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Economic Growth Prospects and Future Outlook for the Two Major Midwestern Urban Centers in Yangtze River Economic Belt Part 2: Chongqing

-- As the node of the Yangtze River Economic Belt and China's Belt and Road Initiative

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Importance of Policy Bank Bonds in the Time of the Internationalization of the Chinese Bond Market through the Bond Connect Program

January 2018 Edition

- Executive Summary -

Industrial and Regional Policies	Economic Growth Prospects and Future Outlook for the Two Major Midwestern Urban Centers in Yangtze River Economic Belt – Part 1: Wuhan
<p>This report examines the economy, trade and industry, investment climate, and market trends in the two major urban centers that are located in the middle and upper reaches of the Yangtze River Economic Belt (Wuhan and Chongqing) on the basis of a field survey. These two cities have developed rapidly in recent years and are identified as a priority in the central government’s regional development policy. It demonstrates the importance of these two major cities to the integrated development of the Yangtze River Economic Belt and to furthering the development of China’s central and western regions, sheds light on the challenges these two cities face and looks at the prospects for future development. This second report looks at Chongqing, the city that is fast becoming a node in the Yangtze River Economic Belt and China’s Belt and Road Initiative.</p>	
China’s Economy	Importance of Policy Bank Bonds in the Time of the Internationalization of the Chinese Bond Market through the Bond Connect Program
<p>Investment schemes for foreign investors in the Chinese bond market have been gradually deregulated, and internationalization is in progress. Moreover, the Bond Connect investment program was started, and the further development of internationalization is expected. Against this backdrop, it is expected that the importance of policy bank bonds will increase in the times ahead, as they have a credit level as high as that of Chinese government bonds, while their yields are generally higher. This article will provide an overview of policy bank bonds as well as the Bond Connect investment program.</p>	

Economic Growth Prospects and Future Outlook for the Two Major Midwestern Urban Centers in Yangtze River Economic Belt

Part 2: Chongqing

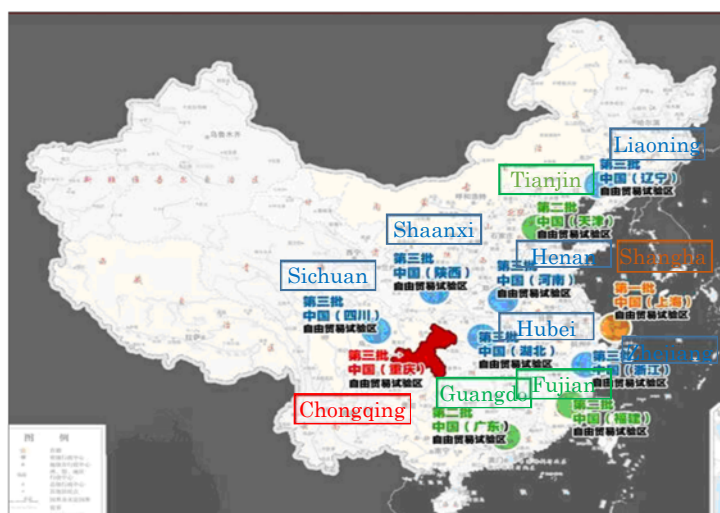
-- As the node of the Yangtze River Economic Belt and China's Belt and Road Initiative --

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1. Introduction (Chongqing moves into the limelight)

As mentioned in Part 1: Wuhan, Chongqing, which is located in the upper reaches of the Yangtze River Economic Belt and is the only direct-controlled municipality in China's interior, is attracting more attention than ever before in the central government's new regional development strategy. Chongqing has undergone a dramatic transformation thanks to its geographic location and the growth in power that has come with recent economic development, whilst progress on the construction of Liangjiang New Area and the Chongqing Pilot Free Trade Zone ("Pilot FTZ") mean that the city has come into the limelight as an increasingly important urban center in western China (**Figure 1**). As work on the construction of the Yangtze River Economic Belt progresses and China moves forward with its Belt and Road Initiative, the government has high hopes that Chongqing will function as both a node and a transport hub for China's western region. At the end of last October, the author undertook a field survey of Chongqing with the cooperation of Mizuho Wuhan Branch. Like Wuhan, the city has changed considerably in the six years that have elapsed since the beginning of the 12th Five-Year Plan (FYP), which was when the author last visited. It now boasts a large modern airport and numerous high-rise buildings and its rapid development means that it has emerged as a large and dynamic metropolis. The following paragraphs examine recent trends in Chongqing on the basis of materials and information obtained during the author's recent visit to the city. It looks at the factors that have contributed to Chongqing's rapid growth and the challenges the city faces, and examines Chongqing's potential to serve as an engine for promoting the Yangtze River Economic Belt, the Great Western Development Strategy and the Belt and Road Initiative, and the potential economic ripple effects for neighboring regions.

Figure 1: A Geographical location of the Chongqing Pilot FTZ, part of the third batch of government-endorsed Pilot FTZs



Source: Excerpted from the Chongqing Liangjiang New Area website.

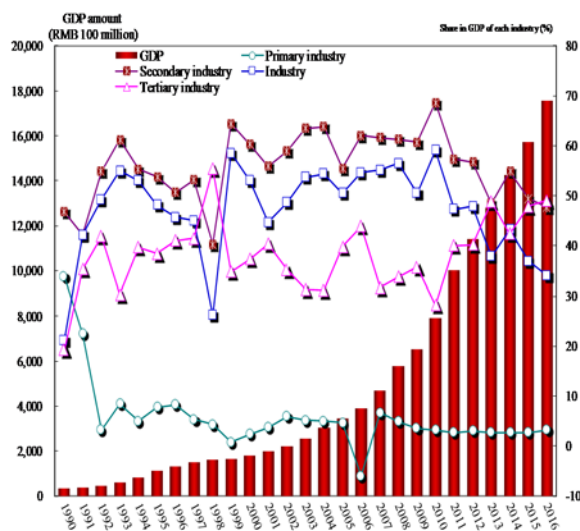
Note: Shanghai was the first Pilot FTZ (first batch) to receive official sanction in 2013, followed by the three provinces and cities of Tianjin, Fujian and Guangdong, which were approved in 2014 (second batch). Chongqing (shown in red on the map) and six other regions (shown in blue) were officially launched as Pilot FTZs in 2017 (third batch).

2. An overview of Chongqing's robust economic growth and the various factors

Opened up to foreign trade by the British at an early stage, for a time Chongqing also served as a “secondary capital (provisional capital)”. It has a large population and a long history of industrial, transport and commercial industry development. For a time, Chongqing also flourished as China's second largest financial center after Shanghai. Chongqing separated from Sichuan province in 1997, when it became the fourth direct-controlled municipality alongside Beijing, Shanghai and Tianjin (a status it held temporarily in the early years following the founding of the People's Republic of China in 1949). The city has grown rapidly in the two decades that have since elapsed and its capabilities are now commensurate with those of a direct-controlled municipality. Chongqing attracted additional attention due to its success in maintaining strong GDP growth gains following the global financial crisis of 2008. **Figure 2** charts its economic growth trends both before and after it became a direct-controlled municipality. In terms of sector composition, the secondary and tertiary industries have converged to around the same level with the rapid growth in the scale of the city's economy, whilst the share of industry in GDP has dropped rapidly in recent years. **Figure 3** shows GDP growth rates (bar chart) for Chongqing and respective industry contributions to that GDP growth. Whilst China's economic slowdown has led to slower economic growth in Chongqing since 2011, the city continued to post GDP growth gains 10 percent or more until 2016. Chongqing again recorded double-digit expansion in 2017, and is the fastest growing regional economy in China. As in other regions, the secondary and tertiary industries are the largest contributors to GDP growth. In 2015, the two industries were contributing at much the same level to Chongqing GDP (with the secondary industry contribution at 5.4% and the tertiary industry contribution at 5.3%), but the tertiary industry overtook the secondary industry the following year (5.3% as compared to 5.1%, respectively). Broadly speaking, the secondary industry (i.e. industry) and the tertiary industry (i.e. services) contribute equally to the growth of Chongqing's economy, which is clearly illustrated by the industrial production figures and tertiary industry growth rates given in **Figure 4**. In the past, the gains in industrial production have been greater, but in 2015 the tertiary industry began picking up speed. Financial services are the largest contributor to tertiary industry growth (19.3% in 2016), followed by domestic commerce (17.3%).

