

# China-Brazil Cooperation in Infrastructure Construction: Progress, Challenges and Approaches

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In 2018, Chinese President Xi Jinping's proposal to pursue innovative development and upgrade China's cooperation with Latin American and Caribbean (LAC) states through the Belt and Road Initiative (BRI) received warm responses from LAC countries. Brazil, as the foremost Latin American power and a member of BRICS, has been collaborating with China on a solid foundation and with tremendous prospects. To expand bilateral ties and transform the immense potential into a substantial development momentum, one necessary approach is to strengthen cooperation in infrastructure construction and enhance the level of interconnectivity. Infrastructure building is not only needed to reduce regional transportation costs and scale up economic interactions, but is also conducive to deepening the synergy of markets and industries and facilitating bilateral trade and investment. It is therefore essential to study the type of infrastructure cooperation between China and Brazil, in order to better address challenges and further cooperation.

## Progress of China-Brazil Infrastructure Cooperation

As the most representative emerging-market country and the largest developing country in the eastern and western hemispheres, respectively, China and Brazil maintain a positive momentum since the establishment of diplomatic relations. China has been Brazil's largest trading partner since

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2009, and its investment in the Brazil has increased year by year. In 2017, China surpassed the United States as Brazil's principal source of foreign direct investment (FDI). As of September 2019, China's investment in Brazil approached US\$80 billion, with more than 300 Chinese enterprises investing and operating in the country, 25 of which are among the Fortune Global 500. China's investment flows from traditional areas such as agriculture and mining to the high-end of the value chain, for example, the energy, electricity and manufacturing sectors, as well as scientific and technological innovation.<sup>1</sup> Infrastructure construction is one priority of the practical bilateral cooperation, which is an area of outstanding reciprocity where the two countries are highly complementary. Chinese state-owned and state-controlled enterprises are the major actors in Brazil's infrastructure construction, concentrating their operations on ports, electricity and transportation.

In the area of port construction, the China Merchants Group and the China Communications Construction Group respectively established major logistics platforms in southern and northern Brazil, namely the Paranaguá Port and the São Luís Port, in order to increase the efficiency of ports across Brazil and facilitate improved commodities transportation. In September 2017, the China Merchants Group purchased a 90-percent stake in the Paranaguá Container Terminal, which is Brazil's second largest, for about US\$925 million. The transaction, formally completed in February 2018, marked a starting point for the Chinese enterprise to seek investment opportunities in logistics, express highways, bonded port zones, and the comprehensive development of urban communities. On March 16, 2018, construction began of the São Luís Port project, jointly financed and developed by the China Communications Construction Group and the Brazilian company Thorell. As the first green-field investment project of China in Brazil's transportation infrastructure field, the São Luís Port, with

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1 Maria Cristina Fernandes, "Huawei Não Será Banida do Brasil", *Diz Embaixador Chinês*, "Valor", October 9, 2019, <https://valor.globo.com/brasil/noticia/2019/10/09/huawei-nao-sera-banida-do-brasil-diz-embaxador-chines.ghtml>.

its focus on grain, fertilizer, oil products and break-bulk cargo transport, is expected to become one of the largest break-bulk deep-water ports in Brazil. Once completed, it will facilitate China's import of Brazilian soybeans, and to some extent boost the economy of Brazil's northeastern region.

In the field of electricity, the China Three Gorges Corporation and the State Grid Corporation of China have been operating their businesses and expanding influence in Brazil. Both enterprises entered the Brazilian market through the acquisition of developed countries' stakes in Brazil's electricity companies. In December 2016, the China Three Gorges, whose main business is power generation, completed the acquisition of Duke Energy assets in Brazil for US\$1.2 billion, thus increasing its installed capacity to 8.27 GW under its management and in proportional equity holdings. Since it established a subsidiary in Brazil in 2010, the State Grid has acquired 14 chartered electric power transmission companies in the country. In April 2016, the State Grid Brazil Holdings won the bid for Phase 2 of Brazil's Teles Pires hydropower transmission project, obtaining a 30-year franchise. In January 2017, it completed the acquisition of 54.64 percent of stakes in Brazil's CPFL Energia for about 14.19 billion reais, which became the largest outbound acquisition in the year for Chinese electricity companies. As of May 2019, the State Grid had invested more than US\$12.4 billion in Brazil, accounting for 25 percent of its total contract value for overseas projects and covering the entire industrial chain of Brazil, from electricity transmission, to distribution and operation.

