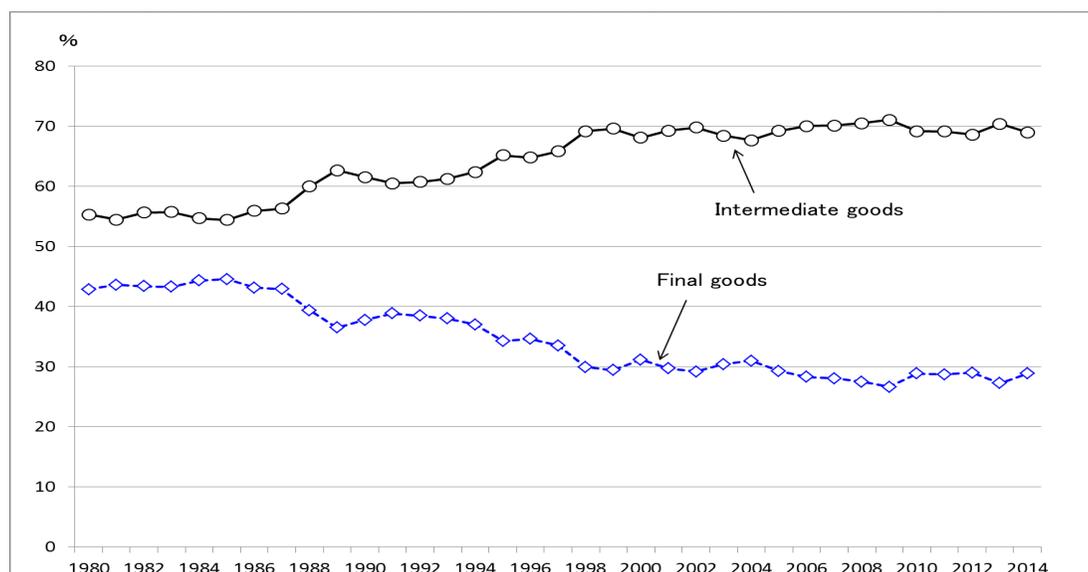
Sources: OECD. Stat., IMF, China Statistical Yearbook.

Chinese industries have been shifting rapidly from export-oriented manufacturing to domestic-oriented industries such as steel, petrochemicals, and infrastructure-related industries. Economic policies after the Lehman crisis have been directed toward stimulation of investment in heavy industries and infrastructure. Although ultra-Keynesian policies were successful for the Chinese economy to achieve a dramatic recovery, such policies have led to overinvestment in these sectors. Excessive production capacities in such industries as steel and petrochemicals have caused prices to fall. Not only Chinese companies but also neighboring Japanese and ROK companies have suffered from low prices.

China is undergoing another transformation, the shift to the “new normal,” under which there is a continued shift from export-led growth to domestic demand-led growth, but the emphasis is on consumption rather than investment, and the service sector rather than heavy manufacturing. China’s challenges in this transformation are ongoing and it is too early to assess the corresponding change in trade patterns.

Japan’s trade pattern has also been changing to reflect the industrial transformation of major manufacturing industries. Figure II-12 shows the share of Japan’s exports to East Asia. Generally, Japan’s exports have been shifting from consumer durables, such as automobiles and electrical goods, to intermediate and capital goods. This change reflects the changing pattern of cross-border division of labor in manufacturing. Many products are now produced involving several countries in the region. For example, the iPhone is assembled mostly in China, but a large proportion of parts and materials are manufactured in Japan and ROK. Factories in China and ROK use various types of capital equipment exported from Japan. For a high-wage country, like Japan, shifting from assembled products to intermediate and capital goods is inevitable, since Japan depends more on technology-intensive products.

Figure II - 12 Share of exports of Japan to East Asia (1980-2014)



Sources: OECD Statistics, IMF, China Statistical Yearbook

Japan's changing trade pattern has important implications for China's and ROK's trade. Increasing cross-border division of labor implies increasing exports of intermediate and capital goods from Japan and ROK. Increasing assembling activities in China, by Chinese indigenous firms and Japanese and ROK subsidiary firms, has replaced some of exports from Japan and ROK. These changes are reflected in the trade structure of the three countries.

ROK has increased trade dependence on China. Rapid economic growth of the Chinese economy has provided various opportunities for ROK's firms. For ROK, China is not only a good location for low-cost production but also and more importantly a promising growing market. As shown in Table II-4, China is ROK's largest trading partner for both exports and imports. As Table II-4 shows, ROK's exports to China (137.1 billion USD) were larger than Japan's (109.2 billion USD). China's recent economic slowdown has put strong downward pressure on the ROK economy.

Overall, increasing division of labor in this region has led to its increasing competitiveness as a whole. Different economic conditions among the three countries have made cross-border division of labor more effective. Production of high-tech machinery and intermediate goods in Japan and ROK and assembly of products in China has provided the best production mix for many products. Investment from Japan and ROK has provided China with opportunities to expand its industrial capabilities. The benefits are not restricted to Chinese, Japanese, and ROK firms. The competitiveness of the regional network will induce firms in other countries to invest in this region.

1.3 Intra-regional Trade

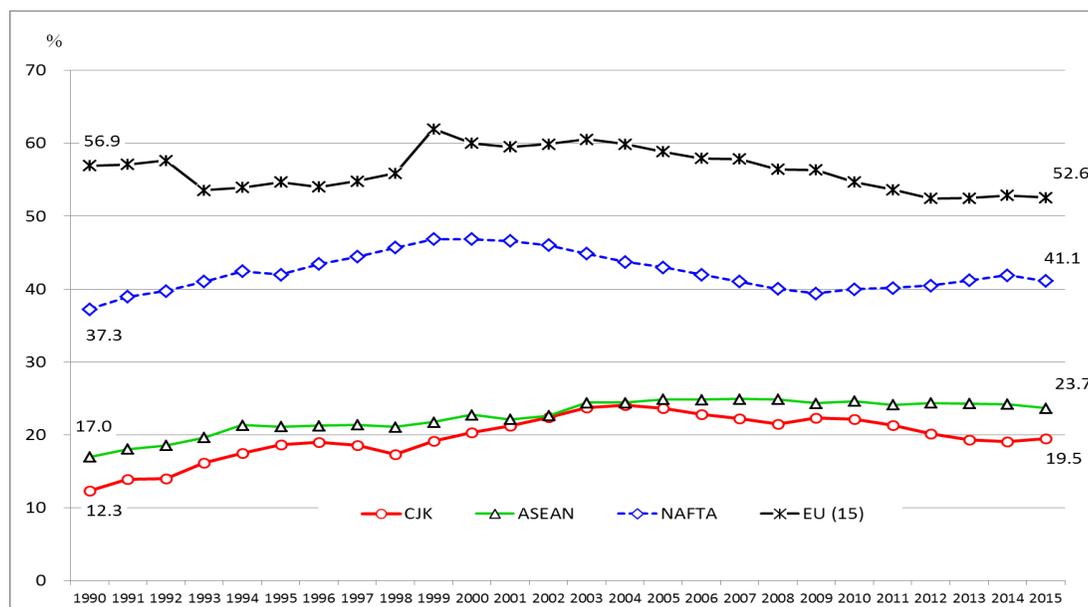
Trilateral trade among China, Japan, and ROK strongly reflects their underlying pattern of division of labor. The division of labor is not restricted to the region or exclusive to the outside world. Rather, the relationship with other parts of the world, like North America and Europe, is critical to understand the implication of this trilateral trade.

Another important point of trilateral trade is related to what economists call the "gravity model" of trade, by which the amount of trade between any two countries is negatively correlated with the distance between the two and positively correlated with the size of, for example, GDP of the two countries. Many studies support this hypothesis in the academic literature (e.g., Feenstra, 2003). Trilateral trade within China, Japan, and ROK is characterized by very short distance among the three countries. The gravity model implies that trade among neighboring countries expands as the countries grow. In this respect, China's rapid growth was the most important factor determining the nature and future direction of trilateral trade.

The gravity model emphasizes the demand side of the economy, which is contrary to comparative cost models emphasizing the supply side. In general, both the demand and supply sides influence trade, but the demand side is more important for the trilateral trade among China, Japan, and ROK. As the difference in income levels between Japan and ROK became smaller, and as China's income level increased substantially, the difference in supply-side conditions became smaller. As shown in Tables II-5 to II-7, the trade structures of the three countries are not very different on the surface. They all import a large quantity of mineral resources, and such industries as electronic machinery and general machinery are major export

categories. However, careful examination reveals some important differences. Demand-side theory of the gravity model is useful to understand this pattern of increasing trilateral trade. Typical patterns observed are: (1) increasing intra-industry trade, in which low-priced products were exported from China and high-priced products were exported from Japan and ROK, and (2) vertical division of labor, in which electric devices were exported from Japan and ROK to China and assembled there, or textile materials were produced in Japan and final apparel products were produced in China and re-exported to Japan. Comparing intra-regional trade of the three countries with other regions, such as the Association of Southeast Asian Nations (ASEAN), EU, and North America, the degree of intra-regional trade is observed to be much larger for other regions. Figure II-13 compares the intra-regional trade intensity index among the EU, North American Free Trade Agreement (NAFTA), ASEAN, and China-Japan-ROK. The intra-regional trade index of China-Japan-ROK is much smaller than those of other regions. However, it is misleading to use these indexes only for a comparison with other regions since North America and Europe are important markets for the three countries and the division of labor among the three countries is critical for expanding exports to other regions. A large amount of exports from China to North America and Europe are important sources of demand for intermediate goods and capital goods exported from Japan and ROK to China.

Figure II - 13 Intra-regional trade (%)



Source: IMF, 2016, Direction of Trade Statistics

As shown in Table II-3, China's exports to Japan and ROK were 10.4% of its total exports, while China's imports from the two countries were 18.9% of its total imports; that is, China imported much more from the two countries than it exported to them. There were significant quantities of exports of intermediate

and capital goods from Japan and ROK used for assembling activities in China. The final products were exported from China to other parts of the world. This pattern of trade is affirmed by comparing ROK's exports to China with its imports from China; the former were significantly higher than the latter. Japan's trade pattern with China differed from that of ROK. The share of China in Japan's total exports was 17.5% while the share of China in Japan's total imports was 25.7%. Thus, Japan was an important export market for Chinese products. As for trade between Japan and ROK, there were declining shares for both exports and imports. These declining trends indicate severe competition in the same industries between the two countries.

Table II - 3 Trade of Japan, China, and ROK in 2015

Japan's Trade with China and ROK in 2015

Country	Export		Import	
	Value (USD Billion)	Share (%)	Value (USD Billion)	Share (%)
China	109.3	17.5	160.6	25.7
ROK	44.0	7.0	26.8	4.3
World	624.9	100.0	625.6	100.0

China's Trade with Japan and ROK in 2015

Country	Export		Import	
	Value (USD Billion)	Share (%)	Value (USD Billion)	Share (%)
Japan	135.9	6.0	143.1	8.5
ROK	101.5	4.4	174.6	10.4
World	2281.9	100.0	1681.7	100.0

ROK's Trade with Japan and China in 2015

Country	Export		Import	
	Value (USD Billion)	Share (%)	Value (USD Billion)	Share (%)
Japan	25.6	4.9	45.9	10.5
China	137.1	26.0	90.2	20.7
World	526.9	100.0	436.5	100.0

Source: UN Comtrade Database [online]

These trends are confirmed by considering the major trading partners of the three countries, as shown in Table II-4. China's largest export market was the United States, Japan was third, and ROK fourth. China's largest import market was ROK and Japan was fourth. Japan was an important export market for China and ROK was the largest supplier of intermediate goods to China. As for Japan, China and ROK were the second and third largest markets for exports, respectively, after the United States, while China was the largest exporter to Japan and ROK was the fourth largest. For ROK, China was the largest exporter and importer, while Japan was only the fifth largest export market after Vietnam and the second largest importer. ROK's pattern of trade implies that Vietnam was becoming an important user of ROK's products for assembling activities and Japan remained an important source of intermediate and capital goods for ROK.

Table II - 4 China, Japan, and ROK's major trading partners in 2015

	China				Japan				ROK			
	Exports		Imports		Exports		Imports		Exports		Imports	
	Country	USD Billion	Country	USD Billion	Country	USD Billion	Country	USD Billion	Country	USD Billion	Country	USD Billion
1	United States	410.8	ROK	174.3	United States	126.4	China	160.6	China	137.1	China	90.3
2	Hong Kong	332.7	United States	144.9	China	109.2	United States	68.3	United States	70.1	Japan	45.9
3	Japan	135.9	Taiwan	144.5	ROK	44.0	Australia	34.8	Hong Kong	30.4	United States	44.2
4	ROK	101.4	Japan	142.7	Taiwan	36.9	ROK	26.8	Vietnam	27.8	Germany	21.0
5	Germany	69.2	Germany	87.5	Hong Kong	35.0	Saudi Arabia	25.1	Japan	25.6	Saudi Arabia	19.6
6	Vietnam	66.4	Australia	65.1	Thailand	28.0	UAE	23.5	Singapore	15.0	Taiwan	16.7
7	United Kingdom	59.7	Malaysia	53.2	Singapore	19.9	Taiwan	23.3	India	12.0	Qatar	16.5
8	Netherlands	59.7	Brazil	44.4	Germany	16.2	Malaysia	21.5	Taiwan	12.0	Australia	16.4
9	India	58.3	Thailand	37.2	Australia	12.8	Thailand	20.4	Mexico	10.9	Russia	11.3
10	Singapore	53.1	Russia	33.1	Vietnam	12.5	Germany	20.3	Australia	10.8	Vietnam	9.8

Source: IMF, 2016, Direction of Trade Statistics

Table II - 5 China-Japan trade structure in 2015 (HS 2-digit code)

China's exports to Japan		China's imports from Japan	
Commodity description	Share (%)	Commodity description	Share (%)
Electrical machinery	24.9	Electrical machinery	27.1
General Machinery	16.2	General machinery	18.4
Apparel and clothing	14.0	Optical instruments and apparatus	10.6
Furniture, toy and miscellaneous	5.7	Chemical products	10.1
Steel and base metal	5.5	Steel and base metal	9.5
Chemical products	5.2	Transport equipment	9.1
Food, beverages and tobacco	4.1	Plastics and rubber	7.2
Optical instruments and apparatus	3.9	Textiles	1.9
Plastics and rubber	3.5	Furniture, toy and miscellaneous	1.3
Transport equipment	3.3	Ceramic products and glassware	1.1

Source: UN Comtrade Database [online]

Table II -6 China-ROK trade structure in 2015 (HS 2-digit code)

China's exports to ROK		China's imports from ROK	
Commodity description	Share (%)	Commodity description	Share (%)
Electrical machinery	38.3	Electrical machinery	46.7
Steel and base metal	11.5	Optical instruments and apparatus	12.1
General machinery	9.2	General machinery	10.0
Chemical products	6.5	Chemical products	9.1
Apparel and clothing	6.1	Plastics and rubber	6.8
Optical instruments and apparatus	4.3	Steel and base metal	5.1
Furniture, toy and miscellaneous	3.5	Mineral products	3.9
Textiles	2.6	Transport equipment	2.9
Plastics and rubber	2.4	Textiles	1.1
Transport equipment	2.2	Ceramic products and glassware	0.5

