2014 Trilateral Economic Report

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September 2014

Trilateral Cooperation Secretariat



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Statement

The report was outsourced to Ms. ZHANG Qi and her team, who is the Senior Research Fellow of the Research Department of Foreign Economic Relations at the Development Research Centre (DRC) of the State Council of China. The contents (including policy recommendations) of the report expressed by the author do not necessarily reflect the positions of the Trilateral Cooperation Secretariat (TCS).

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ASEAN	Association of South-East Asian Nations
BP	basis points
CJK	China, Japan and the Republic of Korea
CPI	consumer price index
EU	European Union
FDI	foreign direct investment
FTA	free trade area / free trade agreement
GATT	General Agreement on Tariffs and Trade
GDI	gross national income
GDP	gross domestic product
IMF	International Monetary Fund
LCD	liquid crystal display
M&A	mergers & acquisitions
NAFTA	North American Free Trade Agreement
OECD	Organization for Economic Cooperation and Development
PMI	purchasing manager's index
RMB	renminbi
RRR	reserve requirement ratio
SME	small and medium enterprises
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
US	United States
USD	US dollar
WTO	World Trade Organization

Foreword

Closer economic cooperation among China, Japan and the Republic of Korea (hereinafter referred to as CJK) complies with the fundamental interests of the three countries and their peoples, and is also beneficial for maintaining peace, stability and development in the region as it did over the last decade. In 2008, the leaders of the three countries held the first independent trilateral summit outside of the ASEAN Plus Three framework and decided to further deepen the partnership.

The world economy grew by 2.9% in 2013, which was lower than that of 2012 (3.2%) and represented the slowest growth since 2010. However, between the end of 2013 and the beginning of 2014, the global economy demonstrated a trend of gradual recovery led by the US economy. Looking into 2014, the global economy tends to improve, and it is expected that the GDP growth will be better than that in 2013 with a steady growth trend.

New situation presents both opportunities and challenges for CJK to promote the sustainable economic development. In 2013, under the direction of new leaderships and the new macro-regulation policies in the three countries, some new economic highlights emerged and new progress was made in intra-regional trade, investment, finance, tourism, transportation and industrial cooperation. Nevertheless, there are still many issues and obstacles in the domestic economic development as well as intra-regional economic and trade cooperation.

CJK are important economies, and trade and investment powerhouses in East Asia and even in the world. The three countries need to review and manage their trilateral partnership from a strategic perspective to further strengthen and deepen economic and trade cooperation on the basis of win-win expectation, and mutual trust and respect. Further promotion of economic cooperation will not only be beneficial for their domestic economic development, but also promote the economic integration in the region as well as further powering global economic growth.

Chapter I

Economic Perspectives of China, Japan and ROK

I. Global Economic Prospects and New Trend

- 1. Slow but sustained world economy recovery
- 2. New trends of international cooperation and competition

II. Macroeconomic Performance in CJK

1. China: "New Normal"

- 2. Japan: Preliminary effect of "Abenomics"
- 3. ROK: New highlights emerge

III. Economic Adjustment and Policy Direction for CJK

1. China's macroeconomic policy adapts to "new normal"

- 2. "Abenomics" and possible trend of its recent policies
- 3. New policy direction in ROK

IV. Economic Prospects for CJK

I. Global Economic Prospects and New Trend

1. Slow but sustained world economy recovery

The global financial crisis brought an end to the fast economic growth and decadelong prosperity around the world, leading to the widespread downturn in large economies including the U.S., EU, and Japan. The world economy shifted to a prolonged period of low growth and the economic landscape underwent profound changes. To date, a wide range of measures have been taken by many countries to revive their economies.

In 2013, the world economy growth remained downward, falling to its lowest level since 2010. According to the International Monetary Fund (IMF) forecasts, the global economy would increase by 2.9% in 2013, lower than that in 2012 (3.2%). In particular, the growth in developed economies will increase by 1.2%, but decrease by 0.3% on a year-on-year basis; and the emerging economies will grow by 4.5%, 0.4% lower than last year. The first reason is that structural problems with the developed economies, including heavy public debts, large deficits, high unemployment rates, low saving rates, have not been fundamentally solved. The new round of industrial revolution can hardly become the major driving force for the global economic growth in a short term. On the other hand, the growth rate of the emerging economies after the crisis is generally higher than that of the developed economies, making them become new contributors to global economic growth. However, given the sluggish external demands, fewer policy options and the US monetary policy impact on financial market, emerging economies showed a significant decline in 2013. Therefore, IMF warns that risk factors for crisis have not been properly managed and the world economic recovery will continue to fluctuate.

Table 1-1 World Economic Development(%)

	2007	2008	2009	2010	2011	2012	2013	2014 forecast
Output growth								
World	5.2	3.0	-0.7	5.1	3.9	3.2	3.0	3.6
U.S.	2.1	0.4	-3.5	3.0	1.8	2.8	1.9	2.8
Euro area	2.7	0.7	-4.3	1.8	1.5	-0.7	-0.5	1.2
Emerging economies	8.3	6.0	2.8	7.3	6.2	5.0	4.7	4.9
Developing Asia	10.6	7.6	7.2	9.5	7.8	6.7	6.5	6.7
Consumer Prices								
Developed economies	2.2	3.4	0.0	1.6	2.7	2.0	1.4	1.5
Emerging economies	6.4	9.3	5.2	6.1	7.1	6.0	5.8	5.5
Interest Rates								
US Dollar deposits (6 month)	5.3	3.0	1.1	0.5	0.5	0.7	0.4	0.4
Japanese Yen deposits (6 month)	0.9	1.0	0.7	0.4	0.3	0.3	0.2	0.2

Source : IMF, "World Economic Outlook" various issues.

Updated : IMF World Economic Outlook, April 2014; updates are made to some 2012 data.

Between the end of 2013 and early 2014, there was a gradual turnaround for the global economy, especially in the U.S. where the economy recovered quickly and continued to expand. Despite of the economic slowdown due to the bad weather in the first quarter this year, the year-on-year growth for the US is up to 2.1%, much higher than that of the same period last year (1.3%) and a substantial growth for the second quarter is expected. The EU has moved away from possible euro breakdown and maintained stable economic recovery and financial market order. Also, India's real GDP growth in the first quarter is up to 6.1%, increasing by 1.7% compared with the last quarter and the emerging market economies, as a whole, gradually improved.

Looking into 2014, the overall world economy is expected to grow faster. The OECD forecasts that the world economy will grow by 3.6% in 2014, while IMF forecasts that developed economies is expected to sustain the growth trend, the U.S. economy in particular will grow by 2.6%, 1% higher than last year and euro region will bounce up to 1% and the emerging markets and developing economies will grow by 5.1%, slightly faster than that in 2013.

2. New trends of international cooperation and competition

The financial crisis has not redirected the overall globalization. The other driving forces for globalization are emerging, such as facilitation of global resources allocation and supply chain integration by multinational corporations, increasingly strong economic linkages and interest convergence among countries, and high-level global trade and investment liberalization. In particular, industrialization and urbanization in emerging economies have created huge demands, further propelling economic globalization.

Meanwhile, international competition is becoming increasingly severe. First of all, competition for market, energy resources and cross-border investment becomes more intense; secondly, competition for technological innovation and leadership in emerging industries is fiercer; thirdly, all countries are further competing in rule setting and benefits allocation of international trading.

It is notable that after the financial crisis, although the consensus on "Early Harvest" agreement of Doha Round on the 9th Ministerial Conference of WTO was reached at the global level at the end of 2013, the multilateral mechanism can hardly pull out soon. In contrast, regional and bilateral free trade agreements (FTA) have ever expanded rapidly in recent years. As of the end of January 2014, 583 RTAs (regional trade agreement) have been notified to the GATT or WTO, increasing by 37 compared with that in January 2013¹⁾, 377 of which have become effective. In the context of global FTA popularity, regional economic integration further intensifies and complicates.

1) Website of the WTO, statistics of RTAs in the world

II. Macroeconomic Performance in CJK

1. China : "New Normal"

After the outbreak of financial crisis, China's economic growth, especially its foreign trade, has been negatively affected due to less demand from other countries and fluctuating capital market. However, with pro-active government intervention, China quickly recovered from the financial crisis and became the new engine for global economic growth. From 2008 to 2012, the contribution rate of China economy's growth to the world GDP growth was up to 40%. Since 2010, China has become the second largest economy, the largest manufacturing country and the largest trading nation in the world.

In 2013, China's GDP growth rate was 7.7%, keeping the steady and upward trend. In particular, investment in fixed assets realized a rapid growth as high as 18.9%; industrial production remained stable with a 7.6% year-on-year growth; consumer price index (CPI) increase was contained to 2.6%; disposable income of urban and rural residents grew by 8.1% and total retail sales of consumer goods enjoyed a 11.5% growth in real terms; a total of 13.1 million new jobs were created and year-end registered urban unemployment rate was 4.05%; fiscal revenue grew steadily with an increase of 10.1%; imports and exports increased with exports up to 7.9% and imports up to 7.3%, which made China the world's largest trading nation; China's foreign exchange reserve increased by USD 509.7 billion and totaled USD 3,821.3 billion by the end of 2013.

Table 1-2 Macroeconomic index: China

	2008	2009	2010	2011	2012	2013 (partial)	2014 (partial)
Real GDP, % change							
Real GDP	9.6	9.2	10.3	9.4	7.7	7.7	7.5
Consumption	8.4	9.2	9.0	10.5	8.2		
Investment	10.6	18.9	11.8	9.6	8.3		
Exports	8.5	-10.2	27.6	8.1	5.1	7.8	
Imports	4.0	4.5	20.6	8.8	6.3	7.3	
Contribution to changes in real GDP (%)							
Consumption	4.2	4.6	4.5	5.2	4.1		
Investment	4.5	8.1	5.5	4.5	3.9		
Net exports	0.9	-3.5	0.3	-0.3	-0.2		
Other indexes (%)							
Inflation rate	5.9	-0.7	3.3	5.4	2.7	2.63	3.0
Fiscal balance (% of GDP)	0.9	-1.1	-0.7	0.1	-0.4	2.1	2.2
Policy interest rate	2.79	2.79	3.25	3.25	3.25	3.25	
M2 growth	17.8	27.6	19.7	17.3	14.4	13.6	
Exchange rate (RMB/\$US)	6.95	6.83	6.77	6.46	6.31	6.20	

Source: National Bureau of Statistics of China; Organization for Economic Co-operation and Development (OECD), IMF, International Financial Statistics, and information in World Economic Outlook updates.

Notes 1. Public and private sectors are included in consumption and investment.

2. Real components are estimated by deflating nominal figures by price indices. From the calculations of OECD.

3. Net exports are calculated as the residuals of real GDP growth minus domestic demands growth

Since the reform of foreign exchange rate in 2005, the Reminbin (RMB) has continued to appreciate up by 32%. However, since 2014, exchange rate of RMB went down by 3%.



Figure 1-1 Exchange rate of USD to RMB

Source: China's State Administration for Foreign Exchange.

The adjustment of economic structure in China made positive progress in 2013. Firstly, the service industry maintained good momentum. In 2013, the proportion of the added value to GDP of the tertiary industry and its contribution to economic growth both exceeded that of the second industry. Service industry has replaced the manufacturing industry, serving as the most vigorous sector and the new growth engine. Secondly, along with the economic growth has been stronger. Though the GDP growth dropped to 7.7% in 2013, a total of 13.1 million new jobs were created in urban areas. Thirdly, the manufacturing industry upgrading has been effective in activating the business innovative capability. The contribution of capital formation to GDP growth climbed by 7.3% and dependence of economic growth on investment further increased in 2013.

2. Japan: Preliminary effect of "Abenomics"

Japan's economy has remained a "stalling growth" in recent 20 years. In particular, the global financial crisis resulted in Japan's severe negative economic growth for the past consecutive years. According to the statistics of the World Bank, Japan's real economic growth rate was -1% in 2008, and -5.5% in 2009. After a short recovery of 4.7% growth in 2010, it fell down again to -0.6% in 2011 and 1.4% in 2012.

With the support from the unconventional quantitative easing monetary policy and the simulative fiscal policy, as well as the resulting depreciation of exchange rate of

Japanese yen, Japan's economy recovered at a moderate pace in 2013 with a 1.6% year-on-year growth for GDP, realizing its economic expansion in two consecutive years. The consumption in Japan grew by 2%, which was the highest in three years; public investment considerably increased by 11.4%, contributing to its largest increase since 1993; and national core CPI was 0.4%, which was positive for the first time since the financial crisis. The unemployment rate reduced to 3.7% compared with 4.2% at the beginning of the year and the number of unemployed also decreased by 380,000. Industrial production was at a moderate growth. As its exchange rate fell by a large margin, Japan's exports grew by 9.5% compared to that in the last year²⁾ and corporate profitability increased as well. Since 2011, Japan's foreign trade deficit has been expanding, which reached its highest record in 2013, amounting to USD 117.89 billion.

 Table 1-3
 Macroeconomic index: Japan

	2008	2009	2010	2011	2012	2013	2014 (partial)
Real GDP, % change							
Real GDP	-1.0	-5.5	4.7	0.6	1.4	1.5	1.4
Private consumption	-0.9	-0.7	2.8	0.3	2.0	1.9	0.7
Government consumption	-0.1	2.3	1.9	1.2	1.7	2.2	1.7
Gross fixed capital formation	-4.1	-10.6	-0.2	1.4	3.4	2.6	2.6
Exports	1.4	-24.2	24.4	-0.4	-0.1	-0.3	8.5
Exports	1.4	-24.2	24.4	-0.4	-0.1	-0.3	8.5
Imports	0.3	-15.7	11.1	5.9	5.4	0.3	4.1
Contribution to percent char	nges in real	GDP					
Domestic expenditure	-1.6	-2.3	2.0	0.7	2.2	2.1	1.3
Net exports	0.2	-1.5	1.7	-0.9	-0.9	-0.1	0.6
Other indicators (%)							
Inflation rate	1.4	-1.4	-0.7	-0.3	0.0	0.36	2.80
Unemployment	3.98	5.05	5.04	4.57	4.34	4.03	3.94
Fiscal balance (% of GDP)	-4.1	-10.4	-9.3	-9.9	-10.2	0.7	1.2
Policy interest rate	0.5	0.3	0.3	0.3	0.3	0.3	
M2 growth	2.1	2.7	2.8	2.7	2.5	3.5	
Exchange rate (JP yen/US\$)	103.4	93.6	87.8	79.8	79.8	79.79	

Source: IMF, International Financial Statistics. Bank of Japan. Japan Cabinet Office. Information in World Economic Outlook. Updated: IMF World Economic Outlook, April 2014; IFS update

Japan is still in the post-industrialization era and some of its industries have been relocated overseas, which shrinks its manufacturing industry in recent years. Japanese service industry accounts for about 70% of its total GDP. However, Japan has been stick to the manufacturing-oriented development strategy for a long time. Since 1991, its real annual economic growth rate has been less than 1%, which is the lowest one among the

²⁾ But after removing the yen depreciation factor, the real export volume was down 1.5% compared to last year

major developed economies. In contrast, its annual growth rate of manufacturing industry is higher than that of GDP for the same period, which is above average among the major developed economies.

It should be noted that tax revenue of Japan's central government in the fiscal year of 2013 grew by 6.9%, reaching the highest record growth since the financial crisis in 2008, which was largely due to the plunge in spending by domestic consumers before Japan adjusted its consumption tax rate in April 2014 and the rising import prices caused by substantial depreciation of Japanese yen.

After the financial crisis, appreciation of Japanese yen against US dollar continued until 2012, when one US dollar could be exchanged for 80 yen. Starting from 2013, exchange rate of Japanese yen gradually depreciated and from May, it has basically been stable at the level of 100 Japanese yen exchanged for one US dollar.





Source: Bank of Japan

3. ROK: New highlights emerge

Except for the short-term downturn caused by the financial crisis, ROK's economy has kept at a steady growth. After the financial crisis burst out in 2008, given the overall global sluggish economy, ROK's economy was affected severely and its GDP growth fell down to 0.32% in 2009. However, ROK recovered soon and its real economic growth rate was 6.32% in 2010, which was the highest among OECD countries. Since then, ROK's GDP and per capita GDP have remained stable with slight growth, approximately at USD 1.2 trillion and USD 23,000 respectively.

Since the beginning of 2013, ROK's economy has presented a positive upward trend.

Annual GDP growth achieved a turnaround. According to the data released by Bank of ROK, the GDP growth rate in 2013 was 2.8% and GDI grew by 4.3%. Specifically, ROK's exports maintained 4.3% growth and the trade surplus amounted to USD 44.1 billion, increasing by 55.8% compared with 2012, which represented a good performance in the context of global trade slowdown. Consumption grew by 1.9% compared with 1.6% in 2012, and construction investment increased by 6.9% far above -2.2% in 2012. In 2013, inflation rate in the ROK continued to descend to 1.3% from 2.2% in 2012; for the unemployment rate, except for the tentative rise in February, it has maintained the downward trend, remained at 3.1% per annum.

Table 1-4 Macroeconomic index: ROK

	2008	2009	2010	2011	2012	2013	2014 (partial)		
Real GDP, % change	Real GDP, % change								
Real GDP	2.3	0.3	6.3	3.6	2.0	2.8	3.7		
Private consumption	1.3	0.0	4.4	2.4	1.7	1.5	2.7		
Government consumption	4.3	5.6	2.9	2.1	3.9	2.9	2.6		
Gross fixed capital formation	-1.9	-1.0	5.8	-1.1	-1.7	2.0	6.0		
Exports	6.6	-1.2	14.7	9.1	4.2	5.6	8.1		
Imports	4.4	-8.0	17.3	6.1	2.5	4.5	7.7		
Imports	0.3	-15.7	11.1	5.9	5.4	0.3	4.1		
Contribution to percent char	nge in real C	DP							
Domestic expenditure	1.3	-3.4	6.9	1.8	1.0	1.8	3.5		
Net exports	1.0	3.7	-0.6	1.8	1.0	0.8	0.5		
Other indexes (%)									
Inflation rate	4.7	2.8	2.9	4.0	2.2	1.30	1.75		
Unemployment	3.2	3.6	3.7	3.4	3.2	3.1	3.1		
Fiscal balance (% of GDP)	-1.5	-4.1	-1.1	-2.0	-1.0	5.8	4.4		
Policy interest rate	1.75	1.25	1.25	1.5	1.25	1.25			
M2 growth	12.0	9.9	6.0	5.5	4.8	4.6			
Exchange rate (won/US\$)	1102	1277	1156	1151	1070	1155			

Source: IMF, International Financial Statistics. Bank of ROK. OECD; Economic Survey. ROK.

Updated: exchange rate, unemployment rate and M2 from IFS; real GDP from IMF World Economic Outlook.

ROK' economic structure is centered on the service industry, which accounts for 60% of its economic aggregate, while manufacturing only accounts for less than 40% and agriculture takes up 2~3%. It is noteworthy that after the financial crisis, performance of manufacturing was better than other industries and its growth rate increased to 3.0 % from 2.2% in 2012. In December 2013, industrial production after seasonal adjustment increased by 3.4% compared with the last month, which was the fastest growth in four and a half years, and the proportion of industry in GDP climbed up gradually.

