** **

9B18M149

China Railway Construction Corporation: Attaining Globalization via High-Speed Rail[[1]](#endnote-1)

[Hongxing Cao](https://iveypubs.my.salesforce.com/003A000001CqWKZ), [Yuanfang Lin](https://iveypubs.my.salesforce.com/003A000001CqbQT), and [William Wei](https://iveypubs.my.salesforce.com/003A000001CqXF0) wrote this case solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

*This publication may not be transmitted, photocopied, digitized, or otherwise reproduced in any form or by any means without the permission of the copyright holder. Reproduction of this material is not covered under authorization by any reproduction rights organization. To order copies or request permission to reproduce materials, contact Ivey Publishing, Ivey Business School, Western University, London, Ontario, Canada, N6G 0N1; (t) 519.661.3208; (e)* [*cases@ivey.ca*](mailto:cases@ivey.ca)*;* [*www.iveycases.com*](http://www.iveycases.com)*.*

Copyright © 2018, Ivey Business School Foundation Version: 2018-10-19

The exhibition *China’s Fast-Developing High-Speed Rail*, which opened in Kuala Lumpur on December 11, 2015, highlighted the country’s advanced technology in high-speed rail (HSR) manufacturing and design. By the end of 2015, China had built the world’s longest HSR network, which spanned over 19,000 kilometres (km) and accounted for more than 60 per cent of the world’s total HSR mileage.[[2]](#endnote-2) China had also accomplished significant growth in the international HSR market, cooperating with over 30 countries, including Thailand, Russia, Indonesia, India, Laos, and the United States.

Since 2017, China had encountered many challenges during its global expansion, and many of these raised doubts about whether its HSR projects would be profitable.[[3]](#endnote-3) In 2018, China Railway Construction Corporation (CRCC) was part of this ongoing expansion in the global market, and it needed to answer a few questions to support this expansion and to ensure a clearer profitability goal. CRCC also needed to develop an effective risk prevention and management scheme that would help it succeed in expanding in the global HSR market while facing intense competition and complicated international environments. CRCC needed to answer some key questions: How should China position and market its HSR capabilities in the global market? What essential factors in the global market environment would affect the success of CRCC’s global expansion? What were the major risks associated with HSR projects that CRCC developed for international client countries? What good risk prevention and management mechanism should be implemented?

HISTORY OF CHINA’S HSR GLOBALIZATION

China’s HSR industry could be considered a successful example of an industry that had benefitted from a late-mover advantage. The proposal for HSR development in China did not come until 1990, when the Ministry of Railways submitted the report *Project Proposition of the Beijing–Shanghai HSR Line* to the National People’s Congress.[[4]](#endnote-4) In May 1998, the Guangzhou–Shenzhen railway line reached a designed speed of up to 350 km per hour (km/h)—an outcome of China’s continuous railway reform and development in general and of the “railway speed-up” component in particular. In August 1998, the Guangzhou–Shenzhen railway line became the first to adopt the X2000 high-speed tilting-type train unit, which was leased from Sweden. With its adoption of advanced technologies and equipment from foreign countries in the 1990s, the Guangzhou–Shenzhen railway line marked the beginning of China’s HSR era.

China’s HSR projects continued to develop momentum in the 21st century. China was continuously learning, adopting innovative HSR technology, and engaging in independent innovation. This resulted in a series of major breakthroughs and achievements in HSR technology. For example, one of the components of HSR was a ballastless track, which was previously utilized only by Japan and Germany. This technology was introduced to China from Germany, and this led to China’s development of Bögl plates. This new type of track plate—type CRTSIII—was independently designed and developed in mainland China and made its debut in November 2009. In 2014, China held the largest percentage of HSR-related technology patents recorded in the Derwent Innovations database (48 per cent), followed by Japan (16 per cent) and Germany (12 per cent).[[5]](#endnote-5) China’s continuing efforts in HSR technology development, patent licensing, and cross-licensing played an important role in the country’s expansion to the global HSR market. In addition to its technological leadership, China also established a complete industrial supply chain and strong manufacturing and construction capabilities. By the end of 2013, China ranked first in terms of both total constructed HSR length (11,000 km) and total length of HSR lines under construction (12,000 km); the former accounted for nearly half of the world’s total HSR length.