Chinese enterprises have also shown great enthusiasm to participate in the improvement of Brazilian transportation infrastructure. In March 2016, China's XCMG Group won the bid for 56 sets of engineering machinery used for construction of government-funded highways. By taking this opportunity, XCMG can further expand its market share in Brazil, and promote its annual production capacity of 7,000 sets of engineering machinery, which covers cranes, excavators, loaders, road rollers and land graders.

## Opportunities for Deepening China-Brazil Infrastructure Cooperation

The huge gap in infrastructure construction explains in part the difficulty Brazil faces in improving its productivity and elevating the technological level of its exports. Whereas the infrastructure of Brazil is inadequate in quantity and poor in quality with its financial input unable to meet the enormous demand, China has strength, experience and advantages in this regard. Besides the high level of political mutual trust and economic complementarity, which has ensured the generally positive trend of China-Brazil relations, the Belt and Road Initiative and the synergy of Chinese and Brazilian development strategies are expected to create a broader horizon for China's participation in Brazil's infrastructure construction.

### **Brazilian infrastructure in urgent need of improvement**

In Brazil's economic development, infrastructure has been a permanent bottleneck which is difficult to break through. It is estimated that the infrastructure gap brings a 10-15 percent loss to Brazil's GDP every year.<sup>2</sup> First, existing infrastructure in Brazil hardly matches the country's status as the world's ninth largest economy, which leads to a fragmented domestic market and poor external connectivity. Statistics of the World Economic Forum show that Brazil ranks only 81st of 140 countries in terms of infrastructure, which has undermined its global competitiveness. Among the 12 specific indicators, with the exception of airport connectivity (ranked 17th), Brazil lags far behind others in terms of roads, railways, seaports, electricity and water supply, with a particular deficit in the quality of roads and the efficiency of seaport services, in which Brazil ranks lower than 100th.<sup>3</sup> As Brazil's most important mode of transportation the roads in the country have to bear two-thirds of total traffic volume, but of the entire

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2 Credit Suisse, *The Brazilian Infrastructure: It's Now or Never*, Sao Paulo, 2013.

3 World Economic Forum, *The Global Competitiveness Report*, 2018, p.114.

length of 1.75 million kilometers only 219 thousand kilometers are asphalt roads. There are only 10,000 kilometers of express highways in Brazil, most of which were built in Sao Paulo state, while road quality is poor in the country's vast central and western areas. As for railways, with a total length of 30,347 kilometers, they are mostly in Brazil's southern, southeastern and northeastern regions, with only 1,121 kilometers of them electrified. Moreover, there are four kinds of gauge standards in Brazil's railways, which is not conducive to interconnectivity of the entire railway network. The railways serve only 19 percent of Brazil's total traffic volume, and the average speed of 25km/h of the Brazilian railway also lags far behind the global average of 75km/h. Although the 37 seaports in Brazil have a total annual throughput of 700 million tons, these capacities are very unevenly distributed. The handling capacity of the Santos Port, the largest in the country, accounts for one-third of the national total. The silting up of the port in 2016 once had large-tonnage vessels including huge amounts of cargo stranded.<sup>4</sup> According to estimates by the United Nations Economic Commission for Latin America and the Caribbean, Brazil's freight volume will have increased by 14 percent from 2015 to the year 2025, setting a much higher demand on the country's infrastructure.<sup>5</sup> Improving transport conditions and other infrastructure is therefore Brazil's inevitable first choice for enhancing its competitiveness.