Regarding the exchange rate trend, it can be seen that appreciation of Korean won against US dollar has continued since April 2009. Korean won appreciated by over 6% in the third quarter of 2013 and the monthly increase in October was up to 1.5%. Starting from 2014, ROK's foreign capital inflow further accelerated and export-oriented enterprises in ROK undersold dollar, which resulted in the sustained trend of strong won against dollar.



III. Economic Adjustment and Policy Direction for CJK

In the first year after transition of the government leadership in the three countries, new economic policy direction and priorities were shaped in 2013.

1. China's macroeconomic policy adapts to "new normal"

After the financial crisis, the global economy entered the period of long-term structural adjustment. Being affected by the external environment and after China has become an upper-middle income country, its demographic situation, resources and environment have dramatically changed, the comparative advantages of low labor and land costs have been weakened and structural problems and risks accumulated during the period of rapid growth over 30 years have been gradually exposed. In recent years, China's economic growth slowed down during 2012-2013, and China's annual GDP growth was lower than 8% for the two consecutive years.

With the transition from a mid-to-high economic growth and facing a urgent need for restructuring reform, Chinese government has put forward the new development concept of "transforming the mode of economic development", shifting from factor input-driven to innovation-driven growth. In 2013, the new government emphasized to upgrade Chinese economy by government streamlining, liberalizing private investment, focusing on employment status, downplaying economic growth speed, facilitating service industry and encouraging innovation, etc. The Third Plenary Session of the 18th CPC Central Committee put forward the decisions on comprehensive deepening reform, including transforming government functions, implementing the decisive role of the market in resources allocation and building a new system of open economy.

In 2014, the Chinese government has innovated its macro-control pattern adapting to its "new normal" notion. Given that economic slowdown has become the new normal, and if economic growth can be sustained in a proper range, the government will not take nonconventional stimulus packages and macroeconomic control policies. Macroeconomic control in the first half of 2014 mainly focused on realization of multi-goals for securing growth and structural adjustment through micro-stimulation, including investment expansion, stabilization of foreign trade, targeted Reserve Requirement Ratio (RRR) cuts, tax reduction, etc.

2. "Abenomics" and possible trend of its recent policies

Since Mr. Shinzo Abe took the office of Prime Minister at the end of 2012, he launched the "Abenomics" to stop deflation and to revitalize economy in Japan, which is comprised of (1) unconventional and relaxed monetary policy; (2) fiscal stimulus policy to substantially enhance government investment and the government approved its ever-largest budget plan in its history in May 2013; (3) new growth package including deregulations and promoting innovations etc. Japan released the "basic policies for economic and fiscal management" and the "economic growth strategy" on June 14, 2013, which aimed to promote the structural reform and stimulate the private investment by relaxing government regulations. In April 2014, Japan adjusted the consumption tax rate from 5% to 8%.

Throughout 2013, Japanese economy enjoyed a moderate recovery and the deflation has been initially relieved. "Abenomics" has enhanced domestic economic confidence, which has promoted the economic recovery to some extent. However, there are some concerns at home and abroad that in the long run, Prime Minister Abe's "new economic policy" may bring negative impact on Japan' economy. Firstly, according to the statistics of IMF, Japan's public debt reached 237% of its GDP in 2012, which was expected to be 245% in 2013, much higher than the internationally recognized safe standard (60%). At

present, expanding government investment will result in a growing fiscal deficit and such investment cannot be sustained without obvious improvement of Japanese economy in short term. Secondly, there is a concern that depreciation of yen may be regarded as a beggar-thy-neighbor policy, which would induce counter measures by other countries. Thirdly, "economic growth strategy" can hardly solve the deep-rooted problems in Japanese economy. Fourthly, private consumption has for long played an important role in Japanese economy and its proportion in GDP was as high as 59.5% in 2012. So, there is a concern that increasing consumption tax rate will impact on the pace of current economic recovery.

3. New policy direction in ROK

After the outbreak of financial crisis in 2008, the ROK government initiated the emergency mechanism and implemented a series of policies to respond to the crisis and promote economic recovery, including regulating foreign exchange market and stabilizing financial market, leveraging fiscal measures to stimulate economy in a comprehensive manner, such as implementation of tax relief to pull investment and consumption, encouraging the opening up of financial industry, attracting foreign capital and relaxing restrictions on foreign currency loan for enterprises.

In 2012, Ms. Park Geun-hye was elected as the President of ROK and promised to implement economic democracy reform and create more jobs for equality. She particularly emphasized the role of the government in supervising and guiding market competition and allocation, narrowing wealth gap, continuously strengthening the regulation on large companies, and protecting the interests of workers and small and medium enterprises (SMEs) for a more balanced allocation of social wealth. President Park also put forward the concept of "building a creative economy". Firstly, the concept seeks to realize comprehensive industry transformation and upgrading, as well as improve the capability of new technology to lead the world market by adopting innovation-oriented economic growth strategy; secondly, it aims to forcefully promote the development of SMEs to create more employment opportunities.

To this end, President Park Geun-hye announced the Three-year Economic Reform Plan for Quantum Jump in February 2014 and proposed three core strategies: laying a solid foundation for future growth, encouraging innovation economy and realizing balanced development of domestic demands and exports. The future objective for development is to raise the potential growth rate to 4%, to boost its employment rate to 70%, to increase the GNI per-capita to USD 40,000 and to continuously optimize the economic structure to lay a foundation for creating an era of people's happiness.

IV. Economic Prospects for CJK

Overall economic development in China was stable in the first half of 2014 with a slightly lower growth rate. The downward pressure on economic growth is enlarged due to the joint impact of short-term adjustment and transformation of growth in mid-and-long term and economic growth in the first half year was 7.4%. From January to May, year-on-year growth of investment, consumption and exports dropped by 3.2%, 0.5% and 13.9% respectively; in particular, manufacturing industry and real estate investment dropped by 3.6% and 5.9%. Along with the severe problems such as overcapacity, fierce adjustment and differentiation in real estate market, greater disparity between urban and rural areas, and especially the further transferred pressure from real economy to the financial system, local risks start to be exposed.

It is noteworthy that economic reform effect in China started to emerge and structural adjustment has made some progress. Profitability of enterprises is better than expected; employment pressure has gradually eased; and contribution of consumption to economic growth is increasing apparently. As the foundation for mid–and-long term economic growth in China has not changed, along with the gradually-changed international economic conditions and the policy effects of stable growth, downward pressure on China's economic growth will to some extent be relieved in the second half this year. It is expected that the economic growth in this year could be within the normal range of the target, around 7.5%. The key is how well the relation among stable growth, risk control and structural adjustment will be handled.

Japanese economy gets off to a good start in 2014. In the first quarter, Japan's real GDP grew by 1.5% after seasonal adjustment and annualized quarterly rate was 5.9%, better than market expectation. A positive growth for consecutive 6 quarters has been maintained. Industrial production index was 101.3 and the tertiary industry activity index was 100.9, both of which increased. CPI drew gradually closer to the inflation target of 2.0% set by Bank of Japan and unemployment rate was maintained at around 3.6%.

"Abenomics" got the domestic confidence in the short term and to a certain extent promoted the economic recovery in Japan. But in the long run, there are some institutions and experts at home and abroad worrying about negative influence. There are some other uncertain factors affecting Japanese economy in 2014. First of all, there is a concern that it is difficult to further promote super easing monetary policy because of some structural reasons, such as aging society and insufficient endogenous impetus for economic growth. Secondly, imports and exports growth is still in the recent downside cycle. Thirdly, consumption growth is to some extend curbed due to the adjustment of consumption tax rate. Lastly, increase of costs for energy and resources imports, rise in long-term interest rates, increasing pressures on financial debt as well as difficulty for structural reform to have an impact in short term impose certain risks to maintain future economic growth. World Economic Situation and Prospects 2014 predicted that Japan's economic growth in 2014 will be slightly lower than that in 2013.

Since the beginning of 2014, ROK has displayed a relatively stable economic performance. In the first quarter, ROK GDP growth gained 3.9%, better than the expectation (3.7%). Exports maintained strong growth and major economic indicators, including unemployment rate, were gradually improved. In particular, from 2013 to Q1 2014, manufacturing purchasing managers index (PMI) and quantity of new orders for goods have maintained an overall good trend.

In terms of economic prospect, both ROK and international organizations, such as OECD, are optimistic about ROK's economy. However, they pointed out that risk factors in ROK's economy should also be dealt with carefully. The ROK government is still required to better respond to negative impacts caused by reduction of quantitative easing in the US and the volatile international financial market. Economic growth overly dependents on exports, which exceeds 50%, and there are uncertainties for external environment such as the global economic situation and change of exchange rate, etc. Though domestic demands for consumption and investment have been improved, they are still not fully recovered to the pre-crisis level. Also, decrease of working-age population, unbalanced development between large corporations and SMEs, and relatively lagged behind service industry all should be taken into consideration.

Chapter II

Foreign Trade

I. Trade in Goods

- 1. Status of trade in goods of CJK in world economy
- 2. Development trend of trade in goods of CJK
- 3. Prospects and forecasts for trade in goods of CJK
- 4. Structure of trade in goods
- 5. Intra-industry trade of CJK
- 6. Intra-regional trade

II. Trade in Services

Development of trade in services in CJK
 Structure of trade in services of CJK

I. Trade in Goods

1. Status of trade in goods of CJK in world economy

CJK are world-leading countries in manufacturing and exporting. In parallel with the continuing globalization and development of the economies in CJK, their importance on the international goods trading market has steadily improved.

According to statistics released by the World Trade Organization (WTO), China has for the first time in centuries overtaken the US to become the world's biggest trading nation, with a total value of USD 4.16 trillion in goods traded, which is USD 250 billion more than that of the US in 2013. Its export accounted for USD 2.21 trillion, while import accounted for USD 1.95 trillion, ranking No. 1 and No. 2 in the world respectively. The value of goods traded by Japan totaled USD 1.55 trillion, ranking No. 4 in the world and ROK ranked No. 9 with a total value of USD 1.08 trillion in goods traded.

It is estimated that all goods involving in 2013 totaled 32.9% of all goods traded in the international market.³⁾ As Figure 2-1 shows, China's share in the world trade in goods has grown rapidly for the past decade, ROK's has increased marginally, while that of Japan has slightly decreased and its decrease in export is more remarkable. The recent global crisis had little effect on this trend. In 2013, CJK's share of total world exports were 11.8%, 3.8% and 3.0% respectively, accounting for 18.6% of the world market. The shares of goods imported by CJK were 10.4%, 4.4% and 2.7% respectively, accounting for 18.1% of total world imports.



Data source: UNCTAD Statistics.

2.Development trend of trade in goods of CJK

Since the 21st century, China, Japan and ROK have all grown rapidly in foreign trade. However, export growth rates of the three countries were severely influenced by the sharp decline in external demands after the financial crisis. Though their growth rates of foreign trade once rebounded to 30% in 2010, they have yet to recover to the pre-crisis levels in recent years. In particular, a distinct trend can be observed in the changing growth rate of China's export, which in 2012 and 2013 dropped to 7.8%. ROK's foreign trade has declined substantially, and in 2012, its rates of import and export decreased by 0.9% and 1.3% respectively.

Nonetheless, in 2013, it appeared to stabilize with a slight upward trend that the declining rate for import narrowed to -0.77% and export rate grew by 2.1%. Japan was most heavily affected by the economic turmoil, with its export rate dropping to -10.5% compared with -2.9% in the previous year; while its import rate decreased 5.9% despite experiencing 3.6% growth in the previous year.





Data source: UNCTAD Statistics.

It is worth noting that since Japan's trade balance changed from surplus to deficit, its trade deficit has continued to grow in the past two years, which in 2013 went up to USD 108.7 billion.

The growth of this deficit has, however, begun to slow down in 2014. After the settling of post-crisis fluctuation, the trade balances of China and ROK once again increased during the past three years. In 2013, surplus amounts were USD 358.1 and 60.7 billion for China and ROK respectively.

³⁾ Country-specific data of trade in goods is from WTO Statistics Database. "Trade in goods that CJK were involved" is calculated by adding up total value of imports and exports of China, Japan and ROK, but removing the overlapping part therein; statistical caliber of total value of trade in goods of the world here is export. Calculation for trade in goods among CJK will be explained in detail below.





3. Prospects and forecasts for trade in goods of CJK

China's foreign trade has shown a gradual recovery after a bad start in the beginning of 2014. China's import and export grew by 1.8% in the second quarter, which dropped 3.8% in the first quarter. Export, in particular has shown a monthly upward trend. Compared with the -6.6% growth in March, the export in April and May were 0.9% and 7% respectively. Internationally, the US economy has sustained a rapid growth, the Euro-zone has maintained gradual economic recovery, and the emerging economies have been experiencing a trend of gradual growth. Domestically, the Chinese central government carried out adjustment policies to the unilateral appreciation of RMB and introduced a series of trade facilitation measures to stabilize exports and promote foreign trade. Given the above factors and the elimination of false trading statistics, it is expected that China's export growth in the second half of 2014 will obviously experience an increase after the tough time in the first half. However, it is yet to be seen whether China can hit its target of 7.5% economic growth.

In the first quarter of 2014, Japan's real GDP (seasonally adjusted) grew by 1.5%. Its quarter-to-quarter annualized rate was 5.9%, higher than market expectations. From January to mid June 2014, Japan's year-on-year import and export grew by 2.39% and -0.22% respectively, which seems to sustain a stable upward trend. However, Japan still faces uncertainty and risks in the long term due to external factors, such as its increase in public debt and the US termination of quantitative easing. Aided by a boost in exports due to depreciation of Japanese yen as well as the economic recovery in Japan, EU and the US, Japan can prospect a better year of foreign trade in 2014.

In the first quarter of 2014, ROK's annual GDP growth rate was 3.9%, with various indicators in macroeconomic fundamentals showing good performance. For January to

May 2014, ROK's import and export grew by 2.2% and 2.5% respectively; while trade surplus grew by 7%, indicating that foreign trade began to regain momentum. ROK new policies focus on further improving the market competitiveness of certain products, promoting the international development of SMEs and strengthening the capacity in foreign trade by concluding FTAs with more countries. According to forecasts by the Ministry of Trade, Industry and Energy of ROK (MOTIE), ROK's foreign trade in 2014 will see a 7.6% jump than the previous year.

4. Structure of trade in goods

4.1 Trade partnership

Both Japan and ROK are China's most important trading partners. In 2013, instead of Japan, ROK has become China's largest import partner, while Japan ranked second for the first time in history. The exports to the US and Hong Kong from Mainland China ranked first and second respectively.

Also, China is the most important trading partner to both Japan and ROK. China, whose shares in Japan's total imports and exports were 21.7% and 18.1% respectively, was Japan's second largest export destination and largest source of imports in 2013. Meanwhile, China was ROK's largest export destination and source of imports. In particular, 26% of ROK's total exports went to China.

Japan and ROK are mutually important trading partners. ROK was Japan's third largest export partner and the sixth for import, which however fell to seventh in 2013. Japan is ROK's third largest partner for export and the second for import.

Table 2-1 CJK's major trading partners in 2013

	Ch	ina	Ja	oan	Korea		
	Export	Import	Export	Import	Export	Import	
1	United States	Japan	United States	China	China	China	
2	Hong Kong	Korea	China	United States	United States	Japan	
3	Japan	Taiwan	Korea	Australia	Japan	United States	
4	Korea	United States	Taiwan	Saudi Arabia	Hong Kong	Saudi Arabia	
5	Germany	Germany	Thailand	UAE	Singapore	Qatar	
6	Netherlands	Australia	Hong Kong	Korea	Vietnam	Australia	
7	India	Malaysia	Singapore	Qatar	Taiwan	Kuwait	
8	UK	Saudi Arabia	Germany	Malaysia	Indonesia	Germany	
9	Russia	Brazil	Indonesia	Indonesia	India	Indonesia	
10	Singapore	South Africa	Australia	Germany	Russia	UAE	

Data source: UNCTAD Statistics

The Country Report released by the Ministry of Commerce of China (MOFCOM) noted that in 2013, Japan's trade deficit in goods primarily came from China, Australia, and various oil-producing countries, while the surplus coming from the US and ROK. ROK's deficit primarily came from Japan and oil producing countries in the Middle East while the surplus coming from China and the US. China's trade deficit in goods primarily came from the US and EU, while the surplus coming from ROK, Japan, ASEAN, Australia as well as other East Asian countries and regions⁴.

4.2 Trade structures of CJK

The analysis of 2-digit Harmonization System code shows that in 2013, CJK are quite active in the trade of manufactured goods, including electronic products, transportation equipment, machinery and mechanical appliances, iron and steel, petrochemical products, textile and apparel etc. The composition of import and export in Japan and ROK is particularly similar.

The CJK's most important export products are electromechanical equipment including computers, communication equipment, integrated circuits, and liquid crystal devices, accounting for 56.9%, 34% and 34.8% of all goods exported in the three countries, respectively. Japan and ROK's other major export products are transportation equipment, base metals and related articles, chemical products, and medical instruments and apparatus. The shares of these products in ROK and Japan's total exports are over 40% and 47% respectively. Contrary to China, the two countries export less in textile and textile materials, and precious metal and their related articles. China, on the other hand, exports more on labor-intensive products, for example apparel, textile, furniture and precious metal and related articles, but less on transportation equipment and chemical products, etc.

Two major imports of Japan and ROK are mineral products and electromechanical equipment, the shares of which in total imports are 37.8% and 19.1% in Japan, and 38.4% and 23.2% in ROK respectively. China's major imports are electromechanical equipment and bulk commodities, such as energy, soybeans etc.

4) Calculation is based on statistics of IMF-DOT.

 Table 2-2
 Comparison of Top 10 CJK export products in 2013 (HS 2-digit code)

			Exports				
	China		Japan		ROK		
HS CODE	Commodity description	HS CODE	Commodity description	HS CODE	Commodity description		
84-85	Electromechanical products	84-85	Electromechanical products	84-85	Electromechanical products		
61-63	Apparel and clothing accessories	86-89	Transport equipment	86-89	Transport equipment		
50-63	Textile & raw materials	72-83	Base metal and articles thereof	25-27	Mineral products		
72	Steel	28-38	Chemical products	72-83	Base metal and articles thereof		
94	Furniture and parts & accessories	90-92	Optical instruments and apparatus	39-40	Plastics and rubber		
39	Plastic articles	39-40	Plastics and rubber	28-38	Chemical products		
71	Precious metal and articles thereof	71	Mineral products	90-92	Optical instruments and apparatus		
86-89	Transport equipment	71	Precious metal and articles thereof	50-63	Textile & raw materials		
28-38	Chemical products	50-63	Textile & raw materials	16-24	Food stuffs, beverages and tobacco		
68-69	Ceramic products	68-70	Ceramic products; glass and glassware	71	Precious metal and articles thereof		

Source : Data of Japan and ROK are from Country Report released by Ministry of Commerce of China ; Data of China come from China Customs Statistics.