Source: UN Comtrade Database [online]

Table II -7 Japan-ROK trade structure in 2015 (HS 2-digit code)

Japan's exports to ROK		Japan's imports from ROK	
Commodity description	Share (%)	Commodity description	Share (%)
General machinery	18.3	Electrical machinery	21.1
Chemical products	18.1	Mineral products	14.4
Steel and base metal	14.7	Steel and base metal	13.3
Electrical machinery	13.9	General machinery	11.0
Optical instruments and apparatus	7.8	Chemical products	8.8
Plastics and rubber	7.6	Plastics and rubber	5.5
Mineral products	4.8	Food, beverages and tobacco	4.1
Transport equipment	2.7	Transport equipment	3.9
Ceramic products and glassware	1.3	Precious metal	3.7
Precious metal	0.9	Live animals; animal products	2.0

Source: UN Comtrade Database [online]

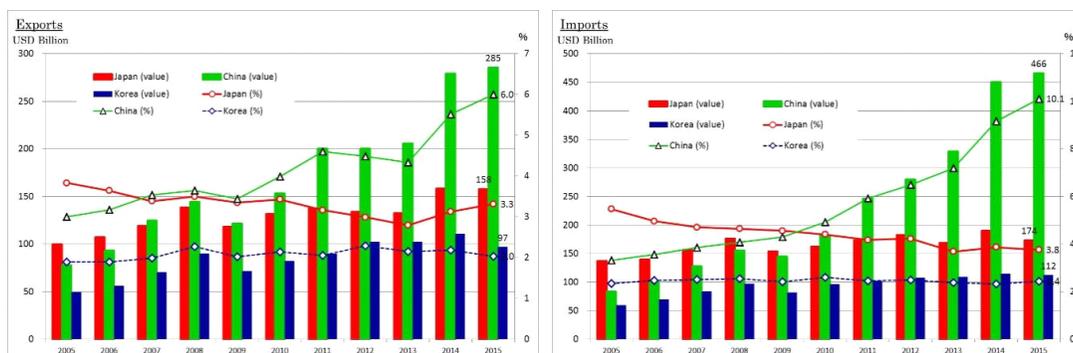
2. Trade in Services

2.1 Trends of Trade in Services of China, Japan, and ROK

Trade in services increased in importance around the world. As activities of firms extended over borders, as the number of people moving across borders increased, and as information technology made it easier to undertake long-distance transactions, trade in services naturally increases. Various services, technology, and information are transacted across borders. As with trade in goods, increasing trade in services among the three countries has enhanced the overall competitiveness of the region to the rest of the world. China's services exports and imports showed a rising trend from 2005. In 2015, China's services exports

and imports were 285 billion USD and 466 billion USD, respectively, accounting for 6% and 10.1%, respectively, of total world service exports and imports.

Figure II - 14 Service exports and imports of China, Japan, and ROK and shares in the world (unit: USD billion, %)



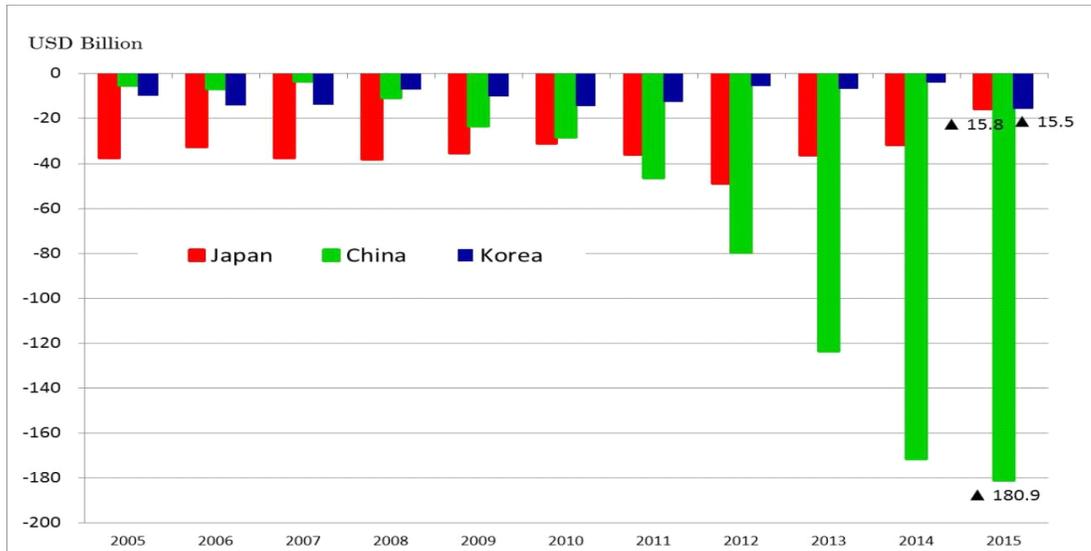
Source: WTO, Statistics Database [online]

Japan's services exports and imports also showed an increasing trend from 2005, although the pace of growth was much slower. In 2015, Japan's services exports and imports amounted to 158 billion USD and 174 billion USD, respectively, accounting for 3.3% and 3.8%, respectively, of total world services exports and imports. These shares were lower than those in 2005 (3.8% and 5.5% respectively) but higher than those of 2013 (2.8% and 3.7%, respectively).

ROK's services exports and imports showed a similar gradually rising trend. In 2015, ROK's services exports and imports were 97 billion USD and 112 billion USD, respectively, accounting for 2% and 2.4%, respectively, of total world services exports and imports. Although the amounts showed a slowly rising trend, the shares of total world services exports and imports did not change significantly.

As shown in Figure II-15, all three countries recorded trade deficits in services from 2009. China's trade deficit in services grew quite rapidly to 180.9 billion USD in 2015. Japan's and ROK's trade deficits in services have been shrinking recently, except for ROK's in 2015. In 2015, Japan's and ROK's trade deficits in services were 15.8 billion USD and 15.5 billion USD, respectively.

Figure II - 15 Changes of balance of trade in services of China, Japan, and ROK
(unit: USD billion)



Source: WTO, Statistics Database [online]

2.2 Changing Patterns of Trade

In 2014, travel was the most important component of China's trade in services, accounting for 40% of exports and 62.7% of imports. The size of travel in China's trade in services is significantly larger than that of Japan and ROK. China ran huge deficits in travel in trade in services. The most important components of Japan's trade in services was other business services, which represented 21.4% of its exports and 35.1% of its imports, followed by transportation (22.5% of exports and 23.6% of imports), charges for the use of intellectual property (22.9% of exports and 9.5% of imports), and travel (16.1% of exports and 9.2% of imports). Travel exports expanded from 11.5% in 2014 to 16.1% in 2015, reflecting the Japanese government's commitment to increasing the number of foreign tourists to Japan.

Table II - 8 China's structure of trade in services (2015) (unit: USD million, %)

	Value		Share	
	Exports	Imports	Exports	Imports
Goods-related services	24,041	1,480	8.4	0.3
Transport	38,594	75,614	13.5	16.2
Travel	114,109	292,200	40.0	62.7
Other commercial services	108,731	97,036	38.1	20.8

Note: Based on the classification of the sixth edition of the IMF Balance of Payments and International Investment Position Manual (BPM6)

Source: WTO, Statistics Database [online]

Table II - 9 Japan's structure of trade in services (2015) (unit: USD million, %)

	Value		Share	
	Exports	Imports	Exports	Imports
Goods-related services	903	7,950	0.6	4.6
Transport	35,480	40,956	22.5	23.6
Travel	25,491	15,922	16.1	9.2
Other commercial services	95,989	108,862	60.8	62.7
Construction	10,596	8,123	6.7	4.7
Insurance and pension services	1,576	4,731	1.0	2.7
Financial services	10,173	6,002	6.4	3.5
Charges for the use of intellectual property	36,077	16,540	22.9	9.5
Telecommunications, computer, and information services	3,208	11,311	2.0	6.5
Other business services	33,717	60,879	21.4	35.1
Personal, cultural, and recreational services	643	1,277	0.4	0.7

Note: Based on the classification of the sixth edition of the IMF Balance of Payments and International Investment Position Manual (BPM6)

Source: WTO, Statistics Database [online]

Transportation was the most important component of ROK's trade in services, accounting for 33.7% of exports and 26.4% of imports, followed by other business services (19.8% of exports and 26.7% of imports), travel (15.8% of exports and 22.2% of imports), and construction (13.9% of exports and 2.7% of imports). Construction exports declined from 16.2% in 2014 to 13.9% in 2015, which might reflect the global trend of diminishing construction demand.

Table II - 10 ROK's structure of trade in services (2015) (unit: USD million, %)

	Value		Share	
	Exports	Imports	Exports	Imports
Goods-related services	3,203	8,721	3.3	7.8
Transport	32,668	29,644	33.7	26.4
Travel	15,285	24,958	15.8	22.2
Other commercial services	45,687	49,022	47.2	43.6
Construction	13,492	3,000	13.9	2.7
Insurance and pension services	685	877	0.7	0.8
Financial services	1,601	1,913	1.7	1.7
Charges for the use of intellectual property	6,199	9,831	6.4	8.8
Telecommunications, computer, and information services	3,647	2,776	3.8	2.5
Other business services	19,168	29,982	19.8	26.7
Personal, cultural, and recreational services	895	644	0.9	0.6

Note: Based on the classification of the sixth edition of the IMF Balance of Payments and International Investment Position Manual (BPM6)

Source: WTO, Statistics Database [online]

2.3 Important Areas of Trade in Services

Some important areas of trade in services should be highlighted; the first is sea transportation services. Shanghai and Busan are among the largest ports for container boats. Table II-11 shows the list of large container ports, which are used for goods produced in neighboring places and as hub ports for neighboring countries. Busan is an important hub port for Japanese local ports. As shown in Table II-10, transportation services have a large share in ROK's services exports. This was important for both the ROK economy and many users in Japan for efficient transportation of products. China's transportation services exports were actually larger than those of ROK for 2015, although China's imports of transportation services were larger than exports. Foreign and domestic shippers made heavy use of hub ports in China, such as Shanghai and Hong Kong, with the large amount of transportation services imports indicating the important role of foreign shippers in China. Both domestic and foreign shippers contributed to increasing exports and imports of goods.

Table II - 11 World top 20 container ports, 2011-2014 (unit: million TEU)

Rank	Port	Country	2011	2012	2013	2014
1	Shanghai	China	31.74	32.53	33.62	35.29
2	Singapore	Singapore	29.94	31.65	32.6	33.87
3	Shenzhen	China	22.57	22.94	23.28	24.03
4	Hong Kong	China (Hong Kong)	24.38	23.12	22.35	22.23
5	Ningbo	China	14.72	16.83	17.33	19.45
6	Busan	Korea	16.18	17.04	17.69	18.65
7	Qingdao	China	13.02	14.5	15.52	16.62
8	Guangzhou	China	14.42	14.74	15.31	16.16
9	Dubai	UAE	13	13.3	13.64	15.25
10	Tianjin	China	11.59	12.3	13.01	14.05
11	Rotterdam	Netherlands	11.88	11.87	11.62	12.3
12	Port Klang	Malaysia	9.6	10	10.35	10.95
13	Kaohsiung	China (Taiwan)	9.64	9.78	9.94	10.59
14	Dalian	China	6.4	8.92	10.86	10.13
15	Hamburg	Germany	9.01	8.89	9.3	9.73
16	Antwerp	Belgium	8.66	8.64	8.59	8.98
17	Xiamen	China	6.47	7.2	8.01	8.57
18	Tanjung Pelepas	Malaysia	7.5	7.7	7.63	8.5
19	Los Angeles	USA	7.94	8.08	7.87	8.33
20	Keihin	Japan	7.64	7.85	7.81	7.85
World Total			587.484	624.48	651.201	684.429

Note: Keihin Ports is Japan's superport hub in Tokyo Bay and includes Yokohama, Kawasaki, and Tokyo

Source: "Containerisation International Yearbook" (2010-2012), "The Top 101 ports of Containerisation International" data for 2013-2014; world total is based on UNCTAD "Review of Maritime Transport."

The second noteworthy area is travel services and air transportation. The number of tourists has been increasing rapidly in East Asia. However, as shown in Table II-12, the number of tourists to China, Japan, and ROK in 2015 was smaller than that to France (84 million) and the United States (78 million). The number

of tourists to China, Japan, and ROK will increase further given that income in this region is set to increase and its population is much larger than that of Europe. Tourism is and will remain an important industry for the three countries.

Table II - 12 World top 10 inbound tourism by country/area for 2015

Rank	Country	1,000 tourists
1	France	84,452
2	United States	77,510
3	Spain	68,215
4	China	56,886
5	Italy	50,732
6	Turkey	39,811
7	Germany	34,972
8	United Kingdom	34,436
9	Mexico	32,093
10	Russia	31,346
16	Japan	19,737
23	ROK	13,232

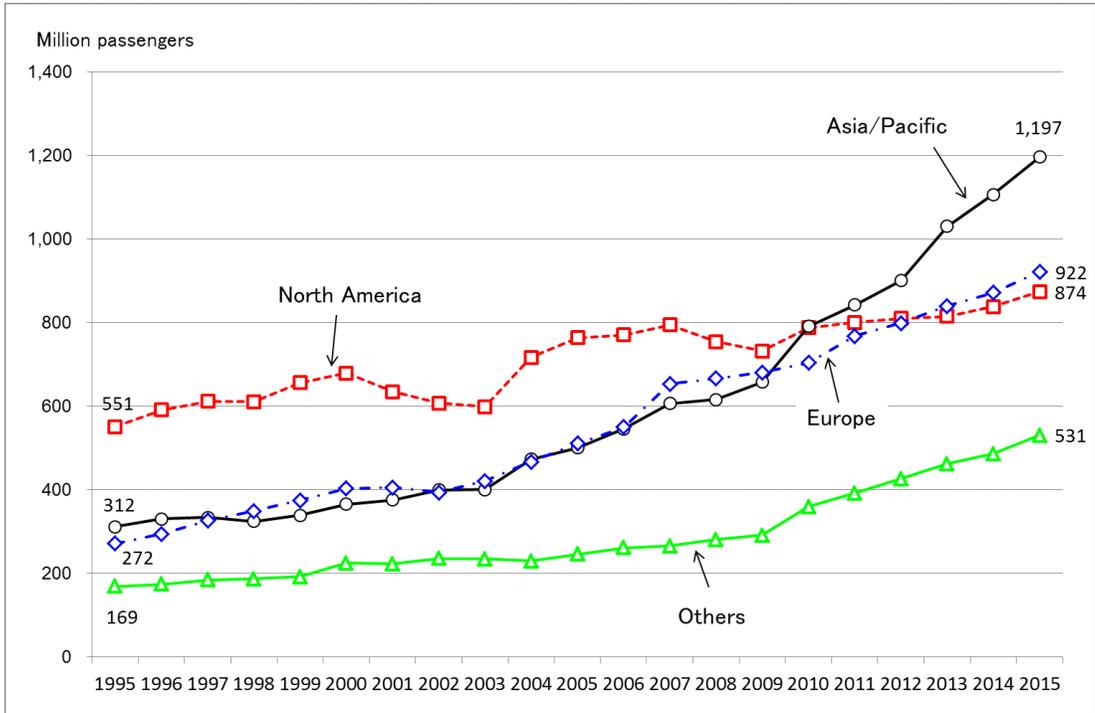
Note: The data for Turkey are from 2014

Sources: UNWTO and National Tourism Office

For example, the number of visitors to Japan increased rapidly from about 8.5 million people in 2012 to about 20 million people in 2015. The increasing number of tourists was a source of increasing consumption demand. It is possible to identify some features of travel services by comparing the data among the three countries. Japan's exports of travel services were much larger than its corresponding imports, confirming that travel services have become an important industry. For China and ROK, imports of travel services significantly exceeded corresponding exports. Although Chinese and ROK tourists visited countries other than Japan, tourists from China and ROK were an important component of tourists to Japan. Travel exports were also important for China and ROK even though imports exceeded exports. China's travel services exports were larger than Japan's exports. ROK's travel services exports was also larger than Japan's, if adjusted for GDP.