China’s HSR projects could be found in Africa, Asia, Europe, America, and Oceania. The U.S. magazine *ENR: Engineering News-Record* had ranked CRCC first among its top 225 global contractors for several years in a row; CRCC had the fastest growing overseas business, the greatest number of newly signed contracts, and the largest number of under-construction projects overseas. CRCC’s global market expansion underwent two stages: The first stage, between 2003 and 2012, began in Asia and expanded to other areas of the world. In 2003, CRCC won its first bid on an overseas project—the Zinder water supply project. In October 2006, CRCC won the bidding for an US$8.3 billion[[6]](#endnote-6) Nigerian railway modernization project and took charge of the entire process, from design and purchasing to construction. Until the end of 2006, this was the largest international engineering project contracted by a Chinese company. The second stage started in 2012 and involved market entries across the world. In 2012, executing its overseas strategy and speeding up its “going-out” steps, CRCC invested ¥3 billion[[7]](#endnote-7) to establish China Railway International Group Company Limited (CRIG), a signal of its shifting focus to overseas markets. On July 25, 2014, the second phase of the Ankara–Istanbul HSR line—the first overseas HSR line built by a company from mainland China—was opened to traffic. This line, with a total length of 158 km and a designed speed of 250 km/h, connected Ankara, the capital of Turkey, to Istanbul, the largest city in the country.

The year 2015 witnessed the fastest growth of China’s HSR business in the overseas market. Although it was unable to secure a bid in Mexico, CRCC managed to sign contracts with many other countries. In October 2015, CRCC broke into the European railway market by winning the bid for a transformation project with a Montenegro railway company.[[8]](#endnote-8) On September 18, 2015, CRCC won the bid for a 1,200-km-long Indian HSR project, which connected New Delhi to Bombay.[[9]](#endnote-9)

According to Wang Mengshu from the Chinese Academy of Engineering, China’s HSR had high-quality performance with lower cost and higher speeds than its competitors. Wang summarized the core advantages of China’s HSR technology in three dimensions:

First, it has better technology for building tracks and tunnels and is capable of coping with complex situations. For example, its technology is advanced enough to guarantee that the tracks will keep their shape in extreme temperatures. One of the reasons why Vladimir Putin, the president of Russia, chose to cooperate with China’s HSR was because it could work safely, even in alpine regions. Second, the technical team is highly professional and the technicians are ready to work at any time. Third, it has lower construction costs than developed countries.[[10]](#endnote-10)

A report from the World Bank’s China office indicated that the construction cost of China’s 350 km/h HSR projects was ¥129 million per km, and the cost for its 250 km/h projects was ¥87 million per km.[[11]](#endnote-11) “Currently, most overseas contracts of CRCC were centred on the construction of conventional railways and light rail, and the export of metro vehicles, electric locomotives, and motor train units.” In Wang’s opinion, “This was a prime time for the global market expansion of China’s HSR business.”[[12]](#endnote-12)

MARKETING ENVIRONMENT

In September and October 2013, the president of China, Xi Jinping, introduced the strategic concept of building the Silk Road Economic Belt and the 21st Century Maritime Silk Road. Under this strategic concept and the associated plan, relevant countries were invited to jointly build a community of shared interests and destiny, where all participating countries would enjoy mutual benefit and common development and prosperity.[[13]](#endnote-13) The Belt and Road Initiative was geographically structured along six corridors, and the Maritime Silk Road included the New Eurasian Land Bridge, the China–Mongolia–Russia Corridor, the China–Central Asia–West Asia Corridor, the China–Indochina Peninsula Corridor, the China–Myanmar–Bangladesh–India Corridor, the China–Pakistan Corridor, and the Maritime Silk Road.[[14]](#endnote-14) On September 8, 2014, in his speech “Connectivity Spearheads Development and Partnership Enables Cooperation,” Xi pointed out that transportation infrastructure should be the focal point in achieving connectivity across Asia and said that priority should be placed on building railways and roads between China and its neighbouring countries. He also proposed the development of a financing platform to break the bottleneck of connectivity in Asia; this would be spearheaded by China’s $40 billion investment in establishing the Silk Road Fund.[[15]](#endnote-15) This national strategic proposal provided an opportunity for further growth in the globalization of China’s HSR.