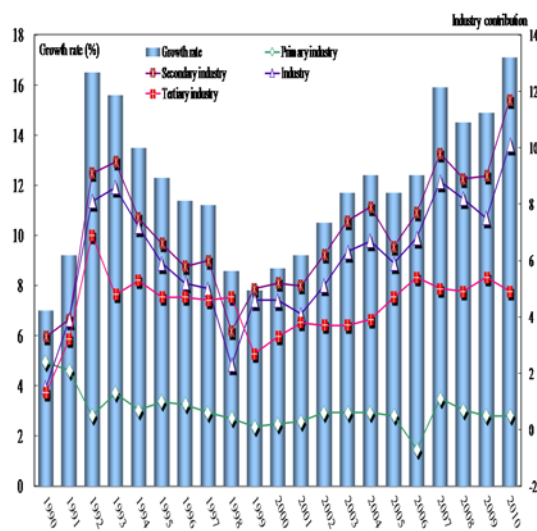
It is worth noting that, from a demand perspective, fixed asset investment and retail sales of consumer goods have been increasing at much the same rate since 2005, with the growth rates for both indicators surpassing GDP gains (**Figure 5**). Chongqing's external economy has been growing rapidly since 2011 and the city maintains a large trade surplus (**Figure 6**). Foreign capital uptake, meanwhile, is expanding after remaining flat for several years (**Figure 7**). In short, economic growth in Chongqing is buoyed by strong domestic and foreign demand.

Figure 2: GDP growth and GDP sector composition trends for Chongqing (1990-2016)



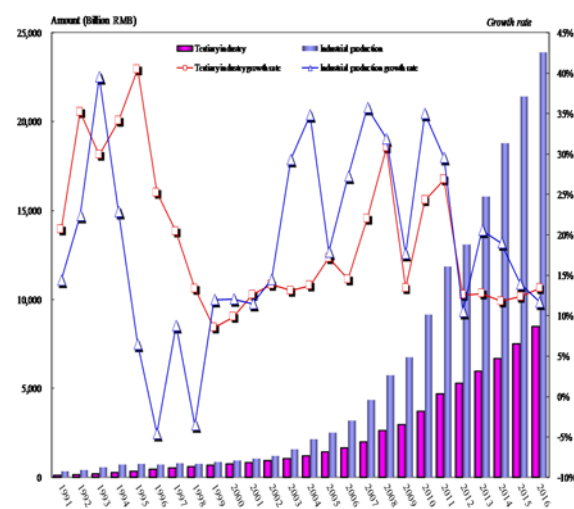
Source: Compiled from the *Chongqing Statistical Yearbook 2017*

Figure 3: GDP growth rates for Chongqing and industry contribution (1990-2016)



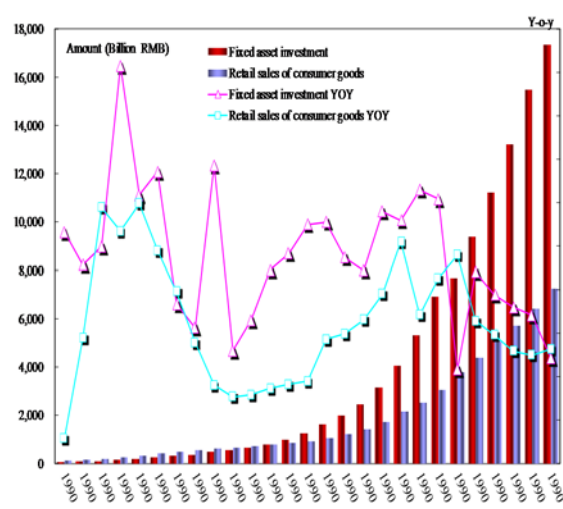
Source: Compiled from the *Chongqing Statistical Yearbook 2017*

Figure 4: Industrial production and tertiary industry growth trends in Chongqing



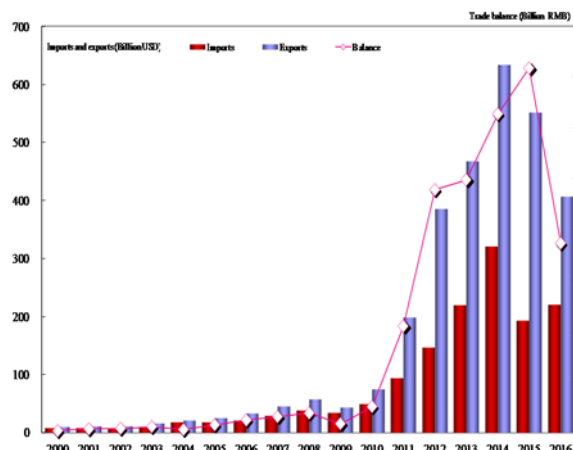
Source: Compiled from the *Chongqing Statistical Yearbook 2017*

Figure 5: Fixed asset investment and retail sales of consumer goods in Chongqing



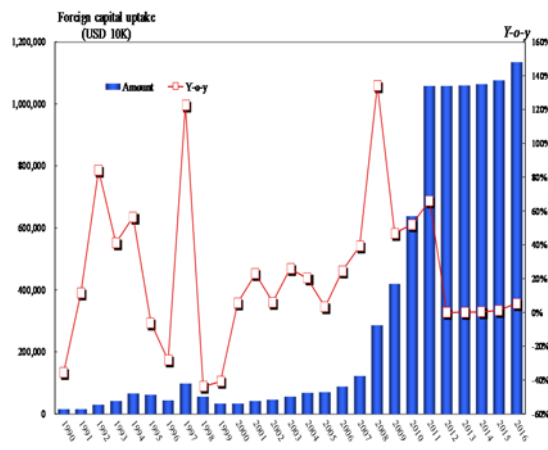
Source: Compiled from the *Chongqing Statistical Yearbook 2017*

Figure 6: Foreign trade trends in Chongqing since 2000 (2000-2016)



Source: Compiled from *Chongqing Data* and statistics bulletins released by the Chongqing Statistics Bureau