Although aviation services cannot be separated within the data, aviation services were obviously an important part of transportation services. As shown in Figure II-16, the use of passenger air transportation grew more rapidly in Asia than the rest of the world.

Figure II - 16 World passenger transportation (1995-2015)



Note: The real wage of China was calculated by using the exchange rate and CPI; Asia/Pacific refers to the countries of IATA TC3.

Source: Japan Aircraft Development Corporation

Behind the increasing number of aviation passengers, one can identify such factors as expanding capacity of major hub airports and expanding networks connecting local airports. Not only traditional hub-and-spoke networks but also local-to-local networks have been expanding. Open-sky treaties have stimulated the entry of various low-cost carriers in addition to increasing the flights of traditional carriers.

Another noteworthy area is transactions of intellectual property. In Japan, a mature economy, intellectual property usage charges were the largest item in services exports and have become an important source of income. For ROK, imports of intellectual property usage charges were larger than corresponding exports. Quite different from Japan, China is still a developing economy and has to pay a lot of money to use the intellectual properties of foreign countries, which contributes to China's huge deficit in trade in services.

Chapter III

Investment

Foreign direct investment plays increasingly important roles in the global economy. FDI growth rates were higher than trade growth rates for many countries, including for China, Japan, and ROK. Figures III-1 and III-2 indicate that FDI of the three countries increased dramatically with large fluctuations. The FDI movements reflected the underlying transformation of the domestic economies, like the case of trade. Some important features should be highlighted before detailed FDI data are presented.

First, distance was not as important for FDI as it was for trade. Trilateral trade was important for China, Japan, and ROK since distance was critical for trading. However, Tables III-2, III-4, and III-6, which show the major source of inward FDI, and Tables III-8, III-10, and III-12, which show the major destination of outward FDI, indicate that distance did not matter for FDI. Often, FDI was made in areas in which there were some trade barriers, such as long distances.

Second, so-called “cross-hauling” or “two-way direction” of FDI shows that inward and outward FDI was almost equal in size. The FDI of the United States and many European countries display this cross-hauling property. Among the three countries in this research, only China satisfied the property of cross-hauling. For Japan, inward FDI was extremely small compared with outward FDI. For ROK, outward FDI was about twice as large as inward FDI.

Inward FDI to China changed substantially, reflecting the transformation of China’s industries. In the past, large amounts of investments were made by foreign manufacturing firms for the processing of export activities. However, as China’s domestic market expanded, more investments were made for selling and servicing activities in the Chinese market. This is in Table III-3, which shows the sectoral structure of China’s inward FDI. The non-manufacturing sector was much larger than the manufacturing sector. Among the non-manufacturing sector, real estate, financial intermediation, and wholesale and retail trading received a large amount of investment.

Another important feature of China’s FDI is the recent rapid expansion of its outward FDI. In the past, inward FDI was much larger than outward FDI, but in 2015, outward FDI almost caught up with inward FDI in size. China has been shifting from being a recipient of large investment from abroad to being an active investor abroad. A large portion of China’s outward FDI was in the non-manufacturing sector (Table III-9). In 2015, the share of the manufacturing sector in China’s outward FDI was only 7.8 %, while that of Japan was 37 % and that of ROK was 23.2% (Tables III-11 and III-13).

The most important feature of Japan’s FDI is its very low level of inward FDI. The Japanese government has taken this very seriously and has introduced various measures to promote inward FDI. Japan’s outward FDI has been expanding. Drastic measures for monetary easing, increasing corporate profits, and stagnant domestic investment pushed up overseas investments. Outward FDI included a large amount of merger and acquisition (M&A) activities by Japanese companies, which is discussed more below.

A comparison between China’s and Japan’s outward FDI and exports reveals that China’s exports were about three times as large as Japan’s exports, while Japan’s outward FDI remained larger than China’s FDI. In this regard, FDI was very critical for overseas activities of the Japanese companies.

ROK’s outward investment has been expanding slowly. The size of ROK’s inward FDI was about half of its outward FDI.

Mergers and Acquisitions(M&A) are important for understanding the nature of FDI. Overseas M&A activities

by Chinese companies have been expanding recently. Table III-1 shows Japan External Trade Organization (JETRO) data on the M&A activities of China, Japan, and ROK. M&A activities by Chinese firms and Japanese firms expanded in 2015 and 2016.

Table III - 1 Global cross-border M&A deals (unit: USD million, %, number)

		2012	2013	2014	2015			2016 First Half				
		Value	Value	Value	Value	growth rate	Share	Number	Value	growth rate	Share	Number
	World	713,950	647,658	902,445	1,100,934	22.0	100.0	9,914	614,579	7.3	100.0	4,346
Acquired country	Japan	14,229	10,338	10,389	7,579	△27.0	0.7	120	22,233	622.7	3.6	49
	China	16,977	30,095	27,094	35,789	32.1	3.3	295	8,447	△56.5	1.4	127
	ROK	3,523	2,646	16,607	7,902	△52.4	0.7	121	529	△85.9	0.1	43
Acquiring country	Japan	51,400	65,540	52,773	64,644	22.5	5.9	527	30,261	△16.0	4.9	239
	China	43,008	58,729	49,789	72,982	46.6	6.6	355	48,401	137.8	7.9	212
	ROK	8,592	5,257	4,723	2,875	△39.1	0.3	69	2,027	88.7	0.3	22

Note: As of July 4, 2016

Source: JETRO Global Trade and Investment Report 2016

Although the data in Table III-1 shows only finalized cases, Thomson Reuters data on M&As include cases under negotiation. According to Nikkei (Nikkei, August 12, 2016), the total amount of overseas M&A activities by Chinese companies during January-June 2016 was about 122.5 billion USD, the largest ever and even larger than total M&A activities for the full year of 2014. This was more than 20% of total global overseas M&A activities during the same period⁷. M&As offer very speedy opportunities to penetrate overseas markets and obtain critical technology.

Japanese companies were also engaged in active overseas M&A activities, but not of the same magnitude as Chinese companies. According to Nikkei, there were about 300 cases in total of overseas M&A investments, including cases under negotiation, by Japanese companies during April-September 2016, the largest ever⁸.

Most of these M&As by Chinese and Japanese companies were in developed nations. Stagnant economic conditions in emerging and developing countries induced investment to shift to developed nations.

1. Inward FDI of China, Japan, and ROK

1.1 Trends of Inward FDI of China, Japan, and ROK

In terms of flow, China's inward FDI showed a rising trend until 2011, remained almost constant in 2012 and 2013, and then rose slightly in 2014. Inward FDI to China was 124 billion USD in 2013 and 129 billion USD in 2014. In terms of stock, China's inward FDI amounted to 4.4% of the world's total in 2014, rising

⁷ Nihon Keizai Shinbun, p.1, August 12, 2016.

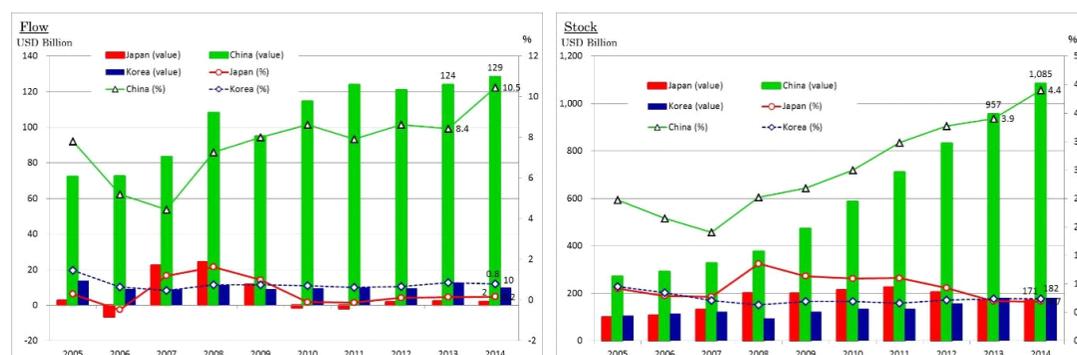
⁸ Nihon Keizai Shinbun, p.1, October 8, 2016.

from 3.9% in 2013.

In terms of flow, Japan's inward FDI had been declining since the Lehman crisis of 2008 and recently, has stayed at very low levels. In 2014, Japan's inward FDI (flow) was only 2 billion USD, accounting for 0.2% of the global total. Reflecting the low level of flow in inward FDI, the stock level of Japan's FDI remained very low. In 2014, the stock value was 171 billion USD, accounting for 0.7% of the total world stock of inward FDI.

In terms of flow, ROK's inward FDI remained almost constant, moving between 9 billion USD and 14 billion USD. In 2014, ROK's inward FDI (flow) was 10 billion USD, accounting for 0.8% of the world's total inward FDI. In terms of stock, ROK's inward FDI was 182 billion USD, accounting for 0.7% of the total world inward FDI in 2014.

Figure III - 1 Trends of inward FDI of China, Japan, and ROK (unit: USD billion, %)



Source: UNCTAD Statistics

1.2 China's Inward FDI

Inward FDI has been an important source of economic growth for China. FDI has brought capital for investment, technology, and knowhow, opportunities for business transactions for indigenous firms, employment opportunities, and windows to the world market. Hong Kong was by far the largest FDI provider for China. Japan and ROK were ranked the fourth and the fifth largest providers of FDI for China, respectively. As for sectoral distribution of inward FDI to China, the non-manufacturing sector received 67.3% of China's total inward FDI in 2015, the same as in 2014. Nevertheless, the composition of the sectors was different between 2014 and 2015. Real estate and leasing and commercial services fell from 26.9% and 9.7%, respectively, to 23% and 8%, respectively, although the scientific research and polytechnic service industry increased from 2.5% in 2014 to 3.6% in 2015. In addition, the medical and pharmaceutical products industry within the manufacturing sector had a share of 0.7% in 2014, which increased to 1.1% in 2015; this might have reflected the increasing market demand for healthcare services.

Table III - 2 Major sources of China's inward FDI flows (unit: USD million, %)

Ranking	2014			Ranking	2015		
	Region	Amount	Share		Region	Amount	Share
1	Hong Kong	81,268	63.2	1	Hong Kong	86,387	68.4
2	Virgin Islands	6,226	4.8	2	Virgin Islands	7,388	5.9
3	Singapore	5,827	4.5	3	Singapore	6,904	5.5
4	Japan	4,325	3.4	4	ROK	4,034	3.2
5	ROK	3,966	3.1	5	Japan	3,195	2.5
6	United States	2,371	1.8	6	United States	2,089	1.7
7	Germany	2,071	1.6	7	West Samoa	1,991	1.6
8	Taiwan	2,018	1.6	8	Germany	1,556	1.2
9	West Samoa	1,564	1.2	9	Taiwan	1,537	1.2
10	Cayman Islands	1,255	1.0	10	Cayman Islands	1,444	1.1
16	Total	128,502	100.0		Total	126,267	100

Note: Based on utilized FDI

Source: CEIC Data

Table III - 3 Sectoral structure of China's inward FDI flows (unit: USD million, %)

Sector	2014		2015	
	Amount	Share	Amount	Share
Agricultural	1,522	1.2	1,534	1.2
Mining	562	0.4	243	0.2
Manufacturing	39,939	31.1	39,543	31.3
Textile	827	0.6	792	0.6
Chemical Material & Product	3,179	2.5	2,634	2.1
Medical & Pharmaceutical Product	956	0.7	1,387	1.1
Universal Machinery	2,922	2.3	2,849	2.3
Special Purpose Equipment	2,302	1.8	2,502	2.0
Communications, Computer & Other Electronic Equipment	6,148	4.8	6,855	5.4
Non-manufacturing	86,469	67.3	84,947	67.3
Wholesale and Retail Trade	9,463	7.4	12,023	9.5
Financial Intermediation	13,122	10.2	14,969	11.9
Real Estate	34,626	26.9	28,995	23.0
Leasing and Commercial Service	12,486	9.7	10,050	8.0
Scientific Research, Polytechnic Service	3,255	2.5	4,529	3.6
Total	128,502	100.0	126,267	100.0

Note: Based on utilized FDI

Source: CEIC Data

1.3 Japan's Inward FDI

Inward FDI to Japan has been very small for the last 5-6 years. Promoting inward FDI has been an important policy issue for the Japanese government. The United States ranked as the top investor in Japan in both 2014 and 2015. The amount of investment from the United States far exceeded investment in Japan from other countries such as Singapore, Hong Kong, and France. China was ranked Japan's eighth largest FDI investor in both 2014 and 2015, while ROK was ranked the sixth largest in 2015 and the tenth largest in 2014.

Table III - 4 Major sources of Japan's inward FDI flows (unit: USD million)

Ranking	2014		Ranking	2015	
	Region	Amount		Region	Amount
1	United States	6,827	1	United States	5,194
2	Hong Kong	2,253	2	Singapore	1,937
3	France	1,785	3	Netherlands	1,699
4	Singapore	1,460	4	Hong Kong	1,273
5	Germany	1,179	5	France	1,192
6	Taiwan	1,135	6	ROK	823
7	Luxembourg	1,091	7	Taiwan	606
8	China	765	8	China	554
9	Switzerland	659	9	Thailand	336
10	ROK	559	10	Italy	277
			ref.	Luxembourg	218
				Switzerland	-137
				Germany	-3,203

Note: Based on net balance of payments

Source: JETRO, Japanese Trade and Investment Statistics

Table III - 5 Sectoral structure of Japan's inward FDI flows (unit: USD million)

Sector	2014	2015
Manufacturing (total)	2,997	-2,391
Food	792	339
Textile	33	98
Chemicals and pharmaceuticals	-568	-4,133
Petroleum	-472	60
Glass and ceramics	100	154
Iron, non-ferrous and metals	101	-48
General machinery	542	380
Electric machinery	774	1,029
Transportation equipment	1,032	-1,426
Precision machinery	412	-42
Non-manufacturing (total)	7,625	140
Construction	-17	42
Transportation	-859	579
Communications	1,550	948
Wholesale and retail	-2,363	-4,815
Finance and insurance	7,411	1,958
Real estate	255	-141
Total	10,622	-2,250

Note: Based on net balance of payments

Source: JETRO, Japanese Trade and Investment Statistics

In 2015, the net FDI inflow to Japan's manufacturing sector was negative (-2,391 million USD). The chemical and pharmaceutical industry accounted for the largest part of the negative number. FDI to the non-manufacturing sector declined from 7.625 billion USD in 2014 to 140 million USD in 2015. The wholesale and retail industry, which had a net outflow (negative inward FDI) of 4.815 billion USD, was the largest industry accounting for the decline. The finance and insurance industry, which attracted 7.411 billion USD in 2014, secured only 1.958 billion USD in 2015. Even though the Japanese government set inward FDI promotion as an important policy target, inward FDI actually declined from 2014 to 2015, according to the data based on the balance of payment statistics.