China’s HSR became a comprehensive industry that included vehicles, railways, telecommunications, supporting facilities, and services. The main corporations involved were CRCC and CRRC Corporation Limited (CRRC Corp.). CRCC, established in Beijing on November 5, 2007, had become a mega-sized construction corporation under the administration of the state-owned Assets Supervision and Administration Commission of the State Council of China (SASAC). On March 10 and 13, 2008, CRCC was listed on the Shanghai and Hong Kong stock exchanges, respectively, with a total registered capital of ¥12.3 billion. CRCC was one of the world’s most powerful and integrated construction groups and the largest engineering contractor in China.[[16]](#endnote-16) China’s railway construction companies had obtained the highest level of operating qualifications in many countries and territories, including Hong Kong, Nigeria, the United Arab Emirates, Algeria, Israel, Turkey, Kenya, Saudi Arabia, Tanzania, and Botswana.

CRCC’s financial statements included limited information regarding the corporation’s international business. However, according to its annual report in 2014, this section of CRCC’s business was rapidly developing and so were the profit levels. The report stated that, by the end of 2014, CRCC had extended its business to 78 countries and territories, had 446 projects under construction and ¥23.6 billion of operating income, and had marked an average annual growth rate of 11.1 per cent. In 2014 alone, the monetary value of its newly signed overseas contracts totalled ¥127.8 billion, which was up 59.7 per cent compared to 2013 and accounted for 15.4 per cent of all the newly signed contracts that year. International projects had become an increasingly important source of profits for CRCC.[[17]](#endnote-17)

CRRC Corp. was formed when China CNR Corporation Limited (CNR) and CSR Corporation Limited (CSR), with the consent of the state council and the approval of the SASAC, entered into a reciprocal merger in 2014. CRRC Corp. was classified as an A+H share company. On June 8, 2015, it was listed on both the Shanghai and Hong Kong stock exchanges after obtaining approval from the China Securities Regulatory Commission. Headquartered in Beijing, CRRC Corp. had 46 subsidiaries and 188,000 employees.[[18]](#endnote-18) This merger not only facilitated China’s railway transportation equipment industry—transforming it from “made in China” to “created in China”—but also promoted the upgrade of the country’s high-end equipment industry, turning China from a “big manufacturing country” to a “strong manufacturing country.”[[19]](#endnote-19)

The rolling stock manufactured by CRRC Corp. became an important embodiment of China’s technological achievements that could be displayed to the world. According to a 2014 report from SCI Verkehr, CRRC Corp. ranked first in five out of nine categories of rolling stock products, which included electric locomotives, high-speed trains, passenger trains, freight trains, and metro vehicles. From 2011 to 2014, the company’s export turnover increased rapidly each year, from $1.92 billion in 2011 to $3.59 billion in 2012, $3.96 billion in 2013, and $6.75 billion in 2014.[[20]](#endnote-20) This amounted to an annual average increase of 55.7 per cent.[[21]](#endnote-21) CRRC Corp. had become the largest HSR technology supplier and the largest rail transportation equipment manufacturer in the world.

China’s HSR globalization was also receiving media attention worldwide.[[22]](#endnote-22) Many international media outlets, such as the BBC, *The* *Financial Times*, and Reuters, were closely following and reporting on the globalization of China’s HSR and focusing on its advanced technology, large scale, and diverse sources of financing. China’s HSR progress and achievement in the global market were generally seen as evidence of the nation’s international influence and its efforts to promote its national image.[[23]](#endnote-23)

CHALLENGES FACing CHINA’s HSR INDUSTRY

Along with its fast global expansion and significant achievements, China’s HSR industry and its major corporations were also presented with obstacles and challenges that required effective solutions and efficient management mechanisms to assure further success.