Second, even though Brazil has the highest investment budget for infrastructure construction among Latin American countries, the country's even greater demand in this regard determines that it is also facing the largest investment gap.<sup>6</sup> Since the 1980s, debt crises and economic downturns have forced Brazil to significantly reduce its infrastructure investment, whose proportion in GDP has plummeted from an average of 5.2 percent in the early

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4 Fernanda Pires, "Assoreamento já 'Esvazia' Navio no Porto de Santos," *Valor*, July 18, 2017, <https://www.valor.com.br/empresas/5042450/assoreamento-ja-esvazia-navio-no-porto-de-santos>.

5 Ulloa, Felipe, "Estimating Demand for Transportation Using the Input-output Model: Brazil, Chile, Ecuador and Nicaragua," *CEPAL FAL Bulletin*, No.358, 2017.

6 David Tuesta, "Infrastructure Investment in Latin America: Pension Funds, Capital Markets and Financial Regimes," in World Bank Group Pre-Conference Workshop for Capital Markets Regulators, November 2015.

1980s to 2.25 percent over the past two decades.<sup>7</sup> The decline of infrastructure investment is mainly attributed to the reduction of public investment, while private capital is not yet able to fill the gap left by the shrinking public input.

When in particular after 2013 its fiscal situation worsened, Brazil's federal government began to cut transfer payments to local governments, with states such as Rio de Janeiro and Minas Gerais once even on the verge of bankruptcy. Given this, those Brazilian states in financial difficulties acted first and turned to China for help, hoping China's local investment, especially in the field of infrastructure, would rescue them from the abyss. Since the beginning of 2019, governors or local government delegations from more than 10 states have visited or planned to visit China, in order to introduce projects to Chinese investors. The projects are mainly concentrated in railways, water conservancy, roads, ports and other infrastructure.<sup>8</sup>

### **Strong demand for infrastructure investment**

Brazil's demand for infrastructure investment has been strong in recent years. Since the latter half of 2015, the Brazilian federal government has successively released three policy documents which focused on infrastructure construction, namely the Multi-Year Plan for 2016-2019, the Logistics Investment Plan for 2015-2018, and the Electricity Investment Plan for 2015-2018. The Multi-Year Plan serves as the general program, while the latter two documents outline the investment objectives and tasks in the two critical infrastructure areas of logistics and electricity. According to the Growth Acceleration Program in the 2018-2019 government transition period published by Brazil's Ministry of Planning, Development and Management, the government will step up efforts to attract investment. In addition to regular offers of tenders and privatizations for infrastructure projects, it will establish a new Secretariat for Strategic Affairs, which will

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7 Mercedes Garcia-Escribano, Carlos Goes, Izabela Karpowicz, "Filling the Gap: Infrastructure Investment in Brazil," IMF Working Paper, July 2015, p.11.

8 Ana Krüger e Daniel Rittner, "Governadores Vão à China para Conquistar Recursos," *Valor*, May 13, 2019, <https://www.valor.com.br/brasil/6251343/governadores-vao-china-para-conquistar-recursos>.

take responsibility for major projects such as the Angra 3 nuclear power plant, the Transnordestina Railway, and the BR-163 Highway.<sup>9</sup> Soon after taking office, Brazilian President Jair Bolsonaro announced in early 2019 that there would be at least 49 public tenders in that year for infrastructure projects, with an amount expected to reach 67.9 billion reais.<sup>10</sup>

### **High level of political mutual trust**

Brazil established diplomatic relations with China in 1974, and became the first developing country to forge a strategic partnership with China in 1993. In 2012, it was again the first among Latin American countries to establish a comprehensive strategic partnership with China. Over the past 45 years, the two countries have been consistently dedicated to mutual respect, have treated each other as equals, and upheld win-win cooperation, thus setting an example for cooperative and mutually beneficial relations between major developing countries. Although President Bolsonaro made some proposals and remarks during his election campaign that raised people's concerns about the direction of China-Brazil relations, he has avoided unilateralism since taking office, and instead maintained consistency in his policy and conducted positive interactions with China. Following Vice President Hamilton Mourão's visit in May 2019, Bolsonaro headed to China in October of the same year, while Chinese President Xi Jinping attended the BRICS summit held in Brasilia in November. Exchanges between the two countries' political parties and local governments have also become more frequent.