1.4 ROK's Inward FDI

The United States was the largest investor in ROK in 2013 and 2014 at 3.525 billion USD and 3.609 billion USD, respectively, accounting for 24.2% and 19%, respectively, of the total inward FDI to ROK. Japan was the second largest investor in ROK at 2.69 billion USD in 2013 and 2.488 billion USD in 2014, accounting for 18.5% and 13.1%, respectively, of the total inward FDI to ROK. China's investment in ROK was 481 million USD (3.3%) in 2013, the eighth largest, and 1.189 billion USD (6.3%) in 2014, the sixth largest.

Table III - 6 Major sources of ROK's inward FDI flows (unit: USD million, %)

Ranking	2013			Ranking	2014		
	Region	Amount	Share		Region	Amount	Share
1	United States	3,525	24.2	1	United States	3,609	19.0
2	Japan	2,690	18.5	2	Japan	2,488	13.1
3	Malta	1,785	12.3	3	Netherlands	2,380	12.5
4	Hong Kong	976	6.7	4	Luxembourg	1,920	10.1
5	Luxembourg	712	4.9	5	Singapore	1,673	8.8
6	Netherlands	618	4.2	6	China	1,189	6.3
7	France	530	3.6	7	Hong Kong	1,061	5.6
8	China	481	3.3	8	Canada	572	3.0
9	Cayman Islands	450	3.1	9	Ireland	448	2.4
10	Singapore	431	3.0	10	United Kingdom	432	2.3
	Total	14,548	100.0		Total	19,003	100

Note: Based on notified FDI

Source: Ministry of Trade, Industry and Energy of ROK

Table III - 7 Sectoral structure of ROK's inward FDI flows (unit: USD million, %)

Sector	2014		2015	
	Amount	Share	Amount	Share
Agricultural & Mining	16	0.1	6	0.0
Manufacturing	7,649	40.3	4,564	21.8
Chemical Material & Product	3,178	16.7	1,717	8.2
Electrical and Electronic	600	3.2	1,184	5.7
Machinery and Equipment	907	4.8	527	2.5
Transport Equipment	322	1.7	267	1.3
Medical & Pharmaceutical Product	59	0.3	123	0.6
Non-manufacturing	11,188	58.9	14,729	70.4
Banking & Insurance	1,791	9.4	6,066	29.0
Real Estate & Leasing	2,729	14.4	2,778	13.3
Business Service	4,153	21.9	2,022	9.7
Wholesale & Retail Trade	986	5.2	1,181	5.6
Accommodation & Catering Trade	742	3.9	655	3.1
Total	19,003	100.0	20,909	100.0

Note: Based on notified FDI

Source: CEIC Data

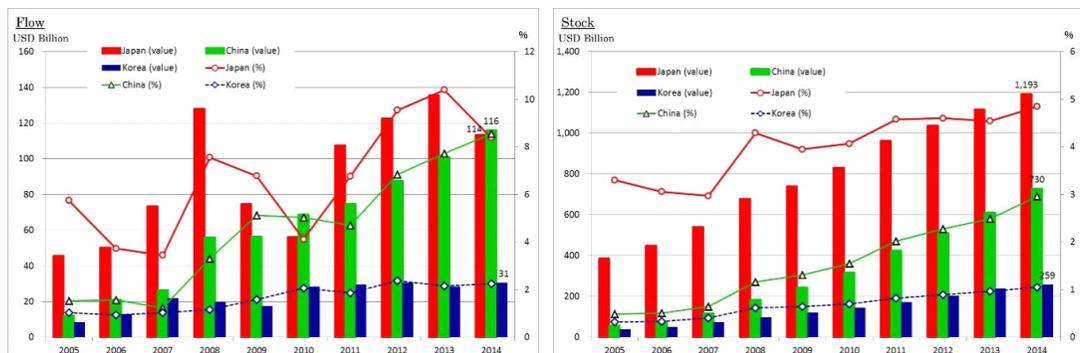
As in China and Japan, the non-manufacturing sector in ROK received a larger portion of inward FDI than the manufacturing sector did. In 2015, the non-manufacturing sector received 70.4% of ROK's total inward FDI, while the manufacturing sector received 21.8%. Among the non-manufacturing sectors, the banking and insurance industry was the largest and expanding. Business services, which dominated in 2014, shrank substantially in 2015.

2. Outward FDI of China, Japan, and ROK

2.1 Trends of Outward FDI of China, Japan, and ROK

Japan's outward FDI was the largest among the three countries from 2005, except 2010 and 2014. In 2014, China's outward FDI (116 billion USD) caught up to that of Japan (114 billion USD). China showed a dramatic expansion of outward FDI from 2011. In the past, the inflow of China's FDI was much larger than its outflow of FDI. It is obvious that China's investment position has changed substantially, and that outward FDI is playing an increasingly important role in China's economic growth. In addition, Japan's outward FDI showed dramatic expansion from 2011. Its recovery from the Lehman crisis and Abenomics pushed firms to invest abroad more aggressively. Many cases of large-scale M&As were reported. In terms of stock of outward FDI, Japan remains the largest among the three countries and its size is expanding. However, China has been catching up to Japan in terms of stock because of very active overseas investment by Chinese firms. ROK's outward FDI rose from 8 billion USD in 2005 to 31 billion USD in 2014. ROK's share of outward FDI to the world total increased from 1% in 2005 to 2.3% in 2014. In terms of stock, ROK's outward FDI rose to 259 billion USD in 2014, accounting for 1.1% of the world's total outward FDI.

Figure III - 2 Trends of outward FDI of China, Japan, and ROK (unit: USD billion, %)



Source: UNCTAD Statistics

2.2 China's Outward FDI

Hong Kong was both the largest outward FDI destination for China and the largest inward FDI investor. In 2014, China's outward FDI to Hong Kong was 71 billion USD, accounting for 57.6% of China's total outward FDI flow. After Hong Kong, the largest destinations were the United States, Luxembourg, the Virgin Islands, the Cayman Islands, and Australia. Japan and ROK were not major destinations for China's outward FDI.

Table III - 8 Major destinations of China's outward FDI flows (unit: USD million, %)

Ranking	2013			Ranking	2014		
	Region	Amount	Share		Region	Amount	Share
1	Hong Kong	62,824	58.3	1	Hong Kong	70,867	57.6
2	Cayman Islands	9,253	8.6	2	United States	7,596	6.2
3	United States	3,873	3.6	3	Luxembourg	4,578	3.7
4	Australia	3,458	3.2	4	Virgin Islands	4,570	3.7
5	Virgin Islands	3,222	3.0	5	Cayman Islands	4,192	3.4
6	Singapore	2,033	1.9	6	Australia	4,049	3.3
7	Indonesia	1,563	1.4	7	Singapore	2,814	2.3
8	United Kingdom	1,420	1.3	8	United Kingdom	1,499	1.2
9	Luxembourg	1,275	1.2	9	China	1,439	1.2
10	Russia	1,022	0.9	10	Indonesia	1,272	1.0
24	Japan	434	0.4	23	ROK	549	0.4
32	ROK	269	0.2	29	Japan	394	0.3
	Total	107,844	100.0		Total	123,120	100

Note: Based on utilized FDI

Source: CEIC Data

Table III - 9 Sectoral structure of China's outward FDI flows (unit: USD million, %)

Sector	2013		2014	
	Amount	Share	Amount	Share
Agricultural	1,813	1.7	2,035	1.7
Mining	24,808	23.0	16,549	13.4
Manufacturing	7,197	6.7	9,584	7.8
Non-manufacturing	74,026	68.6	94,951	77.1
Construction	4,364	4.0	3,396	2.8
Transport, Storage and Postal Service	3,307	3.1	4,175	3.4
Wholesale and Retail Trade	14,647	13.6	18,291	14.9
Banking and Insurance	15,105	14.0	15,918	12.9
Real Estate	3,953	3.7	6,605	5.4
Leasing and Commercial Service	27,056	25.1	36,831	29.9
Scientific Research & Polytechnic Service	1,792	1.7	1,669	1.4
Total	107,844	100.0	123,120	100.0

Note: Based on utilized FDI

Source: CEIC Data

The non-manufacturing sector had a much larger share of China's outward FDI than the manufacturing sector did. Within the non-manufacturing sector, leasing and commercial services had the largest share in 2014, followed by wholesale and retail trade. The mining industry accounted for 13.4% of China's outward FDI. The manufacturing sector accounted for only 7.8% in 2014.

2.3 Japan's Outward FDI

As well as being the largest inward FDI investor in Japan, the United States was the largest destination of Japan's outward FDI, accounting for 35.4% in 2014 and 34.3% in 2015. Almost one-third of Japan's outward FDI was destined for the United States. China was the second largest destination of Japan's FDI in 2014 (7.6% of total outward FDI) and the United Kingdom was the third largest destination (6.8%). As for sectoral distribution, the manufacturing sector and the non-manufacturing sector had similar shares in Japan's outward FDI in 2014, but the share of the non-manufacturing sector expanded by about 13 percentage points from 2014 to 2015. The non-manufacturing sector accounted for 63% in 2015, within which the finance and insurance industry was the largest at 25.4%, followed by the communications industry at 8.9% and the wholesale and retail industry with 7.2%. The manufacturing sector represented 37% of Japan's total outward FDI in 2015, down from 49.9% in 2014. Within the manufacturing sector, the transportation equipment industry was the largest, accounting for 7.8%, followed by the electric machinery (6.4%) and general machinery (6.1%) industries. The food industry's share dropped from 14.7% in 2014 to 3.3% in 2015.

Table III - 10 Major destinations of Japan's outward FDI flows (unit: USD million)

Ranking	2014			Ranking	2015		
	Region	Amount	Share		Region	Amount	Share
1	United States	48,329	35.4	1	United States	44,893	34.3
2	China	10,389	7.6	2	United Kingdom	15,205	11.6
3	Singapore	8,233	6.0	3	China	8,867	6.8
4	United Kingdom	6,544	4.8	4	Netherlands	8,305	6.4
5	Thailand	5,744	4.2	5	Australia	6,690	5.1
6	Netherlands	5,608	4.1	6	Singapore	6,500	5.0
7	Indonesia	4,933	3.6	7	Cayman Islands	4,199	3.2
8	Australia	4,908	3.6	8	Thailand	3,799	2.9
9	Luxembourg	3,761	2.8	9	Indonesia	3,560	2.7
10	ROK	3,360	2.5	10	Luxembourg	2,988	2.3
				11	Malaysia	2,839	2.2
				12	Germany	2,686	2.1
				13	Hong Kong	2,519	1.9
				14	Sweden	2,086	1.6
				15	ROK	1,633	1.2

Note: Based on net balance of payments

Source: JETRO, Japanese Trade and Investment Statistics

Table III - 11 Sectoral structure of Japan's outward FDI flows (unit: USD million, %)

Sector	2014		2015	
	Amount	Share	Amount	Share
Manufacturing (total)	64,441	49.9	47,560	37.0
Food	18,939	14.7	4,194	3.3
Chemicals and pharmaceuticals	5,909	4.6	7,188	5.6
Rubber and leather	3,163	2.4	2,493	1.9
Iron, non-ferrous and metals	6,538	5.1	2,472	1.9
General machinery	6,992	5.4	7,850	6.1
Electric machinery	5,953	4.6	8,183	6.4
Transportation equipment	9,549	7.4	10,030	7.8
Non-manufacturing (total)	64,712	50.1	81,108	63.0
Mining	6,552	5.1	8,889	6.9
Transportation	1,605	1.2	7,860	6.1
Communications	7,917	6.1	11,506	8.9
Wholesale and retail	17,565	13.6	9,259	7.2
Finance and insurance	18,220	14.1	32,647	25.4
Real estate	1,395	1.1	3,423	2.7
Total	129,154	100.0	128,669	100.0

Note: Based on net balance of payments

Source: JETRO, Japanese Trade and Investment Statistics

2.4 ROK's Outward FDI

The United States was ROK's largest outward FDI destination, accounting for 25.9% of its total outward FDI in 2015. China was the second largest destination, followed by Cayman Islands, Hong Kong, Vietnam, Singapore, Japan, Saudi Arabia, Mexico, and the United Kingdom. China represented 10.7% of ROK's total outward FDI in both 2014 and 2015. Japan accounted for 4.5% of ROK's total outward FDI in 2015, up from 1.4% in 2014.

As for sectoral structure, the non-manufacturing sector had a much larger share in ROK's total outward FDI compared to the manufacturing sector, accounting for 63.3% in 2015. Within the non-manufacturing sector, the banking and insurance industry was the largest, accounting for 28.8%, followed by real estate and leasing, accounting for 11.4%. The manufacturing sector represented 23.2% of ROK's total outward FDI in 2015. The mining industry represented 12.3%.

Table III - 12 Major destinations of ROK's outward FDI flows (unit: USD million, %)

Ranking	2014			Ranking	2015		
	Region	Amount	Share		Region	Amount	Share
1	United States	9,222	26.3	1	United States	10,422	25.9
2	China	3,758	10.7	2	China	4,300	10.7
3	Cayman Islands	2,811	8.0	3	Cayman Islands	4,292	10.7
4	Vietnam	2,106	6.0	4	Hong Kong	3,491	8.7
5	Canada	1,519	4.3	5	Vietnam	2,875	7.1
6	Luxembourg	1,385	4.0	6	Singapore	2,035	5.1
7	Mexico	1,187	3.4	7	Japan	1,810	4.5
8	Hong Kong	1,083	3.1	8	Saudi Arabia	1,460	3.6
9	U.K.	1,020	2.9	9	Mexico	902	2.2
10	Guernsey	962	2.7	10	U.K.	892	2.2
16	Japan	486	1.4		Total	40,233	100.0
	Total	35,000	100.0				

Note: Based on notified outward FDI

Source: The Export-Import Bank of Korea

Table III - 13 Sectoral structure of ROK's outward FDI flows (unit: USD million, %)

Sector	2014		2015	
	Amount	Share	Amount	Share
Agricultural	97	0.3	211	0.5
Mining	4,137	11.8	4,936	12.3
Manufacturing	8,563	24.5	9,333	23.2
Non-manufacturing	21,943	62.7	25,458	63.3
Electricity, gas, steam and water supply	1,250	3.6	1,812	4.5
Construction	1,032	2.9	1,819	4.5
Wholesale and Retail Trade	1,724	4.9	2,234	5.6
Transportation	1,020	2.9	800	2.0
Accommodation and food service activities	539	1.5	859	2.1
Information and communications	999	2.9	1,022	2.5
Banking & Insurance	6,866	19.6	11,591	28.8
Real Estate & Leasing	7,479	21.4	4,606	11.4
Professional, scientific & technical activities	1,033	3.0	715	1.8
Total	35,000	100.0	40,233	100.0

Note: Based on notified outward FDI

Source: The Export-Import Bank of Korea

Chapter IV

FTAs

1. Increasing Importance of FTAs

There are four levels of trade negotiations and trade policy reforms: multilateral, regional, bilateral, and unilateral. The World Trade Organization (WTO) is the main arena for multilateral negotiations for trade policies. The WTO and its former framework, the General Agreement on Tariffs and Trade, played important roles in improving the global trade policy regime. However, trade negotiations under the WTO have not moved forward, and thus far, the Doha Round has been unable to achieve any substantial results, although the WTO continues to play crucial roles in defending the trade regime and providing facilities for dispute settlements.