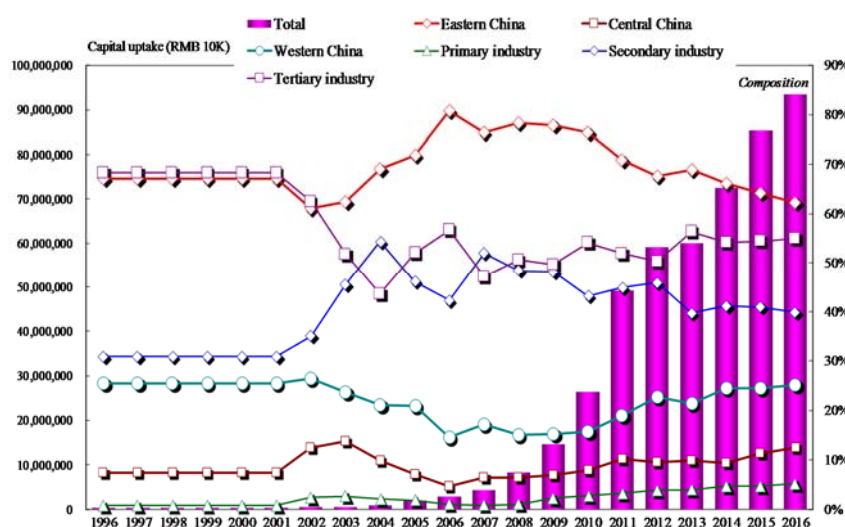
Figure 7: Foreign capital uptake trends in Chongqing (1990-2016)



Source: Compiled from *Chongqing Data* and statistics bulletins released by the Chongqing Statistics Bureau

In addition to active trade and foreign capital uptake (foreign investment is also on the increase), another major feature of the development of Chongqing as a region is its uptake of domestic capital (i.e. capital from regions elsewhere in China), the scale of which has expanded in recent years. The Chongqing statistical yearbook tallies domestic capital uptake by region of origin and recipient industry (a method of computation not seen in other regional statistical yearbooks). As **Figure 8** shows, China's eastern regions are investing most heavily in Chongqing (accounting for more than 60% of the total), with the western regions of which Chongqing is a part ranking second (above 20%), and central China in third place (in the region of 10%). Domestic capital is primarily being invested in secondary and tertiary industries (with industries in the former accounting for around 40%, those in the latter for around 50%), suggesting that conditions in Chongqing are laying the foundations to promote the relocation of industry to the Yangtze River Economic Belt.

Figure 8: Domestic capital uptake in Chongqing, its sources and the industries in which it is being invested



Source: Compiled from the *Chongqing Statistical Yearbook 2017*

3. Ongoing urbanization is pushing Chongqing to new heights

Rapid urbanization has been one of the leading contributors to the growth of Chongqing's economy and the rise in its power within the region. As **Figure 9** shows, whilst Chongqing has the lowest urbanization rate of China's four direct-controlled municipalities (on a permanent population basis), the speed of urbanization in recent years has eclipsed both the national average and that of other regions in the Yangtze River Economic Belt. Normally there is a strong positive correlation between the urbanization rate and per capita GDP (see **Figure 4** in Part 1), and Chongqing's per capita GDP is increasing rapidly, from RMB 5,253 in 1997 to RMB 57,904 in 2016 (an increase of 11-fold in 19 years, which equates to an annual average growth rate of 14%; **Figure 10**). Moreover, income inequality between urban and rural residents, which was around four-fold at its peak in 2003, had shrunk to about 2.5-fold in 2016 (**Figure 11**). This is a major achievement in terms of balanced regional economic development and cultivating the growth potential of the region, whilst domestic demand expansion is contributing to the development of the region's markets. It means, too, that Chongqing's power as a direct-controlled municipality is steadily increasing, which augers well for future development.

The following paragraphs use the data provided in **Figures 12, 13 and 14** to provide an overview of Chongqing's ranking among other major cities and administrative districts nationwide and its economic power.

As the comparator of the two major industries (secondary and tertiary industries) accounting for GDP growth in **Figure 12** shows, Chongqing's secondary industry is essentially on a par with that of Shenzhen and Tianjin. Its tertiary industry is the smallest of the four direct-controlled municipalities, but Chongqing's total GDP is larger than that of other major cities, meaning that Chongqing's growth compares favorably with that of the other cities under the direct administration of the central government.

Figure 13 shows the distribution of major Chinese cities in terms of fiscal balance (where the horizontal axis is revenue and the vertical axis expenditure) and fixed asset investment (sphere size). Chongqing's fiscal balance is closest to that of Tianjin (Beijing and Shanghai are exceptional), but it ranks highest in terms of total fixed asset investment, which is more than double that of both Beijing and Shanghai, and argues that investment in industrialization and urbanization is expanding.

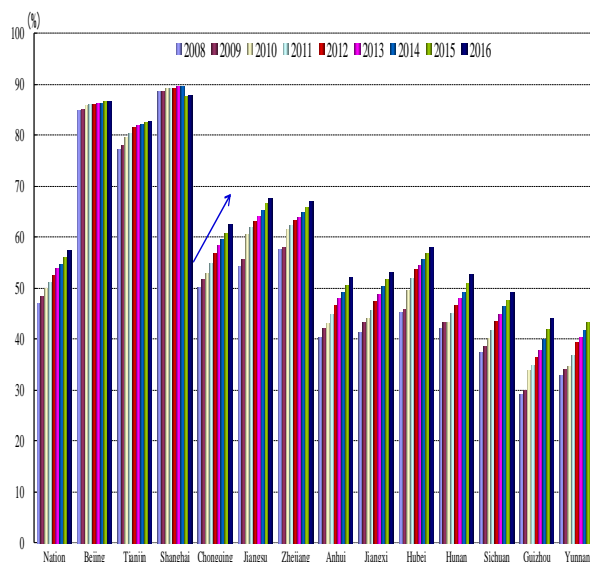
Again, as the distribution of resident disposable income and consumer spending – two parameters that are strongly correlated – in **Figure 14** shows, whilst Chongqing lags far behind the other three direct-controlled municipalities, it ranks alongside many of China's coastal administrative districts, with the exception of Inner Mongolia, and is on much the same level as Hubei province, meaning that disposable income and consumer spending levels are commensurate with development. Moreover, the fact that income levels remain lower than in China's eastern coastal regions argues that there is huge potential for further growth with

ongoing industrialization and urbanization.

Chongqing is a mountainous city with many hilly areas and, until comparatively recently, it was an impoverished region that suffered from poor transportation. For many years it was a regional backwater characterized by numerous heavy industries and state-owned enterprises¹, but the launch of the Great Western Development Strategy in 2000 brought in large numbers of migrants for the construction of the Three Gorges Dam, whilst policy on the development of industry and services and the aggressive pursuit of foreign trade and foreign investment have transformed Chongqing into a major urban center in western China.

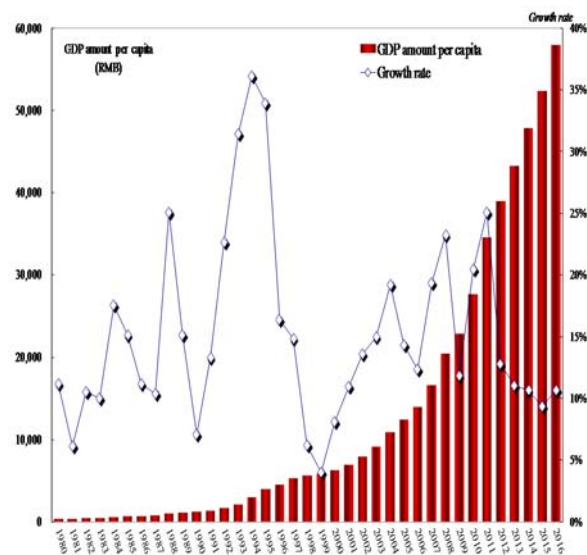
Chongqing has been successful in making the shift away from traditional industries, and today possesses the technological and production capabilities necessary to supporting a whole range of emerging industries, including automobiles, electronics, industrial equipment, consumer durables, pharmaceuticals, energy and manufacturing². It is the third largest auto manufacturing base in China, China's largest motorbike production base, and the largest laptop (computer) production base in the world³. Many global electronics companies have opened offices in Chongqing, and their products and components account for a large proportion of the city's international trade.