High-level visits have strengthened the mutual trust in political matters between China and Brazil, and it is on this basis that the new Brazilian government actively advances pragmatic cooperation with China. As the cornerstone of the bilateral relations, China-Brazil economic cooperation has ushered in a new period of rapid development with a bright prospect,

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9 Ministério do Planejamento, Desenvolvimento e Gestão, *Programa de Investimentos Prioritários em Infraestrutura – PAC, Transição de Governo 2018-2019*, Informações Estratégicas.

10 “Governo Quer Leiloar Pelo Menos 49 Projetos de Infraestrutura Só neste Ano,” *UOL*, January 17, 2019, <https://economia.uol.com.br/noticias/redacao/2019/01/17/governo-quer-passar-49-projetos-de-infraestrutura-ao-setor-privado.htm>.

featuring parallel progress in trade, investment and financial ties. During Bolsonaro's visit to China in October 2019, China and Brazil decided to launch a process to optimize the mechanism of the China-Brazil High-Level Coordination and Cooperation Committee, and upgrade the Joint Action Plan 2015-2021 and the Ten-Year Cooperation Plan 2012-2021.<sup>11</sup> The two sides also announced to actively promote bilateral investment, expand economic complementarity, and explore new economic opportunities. Currently, infrastructure construction has become the largest area for Chinese investments in Brazil, with five Chinese financial institutions setting up branches or representative offices in the country and providing financing support for bilateral trade and investment. The China-Latin American Production Capacity Cooperation Investment Fund and the BRICS New Development Bank are well functioning, while the China-Brazil Cooperation Fund for the Expansion of Production Capacity has been launched. In the future, the two sides can explore joint approaches to further enrich financial cooperation and facilitate the expansion of bilateral trade and investment ties. As the only founding member of the Asian Infrastructure Investment Bank in the Americas, Brazil can benefit much from Chinese financial resources.

### **Synergy of the Belt and Road Initiative and Brazil's development strategy**

China's Belt and Road Initiative is highly consistent in terms of concept with Brazil's development strategy, which similarly features the accelerating effect of investment and the foundational role of infrastructure construction. With rich experience and technical reserve on the Chinese side, the two countries' cooperation in infrastructure investment has promising prospects. Since Bolsonaro took office, Brazil's role as a participant of the Belt and Road Initiative has been increasingly significant, as the two sides explore the possibility of synergy of their respective development strategies. For example, the Chinese embassy in Brazil and Brazil's Ministry of Infrastructure jointly

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11 "Joint Statement between the People's Republic of China and the Federative Republic of Brazil," Ministry of Foreign Affairs of China, October 25, 2019, [www.fmprc.gov.cn/web/zyxw/t1710767.shtml](http://www.fmprc.gov.cn/web/zyxw/t1710767.shtml).

held a dialogue on infrastructure cooperation, which has served as a platform for synergy of the two sides' infrastructure development strategies as reflected in key cooperative projects. In July of the same year, the Chinese embassy and the Brazilian Center for International Relations held a symposium on the 45th anniversary of China-Brazil diplomatic relations, where officials and scholars from the two countries exchanged views on how to implement their strategic synergy. China and Brazil have also officially recognized the synergy between the former's Belt and Road Initiative and the latter's development strategy. During Bolsonaro's October 2019 visit to China, the two sides affirmed the feasibility to connect the Belt and Road Initiative with Brazil's Investment Partners Plans (PPI). In addition, Bolsonaro welcomed Chinese enterprises, by further opening up the Brazilian market, to actively invest in the country's infrastructure construction as well as in oil and gas exploitation. Through Chinese participation in PPI, it is expected that Brazil's ports, airports, highways, electric energy and other infrastructure would witness significant improvement, which is conducive to reducing logistical costs and enhancing transport efficiency. In the process, Brazil is also committed to further streamlining and accelerating various approval procedures to protect investors' interests. During the BRICS Brasilia summit in November 2019, China and Brazil signed a memorandum of cooperation on establishing an investment platform, in the hope of expanding investment and creating jobs through information exchange and joint action. This will facilitate and guarantee further infrastructure cooperation between China and Brazil.<sup>12</sup>