Unilateral actions have played important roles in trade policy formations for many countries. This is especially so for the three countries, where unilateral liberalization has contributed to economic growth. China opened its market unilaterally long before it entered the WTO. Liberalization was not the result of negotiations. Rather, it was by unilateral actions. ROK's economic growth was driven by its unilateral liberalization. Japan's recent tourism promotion policy is another example of successful unilateral liberalization of visa regulations, which has led to increasing visitors to Japan.

Multilateral negotiations and unilateral actions are important, but bilateral and regional frameworks are now more widely used around the world. FTA negotiations have become the main arena for bilateral and regional negotiations. Facing with difficulties in moving forward in WTO negotiations, many countries have been inclined toward FTA negotiations instead.

An FTA has some advantage over multilateral negotiations. It can go beyond traditional tariff reductions. Many FTAs include such negotiations as trade in services, dispute settlement rules, financial regulations, environmental policy cooperation, and intellectual property regulations. These non-tariff issues are becoming more important in the face of so-called deeper integration. Deeper integration means that transactions across borders go beyond traditional trade. All kinds of transactions, including intra-industry trade, intra-firm trade, movement of people, and activities of big firms across borders, and all sorts of services trade are involved in deeper integration. Under the deep integration process, FTAs have become more effective vehicles for negotiations than other forms of trade negotiations.

2. Current Status of FTAs of China, Japan, and ROK

It is remarkable that none of China, Japan, or ROK was involved in any FTA at the turn of the century, when all other top 26 countries (in terms of GDP) were involved in some kind of FTA. China, Japan, and ROK were late in joining the world trend of FTAs. However, since then, the three countries have initiated active FTA policies, and as a result, all three countries have concluded a significant number of FTAs, with negotiations for many other FTAs under way.

Table IV - 1 Current Status of FTAs in China, Japan, and ROK (as of August 1, 2016)

	Japan	ROK	China
Signed and In Effect	ASEAN Australia Brunei Chile India Indonesia Malaysia Mexico Mongolia Peru Philippines Singapore Switzerland Thailand Viet Nam	ASEAN Asia-Pacific Trade Agreement Australia Canada Chile China EFTA EU India New Zealand Peru Singapore Turkey United States Viet Nam	ASEAN Asia-Pacific Trade Agreement Australia Chile Costa Rica Hong Kong Iceland Macao New Zealand Pakistan Peru ROK Singapore Switzerland Taiwan Thailand
Signed But not yet In Effect	TPP	Colombia	
Negotiations launched	Canada China-Japan-ROK Colombia EU GCC RCEP ROK Turkey	Central America FTA Ecuador GCC Indonesia Japan China-Japan-ROK Mexico Israel RCEP	China-Japan-ROK GCC Georgia Norway RCEP Southern African Customs Union Sri Lanka

Sources: ADB, Asia Regional Economic Integration Center (<http://aric.adb.org/fta>); Ministry of Foreign Affairs of Japan, Free Trade Agreement and Economic Partnership Agreement

Table IV-1 shows the list of countries or regions with which China, Japan, and ROK have signed FTAs that are in effect, have signed FTAs that are not yet in effect, and have launched FTA negotiations, including ongoing FTA negotiations as well as those currently not under negotiation.

China has concluded FTAs with ASEAN, Australia, Chile, Costa Rica, Iceland, New Zealand, Pakistan, Peru, ROK, Singapore, Switzerland, and Thailand. In addition, China has signed closer economic partnership agreements (CEPAs) with Hong Kong and Macau and it has concluded the Economic Cooperation Framework Agreement with Taiwan. Furthermore, China belongs to the Asia-Pacific Trade Agreement. Moreover, China launched FTA negotiations with the Gulf Cooperation Council (GCC), Georgia, Norway, Southern African Customs Union, and Sri Lanka. In addition, China is involved in the CJK FTA and RCEP negotiations.

Japan has signed EPAs with ASEAN, Australia, Brunei, Chile, India, Indonesia, Malaysia, Mexico, Mongolia, Peru, the Philippines, Singapore, Switzerland, Thailand, and Vietnam. In addition, Japan has signed the TPP although this is not yet in effect. Furthermore, Japan has launched EPA/FTA negotiations with Canada, Columbia, the EU, GCC, ROK, and Turkey. Moreover, Japan is involved in negotiations for the CJK FTA and RCEP negotiations.

ROK concluded FTAs with ASEAN, Australia, Canada, Chile, China, European Free Trade Association, the EU, India, New Zealand, Peru, Singapore, Turkey, the United States, and Vietnam. In addition, ROK belongs to the Asian-Pacific Trade Agreement. ROK signed an FTA with Columbia but it is not yet in effect as of August 1, 2016. Furthermore, ROK launched FTA negotiations with the Central America FTA, Ecuador, GCC, Indonesia, Japan, Israel and Mexico. Moreover, ROK has been involved in the CJK FTA and RCEP negotiations.

The three countries have several common FTA partners, such as the ASEAN, Australia, Chile, Peru, and Singapore. China, Japan, and ROK are participating in the RCEP negotiations in addition to the CJK FTA negotiations. It is noteworthy that all countries participating in the RCEP negotiations, such as China, Japan, ROK, India, Australia, and New Zealand, have FTAs with the ASEAN. The CJK FTA will become an important pillar of the RCEP. In addition, the China-ROK FTA has important implications for the CJK FTA and the RCEP. Japan-ROK FTA negotiations started in December 2003 but have suspended since November 2004. Another important development of the FTAs in this region in the future is the development of the TPP. In 2015, 12 countries, including Japan, concluded the TPP. This is the first mega-regional FTA in Asia, although there remains uncertainty regarding the ratification of the agreement. There are an increasing number of mega-regional FTAs under negotiation, such as the TPP, RCEP, Transatlantic Trade and Investment Partnership, and Japan-EU EPA. The CJK FTA negotiations must take into account the developments of these mega-regional FTAs.

3. China, Japan, and ROK FTA

As described briefly above, the CJK FTA has been discussed and negotiated for a fairly long period. Unfortunately, the speed of the negotiation process has been rather slow. Nevertheless, many people recognize that the CJK FTA will provide considerable benefits for China, Japan, and ROK, and that the CJK FTA is a critical step toward the realization of FTAs across Asia and Asia-Pacific.

FTAs have already been established for most major regions, with the NAFTA and EU being typical examples. It is only China, Japan, and ROK that have not yet established a regional FTA. As discussed in this report, the three countries share economic complementarity and trade and investment have already expanded widely in this region. In fact, it is remarkable that this region has achieved trade and investment promotion without an FTA. However, many more economic benefits can be expected if an FTA is established in this region. An FTA is an effective tool for promoting trade and investment. At the same time, it would be a critical step to all other kinds of cooperation among the three countries. An FTA would not be a once-off action but it would be just the beginning of a series of cooperative frameworks for the three countries.

The benefit of a CJK FTA would not be restricted to China, Japan, and ROK. It would be an important step toward economic integration of the Asia-Pacific region. Consider, for example, the case of the RCEP. All members negotiating the RCEP have an FTA with the ASEAN: China, Japan, ROK, India, Australia, and New

Zealand. However, without having an FTA among China, Japan, and ROK, the largest countries in the RCEP negotiation, the RCEP cannot achieve any meaningful results. Achieving the CJK FTA would offer an immediate conclusion to the RCEP negotiation. The CJK FTA is an important step toward realization of a wider regional FTA, that is, an FTA applicable to the 21-member Asia Pacific Economic Cooperation group.

In November 1999, the leaders of China, Japan, and ROK held their first summit on the sidelines of the ASEAN+3 summit meeting, and agreed on joint research to enhance economic cooperation among the three countries. The Development Research Center of the State Council of the People's Republic of China, the National Institute for Research Advancement of Japan, and the Korean Institute for International Economic Policy began trilateral joint research in November 2000.

A detailed list of negotiations since 2003 is shown in Table IV-2. Intensive discussions have been undertaken in these meetings on such issues as trade in goods, trade in services, investment, competition policies, intellectual property, and customs procedures. Thus far, after more than 3 years since the launch of the CJK FTA and 10 meetings at the level of chief delegates, the CJK FTA negotiation have progressed very slowly, although some limited results have been achieved. Further efforts are necessary to speed up the progress of negotiations.

Table IV - 2 Past history of Japan-China-ROK Free Trade Agreement

Date	Abstract
2003 – 2009	a Trilateral Joint Research Project on a Free Trade Agreement (FTA) among China, Japan and Korea (CJK-FTA) was conducted jointly by the Development Research Center (DRC) of the State Council of China, the National Institute for Research Advancement (NIRA) of Japan, and the Korea Institute for International Economic Policy (KIEP).
December 13, 2008	The heads of Government/State of Japan, the People's Republic of China and the Republic of Korea met in Fukuoka, Japan and had joint press conference.
October 10, 2009	Building on the Trilateral Joint Research Project conducted from 2003 to 2009, Leaders of the three countries reached a consensus during the Trilateral Summit held in Beijing, China in October 2009 that the three countries would conduct the Joint Study for a CJKFTA among government officials, business and academic participants.
December 16, 2011	The representatives of the Joint Study Committee (JSC) for an 'FTA among the People's Republic of China, Japan and the Republic of Korea (hereinafter called CJKFTA)' met in Pyeongchang, Korea for the seventh meeting of the JSC.
May 13, 2012	Leaders' Joint Declaration at the Fifth Trilateral Summit Meeting in Beijing
November 20, 2012	On the occasion of 21st ASEAN summit and related summits, the launch of the CJK-FTA negotiations was announced.
February 20–21, 2013	The Preparatory Meeting for the Negotiations on CJK-FTA, which was attended by the working-level officials from the three countries, was held in Tokyo. The three countries had discussions on preparation for the first round of the negotiations on CJK-FTA to be held in Korea.
March 26–28, 2013	The first round of negotiations for CJK-FTA was held in Seoul, Korea.
June 3–4, 2013	The Preparatory Meeting for the Negotiations on CJK-FTA was held in Tokyo. The meeting was attended by working-level officials from the three countries, in preparation for the second round of the negotiations on CJK-FTA to be held in China.
July 30 to August 2, 2013	The second round of negotiations for CJK-FTA was held in Shanghai, China. In this round of negotiations, areas such as Trade in Goods, Trade in Services, Customs Procedures, Competition Policies were discussed.
October 22 and 23, 2013	The Preparatory Meeting for the Negotiations on CJK-FTA was held in Seoul, Korea.
November 26–29, 2013	The third round of negotiations on CJK-FTA was held in Tokyo, Japan. In this round of negotiations, various areas such as Trade in Goods, Trade in Services, Investment, Competition Policies, Intellectual Property were discussed.
March 4–7, 2014	The fourth round of negotiations on CJK-FTA was held in Tokyo, Japan. In this round of negotiations, various areas such as Trade in Goods, Trade in Services, Investment, Competition Policies, amongst others, were discussed.
June 17–18, 2014	The Intersessional Meeting of the Negotiations on CJK-FTA was held in Tokyo. The meeting was attended by working-level officials from the three countries, for discussions toward the fifth round of the negotiations on CJK-FTA.
September 1–5, 2014	The fifth round of negotiations on CJK-FTA was held in Beijing, China. In this round of negotiations, various areas such as Trade in Goods, Trade in Services, Investment, Competition Policies, Intellectual Property were discussed.
November 24–28, 2014	The sixth round of negotiations (DG/DDG Meetings) on CJK-FTA was held in Tokyo. In this meeting, various areas such as Trade in Goods, Trade in Services, Competition Policies, Intellectual Property were discussed.
January 16–17, 2015	The sixth round of negotiations (Chief Delegates' Meetings) on CJK-FTA was held in Tokyo. In this round of negotiations, areas such as Trade in Goods, Trade in Services, Investment were intensively discussed.
March 10–12, 2015	The Intersessional Meeting of the Negotiations on CJK-FTA was held in Seoul. The meeting was attended by working-level officials from the three countries, for discussions toward the seventh round of the negotiations (DG/DDG Meetings) on CJK-FTA.
April 13–17, 2015	The seventh round of negotiations (DG/DDG Meetings) on CJK-FTA was held in Seoul. In this meeting, various areas such as Trade in Goods, Investment, Trade in Services, Competition Policies, Intellectual Property were discussed.
May 12–13, 2015	The seventh round of negotiations (Chief Delegates' Meetings) on CJK-FTA was held in Seoul. In this round of negotiations, areas such as Trade in Goods, Trade in Services, Investment were discussed.
July 20–24, 2015	The eighth round of negotiations (DG/DDG Meetings) on CJK-FTA was held in Beijing, China. In this meeting, various areas such as Trade in Goods, Investment, Trade in Services, Competition Policies, Intellectual Property were discussed.
September 24 to 25, 2015	The eighth round of negotiations (Chief Delegates' Meetings) on CJK-FTA was held in Beijing, China. In this round of negotiations, areas such as Trade in Goods, Trade in Services, Investment were discussed.
December 14–18, 2015	The ninth round of negotiations (DG/DDG Meetings) on CJK-FTA was held in Hakone, Japan. In this meeting, various areas such as Trade in Goods, Investment, Trade in Services, Competition Policies, Intellectual Property were discussed.
January 18–19, 2016	The ninth round of negotiations (Chief Delegates' Meetings) on CJK-FTA was held in Tokyo. In this round of negotiations, areas such as Trade in Goods, Trade in Services, Investment were discussed.
April 5–9, 2016	The tenth round of negotiations (DG/DDG Meetings) on CJK-FTA was held in Seoul, Korea. In this meeting, various areas such as Trade in Goods, Investment, Trade in Services, Competition Policies, Intellectual Property were discussed.
June 27–28, 2016	The tenth round of negotiations (Chief Delegates' Meetings) on CJK-FTA was held in Seoul. In this round of negotiations, areas such as Trade in Goods, Trade in Services, Investment were intensively discussed.