Figure 9: Urbanization rates in Chongqing as compared to other direct-controlled municipalities and regions in the Yangtze River Economic Belt



Source: Compiled from the *National Statistical Yearbook 2017*
Note: The chart gives the urban permanent population as a percentage of the total population for each region.

Figure 10: Long-term trends in per capita GDP in Chongqing (1980-2016)



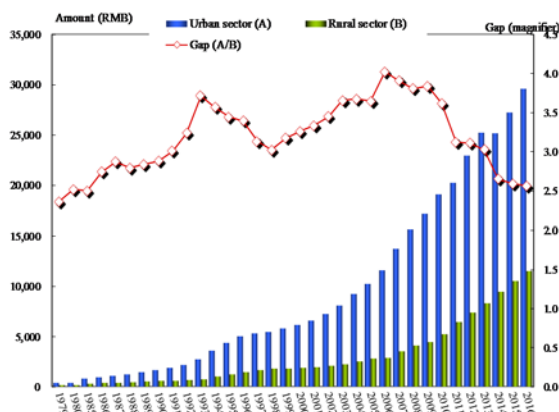
Source: Compiled from the *Chongqing Statistical Yearbook 2017*.

¹ Chongqing served as the base for China's military industry during the Second Sino-Japanese war and in the 1960s was China's western base for heavy industry in the "Third-Front Construction" movement (a strategic policy involving the relocation of the nation's heavy industries away from the coast and into China's hinterlands), when numerous state-owned enterprises located to Chongqing to form a solid base for industry.

² A breakdown of industrial enterprises above designated scale in Chongqing in 2015 shows auto manufacturing accounting for 22%, electronic products for 19%, equipment manufacturing for 16%, consumer durables for 15%, and pharmaceuticals for 8% (of GDP).

³ In 2016, Chongqing accounted for about 9% of domestic auto production, putting it on a par with Shanghai, Jilin, and Hubei; it accounts for 12% of domestic cell phone production alongside Henan province, and is the largest share of domestic computer production at 23%.

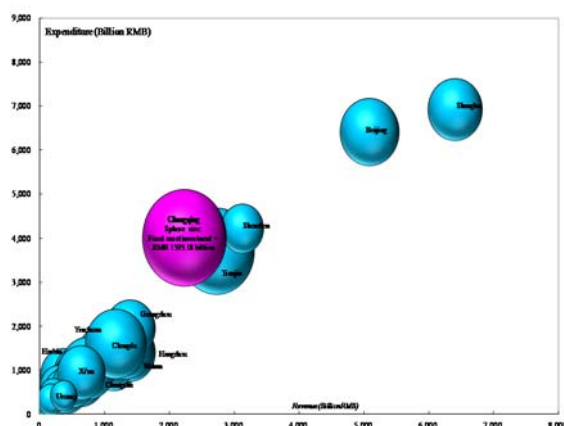
Figure 11: Urban and rural sector incomes in Chongqing and fluctuations in the gap therein



Source: Compiled from the *Chongqing Statistical Yearbook* and the *Statistical Bulletin*

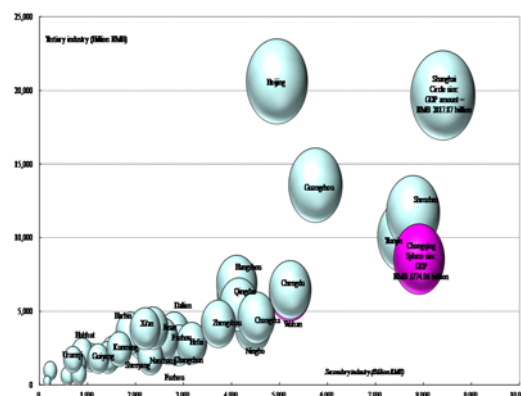
Note: Figures for the urban sector are based on disposable income, those for the rural sector are based on net income.

Figure 13: A comparison of fiscal balance and fixed asset investment for major Chinese cities (2016)



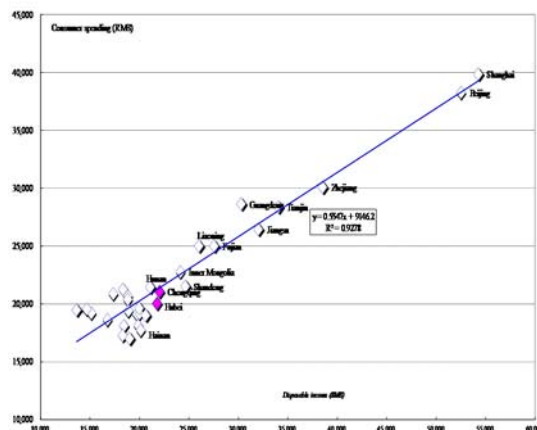
Source: Compiled from the *National Statistical Yearbook 2017*

Figure 12: Secondary and tertiary industries and GDP figures for major Chinese cities (2016)



Source: Compiled from the *National Statistical Yearbook 2017*

Figure 14: A distribution map of resident disposable income and consumer spending for China's regions (2016)



Source: Compiled from the *National Statistical Yearbook 2017*

4. The major challenges to achieving balanced development under environmental and resource constraints

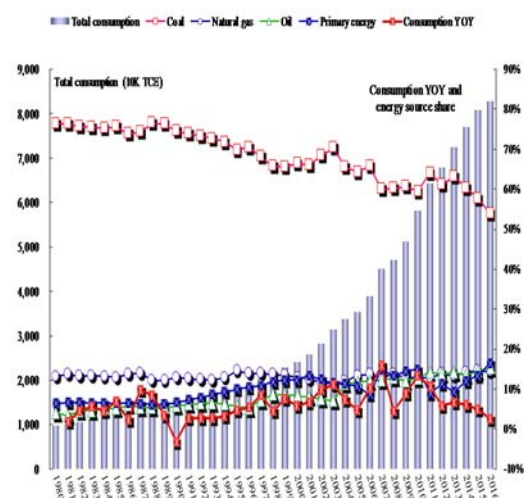
As a newcomer to the ranks of direct-controlled municipalities, Chongqing still has some way to go with the industrialization and urbanization process, but it is the largest direct-controlled municipality in terms of area and population and is developing at the fastest rate, which argues that it has the greatest potential for future development of the four cities under direct central government administration. Whilst the foundations favoring major growth are in place, however, Chongqing will need to overcome a number of challenges if it is to achieve sustainable development in the years to come.

The first factor to consider is resources and the environment, which are significant contributors to economic growth. As **Figure 15** shows, coal consumption in Chongqing has dropped from a peak of around 70 percent to around 60 percent of total energy consumption in recent years (oil, natural gas and hydroelectric power account for around 15%, respectively). In order to bring the share of coal consumption below 50 percent, Chongqing will need to promote hydroelectric power and the development of other renewable energy sources, as opposed to relying on fossil fuels such as natural gas and oil. That said, Chongqing's growth rate in total power consumption has been decreasing in recent years even in spite of rapid economic and industrial growth, an achievement that is worthy of praise, and something that is largely attributable to the improvements in its industrial structure.

