The Impact of China's Comprehensively Deepening Reform on the Economic Cooperation between China and Japan

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¹ The views and opinions expressed in this paper are those of the author’s and do not necessarily reflect the views and opinions of China Center for International Economic Exchanges (CCIEE), or of Policy Research Institute (PRI), Ministry of Finance of Japan.
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Abstract:
China and Japan, the world’s second and third largest economies respectively, share the third largest trading relationship globally now. After The Eighteenth National Congress of the Communist Party of China hold on November 8, 2012, a series of measures on economic reform and development have issued. Some far-reaching economic development strategies has been carried out. This will bring huge opportunities to the mutually beneficial cooperation between China and other economies. After World War II, Japan’s industry development has formed a strong international competitiveness. The research concludes that China-Japan economic cooperation has huge space and great complementarities. Both sides could still do more to enhance economic cooperation, energy conservation and emission reduction, ecological and environmental protection, technology innovation are important fields of cooperation, of course, some other new fields also. The research thinks developing the Third-Party Market Together is important, too. By continuing cooperation, China and Japan can build a win-win cooperation mechanism, further deepen and expand the bilateral cooperation.
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**Introduction**

Through decades of development, China’s economic development has attracted worldwide attention and China also has developed into the most important market in the world. At the 18th National Congress of the CPC, the report on “Firmly March on the Path of Socialism with Chinese Characteristics and Strive to Complete the Building of a Moderately Prosperous Society in All Respects” was issued. The report pointed out that it will accelerate the improvement of the socialist market economy and the change of the growth model. In November, 2015, the Third Plenary Session has been held, and “The Decision on Major Issues Concerning Comprehensively Deepening Reforms” was adopted. The 13th Five-Year Plan (2016-20) and the Belt and Road initiatives, etc, brighten the growth prospects of many industries in China and offer more opportunities for foreign enterprises. Japan faces the problem that how to achieve sustainable growth. Japan's domestic demand is difficult to support sustainable economic growth, exports and foreign investment will still be the mainstay of Japan's economic growth strategy in the future. The research analyzes how to promote the depth cooperation between China and Japan.

This paper is organized as follow: In the first part, the paper provides a brief introduction on China’s comprehensively deepening reform and opportunities. Section Ⅱpresents industrial characteristics in different periods and industrial policies in Japan. In section Ⅲ the research analyzes main fields in economic cooperation between China and Japan. In the rest of the paper, finally, a number of conclusions and recommendations are given.

Ⅰ China’s Comprehensively Deepening Reform and Opportunities

1.1 The Connotation and Significance of China’s Comprehensively Deepening Reform

1.1.1 The Eighteenth National Congress of the Communist Party of China

Over the past 37 years, China’s productive forces and economic, scientific and technological strength have increased considerably. Its national strength and international competitiveness and influence have also been enhanced substantially. However, China also faces increasing resource constraints, severe environmental pollution and a deteriorating ecosystem. In response to changes in both domestic and international economic developments, China is speeding up the creation of a new
growth model, and ensures that development is based on improved quality and performance.

The Eighteenth National Congress of the Communist Party of China (CPC) was held on November 8, 2012, and the report on “Firmly March on the Path of Socialism with Chinese Characteristics and Strive to Complete the Building of a Moderately Prosperous Society in All Respects” was issued. The report pointed out that “We should adopt policies and measures to better facilitate the development of the real economy. We should make the economy more demand-driven, promote the sound growth of strategic emerging industries and advanced manufacturing industries, develop and expand the service sector, especially modern service industries.” "promote harmonized development of industrialization, IT application, urbanization and agricultural modernization.” “Major progress should be made in building a resource-conserving and environmentally friendly society. Energy consumption and carbon dioxide emissions per unit of GDP as well as the discharge of major pollutants should decrease sharply. Forest coverage should increase, the ecosystem should become more stable, and the living environment should improve markedly.”

This will make economic development driven more by domestic demand, especially consumer demand, by a modern service industry and strategic emerging industries, by scientific and technological progress, by a workforce of higher quality and innovation in management, by resource conservation and a circular economy, and by coordinated and mutually reinforcing urban-rural development and development between regions. In the process of strategic adjustment of the economic structure, China must firmly maintain the strategic focus of boosting domestic demand, speed up the establishment of a long-term mechanism for increasing consumer demand, unleash the potential of individual consumption, increase investment at a proper pace, and expand the domestic demand. The report gave ecological progress a more prominent position by placing it into the country’s overall development approach together with economic, political, cultural and social progress. The report pointed out that China should remain committed to the basic state policy of conserving resources and protecting the environment and strive for green, circular and low-carbon development.
1.1.2 The Third Plenary Session of the 18th Communist Party of China Central Committee

The Third Plenary Session of the 18th Communist Party of China Central Committee has been held from Nov. 9 to 12, 2015, and its decision on major reforms had outlined the blueprint for China's future development.

Chinese President Xi Jinping delivered a work report at the third Plenary Session, and unveiled China’s development guidelines. During his keynote speech at the plenum, Xi stressed that the CPC has worked to speed up the development of socialist market economy, democracy, cultural development, social harmony and environmental protection.

The session says the overall goals of comprehensively deepening reforms are to develop and improve socialism with Chinese characteristics, and to promote the modernization of the system and ability in managing the nation. To pay more attention to implementing systematic, integrated and coordinated reforms, promoting the development of socialist market economy, democratic politics, advanced culture, a harmonious society and ecological progress. To make sure that the vigor labor, knowledge, technology, managerial expertise and capital keeps bursting forth, all the wealth-creating sources fully flow, and that the fruits of development benefit all people still more and equally. As for the basic economic system, the plenum of the Third Plenary Session pointed out that the basic economic system with public ownership playing a dominant role and different economic sectors developing side by side is an important pillar of the with Chinese characteristics and is the foundation of the socialist market economy. Both the public and non-public sectors are key components of the socialist market economy, and are important bases for the economic and social development of China.

The Decision on Major Issues Concerning Comprehensively Deepening Reforms was adopted at the close of the Third Plenary Session of the 18th CPC Central Committee. The Decision pointed out that reform and opening-up has been a crucial choice that China has made regarding its destiny in modern times. China must stick to the socialist market economy as the orientation of its reform, must promote social fairness and justice and must seek to advance the well-being of the people. The general purpose of deepening its all-round reform is to develop socialism with Chinese characteristics, to advance modernization in the State governance system and governance capability. The basic economic system should evolve on the decisive role
of the market in resource allocation. The reform of the economic system is the focus of all the efforts to deepen the all-round reform. The successful experience of the past reform and opening-up must be built upon.

The Third Plenary Session of the 18th CPC Central Committee makes a strategic planning on comprehensively deepening reform and proposes 15 aspects of major reform measures in 60 articles and nearly 300 items. The reform will focus on the reform of the economic system, and the core is to deal with the relationship between government and market, making the market play a decisive role in the allocation of resources. The Session proposes that China shall establish a new system of the open economy and expand the interests' convergence with other countries and regions. The Session concludes with the need to deepen reforms in order to build a moderately prosperous society, and a strong and democratic country, as well as realize the Chinese dream of national rejuvenation.

1.1.3 The Fifth Plenary Session of the 18th CPC Central Committee

The Fifth Plenary Session of the 18th Communist Party Central Committee was held from October 26 to 29, 2015. The session deliberated on and approved the Central Committee's Proposal for Formulating the 13th Five-Year Plan for National Economic and Social Development (2016-20) and the Communique of the Fifth Plenary Session of the 18th CPC Central Committee. The Communique pointed out that the session conducted in-depth analysis of the basic features of the environment for China’s development during 13th Five-Year period. It concluded that this period would continue to present important strategic opportunities, while facing severe challenges in the form of increased conflicts and risks. It pointed out that taking economic development as the central task is vital to national renewal, and development still holds the key to addressing all the problems China is facing.

It was stressed that China should highlight and implement the concepts of innovation-driven development, balanced development, green development, open development and sharing development. In order to fulfill the goals of the 13th Five-Year period, overcoming obstacles and sharpening its edge in development. New targets in building a moderately prosperous society in all respects were put forward at the session: to double 2010 GDP by 2020 as well as per-capita income of both urban and rural residents on the basis of more balanced, inclusive and sustainable development, to upgrade manufacturing and promote advanced industries, to significantly increase the contribution of consumption to economic growth, to
accelerate urbanization, to achieve significant progress in agricultural modernization, to raise living standards and the quality of life, eliminate rural and regional poverty and rehabilitate all poor counties, to improve citizens’ moral integrity and promote cultural progress, to improve environmental protection, to further modernize governance systems.

Balanced development including: to maintain socialism with Chinese characteristic and deal correctly with the core concepts of development, too balance development between urban and rural areas, to balance economic and social development, to synchronize industrialization, digitization, urbanization and agricultural modernization, to enhance China’s holistic development by increasing both its hard power and soft power.

Green development including: to maintain the basic state policy of saving resources and protecting the environment, to maintain sustainable development, to follow a development path characterized by higher productivity, general affluence and a sound ecosystem, to accelerate the building of a resource-conserving and environmentally friendly society, to realize harmony between human beings and nature, to advance the program of building a beautiful China and to make new contributions to global environmental security.

Open development including: to comply with the trend of the Chinese economy being increasingly incorporated into the global economy, to uphold a win-win opening-up strategy, to open up the economy wider to the world, to participate in global economic governance and the supply of public goods, to increase China’s say in global economic governance and to establish a far-ranging community of shared interests.

1.2 Economic System Reform is the Focus of the Comprehensively Deepening Reform

The Third Plenary Session of the 18th CPC Central Committee stressed the focus of a new round of comprehensively deepening reform:

- Focus on the economic system reform, deepen and promote the reform of administrative systems, activate markets unceasingly, and let the market play the decisive role in allocating resources and let the government play its functions better.
- Promote a new round of opening to the outside world, build a new system of open economy, and create the new situation of a high level of opening to the
outside world.

- Play the basic role of consumption and the key role of investment, build a new regional economic support belt, implement the policy from the demand, make the efforts from the supply, build a long-term effective mechanism of expanding domestic demand, increase the main engine function of domestic demand driving economic growth.

- Put innovation as the development of the country's core position, promote the close integration of science and technology with economic and social development, push the high jump of industry to the global value chain, and support and lead economic structure optimization and upgrading with innovation.

- Improve the integrated system and mechanism of urban and rural development, break the urban and rural dual structure, narrow the urban-rural gap, and promote the human-centered new urbanization.

The Third Plenary Session pointed out that economic system reform is the focus of deepening the reform comprehensively. The underlying issue is how to strike a balance between the role of the government and that of the market. In deepening economic reforms, how to play a decisive role regarding allocation of resources, the Third Plenary Session pointed out that it is necessary to uphold and improve the basic economic system, speed up the improvement of a modern market system, accelerate the transformation of government functions, deepen fiscal and taxation reform, improve the integration of urban and rural development, build a new open economic system, adhere to and improve the basic economic system, accelerate the improvement of the modern market system, macro-control system and open economic system. To accelerate the transformation of the growth pattern, and make the China an innovative country, and build an innovation-driven country. it must promote more efficient, equal and sustainable economic development.

1.3 Economic Development Strategies and Measures

1.3.1 One Belt and Road

The Silk Road Economic Belt and 21st Century Maritime Silk Road (hereafter referred to as the Belt and Road ) initiatives was put forward by President Xi Jinping in September 2013 to improve cooperation with counties across Asia, Europe and Africa, with the purpose of rejuvenating the two ancient trading routs and further opening market in a mutually beneficial manner. The implementation plan include a
detailed list of major infrastructure projects concerning railways, roads, information technology and industrial parks.