Table 2-3 Comparison of Top 10 CJK import products in 2013 (HS 2-digit code)

			Exports		
	China		Japan		ROK
HS CODE	Commodity description	HS CODE	Commodity description	HS CODE	Commodity description
84-85	Electromechanical products	25-27	Mineral products	25-27	Mineral products
27	Crude oil and petroleum products	84-85	Electromechanical products	84-85	Electromechanical products
72-83	Base metal and articles thereof	28-38	Chemical products	72-83	Base metal and articles thereof
86-89	Transport equipment	50-63	Textile & raw materials	28-38	Chemical products
28-38	Chemical products	72-83	Base metal and articles thereof	90-92	Optical instruments and apparatus
06-14	Vegetable products	86-89	Transport equipment	86-89	Transport equipment
50-63	Textile & raw materials	90-92	Optical instruments and apparatus	39-40	Plastics and rubber
30	Pharmaceutical products	16-24	Food stuffs, beverages and tobacco	50-63	Textile & raw materials
01-05	Live animals; animal products	06-14	Vegetable products	06-14	Vegetable products
16-24	Foodstuffs, beverages and tobacco	01-05	Live animals; animal products	16-24	Foodstuffs, beverages and tobacco

Source : Data of Japan and ROK are from Country Report released by Ministry of Commerce of China ; Data of China come from China Customs Statistics.

Figure 2-4 and Figure 2-5 show the structure of China-Japan and China-ROK trade in goods. China's largest export to Japan is electromechanical equipment (44.3%), followed by textile and apparel (16.2%), which mainly are final products. Japan's main export to China is electromechanical equipment including integrated circuits, transport machinery & equipment (39.4%), followed by chemical products (11.6%). China's main export to ROK is electromechanical equipment (43.1%), followed by iron & steel (15.1%), chemical products (7.7%), and textile and apparel (7.2%). China mainly imports electronic integrated circuits and LCDs from ROK (more than 25%), followed by precision instruments (14.9%), petrochemical products (12.7%) and transportation equipment (5.6%). Japan and ROK's trading patterns complement each other well. ROK's electronic manufacturing industry heavily relies on plastics, iron, steel and high-end manufacturing materials from precision machinery, which can be imported from Japan. While Japan imports mid-end technology-intensive products from ROK. For example, the refined petroleum products accounted for one fourth of Japan's total imports from ROK.





Source : UNCTAD database.

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Figure 2-5 China-ROK trade structure in 2013





Source : UNCTAD database.



Figure 2-6 Japan-ROK trade structure in 2013



5. Intra-industry trade of CJK

The most common way to measure the degree of intra-industry trade development is the Grubel-Lloyd index⁵⁾. According to the calculation, if ROK is taken as the reporting country, the value of the G-L index between ROK and China is 0.41. If Japan is taken as the reporting nation, the values of the G-L index between Japan and China is 0.32, and that between Japan and ROK is 0.43. As it can be seen, China-Japan and China-ROK indices remain to be lower than Japan-ROK indices, indicating that the level of China's intra-industry trades with the two countries is still low.

Compared to 2012, the China-Japan G-L index decreased in 2013, while China-ROK and Japan-ROK indices continued to increase, reflecting the rapid development of China-ROK and Japan-ROK intra-industry trade, and a great similarity of export products. According to the categories of IIT index⁶, there is still plenty of room for intra-industry trade development among CJK.

code data from UN COMTRADE are used in calculation.

Figure 2-7 Trend of intra-industry trade development of CJK



Source: Calculation based on trade statistics of three countries

In general, the most notable characteristics of intra-industry trade among China, Japan and ROK lie in the ever-increasing two-way vertical intra-industry trading of electronic products and transportation equipment. This tendency appears stronger. At the same time, one-way supply chain trade also exists that Japan exports high-tech machines and materials to ROK, and in turn, ROK produces electronic parts by using Japanese high-tech machines and materials, and then exports them to China. Afterwards, China produces finished electronic and digital products by using ROK's parts, and exports them to Japan, ROK and other trading partners.

6. Intra-regional trade

6.1 Declining of intra-regional trade

After the financial crisis, intra-regional trade shares in EU and North America both decreased by 64.4% and 48.3% respectively in 2012. Although CJK are closely dependent in economy, their intra-regional trade share of 19.8% in 2012 was still lower than the US and EU. The interdependent structure of CJK trading indicates the ample potential for further development. Despite of the possibility for development, their intraregional trade dropped to 18.6% in 2013⁷⁾. Although the total trade volume between China and ROK grew by 7.8%, it seems that political difficulties brought negative impact on economic relations. In 2013, China-Japan year-on-year bilateral trade dropped by 5.1%, and Japan-ROK bilateral trade also declined.

⁵⁾ The definition of G-L index is $HT_i = \frac{((X_i + M_i) - |X_i - M_i|)}{(X_i - M_i)}$ where X denotes export, M denotes import, and I denotes product. The $\sum |X_i - M_i|$ country's index is measured by the trade-weighted average of each index and the formula is IIT =1- $\frac{1}{\sum X_i + \sum M_i}$. HS 4-digit

⁶⁾ I.e. when IIT index falls in [0,0.25], inter-industry trade is strong; when it falls in [0.25,0.5], inter-industry trade is weak; when it falls in [0.5,0.75], intra-industry trade is weak; when it falls in [0.75, 1], intra-industry trade is strong.

⁷⁾ The statistics include Hong Kong's trade in goods.

6.2 Declining in bilateral trade intensity index

Trade intensity index is a standard indicator to measure the degree of bilateral trade relations between countries. The standard value of this index is that if index number is less one, it indicates a weak bilateral trade relation; if it is more than one, it indicates a strong trade relation higher than the global average.

Therefore, the strength of trade relations among the three countries can be measured by calculating their trade intensity indices. The calculation shows that CJK have stronger trade relations among each other than with other countries. It should also be noted that regional or bilateral trade intensity among the three countries have both declined, especially between China and Japan. Considering the three countries as a single region, the intra-regional trade intensity index for exports was 1.13 in 2012 and 0.99 in 2013, declining from 1.60 in 2003, which has already been lower than the standard value. In comparison, ROK's export intensity index to China is higher than China's index to ROK, which means that ROK depends on exporting to China more than China exporting to ROK. Similarly, Japan depends on China as an export destination more than China does to Japan. ROK's dependence on import from Japan is higher than Japan's dependence on import from ROK.

Table 2-4 Export intensity index in CJK region

Exporter	Ch	ina	Japan		ROK		Intra-region
Importer	Japan	ROK	China	ROK	China	Japan	CJK
2003	2.59	1.87	2.17	3.03	3.30	3.75	1.60
2004	2.42	1.86	2.10	3.13	3.22	3.51	1.61
2005	2.17	1.79	2.09	3.08	3.46	3.39	1.57
2006	1.90	1.72	2.14	2.97	3.25	3.18	1.52
2007	1.80	1.72	2.19	2.91	3.20	2.76	1.43
2008	1.64	1.83	2.22	2.75	3.05	2.45	1.38
2009	1.73	1.62	2.29	3.06	2.87	2.24	1.33
2010	1.53	1.43	2.04	2.78	2.66	2.10	1.31
2011	1.51	1.38	1.98	2.68	2.45	2.40	1.18
2012	1.39	1.37	1.75	2.60	2.41	2.43	1.13
2013	1.36	1.34	1.66	2.74	2.43	2.18	0.99

8) Trade intensity index is composed of export intensity index $TII_x = \frac{X_{ij}/X_i}{M_j/(M_w - M_i)}$ and import intensity index $TII_m = \frac{M_{ij}/M_i}{X_j/(X_w - X_i)}$, where X_{ij}, M_{ij} represents total exports and imports of country i to country j; X_i, X_j, X_w means total exports of country i, country j and the world; M_i, M_j, M_w indicates total imports of country i, country j and the world. The calculation uses statistics of IMF-DOT.

Table 2-5 Import intensity index in CJK region

Exporter	Ch	ina	Jap	ban	R	ЭК	Intra-region
Exporter	Japan	ROK	China	ROK	China	Japan	СЈК
2003	2.69	3.80	3.17	1.69	2.05	3.15	1.88
2004	2.53	3.72	2.99	1.63	1.97	3.22	1.81
2005	2.47	3.93	2.71	1.63	1.96	3.15	1.75
2006	2.50	3.84	2.40	1.65	1.89	3.03	1.67
2007	2.48	3.69	2.22	1.55	1.96	2.98	1.59
2008	2.49	3.40	2.01	1.38	1.93	2.80	1.50
2009	2.50	3.06	2.17	1.26	1.67	3.16	1.47
2010	2.19	2.81	1.98	1.24	1.54	2.83	1.33
2011	2.16	2.63	1.93	1.41	1.50	2.73	1.28
2012	1.93	2.63	1.77	1.42	1.31	2.68	1.17
2013	1.87	2.69	1.72	1.35	1.29	2.88	1.12

Source: calculated based on trade statistics of three countries.

II. Trade in Services

1. Development of trade in services in CJK

China's trade in services has been growing after the financial crisis, at a rate higher than that of trade in goods. In 2013, the value of China's service import was USD 330.285 billion, increasing 17.5% than 2012 and the value of service export was USD 208.221 billion, increasing 8.8% than 2012. China's import and export shares in world service were 7.4% and 4.4% respectively, both higher than 2012. In contrast, trade in services of Japan and ROK grew much more slowly in the past two years. In 2013, the value of Japan's service export was USD 146.471 billion, increasing only 0.6% compared to 2012, which accounted for 3.1% of world's total service export. The value of Japan's service import was USD 162.776 billion, decreasing 7.9% compared to 2012, which accounted for 3.7% of world's total service.

The value of ROK's service export was USD 112.993 billion, increasing 1.3% compared to 2012 and its value of service import was USD 106.997 billion, increasing 1.1% compared to 2012, which accounted for 2.4% of world's total service import. The share of Japan and ROK in world's trade in service demonstrates a downward trend while China sustains an uprising trend.





Source: WTO database.

The three countries all have trade deficit in services at different levels, which indicates that they are net importers of services. China's deficit is the largest one, which has grown rapidly since 2008, amounting to USD 108.6 billion in 2013. Japan's deficit in service trade has fluctuated between USD 15-30 billion, dropping 47.7% in 2013. ROK has the smallest deficit in service trade among the three, increasing by USD 5.9 billion in 2013, shifting itself from small deficit to small surplus in 2012.

According to UNCTAD statistics, China ranked third in world services trade in 2013. Japan and ROK ranked the sixth and thirteenth respectively. In 2013, trade in services accounted for 20.3% of total world trade, and the shares of trade in services in CJK were 12.9%, 20% and 20.5% respectively. It can be understood that although China's trade in services has grown rapidly in the recent years, there is still large room for further development.





Source: WTO database

2. Structure of trade in services of CJK

China's trade in service is mainly concentrated in traditional sectors, such as tourism, transportation and other business services, which accounted for 82% of its total trade in services. Shares of knowledge-intensive service sectors, such as communications, insurance, financial service etc., are still relatively small and there is room for improvement. In contrast, the sectors of trade in services in Japan and ROK are more balanced, with shares of knowledge-intensive service accounting for about 30% and 20% in export and import for both countries. The main difference between the two is that Japan, in comparison to ROK, has a larger proportion of franchise and licensed service trade. But, the development of construction, insurance, financial service and computer and IT service sectors in the two countries are more balanced and matured.

The development trend for CJK shows that traditional sectors, such as transportation and tourism etc. are stable with a downward trend, while the shares of services such as communications, financial service, computer and IT etc. have all increased in various degrees.

Figure 2-10 Composition of trade in services of CJK in 2013





Source: UNCTAD statistics; the inner ring represents export and the outer ring import.

Chapter III

Cross-Border Investment

I. Trend of Inward FDI of CJK

Changes of flow and stock
 Sources of inward FDI
 Inward FDI by sector

II. Trend of Outward FDI of CJK

- 1. Changes of flow and stock
- 2. Outward FDI distribution by country/region
- 3. Outward FDI by sector
- 4. Foreign exchange reserve
- 5. Intra-regional FDI among CJK
- 6. Investment environment

I. Trend of Inward FDI of CJK

1. Changes of flow and stock

After the global financial crisis, cross-border investment in the world declined substantially. Though it began to recover slightly, it failed to reach the pre-crisis level and fluctuates from time to time.

Against the backdrop, China's rapid economic growth has become the spotlight of the world economy, which has largely been contributed by the use of foreign capital. According to UNCTAD statistics, China's inward FDI (foreign direct investment) was USD 123.9 billion in 2013, increasing 2.3% over the previous year, which ranked No.2 in the world accounting for 8.5% of world's total inward FDI. ROK's inward FDI sustained a slow growth to USD 12.2 billion in 2013, increasing 28.7%. However, according to statistics released by the Ministry of Trade, Industry and Energy of ROK, ROK's actual use of foreign capital was USD 10.69 billion in 2013, declining 9.4% than the previous year, which was the first decline in three years. Among the developed countries, Japan utilizes less foreign capital, vis-à-vis to its size of economy. Though the inward FDI of Japan grew after the financial crisis, it is still lagging behind China and ROK. Despite its year-on-year growth reached as high as 34% in 2013, Japan's inward FDI was USD 2.3 billion, which only accounted for 0.16% of world's total inward FDI.



Figure 3-1 Inward FDI of CJK and respective share in the world –Flow (Value: USD million, share: %)

Source: UNCTAD Statistics.

From 2003 to 2013, China's inward FDI stock has continued to grow, the growth rate of which accelerated significantly after 2007. Its share in global cross-border investments rapidly increased to 3.76% in 2013. Japan's inward FDI stock continued to decrease since 2011. Its

share in global cross-border investments has been on declining since 2008, falling to 0.67% in 2013. ROK's inward FDI stock has steadily increased after experiencing the difficulties during the post-crisis period. Its share in global cross-border investment has sustained around 0.65%, close to that of Japan in 2013.



Figure 3-2 Inward FDI of CJK and respective share in the world – stock (Value: USD million, share: %)

Source: UNCTAD Statistics

2. Sources of inward FDI

The sources of inward FDI for China are relatively concentrated in the top 10 contributors, i.e., Hong Kong, Singapore, Japan, US, ROK, Germany, the Netherlands, UK and France, which has provided 93.15% of China's actual foreign capital use. In addition, investment from 10 Asian countries grew by 7.1% and that from the US and EU grew by 7.13% and 18.07% respectively, all of which are above the global average.

According to the balance of international payments in Japan, North America (USD 1.414 billion), Europe (USD 1.061 billion) and Asia (USD 867 million) are the three major sources of FDI to Japan, whereas the US, Luxembourg and the UK are the three largest sources of inward FDI for Japan. China and ROK ranks 10th and 13th largest sources of investment for Japan, accounting for 5.9% and 2% respectively of its total inward FDI.

The developed economies are the major sources of investment for ROK. In 2013, the US (USD 3.54 billion), EU (USD 4.8 billion) and Japan (USD 2.69 billion) were the Top 3 contributors to ROK's FDI inflow. The total investment from China, including those from Hong Kong and Taiwan was USD 1.46 billion. Investment from the US and Japan decreased by 4.1% and 40.8% compared to the previous year, while investment from EU recorded a substantial increase of 76.9%.

Table 3-1 Major sources of FDI for CJK in 2013 (Value: USD million; Share: %)

	China		
Ranking	Region	FDI	Share
1	Hong Kong	78,302	66.6
2	Singapore	7,327	6.2
3	Japan	7,064	6
4	Taiwan	5,246	4.5
5	US	3,353	2.9
6	ROK	3,059	2.6
7	Germany	2,095	1.7
8	The Netherlands	1,281	1.1
9	UK	1,039	0.9
10	France	762	0.6
	Total	109,528	93.2
	Japan		
Ranking	Region	FDI	Share
1	US	1,378	58.4
2	Luxembourg	1,279	54.2
3	UK	618	26.2
4	The Netherlands	537	22.8
5	Swiss	505	21.4
6	Australia	366	15.5
7	Singapore	325	13.7
8	Taiwan	186	7.9
9	Hong Kong	172	7.3
10	China	140	5.9
	Total	5,505	233.4
13	ROK	48	2
	ROK		
Ranking	Region	FDI	Share
1	US	3,535	24.3
2	Japan	2,690	18.5
3	Hong Kong	976	6.7
4	The Netherlands	618	4.2
5	France	530	3.6
6	China	481	3.3
	Total	8830	60.7

Source : Ministry of Commerce of China, the Japan External Trade Organization (JETRO) and Ministry of Trade, Industry and Energy of ROK.

3. Inward FDI by sector

The manufacturing industry has long been a major sector for China's FDI inflow, but China's FDI sectors have expanded rapidly in recent years. According to statistics of Ministry of Commerce of China, China's actual use of foreign capital in service industry was USD 61.451 billion in 2013, increasing by 14.15%, which, for the first time, exceeded 50% amounting to 52.3% of its total inward FDI. The actual use of foreign capital in manufacturing decreased by 6.78%, while agriculture, forestry, animal husbandry and fishery industries dropped by 12.71%. Within the manufacturing industry, however, the petroleum refining and seafood processing sectors experienced a rapid FDI growth, increased by 82% and 46.8% respectively.

The manufacturing industry is the major recipient of FDI in Japan. In 2013, FDI to Japan's manufacturing industry amounted to USD 2.489 billion, decreasing by 53%. FDI flowing to non-manufacturing sectors was mainly concentrated in finance and insurance, real estate, transportation, and retail and wholesale sectors.

The service industry has been a major player in attracting FDI for ROK in recent years. In 2013, FDI to ROK's service industry was USD 9.85 billion, increasing by 2.6%, among which finance and insurance, real estate, business services etc., covered 81% of its total foreign capital use. Affected by a reduction in investment from Japan, FDI flowing to ROK's manufacturing industry decreased by 23% to USD 4.65 billion, mainly to the sectors, such as transport machinery, non-metal minerals and chemicals.

Table 3-2 FDI inflow by sector in 2013 (Value: US million, share: %)

	China		
Ranking	Sector	Value	Share
1	Service	61,451	52.3
2	Manufacturing	45,555	38.7
3	Agriculture, forestry, animal husbandry and fishery	1,800	1.5
	Total	108,806	92.5
	Japan		
Ranking	Sector	Value	Share
1	Manufacturing	2,489	105.5
2	Finance & insurance	641	27.2
3	Real estate	225	9.5
4	Transportation	216	9.2
5	Wholesale & retail	160	6.8
	Total	3,731	164.2
	ROK		
Ranking	Sector	Value	Share
1	Finance & insurance	2,930	20.1
2	Real estate development and rental	2,550	17.5
3	Business service	2,510	17.3
4	Transport machinery	1,090	7.5
5	Non-metal minerals	980	6.7
6	Chemicals	870	6
	Total	10,930	75.1

Source: Ministry of Commerce of China, the Japan External Trade Organization (JETRO) and Ministry of Trade, Industry and Energy of ROK.

II. Trend of Outward FDI of CJK

1. Changes of flow and stock

China, Japan and ROK are the major cross-border investors in the world. In the past decade, foreign investment from the three countries continued to grow with China's growth being the most remarkable. According to statistics from the Ministry of Commerce of China, China's outward FDI has grown rapidly from less than USD 3 million in 2003 to USD 90.2 billion in 2013, increasing almost 30 times, which made its share in global cross-border investment amount to 7.2%, helping China become the third largest source of investment in the world.

For a long time, Japan's outward FDI ranked No. 2 in the world, following the US. In 2013, its outward FDI was USD 135.749 billion, increasing by 10.8%, which accounted for 9.6% of global cross-border investment. ROK's outward FDI decreased slightly in 2013 and ranked No. 12 in the world with a share of 2.1%.