In addition to the federal government's interest in the Belt and Road, Brazil's local governments, in the face of obstacles for their development, have also been paying careful attention to attracting Chinese infrastructure investment. For example, in August 2019, Governor João Doria of São Paulo visited China with delegates from 35 companies, and participated in the China-Latin America Infrastructure Week. Indicating support for the Belt

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12 "Conheça os Acordos Firmados entre Brasil e China em Cerimônia Realizada no Itamaraty," Presidência da República, November 13, 2019, <https://www.gov.br/planalto/pt-br/acompanhe-o-planalto/noticias/2019/11/conheca-os-acordos-firmados-entre-brasil-e-china>.

and Road Initiative, Doria hoped that both São Paulo and Brazil could seize the opportunity to improve infrastructure.

## Challenges for China-Brazil Infrastructure Cooperation

Despite the vast opportunities for cooperation, China's entry into Brazil's infrastructure construction does not always offer a smooth journey; nor will its future be without any obstacles. Among the major risks are Brazil's high financing costs, the deficiency of relevant systems, the vulnerability to international economic cycles, the instability of foreign exchange rates, and the poor business environment. The unpredictability in terms of policy of Brazil's alt-right government could also pose a new challenge to Chinese enterprises.

### **High financing costs are constraining market access**

The funding gap for Brazil's infrastructure construction is large. To achieve its inflation target, Brazil's interest rate has been kept at a high level. Coupled with the immaturity of its domestic capital market, Brazil's funding channels have long been short of diversity, which makes financing particularly costly.<sup>13</sup> The political and economic crisis in 2015-2016, which resulted in the instability of Brazil's sovereign credit ratings, has further limited the country's ability to finance on the international capital market, especially due to the lack of access to long-term capital. Even though Brazil is a beneficiary of various funding mechanisms such as the China-Latin American Production Capacity Cooperation Investment Fund, the special loan for China-Latin America infrastructure construction, and the China-Brazil Cooperation Fund for the Expansion of Production Capacity, the volume of capital accessible to the country is still far from sufficient. This is mostly manifested in the financing approach, as well as the mismatch of capital maturity. On the one hand, as the traditional financing approach has

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13 Cleomar Gomes, Rafael Cavalcanti de Araújo, "Brazil: Monetary Policy and the Neutral Interest Rate," *Journal of Economic Studies*, Vol.43, No.6, 2016, pp.966-979.

been tardy and ineffective in response, it is impossible for Brazil to solely rely on investment from China; instead it is an urgent necessity for Brazil to also innovate its own financing methods. On the other hand, there exists an apparent mismatch of maturity between the demand and supply of capital. While the Brazilian side prefers longer-term infrastructure loans, because of the difficulty of generating capital returns within a short span of time, there are limits on the Chinese side concerning the capital's maturity and rate of return. This has often made it difficult to match demand with supply. For example, the loan period of the China-Latin American Production Capacity Cooperation Investment Fund, which is usually seven to ten years, is obviously unable to satisfy Brazil's demand for infrastructure financing.<sup>14</sup>

### **Deficient investment protection regime amplifies risks**

Although the Brazilian federal government has long realized that public-private partnership can attract financial resources and bring in the private sector's management expertise, progress in this regard has been rather slow. The incompetence of regulations has led to an exclusion of private investment. Privatization and the opening of market access to foreign investors cannot fully overcome the bottlenecks of Brazil's infrastructure construction, while the fluctuation of national regulatory policies has added to uncertainties and thus limited investment. Moreover, mechanism building in China-Brazil infrastructure cooperation has been seriously lagging behind, rendering the two sides' capabilities too inadequate to synergize their plans and coordinate their efforts. Since the two countries have not signed a document on Belt and Road cooperation, institutional guarantees are hardly available if concrete projects encounter bottlenecks.