Problems with International Projects

On August 15, 2014, Mexico’s Secretariat of Communications and Transportation (SCT) announced an open tender for an HSR project linking Mexico City with Queretaro. On October 15, a consortium made up of CRCC, CSR, and four Mexican firms submitted a bidding document that strictly followed the legal and regulatory requirements. On November 3, the ministry announced that the Chinese-led consortium had won the bid and detailed the bidding and evaluation process.[[24]](#endnote-24) The project, which was scheduled to begin in December 2014 and to be completed in 2017, was estimated to cost MXN58.95 billion[[25]](#endnote-25) (¥27.02 billion). On November 7, however, the SCT unilaterally revoked the winning bid, saying that the president of Mexico was hesitant to engage in such a large project and that the revocation could appease public doubts about the bidding—even though the bidding document had been submitted legally and on time.[[26]](#endnote-26) On January 14, 2015, Mexico resumed the bidding process, and the Chinese firms again submitted a tender. However, Mexico declared an indefinite adjournment of the project on January 30 that year.[[27]](#endnote-27) Reuters reported on May 21 that the SCT would pay approximately MXN20 million (US$1.31 million)[[28]](#endnote-28) or approximately ¥8.13 million to CRCC due to the revocation.[[29]](#endnote-29) The official justification the Mexican government provided for the unexpected revocation included a lack of competing firms submitting bids, insufficient time spent processing the bids, and a need to avoid public doubt concerning the legitimacy and transparency of the bidding process. The major forces leading to the bidding revocation were suspected of being linked to the country’s domestic factionalism; they included a scandal involving the president’s luxurious house, the Iguala incident (the kidnapping of teaching students in Iguala), interference from competitors, and the influence of domestic media.[[30]](#endnote-30)

In 2012, Thai Prime Minister Yingluck Shinawatra visited China and, after taking the Beijing–Tianjin HSR line, declared intentions to introduce China’s HSR technology to Thailand. In October 2013, during his visit to Thailand, Chinese Premier Li Keqiang proposed a “Rice for Bullet Trains” project[[31]](#endnote-31) that would see China build HSR for Thailand in exchange for the latter’s rice product—an appealing offer to Thailand. The project was adjourned in May 2014 and was not resumed until four months later, when a new prime minister, Prayuth Chan-ocha, replaced Yingluck, who was then prosecuted for falsification and corruption in the project. In June 2015, Zhu Xijun, managing director of the Southeast Asia branch of CRCC, stated that the China and Thailand Railway Cooperation Joint Committee was planning to sign a contract on September 10 and would hold an opening ceremony on October 23. However, Thailand negotiated new loan terms: Thailand would get a loan of THB2.2 trillion[[32]](#endnote-32) or $67.8 billion, which would be invested in water, land, and air transportation over the following seven years. The majority of the loan would be spent on the construction of four HSR lines, which would enable Thailand to become a hub connecting the entirety of Southeast Asia. In November 2015, Thailand’s Minister of Digital Economy and Society announced that the ground-breaking ceremony would be held on December 19, although construction would not begin until the following May. Wang commented that, “The biggest challenge for China’s HSR going global was political risk. It negatively affected our railway projects in Mexico and Myanmar…. It was now troubling the one in Thailand.”[[33]](#endnote-33)

Nations Competing with China in HSR Globalization

According to a report by the International Union of Railways, there were 22 countries and territories operating, building, or planning to build HSR. The length of HSR lines in operation, under construction, and in the construction planning and long-term construction planning stages totalled 22,954 km, 12,754 km, 4,459 km, and 14,382 km, respectively. The total length of HSR lines both under construction and in the construction planning stage had already reached 53,200 km by April 2017.[[34]](#endnote-34) Germany, Japan, China, and the United States were considered HSR technology leaders in the global market, while Japan, Germany, and France were currently the major competitors to China’s HSR globalization.

Japan was the first country to possess HSR, with its high-speed Tōkaidō line, which opened in 1964 and connected Tokyo and Osaka.[[35]](#endnote-35) China’s legendary political leader Deng Xiaoping took the train during his visit to Kyoto in October 1978. When asked about his feelings, Deng said it was fast and comfortable and further remarked that efficiency was essential for anything.[[36]](#endnote-36) The *shinkansen* (“bullet train”) network had reached 2,600 km in length by 2018 and was considered superior in safety and stability. Japan had mastered a complete complement of technology to independently produce wheels, rails, traction motors, and electronic chips. Despite these great achievements at home, Japan had failed to achieve equal success abroad. The Japanese companies Mitsubishi and Kawasaki had won bids for Taiwan’s HSR project in the late 1990s and completed it in 2007; as of September 2017, this was the only overseas project Japan had completed.[[37]](#endnote-37) In the global railway market, Japanese companies accounted for only 10 per cent of the market share and thus could hardly contend with the “big three”: Canada’s Bombardier Inc., France’s Alstom, and Germany’s Siemens AG. The International High-Speed Railway Association was established in April 2014 to integrate the superior resources of four main companies—the East Japan Railway Company (JR-East), Central Japan Railway Company, Nishi-Nippon Railroad Company Ltd., and Kyushu Railway Company—to participate in international competition. Japan also established a support institution for overseas transportation and urban development, publicizing shinkansen abroad, collecting and analyzing information, and coordinating relationships among enterprises to compete against China for the global HSR market.[[38]](#endnote-38) The director of JR-East stated in a press conference that, compared to China’s low-cost offering, “Our core competence was maintenance. Shinkansen was considered costly, but it was actually not so costly if you took into account that it could be used for 30 and even 40 years.”[[39]](#endnote-39)