The Belt and Road run through the continents of Asia, Europe and Africa, connecting the vibrant East Asia economic circle at one end and developed European economic circle at the other, and encompassing countries with huge potential for economic development. The first idea is the construction of a Silk Road Economic Belt spreading from western and China inland through Central Asia towards Europe, resonant of historical Eurasian “silk roads” which reached their height during China’s Tang dynasty (618-906). The Silk Road Economic Belt focuses on bringing together China, Central Asia, Russia and Europe (the Baltic); linking China with the Persian Gulf and the Mediterranean Sea through Central Asia and West Asia; and connecting China with Southeast Asia, South Asia and the Indian Ocean. The second idea- a 21st Century Maritime Silk Road- is inspired by historical maritime trade routes from coastal China through the South China Sea and beyond. The Road is designed to go from China’s coast to Europe through the South China Sea and the Indian Ocean in one route, and from China’s coast through the South China Sea to the South Pacific in the other.2 The geographical linkages envisaged by the “belt” and the maritime “road” are to multiple locations. And the sectoral nature of these links is not limited to physical infrastructure, but also about connectivity in terms of trade, investment, finance, and flows of tourists and students. In cooperation priorities, it highlights that the initiatives should promote policy coordination, facilities connectivity, unimpeded trade, financial integration and people-to-people bands as the five major goals.

Investment and trade cooperation is a major task in building the Belt and Road. The initiatives wishes to improve investment and trade facilitation, and remove investment and trade barriers for the creation of a sound business environment within the region and in all related counties. By discussing with countries and regions along the Belt and Road on opening free trade areas so as to unleash the potential for expanded cooperation.

The Belt and Road Initiatives, according to Vision and Actions, is “open to all countries, and international and regional organizations for engagement.” It “advocates peace and cooperation, openness and inclusiveness, mutual learning and mutual benefit,” as well as “promotes practical cooperation in all fields, and works to build a

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2 Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road, 2015/03/28, Issued by the National Development and Reform Commission, Ministry of Foreign Affairs, and Ministry of Commerce of People’s Republic of China, with State Council authorization.
community of shared interests, destiny, and responsibility featuring mutual political trust, economic integration and cultural inclusiveness.”

The initiatives has been established on four principles: openness and cooperation; harmony and inclusiveness; market operation; and mutual benefits. With an economic diversity in the region, the Belt and Road initiatives seek to promote win-win cooperation among participating nations by breaking the infrastructure bottlenecks, by boosting efficient allocation of resources and by further integration of markets.

The initiatives consists of a network of railways and highways and other forms of infrastructure, as well as oil and gas pipelines, power grids, Internet networks and aviation routes in the Eurasian area. Cooperation and construction projects would bring benefits to countries along the routes, and push forward bilateral trade and economic activities.

The connectivity projects of the initiative will help tap market potential in this region, promote investment and consumption, and create demands and job opportunities. The initiative will enable China to further expand and deepen its opening –up, and to strengthen its mutually beneficial cooperation with countries in Asia, Europe and Africa and the rest of the world, and will offer opportunities for China and Japan to join hands in operating the great market.

The Belt and Road initiative demonstrates the Chinese government’s determination to promote pragmatic and win-win cooperation among countries along the routes, and to create a new opening-up pattern towards both the East and the West.

Together with the Belt and Road initiatives, In 2014, two new financial institutions, the Asian Infrastructure Investment Bank (AIIB) and the Silk Road Fund, was launched, in response to the substantial financing gap for infrastructure investment in Asia. The World Bank estimated that Asian demand for infrastructure would amount to some US$730 billion (£465 billion) per year up to 2020. AIIB initiated by China plays an active role in financing infrastructure projects in Asia, and will promote the sustainable development of the region. The AIIB was designed to be a multilateral organization and to mimic the roles of several Washington-based international lending institutions and the Asian Development Bank in Manila. It has currently 57 founding members comprised of 37 Asian countries, 18 European countries, Australia, New Zealand, two African countries and Brazil. The authorized capital of the AIIB is expected to be US$100 billion and will be used exclusively for infrastructure projects in sectors such as energy, transportation, telecommunications,
agricultural development, urban development and logistics in Asia. The
China-initiated Asian Infrastructure Investment Bank (AIIB), which was formed in
October 2014 and had been signed by 51 Prospective Founding Members (PFMs) as
of September 2015, operated by the early 2016. AIIB is a multilateral development
bank that aims to provide finance to infrastructure in Asia. It has been estimated that
Asia requires 8 trillion US dollars’ worth of infrastructure investment from 2010 to
2020 to be able to sustain its economic development. AIIB will serve as an important
platform supporting regional connectivity, will invest in sectors including energy,
transportation, urban construction and logistics as well as education and health care.
The plan will further extent to create an Information Silk Road linking regional
information and communications technology networks, and lower barriers to
cross-border trade and investment in the region.

The Silk Road Fund was launched by China with capital of £25.5 billion in
December 2014. The Silk Road Fund is open to investors from Asia and beyond.
Regional and sectoral sub-funds are expected to be established later to attract more
international cooperation. The Silk Road Fund, to invest in projects in countries along
the Belt and Road routes and beyond, will focus not only on infrastructure, but also on
high-return projects such as resource development and industrial cooperation.

1.3.2 The Proposal on 13th Five-Year Plan

The CPC Central Committee's Proposal on Formulating the Thirteenth Five-Year
Plan (2016-2020) on National Economic and Social Development was adopted at the
Fifth Plenary Session of the 18th CPC Central Committee which ended on October 29,
2015. It lays out the development guidelines and targets of the world’s second-largest
economy in the next five years. The 13th Five-Year Plan designed to guide the
country’s social, political and economic development through the second half of this
decade.

The proposal aims to make china become a “moderately prosperous society” by
2020 through maintaining medium-high growth, giving domestic consumption full
play in driving the economy, speeding up the urbanization process and improving
people’s livelihood. The five year from 2016 is a critical stage for building a
moderately prosperous society in all aspects. The 13th five year plan will focus on
realizing this goal. The document highlights the ideas of innovation, coordination,
green development, opening up and sharing to fulfill its goals. The five-year plan
focuses on growth quality and efficiency to increase innovation’s contribution to
economic expansion, and solve the problems of industrial overcapacity, the aging population, fragile social security system, and insufficient public services. Structural reforms at both supply and demand ends will be continued. The government will also seek to expand effective investment, upgrade consumption and pushing new types of urbanization.

The proposal sets a target of “maintaining medium-high growth”. Secure a middle-high economic growth target: the plan have set a five-year economic growth target at 6.5%, a goal that would double the economy’s gross domestic product(GDP) and per capita income of resident between 2010 and 2020. To achieve this target, however, China will need to find new engines of growth, such as consumption, innovation, and entrepreneurship, all of which are emphasized in the plan.

A major policy in the coming Five-Year Plan is a new emphasis on growing domestic consumption, it is to shift the engine of growth from investment and exports to domestic consumption. The plan clearly creates a differential in prospects for different industries, with its strong emphasis on consumption, innovation, social welfare and health. The transformation of the Chinese economy from the investment and export-driven mode to a consumption-oriented one has a spillover effect on other countries as a larger Chinese middle-income group will generate more demand for foreign commodities and services.

The new plan puts innovation on the top of China’s development ideas over the next five years, which shows its courage and determination to transform the development mode as the Chinese economy is adjusting to a “new normal” state that features lower growth pace but higher efficiency and quality.“Development must rest on the basis of innovation,” the proposal said. Driven by innovation with first-mover advantages, allocation of labor, capital, land, technology and management will be focused on stimulating entrepreneurship, so that new technology, industry and business mode will prosper. At a time of economic globalization, China’s innovation and development have created more opportunities for the rest of the world.

Meanwhile, China also stresses green development in the 13th Five-Year Plan, indicating that the country has made a right choice in both boosting development and protecting the nature. As an important developing country, China has long been committed to pushing forward the global climate talks and has kept its promises to emission reduction, playing a key role in fighting global warming.

The next five-year period was described as decisive for building a moderately
prosperous society by 2020 in the proposal. It has pointed to the key tasks that will form the government’s blueprint for development over the next five years. China’s 13th Five-Year Plan has a positive and far-reaching impact on the world. The document depicts a blueprint for the development of China in the next five years. China’s more prosperous economy will raise the world’s GDP through larger imports of resources and products. A new five-year national socioeconomic development plan will provide more opportunities for the development of other countries.

1.3.3 Urbanization in China

For more than 30 years of reform and opening-up, China's urbanization rate has been rapidly increasing, from 17.92% in 1978 to 54.77% in 2015. The Urban permanent resident population increased from 172 million in 1978 to 749 million in 2015, and urbanization development made great achievements. China’s permanent urban residents make up 54.77 percent of its population, lower than the developed nations’ average of 80 percent and the average of 60 percent in developing countries with similar per capita income levels as China, according to the National New Urbanization Plan (2014-2020). The registered urban population accounted for 35.7 percent of China’s total population by the end of 2013, according to the national bureau of statistics. One of the tasks in the 13th Five-Year Plan is to increase the urbanization rate based on the number of registered residents. That rate is expected to reach around 45 percent by 2020.

Figure1: The Urban Permanent Resident Population and Urbanization Rate in China

The Urban permanent resident population(million)

urbanization rate(%)
The urbanization development speed is slow, which has seriously affected the whole advancement of the national urbanization. China's urbanization process is the serious unbalanced regional development. Urbanization rate in the eastern coastal areas has exceeded 60%, while in the central and western regions is less than 50%. The purpose of urbanization is to promote the regional balanced development. To break the urban and rural dual economic structure and unfair distribution is the main task of comprehensively deepening reform in China. The Decision on Major Issues Concerning Comprehensively Deepening Reforms adopted at the close of the Third Plenary Session of the 18th CPC Central Committee pointed out that it need to improve the urban-rural integration development mechanism, and set up a new type of industry-agriculture and urban-rural relations in which the industrial sector promotes agriculture, urban areas support rural development, agriculture and industry benefit each other, and urban and rural development is integrated, making the masses of peasants participate in the modernization process and share the achievements of modernization.

To achieve such a reform goal, it need to accelerate the urbanization development strategy, promote the urbanization of agricultural transfer population, and gradually change the agricultural transfer population to urban residents. For "new urbanization" problems, the government work report in 2014 put forward the goal to solve "three 100-million-people tasks": that is, enable the 100 million migrant farmer workers to settle down in cities and become real city residents by 2020; to accelerate the urbanization process of the central and western regions, guiding 100 million farmers to enter the nearby towns and cities voluntarily; to concentrate on rebuilding the run-town areas and unsafe buildings in cities to solve the housing problem for 100 million people. The specific development goal of "three 100-million-people tasks"not only provides a sufficient space to expand domestic demand, but also provide ample space to expand import and digest international production capacity. What's more, with the reform of the income distribution system, residents’ income will increase significantly, thus significantly increasing household's consumption ability and desire. Therefore, a big market with a population of 1.3 billion under increasingly common prosperity will be the most powerful motivation of the world economic growth.

The National New Urbanization Plan (2014-2020) says, “Domestic demand is the fundamental impetus for China’s development, and the greatest potential for
expanding domestic demand lies in urbanization.” China will boost construction of green cities, using ecological advancements in urban development to create green production modes, green lifestyle and green consumption modes. During the process of urbanization, the cities intends to build more extensive urban public transport systems and a national rail and road network to connect smaller cities and townships. It also aims to increase water and waste treatment ratios while expanding broadband internet coverage, increasing the use of cleaner-burning natural gas in place of dirty coal in cities.