### **Economic fluctuation is stifling corporate profitability**

Brazil's widespread economic uncertainty has made it difficult for

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14 "Speech by Han Deping, Manager of the China-Latin American Production Capacity Cooperation Investment Fund, at CGG Think Tank," August 23, 2018, <http://www.cgthinktank.com/2018-08-23/100076387.html>.

Chinese enterprises to find profitable projects. Looking back on Brazil's history of economic development, instability of currency value and severe monetary and economic crises have been commonplace, which will bring potential risks to investment from China. For example, during the political and economic crisis triggered by the presidential impeachment case between 2015 and 2016, the Brazilian economy registered a downturn of more than three percent annually for two consecutive years, which undermined the overall economic vitality. Besides, the increase of interest rates by the United States Federal Reserve since Donald Trump took office has led to substantial depreciation of multiple Latin American currencies including the Brazilian real. The fluctuation of foreign exchange rates is a factor that Chinese companies have to take into consideration when they participate in Brazil's infrastructure construction.<sup>15</sup>

### **Investment inconveniences are suppressing business activity**

According to the World Bank's ease of doing business index, Brazil's global ranking in terms of business environment has been below the 100th rank since statistics began in 2009, well below that of countries within the region such as Mexico, Chile, Colombia and Peru. Business operations in Brazil have been under pressure in terms of establishing new companies, obtaining construction permits, paying taxes and registering assets. In particular, Brazil's labor and environment issues are obstacles that China-Brazil cooperation cannot avoid. As labor organizations in Brazil enjoy a powerful status, infrastructure projects which include Chinese investors as stakeholders risk being liable to substantial amounts of compensation once they are trapped in labor disputes. With a strong awareness of the environmental protection agenda in the public domain and a formidable presence of relevant organizations, cooperation projects in Brazil would also be dragged into major controversy and face major risks of being penalized if environmental issues were involved. To protect the market share of

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15 Zhang Ruoxi and Wang Fei, "Brazil's Currency Crisis Early Warning System: Preventing the Risks of Sino-Brazil Economic Cooperation," *Journal of Latin American Studies*, No.2, 2017, p.60.

domestic enterprises from being encroached, the Brazilian government has set a 50-percent localization threshold in several key industries, which to some extent dampens the enthusiasm of foreign companies to invest in infrastructure projects. The weak business environment of Brazil, in both hard and soft aspects, has not only made it more difficult for Chinese enterprises to enter the market, but also hindered the realization of bilateral cooperation objectives to some degree.

## **Approaches to Advancing China-Brazil Infrastructure Cooperation**

Infrastructure construction is the key area where China-Brazil joint building of the Belt and Road Initiative as well as trade and investment cooperation can make a breakthrough. In fact, infrastructure connectivity includes not only “hard” connectivity in terms of transportation and energy, but also “soft” connectivity as reflected in the harmonization of policies and rules. To realize successful cooperation for the two countries while at the same time effectively managing risks, it is undoubtedly necessary to create a top-level strategic mechanism in a scientific and reasonable manner, while also stimulating innovation at the grassroots level. By working out such an initiative at the macro, meso, and micro level, and by leveraging policies to tap existing opportunities, cooperation approaches can be found that suit the Brazilian market and address the reasonable concerns of Chinese enterprises in terms of business model, regulatory regime and financing pattern.

### **Normalizing cooperation platforms**

At the national level, it is necessary for China to refine the top-level design in its grand strategic layout, and establish or improve platforms for Belt and Road cooperation with Brazil, thus institutionalizing cooperation mechanisms. The China-Brazil High-Level Coordination and Cooperation Committee, which was launched in 2004, is the highest-level mechanism that exists for comprehensive bilateral cooperation. On this basis, the two countries can explore the possibility of setting up an infrastructure sub-