160000 12 140000 10 120000 100000 80000 60000 40000 20000 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 Japan (value) China (value) Korea (value) ---- China (%) 🗕 Japan (%) Korea (%)

Figure 3-3 Outward FDI of CJK and respective share in the world - Flow (Value: USD million, share: %)

Source: UNCTAD Statistics.

Japan's outward FDI (ODI) stock is the largest among the three countries. By 2013, Japan's outward FDI stock was USD 99.29 billion, which slightly decreased compared to that of 2012 and its share in total world ODI stock also reduced from 4.5% to 3.8%. In 2013, ODI stock in China and ROK continued to increase. By the end of 2013, ODI stock of the two countries reached USD 613.5 billion and USD 219.1 billion respectively, accounting for 2.33% and 0.83% of the total world ODI stock.





2. Outward FDI distribution by region

China's outward investment destinations are also relatively concentrated, similar to its inward FDI. According to the statistics from the Ministry of Commerce of China, the top 7 destinations for non-financial foreign investment in 2013 were Hong Kong, ASEAN, EU, Australia, US, Russia and Japan, which received 72.6% of China's outward FDI with Hong Kong taking up to 48%. Although its investments to Hong Kong, EU and Japan decreased, China's direct investment to Russia, US, Australia and ASEAN all experienced a rapid growth.

According to the statistics from Japan External Trade Organization (JETRO), North America, Asia and Europe are the top 3 investment destinations for Japan. It is noteworthy that in 2013, Japan's FDI to China decreased by 4.3% for the first time since 2007. In the first half of 2014, Japan's FDI to China dropped dramatically by 48.8%⁹⁾, showing that Japanese enterprises are more cautious about expanding their business in China mainly due to bilateral political tensions and price hike. Japan's FDI to the US and EU grew substantially and that to Southeast Asia was accelerated. In 2013, Japan's outward FDI to Singapore, Thailand, Indonesia, Malaysia, Philippines and Vietnam as a whole was 2.5 times larger than that to China. In particular, Japan's FDI to Thailand surpassed China, making Thailand become its third largest FDI recipient after the US and the UK.

The US has long been the top destination of ROK's investments, followed by China. The investments in the two countries accounted for 18.4% and 16.5% of ROK's outward FDI in 2013, respectively. 58% of ROK's outward FDI went to 5 countries including the US, China, Cayman Islands, Peru and Australia. In 2013, ROK's FDI to Latin America, Middle East and Africa grew rapidly, whereas its FDI to Asia, North America and Europe, all to certain extent decreased.

⁹⁾ Source: MOFCOM of China.

Table 3-3 Destination of FDI for CJK in 2013 (Value: USD million, share: %)

	China		
Ranking	Region	FDI	Share
1	Hong Kong	43,418	48.1
2	ASEAN	5,740	6.4
3	US	4,230	4.7
4	Russia	4,080	4.5
5	Australia	3,940	4.4
6	EU	3,881	4.3
7	Japan	161	0.2
	Total	65,450	72.6
	Japan		
Ranking	Region	FDI	Share
1	US	43,703	32.4
2	UK	13,319	9.9
3	Thailand	10,174	7.5
4	China	9,104	6.7
5	The Netherlands	8,636	6.4
6	Australia	5,835	4.3
7	Brazil	4,037	3
8	Indonesia	3,907	3
9	Singapore	3,545	2.6
10	ROK	3,296	2.4
	Total	105,556	78.2
	ROK		
Ranking	Region	FDI	Share
1	US	5,360	18.4
2	China	4,800	16.5
3	Cayman Islands	2,790	9.6
4	Peru	2,420	8.3
5	Australia	1,689	5.8
	Total	17,059	58.5

Source: UNCTAD Statistics.

3. Outward FDI by sector

In 2013, about 90% of China's outward FDI went to business service, mining, wholesale & retail, manufacturing, construction and transportation sectors, among which, mining, wholesale & retail, manufacturing and real estate sectors grew rapidly and construction, culture & sports, and entertainment sectors have become the top three fast growing sectors in attracting investment, increasing by 129.1% and 102.2% respectively.

In 2013, Japan's outward FDI mainly went to finance, business and other non-

manufacturing sectors with a remarkable increase of 56% compared with the last year, which accounted for almost 68.5% of its total outward FDI. Its outward FDI to the manufacturing industry increased by 5% compared to 2012 and has maintained the increasing trend, accounting for 31.5% of Japan's total outward FDI, which was the highest among the three countries.

ROK's outward FDI mainly went to manufacturing, finance and insurance, mining and advertisement sectors. In 2013, ROK's outward FDI to the finance and insurance and housing rental sectors experienced a rapid growth, but its investment to the manufacturing and mining sectors declined. It is worth noting that although ROK's investment in the overseas mining sector used to maintain a fast growth, it dropped continuously in the past two years to the pre-2008 level.

Table 3-4 Outward FDI of CJK by sector (Value: USD million, share: %)

1 Business service 29,450 32.7 2 Mining 20,160 22.4 3 Wholesale & retail 13,670 15.2 4 Manufacturing 8,680 9.6 5 Construction 6,530 7.2 6 Transportation 2,500 2.8 7 Total 80,990 89.9 Japan Ranking Sector Value Share 1 Manufacturing 42,473 31.5 2 Finance & insurance 26,701 19.8 3 Communications 23,416 17.3 4 Mining 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 5 Total 126,082 93.4 ROK ROK ROK ROK		China		
2 Mining 20,160 22,4 3 Wholesale & retail 13,670 15,2 4 Manufacturing 8,680 9,6 5 Construction 6,530 7,2 6 Transportation 2,500 2,8 7 B0,990 89,9 80,990 89,9 Japan Ranking Sector Value Share 1 Manufacturing 42,473 31,5 2 Finance & insurance 26,701 19,8 3 Communications 23,416 17,3 4 Mining 13,089 9,7 5 Wholesale & retail 12,923 9,6 6 Business service 7,480 5,5 5 Wholesale & retail 12,923 9,6 6 Business service 7,480 5,5 5 Wholesale & insurance 8,550 21,7 1 Manufacturing 10,370 26,3	Ranking	Sector	Value	Share
3 Wholesale & retail 13,670 15.2 4 Manufacturing 8,680 9.6 5 Construction 6,530 7.2 6 Transportation 2,500 2.8 701 B0,990 89.9 30.9 Japan Ranking Sector Value Share 1 Manufacturing 42,473 31.5 2 Finance & insurance 26,701 19.8 3 Communications 23,416 17.3 4 Mining 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 7 Total 126,082 93.4 Roking Numurications 2.5 1 Manufacturing 10,370 26.3 <tr< td=""><td>1</td><td>Business service</td><td>29,450</td><td>32.7</td></tr<>	1	Business service	29,450	32.7
4 Manufacturing 8,680 9,6 5 Construction 6,530 7.2 6 Transportation 2,500 2.8 701 80,990 89,9 Japan Ranking Sector Value Share 1 Manufacturing 42,473 31.5 2 Finance & insurance 26,701 19.8 3 Communications 23,416 17.3 4 Mining 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 5 Total 126,082 93.4 Ranking Sectors Value Share 1 Manufacturing 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 1 Total 126,082 93.4 1 Manufacturing	2	Mining	20,160	22.4
5 Construction 6,530 7.2 6 Transportation 2,500 2.8 Total 80,990 89.9 Japan Ranking Sector Value Share 1 Manufacturing 42,473 31.5 2 Finance & insurance 26,701 19.8 3 Communications 23,416 17.3 4 Mining 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 Total 126,082 93.4 Rok Ranking Sectors Value Share 1 Manufacturing 10,370 26.3 2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1	3	Wholesale & retail	13,670	15.2
6 Transportation 2,500 2.8 Total 80,990 89.9 Japan Ranking Sector Value Share 1 Manufacturing 42,473 31.5 2 Finance & insurance 26,701 19.8 3 Communications 23,416 17.3 4 Mining 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 5 Total 126,082 93.4 Ranking Sectors Value Share 1 Manufacturing 10,370 26.3 2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1	4	Manufacturing	8,680	9.6
Total 80,990 89.9 Ranking Sector Value Share 1 Manufacturing 42,473 31.5 2 Finance & insurance 26,701 19.8 3 Communications 23,416 17.3 4 Mining 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 5 Total 126,082 93.4 Ranking Sectors Value Share 1 Manufacturing 10,370 26.3 Ranking Sectors Value Share 1 Manufacturing 10,370 26.3 2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1	5	Construction	6,530	7.2
Japan Japan Ranking Sector Value Share 1 Manufacturing 42,473 31.5 2 Finance & insurance 26,701 19.8 3 Communications 23,416 17.3 4 Mining 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 6 Business service 7,480 5.5 7 Total 126,082 93.4 Ranking Sectors Value Share 1 Manufacturing 10,370 26.3 2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1	6	Transportation	2,500	2.8
Ranking Sector Value Share 1 Manufacturing 42,473 31.5 2 Finance & insurance 26,701 19.8 3 Communications 23,416 17.3 4 Mining 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 7 Total 126,082 93.4 Ranking Sectors Value Share 1 Manufacturing 10,370 26.3 2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1		Total	80,990	89.9
1 Manufacturing 42,473 31.5 2 Finance & insurance 26,701 19.8 3 Communications 23,416 17.3 4 Mining 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 7 Total 126,082 93.4 RArking Sectors Value Share 1 Manufacturing 10,370 26.3 2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1		Japan	·	
2 Finance & insurance 26,701 19.8 3 Communications 23,416 17.3 4 Mining 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 6 Business service 7,480 5.5 7 Total 126,082 93.4 Rok Rok 1 Manufacturing 10,370 26.3 2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1	Ranking	Sector	Value	Share
3 Communications 23,416 17.3 4 Mining 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 70 Total 126,082 93.4 Rok Ranking Sectors Value Share 1 Manufacturing 10,370 26.3 2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1	1	Manufacturing	42,473	31.5
4 Mining 13,089 9.7 5 Wholesale & retail 12,923 9.6 6 Business service 7,480 5.5 6 Total 126,082 93.4 Rok Ranking Sectors Value Share 1 Manufacturing 10,370 26.3 2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1	2	Finance & insurance	26,701	19.8
5 Wholesale & retail 12,923 9,6 6 Business service 7,480 5,5 Total 126,082 93,4 ROK Ranking Sectors Value Share 1 Manufacturing 10,370 26,3 2 Finance & insurance 8,550 21,7 3 Mining 6,728 17,1 4 Advertisement 6,710 17 5 Housing rental 3,607 9,1	3	Communications	23,416	17.3
6 Business service 7,480 5.5 Total 126,082 93.4 ROK Ranking Sectors Value Share 1 Manufacturing 10,370 26.3 2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1	4	Mining	13,089	9.7
Total 126,082 93.4 ROK Ranking Sectors Value Share 1 Manufacturing 10,370 26.3 2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1	5	Wholesale & retail	12,923	9.6
ROKRankingSectorsValueShare1Manufacturing10,37026.32Finance & insurance8,55021.73Mining6,72817.14Advertisement6,710175Housing rental3,6079.1	6	Business service	7,480	5.5
Ranking Sectors Value Share 1 Manufacturing 10,370 26.3 2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1		Total	126,082	93.4
Manufacturing 10,370 26.3 Finance & insurance 8,550 21.7 Mining 6,728 17.1 Advertisement 6,710 17 Housing rental 3,607 9.1		ROK		
2 Finance & insurance 8,550 21.7 3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1	Ranking	Sectors	Value	Share
3 Mining 6,728 17.1 4 Advertisement 6,710 17 5 Housing rental 3,607 9.1	1	Manufacturing	10,370	26.3
4 Advertisement 6,710 17 5 Housing rental 3,607 9.1	2	Finance & insurance	8,550	21.7
5 Housing rental 3,607 9.1	3	Mining	6,728	17.1
5555555555555	4	Advertisement	6,710	17
Total 35,965 82.2	5	Housing rental	3,607	9.1
		Total	35,965	82.2

Source : Ministry of Commerce of China, the Japan External Trade Organization (JETRO) and Ministry of Trade, Industry and Energy of ROK.

4. Foreign exchange reserve

China, Japan and ROK have the largest foreign currency reserve in the world. Due to a constantly growing surplus in both its current account and capital and financial account, China's foreign exchange reserve has soared up to USD 3.82 trillion by the end of 2013 and 3.99 trillion in June 2014, ranking No. 1 in the world, which made up about 1/3 of the total world reserve. Japan's foreign exchange reserve switched from a long-term surplus to a continuously growing deficit, falling to USD 1.267 trillion at the end of 2013, it still ranked No. 2 in the world. By the end of 2013, ROK's balance of foreign exchange reserve was USD 346.46 billion, ranking No.7 in the world. According to the Bank of ROK, the continuous growth of ROK's foreign exchange reserve is due to an increase in value of Euro-denominated assets and other non-USD-denominated assets affected by a strong Euro.





5. Intra-regional FDI among CJK

China, Japan and ROK are important sources and destinations of investment for each other. Japan and ROK are the most important direct investors for China. In 2013, China was Japan's third largest source and destination of FDI; Japan was the second largest direct investor to ROK and China was ROK's second largest destination of FDI.

Figure 3-6 shows that, Japan's direct investment to China and ROK outweighs the FDI from the two countries. China's direct investment to Japan and ROK is less than the FDI inflow from the two countries. It can be analyzed from the trend that Japan and ROK's direct investments into China have begun to expand into the productive service industry, which used to solely focus on the manufacturing industry in the past.









Source: UNCTAD Statistics.

Source : data for three countries are from State Administration of Foreign Exchange of China, Ministry of Finance of Japan and Bank of ROK.

According to JETRO, Japan's outward FDI to China decreased dramatically by 32.5% in 2013, with a corresponding decline in proportion in Japan's overall overseas investment. The increase in China's production costs and uncertain political relation between the two countries have caused Japanese enterprises to reassess the risks of investment in China and shift their resources to Southeast Asia. In contrast, along with the rapid growth of China's foreign investment, both its direct investment to Japan and the share in China's total outward FDI have continued to increase since 2010 and reached to 5% in 2013. Japan's FDI outflow to ROK also fell by 17.5% in 2013, but its share of Japan's total outward FDI stayed around 2%. From 2009 to 2013, ROK's share in Japan's total inward FDI has been highly volatile, finally decreasing steeply in 2013. After the financial crisis, the mutual investment between China and ROK has appeared to be stable with an upward trend. In 2013, China's outward FDI to ROK accounted for 1.9% of ROK's total inward FDI, slightly higher than in 2012. ROK's investment to China accounted for 12.7% of ROK's outward FDI and 2.6% of China's inward FDI.

The comparative advantages of CJK vary from each other, so market-driven intraregional trade and investment among the three countries have played a critical role in promoting their economic and trade relations, the development of production network in Northeast Asia and the trade with countries outside the region. CJK's position as world leaders in manufacturing and exporting has been strengthened by their mutually beneficial trade and investment activities.

6. Investment environment

On May 17, 2014, the Trilateral Agreement for Promotion, Facilitation and Protection of Investment entered into effect. It is the first legal document and institutional arrangement among CJK to promote and protect investment activities between the three countries. This Agreement will provide a more stable and transparent investment environment to investors of the three countries and will play an active role in promoting and protecting bilateral investment, encouraging trade cooperation and strengthening economic ties between the three countries.

The investment environment in CJK has gradually improved in recent years, however there is still room for improvement regarding deregulation and market openness etc. According to the data in Doing Business 2014 released by the World Bank, ROK ranks 7th of the most ideal country for enterprises to do business with among 189 countries while Japan ranks 27th and China ranks 96th.

Table 3-5 Comparison of environment for doing business in CJK

Country	China	Japan	ROK
Comprehensive ranking	96	27	7
Starting a business	158	120	34
Dealing with construction permits	185	91	18
Getting electricity	119	26	2
Registering property	48	66	75
Getting credit	73	28	13
Protecting investors	98	16	52
Paying taxes	120	140	25
Trading across borders	74	23	3
Enforcing contracts	19	36	2
Resolving insolvency	78	1	15

Source: World Bank

Chapter IV

Financial Development and Integration in CJK

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I. Financial Development in CJK

1. Financial development environment in CJK

In order to cope with the uncertainties in the global economic recovery and promote the development of their national economies, the new administrations of the three countries have all resorted to an easy monetary policy and continued to maintain a low benchmark interest rate in 2013, to control the inflation. In the future, with the phase-out of the easy monetary policy in the US, the financial sectors in CJK are expected to face the risk of reversal of capital inflow.

After Mr. Shinzo Abe was elected as Japan's Prime Minister at the end of 2012, he put forward a series of economic policies, including excessively loose monetary policy, and inflation targeting etc. Those policies and resulting acceleration of depreciation of Japanese yen have brought immediate and remarkable effects to the recovery of Japan's economy. Japan's stock market stabilized and showed a good trend in 2013. However, as the non-conventional easy economic policy has exceeded market expectation, excess liquidity and huge debt caused by fiscal consolidation may bring about potential risks. In 2013, China maintained a proactive fiscal policy and a prudent monetary policy, and gave a positive signal of "appropriately increasing the scale of aggregate financing to real economy and keeping a modest pace of loan growth". The People's Bank of China mentioned in its 2013 annual report that in the future, China would stick to the orientation of "stabilized volume and optimized structure" to maintain policy continuity and stability, and to promote macro control through structural reform¹⁰. In 2013, ROK also implemented an easy monetary policy as in May, the Bank of ROK lowered its benchmark interest rate by 25 basis points (bps) to 2.25%, which was for the first time since October 2012.

2. Financial development indicators of CJK

The Global Financial Development Database of the World Bank offers 4 indicators in measuring a nation's financial development: (1) financial depth, i.e., the size of financial institutions and markets; (2) financial access, i.e., the degree to which individuals and enterprises can use financial services; (3) financial efficiency, i.e., the efficiency of financial intermediaries and markets in intermediating resources and facilitating financial transactions; and (4) financial stability, i.e., the stability of financial institutions and markets. Each indicator can be further divided into the sub-categories, i.e., financial institutions and financial markets, so that the degree of financial development of a nation can be measured with 9 quantitative indicators.

10) 2013 Annual Report of the People's Bank of China, http://www.pbc.gov.cn/publish/chubanwu/558/index.html

Table 4-1 Comparison of financial development indicators among CJK and with the World

	Financial markets													
	China	Japan	ROK	US	World		China	Japan	ROK	US	World			
Financial de	Financial depth													
Private sector credit to GDP	114	175	101	197	58	Stock and private bond market capitalization to GDP	196	317	243.7	350	89			
Financial access														
Adults with an account at a formal financial institution to total adults	64	96	93	88	64	Percent of market capitalization outside of top 10 largest companies	72	63	67	72	46			
Financial eff	ficiency													
Net interest margin	2.66	1.09	2.85	3.47	4.05	Turnover ratio in stock market	169	119	200.1	278.8	23			
Bank overhead cost to total asset	1.20	0.83	1.53	2.79										
Financial sta	ability													
Bank Z-score	20	11	7	24	13	Volatility of stock price index	41	29	42	29	33			

Source : Global Financial Development Database, the World Bank. International Monetary Fund (IMF). Note : each figure in the table is the arithmetic average of the corresponding variable from 2008 to 2011.