As for the urban-rural integration, policies should be improved to ensure urban development facilitate rural progress, and agriculture and industry benefit each other, according to a decision on major issues concerning comprehensively deepening reforms, approved by the Third Plenary Session of the 18th CPC Central Committee on Nov 12, 2013. Under the urban-rural integration drive, educational resources will be evenly distributed; pension, medical insurance and basic living insurance programs will be coordinated, and basic social services in cities and towns will cover all migrant workers from rural areas. Urbanization processes will be increasingly important for economic growth. The last 37 years have seen China’s urban population roughly quadruple to more than 700 million people, and it is likely to rise by a further 240 million over the next 35 years. China's market with rapid advance of urban-rural integration and fast-growing residents' income will create a huge potential for the world economic growth.

1.3.4 A New Normal of China’s economy

The “new normal” gained ground in China when in May 2014, President Xi Jinping, during his inspection tour in central China's Henan Province, described the need to adapt to a "new normal" and remain cool-headed as the brakes went on. In November 2014. The "new normal" theory was elaborated by Chinese President Xi Jinping on the CEO Summit of the Asia-Pacific Economic Cooperation (APEC) in Beijing. In his speech, Xi, for the first time ever, sketched out a full picture of Chinese economy's "new normal." A “new normal” of China’s economy has emerged with several notable features. First, the economy has shifted gear from the previous high speed to a medium-to-high speed growth. Second, the economic structure is constantly improved and upgraded. Third, the economy is increasingly driven by innovation instead of input and investment. The essence of the “new normal” is not just about speed. It is more relevant to an improved economic structure which relies
more on the tertiary industry and consumption demand, and innovation.

In the 35 years between 1978 and 2013, annual growth of the Chinese economy averaged close to 10 percent and, between 2003 and 2007, it was over 11.5 percent. Growth decelerated to 7.7, 7.7, 7.4 and 6.9 percent in 2012, 2013, 2014 and 2015 respectively. But China’s economy has remained a strong engine for world economic growth in 2015 amid a global struggle for economic recovery and the worsening situation in some emerging markets. Viewed against an international backdrop, growth of 6.9 percent was “not a low rate” and outshone other global economies. Despite a recent slowdown, China still contributed to more than 25 percent of global economic growth, which means China remains a major world economic powerhouse. Though the Chinese economy has been steered to a “new normal” of more sound and slower growth, it continues to create development opportunities for the world. China's new normal economy will lead to a shift in focus to high quality and efficiency in the 13th five-year plan. The new normal conditions would help unleash new investment opportunities for companies at home and abroad in the service, hi-tech, consumption and urbanization-related sectors. It is now shifting its focus to consumption and service industry from polluting heavy industries and manufacturing via complex reforms.

We know that the domestic and international situations are still complicated and China’s economic development is facing with difficulties and challenges.

China’s economy must adhere to the principle of maintaining stable progress, focus on the improvement of the quality and efficiency of the economic development and proactively get adapted to the new normal, and must keep the economic operation within proper range, prioritize the economic transformation and structural adjustment, focus on the reform and major breakthroughs, highlight the driving force of innovation, promote a sound and sustainable economic growth. Chinese economy under the "new normal" conditions can not only avoid collapse as foreseen by some pessimists, but also provide new opportunities for the world.

1.3.5 Supply-Side Structural Reform

Marking a crucial year for China to comprehensively deepen its reforms, 2015 saw the birth of its development blueprint for the next five years.

As the economy expands, the growth rate will moderate, its structure must be adjusted while the engines of growth must be shifted, China’s economy remaining long-term fundamental sound calls for supply side structural reforms. Supply-side
structural reform means starting from elevating the supply quality, then restructuring the economy, reallocating resources and expanding effective supply. The major tasks of supply side structural reform are reducing production capacity, unloading inventory, de-leveraging, lowering cost and filling the short board of the economy. Such reforms aim to reduce non-effective and low-end supply while expanding effective and medium-to-high-end supply to boost productivity.

Supply-side structural reform remains connected with comprehensively deepening reform. Supply-side structural reform can improve the competitiveness of enterprises and industries, thus expanding market share. Current investment and export on driving economy have hit bottom, while supply-side structural reform can increase the effective supply of the society. Increase of the effective supply can increase the effective demand, thus improving the economic vitality.

For the biggest developing countries, China shall not only focus on the current economic stable growth, but also take the long-term sustainable development into account. "Demand side" and "supply side" are not the relationship of either/or. Both just have own focus and shall combine their respective advantages and disadvantages and make efforts. In the process of supply adjustment, we shall effectively combine both supply and demand, consider the change of demand structure both at home and abroad, and play the role of demanding driving economy.

The reform is a timely strategy by the government to adapt to the current situation and open up new ways for economic development, and give full play to the role of the market, adjust the relationship between supply and demand, and lift the total factor productivity through such measures as structural adjustment.

China’s supply-side structural reform holds the key to its structural adjustment in the short term and will solidify the bedrock for the sustainable development of its economy in the long run. The choice of supply-side structural reform shows that china is seeking an innovative way to stabilize growth and adjust its economic structure with fresh ideas. The reform of state-owned enterprises, of the government management system, of fiscal and taxation system, of the financial system, of the pension system, of medical and health system, etc., are the important problems to be solved. Through these reforms, increase more breakthroughs to eliminate the systematic obstacles of the ‘supply side’. Strengthen the innovation ability, especially the innovation ability of enterprises is very important. Improve the labor productivity with innovation, and increase new supply with innovation. Reduce the enterprise cost
reasonably, reduce the burden on enterprises, so as to realize the transformation of the real economy smoothly and orderly. At the same time, reduce the decentralization for building a relatively loose development environment for the enterprise. China has been transforming from an export- and investment-powered model to one based on stronger consumer spending, innovation and the service sector. The reform focuses on better provisions for high-quality goods and services, lower costs for businesses and stronger consumption.

1.4 The Great Opportunities Brought by China’s Economy Development

A series of policies and measures, such as the report of the 18th CPC Central Committee, the report at the third Plenary Session of the 18th CPC Central Committee, the 13th Five-Year Plan (2016-20) and the Belt and Road initiatives, etc, sent a message to the world that China will maintain a medium-to-high growth rate. This should brighten the growth prospects of many industries in China and offer more opportunities for foreign enterprises.

China’s transitions from investment-led to a consumption-based economy will be critical. For example, the growth of the service sector and development of new-type industries both are the result of China’s economic transition and the foundation future growth.

Since its economic growth will rely more on innovation, technological innovation in particular, China will not only offer development opportunities to Chinese high-tech enterprises but also attract some foreign high-tech innovative enterprises.

China has been maintaining sustained, healthy and fast economic development since deepening reform, which is conducive to world economic recovery and growth. China's economy grew by 6.9 percent year on year in 2015, according to data from the National Bureau of Statistics (NBS). Growth Domestic Product (GDP) was 67.67 trillion yuan (about 10.3 trillion U.S. dollars) in 2015, with the service sector accounting for 50.5 percent. End-user consumption, including resident and government spending, contributed 66.4 percent to the national GDP growth in 2015, up 15.4 percentage points from 2014, the NBS date showed. China’s government is actively promoting policies to shift its economy toward consumption. Income per capita is rising, and the middle class is growing, driven by urbanization.

Over the next five years, China's imports will exceed 10 trillion dollars, investment in foreign countries will exceed 500 billion dollars, and outbound tourism
will be more than 400 million people. This will bring huge opportunities to the mutually beneficial cooperation between China and other economies such as Japan. China's economic structure strategic adjustment and industrial structure optimization and upgrading will effectively guide the international capital flow, promote the readjustment of international division of labor structure, and create the opportunities of enhancing the economic development of the peripheral and developing countries. China actively participates in regional and international cooperation, actively introduces and makes use of foreign capital to promote economic structure adjustment and industrial structure upgrading, and develops the high-tech industry for promoting its position in the international economic pattern, offering many investment opportunities for the international capital to participate in Chinese project and cooperate with China.

An important content of China comprehensively deepening reform is to foster the new regional economic belt and promote the coordinated development of regional economy. To build radiation effect of new communication channels between China and the world will lead a new round of opening to the outside world and promote the building of the new international economic structure. China’s Silk Road Economic Belt and 21st Century Maritime Silk Road initiatives are welcomed by the economies along the two routes. And China’s overseas investment and foreign trade have increased with the implementation of the Belt and Road Initiatives, suggesting there is huge demand in China for international industrial cooperation. At the same time, Deepening reform and build "silk road economic belt" will get through the road access between Asia-Pacific economic circle and European economic circle, making economic ties of Eurasian countries closer, cooperation deeper and development space wider. It will form the new world economic development belt, which is significant for promoting regional and global economic development. The "silk road economic belt" will make our inland become a new opening front, promote our inland's position in the global economy, and create the more balanced new situation with a common development of inland and coastal areas. Internationalization of RMB is helpful to build the new multi-polar world economic structure, promote the rebalancing of the world economy, realize the reasonable matching of economic aggregate and monetary aggregate in the global economy, provide great opportunities for China's trading partners, and can resolve China's massive foreign exchange reserves risk.
II Industrial Characteristics in Different Periods and Industrial Policies in Japan

2.1 The Character of Japan’s Economic Growth

From 1945 to 1955, it was reconstruction period characterized by a high growth rate, the economic growth rate reached 9.4% and 10.9% respectively during the period of 1946-1950 and 1951-1955. The period from mid1950s to 1970s was the rapid growth period of the Japanese economy. From 1956 to 1969, the economy growth rate was 13.9%. Average annual real growth of GDP of Japan in these two decades reached 16.47%, 12.79% respectively during the period of 1960s and 1970s. GDP per capital exceeded 20,000 dollars in the later period of 1980s; Japan ranked on the list the developed countries successfully. In this period of rapid economic growth, Japan's economic aggregate was rising, and status of the global economic power was basically established. Calculated in accordance with the current price, Japan became the world's second largest economy after the United States. However, in the second half of the 1980s, rising stock and real estate prices caused the economic bubble to the Japanese economy by bank of Japan. The economic bubble came to an abrupt end as the Tokyo Stock Exchange crashed in 1990-92 and real estate price peaked in 1991. But since 1990s, Japan was mired in the long-lasting economic downturn. Growth in Japan throughout the 1990s at 1.3% was slower than growth in other major developed economies, giving rise to the term Lost Decade. From 1991 to 2014, Japan's actual average annual economic growth rate was about 1%.

Though the economic rebound of Japan in 2010 was relatively strong, reaching 2.4%, yet after 2011, Japan's economy suffered a serious defeat because of the "311" Great East Japan Earthquake and the influence from the resulting tsunami and nuclear crisis, and met negative growth for the whole year, with a growth rate of -0.5%. From 2012 to 2014, although Japan's economy recovered, the actual growth rate was only 0.8%, 0.8% and 1.6%. Today, Japan is one of the most advanced and high tech economies in the world. Due to the nature of its economic structure, Japan has the world’s largest massive public debt-in. Other challenges that the Japanese face include persistent deflation, heavy reliance on exports to drive growth, and

An aging and shrinking population. population aging and low birth rate have become the important factor restricting economic development. Population decline and aging aggravation have become the most serious problems which Japan faced,

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due to the declining population and very high levels of government debt. This is likely to constrain the Japanese long-term growth rate to around 1 percent per year. Domestic demand was limited, which restricted the space and room for Japanese economic development. The Japanese economy was dependent on external demand for a long time, export goods had a strong international competitiveness and have been maintaining the status of trade surplus country. But Japan's powerful manufacturing capacity and limited domestic demand formed a big contradiction. Japan economy lacked the new economic growth point. Now, it was difficult that the Japan's economic growth to have a remarkable change in the short term, and the low growth in Japan's economy would be maintained for a long time.