committee, and enhance communication to normalize the cooperation platform. First, the two sides should sign a document on Belt and Road cooperation as soon as possible. Although there have been 19 countries that signed such documents with China, no major Latin American country in the conventional sense have joined the ranks so far. By putting down cooperation on the Chinese initiative in black and white, the influence of Brazil as the top regional power is expected to rise and the bilateral infrastructure projects are able to advance on a more solid basis. Second, relevant state authorities in China should further promote the synergy of the Belt and Road Initiative and Brazil's development strategy, improve the regulatory system for outbound Chinese investment, and provide better investment policy services. Third, the renminbi's internationalization in Brazil can be advanced at a strategic level to help financial institutions and enterprises circumvent exchange rate risks. The instability of Brazil's foreign exchange rate has led to a mismatch of costs and benefits among financial institutions and enterprises that are participating in local infrastructure construction. Given this, an expanded use of the renminbi can consolidate Brazil's demand for the Chinese currency and enhance relevant financial services and global operations. Fourth, a risk assessment and early warning system should be built to strengthen the network of risk prevention and control. It is necessary for relevant authorities to help financial institutions and enterprises that get involved in Brazil's infrastructure construction to conduct studies on the overseas investment environment and project feasibility. They can also play a constructive role by formulating guidelines for overseas investment risk management and setting up an early warning and information disclosure system to keep stakeholders informed in a timely manner.

### **Innovating financing mechanisms**

With its limited fiscal capacity, Brazil is short of funding for large-scale infrastructure projects. China on the other hand, possessing an enormous foreign exchange reserve and a high deposit rate, has the capacity to participate in Brazil's infrastructure construction. Fiscal funds, development-

oriented financial institutions, and commercial banks can all be capital sources for bilateral infrastructure cooperation. So far, the China-Brazil Cooperation Fund for the Expansion of Production Capacity has been launched. The Industrial and Commercial Bank of China signed a memorandum on global financial cooperation with Brazil's Vale company. China's XCMG group opened a fully-owned bank in Brazil. Whereas China's development-oriented financial institutions, commercial banks and enterprises have all participated in financing mechanism-building in Brazil, their priorities should now turn to diversifying financing services, encouraging the integration of development-oriented and commercial finance, expanding financing channels, and promoting inclusive and green finance. China and Brazil can also explore cooperation opportunities in third parties to jointly shoulder financing risks. First, development-oriented financial institutions are encouraged to innovate their businesses and products according to conditions of their local infrastructure projects, and appropriately extend the terms of their loans. As the largest power in Latin America, Brazil's economy is more resilient, and its relationship with China has stood the test of time with renewed momentum. It is feasible for Chinese development-oriented financial institutions to push the conventional limits and moderately extend their loan terms provided that risks are under control. Second, commercial banks should be granted more latitude to participate in some infrastructure projects between China and Brazil that are sufficiently commercialized. Third, both development-oriented and commercial financial institutions should be actively guided to establish multilateral financial cooperation mechanisms with relevant third-party bodies, and provide localized financial support in a variety of ways such as comprehensive credit lines and syndicated loans. The China-Latin America Development-Oriented Financial Cooperation Mechanism, initiated by the China Development Bank in April 2019, is the first multilateral mechanism of its kind between China and Latin American countries, but the Brazilian Development Bank (BNDES) did not take part. The incorporation of BNDES into the mechanism will strengthen synergy and cooperation between Chinese and Brazilian development-oriented financial bodies and

better serve the bilateral infrastructure cooperation.

### **Attaching importance to public diplomacy**

With the increasing influence of government-affiliated and non-governmental think tanks in Brazil in recent years, China has become a popular object in their studies. However, some misconceptions of the Belt and Road Initiative still exist among various Brazilian think tanks, as China's participation in local infrastructure construction is frequently labeled “neo-colonialism”, “plundering resources” or “debt trap”.<sup>16</sup> At present, Chinese and Brazilian think tanks have been playing a crucial role in bilateral public diplomacy. For example, the Chinese Academy of Social Sciences (CASS) and the University of Campinas have jointly launched a center for China studies. The Getulio Vargas Foundation has also hosted a China center. A center for Brazil studies was set up under the CASS Institute of Latin American Studies. Think tank cooperation can be an approach to enhancing policy communication and people-to-people bonds between China and Brazil, and Chinese think tanks should strive to build up their capacity particularly on the issue of China-Brazil infrastructure cooperation. First, academic exchanges and collaboration between think tanks should be further strengthened, and the role of think tanks in advising policy decisions and guiding opinion forming should be given full play to promote understanding and facilitate consensus. Second, the concepts of how to shape public opinion should be improved, with more focus placed on people-to-people exchanges. Chinese think tanks need to actively promote Track II interactions with Brazilian political parties, the legislature, local governments, industrial associations, think tanks, the media, as well as universities and research institutions. Through exchanges of various kinds, they can help stimulate a better understanding of China-Brazil infrastructure projects among Brazilian central and local governments as well as the general public,