As shown in Table 4-1, during the period from 2008 to 2011, the degrees of financial depth in CJK, in terms of both financial institutions and financial markets, are all above the world average, but lower than that of the US. In terms of the two indicators of "private sector credit to GDP" and "stock and private bond market capitalization to GDP", Japan is significantly better than ROK and China. As to financial access, the percentages of "adults with an account at a formal financial institution" are 96% and 93% in Japan and ROK respectively, higher than that in the US (88%), while the figure in China is the same as the world average (64%). However, if financial access is measured by "percent of market capitalization outside of Top 10 largest companies", China is comparable to the US, and better than Japan and ROK. In terms of financial efficiency including the three indicators "net interest margin", "turnover ratio in stock market" and "bank overhead cost to total asset", CJK are inferior to the US, indicating a large room for improvement. In particular, the financial efficiency of Japan is notably lower than those of China and ROK. Although Chinese banks have made good profits owing to the high interest rates, their overhead

costs are not low, and the "shadow banking" is considered as a major concern.¹¹⁾ ROK has taken effective reform after the Asian Financial Crisis and has been in good performance in financial efficiency. In terms of financial stability, Bank Z-score indicates the relative safety by comparing financial buffers against their risk potentials. A higher Z-score implies a lower probability of insolvency. Japan and ROK experienced another crisis in the banking sector after Asian financial crisis, the current Z-scores indicate that there is still high risk potential in the banking systems and for the need for further reforms. China has lower risk potential than Japan and ROK, but a higher than the US. The Z-score only reflects accounting data of registered banks, it is therefore impossible to depict the picture for the risk potential of the whole financial system in China including shadow banks.

II. Institutional Arrangements for Financial Cooperation in CJK

After the outbreak of the Asian Financial Crisis, many East Asian countries have realized that strengthening regional financial cooperation is an effective way to maintain the stability of financial markets and prevent the occurrence and spreading of financial crises. Some progress has been made in terms of institutional arrangements of CJK for financial cooperation among the three countries and in East Asia.

"Chiang Mai Initiative" has expanded the bilateral swaps of the ASEAN Swap Agreement (ASA) both in size and in membership to include all ASEAN members, and China, Japan and ROK. As the most important institutional achievement for monetary and financial cooperation in Asia, it has great significance in preventing financial crisis and facilitating further regional monetary cooperation.

As for the Asian bond market, since Asian Bond Fund (ABF) was proposed in 2002, the initial two phases of the Fund have been put into place in 2003 and 2005. ASEAN+3 Finance Ministers' Meeting proposed the local currency (LCY) bond market in 2003, and New Asian Bond Market Initiative (ABMI) -- Roadmap in 2008 to promote the issuance of bonds denominated in local currencies of East Asian countries.

As to the currency swap agreement among the three countries, China and ROK signed their first currency swap agreement valued at RMB 180 billion in December 2008, and increased the value of the deal to RMB 360 billion in 2011. In 2013, the two countries agreed to extend their currency swap agreement for another three years. During his state visit to ROK in July 2014, Chinese President Xi Jinping remarked that China intended to establish a direct trading mechanism of RMB against the Korean won upon the

¹¹⁾ Trilateral Cooperation Secretariat, Trilateral Economic Report, 2013, P 50.

establishment of the RMB clearing arrangements in Seoul. The Bank of Japan and Bank of ROK signed their currency swap agreement valued at USD 3 billion in 2005. They agreed in June 2010 to extend this agreement for three years; and in October 2011 to increase the value of the deal to USD 30 billion. However, in October 2012, the additional currency swap agreement valued at USD 27 billion was not extended, so the value of currency swap fell back to its original level.

III. Financial Integration among CJK

Financial integration refers to the connection of a single financial market with the international or regional financial market, as reflected in capital account liberalization, regional uniform rules for all nations, cross-border financial assets holdings, cross-border capital flows, financial openness, etc. In general, CJK have accelerated their integration into the global financial market through such measures as financial openness and capital account deregulation, and the scale of cross-border capital flows among the three countries has also shown the trend of continuous growth.

So far, the literature offers no consensus on the indicators to measure financial integration. Generally speaking, cross-border capital flow is the best indicator to measure financial integration among countries. However, due to the constraints of data availability,¹²⁾ scholars utilize indirect measurements in most cases, i.e., quantity-based and price-based indicators of financial integration. The quantity-based indicators are simpler, but are faced with the problem of inconsistent statistical standards in terms of data availability, while the price-based indicators are based on stronger assumptions, but are more intuitive.

1. Quantity-based indicators

Quantity-based indicators measure the degree of financial integration by using data on the portfolio investments of external assets and liabilities of a nation.

(1) Portfolio Investment

The Coordinated Portfolio Investment Survey (CPIS) released by IMF is the most widely adopted data of international asset holdings. The first is the stock market. Though the Global Financial Crisis has had huge impacts on the stock market, the capital market development in CJK has not been reversed. From 1997 to 2013, the number of listed companies in China, Japan and ROK increased from 745 to 2,489, from 3,139 to 4,582

and from 1,135 to 1,813¹³⁾ respectively. By the end of 2013, the total stock market capitalization reached USD 3.95 trillion in China, USD 4.78 trillion in Japan and USD 1.23 trillion in ROK respectively.¹⁴⁾

Table 4-2 shows the mutual holdings of stocks among CJK since 2001. As China's capital market has not been publicized, the data only includes stock issuance in Japan and ROK. In the Japanese stock market, the participation of Chinese investors has been consistently higher than that of Korean investors. In 2001, the assets held by Chinese and Korean investors in the Japanese stock market amounted to USD 789 and 381 million respectively; and in 2007, the figures increased to USD 15.04 and 5.62 billion respectively. Substantial capital fleeing during the financial crisis was followed by a gradual recovery, and Chinese and Korean investors' holdings of Japanese stocks have remained at USD 10 and 5 billion respectively. In the ROK stock market, the participation of Japanese investors was significantly higher than that of Chinese investors before 2005. Afterwards, Chinese investors' holding of Korean stocks increased sharply; and in 2007, the total investment from Chinese investors amounted to USD 23.066 billion. Though the figure showed a downward trend after the financial crisis, it is still higher than the holding of Japanese investors.

Table 4-2 Mutual holdings of stocks among CJK, 2001-2012 (In USD million)

Issuer	Buyer	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Japan	ROK	381.3	537.3	708.0	943.1	2064.9	3358.2	5618.4	6798.9	4507.9	5815.8	4684.8	5200.1
Japan	China	789.4	880.1	2094.5	4194.5	3649.6	9852.9	15042.7	5498.6	12600.5	13480.6	10112.9	9823.8
ROK	Japan	101.5	226.6	171.3	525.1	877.7	1808.4	4812.7	2356.8	2547.6	4459.3	4121.9	5055.6
ROK	China	15.5	4.0	33.6	53.3	15.0	2887.7	23066.1	8770.0	12428.4	10638.7	6661.8	6358.4

Source : Asia Regional Integration Center Database, http://www.aric.adb.org/integrationindicators ; IMF CPIS database, http://cpis.imf.org/

The second is the bond market. After 2005, the local currency bond markets in CJK began to take off. From 2009 to the first quarter of 2013, the size of local currency bond markets for corporate bonds of China and ROK expanded by 144% and 56% respectively, while the scale of government bonds in CJK increased by 34%, 15% and 26%, respectively.¹⁵

Table 4-3 illustrates the mutual holdings of long-term and short-term bonds among CJK since 2001. In terms of long-term bonds, the mutual holding between Japan and ROK is higher than that between China and Japan and between China and ROK. In 2012, the

¹²⁾ At present, only the US provides bilateral capital flows between the US and its counterparts

 ^{13) 14)} Data source : Statistics Database of World Federation of Exchanges, http://www.world-exchanges.org/statistics/annualquery-tool, Tokyo Securities Exchange and Osaka Securities Exchange are included for Japan.
 15) Trilateral Cooperation Secretariat, Trilateral Economic Report, 2013, PP 55-56.

value of Japanese long-term bonds held by Korean investors amounted to USD 18.756 billion, while the value of Japanese long-term bonds held by Chinese investors was only USD 574 million. At the beginning of 21th century, the share of both Chinese and Japanese investments in the Korean bond market was only about 1%, significantly lower than the combined share of UK and the US (60%). In the subsequent years, investments from Japan and China increased substantially, and in spite of its slight decrease after the financial crisis, the total amount of Korean long-term bonds held by Japanese investors is higher than that held by Chinese investors.

In terms of short-term bonds, as data is incomplete, it's impossible to identify a trend of continuous development. However, it can be shown by the data that the amount of mutual holding between Japan and ROK is obviously higher than that between Japan and China and between ROK and China. For example, though the total amount of n short-term bonds held by China has increased since 2008, the figure USD 2.01 billion in 2012 is still lower than that in 2001.

Table 4-3 Mutual holdings of stocks among CJK, 2001-2012 (In USD million)

	Long-term bonds														
Issuer	Buyer	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		
Japan	ROK	5434.7	5348.1	4555.2	5233.9	5321.3	5752.2	8117.3	11129.5	8440.1	11649.5	17056.1	18755.9		
Japan	China	879.8	577.8	422.5	528.9	424.7	414.4	458.0	495.9	521.4	494.1	515.6	574.2		
ROK	Japan	74.8	29.0	72.1	494.6	583.5	1036.9	540.4	220.5	686.0	1219.6	744.7	384.7		
ROK	China	117.8	38.2	37.9	68.6	86.4	198.3	201.8	145.8	141.0	145.9	218.1	272.1		

	Short-term bonds													
Issuer	Buyer	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	
Japan	ROK	19.0	125.1	25.3	39.4	70.0	3.0	27.2	132.2	43.4	550.3	538.8	271.7	
Japan	China	-	-	0.9	-	-	-	-	-	-	-	21.7	25.4	
ROK	Japan	-	-	-	-	1.3	15.5	13.0	-	-	-	-	-	
ROK	China	24.1	-	-	-	-	-	-	7.6	6.6	20.8	13.8	20.1	

Data source: Asia Regional Integration Center Database, http://www.aric.adb.org/integrationindicators IMF CPIS database, http://cpis. imf.org/

(2) Banking sector

The Bank for International Settlements (BIS) annually publishes cross-border transaction data of banks of reporting nations. Despite the limited number of reporting countries and lack of transaction statistics between nations, the degree of a nation's integration into the international financial market can be inferred on the basis of its overall statistics.

Figure 4-1 shows the changes of external loans of CJK banks from 1995 to 2013 on a quarterly basis. Among CJK, Japan has the highest degree of international financial

integration. The total external loans of Japanese banks reached USD 98.9 billion in 1995, and afterwards decreased yearly, but gradually started to increase after the financial crisis. It reached USD 89.8 billion by the end of 2013. The external loans of Chinese banks totaled less than USD 1 billion during the period from 1995 to 2007, but increased considerably after the financial crisis. It surpassed Korean banks in the first quarter of 2010, amounting up to USD 70 billion by the end of 2013, while the external loans of Korean banks have stayed under USD 20 billion. In general, after the financial crisis, external loans have maintained the trend of continuous growth in China and Japan, while decreased slightly in ROK.

Figure 4-1 Change of external loans of CJK (1995-2013) In USD billion



Source: BIS Bank Statistics Database, http://www.bis.org/statistics/bankstats.htm

Figure 4-2 shows the changes of external deposits of CJK banks from 1995 to 2013 on a quarterly basis. It can be observed that the development trend of external deposits of the three countries is basically identical to that of external loans. Japan ranks the first in terms of participation in international financial integration, followed by China. The external deposits of Japanese banks totaled USD 75.98 billion at the end of 1995, comparable to external deposits of the US banks of USD 79.35 billion.

Afterwards, it decreased, but started to recover after the financial crisis, and amounted to USD 64.8 billion in 2013. The degree of international integration of China's banking sector was not high before 2007 measured by external deposits, but increased sharply after the financial crisis. By the end of 2013, the external deposits of Chinese banks have amounted to USD 34.6 billion, almost as 6 times as that of 1995. The external deposits of ROK have stayed around USD 6 billion to 7 billion since 1995, but its gap with China and Japan has been widening since 2010.



Figure 4-2 Change of external deposits of CJK (1995-2013) In USD 1 billion



2. Price-based indicators

Price-based indicators directly estimate the cross-country difference in risks and yields of assets on a basis of "the law of one price", which implies that assets with similar risk profiles should have the same price under the condition of free movement of capital.

(1) Stock market return

In the 21st century, the convergence of global economic cycles has contributed to an enhanced correlation of stock markets among CJK¹⁶⁾, as exemplified by the trends of stock market return in the three countries. From 2007, the correlation of stock market returns among CJK has been intensified and the movement trends of correlation coefficients are basically identical (see Figure 4-3). Though the synergy of stock markets between China and Japan and between China and ROK tends to be lower than that between Japan and ROK, the convergence of the movement trends of stock market returns among the three countries can significantly reduce the risks caused by arbitrage.

(2)Bond market interest rate

As China's statistical standards are different from those of other countries, only Japan's and ROK's data can be found in the databases of IMF and ARIC. Although since 2001, the bond market interest rate differential between Japan and ROK has generally decreased;

in 2012, ROK's bond market interest rate was still higher than that of Japan by 2.59%. As for the correlation coefficient, the variations of bond market interest rates in the two countries tend to be identical since 2009. And a high correlation was identified in 2011 and 2012, which was as high as 0.93 and 0.9 respectively. Therefore, the bond market interest rate indicates that the financial integration between Japan and ROK has been notably strengthened after the financial crisis.





Data source : Asia Regional Integration Center Database, http://www.aric.adb.org/integrationindicators



Figure 4-4 Bond market interest rates correlation (right) and differential (left) of Japan and ROK, 2001-2012

Data source : Asia Regional Integration Center Database, http://www.aric.adb.org/integrationindicators

¹⁶⁾ Data on stock market return come from World Federation of Exchanges Statistics Database, http://www.world-exchanges. org/statistics/annual-query-tool, Tokyo Securities Exchange and Osaka Securities Exchange are included for Japan

(3) Money market interest rate

According to "the law of one price", if the correlation coefficient of variations of interest rates is close to 1, and the interest rate differential between two countries is close to 0, there is a high degree of money market integration and few obstacles of bilateral capital flow¹⁷⁾. According to the statistics of financial integration of Asian countries released by Asia Regional Integration Center Database (ARIC), Asian Development Bank (see Figure 4-5), there is relatively large change of the correlation of money market interest rates among CJK. After the financial crisis, the correlation of money market interest rates among CJK decreased significantly. In 2008, the variations of interest rates were almost uncorrelated between China and Japan, but the correlation of money market interest rates among the three countries rose considerably in 2012, and approached the precrisis level.



Figure 4-5 Money market interest rate correlation among CJK, 2001-2012

Data source : Asia Regional Integration Center Database, http://www.aric.adb.org/integrationindicators

In terms of interest rate differential of money market among the three countries, it can be seen that the benchmark interest rates of CJK have moved in the same direction and basically experienced a synchronous decline. In terms of interest rate, ROK ranks the first, China the second and Japan the last. In 2001, the interest rate differentials of money market between ROK and Japan, between China and Japan and between China and ROK was 7.89%, 3.7% and 4.2%, respectively, while the figures reduced to 4%, 3.8% and 1.1% in 2012, though was the lowest record after the crisis.





Source : Asia Regional Integration Center Database, http://www.aric.adb.org/integrationindicators Note : CK and KJ interest rate differentials are negative, i.e. ROK has a higher interest rate. Here the absolute value is used.

3. Trade and Financial intensity

Intensity indices can measure the degree of integration between one country and other sample countries, and the relationship between trade and financial intensity indices can indicate the relationship between trade and financial intensity. Generally speaking, trade and financial intensity indices are mutually reinforcing (Cowen et al., 2006).

The intensity index is given by:

$$Intensity_{f,it} = \frac{\frac{(\frac{J_{i,t}}{\sum_{n=1}^{n} f_{i,t}})}{(\frac{GDP_{i,t}}{\sum_{n=1}^{n} GDP_{i,t}})}$$

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Where *Intensity*_{*f*,*it*} is the trade intensity or cross-border financial activity intensity index for country *i* during period *t*, *n* is the sample size, and $f_{i,t}$ is the total volume of trade or total amount or flow of cross-country financial activity between country *i* and other sample countries during period *t* measured in any way; $GDP_{i,t}$ represents the economic aggregate of country *i* during period *t*. The trade intensity and financial intensity indices among CJK from 2001 to 2013 according to our calculations are as shown in Table 4-4.

China's trade intensity has decreased year by year, which indicates that the growth of trade volume between China and Japan and between China and ROK is slower than the growth of China's economic aggregate. The trade intensities of both Japan and ROK have been relatively stable, increasing slightly. In terms of trade intensity, ROK ranks the first, followed by China and then Japan, which indicates that ROK is more dependent

¹⁷⁾ Soyoung, K and Jong-W. Lee, "Real and Financial Integration in East Asia", Working Paper of Regional Economic Integration, No. 17, 2008.

on trade with China and Japan. In the 21st century, the financial intensities of the three countries have experienced slight fluctuations. If measured by either portfolio investment or external deposits and loans of banks, China's financial intensity is lower than those of Japan and ROK. In terms of portfolio investment, as reflected by mutual holdings of stocks and bonds, ROK enjoys the highest financial intensity, followed by Japan and China. If measured by external deposits and loans of banks, Japan ranks the first in financial intensity, followed by ROK and China, but its gap with ROK and China is not essential.

Table 4-4 Trade and financial intensity among CJK, 2001-2013

	Portfolio investment				ernal depos ans of banl		Trade			
	China	Japan	ROK	China	Japan	ROK	China	Japan	ROK	
2001	0.50	0.75	3.48	0.54	1.23	0.62	3.20	1.20	4.18	
2002	0.40	0.78	3.44	0.45	1.28	0.64	3.13	1.21	3.95	
2003	0.61	0.80	2.96	0.47	1.27	0.72	3.03	1.20	3.99	
2004	0.73	0.81	2.60	0.49	1.28	0.73	2.91	1.19	4.13	
2005	0.55	0.84	2.96	0.59	1.25	0.77	2.76	1.18	4.28	
2006	0.84	0.77	2.56	0.58	1.22	1.05	2.61	1.19	4.35	
2007	1.00	0.54	3.18	0.66	1.19	1.08	2.47	1.21	4.39	
2008	0.59	0.71	3.61	0.52	1.36	0.82	2.34	1.24	4.41	
2009	0.79	0.71	2.98	0.52	1.38	0.98	2.18	1.32	4.31	
2010	0.65	0.80	3.09	0.64	1.35	0.79	2.12	1.35	4.36	
2011	0.47	0.91	3.32	0.68	1.35	0.76	2.01	1.39	4.43	
2012	0.42	0.95	3.46	0.70	1.39	0.62	1.96	1.39	4.64	
2013	-	-	-	0.84	1.27	0.60	1.92	1.35	4.87	

Data source : The calculations were based on data of World Bank Database, UN Comtrade Database, CPIS Database of IMF and BIS Banking Statistics Database.