Figure2: Japan’s GDP Growth Rate

Source: Wind Data

Figure3: Industrial Structure from 1955 to 2014

Source: Wind Data
rising first and then falling, the third industry went up greatly. Since 1960, the first industry has been keeping the declining trend, and from the mid-1960s to the mid-1970s, the proportion of the first industry in GDP has been between 5% and 9%. From the early 1990s until present, the proportion has been at 2% below. The characteristic of the proportion of secondary industry in GDP is increasing first. However, since the early 1970s, the proportion of the second industry continued to fall, and the proportion of the third industry through 1960s to early 1970s showed a trend of slow growth. Since early 1970s, the growth sped up, and the gap with the proportion of the second industry began widening, and by 2014, both had 49% of the difference.

2.2 Industrial Characteristics in Different Periods

Japan's industrial structure adjustment showed obvious stage characteristics. Japan was a country dominated by manufacturing industry for a long time, and the previous textile, steel, chemical industry, home appliances, auto machinery and information industry alternately acted as the pillar industry of Japan.

2.2.1 From 1945 to 1955: Dominated by Labor-intensive Industries

The period from 1945 to 1955 was the post-war recovery period, and Japan tried to reconstruct its economy after devastating defeat. Japan put forward the "state-building by trade" strategy, and at this stage, based on the comparative advantage of resource endowment and demand situation, Japan focused on developing the labor-intensive light industry and light industrial machinery, mainly fiber industry, grocery industry, etc.

During the period of 1946 - 1948, Priority Production System (PPS) was intended to start reconstruction by concentrating domestic resources into two critical industries: steel and coal. The government preferentially allocated raw materials and financial help to key industries. Materials, workers, and funds were ordered to be concentrated in these two industries. Foreign exchange and foreign capital were controlled and rationed. Under the preferential production plan, the steel industry received more coal and the coal received more steel. Preferential loans, price controls combined with subsidies, and allocations of restricted imported materials supplemented the plan.

Although, in order to achieve economic recovery and improve the ability of industrial development, the Japanese government adopted the lean production mode, and developed the elementary raw materials' industry centering on coal, iron and steel. However, in the entire economic recovery period, Japanese manufacturing industry
and internal labor-intensive industry were still dominated, output value of light industry increased to 54.5% of that of manufacturing industry by 1955, food and textile industry increased to 45%, while proportion of iron and steel sector of the heavy industrial sector in the total manufacturing output value dropped to 13.3%.

1950s, “rationalization” plans became the center of policy. The main tools at this stage were special tax provisions and tariff exemptions for imported machines in targeted industries. The industries targeted for rationalization included steel, coal, shipbuilding, electric power, synthetic fibers, chemical fertilizer. March 1952 saw the enactment of the Enterprise Rationalization Promotion Law, which was aimed at economic independence through the modernization of plant and equipment in key industries and provided special depreciation allowances and tariff exemption to key industries. The core of the program was the special depreciation system for heavy machinery, which played a large role in promoting rationalization. The Electric Power Development Promotion Law was also passed in July of that year (1952). Implemented during the first half of the 1950s, the First Steel Rationalization Plan played a pivotal role in the economic take-off. The Long-Term Credit Bank Law was enacted in 1952, and Long-Term Credit Bank was found in the same year. Thus, the government was constructing a new relationship with industry, one which included both the aspect of control and that of protection and nurture. During this time, the rate of private investment in plant and equipment and the household saving rate both exceed 10%, it did permit the Japanese economy to follow a path into a take-off period toward growth.

2.2.2 From the Mid-1950s through 1970s: the Rapid Development of Heavy and Chemical Industries

2.2.2.1 Characters of Industry

From 1956 to the end 1970s, Japan was in the period of rapid growth. In over 20 years after 1955, Japan has been keeping the rapid economic growth, and economic strength ranked the second in the world. The period of rapid economic growth between 1955 and 1961 paved the way for the “Golden Sixties,” from 1956 to 1965, it was generally associated with the Japanese economic miracle. 1965, Japan’s nominal GDP was estimated at just over $91 billion. Fifteen years later, 1980, the nominal GDP had soared to a record $1.065 trillion. High economic growth prevailed from the mid-1960s through the 1970s with the arrival of a mass-consumption society, as technological innovations spurred the expansion of manufacturing facilities and sales
of such consumer durables as television sets, refrigerators, and automobiles. By establishing the strategic goal of "state-building by trade, and catching up with Europe and the United States", Japan achieved the goal of taking heavy industry with great demand elasticity and high product added value as the leading industry, thus driving the development of other industries.

After the middle of 1950s, Japan's economy showed a trend of rapid growth. In the late 1950s, the driving force of Japan's industrial structure upgrading towards heavy industry mainly came from the market demand. Paralleling the development of the energy and materials sectors, rapid growth and modernization proceeded in the manufacturing sector as well. During this period, Japan accelerated urbanization, the growth of urban population and improvement of people's income pushed the great increase of demand for urban housing, transport and durable consumer goods. The heavy and chemical industries were brought close to people's daily lives by the development of the consumer durable industries. Typical was the development of such consumer durables industries as automobiles and electric machinery and appliances. The development of the automobile industry has been characterized as a series of advances toward mass production. Thin sheet production in steel industry was powerfully stimulated. Industries such as special sheet and machine tools were invigorated and proceeded to develop further. Development of this kind was not confined to the automobile industry. In electric machinery and refrigerators became possible when the steel industry was able to introduce the automatic, continuous-process stamping machines, and when transfer machines were introduced in the electric machinery and appliance industry.

The Period from the mid-1960s through 1970s is the famous “rapid growth” period of the Japanese economy. It is also considered the heyday of Japanese industrial policy. Between 1960 and 1970, Japan enjoyed an average growth rate of 11.6% in real terms. Industrial structure transformed dramatically from agriculture to manufacturing and from light industries (such as textiles) to heavy industries (such as steel, petrochemicals, and automobiles). This transformation was accelerated by the explosion of exports in heavy industry products.

The heavy and chemical industrialized stage with high-speed growth can be divided into two stages: The first stage was from 1956 to 1965. During this stage, raw materials' industry of the heavy and chemical industry was the development focus, and the output value proportion of chemical, oil, steel, metal products increased
significantly. The signal for the full-fledged commercialization of the petrochemical industry was the adoption in July 1955 of the Policy for Nurturing the Petrochemical Industry. At the beginning of the 1960s the composition of Japan’s petroleum consumption was based toward crude oil. In additional to chemical firms, industrial complexes which included electric power and petroleum refining were formed. But in the stage from 1965 to 1970, the output value proportion of the raw materials' industry fell slightly or was unchanged, but the proportion of machinery industry in industrial output value had the obvious growth, so the sharp rise in the proportion of mechanical industry showed that the industrial characteristic of Japan beginning to transform to finish-processing-industrialization has been very obvious. Dale and Koji 4think that the growth of Japanese economy during the period 1960-1973 depended more heavily on growth in TFP. Supporting this period’s high growth was the technological revolution proceeding in a wide range of fields, aimed at catching up with the advanced countries and driven by firm’s ardent desire to compete. On the other side of the coin, the reconstruction period was characterized by a high growth rate and a low investment ratio. The period of rapid growth was distinguished by a high growth rate, a high investment ratio, and a comparatively low capital coefficient. In 1970, 62.3% of Japan's manufacturing industries were heavy and chemical industries, and about 77% of export products were heavy and chemical products. Japan was the top in the world in the production of shipbuilding, TV, man-made fiber.

The character of industrial structure from 1965 to the first oil shock was that electrical machinery, real estate and service industry went up significantly.

Tertiary industry and emerging industries went up significantly. The proportion of manufacturing industry increased after the middle of 1960s, but the increase was not large, peaked in 1970, and met a significant decline in the late. But from the perspective of the obviously rising output value proportion of wholesale and retail industry, service industry, construction industry and real estate industry, the proportion of the third industry went up rapidly.

This is the period when Japanese economy repeatedly suffered from external as well as internal drastic structural changes. Between 1973 and 1974, the price of oil quadrupled by OPEC’s initiative. Because of yen appreciation and increases in the

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price of oil, many heavy industries, which are very dependent on imported oil and export possibilities, started to have structural problems. Shortly after the recovery from the first oil stock, there was steep yen appreciation between 1977 and 1978; the second oil shock hit the Japanese economy in 1979-80. Japan’s industrial evolution entered a new phase after the oil crises of the 1970s. The economy showed its resilience especially after the two oil crises of the 1970s. Dealt a severe blow by the big jump in the price of crude oil, Japanese businesses responded by developing fuel-efficient products and manufacturing processes. The outbreak of the oil crisis brought a very big impact to Japan's export-led economy. With this as a turning point, Japan started to conduct a new industrial structure adjustment. The main direction of this adjustment was developing knowledge intensive industry and reducing the consumption of resources and energy, with the leading industry of automobile and electrical machinery. Research and development intensive industry (computer, semiconductor, etc.), high assembly industry (communications equipment, office equipment, etc.), and knowledge industry (information processing, software, etc.) started to rise. Japan’s industrial structure was transformed from one centered on traditional “smokestack” industries to one focused on high-tech, electronic industries.

2.2.2.2 Industrial Policies

There have been three main periods of industrial policy. The earliest, from the mid-1950s to the mid-1960s, the government began to allocate scarce funds to specific industries, including steels, automobiles, and electronics. In the late 1950s, the industries targeted for rationalization included also petrochemicals, machine tools and parts, and electronics. Thanks to its highly educated and abundant labor force and to the concentration of capital and resources in certain key industries, such as electric power and steel, Japan succeeded in achieving industrialization during the 1950s and 1960s. The following decade was the peak of Japan’s so-called high-growth period, and represented to many Japan’s last chance to gain a foothold in high-technology industries before the inevitable pressure to open up its market began. In the 1960s, Japan was gradually integrated into the international economic system. A member of GATT, IMF, OECD, the objective of industrial policy shifted to strengthening the industrial structure within the time frame for trade and capital liberalization. Government still wielded powerful tools, though with less heavy handed policies than in the 1950s.

Manufacturing played the leading role as leading in economic development after
the war. During the era of rapid economic growth in the 1960s, raw material manufacturing registered spectacular growth by introducing the latest technologies and adopting mass production methods. In addition, the Japanese government designed the related industrial policy based on Shinohara Miyohi's "income elasticity benchmark" and "productivity" benchmark, and built a dynamic comparative advantage to support the development of heavy and chemical industry, indirectly promoting the development of Japan's heavy and chemical industry.

Starting in the early 1970s, Japan, besieged by the oil crisis and various pollution and quality-of-life problems, began to shift its support away from energy-intensive industries, such as steel, towards more knowledge-intensive, high valued-added industries, such as computers, and biotechnology. In the 1970s the government greatly transformed its industrial policies, attempting not only to make domestic industries strong enough to withstand international competition but also to pursue objectives other than growth. Considering that the environmental pollution and public hazard caused by economic growth were increasingly acute, the Japanese government also formulated the industrial policy guidance for related industries. The government’s new objectives included achieving pollution control, or industrial development harmonious with environmental needs, and stricter application of anti-trust policies. Since the late 1970s, the government has strongly encouraged the development of knowledge-intensive industries. Japanese industrial policies began to move toward the use of the market mechanism and deregulation.