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16 Wang Fei, “Latin American Think Tanks’ Perception of China’s Major-Country Diplomacy in the New Era: Findings on the Belt and Road Initiative and the Community with a Shared Future for Mankind,” *Social Sciences Abroad*, No.5, 2018, p.127.

thus serving as elements of China's "soft power" to cultivate a favorable public opinion environment for bilateral infrastructure cooperation. Third, Chinese researchers and their Brazilian counterparts can jointly conduct feasibility studies of infrastructure projects such as the Bi-Oceanic Railway Corridor, which would add solid intellectual support for bilateral cooperation.

### **Diversifying development patterns**

As one of the main actors in China-Brazil infrastructure cooperation, enterprises make investment decisions based on their evaluation of Brazil's investment environment and the value of specific projects. Currently, Chinese infrastructure construction in Brazil calls for innovation in terms of the involved actors and the current cooperation patterns. Playing the role of whole-industrial-chain service providers, Chinese enterprises can build localized platforms through their regional subsidiaries and offer investment services, thus achieving diversified development. Due to the burden of high costs, only state-owned enterprises have made up the majority of Chinese investors in China-Brazil infrastructure cooperation, while the private sector, which is widely perceived more capable in expanding markets, has largely stayed away from any involvement. Ideally, the actors of infrastructure investment should be diversified, with public and private investors cooperating and supplementing each other, and jointly facing challenges in the process. In addition, the conventional construction pattern, characterized by EPC general contracting, can be replaced by more diverse models such as equity cooperation, mergers and acquisitions, and public-private partnership (PPP). By prioritizing the option of exporting techniques and management expertise and employing more local labor, disputes of various kinds can actually be avoided. Moreover, Chinese enterprises operating in Brazil should learn to adopt an integral mindset and refrain from mutual undercutting and underpricing, which often leads to a waste of resources. Corporate self-discipline is necessary for a favorable market environment and an all-win outcome of coordinated development. Last but not least, Chinese enterprises

in Brazil should actively explore the possibility of cooperating with their local or Western counterparts. By integrating China's advantages in infrastructure construction, developed countries' advanced technology and management expertise, and Brazil's practical needs of infrastructure development, a cooperative model that involves both the global North and South can be established, which will help demonstrate China's open posture in promoting the Belt and Road Initiative, as well as a global community of interests, responsibility and shared future.

## Conclusion

Brazil is the first developing country to have established a strategic partnership with China, the first Latin American country to have built a comprehensive strategic partnership with China, and also the first in the region whose bilateral trade volume with China topped US\$100 billion. Therefore, the progress of China-Brazil relationship bears strategic significance and plays an exemplary role. In the wake of President Bolsonaro's visit to China and the BRICS Brasilia summit in 2019, the Brazilian government has been adopting a more pragmatic and amicable position in its China policy. The two sides have started to explore the potential for jointly building the Belt and Road through infrastructure cooperation. Currently, as globalization is under attack from unilateralism and protectionism, the cooperation between China and Brazil, as two major developing powers, is likely to produce worldwide strategic influence. Taking infrastructure construction as an entry point, the two countries can promote the in-depth synergy of Brazil's Investment Partners Plans and China's Belt and Road Initiative, and build the bilateral comprehensive strategic partnership into a paragon of China-Latin America, South-South and emerging market economies' cooperation. This not only serves to consolidate and enhance the bilateral ties, but also serves to advance China's cooperation and building of a community of shared future with the entire Latin American region. 