In terms of environmental protection, whilst industrial wastewater and dust levels in Chongqing have been on the decrease in recent years, waste gas pollution increased significantly in 2016 to 1.216 trillion cubic meters (1,216,124,000,000m³) from 992.8 billion cubic meters (992,807,000,000 m³) a year earlier. Moreover, whilst industrial solid waste volumes have declined slightly, reuse (recycling) rates have fallen from a peak of more than 80 percent to around 70 percent in 2016 (**Figure 16**). Like Wuhan, Chongqing will need to work hard to secure growth under the environmental and resource constraints it faces.

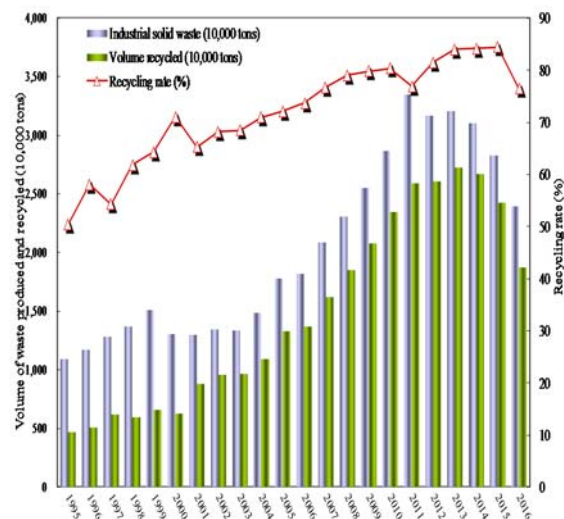
A bigger challenge to achieving balanced development within the region and shared prosperity for its urban and rural residents, is the large discrepancy between the urbanization rates for Chongqing's registered population and its permanent population (**Figure 17**); Chongqing still suffers from a net population outflow (though central areas are now seeing a net inflow of population). In 2015, Chongqing's population decreased by 3.55 million (registered population).

Figure 15: Total energy consumption and a breakdown of energy sources in Chongqing



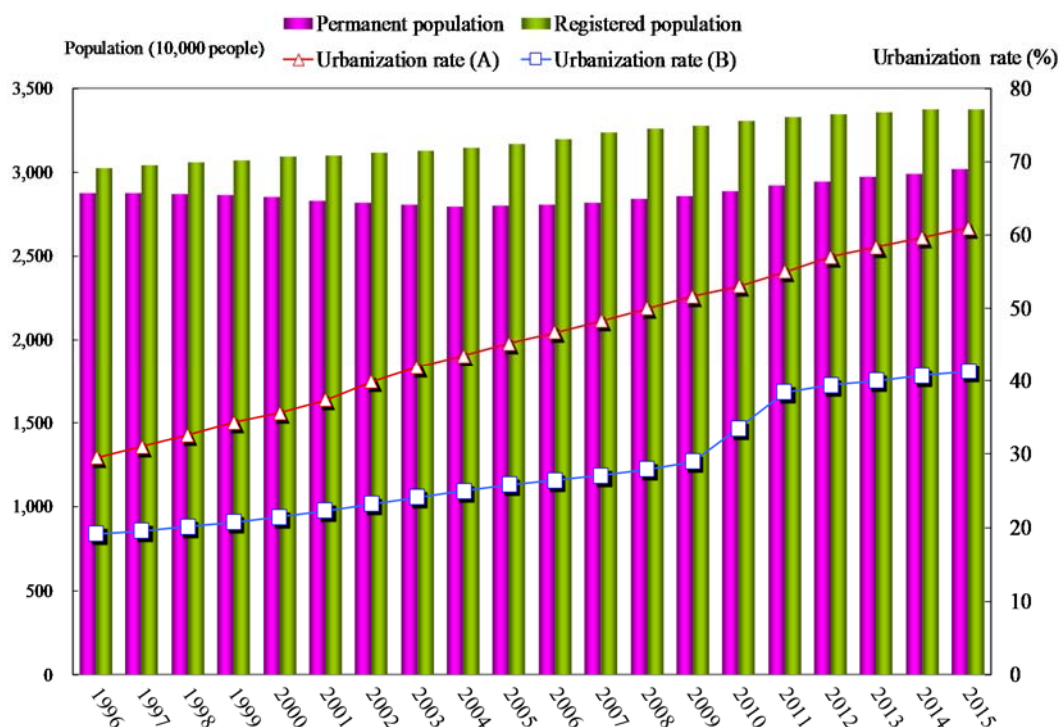
Source: Compiled from the *Chongqing Statistical Yearbook 2017*.

Figure 16: Trends in industrial solid waste output and recycling rates in Chongqing



Source: Compiled from the *Chongqing Statistical Yearbook 2017*.

Figure 17: Trends in Chongqing's total population and urbanization rates in terms of



permanent population and registered population movements

Source: Compiled from *Chongqing Data* and the *Chongqing Statistical Yearbook* released by the Chongqing Statistics Bureau.

Note: Urbanization rate A is the urban population as a percentage of permanent population, whilst urbanization rate B is the urbanization rate for the registered population.

5. Prospects for Chongqing's development into a node and a transport hub for the Yangtze River Economic Belt and China's Belt and Road Initiative (Conclusion)

As with Hubei, the province in which Wuhan is located, Chongqing is landlocked, but two rivers – the Yangtze and the Jialing – flow through the city, which boasts the largest deep-water port in western China (Chongqing Lianglu Cuntan Bonded Port Area) and means that Chongqing has long been a major route for water transportation (accounting for more than 60% of total import and export cargo). Today, Chongqing has air, rail and road transport networks, and both cargo and passenger volumes have increased significantly since 2000 (**Figure 18**). Extensions to its rail and air transport infrastructure are anticipated, and the goal of the Belt and Road Initiative is to establish and broaden the use of a three-dimensional transport network encompassing land, water and air and extending to every point of the compass, a goal that is being realized with the work to promote the construction of a city cluster (the “Chengdu-Chongqing City Cluster”) in the eastern part of neighboring Sichuan province. As to Chongqing's connection with the Yangtze River Economic Belt, the restoration and construction of the Golden Waterway Yangtze River – an initiative that was launched by the central government several years ago, and the development of ties with Hubei province and Wuhan in the central reaches of the Yangtze River are seen as crucial, and it is hoped that this will facilitate the relocation of industry from the lower reaches of the Yangtze River and China's eastern coastal region.

Figure 19 gives data on port throughput and total road length for Chongqing. The increases that have occurred since 2011, the year in which the 12th FYP was launched, are conspicuous, and suggest that the city's port functions are being effectively utilized and that its road infrastructure is being developed.

A look at trends in the cargo throughput of wharfs above designated size on China's inland waterways (**Figure 20**), reveals significant increases in the throughput of wharfs in both Chongqing and Wuhan (including other ports in Hubei province) (line graph). These wharfs above designated size are primarily located in the upper and middle reaches of the Yangtze River, and the cargo throughput of Chongqing ports has increased from around 1 percent in 2000 to 4.4 percent in 2016. Progress on the development of port infrastructure in Chongqing and Wuhan is expected to produce further increases in the volume of traffic on Yangtze River waterways and to enhance the logistics capabilities (function) of these two major cities in the Yangtze River Economic Belt delta. This in turn is expected to promote investment and plant construction in central and western China, which should bring industrial enterprise density in Chongqing (**Figure 21**) to a level on a par with those for Hubei and Henan provinces.