2.2.3 Technology-Intensive Industry and Tertiary Industry Were Rising in the 1980s

After the 1970s, the position of leading manufacturing were taken by advanced processing-and-assembly industries with high-value-added products such as electronics, automobiles, precision equipment and information technology. Through the 1980s, Japan was in the period stable growth, and technology-intensive industries and knowledge-industries were rising. Japan began to expand the overseas investment. At this time, the rise of East Asia's emerging economies with South Korea, Taiwan, China Mainland as the representative made Japan's manufacturing industry chain speed up the overseas transfer. The proportion of processing and assembly industry in the Japanese manufacturing structure changed from expanding to narrowing, and the proportion of transport machinery industry in Japan's GDP dropped from 10.42% in 1981 to 9.81% in 1989. Japan changed from depending on domestic assembly process
and large export of products to the domestic design research and development, and relied on the foreign assembly processing for increasing the export of the intermediate products and import of finished products. In the 1980s, many Japanese companies became very strong, and thus less dependent on government for protection and subsidies. After the Plaza Agreement of 1985, the yen was appreciated sharply, comparative advantage in manufacturing price dropped. Japan emphasized the added value of products, making the automobiles, electronics, precision instruments and other products still have strong international competitiveness after the appreciation of the yen. In the late 1970s and 1980s, industries policies brought Japan into conflict with other countries. The rapid expansion of Japanese exports started to stir protests. In response to increased trade friction, industrial and trade policies became less visible and formal, and tariffs and quotas were eliminated or substantially reduced.

Considering that the original export industry was limited by the trade protection barriers of developed countries due to the trade frictions with other countries, many Japan's companies began to carry out the production and sales in the destination countries for exports. For example, Toyota, Honda and Nissan motor company built a factory in the United States during this period. But the information industry, service industry and high-end electronic components' industry with technology and knowledge-intensive as the characteristics got the rapid development in Japan. Government support for research and development grew rapidly in the 1980s, and large joint government-industry development projects in computers and robotics were started. At the same time, government promoted the managed decline of competitively troubled industries, including textiles, shipbuilding, and chemical fertilizers through such measures as tax breaks for corporations that restrained workers to work at other tasks. Meanwhile, service industry, financial industry and information industry had the rapid growth, with proportion in the industrial structure expanding steadily.

At the end of the 1980s, the goal of international business strategy was established, and legal hindrances to foreign investment were removed as well in Japan. Despite this liberalization, Japan's market remains one of the most difficult to enter, especially among advanced capitalist countries; most current barriers are business practices and institutions, many of which evolved to serve other purposes as well as protection.

Japan's industrial structure adjustment in the 1980s kept its great economic power status, but brought price of land and stock went up sharply, leading to the
formation of the bubble economy. In the late 1980s, Japan established the economic structure goal of "domestic demand leading", which was aggressive domestic strategies, but it was not implemented in improving the labor production conditions and increasing the mass consumer purchasing power, but adopted the policy of "supporting producers", so the domestic demand was not fundamentally changed.

2.2.4 Since 1990s: Science and Technology Plays an Important Role in the Development of Industry

The annual economic growth rate fell from 4.1% of the 1980s to an average rate of 1.4% for the 1990s. These economic conditions led the 1990s to be dubbed "the lost decade." In the mid-1990s Japan began to reform its industrial structure. It developed a plan focusing on selected areas of projected growth, including telecommunications and biotechnology. Deregulation measures were introduced, legal systems were upgraded to revive industry, and changes were made in both fiscal and taxation systems. After the impact from the Asian financial crisis and two times of deflation, Japan's economy has entered a restorative growth stage since 2000. During this period, the change of Japan's industrial structure was mainly manifested in: Service industry, transportation, communications, finance, insurance, wholesale and retail industry and other traditional service industries grew rapidly and had the great potential of continued growth. The status of manufacturing industry as the pillar industry of Japanese economy continued to be enhanced under the stimulation of international and domestic market demand growth, but the growth potential was lower than the tertiary industry. Electrical machinery, transport equipment, ordinary machinery as the pillar industries of manufacturing industry got the further development.

In 1997, the Japanese government proposed the Economic Structural Change and Innovation Plan facing the 21st century. The content was that Japan's industrial structure in the 21st century shall three aspects - international coordination, domestic demand dominance and high efficiency. The core idea of Japan's industrial structure adjustment was transforming from "state building by trade" to "state building by science and technology", expanding domestic demand with the third industry as the center, and establishing industrial structure adapted to the international level.

Despite the historical significance of Japanese manufacturing, Services are the dominant component of the economy-contributing to 71.4 percent of the GDP in 2012. Major services in Japan include banking, insurance, retailing, transportation and
telecommunication.

As a response to the perceived challenges to Japanese industries, the government has pledged to promote industrial consolidation and business restructuring and increase the business start-up rate. A number of initiatives and laws have been established in Japan after 2000, including the Law on Special Measures on Industrial Revitalization, the Energy Conservation: Top Runner Program, the Innovation Network Corporation of Japan (INCJ) and the Eco-point Program and Eco-car Subsidy. The Law on Special Measures on Industrial Revitalization, introduced in 2001, is particularly representative of recent policy approaches to industrial policy in Japan.

In 2010, METI put forward Industrial Structure Vision. The vision aims to rectify this imbalance through four shifts in government and corporate practices: industrial structure, corporate business models, globalization, role of government. These shifts will enhance the competitive strength of Japanese firms and help them to become more effective global competitors in growth areas. The first shift called for within the vision is a change from an industrial structure that is heavily reliant on the automobile industry to one that has a more stable, diversified structure based on the five strategic areas to enhance Japan’s industrial competitiveness including:

<table>
<thead>
<tr>
<th>area</th>
<th>Example</th>
</tr>
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<tbody>
<tr>
<td>Infrastructure related/system sales globally</td>
<td>Nuclear, water, railroad, etc.</td>
</tr>
<tr>
<td>Environment and energy problem solving industry</td>
<td>Smart community, next generation automobiles</td>
</tr>
<tr>
<td>Creative industries</td>
<td>Fashion, content, etc.</td>
</tr>
<tr>
<td>Medical, nursing, health, and child care services</td>
<td>Pharmaceuticals, biotechnology, natural products, etc.</td>
</tr>
<tr>
<td>Frontier fields</td>
<td>Robots, spaces, etc.</td>
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METI: Industrial Structure Vision June 2010

The threat of increased global warming resulting from the use of fossil fuels stresses decision-makers to formulate and adopt policies towards different sectors of the economy. In light of the great earthquake in Japan 2011, energy efficiency also
plays an important role in meeting the challenge of power supply, are of particular importance as a major part of the energy in the economy also. “Basic Act of Energy Policy” was built in June 2002 for the purpose of ensuring steady implementation of energy policy. Based on the act, the first Strategic Energy Plan was drawn up in October 2003. Strategic Energy Plan (April, 2014) as the forth indicates Japan’s new direction of energy policy. This plan summarizes Japan’s challenges of policies to be tackled, and its lines of long-term, comprehensive and systematic energy policy.

To achieve Japan’s sustainable economic growth, the government will enhance various policy actions, such as expanding domestic demand, creating new markets ahead of the global trend, cultivating market demand in emerging economies under public-private sector partnerships, pushing ahead with technical innovations, making use of the potential of SMEs, and enhancing strategic business management capabilities. In 2012, Industry was responsible for 27.5 percent of Japan's GDP. Major industries in Japan include motor vehicles, electronic equipment, machine tools, steel and nonferrous metals, ships, chemicals, textiles, and processed foods. The policies brought active function for the industries development.

To secure an average annual economic growth rate of around a nominal 3% or a real 2% over a “decade of revitalization”(FY 2013 – 2022 ). The Japan Revitalization Strategy (revised in 2014), provided three plans –the Industry Revitalization Strategy, the Strategic Market Creation Plan and the Strategy of Global Outreach—and established key performance indicator (KPI) for each policy measure to check progress through the PDCA (plan – do – check – act )cycle. Japan Revitalization Strategy put forward that it will accelerate the TPP and other economic partnership negotiations to remove obstacles to the cross-border movement of goods, services and investment.

In December 2012, in the latest growth strategy, Prime Minister Abe introduced his economic policy package, so-called Abenomics, which includes “three arrows”: a massive fiscal stimulus, more aggressive monetary easing from the Bank of Japan, and structural reforms aimed at boosting Japan’s competitiveness. Abenomics consists of monetary policy, fiscal policy, and economic growth strategies to encourage private investment. The Abe administration launched the first arrow of monetary policy aimed at eliminating the deflationary mindset and the second arrow of flexible fiscal policy aimed at igniting the dampened economy. The third arrow, speedy growth strategy. Specific policies include inflation targeting at a 2% annual rate, correction of
the excessive yen appreciation, setting negative interest rates, radical quantitative easing, expansion of public investment, buying operations of construction bonds by Bank of Japan (BOJ), and revision of the Bank of Japan Act. Fiscal spending will increase by 2% of GDP, like raising the deficit to 11.5% of GDP for 2013. Abe’s strategy has indicated that, in order to boost competitiveness of Japanese industries, new policies will be required across the areas of tax, foreign trade agreements, labour regulation, agriculture market, and the medical and welfare systems. The three arrows aimed at “overcoming deflation” and “increasing wealth” (3% annual average growth of nominal GDP for the coming 10 years).

On April 4, 2013, the BOJ announced its quantitative easing program, whereby it would buy ¥60 to ¥70 trillion of bonds a year. On 31 October 2014, the BOJ announced the expansion of its bond buying program, that the monetary base will increase at an annual pace of about 80 trillion yen (an addition of about 10-20 trillion yen compared with the past. Abenomics had immediate effects on various financial markets in Japan. By February 2013, the Abenomics policy led to a dramatic weakening of the Japanese yen and a 22% rise in the TOPIX stock market index. The unemployment rate in Japan fell from 4.0% in the final quarter of 2012 to 3.7% in the first quarter of 2013, continuing a past trend. Aiming at overcoming the “declining the birth rate and aging population” issue, Prime Minister Abe announced the “New Three Arrows”, naming the new policy “Abenomics 2.0” by himself in September 2015. The three new economic policy goals include: promotion of economic growth, child-rearing assistance to push up the low birth rate and social security measures to increase nursing facilities for the elderly.

The first is aimed at boosting the country’s gross domestic product (GDP) from 490 trillion yen to 600 trillion yen by around 2020. The second is to raise the number of children born to couples who want to have kids to an average of 1.8 by around 2025, and the third is to realize a society where no one needs to leave their job to care for elderly parents. The policies are aiming at building a society “Promoting Dynamic Engagement of All Citizens”. The new three arrows aim to increase potential growth

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7 Adjusted Unemployment Rate in Japan (JPNURAQS), http://research.stlouisfed.org/fred2/series/JPNURAQS
rate through: robust economy that creates hope, child care support that fosters dreams and social security that fosters sense of safety.

2.3 Industrial Policy is an Important Impetus of Japan's Industrial Structure Upgrading

2.3.1 The Objectives of Industrial Policies and Methods Included

Historically, there were three main elements in Japanese industrial development. The first was the development of a highly competitive manufacturing sector. The second was the deliberate restructuring of industry toward higher value-added, high productivity industries. Japan has few natural resources and depends on massive imports of raw materials. So the careful development of the producing sector has been a key concern of both government and industry throughout most of the twentieth century. The third was government plays an active role in making these shifts, often anticipating economic developments rather than reacting to them.