Figure 4-7 shows the arithmetic average of CJK's trade and financial intensity from 2001 to 2013. Generally speaking, financial intensity grows with the increase of trade intensity. However, the trade intensity in CJK is significantly higher than their financial intensity, that is, the degree of trade integration in the three countries is higher than that of financial integration. The 45° line in the figure represents the synchronous movement of trade-financial intensity; any point outside of the 45° line and near the coordinate axis representing trade or financial intensity indicates a higher trade intensity or financial intensity. Japan outperforms China and ROK in trade-financial intensity; the degrees of trade integration between China and Japan and between China and ROK are higher than the degree of their financial integration, which is to some extent attributable to the non-liberalized capital account in China. ROK's financial-trade intensity is relatively closer to the 45° line if measured by portfolio investment, while its financial intensity is comparatively low if measured by the banking sector, which may be attributable to the strict regulation in ROK's banking sector.



Data source: calculation by the research team, average of 2001-2013 data.

IV. Policy Recommendations

The financial development in CJK has gradually enhanced, there is room to liberalize financial sector. In recent two decades, the financial cooperation among the three countries has been continuously reinforced as a result of either institutional arrangement or market orientation. In particular, the correlation of financial developments among the three countries has increased after the financial crisis. However, their degree of financial integration apparently lags behind that of trade integration. Moreover, the financial integration between Japan and ROK outperforms that between China and Japan and between China and ROK. Therefore, further improvement on regional financial cooperation will be important.

Strengthening regional financial integration, such as promoting financial openness, relaxing capital control and enhancing financial cooperation, will contribute to regional economic growth. These findings suggest key recommendations towards strengthening regional financial integration: (1) extend the scope of opening-up and encourage the competition; (2) promote financial innovation and improve financial efficiency; (3) expand the sources of investment and reduce the risks of market access for external investors. To this end, the three countries can further improve financial openness and cooperation by strengthening the building of capital market, improving the investment environment, reducing the threshold for foreign direct investment, encouraging private investment in infrastructure, and enhancing the financial support to SMEs. In addition, it is recommended to promote the in-depth development of capital market and strengthen the mutual mobility.

Chapter V

Tourism and Movement of People

I. Tourism Development in CJK

- 1. Development trend of international tourism industry
- 2. Development trend of tourism industries in CJK
- 3. Tourism development among CJK
- 4. Influencing factors and new points for growth of intra-regional tourism development in East Asia
- 5. Cooperation of tourism industries of CJK

II. Registered Foreigners and Student Exchange among CJK

- 1. Registered foreigners
- 2. Student exchanges

III. Policy Recommendations

I. Tourism Development in CJK

1. Development trend of international tourism industry

The international tourism industry has been booming. For the past 20 years, the number of international tourist arrivals has been largely growing, from 435 million in 1990 to 675 million in 2000, and 1.087 billion in 2013¹⁸⁾. According to the forecasts of the United Nations World Tourism Organization (UNWTO), the number of tourists arriving at destinations worldwide will reach 1.8 billion by 2030.

As to the majority of international tourists traveling to the neighboring countries, according to the estimates of UNWTO 2013 Annual Report, four out of every five international tourists come from neighboring countries within the same region.

The importance of tourism industry has risen remarkably over time. According to statistics of the World Travel and Tourism Council (WTTC), the international tourism industry generated USD 6.99 trillion in 2013, contributing to 9.5% of global GDP, greater than the contribution of the automobile sector (8.0%) and comparable to education and banking sectors. It is expected that the tourism industry will grow at a higher speed that its revenue will reach USD 10.97 trillion by 2024, and its contribution to global GDP will reach 10.3% with compound annual growth rate of 5.2%.

2. Development trend of tourism industries in CJK

2.1. Outbound tourism

Usually, the tourist spending in international tourism industry has experienced a rapid increase in fast-growing developing economies, especially in China. The number of outbound tourists of China increased by 9.38 times from 2000 to 2013. In 2012, the overseas spending of Chinese tourists hit an all-time high of USD 102 billion, which accounted for 9.5% of the world's total, making China the largest consumer of outbound tourism. In 2013, the number of Chinese outbound tourists totaled 98.19 million, increasing 18% compared with 2012.

The number of Korean outbound tourists has been on a rising trend in recent years, and reached 14.85 million in 2013, increasing by 8% compared with 2012. Japan also experienced a rapid growth in the number of outbound tourists to reach 18.49 million in 2012, increasing by 1.5 million compared with 2012; however, the figure in 2013 fell down to only 98% of that in 2000.

18) Source: World Tourism Organization




Source : UN database, National Bureau of Statistics of China, Japan Association of Travel Agents (JATA), Japan National Tourism Organization (JNTO), Ministry of Culture, Sports and Tourism of ROK.

2.2 Inbound tourism

The inbound tourism can be regarded as service exports, therefore all countries in the world consider tourism as a strategic industry and make active efforts to attract more foreign tourists. During the last decade, the ranking and revenues of inbound visitors to China have improved substantially, ranking 3rd and 4th in the world respectively. In 2013, the number of inbound visitors to China was 26.29 million, slightly lower than the peak number in 2012; the numbers of inbound visitors to Japan and ROK have maintained a growth, increasing by 2.89 million and 1.04 million respectively in 2013. In terms of development trend, the numbers of inbound visitors to CJK increased by 2.58 times, 1.36 times and 1.28 times respectively from 2000 to 2013.



Source : UN database, National Bureau of Statistics of China, Japan Association of Travel Agents (JATA), Japan National Tourism Organization (JNTO), Ministry of Culture, Sports and Tourism of ROK.

3. Tourism development among CJK

Tourism contributes to facilitating cultural exchange in the world, so as to promote the mutual understanding between peoples and governments. In addition, the geographical proximity and cultural affinity among CJK compel the governments of the three countries to not only pay attention to their domestic tourism development, but also take proactive measures in strengthening cooperation and realizing mutual benefit.

3.1 Inbound tourism in China¹⁹⁾

Since the beginning of the 21st century, the number of Japanese and Korean tourists to China have grown continuously, reaching the peak in 2011 and declining in the subsequent two years. The share of Japanese tourists declined from 21.7% in 2000 to 10.9% in 2013 while the share of Korean tourists basically stayed at around 15% in the same period. In 2013, Japanese and Korean tourists, as one of the most important sources, together took up more than 1/4 of international tourist arrivals to China.

Table 5-1 China's inbound tourism market (in 1,000, %)

	2000	2005	2009	2010	2011	2012	2013
Total number of international tourist arrivals	10160.4	20255.1	21937.5	26130.0	27112.0	27191.6	26290.3
Japanese tourists	2 201.5	3 390.0	3 317.5	3 731.2	3658.2	3518.2	2877.5
Share (A)	21.7	16.7	15.1	14.3	13.5	12.9	10.9
Korean tourists	1 344.7	3 545.3	3 197.5	4 076.4	4185.4	4069.9	3969.0
Share (B)	13.2	17.5	14.6	15.6	15.4	15.0	15.1
(A)+(B)	34.9	34.2	29.7	29.9	28.9	27.9	26.0

Source: China Statistical Yearbook

3.2 Inbound tourism in Japan

Japan serves as an important overseas tourist destination of Chinese and Korean tourists. Among the international tourist arrivals to Japan, the shares of Chinese and Korean tourists have continued to increase, reaching 16.4% and 28.3% in 2010 respectively, and together took up 44.7%, which increased 17.2% compared to 2000. Therefore, China and Korea have become Japan's most important sources of international tourists. Bilateral political tension has had huge impacts on Chinese and Korean tourists traveling to Japan. In 2013, the number of Chinese tourists to Japan declined by nearly 1/3, and the share of Chinese tourists decreased to 8.7%. Though the number of Korean tourists to Japan increased, the share of Korean tourists in total international tourist arrivals of Japan decreased to 20.4%.

¹⁹⁾ The total number of inbound tourists to China doesn't include tourists from Hong Kong, Macau and Taiwan.

Table 5-2 Japan's inbound tourism market (in 1,000, %)

	2000	2005	2009	2010	2011	2012	2013
Total number of international tourist arrivals	5,272.1	6,727.9	6,789.7	8,611.2	6218.8	8,358.1	11250.0
Korean tourists	1,064.4	1,747.2	1,586.8	2,439.8	1658.1	2,042.8	2300.0
Share (A)	20.2	26.0	23.4	28.3	26.7	24.4	20.4
Chinese tourists	385.3	652.8	1,006.1	1,412.9	1043.2	1,425.1	980.0
Share(B)	7.3	9.7	14.8	16.4	16.8	17.1	8.7
(A)+(B)	27.5	35.7	38.2	44.7	43.5	41.5	29.1

Source: Statistics Bureau, Ministry of Internal Affairs and Communications; JATA.

3.3 Inbound tourism in ROK

Japan used to be the largest source of international tourists of ROK and its share in ROK's total international tourist arrivals was the highest, which accounted for 46.5% in 2000. However, afterwards its share kept falling to 22.6% in 2013. In contrast, the share of Chinese tourists has increased rapidly, from 8.3% in 2000 to 35.5% in 2013. China and Japan are now the most important sources of inbound tourists of ROK and the combined share of the two countries reached 58.1% in 2013.

	2000	2005	2009	2010	2011	2012	2013
Total number of international tourist arrivals	5,321.8	6,022.8	7,817.5	8,797.7	9,794.8	11,140.0	12,175.6
Chinese tourists	442.8	710.2	1,342.3	1,875.2	2,220.2	2,836.9	4,326.9
Share (A)	8.3	11.8	17.2	21.3	22.7	25.5	35.5
Japanese tourists	2,472.1	2,440.1	3,053.3	3,023.0	3,289.1	3,518.8	2,747.8
Share (B)	46.5	40.5	39.1	34.4	33.6	31.6	22.6
(A)+(B)	54.8	52.3	56.2	55.7	56.3	57.1	58.1

 Table 5-3
 ROK's inbound tourism market (in 1,000, %)

Source: Korea Tourism Organization (KTO)

3.4 Development trend of tourism industries among CJK

China, Japan and ROK are the most important destinations of outbound tourists and sources of inbound tourists of each other. The strong ties in tourism development reflect the gradual achievement of regional economic integration of CJK. The development of tourism markets of the three countries provide important sources of income for tourism service exports.

Intensity index can capture the degree of relative preference for multilateral and bilateral tourism. It can be observed in the figure below that intensity indices of China, Japan or

ROK in terms of inbound tourism to the other two countries have increased steadily in recent years.

According to the statistics in 2013, the combined share of intra-regional inbound tourists was 26% for China, 29.1% for Japan, and 58.1% for ROK. However, affected by non-economic reasons, the share of intra-regional tourists to Japan in its total inbound tourist arrivals reduced from 48.3% in 2010 to 29.1% in 2013.





Source : China Statistical Yearbook, Statistics Bureau, Ministry of Internal Affairs and Communications, JATA and ROK Tourism Organization (KTO). Note : "China" indicates the share of Japanese and ROKn tourists in China's inbound tourist arrivals.

Figure 5-4 shows the trend of intensity indices for bilateral travel among China, Japan and ROK. With its economic development and improvement of living standards, outbound tourism is booming in China.

Except for the sharp decrease of Chinese tourists to Japan in 2013 due to the bilateral political tension, both Chinese tourists to Japan and ROK and the shares of Chinese tourists in its total inbound tourist arrivals of the two countries have increased, which reflects its great potential as a large consumer of outbound tourism.

The number of Korean tourists to China has experienced a steady growth, and its share in China's total inbound tourist arrivals has been stable. However, the number of Korean tourists to Japan has also been somewhat affected by the bilateral political relation, and its share in Japan's total inbound tourist arrivals has been declining since 2010. The Japanese tourists to China and ROK have experienced ups and downs, but slightly increased compared to 2000.

Nevertheless, in recent years, the share of Japanese tourists has experienced remarkable decrease, which reflects the trend of diversified development of the inbound tourism markets of both China and ROK.





Source : China Statistical Yearbook, Statistics Bureau, Ministry of Internal Affairs and Communications, JATA and Korea Tourism Organization (KTO).

Note : "China-ROK" indicates the share of Chinese tourists in ROK's inbound tourist arrivals.

4. Influencing factors and new points for growth of intraregional tourism development in East Asia

Firstly, the impact of economic slowdown calls for attention. Tourism is a typical dependent service sector, and its rise and development are dependent on economic prosperity and social stability.

Currently, the global economy has initially achieved its moderate recovery, but the structural problems have not been fundamentally solved. The global economy has not resumed the original impetus of growth, and employment and discretionary income have not fully recovered. The latest 2014 World Economic Outlook released in April by IMF lowered the global economic growth forecast in 2014 from 3.2% to 2.8%. In addition, China's economy has started to move from high-growth stage to medium-to-high growth stage; Japan's consumption tax increase may bring negative impacts, and ROK's economy has not recovered to the pre-crisis growth rate, all of which may affect the development potential of tourism in the future

Secondly, diverse tourist destinations may reduce the preference of CJK tourists for intra-regional travel. The geographic proximity contributes greatly to the fact that CJK are important tourist destinations of each other. However, with the economic development and increasing diversification of tourist destinations, the intra-regional tourism intensity index may go lower in Northeast Asia.

Thirdly, natural disasters and political factors cannot be ignored. After the great

earthquake and tsunami disaster in 2011 in Japan, the tourists from China and ROK to Japan declined sharply by 26% and 32% respectively. Political difficulties after 2012, also affected the movement people among the three countries. In 2013, the Chinese tourists to Japan declined by 31%, while the Japanese tourists to China reduced by 18%. Fourthly, tourism in the region is also affected by exchange rate and mutual competition. In recent years, the exchange rates of CJK have been highly volatile, which has certain impacts on outbound travel of tourists in the three countries. The three countries share the similar historical origins; in addition, customs and cultural similarities and the simple structure of tourism products due to its insufficient development are likely to trigger the price competition.

Nonetheless, there are some new trends and points for tourism growth in the three countries. First of all, tourism products have been continuously diversified, which includes not only vacations and sight-seeing, but also some emerging tourism products, e.g. business travel associated with business investment, health resort, and cultural, sports and technical exchanges, which are very helpful for promoting resource integration and development of tourism industry. For example, ROK has attracted a large number of tourists from China and Japan by relying on its world-leading technology and relatively low costs in plastic surgery, dentistry and ophthalmology. Such innovative tourism modes and items will continuously stimulate people's enthusiasm for traveling, and facilitate the sustainable development of tourism industry.

Secondly, cross-country cooperation in tourism has appeared to spring up. As CJK enjoy geographical proximity, and stylistically different but mutually adaptive traditions, there are great business potentials and opportunities for their cooperation. For example, there are ferry services among Shanghai (China), Fukuoka (Japan) and Busan (ROK), and the three cities engage in the joint sales promotions. In addition, "Island Tourism Partnership" was established among Hainan (China), Jeju Island (ROK) and Okinawa Prefecture (Japan), and sub-regional tourism cooperation in Tumen River area are all welcomed in the market. In the future, cross-border cooperation in agricultural, cultural and religious tourism will also have its vast market and great development potential.

5. Cooperation of tourism industries of CJK

5.1 Necessity

Tourism is a new growth engine for the world economy. For a decade, the governments of China, Japan and ROK are very committed to tourism development. The importance of tourism has been rising and its contribution to economic growth and employment of each country has continued to increase. According to the forecasts by the World Travel and Tourism Council (WTTC), tourism will bring more remarkable economic benefits to CJK by 2024.





Figure 5-6 Contribution of tourism to GDP and domestic employment –Japan



Figure 5-7 Contribution of tourism to GDP and domestic employment –ROK



Source: World Travel & Tourism Council (WTTC).

Cooperation in tourism industry can attract tourists both from the region, and outside the region through strengthening cooperation and joint marketing, etc. In this regard, experience can be learnt from the Schengen Agreement signed by EU countries, which has greatly facilitated trade, movement of people, educational exchanges and flow of capitals among Schengen countries, and is also well welcomed by foreign tourists. If CJK can carry out deeper cooperation and make more institutional arrangements in tourism industry, this will not only promote the development of their tourism industries, but also bring about huge economic benefits.

In addition, cooperation in tourism industry among CJK can promote mutual understanding among the peoples, helping them know more about the other two countries' history, tradition, culture and society etc. Strengthening people's movement can lay a better social foundation for promoting regional cooperation, and provide a new impetus for peace, stability and development in the region

5.2 Cooperative mechanism

Since established in 2006, the Trilateral Tourism Ministers' Meeting has been held for 6 times, which has played an important role in bringing the three countries' comprehensive advantages and facilitating their cooperation and joint development. According to the joint statements announced at the Fifth and Sixth Trilateral Tourism Ministers' Meeting and Vision 2020 for Tourism in CJK, East Asia is considered as one of the regions with the greatest vitality and the highest development potential in the global tourism industry, and a target has been set that tourists to CJK should reach 26 million by 2015. The number of intra-regional tourists was only about 17.2 million in 2013, and so there is still a bid gap towards the target.

No trilateral tourism ministers' meeting was held in the past two years. However, during the 13th Meeting of the ASEAN Plus Three (CJK) Tourism Ministers (M-ATM+3) held in January 2014, China and ROK reached a new consensus that both parties would strengthen exchange and cooperation in tourism at various levels, providing more abundant information as well as new products and better services, so as to make joint efforts to realize the goal of 10 million two-way tourists between China and ROK.

II. Registered Foreigners and Student Exchange among CJK

1. Registered foreigners

Though there is a lack of historical data, according to the statistics of the Sixth National Population Census released by National Bureau of Statistics of China in April 2013, Japanese and Korean citizens in China totaled 66,159 and 120,750 respectively.

The number of Chinese citizens in Japan experienced a rapid increase since 2000, but slightly decreased since 2010. The major reasons are as follows. The long-term stagnation of Japanese economy has discouraged the Chinese workers from staying in Japan, and the numbers of "permanent residents" and "spouses of Japanese citizens" have declined. The number of Korean citizens in Japan has also been declining since the beginning of the 21st century, due to the aging of the existing Korean citizens in Japan, and especially changes in international marriage with Japanese citizens and the system of obtaining Japanese nationality. Currently, there are over 600,000 Chinese citizens and over 500,000 Korean citizens in Japan.

The number of Chinese citizens in Korea has increased rapidly in this century, from less than 100,000 in 2000 to nearly 600,000 at present. The major reason is that the two countries have sustained good economic performance and maintained good bilateral relations. In contrast, the number of Japanese citizens in ROK is small and stable.



Figure 5-8 Intra-regional movement of people among CJK

Source : Statistics Bureau, Ministry of Internal Affairs and Communications; Ministry of Justice of ROK.

2. Student exchanges

Chinese students have been active in overseas study, and the competition among foreign countries for attracting Chinese students is fierce. In 2012, the number of Chinese students studying abroad reached 636,000. 33.1% of them went to the US, ranking 1st; Japan and ROK ranked the second and the fifth, with respective shares of 15.2% and 6.9%. With its rapid economic growth, China has become an increasingly attractive destination of overseas study for foreign students. In 2013, the number of foreign students studying in China amounted to 147,890, with a year-on-year growth of 10.77%. The numbers of Korean and Japanese students in China remained stable, ranking No.1 and No.4.

However, their shares in the total foreign students in China has showed a downward trend.