Sources: Ministry of Foreign Affairs of Japan

Chapter V

Industrial Cooperation

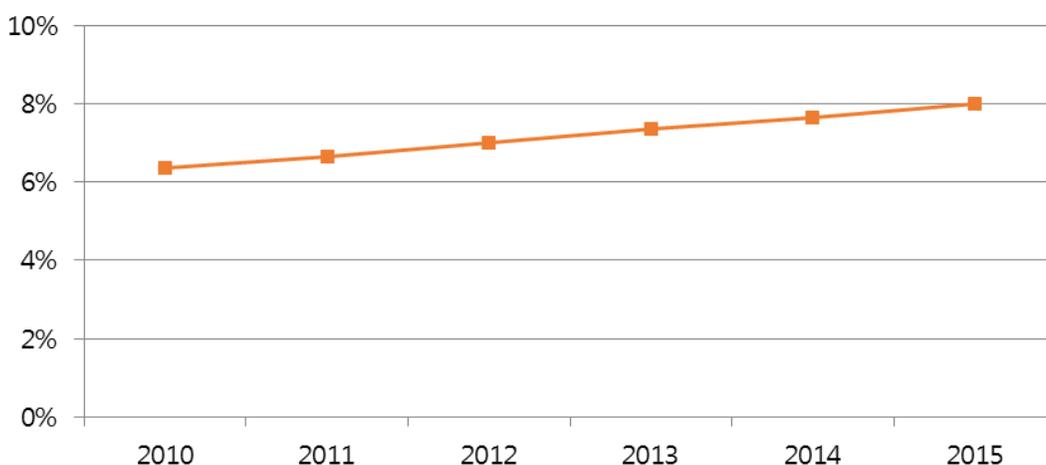
1. China (Dr. Wei Jigang)

1.1 Overview of China's Emerging Industries

China has been developing strategic emerging industries since 2010. In October 2010, the State Council issued *Decisions on Speeding up the Cultivation and Development of Strategic Emerging Industries* (hereafter, the *Decisions on Emerging Industries*), in which energy-saving and environmental protection industries, the new generation of information technology, biotechnology, high-end equipment manufacturing, new energy, new materials, and new energy vehicles are officially regarded as strategic emerging industries. Thereafter, *The Twelfth Five-Year Development Program of China's Strategic Emerging Industries* issued by the State Council in July 2012 further detailed the key directions and primary mission of seven strategic emerging industries. In 2016, *The Thirteenth Five-Year Plan* was released and the strategic emerging industries were restated therein; these industries are the new generation of information technology, biotechnology, spatial information intelligence, energy storage and distributed energy resources, high-end materials, and new energy vehicles.

The development of China's strategic emerging industries in recent years has essentially enabled the country to reach its expected goals and has become the main driving force to support its economic growth. First, the proportion of strategic emerging industries in the national economy has continued to increase. As shown in Figure V-1, related added value accounted for 7.35% in 2013 and 7.64% in 2014. In 2015, the target of 8% was realized.

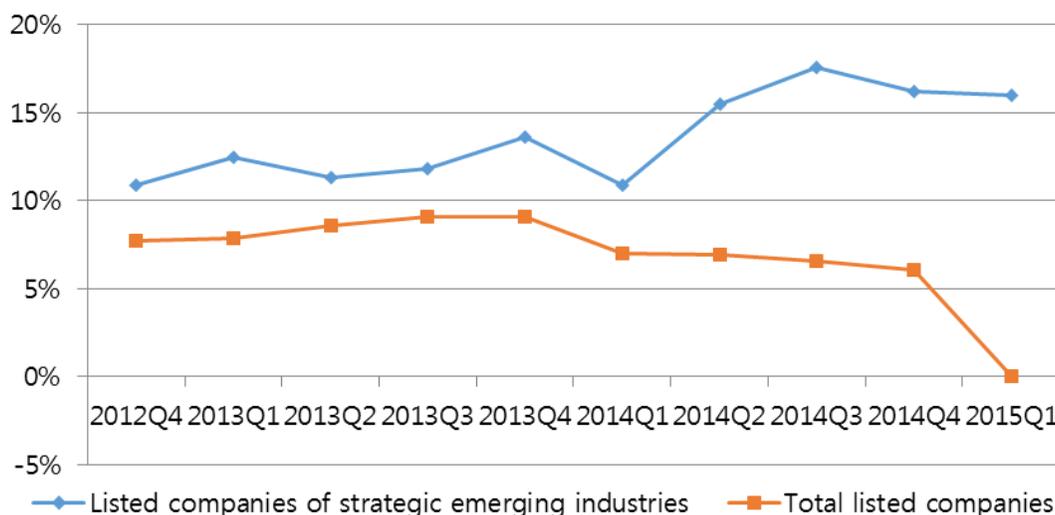
Figure V - 1 Proportion of added value of China's strategic emerging technology industry in GDP from 2010 to 2015



Source: Jigang Wei, Senior Research Fellow, Industrial Economic Research Department, Development Research Center of the State Council, P.R. China

Second, the strong momentum of strategic emerging industries has become the mainstay for filling the gaps caused by the decline of traditional industries as well as for maintaining economic growth. As shown in Figure V-2, the revenue growth rates of strategic emerging industries in recent years were consistently higher than the growth rate of total listed companies. In the first quarter of 2015, the listed companies in strategic emerging industries achieved revenue of 444.96 billion RMB, marking a year-on-year increase of 16%, while the revenue growth rate of total listed companies over the same period was -0.01%.

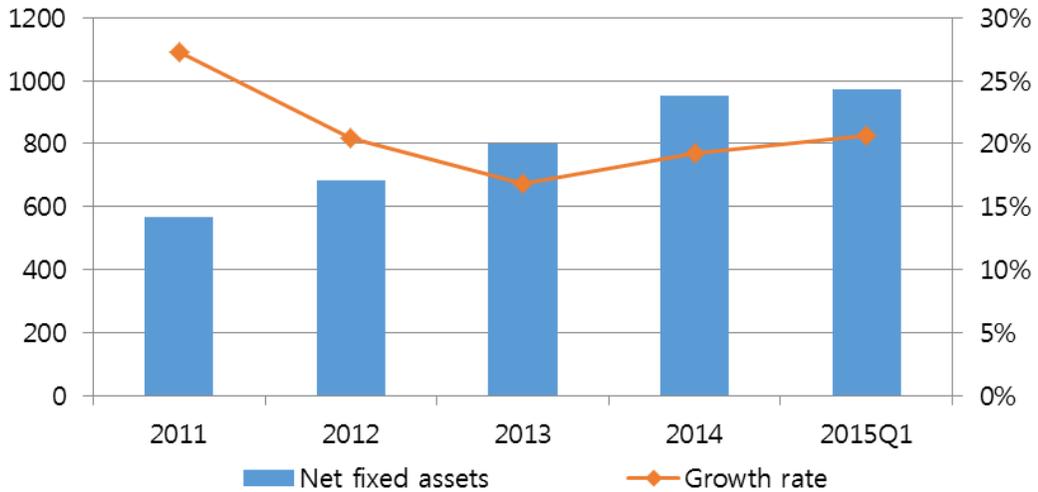
Figure V - 2 Revenue growth rate of listed companies of strategic emerging industries since fourth quarter of 2012



Source: Report on the Development of China's Strategic Emerging industries (2016)

Last but not least, strategic emerging industries have become the hot spot of recent investment and consumption. As shown in Figure V-3, the net fixed assets of listed companies of strategic emerging industries has maintained rapid growth since 2011, and reached 973 billion RMB at the end of the first quarter of 2015, representing an increase of 20.6% over the same period last year, which is significantly higher than the growth rate of listed companies (10.7%). At the same time, sustainable, informed, and green consumption also has become the main growth points to drive recent consumption.

Figure V - 3 Changes in net fixed assets of listed companies of strategic emerging industries



Source: Report on the Development of China's Strategic Emerging industries (2016)

1.2 Analysis of China's cooperation with Japan and ROK

In order to seize opportunities for a new scientific and technical revolution to create new impetus for national economic growth, China, Japan, and ROK have established their respective development strategies for emerging industries. Japan has promulgated the Japan Revival Strategy, focusing on the development of the internet of things, robotics, automation, pilotless aerial vehicles, and other fields concerning the fourth industrial revolution. ROK launched the Development Strategy and Planning of New Growth Impetus, focusing on the development of six main industries, including energy and environment, new information technology, and bio-industry. It is obvious that China, Japan, and ROK share high consistency in the development trend of emerging industries. Moreover, since the comparative advantages of the three countries are highly complementary, the space for cooperation is broad.

At present, China, Japan, and ROK have essentially established a good communication mechanism, and cooperation of multi-levels and multi-zones has penetrated all areas of emerging industries. First, the foundations of the communication and cooperation mechanisms of the three countries have been established. The highest level of the communication mechanism for leaders from the three countries is the China-Japan-ROK leaders' meeting. In December 2008, the leaders of China, Japan, and ROK began to hold separate meetings and issued a *Joint Statement for Tripartite Partnership*. Thereafter, in September 2011, the Trilateral Cooperation Secretariat was set up in Seoul, ROK to support the operation of consultation mechanisms of the three countries. In the fifth China-Japan-ROK leaders' meeting held in 2012, the three countries initiated negotiations for the CJK FTA and officially signed the *Investment Agreement of China, Japan, and ROK*. In November 2015, the China-Japan-ROK leaders' meeting was reinstated in Seoul, marking the restoration of the high-level communication mechanism. In addition, under the framework of the trilateral

meeting, the three countries established a series of communication mechanisms for medium- and high-level officials, such as the Trilateral Foreign Ministers' Meeting, Trilateral Meeting of Ministers of Economic Affairs and Trade, Trilateral Meeting of Ministers of Education, and Trilateral Culture Ministers' Meeting.

Second, China, Japan, and ROK have cooperated in many emerging industrial fields. Driven by the Chinese government's incentive policies and opportunities in emerging industry markets, Japanese and ROK enterprises have established cooperative relationships with Chinese enterprises in emerging industries. In the field of energy conservation and environmental protection, Anhui Conch Group of China and Kawasaki Heavy Industries of Japan have joined hands to develop cogeneration devices, which are equipped to conserve energy, reduce emissions, and transform recycling technology. In addition, the companies have established a joint venture specializing in manufacturing cogeneration devices and supplying cogeneration turnkey project services. In the field of new generation of information technology, Hynix and Wuxi Industry Development Group Co., Ltd. have a joint venture to establish a semiconductor plant in Wuxi City, Jiangsu Province, China, aiming to help with China's integrated circuit (IC) industry system. In the field of new energy, Power Generation Co., Ltd., of Korea established a joint venture with Luoyang Yatai New Energy Technology Co., Ltd. Relying on technologies developed by their joint efforts, their joint venture is committed to developing a 686 MW maglev all-weather wind farm project in Ruyang, Henan Province. In the new energy automotive industry, China's first fully automated battery production line and semi-PACK module assembly line established by Beijing Automotive Group, Beijing electric company, and SK Group of ROK have been put into operation, and will help enhance the competitiveness of new energy vehicles of Beijing Automotive Group.

In addition, cooperation in the emerging industries of China, Japan, and ROK has been extended to multiple levels. With the increase of China's comparative advantage, Japanese and ROK enterprises have begun to establish businesses with high-end product manufacturing in China. For example, Toyota started to produce core components of dual-engine hybrid power systems in China, including batteries, electrical machines, PCUs, and Atkinson cycle engines. Meanwhile, Samsung Electronics has invested in a NAND Flash production line of 10 nanometers in Xi'an. Moreover, Japanese and ROK enterprises have greater access to the high end of industry chains, such as R&D. Toyota has set up the largest R&D center in the global R&D system in China to study the localization of hybrid power technology and its applied technologies. Hyundai Motor Company established the only international R&D center for new energy vehicles in China, in addition to its R&D headquarters in ROK. Japanese and ROK enterprises have brought not only upgraded manufacturing and R&D to China, but also demonstrations of new technologies and new products as well as new competitive pressures, which will promote the common development of enterprises of the three countries.

Last but not least, cooperative relationships of the three countries have been established in a wide area. Since the normalization of diplomatic relations in 1972, China and Japan have established 245 sister-city relationships. China and ROK established diplomatic relations in 1992, and more than 100 sister-city relationships have been developed since then. All these developments promote economic and trade cooperation as well as cultural exchange. In recent years, China, Japan, and ROK have started to strengthen cooperation in industrial park co-construction. In 2012, the governments of China and Japan launched the

Sino-Japanese Eco-industrial Park Project in Caofeidian, Tangshan, aiming to attract the transfer of Japan's high-quality industries, especially strategic emerging industries, and to build an energy conservation and environmental protection equipment-manufacturing base in collaboration with Chinese enterprises. Other industrial parks have been co-constructed by Chinese and Japanese enterprises in Lianyungang and Wujin. A memorandum for co-constructing a Chinese and ROK industrial park in Chongqing Liangjiang New Area was signed in 2011 by the Chinese and ROK governments, aiming to introduce advanced manufacturing industries and cultural creative industries from ROK and to focus on creating high-end emerging industries. In 2015, under the FTA framework of China and ROK, the Chinese Ministry of Commerce and the ROK Ministry of Trade, Industry and Energy signed another memorandum concerning cooperation in opening up more industrial parks, of which the first phase will involve cooperating with ROK's Saemangeum Project in Yantai of Shandong Province, Yancheng of Jiangsu Province, and Guangdong Province. Among them, the cooperation is centered on a sophisticated electronic industry in Guangdong Industrial Park, biomedical and pharmaceutical industries in Jiangsu Industrial Park, and high-end equipment industry in Shandong Industrial Park.

2. Japan (Prof. Itoh Motoshige)

2.1 Emerging Industries in Japan

Innovation is the most important source of economic growth for any country. This is also the case for China, Japan, and ROK. In addition, innovation plays an important role for the three countries to overcome difficult issues, such as aging populations and environmental problems. Consider, for example, the issue of global climate variation or global warming. In order to achieve their commitments under the 21st Conference of the Parties (COP21) of the United Nations Framework Convention on Climate Change, China, Japan, and ROK need to apply drastic measures to curtail their emissions of warming gases such as carbon dioxide. In the case of Japan, the amount of curtailment will be about 80% from the present emissions level. To achieve the targets, it is vital to make full use of advanced technology. For example, automobile industries must shift fully to electric vehicles and fuel cell technology by 2050. Internal combustion engine cars will not be able to survive, nor will hybrid engine cars. This is a very difficult adjustment for automobile industries, but it also offers various opportunities for investment and technological progress for the industry. It is important to note that emissions are not the only challenge for the automobile industry. Recent developments in automatic driving cars make it clear that the entire system of transportation will be transformed by innovative technology. Emissions-free cars, automatic driving, and car-sharing systems will be only the tips of the iceberg for the transformation of the transportation system.

Energy reform is quite important for transforming societies from carbon fuel consumption to increasing use of renewable energy. Japan has introduced drastic measures involving electricity system reforms, of which the core components are unbundling of generating and transfer networks, full liberalization of the retail system, and more efficient use of wider electric networks. These reforms will make it easier to

increase the capability of renewable energy and will transform the power system from a centralized system to more of a decentralized one. Increasing use of renewable energy is at the center of emissions control policies considering the fact that power generation is the largest consumer of fuel energy.