The Japanese Government has used industrial policies throughout the postwar period guide the economy in the direction of higher value added and greater knowledge intensity, and away from heavy reliance on unskilled labor and natural resources. Research suggests that by reducing costs and risks for domestic firms advance technologically, industrial policies and targeting have contributed to Japan’s international competitiveness in many industries, including steel, motor vehicles, semiconductors, and computers. Considering the impacts that competitive companies in these industries have on other industries both upstream and downstream, the effect is profound.

Masahiro Okuno-Fujiwara (1991) thought that, from 1945 to the early 1990s, there were three main objectives of industrial policy in this period: providing adjustment assistance to trouble industries suffering from the aforementioned structural changes, meeting with foreign criticisms and demands concerning Japan and trading problems, encouraging R&D in private sector.

Adjustment assistance for domestic industries took several forms: assisting workers to relocate and to train themselves for new jobs, providing assistance for depressed areas, and so on. However, the major policy tools were the following two: the establishment of joint credit funds purchase scrapped facilities with bank-loan guarantees, and allowing a capacity-reduction cartel in designated industries.

Takatoshi Ito (1997) thought the stated objectives of Japanese industrial policy have been to reduce imports, to foster higher growth in key industries, and to change
the industrial structure. It has consistently undertaken policies in four major categories:

Creating infrastructure for all industries. The government has helped fund the construction of road systems, industrial ports, industrial water supplies, and electric-power plants.

Allocating resources among industries. The government has given subsidies and import protection to certain targeted industries, such as infant industries.

Industrial restructuring among individual industries. The government has helped individual industries “reorganize” their structure, the basic philosophy of Japanese policy in this category is to prevent “excess competition.”

Dealing with the problems of small and medium-size firms. Various measures have been taken to protect and help small and medium-size firms.

The first two of the above categories concern resource allocations over all industries; the last two concern problems within individual industries.

2.3.2 The Views on Japan’s Industrial Policies

A complicated system of industrial policies was devised by the Japanese Government after World War II and especially in the 1950s and 1960s. The objective of industrial policy was to promote industrial development and to shift resources to specific industries in order to gain international competitive advantage for Japan. After World War II, the initial industries that policy makers and general public felt Japan should have were iron and steel, shipbuilding, the merchant marine, machine industries in general, heavy electrical equipment, and chemicals. Later they added the automobile industry, petrochemicals, and nuclear power and, in the 1980s, such industries as computers and semiconductors.

There are a variety of views on Japan’s industrial policies. Some see the bureaucracy as having been the most important actor guiding development. In Japan, protecting infant industries from foreign competition and using various policy measures to drive exports have been regarded as the essential elements of industrial policy. The Ministry of International Trade and Industry (MITI) plays the major role in executing industrial policies. MITI creates and implements most of the specific policies, but other policies set forth by other ministries can theoretically be included under the heading of Japanese industrial policy. These include regulations on communication industry administered by the Ministry of Post and Communication; regulations of railroads, trucking, and airlines administered by the Ministry of
Transportation; and regulations on financial industry administered by the Ministry of Finance.

(Takatoshi ITO, 1997) Some see business as having the upper hand in the government-business relationship. However, strong entrepreneurial spirits existed in private sector, despite the bureaucratic attempts to contain them. Many economists believe these spirits were the major factor of the Japanese economy’s performance in this period. (Masahiro Okuno-Fujiwara, 1991) Japan’s rapid growth was a series of technological innovations in the modernization of the Japanese economy, the process of catching up with the advanced nations, was achieved through reliance on the market mechanism, was achieved on the special system, customs, and behavioral style of Japanese society. (Yutaka Kosai, 1986) Yuki Sadamitsu (2013) showed three ‘historical shifts’ in Japanese industrial policy: 1940-1960s: Trade protection and promotion of heavy industries. 1970-1990s: Industrial structural transition by foreign pressure. 2000-: Lost decades and endogenous structural reform. Industrial policy has been a key ingredient, along with several other attributes of Japanese society, policy, and business tradition. But, Japanese government formulated the industrial policy, quickly transformed the industrial structure in different periods, and determined leading industries adapted to local economic development. Japan achieved rapid economic growth after World War II, and the benefit from the industrial structural adjustment couldn't go unnoticed.

Ⅲ Main fields in economic cooperation between China and Japan

3.1 China-Japan Economic and Trading Situation in Recent Years

3.1.1 China-Japan Trade Import and Export

China and Japan today shared the third largest trading relationship globally. While they are economically interdependent to a large degree. Trade in both directions has grown rapidly since the beginning of the Chinese reform period in 1978. Trade grew from just over US$5 billion in 1978 to over US$342 billion in 2013. Trade has been driven by the two countries’ geographical proximity, their complementary economic structures, and the rapid growth of China’s economy. But economic relationship between China and Japan According to the trade volume between Japan and China, Japan's imports from China exceeded exports to China in 2012. The Japanese investment in China has fallen dramatically since 2013. The constant falling of the exchange rate of yen against the RMB caused by Japan's Abenomics policy also took place in 2013. So 2012 has become an important turning year of Japan-China
economic relationship.

According to the customs' statistics of Japan, from January to November, bilateral import and export amount of goods of Japan and China was 247.5 billion dollars, down 12.4%. Among them, Japan's export amount to China was 99.77 billion dollars, down 13.9%, accounting for 17.4% of Japan's total exports, a decrease of 0.9%. Japan's import amount from China was 147.73 billion dollars, down 11.4%, accounting for 24.7% of Japan's total imports, an increase of 2.5%. Japan's trade deficit with China was 47.96 billion dollars, down 5.7%. Japan's foreign direct investment in China fell 25.3% year on year from January to November 2015, presenting the trend of continuous decline. Japan main imports are: mineral fuels (34 percent of total imports) with petroleum accounting for 18 percent, machinery (21 percent), food (8 percent), manufactured goods (8 percent), chemicals (8 percent) and raw materials (7 percent). From March of 2011, Japan’s imports of fuels has surged due to the closure of the nuclear plants. Japan's main import partners are China (22 percent), the United States (8 percent), Saudi Arabia (6 percent), United Arab Emirates (5 percent) and Qatar (4.5 percent).8 As of November 2015, China became Japan's largest trading partner, the second largest export destination and the largest source of import. This mutual reliance is mostly due to cross-border production networks between the two countries.

3.1.2 Complex Reasons for Decline of Actual Japan's Foreign Direct Investment in China

In recent years, Japan's actual investment in China was on the decline. Compared with Japan’s investment in China, which started as early as 1980 and ranges from manufacturing to retailing, China’s investment in Japan is still small. China’s non-financial investment in Japan was US$98.33 million in the first half of 2015, while Japan’s investment in China amounted to US$2.01 billion. The reasons were more complex, including external factors and Japan's own factors. Main reasons: First, in recent years, the RMB continued to rise, which raised the cost of the Japanese enterprise investment in China and weakened the competitiveness of Japanese products export-oriented companies. Second, as China's manufacturing industry was moving up in the production chain, China's labor force, land and other costs continued to rise. In order to reduce the production cost, some enterprises started to look for cheaper labor market, such as India, Vietnam, etc. Some Japan's companies' 

8 http://www.tradingeconomics.com/japan/imports
investment in China was in the wait-and-see stage. Third, the Japanese investment in China started relatively early, and most Japan's companies have set up enterprises in China and achieved good economic benefits. Many Japan's companies having invested in China put the priority on improving the economic benefit of enterprises in China. Fourth, as countries enterprise actively carried out investment in China and China's domestic companies grew, there would be increasingly fierce competition in China's market, and some Japanese enterprises without high technology content, poor competitiveness or their own mismanagement would be forced to withdraw from China's market.

The two countries have been the most important economic and trade cooperation partners for a long time. With the global economy in general is still in profound structure adjustment and the acceleration of global economic integration, economic and trade cooperation between two countries will be deeper and wider, economic cooperation benefits both China and Japan.

China-Japan economic cooperation has huge space and great complementarities, while it provides a huge space for the economic cooperation between China and Japan. Both sides could still do more to enhance economic cooperation, energy conservation and emission reduction, ecological and environmental protection, technology innovation are important fields of cooperation.

3.2 Environmental Protection, Energy Conservation and Resource Circulation

Establishing an environmental conservation and resource circulation society is one of the aims of China’s economic development. With strong support from the government and society, the Chinese environment protection industry, energy conservation industry and resource circulation industry will be rapidly develop, and there will be great opportunities in the Chinese market. In the field of these industries, products and technologies will be in high demand in China’s market. Under the circumstances, the Chinese environment protection industry, energy conservation industry and resource circulation industry is expected to grow in leaps and bounds.

3.2.1 Air Pollution Control & Treatment

Environmental issues including climate change, as well as air, water and soil pollution, the pollution is a common challenge to every country. As its economy continues to grow, China faces a number of issues, among these are its environmental problems, including the severe air pollution typified by high levels of PM2.5.

From the winter of 2012 until to now, a serious of environmental issues, such as
air pollution event in China also became a major concern for people both China and its neighbors for some time. Fine particulate matter smaller than 2.5 micrometers in size (PM2.5) is a factor in serious air pollution that has become a particular problem in China. Many large cities in China suffer from smog that contains PM2.5-sized air pollutants. For example, the concentration of PM2.5 levels exceeded over 700 micrograms per cubic meter at many observation points in some big cities. This is far more higher than China’s environmental regulatory limit.

The fundamental cause embedded in the air pollution problems is that the current energy mix is dependent on fossil fuels and unsustainable development patterns. China relies on coal for about 70% of its primary energy supply, of course, the Chinese government had set a target of cutting the volume of these emissions.

The Chinese government has taken various actions to reduce air pollution, such as closing outdated factories, relocating heavily polluting facilities, actively promoting renewable energy sources like solar and wind power generation, and regulating the number of cars on the road in mega-cities, even with end-of-pipe technology that has been promoted, such as desulfurization equipment and automotive catalysts, it remains difficult to effectively address the air pollution problem. Of course, in order to improve the current situation, it is necessary to apply additional measures that deal with the fundamental issues. These include elimination of coal dependence, capping of total energy consumption, improvement of gasoline and gas oil quality through large-scale capital investment, and development of infrastructure, including upgrades to the power supply, demand system, and public transportation. China’s State Council released an action plan for air pollution treatment in September (2013), requiring heavily polluted regions to take measures to improve are quality by 2017. According to the new Environmental Protection Law of P.R.C. issued in April 2014, the Chinese government has made environmental protection as the country’s basic policy.

Japan began engaging in environmental conservation in the 1970s. Japan has advanced technology and experience in energy conservation, environmental protection and air pollution treatment. Future cooperation between China and Japan is anticipated to be in the form of technology transfer from Japan and joint research (Nobuhiro Tanabe, 2013). The introduction of dust-collection technologies to capture very small-sized particular matter, and the transfer of technology related to electric vehicles (EVs) that includes plug-in hybrids are all highly expected. In addition, the
knowledge and experience gained from establishing volatile organic compounds (VOCs) emissions management system in Japan could be shared with China, it will create a lots of investment opportunities.

Japan’s environmental cooperation with China up to now has been conducted mostly on a bilateral basis. But in view of the lack of political and economic uniformity in East Asia, multilateral cooperation may be what is really required.(Kubota Jumpei, 2014) That cooperation between China and Japan is essential. China and Japan can build a win-win relationship in this field. The two countries have great potential for cooperation in the environmental protection industry.

Environmental issues are a type of national security issue, and dealing with them can promote regional stability. It is necessary to promote joint research on a bilateral and multilateral basis. So jointing cross-border research as an international public goods should be encouraged.