The number of Korean students studying overseas doubled from 2000 to 2010, and amounted to 239,000 in 2012. 30.7% of them went to the US as the No. 1 destination; China (26.3%) and Japan (8.4%) ranked No.2 and No.3 respectively. Among the foreign students in ROK, Chinese and Japanese students are dominant and the combined share of them amounted to 77.9% in 2009, but declined afterwards. By the end of 2013, there were 54,000 Chinese students in ROK, decreasing by 6.2%; but China students still accounted for the largest share, followed by Mongolian, Vietnamese, Japanese and American students.

Compared to Chinese and Korean students, Japanese students have a preference for domestic study. The number of Japanese students studying abroad decreased by as much as 30% from 2004 to 2012. In 2012, there were only 58,000 Japanese students studying abroad, accounting for 1% of the total students. As to the destinations of overseas study, China ranks No.1, with about 40% of Japanese overseas students studying in China in 2012 and about 36.5% in the US, which used to be popular destination but attracted less attention. ROK ranked No.7 with a share of 2%. The number of foreign students in Japan has decreased since 2011 mainly due to economic stagnation and earthquake. The majority of foreign students in Japan comes from China and ROK; as of May 1, 2013, there were 97,875 Chinese students studying in Japan, accounting for 60% of foreign students in Japan; and ROK ranked No.2 with 15,304 students.

III. Policy Recommendations

Tourism development, movement of people and student exchanges are the important components of regional cooperation among CJK, and also the major impetus and foundation for promoting regional economic integration. The development in those areas is not only closely related to economic situation, bilateral political relation, trade and investment linkage as well as culture and traditions in the three countries, but also affected by attractiveness of countries other than CJK and changes of policies. Therefore, it is recommended for CJK to strengthen coordination and adopt more proactive policy incentives and facilitation measures as below to promote tourism cooperation and student exchange in the region:

- 1. Promote sustainable economic development and continuously improve living standards, which is the essential pre-condition.
- 2. Improve regional cooperation mechanisms as such: (1) strengthen cooperation at various levels by bringing the essential role of government in macro control and

promoting cooperation among tourism organizations, including various types of travel agencies at different links along the value chain; (2) promote easy travel and reduce travel costs for tourism and movement of people, e.g. relaxation on tourist visa, speedy entry application approval, easy transfer between cross-country and domestic transportation, improving the duty free system etc.; (3) strengthen professional training of government agencies and service providers; and (4) improve the emergency-responding mechanism to cope with the possible risks.

- 3. Strengthen information exchange and improve data collection system. As the lack of relevant information and data is a major obstacle for policy making and regional cooperation, the competent authorities and institutes of CJK can strengthen their efforts to exchange information of tourists, exchange students and tourism markets; meanwhile, they can coordinate the statistical system so as to strengthen the data collection capabilities for tourism, education and cultural industries.
- 4. Intensify infrastructure development and further explore the potential of tourism and education markets within the region. Based on the characteristics of tourism resources, economic relations and market demands, CJK can jointly develop new services in the areas of business, training, education, cosmetic medicine, etc., engage in joint marketing, and identify new tourism and educational resources so as to improve service quality and achieve a win-win situation. In particular, in terms of tourism, CJK can consider developing internationally competitive tourism products and promoting uniform tourism brands and products to the world through integrated intra-regional tourism management and overall image improvement.

Chapter VI

Cooperation in Transportation

I. Current Status of Transportation Development in CJK

Transportation infrastructure and its capacity in CJK
 International importance of major airports and ports of CJK

II. Current Situation and Issues of CJK's Cooperation in Transportation

Maritime transportation
 Aviation transport
 Land-sea multimodal transport
 NEAL-NET

III. Transportation Cooperation Mechanism among CJK

IV. Policy Recommendation

I. Current Status of Transportation Development in CJK

1. Transportation infrastructure and its capacity in CJK

Transportation infrastructure construction in China has witnessed a rapid development in recent years. The current total railway mileage reaches 100,000 kilometers, while the total road mileage is 4.3562 million kilometers, including 104,000 kilometers of expressways. The total inland waterway mileage is 125,900 kilometers; and there are more than 2,000 port berths for ships of 10000-tonnage and above. In 2013, the total of passenger traffic was 21.226 billion and the total freight volume was 40.337 billion tons. Specifically, the total air passenger reached 750 million and the air cargos 12.58 million tons; the overall port passenger was 185 million, the aggregate cargo was 11.77 billion tons and the collective container was 190 million TEUs.

Japan has established the modern integrated transportation system and three dimensional traffic networks, which is highly convenient and efficient. According to the statistics of Ministry of Land, Infrastructure, Transport and Tourism of Japan (MLIT), its current total railway mileage reaches 27,182 kilometers and the railway utilization per capita is 1,910 kilometer, ranking No.2 in the world. The aggregate road mileage is about 200,000 kilometers, including 7,900 kilometers of expressways. Japanese international waterway is connected with the major countries and regions located all over the world and its ports are densely distributed within the country. In 1991, Japan's freight volume reached the highest, up to 6.92 billion tons. However, economic stagnation negatively impacted the volume, both Japan's turnover volume of freight transport and freight volume experienced the downturn. In recent years, its annual freight volume has maintained at around 4.5~5 billion tons and the annual passenger traffic maintained around 2.7~2.9 billion.

ROK's total railway mileage is 3,559 kilometers and the total road mileage is 106,000 kilometers, including 4,044 kilometers of expressways. Its domestic freight transportation is dominated by road (82% of total freight volume), followed by waterway (13%) and railway (5%); the international freight transportation is dominated by waterway, accounting for 99.7% of total international freight volume. Domestic passenger transportation mainly relies on road, and railway transport listed as the second; international passenger transportation mainly depends on airline. In 2012, the total freight volume in ROK was 890 million tons and the total passenger traffic was 1.1 billion.

2. International importance of major airports and ports of CJK

2.1 Airports

Airport hubs in CJK play important roles in global aviation industry. Table 6-1 shows the world-wide annual ranking of airports released by Airports Council International.

According to the latest data in 2013, Beijing Capital International Airport (PEK) ranked as the second largest with passenger traffic of 83.7 million,, next to Atlanta International Airport in the US, and Tokyo Hanada Airport ranks the fourth.

Table 6-1 Top 20 airports in the world and their capacities

Rank	City (Airport)	Cargo	Rank	City (Airport)	Passengers
1	HONG KONG, HK (HKG)	3 976 768	1	ATLANTA GA, US (ATL)	92 389 023
2	MEMPHIS TN, US (MEM)	3 916 410	2	BEIJING, CN (PEK)	78 675 058
3	SHANGHAI, CN (PVG)	3 085 268	3	LONDON, GB (LHR)	69 433 565
4	ANCHORAGE AK, US (ANC)	2 543 155	4	CHICAGO IL, US (ORD)	66 701 241
5	INCHEON, KR (ICN)	2 539 221	5	TOKYO, JP (HND)	62 584 826
6	PARIS, FR (CDG)	2 300 063	6	LOS ANGELES CA, US (LAX)	61 862 052
7	FRANKFURT, DE (FRA)	2 214 939	7	PARIS, FR (CDG)	60 970 551
8	DUBAI, AE (DXB)	2 194 264	8	DALLASUS (DFW)	57 832 495
9	LOUISVILLE KY, US (SDF)	2 188 422	9	FRANKFURT, DE (FRA)	56 436 255
10	TOKYO, JP (NRT)	1 945 351	10	HONG KONG, HK (HKG)	53 328 613
11	SINGAPORE, SG (SIN)	1 898 850	11	DENVER CO, US (DEN)	52 849 132
12	MIAMI FL, US (MIA)	1 841 929	12	JAKARTA, ID (CGK)	51 533 187
13	LOS ANGELES, US (LAX)	1 696 115	13	DUBAI, AE (DXB)	50 977 960
14	BEIJING, CN (PEK)	1 640 247	14	AMSTERDAM, NL (AMS)	49 755 252
15	TAIPEI, TW (TPE)	1 627 463	15	MADRID, ES (MAD)	49 653 055
16	LONDON, GB (LHR)	1 569 449	16	BANGKOK, TH (BKK)	47 910 904
17	AMSTERDAM, NL (AMS)	1 549 686	17	NEW YORK NY, US (JFK)	47 644 060
18	NEW YORK NY, US (JFK)	1 344 537	18	SINGAPORE, SG (SIN)	46 543 845
19	BANGKOK, TH (BKK)	1 321 853	19	GUANGZHOU, CN (CAN)	45 040 340
20	CHICAGO IL, US (ORD)	1 311 622	20	SHANGHAI, CN (PVG)	41 447 730
21	GUANGZHOU, CN (CAN)	1 179 968	21	SAN FRANCISCO, US (SFO)	40 927 786
22	INDIANAPOLIS, US (IND)	971 664	22	PHOENIX AZ, US (PHX)	40 591 948
23	TOKYO, JP (HND)	873 255	23	LAS VEGAS NV, US (LAS)	40 560 285
24	SHENZHEN, CN (SZX)	828 375	24	HOUSTON TX, US (IAH)	40 128 953
25	NEWARK NJ, US (EWR)	813 528	25	CHARLOTTE NC, US (CLT)	39 043 708
26	DOHA, QA (DOH)	808 099	26	MIAMI FL, US (MIA)	38 314 389
27	LEIPZIG, DE (LEJ)	743 983	27	MUNICH, DE (MUC)	37 763 701
28	OSAKA, JP (KIX)	742 977	28	KUALA LUMPUR, MY (KUL)	37 704 510
29	COLOGNE, DE (CGN)	726 257	29	ROME, IT (FCO)	37 651 222
30	KUALA LUMPUR, MY (KUL)	694 311	30	ISTANBUL, TR (IST)	37 406 025

Source: Airports Council International (2013)

The cargo traffic of Shanghai Pudong International Airport (PVG) and Incheon International Airport (ICN) respectively ranked the third and the fifth in the world and showed an upward trend, while that of Tokyo Narita International Airport (NRT) and Haneda Airport (HND) remained stable. In terms of passenger traffic, Chinese airports have outstanding performance. Beijing Capital International Airport surpassed Tokyo Haneda Airport and Incheon International Airport, while Shanghai Pudong International Airport and Guangzhou Baiyun Airport all ranked among the Top 20. The performance of Japanese airports maintained stable with a slight growth, but Incheon International Airport dropped out of the Top 20 list. It is noteworthy that Incheon International Airport has won consecutively seven times as the Best Airport in the airport service quality in Asia Pacific, Singapore Changi Airport ranked No.2. Beijing Capital International Airport and Shanghai Pudong International Airport rank No.3 and No.4 respectively.





Source: Airports Council International

2.2 Ports

Regarding ports development, China has become the world's largest exporter and the second largest importer contributed by its soaring foreign trade. The container and cargo throughput of ports have also increased rapidly. In 2013, among the Top 10 World Container Ports, Port of Shanghai and Port of Shenzhen in China ranked No.1 and No.4 respectively; ports of Ningbo, Guangzhou and Qingdao in China also ranked among Top 10. If evaluating cargo throughput, Chinese ports even occupy a more important position. Beside Port of Singapore and Port of Rotterdam ranking the third and the ninth respectively, the remaining eight seats among Top 10 ports were all taken by major ports in China. Port of Busan in ROK ranked as the fifth largest port in the world in terms of container throughput for 11 years in a row, which in 2013 was 17.67 million TEUs. However, no Japanese port ranked among Top 20 in the world, either by cargo or container throughput.



Source: http://www.chinaports.org

II. Current Situation and Issues of CJK's Cooperation in Transportation

1. Maritime transportation

1.1 Intra-regional cooperation in maritime transportation

China and Japan signed a government-to-government agreement on maritime transportation in 1974. At present, there are container liners and scheduled passenger and cargo liners between the two countries. Shipping companies from China and Japan annually hold meetings on maritime transport. Because bilateral trade between China and Japan has a large scale, the container lines between China and Japan, as the important routes for China's export container transport, are among a few highly-profitable routes in the shipping industry mainly owing to short run and large volume. The other factor is that some international traffic volumes would transit via Japanese ports before converging to international routes.

Maritime transport business between China and ROK has experienced a rapid development. Port of Busan attracts a large quantity of international transit cargos due to its low handling charges and high efficiency. In 2013, total import and export cargo of Port of Busan was 8.91 million TEUs and transit cargo was 8.68 TEUs, which indicates that the transit cargo almost takes up 50% of its throughput. Port of Busan ranks the fifth largest container transit port in the world. Furthermore, trading and transit cargo from China accounts for almost 2/3 of overall turnover in Port of Busan.

1.2 Current Issues

Firstly, empty container repositioning, in particular along the route between China and Japan has been an on-going issue. The phenomenon of returning empty containers emerged in 1990, and continuously increased, which has negative impacts on the further development of the routes and enterprises.

Second is the severe overcapacity. Competition in China-Japan container liner transport market has become more intense due to the expansion of capacity and the increase of extra-tonnage. Starting from 2003, with frequent ups and downs, there was even negative freight rate on the market.

2. Aviation transport

2.1 Intra-regional cooperation in aviation transport

In recent five years, China-Japan civil aviation passenger traffic, and cargo & mail traffic have respectively increased at 13.7% and 13% per annum. Bilateral passenger and cargo traffic within the Northeast Asia plays an important role in CJK's international aviation transport. For example, the air passenger traffic between China and Japan accounts for about 10% of China's total international air passenger traffic, and the air cargo & mail traffic between China and Japan takes up 14~24% of China's overall international cargo and mail traffic. In 2013, the passenger traffic between China and Japan was 8.657 million.

Passenger traffic carried by Chinese and Korean airlines respectively accounted for 45.32% and 54.61% of total passenger traffic between the two countries in 2013, and the third party only shared less than 1% of the market. China-ROK bilateral air cargo market has witnessed a stable and steady growth, except for the period of the financial crisis.

Intra-regional aviation transport is critical to all three countries. Taking China's international aviation market as an example, the share of Japanese and Korean carriers exceeds 50%. Air passenger traffic from China to Japan and ROK was 86.57 million and 99.55 million respectively in 2013. Among transit passengers in Tokyo and Seoul, Chinese passengers accounted for 8.4% and 29% respectively.

2.2 Current Issues

The major problem still rests with political factors. For example, the monthly distribution in 2013 of passenger traffic from China to ROK was even with a slight increase in July and August. On the contrast, for passenger traffic from China to Japan, a substantial decline has appeared since September and the decreased up to 20%, which was affected by China-Japan bilateral relations.

Secondly, the institutional arrangement among CJK is still insufficient. So far, no special

initiatives are arranged among the three countries, while regional aviation liberalization agreements have been signed in North America and EU to legitimately open the air traffic right.

3. Land-sea multimodal transport

3.1 CJK cooperation in land-sea multimodal transport

In September 2010, Chinese Ministry of Transport and Korean Ministry of Land, Transport and Maritime Affairs signed the Sea-Land Trucking Multimodal Transportation Agreement and established the China-ROK Cooperation Committee for Sea-Land Trucking Multimodal Transportation. Since December 2010, five China-ROK land-sea multimodal transportation corridors have been successively created. Within 3 years, the trailer throughput reached 350 vehicle-times, freight volume exceeded 1,000 tons and the value of trade amounted to USD 50 million. With the development of drop and pull transport, truck load transport in China-ROK land-sea multimodal transport has a promising future. China and Japan also has been discussing the launch of model project of sea-land multimodal transport.

3.2 Cooperation in land-sea multimodal transport in Northeast Asia

In December 2011, CJK and Russia held the Forum on Land-Sea Multimodal Transport Cooperation of Northeast Asia and had an inter-governmental consultation meeting. Transportation authorities of the four countries decided to set up the cooperation mechanism and construct the land-sea multimodal transport network which will cover China, Japan, ROK, Russia and other regions in Northeast Asia and promote regional economic integration. Land-sea multimodal transport in Northeast Asia aims for the efficient, convenient and low-cost transportation. Taking Mudanjiang as example, if the goods from Mudanjiang could be directly transported via the port of Vladivostok in Russia by using the land-sea multimodal transport network, the haul distance will be reduced by 67% compared to detouring to Dalian Port; furthermore, the transport expenses and time could also be reduced by 20% and 36% respectively.

3.3 Current Issues

Northeast Asia is one of the regions that has largest economic aggregate, strongest complementarity and highest development potential in the world, where the land-sea multimodal transport enjoys the advantage of high efficiency and low cost. After officially launching the freight trucking service for land-sea multimodal transport, it has gradually developed; however, some problems still exist, such as low utilization rate of corridor and small freight volume etc. The causes are manifold. Firstly, there are too many tax items,

and the tariff burden is too heavy. For example, if Korean trailers enter the territory of China, they are under the compulsory obligation to buy the "compulsory traffic accident liability insurance"; when Chinese trailers enter the territory of ROK, they are required to pay the handling charge for customs guarantees. Secondly, the traffic areas are restricted to foreign trailers in the counterpart's territory.

4. NEAL-NET

On the occasion of the 1st Trilateral Ministerial Conference of Transport and Logistics held in 2006 in Seoul, the three ministers specifically proposed to "make efforts to establish an interconnected logistics information network among the three countries". The cooperative mechanism of Northeast Asia Logistics Information Service Network (NEAL-NET) has been established among the three countries in 2010 to carry out interconnection, share logistics information, and to exchange and cooperate technology applications. The pilot ports including Ningbo-Zhoushan ports, Tokyo-Yokohoma ports and Busan Port, basically realized the interconnection and created a platform of sharing dynamic vessel information. In addition, CJK and EU are currently carrying out a joint research discussing "the possibility of opening NEAL-NET access to EU to build a cross-region logistics information network between Asia and Europe" and make positive explorations of sharing logistics information in a broader scope.

III. Transportation Cooperation Mechanism among CJK

Economic globalization and the integration of logistics supply chain management are exerting a profound influence on the port's economic development. CJK enjoy geographical proximity, close economic and trade exchanges, and the intra-regional cooperation in transportation, which have the distinctive features.

Firstly, the cooperative mechanism are diversified. The three countries established diverse bilateral and trilateral cooperation in maritime and aviation transport. Bilateral cooperation and trilateral cooperation can complement and promote each other, and both mechanisms have played an active and important role in creating cooperation framework, exchanging information and implementing practical cooperation in land-sea multimodal transport. All those efforts have been highly appreciated by the three leaders and provide strong momentum for deepening cooperation among CJK.

Secondly, the cooperation has a wide coverage, which includes not only maritime, aviation, land-sea multimodal transport etc., but also coordination in logistics and transportation.

The third feature is the active regional cooperation. For example, in order to create an international logistics hub and shipping center in Northeast Asia, four ports in China, including Ports of Qingdao, Rizhao, Yantai and Weihai, signed the Operating Rules for China-ROK '4+1' Strategic Alliance Ports in 2011 with Port of Busan in ROK. The five ports agreed that they would mutually provide prioritized, convenient and efficient logistics services for inward and outward liners, vessels and freight by taking full advantage of their respective location advantages. They would also promote international container transit transport and develop international logistics hub in Northeast Asia, focus on the development of sea-land trucking multimodal transportation projects, continuously optimize the pattern of logistics and give prominence to special topics, such as technologies for low carbon emissions and environment protection, key technologies in informationized and intelligent building, ports construction and operation, security management in port area and so forth.