What is often called Fourth Industrial Revolution is becoming an increasingly critical element for considering the future of industries and societies. Very rapid improvements can be identified in such areas as robotics, use of big data, expansion of cloud computing, and the internet of things. Reliance on information networks is expanding and deepening further. The total amount of electricity used for computer servers alone in the entire world is larger than the total amount of electricity used in Japan. This fact indicates how large the use of computer servers is and this trend is expected to continue. Various industries are moving forward to adopt these technological trends and many are deeply related to regulatory reforms and government industrial policies. Some of the major cases are worth mentioning below.

Automatic driving motor vehicles, which have been mentioned above, are a typical innovation causing the automotive industry as a whole to move very rapidly to adapt to changing technology. All major car producers have increased their research budgets to include automatic driving technology. Toyota, for example, has established an independent research laboratory in the United States for this technology. There are increasing examples of collaboration with overseas companies, with venture companies, and with companies in other industries. New technology in the automobile industry is not restricted to automatic driving. As mentioned earlier in this subsection, the shift from engine vehicles to electric vehicles is another area of focus for R&D expenditure. In addition, information technology is increasing the possibilities associated with the sharing economy. The success of sharing business by Uber Technologies Inc., a US multinational online transportation network company, has stimulated similar businesses in many countries.

The distribution system is another area that has been affected strongly by changing information technology. Amazon.com has been expanding rapidly in the East Asian market, including China, Japan, and ROK. The use of big data is very critical for the success of internet retail businesses. The relationships between the manufacturing sector and consumers have changed substantially. Collection of information directly from consumers is becoming very important for the success of product development and marketing strategy. Traditional business models are losing their competitiveness to new ones utilizing information technology. In addition, internet retail networks provide many products with increasing opportunities for penetrating overseas markets. For example, Chinese internet retailers are important windows for many Japanese products to reach Chinese consumers.

Furthermore, the manufacturing sector has been adopting new information technology in various ways. The internet of things is effective for increasing efficiency in manufacturing activities. Machines and factories are connected to larger information networks through various sensors. Information in factories is collected and used for improving production systems. The Industry 4.0 Project in Germany has stimulated similar projects in various industries in China, Japan, and ROK. Artificial Intelligence is another important technology affecting the future of the manufacturing sector. This technology is closely related to the advancement of robotic technology. China, Japan, and ROK have obtained competitive advantages in the use of robotics for manufacturing, and increasing use of advanced artificial intelligence technology is critical for enhancing the competitiveness of the manufacturing sector.

The use of big data is another promising source of transformation for various industries. The retail sector, as mentioned previously, is a typical example. The use of IC cards at the counters of retail stores provides very valuable information for retailers and manufacturers. In Japan, such cards as the T-point card and the Ponta card are used by more than 53 million and 70 million people, respectively, each of which represents about half the entire population⁹. Through the data and information obtained from these cards, suppliers (retailers and manufacturers) can obtain various kinds of information about consumers. The skills of analyzing big data are becoming critical for the success of businesses. Information gleaned by using cards is a typical example of the internet of things. Information is automatically collected through the devices and information collected is connected to internet networks for various kinds of analyses.

Medical services are another area in which the use of big data is transforming industries. Very large amounts of data on medical treatments and diagnoses have been collected through national-level medical insurance systems in the past, but these data were not used much for various reasons. One of the barriers to using the information is that much of the data has been stored as analog data up to now. Even for cases in which data were stored as digital data, the data were not connected among different insurance systems. Intensive use of diagnosis and treatment data is one of the top priority policy objectives for medical policies. Big data analysis reveals business opportunities for these industries that can be exploited to improve the quality of medical services without significantly increasing costs. Artificial intelligence technology has been introduced increasingly in diagnoses, and intensive research has been conducted on the use of artificial intelligence for various aspects of medical treatment and services. Furthermore, robotic technology is expected to contribute to the efficiency of medical services and old-age care services given the fact of declining working populations.

The use of information technology for financial services, otherwise known as “fintech,” is expected to transform financial industries. An increasing number of new businesses have been established and traditional big financial institutions are entering fintech business areas. It is natural for financial services to change with the development of information technology, since the collection, analysis, and utilization of data are the basis of the activities of financial services.

2.2 Trilateral Cooperation in Emerging Industries

China, Japan, and ROK face very similar challenges and opportunities in their newly emerging industries. They will lose their competitiveness in many areas if they do not adapt to changing technological trends, and they will expand their growth opportunities if they can ride on the technological trend. Open innovation is an important feature of information technology. Individual companies or individual countries cannot survive the race of technological development and adoption without relying on networks of outside resources. For China, Japan, and ROK, industrial cooperation is vital at the industry level as well as at the public policy level.

At the industry level, one can consider several kinds of collaboration among the three countries for further

⁹ There are about 53 million T-point card members and about 70 million Ponta card members (Nihon Keizai Shinbun, morning newspaper, p.13, July 17, 2015).

expansion of business opportunities of the newly emerging industries. Expanding the division of labor in the region makes it necessary to increase trade in the region. Advanced capital goods and materials from Japan are necessary for Chinese and ROK firms to produce advanced goods, and cost-efficient intermediate goods from China and ROK are necessary for the success of manufacturing companies in Japan. FDI among the three countries should be expanded to further promote division of labor across these countries. In addition, M&As will play an important role for the restructuring of industries.

Removing trade and investment barriers is quite effective for expanding trade and investment in the region, and will promote further innovation in the region. The governments of the three countries can play important roles for promoting industrial cooperation in various industries. Global warming is a typical example in which the active roles of governments are vital. The three governments of China, Japan, and ROK can collaborate for the implementation of COP21 targets.

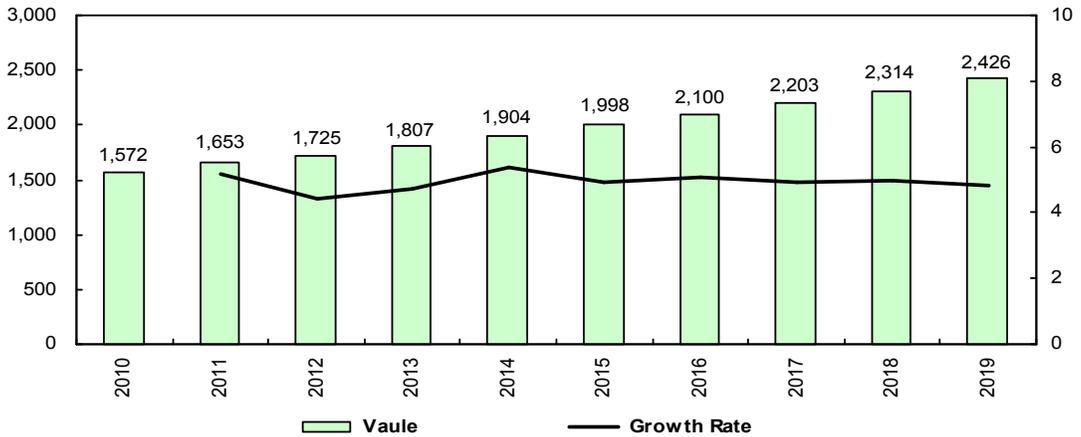
3. ROK (Dr. Jung Kyu-Chul)

3.1 Industrial Cooperation in the Cultural Industry

The economic slowdown is a worldwide phenomenon. In the wake of the global financial crisis, global investment has moderated and the demand for manufacturing products has shrunk. Most countries have attributed their growth to consumption, rather than investment, and to the services sector, rather than the manufacturing sector. Moreover, the manufacturing sector has hardly improved in productivity. With conventional industries becoming unable to create higher demand, each country is scrambling to find a new growth engine. This subsection describes the cultural industry, often known as the creative industry. This subsection discusses the current status and characteristics of the cultural industry and how to promote cooperation among China, Japan, and ROK.

The cultural industry market is booming fast across the world. It grew by 20.1% to 1,904 billion USD in 2014 from 1,572 billion USD in 2010. It grew at an annual average rate of about 5% in the late 2010s, and is projected to expand to 2,425 billion USD by 2019. By sector, as of 2014, knowledge information services accounted for 28% of the total cultural industry, followed by advertising at 21%, broadcasting at 19%, and publishing at 16%. In the late 2010s, publishing is expected to shrink from 16% to 13% while knowledge information services are expected to expand from 28% to 32%.

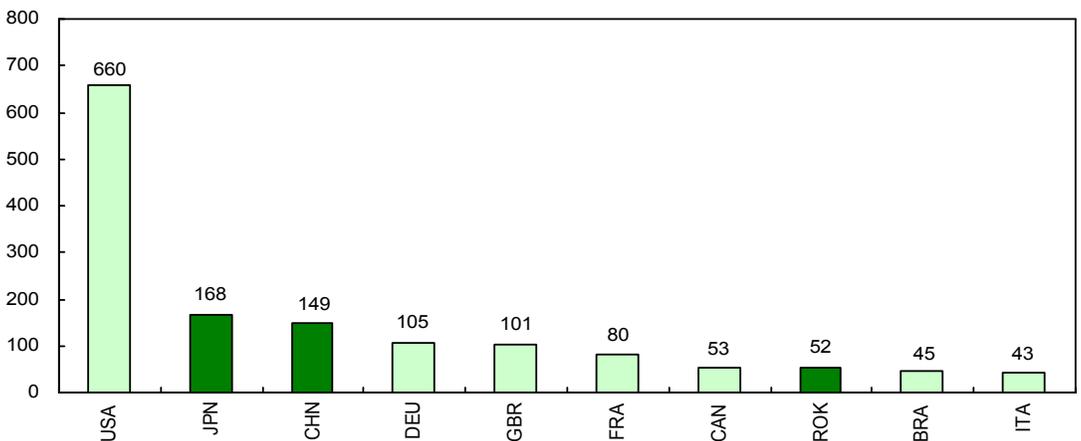
Figure V - 4 Global cultural industry market forecast, 2010-2019 (USD billion, %)



Source: KOCCA (2015)

The United States is the largest market for the cultural industry in the world, accounting for one-third, or 660 billion USD, of the entire market share in 2014, followed by Japan at 9% (168 billion USD) and China at 8% (149 billion USD). ROK’s market share accounted for 3% (52 billion USD). China’s cultural industry is forecasted to grow 10.6% on an annual average basis in 2014-2019 with its market share expanding rapidly as well. Moreover, the market is expected to show impressive growth in developing economies with large populations and fast-growing economies, such as Indonesia (11.7%) and India (10.5%), since network infrastructures and mobile devices are spreading quickly in these countries.

Figure V - 5 Cultural industry market sizes by country, 2014 (USD billion)



Source: KOCCA (2015)

The cultural industry is labor intensive and thus creates numerous jobs. To investigate this more deeply, this study analyzes ROK's input-output table for 2014. The coefficient of employment inducement denotes the number of people hired to produce final demand worth 1 billion KRW in a certain industry. Intermediate inputs are also taken into account. Thus, the total number of employed people in relevant industries is calculated to obtain the coefficient of employment inducement. The results show that the coefficient is 21.4 people per 1 billion KRW in the cultural industry, which is 1.7 times that of the all-industry average (12.5 people per 1 billion KRW) and almost two to four times that of ROK's major manufacturing industries, including machinery (9.1 people), transportation equipment (7.9 people), and electrical and electronic devices (5.3 people). Increasing automation in the manufacturing sector has been regarded as an impediment to job creation efforts worldwide. The progression of the cultural industry might help overcome this hurdle. Moreover, the cultural industry is increasingly considered an important export industry. It can reap economies of scale. In other words, once a product is generated, almost no extra work or cost is required to make copies of it, implying that cultural products will enjoy much larger profits in the global market. Cultural products themselves are a value-added item for exports, and can help boost sales of derivatives of cultural product, such as character goods. In addition, exporting cultural products could contribute to creating positive impressions about exporting countries in the export market. In short, cultural product exports can expand the demand for goods from other industries and bring positive impacts to exports in general. It could even help attract more foreign tourists.

One of several significant differences between manufacturing and cultural industries relates to environmental issues. Most manufacturing industries are the main causes of serious pollution that occurs in production processes. As a result, environmental problems have worsened worldwide and are nowadays regarded as one of the major sources of international conflicts. On the other hand, the cultural industry is more environmental friendly, making it much more suitable as an industry with prospects for sustainable growth. Growth in China, Japan, and ROK has been led by the manufacturing sector, which, however, has been in a slump since the global financial crisis, with little prospect for a turnaround in the near future. This situation suggests that the three countries should move toward fostering a new growth engine. In this context, the cultural industry could be a highly promising candidate. Advanced economies, including the United States and United Kingdom, have already designated it as a major source of value-added creation and these countries have provided the industry with government support.

3.2 Trilateral Cooperation in the Cultural Industry

This subsection discusses trilateral cooperation in the cultural industry. As China, Japan, and ROK are located in close proximity, they share a long history of cultural exchange, which has created certain cultural similarities among them. Of course, their cultures are not identical, as each has progressed on its own path of development. Such conditions can actually be very advantageous for trading cultural products, since the consumers in each country find it comfortable to accept each other's cultural products. In addition, cultural product transactions could help consumers in each country enjoy greater product diversity. Collaboration in the cultural industry would serve more than just economic interests. As mentioned earlier,

cultural product transactions could provide the public with a better understanding of countries other than their own. Historically, the three countries have been more like competitors than partners. Scars incurred from past wars among them remain unhealed, and territorial disputes are ongoing. Collaboration in the cultural industry could be a starting point to solving these unresolved tensions. While trading each other's cultural products, the populations of the three countries would obtain better understanding of each other and positive impressions and close relationships could be developed among them. Such collaboration, unlike in other industries, would not only contribute to raising profits but also improve the political relationships between the different countries.

The next point relates to collaborative measures in the cultural industry. First, a trilateral agreement is needed to enhance the openness of countries' cultural industries further. Most countries have taken discriminative action against cultural products from foreign countries with the excuse of protecting their own cultures. Thus, like in other industries, an FTA would also be mutually beneficial in the field of cultural production. The economies of scale in the cultural industry should not be overlooked, as market size matters in the cultural industry. Consequently, cooperation in cultural industries would have more positive consequences through an FTA than other industries would. When the CJK FTA can help further develop the cultural industries of the three countries and help consumers enjoy easy access to cultural products from other countries, it would be a win-win situation for all three countries.

As mentioned, cultural products are easy to copy once they are produced, but considerably large capital input is required at the initial stage. The profitability of a cultural product is difficult to estimate before production and therefore, there is high investment risk. This is why many cultural product manufacturers have difficulties raising the necessary funds for product development. If cross-border investment in foreign cultural products is allowed, it would help remove such difficulties. Given that there are ups and downs in each country's cultural industry, diversifying investment in different countries would be helpful for reducing investor risk.