As touched upon in the section 4, various initiatives are being undertaken in Chongqing to promote resource conservation and environmental protection and the balanced development of the region as a whole, with a particular focus on attracting investment and market entry by companies from overseas and elsewhere in China. Numerous economic and technological development zones, high-tech industry parks and other industrial complexes have been built in the city, but since 2010 the primary focus has been on construction of the “Liangjiang New Area”. The author visited Liangjiang New Area on his recent visit to Chongqing⁴, and

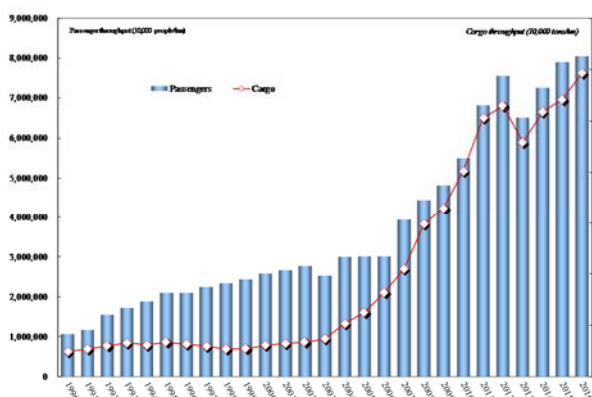
⁴ The author's visit to Liangjiang New Area was undertaken with the cooperation of Chongqing Liangjiang New Area Sanhui Investment and Consulting Co., Ltd. (including Masatoshi Sasaki, general manager, Li Baolu, assistant manager, and others), a municipal government-affiliated organization that was established to promote investment. The author would also like to extend his gratitude to the management committee of Chongqing Economic and Technological

interviewed officials regarding progress to date and the prospects for Liangjiang New Area in the years to come. Liangjiang New Area is being constructed in the old urban district of Chongqing and is located in the southwest of the city where the Yangtze and Jialing rivers merge; it is a large area ideally suited to the development of port infrastructure and industry. Following about six years of construction work, Liangjiang New Area has the most advanced economy, trade and industry infrastructure in Chongqing, and the main portion of Chongqing Pilot FTZ, which was approved by the central government in 2017, is being constructed within its confines (**Figure 22**). Between 2010 and 2016, Liangjiang New Area (which has a total planned area of 1,200 km², with 550 km² available for development and a permanent population of 2.5 million) had an annual average GDP of 17.3 percent, with industrial production of 22.5 percent, a rapidly increasing foreign capital uptake of 20.4 percent, and trade, which increased 5.6-fold from RMB 28.5 billion to RMB 154.4 billion (which equates to an average increase of 49.8% annually). Work on the construction of industrial infrastructure and industry systems is progressing and foreign capital uptake for this six-year period reached RMB 21.4 billion, or 33 percent of total foreign capital uptake in Chongqing. Further growth is expected as work on the Chongqing Pilot FTZ moves forward⁵. In addition to general manufacturing, the favorable conditions enjoyed by Chongqing mean that the possibilities for IT, modern logistics, electric vehicles, robotics (four of the world's five largest robot manufacturers have established a presence here already), FinTech and other emerging industries are endless, and Chongqing's government is actively pursuing new industrial policy. This is expected to make Chongqing more attractive to potential investors and it is hoped that this will facilitate the healthy urbanization of the city, and that the construction of the Yangtze River Economic Belt, the development of China's western regions and the Belt and Road Initiative will help transform Chongqing into a major international metropolis with the influence needed to promote economic ties between China and the rest of the world.

Development Zone, who also provided information.

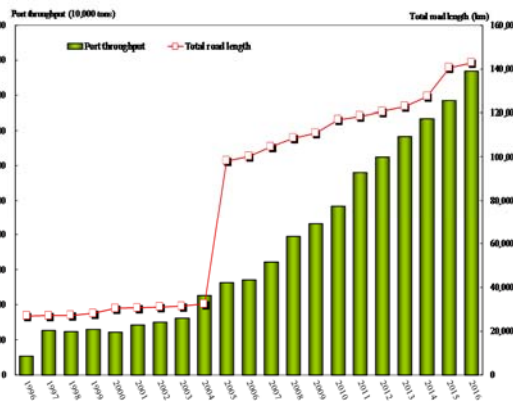
⁵ For proposals relating to the construction of Chongqing Pilot FTZ, readers are referred to Mizuho Financial Group's "Differentiating Chongqing Pilot FTZ from other pilot FTZs and developing financial services: Proposals for future initiatives based on success stories elsewhere in the world" (in Japanese) and "The Report on the 12th Annual Meeting of the Chongqing Mayor's International Economic Advisory Council" (2017; in Chinese).

Figure 18: Trends in passenger and cargo throughput in Chongqing (1991-2016)



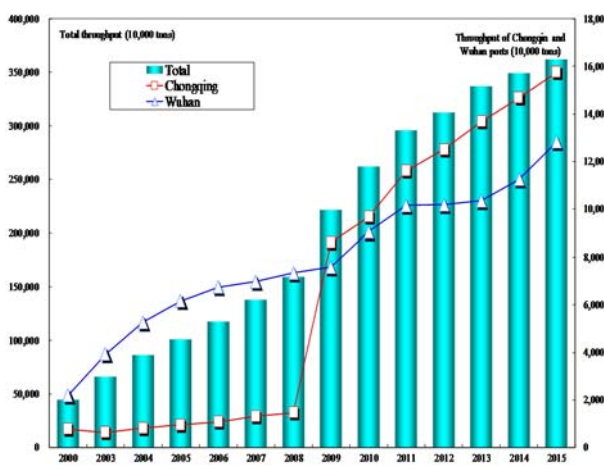
Source: The awkwardness in data continuity is the result of changes in the scope of transport statistics in 2007 and 2013

Figure 19: Trends in port throughput and total road length in Chongqing



Source: As for Figure 18

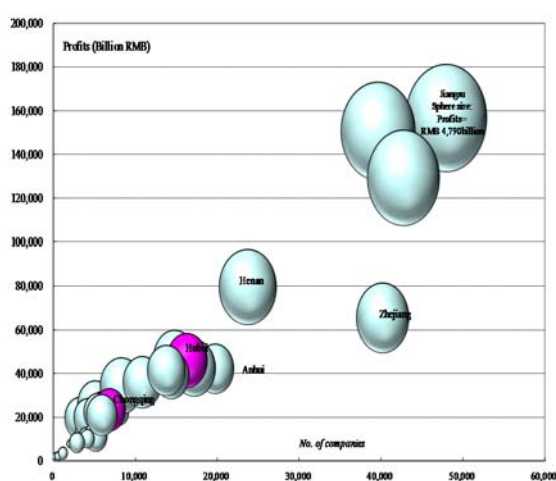
Figure 20: Trends in the cargo throughput of ports above designated size on inland waterways (2000-2015)



Source: Compiled from the *China Statistical Yearbook of the Tertiary Industry 2016*.

Note: The awkwardness in the transition of data is the result of changes made to the statistical methods used for Chongqing in 2009. Note also that the figures for Wuhan include the throughputs of Huangshi and Yichang, two ports located in Hubei.