Germany opened its first two HSR lines in 1991, one from Hanover to Würzburg and the other from Mannheim to Stuttgart, and it had since been a major force in exporting HSR products to many countries, including Switzerland, Sweden, the Netherlands, Spain, and Russia. However, Germany failed to win bids for HSR projects in both Taiwan and the United States. On May 28, 2015, the headline “Germany Will Massively Import China’s HSR” drew public attention. The news came from Heike Hanagarth, the director of the German railway company Deutsche Bahn AG,[[40]](#endnote-40) who stated that the company would set up a procurement office in Beijing in the autumn of 2015 to strengthen cooperation with CSR and CNR. In the coming three to five years, China would be the main supplier of Germany’s locomotives and spare parts. With the Chinese government’s favourable policies promoting exports in the railway industry, HSR projects had received loans with favourable conditions for exports and had greatly improved their quality. It was estimated that China’s HSR industry would soon obtain import licenses from Germany’s railway department.

France’s HSR, known as the train à grande vitesse (TGV), was first proposed in the 1960s, shortly after Japan began building its shinkansen in 1959. Co-developed by Alstom and the Société nationale des chemins de fer français (SNCF) and operated by the latter, it connected Paris to neighbouring cities and countries, including Belgium, Germany, and Switzerland.[[41]](#endnote-41) Despite its comparatively late entry into HSR, TGV had quickly established itself as one of the technological leaders in the global HSR industry. TGV technology was exported to the Netherlands, South Korea, Spain, Britain, and the United States. TGV trains and technology were manufactured and exported to the international market. However, TGV did not perform well in terms of globalization. It actively participated in the bidding process for HSR projects in South Korea, Morocco, and South American countries, but it only managed to sell its trains to Spain and South Korea on the condition that key technology would also be transferred. Afterwards, both Spain and South Korea began to build their own HSR and eventually competed with France.[[42]](#endnote-42) This resulted in Spain outbidding France on a project in Saudi Arabia. According to French media, it was difficult for France to export its HSR for a couple of reasons: First, because TGV was publicly operated, its construction costs were relatively high and therefore not competitive in the global market. Second, TGV gave away too much technology to its partners, essentially turning its customers into competitors.[[43]](#endnote-43)

OTHER RISKS FACED BY CHINA’S HSR COMPANIES

Apart from competition from traditional HSR powers, HSR companies from China faced other unprecedented risks and difficulties. In the anti-corruption campaign following the 18th National Congress of the Communist Party of China in 2012, the news headline “RMB 800 Million Entertainment Expense of CRCC” drew a lot of attention. CRCC’s annual report showed sales revenues of ¥484.3 billion and a profit of ¥8.5 billion, so the entertainment expense made up 10 per cent of its annual net profit. This incident resulted in administrative punishment for 66 people, one of whom was sent to the judiciary authorities.[[44]](#endnote-44) In May 2013, CRCC responded to the media report about its huge entertainment expense, claiming that it would try to reduce this by 10 per cent in 2013. In the information era, news like this created a hurdle for the globalization path of China’s HSR companies. The speculation over the reasons behind the Mexican government’s move to revoke CRCC’s winning bid in 2015 was another example. For these reasons, Chinese companies had to carefully study the United Nations Convention against Corruption (UNCAC) and relevant laws and regulations in local countries. UNCAC, effective as of December 14, 2005, was the first legal document the UN had promulgated as a guide to an international anti-corruption campaign.[[45]](#endnote-45) The new policy environment at home and abroad posed threats and risks to Chinese companies. Moreover, both CRCC and CRRC Corp. had been founded as state-owned enterprises and were likely to face controversies about their monopolistic nature, just as Huawei experienced in the United States.[[46]](#endnote-46) In addition, Chinese HSR companies were confronted with force majeure risks caused by international terrorism and other unforeseeable events. On November 21, 2015, China’s global HSR market expansion was affected when three staff members from CRCC were killed in the Radisson Blu hotel in Bamako during a project negotiation visit with the Ministry of Communication and Information Technology in Mali.[[47]](#endnote-47)