Even after a cultural product is manufactured and exported to other countries, its market success cannot be guaranteed without a local distribution network. However, it is difficult for a foreign company to obtain access to the distribution network in an export market. The recent e-commerce boom has reduced such difficulties to some extent, but not sufficiently. Thus, China, Japan, and ROK need to work together by developing a system that can share each other's distribution networks for cultural products so that cultural product exports can be achieved more easily.

Technology cooperation is also significant for the development of the cultural industry. It is a labor-intensive industry that demands advanced technology. In order to manufacture high-quality cultural products, fostering human resources with relevant skills is of great importance. People-to-people exchanges can be helpful for improving cultural technologies in each country. In addition, sharing educational programs about the cultural industry would be helpful.

Furthermore, collaborative efforts are needed for the joint production of cultural products between China, Japan, and ROK by applying the division of labor: each country (producer) becomes the input provider in separate fields in which each has its own comparative advantage. More high-quality cultural products could be manufactured as a result. Moreover, joint production has a number of merits, such as easier access

to local distribution networks, fewer regulations for product manufacturing and sales, and more active human resource exchanges.

Smooth collaboration in the cultural industry will be possible only when China, Japan, and ROK agree to protect each other's copyright. Cultural products are easy to copy, which might seem advantageous to producers hoping to reduce production costs; but at the same time, it is a serious weakness, as the products can be distributed easily in illegal ways. Without guaranteed protection of copyright, cultural products that require a large amount of spending from producers for their creation might end up being distributed illegally free of charge. This would significantly reduce incentives to create cultural products, eventually leading to diminishing the cultural industry. Copyright is much more difficult to protect in overseas markets than in domestic markets. Naturally, every government has a high incentive to feel protective towards the cultural goods produced in its own domestic market in order to protect its domestic industry; at the same time, each government has a low incentive to act similarly when it comes to cultural products from other countries. Meanwhile, when a country finds its cultural products being distributed illegally, it has almost no options to stop the practice. Likewise, copyright protection is not possible in a structural sense with only one country's efforts. Thus, China, Japan, and ROK should establish an institutional system that could induce their authorities to impose strong actions for copyright protection of all cultural goods produced in their domestic and overseas markets.

Chapter VI

Policy Proposals

1. China (Dr. Wei Jigang)

China, Japan, and ROK all regard emerging industries as important medium- and long-term development strategies in the future and have attempted to launch cooperation in multiple aspects. In order to promote the cooperation and fusion of emerging industries of the three countries further, this research makes the following proposals.

Improve the Legal Environment of Cooperation and Specific Details in Existing Agreements

International industrial cooperation requires a business environment of legalization and internationalization, which the three governments should solve first while seeking cooperation. Specifically, first, they should create a fair and orderly domestic environment of competition, get rid of trade monopolies and regional protectionism, strengthen intellectual property protection, and make institutional information transparent. Second, they should adopt a positive and open attitude toward foreign investment, actively implement the pre-access national treatment plus negative list management mode, and remove invisible limits in areas such as investment ratio, approval process, and repatriation of profits. Finally, the three countries should issue detailed rules and regulations for emerging industries under the current framework of signed investment and trade agreements as soon as possible and improve support policies in finance, banking, taxation, land, imports and exports, and exit and entry.

Establish Communication Mechanisms of Diversity, Multi-level and High-efficiency

At present, China, Japan, and ROK have established abundant communication mechanisms for government and civil society, and communication at industry and enterprise levels should be strengthened. First, professional communication platforms should be established according to the actual needs of the three countries. Their governments should initially advocate the idea, actively call on civil society organizations, enterprises, and research institutions to become involved in the construction of the platform, and hold forums and seminars to discuss important urgent issues in emerging industry cooperation and develop timely solutions. Second, the three governments should increase cooperative activities among emerging enterprises. Enterprises are the main sites of emerging industrial cooperation, and thus, it is necessary to establish a frequent enterprise communication mechanism to exchange cooperation opportunities and to share scientific and technological information. Third, the three governments should organize fairs and meetings for new products. Products are the most intuitive means of showing successful commercialization of emerging industries. In addition, it could inspire awareness of technological innovation and market demand in foreign enterprises and explore cooperation opportunities in development, production, marketing, and other aspects.

Expand and Deepen Emerging Industry Cooperation Fields

Although many Chinese, Japanese, and ROK enterprises in emerging industries cooperate with each other, cooperation projects in emerging industries are still smaller in number and scale compared to traditional industries. Therefore, governments should assume responsibility to guide, especially for alleviating the problem of asymmetric information. For example, the three governments should regularly release domestic emerging technologies as industrialized and emerging technologies required in their domestic markets. In fact, some technologies have limited space for commercialization in domestic markets, but might be emerging technologies urgently needed by other countries' companies. Thus, if the information can be matched timeously, companies from two countries could build an industry chain from R&D to manufacturing and sales, and meet each other's needs. In many emerging industries, such as smart cities/transportation/security, medical robotics, green lighting, and marine equipment, many cooperation opportunities can be discovered by Chinese, Japanese, and ROK enterprises. For areas that can achieve mutual benefit, governments should formulate preferential policies in such areas as R&D investment, taxation, loans, and imports and exports to encourage cooperation.

Promote a Higher Level of Industry Alliance Cooperation

Industry alliances have become an advanced form of global enterprise cooperation, which can effectively promote resource integration and seize market opportunities. R&D alliances are the most common form of high-tech industry alliances. By promoting R&D alliances of emerging industries in China, Japan, and ROK, resources could be integrated, breakthroughs in fields of industrial generic technology and R&D resources complementarity could be achieved, R&D development costs and risks could be reduced, development cycles could be shortened, and R&D efficiency could be improved. Market industry alliances are aimed at promoting in-depth cooperation of the three countries' emerging enterprises in the joint procurement of raw materials, infrastructure sharing, collaboration in market expansion and other aspects, development and utilization of markets jointly, and enhancing competitiveness in international markets. The three governments should promote an alliance of technical industry standards. By setting competitive emerging industry technical standards, the three countries could lead the way in setting standards for international emerging industries and enhancing the international influence and competitiveness of these industries. Therefore, the three governments should encourage leading enterprises in emerging industries to build transnational alliances, and offer support in finance, information, and markets.

Promote Co-construction of Emerging Industrial Parks

Japan and ROK have advantages in information, technology, finance, and experience in industrial park construction, while China's land, markets, and policies are significantly attractive. Therefore, there is potential in exploring industrial park co-construction. First, the forms and functions of industrial parks can be expanded.

In addition to the manufacturing and R&D of emerging industries, the three countries could establish innovation service platforms in each park, develop venture capital funds and industrial incubators, and promote the transformation and industrialization of technological achievements. In addition, they could set up financing service platforms, introduce professional capital and strategic investment, and provide loans, interest subsidies, guarantees, and other services for enterprises in the park. Second, the distribution of the industrial parks could be extended from coastal areas to central and western regions, and from advanced features, such as research and innovation, to manufacturing and other basic services.

2. Japan (Prof. Itoh Motoshige)

Regional economic integration is becoming increasingly important for the prosperity of all regions in the world. China, Japan, and ROK, are not exceptional in this respect. Increasing trade and investment in the three countries would provide increasing economic opportunities for them while deeper integration among the three countries is critical for the region to enhance its international competitiveness. By so doing, China, Japan, and ROK would be able to export more to the rest of the world and would attract more investment. Accelerating the negotiation process of the CJK FTA is a very important step for regional integration. It is important not only for the economic integration among the three countries but also for speeding up the process of negotiation for the RCEP and other regional negotiations.

Economic integration is not restricted to trade. Investment is equally important to trade and perhaps even more important than trade. The removal of various barriers to investment, both visible and invisible, is critical for promoting investment among China, Japan, and ROK and for promoting investment in the three countries from the rest of the world. Trade and investment are complementary in many respects. Expanding investment will lead to expanding trade, and increasing trade will provide more opportunities for investment. The three countries are now facing various challenges and opportunities. Environmental deterioration and energy security are very urgent issues. COP 21 has propelled global warming to become an even more important and urgent issue for the world and for the region. There are many areas in which China, Japan, and ROK can cooperate in order to deal with climate change. Demographic changes, including shrinking labor supply and increasing social security burdens, will impose many serious problems on the three countries. Changing technology in such areas as artificial intelligence, the internet of things, big data, and robotics will provide significant opportunities for increasing the prosperity of societies. The three countries are facing very similar challenges and opportunities in these areas, and cooperation among them in these areas will provide mutual benefits for all of them.

3. ROK (Dr. Jung Kyu-Chul)

The global economy is struggling, and so too are the economies of China, Japan, and ROK. They are competitor economies as well as partners in the global market. Thus, for the three countries to overcome future challenges more easily, policy cooperation is required.

Stable growth of the three countries can be achieved only via structural reforms. Above all, plans to restructure indebted companies need to be implemented actively so that limited resources can be allocated more efficiently. The industrial structures of these three countries are similar, meaning that global oversupply in one industry requires restructuring of that industry in all three countries. A good example is the shipbuilding industry. The weakening global economy has resulted in a global trade slowdown, which has slashed the global demand for ships, casting a dark cloud over the industry. China, Japan, and ROK are major players and competitors in the global shipbuilding market, but now is the time for cooperation. To counter the global oversupply of ships, shipbuilders in the three countries need to reduce excess facilities and labor forces. In other words, the three countries must work together to set the scope and direction of the restructuring process in order to efficiently ease the global ship oversupply. Each should prepare a coordinated strategy that specifies subsector targets and the degree of restructuring. This collaborative approach can be applied to other industrial restructuring cases.

Next, China, Japan, and ROK need to establish powerful economic integration through their trilateral FTA. The global economy is currently witnessing a growing movement of protectionism in the wake of the Brexit decision. This can be interpreted as each country blaming other countries for its own domestic slump. Protectionism seems beneficial for the domestic economy, but will eventually be negative for all involved. Given that the three countries are strongly bonded in the global value chain, there is plenty of room for cooperation, and hence, they should show stronger leadership in preventing protectionism from spreading. Furthermore, they need to make policy efforts to invigorate human resource exchanges and to lower trade barriers among them. Cooperation through human resource exchanges will produce huge returns, given that the three countries are in close cultural and geographical proximity.

Trilateral cooperation for financial policy is required. Above all, China, Japan, and ROK should conclude and maintain a currency swap agreement. The lesson of the global financial crisis is that currency swap agreements are more effective at stabilizing financial markets than international reserves are. While such agreements are sensitive to bilateral exchange rates and face incentives of competitive currency devaluation, as they compete in the global market, if all three countries were to devalue their currencies, they would all gain from the decline in relative prices and be left with significant side-effects. In this regard, monetary policymakers in each country should stave off attempting to control exchange rates.

Lastly, all three countries should make concerted efforts not to allow political issues to interfere with their economic cooperation. Given their historical weight, the political problems of China, Japan, and ROK cannot be resolved overnight. However, current economic difficulties urgently require cooperation. If politicians indulge only their own short-term interests by provoking other countries and disturbing economic cooperation, they would only wind up placing even more burdens on the public, and they should be aware of the consequences of doing so.

References

- Asian Development Bank (ADB). Asia Regional Economic Integration Center [online]. (<http://aric.adb.org/fta>).
- Bank of Japan [online]. (<http://www.boj.or.jp/en/statistics/index.htm/>)
- Bank of Korea [online]. (<http://ecos.bok.or.kr/>)
- Cabinet Office of Japan [online]. (http://www.esri.cao.go.jp/en/sna/data/kakuhou/files/2014/28annual_report_e.html)
- CEIC [online]. (<http://www.ceicdata.com/en>).
- China Statistical Yearbook.
- Export-Import Bank of Korea [online]. (<https://www.koreaexim.go.kr/site/main/index002>).
- Gordon, Robert J., *The Rise and Fall of American Growth: The US Standard of Living Since the Civil War*, Princeton University Press, 2016.
- Feenstra, Robert, C. *Advanced International Trade: Theory and Evidence*, Princeton University Press, 2003.
- IMF Primary Commodity Prices [online]. (<http://www.imf.org/external/np/res/commod/index.aspx>)
- IMF. Direction of Trade Statistics. 2016.
- IMF. World Economic Outlook Database [online]. (<http://www.imf.org/external/ns/cs.aspx?id=28>).
- International Association of Ports and Harbors, Containerisation International Yearbook (2010-2012).
- International Association of Ports and Harbors, The Top 101 ports of Containerisation International data for 2013-2014.
- Japan Aircraft Development Corporation.
- Japan External Trade Organization (JETRO). Japanese Trade and Investment Statistics [online]. (<http://www.jetro.go.jp/en/reports/statistics.html>).
- Japan National Tourism Organization (JNTO). (http://www.jnto.go.jp/jpn/statistics/marketingdata_outbound.pdf)
- Ministry of Finance of Japan
- KOCCA. Global contents market outlook (in Korean). 2015.
- Korea Development Institute. KDI Economic Outlook 2015 (in Korean). May 2016.
- Ministry of Finance of Japan, Think about the Finance of Japan [online]. (<http://www.zaisei.mof.go.jp/>)
- Ministry of Foreign Affairs of Japan. Free Trade Agreement and Economic Partnership Agreement [online]. (<http://www.mofa.go.jp/policy/economy/fta/index.html>).
- Ministry of Foreign Affairs of Japan. Japan-China-Republic of Korea Free Trade Agreement [online]. (http://www.mofa.go.jp/ecm/ep/page23e_000337.html).
- Ministry of Health, Labour and Welfare of Japan [online]. (<http://www.e-stat.go.jp/SG1/estat/List.do?lid=000001157813>)
- Ministry of Trade, Industry and Energy of ROK [online]. (<http://motie.go.kr/motie/py/sa/investstatse/investstats.jsp>).
- National Bureau of Statistics of the People's Republic of China
- Nikkei 225 Official Site [online]. (<http://indexes.nikkei.co.jp/en/nkave/archives/data>)
- Nikkei Shinbun, morning paper, August 12 2016 and October 8, 2016
- OECD Statistics [online].
- PwC. Global entertainment and media outlook 2015-2019. 2015.
- Report on the Development of China's Strategic Emerging industries, 2016
- Report to the Eighteenth National Congress of the Communist Party of China, 2012
- Summers Lawrence H., "The Age of Secular Stagnation: What it is and what to do about it", *Foreign Affairs*, February, 2016.
- Statistics Bureau of Japan [online]. (<http://www.stat.go.jp/english/data/index.htm>)
- UN Comtrade Database [online]. (<http://comtrade.un.org/>).
- UNCTAD Statistics [online]. (<http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx>).
- UNCTAD, Review of Maritime Transport.
- WTO. International Trade Statistics Database [online]. (<http://stat.wto.org/StatisticalProgram/WSDBStatProgramHome.aspx?Language=E>).
- WTO. Statistics Database [online]. (<http://stat.wto.org/Home/WSDBHome.aspx?Language=E>)

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The Trilateral Cooperation Secretariat (TCS) is an intergovernmental organization established with a vision to contribute to peace, stability and prosperity of the East Asian region. Upon the agreement signed and ratified by the three governments of the China, Japan and the Republic of Korea, the TCS was inaugurated in Seoul, September 2011.

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