Figure 21: A regional comparison of the sales and profits of industrial companies (2016)



Source: Compiled from the *National Statistical Yearbook 2017*

Figure 22: A sketch map of the main area of Chongqing Pilot FTZ and Liangjiang New Area

Main area of Chongqing Pilot FTZ=Liangjiang New Area



Source: Excerpted and modified from the Chongqing Liangjiang New Area website

Importance of Policy Bank Bonds in the Time of the Internationalization of the Chinese Bond Market through the Bond Connect Program

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The bond market in Mainland China is currently in the middle of internationalization. Investment in the bond market in Mainland China by foreign investors has been gradually deregulated, and the Bond Connect program was started so as to allow foreign investors to trade Mainland Chinese bonds via Hong Kong. It is likely that the importance of policy bank bonds will increase as an investment target for foreign investors in addition to Chinese government bonds, as policy bank bonds have a credit level as high as that of Chinese government bonds while their yields are generally higher. This article will therefore provide an overview of policy bank bonds as well as the Bond Connect program.

1. What is a policy bank?

A policy bank refers to a bank established by the Chinese government in 1994 to be mainly engaged in the lending business for policy-related projects. There are currently three policy banks: China Development Bank, the Export-Import Bank of China, and the Agricultural Development Bank of China. Policy bank bonds issued by these three banks have the same rating as the sovereign rating of the Chinese government given by the international ratings companies.

Fig. 1: International rating of policy bank bonds (as of December 11, 2017)

Ratings agency	Chinese government bond	China Development Bank bond	Export-Import Bank of China bond	Agricultural Development Bank of China bond
S&P	A+	A+	A+	A+
Moody's	A1	A1	A1	A1
Fitch	A+	A+	A+	A+

Source: Compiled by the author based on data from the website of each international ratings companies

2. Overview of each policy bank

China Development Bank is a fully state-owned¹ policy bank established in 1994, mainly engaging in the medium- and long-term credit business in order to strengthen key industries and develop infrastructure based on the economic and industrial policies of the Chinese government. Its asset level is the highest of the three policy banks.

As is the case with the two other policy banks, the Export-Import Bank of China is a fully state-owned policy bank established in 1994. It also plays the role of China's Export Credit Agency (ECA), mainly engaged in the expansion of the import & export of machine facilities, electronic products, and high-tech

¹ The current investment ratio is virtually 100% based on the government, with 36.54% from the Ministry of Finance, 34.68% from Central Huijin Investment Ltd., 27.19% from Wutongshu Investment Platform Co., and 1.59% from the National Council for Social Security Fund.

products, while also dealing with overseas projects for top-level companies in China and providing financial services to promote foreign investment.

As is the case with the other two policy banks, the Agricultural Development Bank of China is a fully state-owned policy bank established in 1994. It is mainly engaged in the lending business to assist the purchase of food and livestock, as well as infrastructure development in agricultural villages and the general development of agriculture.

Fig. 2: Financial contents of each policy bank (as of the end of 2016) (unit: 100 million yuan)

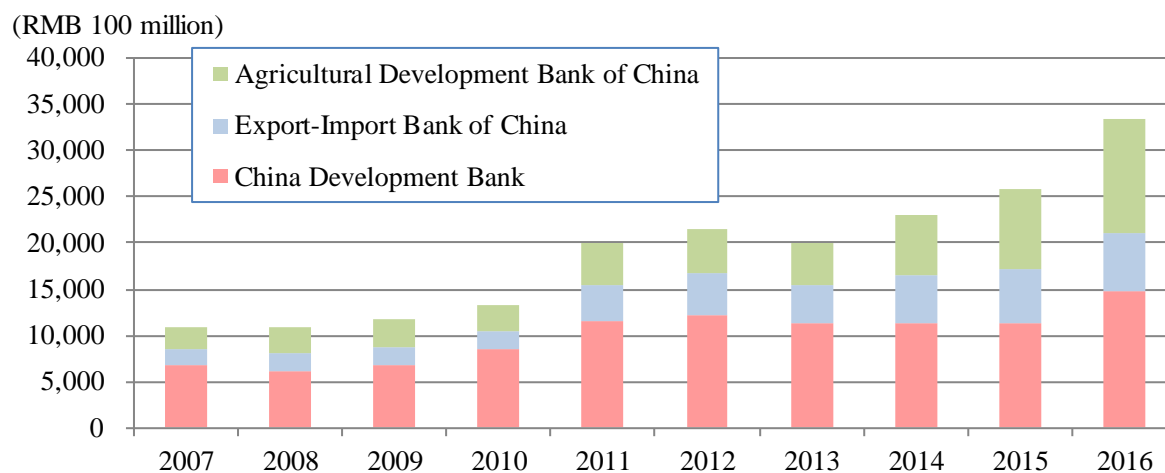
	China Development Bank	Export-Import Bank of China	Agricultural Development Bank of China
Current profit	1,097	50	162
Outstanding lending	103,181	23,759	39,809
Shareholders' equity	11,627	3,142	1,185
Total assets	143,405	33,343	56,162
Capital adequacy ratio	8.10%	9.42%	2.10%

Source: Compiled by the author based on data from the website of each policy bank

3. Overview of policy bank bonds

Bonds issued by the above policy banks are referred to as “policy bank bonds.” Policy banks procure funds mainly through bond issuance, and the amount of bonds issued has been increasing every year, reaching 3.3470 trillion yuan in 2016 (while the amount of Chinese government bonds issued was 2.9457 trillion yuan in 2016). Policy bank bonds thus constitute a major part of the bond market in China. The breakdown of issuance is 1.4756 trillion yuan by China Development Bank, 633 billion yuan by the Export-Import Bank of China, and 1.2384 trillion yuan by the Agricultural Development Bank of China, and these amounts account for 53.73%, 70.61%, and 57.92%, respectively, in the total debt of each bank. Each bank issues policy bank bonds regularly (once a week), and such bonds have become familiar in the Chinese market.

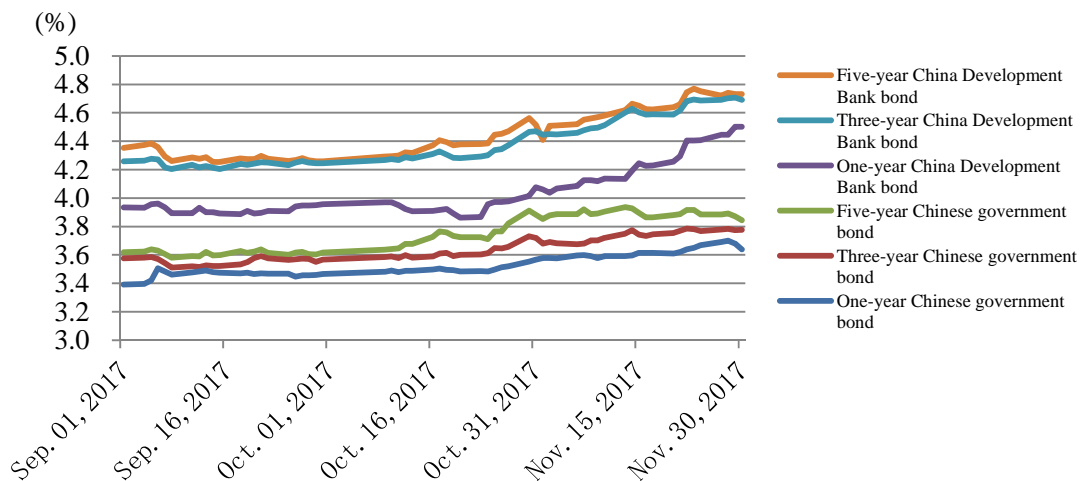
Fig. 3: Trends in the amount of policy bank bonds issued



Source: Compiled by the author based on data from the website of China Central Depository & Clearing Co., Ltd.