MOVING FORWARD

Much more had to be done to enable China’s HSR industry to achieve solid success in globalization and to contribute to the new national “created in China” strategic initiative. A clear and effective positioning strategy needed to be developed for competing with leading countries in the global HSR market. A comprehensive mechanism needed to be designed and implemented to effectively assess and manage the risks associated with different target markets around the world.

Thanks go to the International Business School, Beijing Foreign Studies University for their support in the development of this case.

ENDNOTES

1. This case has been written on the basis of published sources only. Consequently, the interpretation and perspectives presented in this case are not necessarily those of China Railway Construction Corporation or any of its employees. [↑](#endnote-ref-1)
2. Zhao Bochao and Lin Hao, “China High-Speed Railway Exhibition Opens in Malaysia,” *Xinhuanet*, December 11, 2015, accessed May 30, 2018, www.xinhuanet.com/overseas/2015-12/11/c\_1117436886.htm. [↑](#endnote-ref-2)
3. Gao Jianghong, “CSR Sample: The Profitability of High-Speed Rail,” *21st Century Business Herald*, December 2, 2014, accessed May 30, 2018, <http://finance.sina.com.cn/chanjing/gsnews/20141202/013920970187.shtml>. [↑](#endnote-ref-3)
4. “Wen Jiabao Announced the Start of the Beijing–Shanghai High-Speed Railway and Laid the Foundation for the Railway,” Xinhua News Agency, April 18, 2008, accessed May 30, 2018, www.gov.cn/jrzg/2008-04/18/content\_947868.htm. [↑](#endnote-ref-4)
5. Huang Lucheng, Gao Shan, Wu Feifei, and Miao Hong, “An Analysis of High-Speed Railway Technology Competition Based on Patent Information,” *Journal of Intelligence*, accessed May 30, 2018, <http://en.cnki.com.cn/Article_en/CJFDTOTAL-QBZZ201412009.htm>. [↑](#endnote-ref-5)
6. All dollar amounts are in USD unless otherwise specified. [↑](#endnote-ref-6)
7. ¥ = RMB = Chinese renminbi; ¥1 = US$0.15 as of July 30, 2018. [↑](#endnote-ref-7)
8. “China Railway Construction Won the Bid for the Montenegro Railway Project to Enter a New Opportunity in Europe,” *Cable Network*, October 14, 2015, accessed May 30, 2018, <http://news.cableabc.com/domestic/20151014027682.html>. [↑](#endnote-ref-8)
9. Fan Xi, “China Railways Wins Bid for Feasibility Study Project for New Delhi to Mumbai High-Speed Rail in India,” *Xinhuanet*, September 23, 2015, accessed May 30, 2018, [www.xinhuanet.com/2015-09/23/c\_1116655347.htm](http://www.xinhuanet.com/2015-09/23/c_1116655347.htm). [↑](#endnote-ref-9)
10. Wang Mengshu, “Wang Mengshu: High-Speed Rail Going Overseas Should Strengthen Risk Assessment,” *Global Times*, June 13, 2016, accessed August 5, 2018, http://opinion.huanqiu.com/1152/2016-06/9030813.html. [↑](#endnote-ref-10)
11. Zhang Zhi, “The Political and Economic Accounts Behind the Sino-Thai High-Speed Rail: Millions of Tons of Rice for the 867-km Railway,” *China Times*, December 12, 2015, accessed May 30, 2018, http://news.sina.com.cn/c/nd/2015-12-12/doc-ifxmpnqm3123736.shtml. [↑](#endnote-ref-11)
12. Zhang Lujing, “Wang Mengshu: China High-Speed Rail Going Overseas Has ‘Railway for Natural Resources’ Consideration,” *Chinese Economic Weekly*, September 2, 2014, accessed August 21, 2018, http://money.163.com/14/0902/00/A53MTNJM002526O5\_all.html. [↑](#endnote-ref-12)