The East Asia nations should learn from each other and build a mechanism for smog mitigation. These countries use environmental pollution as a spur to boost the green industry and create new job opportunities. The 17th Tripartite Environment Ministers Meeting among China, Japan and South Korea (TEMM) was held in Shanghai on April 30, 2015. At the meeting, the “Joint Action Plan for Environmental Cooperation among China, Japan and South Korea” (2015-2019) was signed. It was expected that the three countries to further facilitate the information sharing of the environmental market, boost the development of environmental industry, and promote the green transition of regional economy. The views were exchanged on global and regional environmental issues such as atmospheric environment governance, climate change, biodiversity conservation, sand storms, mercury pollution, and marine litter. The three countries are expected to work towards mutual tolerance, assistance and benefits and make positive contributions to promoting green development of the region and of the world, and maintaining ecological safety. The TEMM is one of the earliest and most fruitful cooperation mechanisms among China, Japan and South Korea.

3.2.2 Waste Disposal

According to Japan’s Waste Disposal Law (enacted in 1970 and revised in 1991), waste in Japan can be divided into two main categories, common waste and industrial waste. Common waste is some household waste and office waste, industrial waste is
usually very large, for example, things like construction waste, electric waste, household appliances and something existed during industrial processes all belong to this category. China enacted the Law of Prevention and Control of Environmental Pollution by Solid Waste in 2005. According to the law, ”waste” itself contains solid and semi-solid two forms, and can be divided into three categories: industrial solid waste, municipal solid waste and hazardous waste.

Considering overall situation in China, nowadays’ waste disposal and recycle process is not modern and advanced enough, so the recycle rate is much lower when comparing with Japan’s. Further treatment over waste disposal and recycle, there’s a big market in China waiting to be discovered. This also means we can further contracting the volume and mass of waste products, further reducing threats brought forward, further improving our environment. At present, the most common ways of urban waste disposal is land filling, occupying 70% of total quantity. The second way is high-temperature composting, which contains 20%. Very rare waste is disposed by incineration. As a result of the economic growth and population increase, there is the increasing amount of total waste generation. Reduce waste, reuse and recycle resources and products to the extent that waste disposal is economically feasible and imperative.

There are good cooperation example in the field of waste disposal between China and Japan. The Seventh Japan-China Energy Conservation Forum was held on August 6, 2012, in Tokyo. In the Forum, 47 joint projects were signed. The joint projects are characterized by moving forward with the establishment of distributed energy and energy management systems, low carbon urban development, and other projects as main cooperation projects, in addition to projects in the energy conservation and environmental protection fields, such as water and sludge treatment and recycling. Providing a wide variety of cooperation fields, such as renewable energy and distributed energy (biomass, photovoltaic power generation, and other energy generation).

In April 2011, China’s National Development and Reform Commission (NDRC) and the Japan International Agency (JICA) jointly-initiated a cooperative scheme. China will learn from the advanced urban waste collection, classification and recycling practices of its neighbor in order to build a safe and efficient waste recycling system of its own. Four Chinese cities, including Qingdao, Guiyang, Xining, and Jiaxing, are planning to test an urban-waste recycling program with the help of
Japan over the next four years. The recycling system would target three kinds of urban waste, including kitchen garbage, used tires, and packaging, the cooperation will last until February 2015.

China’s National Development and Reform Commission developing pilot urban mining facilities in 30 cities within five years to obtain reusable resources from junked electrical and electronic appliances. Seven newly developed industrial parks were identified as the first group of such facilities: Ziya Circular Economy Industrial Park in Tianjin; Tianying Recycling Economic Park in Jieshou, Anhui; Miluo Industrial Park in Hunan; Huaqing Circular Economy Park in Qingyuan, Guangdong; the Southwest Resource Recycling Industrial Park in Sichuan; Jintian Industrial Park in Ningbo, Zhejiang; and Jingmai Industrial Park in Qingdao. The target is for the seven to recycle 1.9 million tons of copper, 800,000 tons of aluminum, 350,000 tons of lead, and 1.8 million tons of plastic by 2015.

Encourage cooperation among various stakeholders of the two countries, including voluntary and market-based activities. Promote science and technology suitable for the 3Rs (Reduce, reuse, and recycle); and cooperating in such areas as capacity building, raising public awareness, human resource development and implementation of recycling projects.

3.2.3 Clean Energy and Energy Conservation

The International Energy Agency (IEA) sees clean energy as all the technologies that are connected to energy and bring about a reduced environmental burden. On the side of power generation, it includes renewable, nuclear, natural-gas, coal-fired power generation. End-use sectors such as electric and hybrid-electric vehicles and building and system integration with smart grids, co-generation and district heating and cooling are also included.

The proposal on the 13th Five Year Plan calls for a system to control consumption of energy, water and construction land. It promises an “energy revolution” with clean, safe resources replacing fossil fuels, including wind, solar, biomass, water, geothermal and nuclear energy, as well as exploring deposits of natural, shale and coal bed gas. Energy-intensive industries, such as power, steel, chemical and building materials will be subject to carbon emission control regulation. Pressure from energy conservation and emissions reduction and environmental costs faced by China starts to force the industrial structure transformation. The market demand of energy conservation industry is rapidly expanding, and the expansion of
market demand also drives the spontaneity rise of domestic energy conservation industry. Energy conservation oriented industry mainly includes the new energy industry, such as nuclear power, wind power and solar energy industry, industrial energy conservation equipment, new energy vehicles, life electricity conservation industry. The rapid growth of the operation industry demand will produce more opportunities for promoting the constant expansion of bilateral economic cooperation.

The transportation sector generally represents almost one-third of an advanced economy’s use of energy. More than 10 percent of global CO2 emissions are directly attributable to automobiles and other vehicles on the road in just the United States and China. (Merritt T. Cooke, 2012) The overwhelming preponderance of China’s energy needs are met by fossil fuels. It is clear that China’s past and present reliance on fossil fuels. Energy conservation and environmental protection is a long-range plan for every country’s energy security. It is important for China to strive to develop and popularize energy conservation technology, promote the comprehensive utilization of energy, and improve energy efficiency. Electric vehicles offer a hugely important opportunity for the dramatic lowering of carbon emissions and the development of low-carbon economies.

China’s development cannot be achieved without cooperation with the rest of the world. It is necessary to actively promote cooperation in highly efficient utilization of fossil fuels, such as clean coal technology, encourage cooperation in major energy technologies, such as renewable energy, hydrogen energy and nuclear energy, and explore for the establishment of a future energy supply system using resources that are clean, economical, safe and reliable.

Regarding bilateral cooperation, China has established a mechanism for dialogue and cooperation in the field of energy with a number of energy consuming and producing countries, such as Japan. It has intensified dialogue and cooperation regarding energy exploration, utilization, technology and environmental protection, as well as renewable energy and new energy resources.

As for clean technology, there is still an unexplored potential in terms of experience sharing, technological cooperation, and mutual investment in this area. The Japanese market only started to move after the Fukushima disaster in 2011.

However, the event following the Great East Japan Earthquake and Fukushima Daiichi nuclear disaster in 2011 have shift Japan’s energy policy towards less reliance on nuclear power.
To actively develop energy cooperation, in the clean energy field, such as wind energy, bio energy, electric system and smart grid technologies, solar energy, geothermal energy and energy efficiency technologies for buildings, electric vehicles and all types of clean transportation, joint cooperation in science and technology between the two countries can pave the way for creating a new generation of green and smart technologies.

3.3 Automotive Industries

China began to develop a domestic motor vehicle industry in the 1950s. With economic reform in the 1980s, the product mix was adjusted, and the production of heavy-duty and light-duty vehicles was expanded to eliminate the shortage of these vehicles. China also stepped up its cooperation with automotive industries in other countries, importing technology and establishing joint ventures.

In the mid-1980s, when the control on private purchase was lifted, the number of personal-use automobiles began to grow. During the 1990s China’s automotive industry further adjusted its strategy, placing much higher priority on the development of the passenger car industry.

It has developed rapidly since the early 1990s. China's annual automobile production capacity first exceeded one million in 1992. After China's entry into the World Trade Organization (WTO) in 2001, the development of the automobile market further accelerated. Between 2002 and 2007, China's national automobile market grew by an average 21 percent, or one million vehicles year-on-year. In 2009, China produced 13.79 million automobiles, of which 8 million were passenger cars and 3.41 million were commercial vehicles. In 2015, total vehicles both production and sales in China marked an increase of 3.3 percent and 4.7 percent year-on-year to 24.5033 million and 24.5976 million respectively, and the vehicles have been sold for 7 years to maintain the country first, quoting the China Association of Automotive Manufacturers on January 12, 2016. After many years development, china has a lot of indigenous brands in automobile industry, including: Beijing Automotive Group, Brilliance Automotive, BYD, Dongfeng Motor, FAW Group, SAIC Motor, Chang'an (Chana), Geely, Chery, Jianghuai (JAC), Great Wall, and Guangzhou Automobile Group.

With a 59 percent year-on-year sales increase, China surpassed the United States as the largest auto manufacturing and consuming country in the world measured by automobile unit production since 2009. However, in terms of the total number of
registered vehicles on the road, China still falls far behind the United States and Japan.

Japan have developed its own indigenous automotive industries—beginning in the 1950s. Japanese government provided R&D support, but the principal benefit they offered was protection from foreign suppliers. In Japan, the early companies were export-oriented. Furthermore, Japan provided significant protection against foreign imports while its industries were developing, an option that is not available to China after its entry into the WTO. The Japanese industry also benefited greatly from an unusual market circumstance in the 1970s and early 1980s. With the introduction of the oil embargo by members of the Organization of Petroleum Exporting Countries (OPEC), the demand for small cars with high fuel economy increased in the U.S. market. The Japanese imports were well suited to fulfill this demand, and U.S. domestic manufacturers offered essentially no competition for several years. During this time the Japanese companies captured a significant market share.

The Japanese automotive industry is one of the most prominent and largest industries in the world. The automotive industry in Japan rapidly increased from the 1970s to the 1990s, when it was oriented both for domestic use and worldwide export, and in the 1980s and 1990s, overtook the U.S. as the production leader with up to 13 million cars per year manufactured and significant exports.

The automotive industry represents a significant portion of Japan's economy. The country is home to 11 automobile manufacturers consisting of: Toyota Motor Corp., Honda, Nissan, Mazda Motor Corp., Isuzu Motors, Ltd., Suzuki Motor Corp., and Fuji Heavy Industries, Ltd., and Daihatsu Motor Co. With the acceleration of the globalization of the automotive industry, most of the automobile manufactures operates in a global competitive marketplace.

The Chinese market has grown to an impressive size. China is attracting attention from the global automotive industry, the country is a fast-growing economy with considerable potential in domestic and export markets. Japanese, American and European businesses are involved with wide ranging direct investment in this dynamic market, not only in order to exploit the growing market potential, but also to share in the local profitability in the long-term.

Nissan

It also joined with Yulon Motor Company and Dongfeng Motor Corporation to produce the Fengshen Bluebird in Shenzhen. Nissan has entered into a partnership with Renault for sedan manufacture in China. Specific models and investment partners have yet to be announced.

Toyota

Japan’s biggest auto corporation, Toyota, had entered China’s automobiles market in 2000. Tianjin Toyota Motor Co., Ltd. (now Tianjin FAW Toyota Motor Co., Ltd.) was established in June, 2000, and Line-off ceremony of Coaster mass-production vehicles was held at Sichuan Toyota in December, 2000. Since 2000, Toyota has started full-scale auto production and sales and established nine local production companies and four distributors.

Honda

Honda’s well-known motorcycle engine technology has earned it an important position in China’s motorbike market. Its other success is Guangzhou Honda, which will produce a new model each year, including a new mini-car. The factory located in Guangzhou made the cars exclusively for export to markets in Asia and Europe.