Compared to Chinese government bonds, the yields of policy bank bonds have been higher by about 50 to 100 basis points. As was mentioned above, these policy bank bonds have a high credit level, and the yields are generally higher than that of Chinese government bonds. Along with the internationalization of the Chinese bond market, therefore, policy bank bonds can be an important investment target for foreign investors that are not used to dealing with Chinese bonds.

Fig. 4: Yields of Chinese government bonds and policy bank bond trends



Source: Compiled by the author based on data from the website of China Central Depository & Clearing Co., Ltd.

While a policy bank bond is a type of bond, unlike bonds issued by other commercial banks and non-bank bonds, it is dealt with as an interest-rate bond, as is the case with Chinese government bonds. Therefore, financial institutions need to obtain a license (renewed once a year) to be an underwriter of policy bank bonds.²

4. Overview of the Bond Connect program

On July 3, 2017, the People's Bank of China (PBOC) and the Hong Kong Monetary Authority (HKMA) started the Bond Connect program for foreign investors to trade in the inter-bank bond market in Mainland China via Hong Kong. It was so far only possible for foreign investors to invest in the bond market in Mainland China (northbound) in order to collect foreign funds, and it was not possible for investors in Mainland China to invest in the bond market in Hong Kong, as this would cause capital outflow (southbound). However, it is expected to become possible to trade both ways in the future, significantly contributing to the internationalization of the bond market in Mainland China.

² Mizuho Bank (China) Ltd. obtained a license as an underwriter for financial policy bonds issued by China Development Bank and the Agricultural Development Bank of China in FY2017.

Fig. 5: Investment schemes for foreign investors in the inter-bank bond market

	QFII scheme	RQFII scheme	Settlement agent	Bond-connect
Introduction	2002	2010	2016 (Public Notice No. 3)	2017
Content	This scheme to allows foreign banks, securities companies, insurance companies, and asset management companies, etc., to invest in Chinese yuan financial products in a foreign currency with the approval of the CSRC and SAFE, by fulfilling certain conditions.	This scheme is almost the same as the QFII scheme. The Chinese yuan is used as the currency.	This scheme allows investors to invest in the inter-bank bond market in Mainland China through a financial institution with a license as a domestic account settlement agent in China. With the public notice issued by the PBOC in February 2016 (Public Notice No. 3), foreign investors can also use this scheme.	This scheme allows foreign investors (only financial institutions) to invest in the inter-bank bond market in Mainland China from Hong Kong.
Objective	<ul style="list-style-type: none"> Opening up of the capital market 	<ul style="list-style-type: none"> Opening up of the capital market Internationalization of the Chinese yuan 	<ul style="list-style-type: none"> Opening up of the capital market Internationalization of the Chinese yuan Dealing with capital outflow 	<ul style="list-style-type: none"> Opening up of the capital market Internationalization of the Chinese yuan Dealing with capital outflow
Market	(1) Exchange market (stocks and bonds) (2) Inter-bank bond market	(1) Exchange market (stocks and bonds) (2) Inter-bank bond market	Inter-bank bond market	Inter-bank bond market
Approval for foreign investors, etc.	(1) CSRC and SAFE (2) CSRC, SAFE, and the PBOC	(1) CSRC and SAFE (2) CSRC, SAFE, and the PBOC	Registered to the PBOC and the CCDC through an account settlement agent	Registered to the PBOC and the CCDC through a CMO (HK)
Major restrictions for foreign investors	<ul style="list-style-type: none"> Upper limit on the invested amount Restriction on the transfer of investment money from China to the country of origin. Restriction on allocation 	<ul style="list-style-type: none"> Upper limit on the invested amount Restriction on the transfer of investment money from China to the country of origin. 	None	None

Source: Compiled by the author based on data from the website of each related institution

Unlike the previous schemes, the Bond Connect program allows foreign investors to directly access the inter-bank bond market in Mainland China using an existing security account in Hong Kong without having to make an advance application to a financial institution in Mainland China, and without having to open an account, send funds, or sign a contract. Therefore, it is advantageous for foreign investors via reduced burden in dealing with laws and regulations in China.

The structure of the Bond Connect program is shown in Fig. 6. Foreign investors open a securities account at the securities settlement institution under the Hong Kong Monetary Authority's CMU (Central Market Unit), instead of opening an account in Mainland China, and they access the CFETS (China Foreign

Exchange Trading System) through an overseas electronic trading platform (such as Tradeweb) that displays information in English, directly making an RFQ (Request For Quote), presenting quotes, and entering contracts with Bond Connect market makers in Mainland China. The CMU then carries out the settlement by opening an account under the name of the MMU at the China Central Depository & Clearing Co., Ltd. (CCDC), as well as at the Shanghai Clearing House. For bond transactions, it is possible to use Chinese yuan held by the foreign investor or to use a foreign currency by converting it into Chinese yuan.

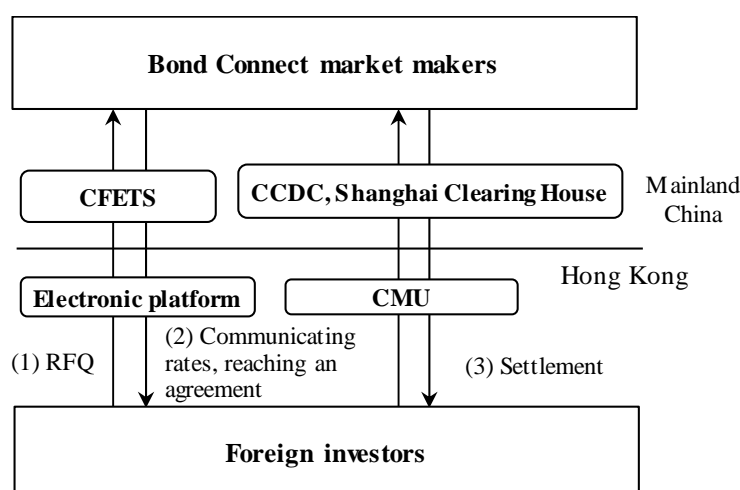
While there are growing expectations for the Bond Connect program, there are also some issues. For example, while it is possible to prepare for transactions and making RFQs more rapidly than transactions through a settlement agent, the processing speed declines when the system-related burden increases at the side of the investor. Furthermore, it is said that the infrastructure related to the exchange, settlement, and trading system is still in the process of development, making transaction costs higher than schemes through a settlement agency, depending on the conditions.

However, the above issues are likely to be resolved when the transaction volume becomes larger, and given the advantages of the Bond Connect program, it is possible for the transaction volume to expand dramatically after a certain length of trial period.

It should also be mentioned that on October 18, 2017, China Development Bank nominated 14 financial institutions in Hong Kong as cross-border coordinators,³ anticipating the expansion of transactions through the Bond Connect program. The nominated financial institutions will invite foreign investors and provide guidance on investment methods regarding bonds denominated in the Chinese yuan of China Development Bank, in order to cooperate in the promotion of investment, which would further enhance interest in policy bank bonds among foreign investors.

For the above reasons, the importance of the Bond Connect program and policy bank bonds is expected to grow further in the times ahead. We should therefore continue to carefully observe future conditions.

Fig. 6: Structure of the Bond Connect program (sample image)



Source: Compiled by Mizuho Bank (China) based on various materials.

³ Mizuho Securities Asia is selected as a cross-border coordinator.

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