13. Wang Jingwen, “ Xi Jinping’s Strategic Concept: ‘One Belt, One Road’ Opens ‘Dream Space,’” *China Economic Net*, August 11, 2014, accessed May 30, 2018, www.ce.cn/xwzx/gnsz/szyw/201408/11/t20140811\_3324310.shtml. [↑](#endnote-ref-13)
14. Dane S. Claussen and Zhou Jiawen, “SISU’s Middle East Studies Institute Joins ‘One Belt and One Road’ Think-Tank Alliance,” Shanghai International Studies University, April 15, 2015, accessed May 30, 2018, <http://en.shisu.edu.cn/resources/news/sisu-mesi-joins-one-belt-one-road-think-tank-alliance>. [↑](#endnote-ref-14)
15. “Speech by Xi Jinping at the Host-Partners Dialogue Meeting on Strengthening the Interconnected Partnership (Full Text),” *Xinhuanet*, November 8, 2014, accessed May 30, 2018, [www.xinhuanet.com/world/2014-11/08/c\_127192119.htm](http://www.xinhuanet.com/world/2014-11/08/c_127192119.htm). [↑](#endnote-ref-15)
16. “China Railway Construction Corporation Limited,” Ministry of Commerce, People’s Republic of China, September 22, 2015, accessed May 30, 2018, http://english.mofcom.gov.cn/article/services/supplydemandofchina/cooperation/201509/201 [50901118777.shtml](http://english.mofcom.gov.cn/article/services/supplydemandofchina/cooperation/201509/20150901118777.shtml). [↑](#endnote-ref-16)
17. 2014 Annual Report, accessed August 5, 2018, <http://english.crcc.cn/art/2015/4/16/art_460_103184.html>. [↑](#endnote-ref-17)
18. “CRRC Corp Makes Strong Debut as CSR-CNR Merger Completes,” *Xinhuanet*, June 8, 2015, accessed May 30, 2018, www.xinhuanet.com/english/2015-06/08/c\_134307601.htm. [↑](#endnote-ref-18)
19. “China South Locomotive Officially Announced the Merger with China CNR,” *Daily Economic News*, December 30, 2014, accessed May 30, 2018, <http://news.163.com/14/1230/21/AEOA0US40001124J.html>. [↑](#endnote-ref-19)
20. “High-Speed Rail Generates Huge Market,” *Shandong Business Daily*, accessed August 5, 2018, http://readmeok.com/2015-11/1\_42414.html. [↑](#endnote-ref-20)
21. “Overview of International Trade,” CRRC, accessed May 30, 2018, www.crrcgc.cc/g5115.aspx. [↑](#endnote-ref-21)
22. See for example, “Inside China’s Incredible High-Speed Rail Network,” BBC Future video, 4:32, June 5, 2017, accessed May 30, 2018, www.bbc.com/future/story/20170605-inside-chinas-incredible-train-network. [↑](#endnote-ref-22)
23. “Chinese Influence on Global Infrastructure,” ReportLinker, August 2017, accessed May 30, 2018, www.reportlinker.com/p05092859/Chinese-Influence-on-Global-Infrastructure.html. [↑](#endnote-ref-23)
24. Qi Zhongxi and Fan Xi, “Mexico Cancels High-Speed Rail Project,” *Economic Information Daily*, November 10, 2014, accessed May 30, 2018, <http://dz.jjckb.cn/www/pages/webpage2009/html/2014-11/10/content_98216.htm?div=-1>. [↑](#endnote-ref-24)
25. MXN = Mexican peso; MXN1 = US$0.05 as of July 30, 2018. [↑](#endnote-ref-25)
26. “China Railway Construction and CSR Announcement: Confirmation of the Cancellation of the High-Speed Rail Project in Mexico,” *NetEase Finance*, November 9, 2014, accessed May 30, 2018, <http://money.163.com/14/1109/17/AAKJ8LJT00254TFQ.html>. [↑](#endnote-ref-26)