The spike in vehicle sales was largely boosted by the government's stimulus policies for lifting market demand, which included tax cuts on small-displacement automobiles, subsidies for trade-ins and subsidies for farmers to buy vehicles. Automobiles sales have surged in recent years due to rising incomes, and the industry saw explosive growth in the past few years, thanks to supportive government policies, including slashing taxes on cars with engines smaller than 1.6 litres and subsidising clean-technology vehicles. Personal demand is booming in China, this growth is spurring demand for automotive parts, services, and after-care products. Natural demand will continue to expand in the next few years, the Chinese car industry can be described as more international, greener, bigger, more diversified, and more high tech. China encourages the development of clean and fuel efficient vehicles in an effort to sustain continued growth of the country’s automobile industry. The sales also speed up automakers' efforts to develop next-generation energy-efficient and emission-free vehicles. Electronic vehicles are important to decarbonise the transport sector in the long-term as they reduce dependency on oil and can potentially make use of clean electricity. China’s car industry has focused on the development of new cars in the years 2011 -2015. However, challenges such as high production cost, low battery efficiency and lack of charging facilities pose is a real challenge. China's electric-car
industry is developing rapidly, but quality and not just quantity should be the focus for the development to be sustainable. Safety and the quality of batteries should be carefully supervised. The potential in the automobile market is very promising. As early as 2012, Japan was the leader of battery electric vehicle (BEV) sales, translating in 28% of the global market. Japan was also the world’s second largest market for Plug-in Hybrid Vehicles (PHEV) with 6,528 cars, 12% of the global market. In 2015, sales of new energy vehicles soared by more than 160 percent.

The countries in the world are strengthening the environmental regulations of the automobile, the demand for pure electric vehicles (EV) is also growing, but the engine still is the main power source of the automobile. It needs a period of time to spread the hybrid vehicle (HV) with higher price and pure electric vehicle needing recharging infrastructure. Technological innovation of the engine is indispensable for developing the potential market. The main issue with electric vehicles is the battery technologies which derive their power from the electric grids rather than directly from fossil fuels.

3.4 Tourist Industry

The role of tourism in the global economy as a key driver for investment and employment, and promoter for industrial growth. Among the world’s top source markets, China, with double-digit growth in expenditure every year since 2014, continues to lead global outbound travel, benefiting Asian destinations such as Japan and Thailand, as well as the United States and various European destinations.

In 2014, the number of Chinese tourists traveling abroad increased by 19.5 percent year on year to 109 million, topping a threshold of 100 million for the first time in history, according to CNTA (the China National Tourism Administration), more than 2.4 million Chinese tourists visited Japan. The number of Chinese visitors to Japan is expected to double or even triple because of the increasing number of China’s middle class and wealthier families in future. The strong increase of outbound tourism has made China great exporter of tourists.

Japanese Economy 2015-2016 released by the Cabinet Office on December 28, 2015 pointed out that domestic consumption driven by the surge of foreign tourists, including Chinese tourists as the "power of earning money", produces the more and more influence. The report also pointed out that considering that Japan will welcome 2020 Tokyo Olympic Games and Paralympic Games, there will be a great increase in the number of tourists to visit Japan in the future, so it is important for officials and
civilians to make joint cooperation.

The depreciation of the yen will promote Chinese visitors' consumption in Japan. The depreciation of the yen can make the visit to Japan become more economical and practical, the increase of route and cruise ship to Japan also becomes the main reason for the increase in the number of people visiting Japan. Measures of releasing visa and expanding consumption tax exemption object for attracting foreign tourists promote the increase of visitors to Japan. Since October 2015, Japan's duty-free goods have expanded from the primary home appliances and clothing to cosmetics and food. The expansion of the variety of duty-free goods in Japan stimulates the desire of Chinese tourists who are keen on shopping and visiting Japan, thus driving the increase of tourists visiting Japan. According to statistics recently released by the Japan National Tourism Organization, the number of Chinese tourists as well as their expenditure ranked top among all foreign tourists visiting Japan. Japan’s Nihon Keizai Shimbun (Nikkei, Japanese Business News) published an editorial on Jan. 22, 2016 noting there were 19.73 million foreign tourist visits to Japan in 2015, hitting a new historical record. the number of tourists from Chinese mainland, Taiwan, Hong Kong, and South Korea made up 72 percent of the total. The number of Chinese holidaymakers to Japan doubled last year to account for more than a quarter of Japan’s 19.7 million tourists in 2015. Chinese tourists spent over 1.4 trillion yen, or 41 per cent of the total, buying everything from toilet seats to cookers and medicines – so much so that the Japanese have a word for it, “bakugai”, or “explosive shopping” in Japanese, was one of the buzzwords of the year by one publishing house.

While there is continued high growth in the number Chinese people travelling abroad, there was a 2 percent growth on inbound tourists last year with 56.9 million visitors to China, according to UNTWO, well below the world average growth of 4.4 percent witnessed in 2015. China will continue to be a growth market for tourists traveling.

China and Japan are seeking mutual tourism investment opportunities as both countries have experienced increased tourism flows in recent years. With the number of Chinese tourists is rising so fast, the hotels- and bus companies-like infrastructures are seem not enough in Japan. This also brings more investment opportunities for entrepreneurs and tour operators from both countries. Introduce incentives are necessary, such as encouraging the interactions among peoples, providing mutual
supports, organizing staff trainings, easing visa policies, offering convenient and diversified solutions, and becoming familiar with the needs of tourists, to attract more Chinese tourists' visit to Japan.

3.5 Develop the Third-Party Market Together

3.5.1 Iron and Steel Industries

Manufacturing industry is still the dominant industry of two countries. The enterprises of both countries can combine China's advantages in equipment manufacturing and human resources with Japan's advantages in advanced technology and management experience as well as a marketing network for carrying out the cooperation in international capacity, and developing the third-party market together. Under the background that the development gap between the two countries is narrowing, the economic and trade cooperation between two countries' enterprises has the new opportunity of jointly developing overseas markets.

With iron and steel industry as an example, China's steel price continued to fall and has reached its lowest level in recent years. Steel overcapacity and tepid demand brought unprecedented challenge to Chinese steel manufactures. In the face of the sustained downturn of the domestic steel market, many domestic steel manufacturers began to turn to other markets and hoped to open up overseas markets. But, for the overseas development in steel trade, the steady supply of raw materials and sales channel facing overseas market are the bigger challenge to Chinese enterprises. While the Japan iron and steel manufacturers have advantages in sales channel in international market. In the future years, the opportunity of making global investment together with Chinese enterprises will continue to increase, the Japanese iron and steel manufacturers can use the cost competitiveness of China's iron and steel manufacturers and their sales channel for cooperation.

3.5.2 Cooperation of Infrastructure

The status of infrastructure in many countries along the Belt and Road routes is lower than the global average level and there is huge demand for its construction. It estimates that countries along the route will collectively need US$5 trillion of investment in transport infrastructure over from now until 2020.

Markets in developing countries along the routes are likely to become more liberal and diverse with the development of the Belt and Road. Trade barriers are

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9 The Japanese government also studies the conditions of relaxing "multiple entry visa" (visiting Japan for many times within the period of validity).
expected to be reduced and the investment environment to be improved, which would mean a substantial increase in investment opportunities and the export of both goods and services. The potential for growth in the developing and emerging economies is enormous.

The construction of infrastructure projects, including the transportation channels linking Asia and Europe, the high-speed railway of Southeast Asia, Central Southeast Asia and South Asia ports and information infrastructure construction, needs huge investment. As the advantages in infrastructure construction, such as capital and technical advantages, China will continue to further boost international cooperation in production capacity and machinery manufacturing in railway and electricity infrastructure.

Excellent opportunities will be found in other countries along the route. There will be real opportunities for Japan’s companies to work with Chinese partners in third countries, playing to their respective strengths. Chinese engineering, construction and financial backing can be combined with the Japan’s project management, project finance, etc. to promote infrastructure cooperation.

There is one point again, the two countries can actively promote the signing of China and Japan and China, Japan and South Korea free trade agreement at an early date, as well as RCEP, FTAAP (Free Trade Agreement of the Asia Pacific) open cooperation and mutual fusion to develop a broader space.

3.6 Expand Economic and Trade Cooperation

China faces the problem that how to cross the middle-income trap, while Japan faces the problem that how to achieve high-level sustainable growth. The most affected sectors are steel, cement, aluminum and photovoltaics. Therefore, how to resolve the issues of overcapacity has become vital for the Chinese economy. China’s economic development needs to deal with the problems in urbanization, aging, green low carbon, information and market globalization. China's economy will be shifted from industry leading to service industry leading, forming the new normal dominated by service industry.

From the perspective of the development strategy of Japan, to make GDP exceed 600 million yen in 2020, Japan needs to solve many problems. Expansion of domestic demand, the transfer of old production capacity to abroad, the guarantee of resources supply, etc. Japan's domestic demand is difficult to support sustainable economic growth, exports and foreign investment will still be the mainstay of Japan's economic
growth strategy in the future. Both sides can expand cooperation by promoting the depth cooperation in trade, investment, finance, infrastructure, energy conservation and environmental protection, tourism, etc.

The two countries can carry out new cooperation in the new field. The two countries have a lot of prospects for cooperation in healthcare and the aged nursing, cross-border e-commerce, green ecological environment protection, construction of energy-saving and low-carbon society, development and application of industrial robots and service robots, increase of agricultural productivity, food resources import, feed storage and processing, etc. By continuing cooperation, China and Japan can build a win-win cooperation mechanism, further deepen and expand the bilateral cooperation. Japanese and Chinese corporations will be able to form mutually beneficial relations.

IV Conclusion

China has broad market space and tremendous development potential, speeds up the transformation of economic development mode, the new growth engine is being formed, the long-term good economic fundamentals are not changed, so China is still in the development opportunity period. By 2020, the goal of GDP and urban and rural residents per capital income doubling those of 2010 can be achieved. China has broad market space and tremendous development potential, and speed up change in the mode of economic development, adjusting the economic structure in the times of economic globalization. This will provide various countries all over the world, including Japan, with the huge demand market, great trade prospect and many investment opportunities. Japan has obvious advantages in industrial technology, product quality, enterprise management relative, and complementary industrial structure has great prospects for cooperation between two countries.

During the period of the "13th five-year plan", Internet, communications, high-speed rail, aerospace, other high-end manufacturing and high-tech industries will have the vigorous development, and the transformation and upgrading of China's economy will turn from quantitative change to qualitative change, and from industrial planning to a new stage of playing market force.

In the next 10 to 20 years, China's urbanization rate will reach 70%, and there will more than 10 million people moving from the countryside into the cities each year. China's urban public infrastructure will be more substantial improvement in the next five years. China is implementing the affordable housing, smart city, harmless
disposal facilities, urban comprehensive transportation network construction, and conducts the construction of public service facilities in many villages and township. These fields gestate trillions of investment demand. So in energy conservation and environmental protection, infrastructure, municipal administration, urban sustainable development and other fields. The cooperation between two countries has the broad prospects.

Now, China is Japan's largest trading partner, and Japan is China's second largest trade object. Sino-Japanese economic structural reform provides new opportunities for business cooperation between two countries, and the economy of two countries is highly complementary, with great potential for cooperation. Now, China is actively adapting to and leading the new normal of economic development, implement the innovation-driven strategy, vigorously promote upgrading of the industrial structure, and implement a new round of high-level opening to the outside world.

China's economy will maintain med- and high-speed of growth, this will provide more market, growth, investment and cooperation opportunities for countries around the world, including Japan.
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