IV. Policy Recommendation

Trilateral cooperation in transport and logistics among CJK is an indispensable part for promoting the regional economic development. Along with the rapid trade development and adjustment of the industrial layout, the three countries will have an increasingly-stronger need and desire for strengthening cooperation in transportation. They can bring out each other's comparative advantage into full play, jointly develop the market and promote their cooperation into deeper and broader areas.

First of all, it is recommended to adapt to the changes of trade structure and industrial layout, fully taking advantage of geographical proximity and trade growth, to speed up China-Japan and CJK land-sea multimodal transport cooperation on the basis of China-ROK land-sea multimodal transport, to reduce transportation costs, to enhance product competitiveness and to promote the economic and trade development of three countries.

Secondly, on the basis of the NEAL-NET, the importance of interconnection of logistics information systems of the three countries needs to be realized by CJK. Meanwhile, CJK can expand logistics information sharing with the related countries in EU and ASEAN, and fully explore available resources and advantages to gain benefit from the cooperation.

Thirdly, technology exchange and implementation are important for CJK. Driven by promoting green and circular economy, it is recommended to actively explore the methods to strengthen cooperation in green logistics, encourage using energy-saving technologies

and clean energy transportation equipment, and fully develop the circular economy for transportation.

Fourthly, with the goal of building transport and logistics security system, it is essential for CJK to strengthen the exchange and cooperation in security supervision and emergency management of logistics chain, secure the efficient, safe and convenient movement of goods and people among three countries, and properly manage implementation of security measures and smooth movement of goods.

Chapter VII

Industrial Cooperation

I. Rationale for strengthening CJK industrial cooperation

- 1. CJK Economic cooperation requires a two-wheel drive model
- 2. Solid market foundation for industrial cooperation among CJK
- 3. Necessity of cooperation for facing challenges caused by intense international competition

II. Direction and Priorities for Industrial Cooperation among CJK

- 1. Exploring intra-regional market potential for industrial cooperation
- 2. Strengthening cooperation in traditional industries with comparative advantages
- 3. Taking cooperation in energy resources as the breakthrough for industrial cooperation
- 4. Prioritizing emerging industries for future industrial cooperation in East Asia

III. Policy Recommendation

I. Rationale for strengthening CJK industrial cooperation

1. CJK Economic cooperation requires a two-wheel drive model

In the context of sustained slowdown of global economic and acceleration in participating regional integrations by all countries, it's inevitable for CJK to speed up regional cooperation.

In 2013, CJK launched the official negotiation on CJK FTA, which indicates an important progress for institutional economic cooperation in Northeast Asia. The three countries have carried out 5 rounds of negotiation, during which tariff reduction model for trade in goods, model of liberalization for trade in service and investment, the scope of agreement and the spectrum of covered areas were discussed. Economic integration and institutional arrangement of liberating trade and investment need regional identity and mutual political trust. However, the political relations among CJK have experienced uncertainties recently, which may cause negative impacts on smooth progress of negotiation. Institutional arrangement such as FTAs (RTAs) is an important way to realize regional economic integration; however, it is not the only option. Broad foundations have been laid for economic cooperation in East Asia. While negotiating the agreement for regional trade liberalization, East Asian countries could carry out cooperation in other multiple areas, such as infrastructure construction, capability building, industrial cooperation, cooperation in innovation, financial cooperation and so on, to promote regional economic integration.

Figure 7-1 Various ways of integrating regional economic cooperation



It is pointed out in the Trilateral Cooperation Vision 2020 that the three countries' longterm target is to achieve economic integration in the region. In order to deepen regional cooperation, satisfy the practical demands of domestic development and cope with external pressures, new momentum and mechanism needs to be actively searched while continuously facilitating institutional arrangement, such as FTAs, Investment Agreement etc., for regional liberalization. To this end, CJK FTA and industrial cooperation are indispensable driving forces.

2. Solid market foundation for industrial cooperation among CJK

CJK are important manufacturing and export powerhouses in the world and play critical roles in the production of iron & steel, automobile, petrochemical and electronics, while their shares in the world trade have been continuously increasing.



Figure 7-2 Ratio of import & export of CJK to world's total

Source : http://unctadstat.unctad.org

The cooperation in East Asia can tell that the increasing trend is mainly realized on the basis of market force and industrial linkage. A closely connected production and supply chain network has been established in East Asia through mutual investment and trade. In particular, division of labor and industry chain among CJK result in reducing costs, improving efficiency and expanding external market for deepening cooperation.

In the future, strengthening industrial cooperation among CJK can generate great development potentials: 1) bring their complementary strengths into full play to improve international competitiveness; 2) further improve logistics efficiency and reduce costs of trade and investment through "interconnection"; 3) promote the development of emerging

industries through cooperation in R&D and innovation; 4) jointly underpin and support industrial cooperation through financial and investment cooperation; 5) lay a foundation and provide impetus for broader regional cooperation.

3. Necessity of cooperation for facing challenges caused by intense international competition

The financial crisis has not fundamentally changed the overall trend of globalization. In-depth development of globalization has facilitated deeper economic integration across countries, but the competition also becomes increasingly severe: competition for markets and capital, competition for technological innovation and leadership in emerging industries, competition for resources and energy, competition for rule-making and benefit distribution etc. In response to the changing world economic environment and challenges, it is essential for CJK to further deepen industrial cooperation, which will not only be beneficial for strengthening their positions as the manufacturing power in the world, but also further improving their status and maximizing their benefits from the global value chain.

II. Direction and Priorities for Industrial Cooperation among CJK

Generally speaking, in order to strengthen industrial cooperation, CJK need to find the common interests for economic development of three countries from a regional or even global perspective in a long run, and seek for cooperation in industrial areas that align with the directions of their own industrial development planning and practical needs.

1. Exploring intra-regional market potential for industrial cooperation

Firstly, economic complementarities are far greater than competitions among CJK. However, by examining the trends of their export structure, technological level and industrial competitiveness, it can be found that the intra-industry division of labor among the three countries is increasing. Additionally, because of fluctuating external demands, the competitions have become more and more severe in various fields and it is difficult to survive. For example, due to the rapid development of intra-industry and intermediate products trade, the upward trend for general similarity of export structure among CJK becomes prominent since the beginning of the 21st century. Especially, the index²⁰⁾ of export similarity between China and ROK went up rapidly, whose level of similarity has surpassed that between China and Japan.





Source : UN Comtrade Database

Secondly, it can be told from the experience of EU and NAFTA that the impetus for their economic integration mainly comes from the huge regional market, particularly the outstanding core markets in the big powers. After the financial crisis, the share of intra-regional trade reduced from 26% to 19.8% in 2013, much lower than EU (64.4%) and NAFTA (48.3%). Moreover, intra-regional trade is still dominated by intermediate products (60%). The lack of intra-regional core market and high dependency of final market on the US and EU have made CJK vulnerable to the impacts from external demands.

The global economy has moved into the period of low growth while the recovery process of the world economy will still be precarious. Against the backdrop that there is still uncertainty for the expected rebound of external demands, it is essential for CJK to provide powerful supports for preventing from external risks and maintaining economic vitality, and create room for intra-regional industrial cooperation through developing regional market.

S

$$(ih, k) = \sum_{1} \left\{ \left[\frac{(X_{ik}^{l}/X_{ik}) + (X_{bk}^{l}/X_{bk})}{2} \right] \left[1 - \left| \frac{(X_{ik}^{l}/X_{k}) - (X_{bk}^{l}/X_{bk})}{(X_{ik}^{l}/X_{k}) + (X_{bk}^{l}/X_{bk})} \right| \right] \right\} \times 100$$

²⁰⁾ Product category: SITC 4 digit. Formula is

S is export similarity index, *i*, *h* represent different countries, *k*: world market; 1: product 1, X_{ik}^{l}/X_{ik} ratio of product 1's export in total export.

2. Strengthening cooperation in traditional industries with comparative advantages

CJK enjoy their prominent advantages in petrochemical, textile, iron& steel, machinery, automobile and especially electronic products as the important manufacturing powers in the world, and there is still large potential for strengthening investment and cooperation in traditional advantageous industries among the three countries. Delay in establishing CJK FTA will incur time costs and expenses.

The long-term implementation of import substitution policy can result in the concentration of more resources in industries with stronger market protection, which is not favorable for improving productivity.

Overcapacity of some industries within the region, may cause more intense competition and bring about the risk of higher costs for structural adjustment. The industrial cooperation could improve efficiency, promote technology upgrading and improvement of competitiveness, and replacing trade with investment can relieve the competition pressures brought by market openness.

To this end, the three countries can strengthen their cooperation in technological transformation, reduction of energy consumption, R&D and innovation in new technology and product, and they can expand the financing channel by mutual equity holding, improve international competitiveness and jointly explore market outside of the region.

3. Taking cooperation in energy resources as the breakthrough for industrial cooperation

CJK are large energy resources consumers in the world. Primary energy consumption and their proportion to the world's total consumption has been increasing rapidly, from 18.6% in 2002 to 27.9% in 2012.

In particular, China has surpassed the US becoming the largest primary energy consumer in the world.

Figure 7-4 Share of CJK's primary energy consumption in the world



Source: "2013 BP Energy Outlook".

In terms of dependence for energy resources import, according to the statistics of the World Bank (WB), the shares of net energy import in total energy consumption for Japan and ROK were up to 80-90% in 2012. Also, domestic resources in China can no longer satisfy its demands of industrialization and development of foreign trade, so the share of net energy import for China is also rising. In particular, the ratios of China's import dependence of crude oil and iron ore are all close to 60%.

Figure 7-5 Net energy import in CJK (Ratio of import to energy consumption, %)



Source: World Bank data.

CJK not only have similar target for energy supply, new energy exploration and protection, but also are mutually complementary in terms of technology, production and market, which provide them with broad room for cooperation. Moreover, energy resource is a fundamental sector in national economy. Due to less market competition, stronger complementarity, higher returns, broader radiation and more prominent effect of demonstration, there is a potential to get support and reach consensus for further deepening cooperation from all stakeholders in each nation.

4. Prioritizing emerging industries for future industrial cooperation in East Asia

After the financial crisis, all countries in the world accelerated structural adjustment and a new round of technological revolution. Meanwhile, in the process of further advancement of industrialization, CJK need to promote their sustainable development by speeding up technology upgrading and developing energy conservation and green economy. Therefore, CJK have all regarded emerging industries as the new growth engine and top priorities for future industrial development by formulating relevant development plans, increasing R&D investment and exploring the market potential.

Table 7-1 Possible fields for future industrial development of CJK

China	Japan	ROK	
Energy conservation and environment protection	Environment protection and	Energy and environment	
New energy	energy		
New generation of information technology (including culture creativity, software service)	Electronics and IT	New generation of information technology	
Biology (medical, agricultural, marine)	Medical, nursing, healthcare, parenting	Biology	
High-end equipment manufacturing (Intelligent manufacturing equipment, aerospace)	Cutting-edge technology (Space technology, robot, new materials)	Industrial convergence (Combination of robot, new material and nano-technology)	
New materials			
New energy vehicle	Next generation automobile	Green car	
	Culture creativity	Knowledge service (Software, design, health, culture)	

Source : Zhang Qi, "Prospects and Modalities of CJK Energy Cooperation (Chinese)", Development Research 2012 (3), 2012

At present, the priority areas of CJK's industrial development are highly overlapping and they will vigorously develop emerging industries such as environment protection, new energy, new materials, biology, new generation of information technology, high-end manufacturing equipment, new energy vehicle and culture creativity etc. In addition, CJK are facing the social issue of aging population, and so there is large room for development, and cooperation and exchange in senior industry where the market demand is huge.

The main characteristics of emerging industries include bright market prospect, low resources consumption, prominent benefit in increasing employment and return on investment etc. Therefore, there are many advantages for CJK to strengthen cooperation in emerging industries.

Firstly, they could jointly share risks. The key for developing emerging industry is to make technological breakthrough and gain market acceptance; however, higher risks and costs are involved in new technology R&D. Taking the successful model of Airbus as an example, project-based industrial cooperation can realize the sharing of risks and profits in an effective manner.

Secondly, they can avoid overcapacity or vicious competition that may be accompanied with isolated development. Identical development trend of industries indicates huge potential of market demands within the region, but if they resort to separate development to build up their own system, a new wave of mutual competition might take shape in emerging industries.

The good thing is that in the three countries' industrial plans, they all have the supporting attitude for openness and cooperation as well as for carrying out international cooperation. The emerging industries have become the top priorities for all three countries, which have increased capital and technology inputs in these areas.

III. Policy Recommendation

Industrial cooperation among CJK needs to be proceeded with a step-to-step approach. The key is to properly identify cooperative priorities, make innovation in cooperation model, identify new route for cooperation and seek for more powerful support.

First of all, it is critical to select the appropriate industry as cooperative priority. It is necessary for industry to consider exploring market potential within the region, matching with technological and manufacturing strengths of CJK's enterprises that have common interests and demand for cooperation, keeping pace with industrial development direction of three countries, and supporting Northeast Asian countries' cooperation in globally competitive areas.

In terms of the trend of transformation and upgrading, a new concept for industrial cooperation needs to be explored by gradually shifting structure of cooperation from vertical industry chain to horizontal division of labor.

Secondly, it is recommended to stick to market orientation and stimulate enthusiasm and creativity of enterprises in industrial cooperation, which are the major players and motive powers for industrial cooperation. In their industrial cooperation, CJK can also play an important role to stimulate the enthusiasm and creativity of enterprises in industrial cooperation by improving market and benefit-oriented mechanism.

Thirdly, it is necessary to organize and implement some demonstration projects to highlight the result of industrial cooperation and strengthen willingness for cooperation. Leaders' political will and wide support from enterprises and the public are needed, either for establishment of FTA or for industrial cooperation. It is shown by the EU experience and the success of Boeing that there must be a batch of viable and successful cooperation projects to facilitate regional economic integration, so as to accumulate experience and play an exemplary role for broader and deeper industrial cooperation. Demonstration project is the carrier for industrial cooperation. CJK's common initiatives and accumulation experience are important factors for enterprises in the three countries to obtain tangible benefits and to strengthen the willingness and confidence of all shareholders in participating and promoting cooperation.

Fourth, governments' support is critical. According to the theory of Competitive Advantage by Porter, besides the four fundamental elements, opportunity and government are the two most important factors. Industrial cooperation will involve trade, investment, technology exchange and people's movement etc. To this end, government to-government cooperation will be a key to create free, convenient, fair and stable market environment for enterprises, to provide active and effective promotion policies and to guarantee institutional environment. In particular the government plays an important role in cooperation in emerging industries in the field of coordinating regulations and standards and removing technological barriers etc. When it comes to public service offering, government procurement, R&D support, intellectual property protection and other areas, the role of government is more critical.

The role of local government is also important besides the central government in carrying out economic cooperation with neighboring countries. Local governments can be fully motivated to promote regional cooperation in a pragmatic way, but also make policy support for more market-oriented and effective.

Fifth, the industrial cooperation dialogue will be useful. Except for the annual meeting in iron and steel industry, there is no regular dialogue mechanism among CJK in petrochemical, automobile and other traditional heavy industry, or the emerging industrial development.

While the trend of overcapacity and fierce competition has further enhanced within the

region, multi-level industrial dialogue mechanism can explore new potential and modes of trilateral industrial cooperation.

Last but not least, financial support is essential. New technology R&D and market expansion usually accompany with extremely high risks and costs, so a large amount of investment is required, otherwise opportunities may disappear all of sudden. In this regard, financial support is vital for regional cooperation and SMEs cooperation. CJK can consider the ways to eliminate obstacles and further optimize the policy and institutional environment for industrial cooperation within the whole region.

Conclusion

The combined GDP of CJK accounts for 75% of that in East Asia and one fifth in the world, which makes the three countries the third largest economic region with more than 1.5 billion consumers, just next to the EU and North America. To this end, the economic development of three countries is critical for global economic recovery and the process of their economic cooperation as well as its implications on regional and global trade and investment, which also causes worldwide attention.

Since 2013, under the direction of the new leaders in three countries, the macroeconomic policy adjustment reached its initial achievements while the economic development has seen a good start with positive progresses in economic cooperation among the three countries.

On the other hand, there are still some structural and fundamental problems to be addressed. Bilateral trade and mutual investment has been active, but the intra-regional trade and investment development is still lagging behind the US and the EU, which indicates a large room for further development. The financial cooperation has been widely deployed, but its supporting role to regional economic and trade cooperation needs to be improved. In addition, huge potential exists for trilateral tourism and education cooperation, but the growth has slowed down, even experienced a sharp decrease underlining the negative impacts of intense political relation. Cooperation in transport and logistics has been gradually promoted, but the need is urgent for the three countries to further improve transportation and logistics efficiency and reduce the transaction costs through "interconnection". Industrial cooperation has been strengthened, but more practical progress are expected in key areas and major projects so as to build confidence and provide impetus for broader cooperation at higher levels in the region. Along with the in-depth development of globalization, particularly after the world economy enters an era full of major adjustments and great changes, there must be new opportunities and challenges confronted with CJK in their economic growth and process of cooperation.

China, Japan and ROK have distinctive economic features and complementary advantages. Under the new circumstances, practical and feasible measures and policies need to be adopted to further expand and deepen economic cooperation in all aspects and expand intra-regional market demands. At such critical juncture of the world economic recovery, the more strengthened economic cooperation among CJK will, on one hand, be beneficial for the three countries to defend against external risks, solve domestic structural problems and promote sustainable economic development; on the other hand, CJK's economic development and regional stability will also provide momentum for the prosperity and stability in East Asia and sustained economic growth in the world.

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About the TCS

Organization

The Trilateral Cooperation Secretariat (TCS) was established as an international organization in September, 2011 in Seoul. The vision of the TCS is to promote peace and common prosperity among Japan, China and the ROK. The TCS consists of a Consultative Board and four Departments. The Consultative Board, the executive decision-making body of the organization, is comprised of a Secretary-General and two Deputy Secretary-Generals. The Secretary-General is appointed on a two-year rotational basis in the order of the ROK, Japan, and China. Each country other than the one of the Secretary-General nominates a Deputy Secretary-General respectively. Under the Consultative Board, there are the Departments of Political Affairs, Economic Affairs, Social and Cultural Affairs, and Management. The four Departments are composed of Professional Staff who are government officials seconded by the three countries, and General Services Staff recruited through open competition from the three countries.

Functions and activities

- (1) Provide administrative and technical support for the operation and management of such trilateral consultative mechanisms among the three countries as the Trilateral Summit Meeting, the Trilateral Foreign Ministers' Meeting, the Three-Party Committee and other ministerial meetings, and the Trilateral Senior Foreign Affairs Officials' Consultation and send, if necessary, its representatives to attend major consultative mechanisms;
- (2) Communicate and coordinate with the three countries and, if necessary, with other international organizations, particularly with other East Asian cooperation mechanisms;
- (3) Explore and identify potential cooperative projects among the three countries, and report those projects to the relevant consultative mechanisms for adoption;
- (4) Evaluate the cooperative projects and draft reports on them, compile necessary documents into database, and submit annual progress reports to the Trilateral Foreign Ministers' Meeting for approval; and
- (5) Conduct research on important issues related to the trilateral cooperation, manage the TCS' website, and promote understanding of the trilateral cooperation.

About the TCS

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