27. “Foreign Media: Mexico Cancels High-Speed Rail Project and Will Compensate China 1.31 Million U.S. Dollars,” *China News*, May 22, 2015, accessed May 30, 2018, www.chinanews.com/gj/2015/05-22/7295217.shtml. [↑](#endnote-ref-27)
28. “Mexico to Compensate China’s CRCC for Canceling Rail Project,” *Reuters*, May 21, 2015, accessed May 30, 2018, www.reuters.com/article/mexico-china-train-idUSL1N0YD03620150522. [↑](#endnote-ref-28)
29. “Mexico Will Compensate China Railway Construction for 1.31 Million U.S. Dollars Due to Cancellation of High-Speed Rail Project,” *Phoenix Information*, May 22, 2015, accessed May 30, 2018, <http://news.ifeng.com/a/20150522/43816637_0.shtml>. [↑](#endnote-ref-29)
30. Gabriel Stargardter, “Signal Failures Derail Mexico’s Hopes of Chinese Investment Surge,” *Reuters*, April 20, 2015, accessed September 20, 2018, www.reuters.com/article/mexico-china-idUSL2N0WS2LA20150420#Hzzg5ayY8TSHJ7TA.97. [↑](#endnote-ref-30)
31. Frank Chen, “Sino-Thai High-Speed Railway Project Gets Go-Ahead,” *AsiaTimes*, December 6, 2017, accessed May 30, 2018, www.atimes.com/article/sino-thai-high-speed-railway-project-gets-go-ahead. [↑](#endnote-ref-31)
32. THB = Thailand baht; THB1 = US$0.03 as of July 30, 2018. [↑](#endnote-ref-32)
33. Zhang Zhi, op. cit. [↑](#endnote-ref-33)
34. “Report of the World Railroad Union, Countries Plan High-Speed Rail of 50,800 Kilometers,” Eastday.com, October 31, 2017, accessed May 30, 2018, http://xinwen.eastday.com/a/171031185221422.html?recommendtype=e&uk=171106082746460. [↑](#endnote-ref-34)
35. “Shinkansen,” Baidu, accessed May 30, 2018, <http://baike.baidu.com/view/46929.htm?fromtitle=日本新干线&fromid=5894050&type=syn>. [↑](#endnote-ref-35)
36. Jiang Peizhu, “Recalling Deng Xiaoping’s Milestone Trip to Japan,” *People’s Daily*, October 31, 2003, accessed May 30, 2018, www.people.com.cn/GB/guoji/1032/2161936.html. [↑](#endnote-ref-36)
37. Zhang Yiwei, “India’s Shinkansen Officially Begun. China-Japan High-Speed Rail ‘Hegemony’ Has Just Begun,” *Wall Street Knowledge*, September 13, 2017, accessed May 30, 2018, <https://wallstreetcn.com/articles/3030627>. [↑](#endnote-ref-37)
38. “China and Japan Start High-Speed Rail Wars: China Has Three Major Advantages or It Still Might Be Difficult to Win,” *Observer Network*, August 3, 2015, accessed May 30, 2018, <http://mil.news.sina.com.cn/2015-08-03/1257836319.html>. [↑](#endnote-ref-38)
39. Ibid. [↑](#endnote-ref-39)
40. Wu Guixia, “Demonstration Effect of Germany’s Procurement of China’s High-Speed Rail,” *China Daily*, May 28, 2015, accessed May 30, 2018, www.chinadaily.com.cn/interface/toutiao/1138561/2015-5-28/cd\_20843414.html. [↑](#endnote-ref-40)
41. “French High-Speed Rail,” Baidu, accessed May 30, 2018, <http://baike.baidu.com/view/543465.htm>. [↑](#endnote-ref-41)
42. Luke Upton, “Nation Building through Rail; HSR and South Korea,” SmartRail World, July 8, 2014, accessed May 30, 2018, <https://www.smartrailworld.com/nation-building-through-rail-high-speed-rail-and-south-korea>. [↑](#endnote-ref-42)
43. “China-Japan-French-German Comparison: China’s High-Speed Rail Ranks First in the World,” *Cnwnews*, February 26, 2015, accessed May 30, 2018, [www.cnwnews.com/html/soceity/cn\_js/wqzb/20150226/694368.html](http://www.cnwnews.com/html/soceity/cn_js/wqzb/20150226/694368.html). [↑](#endnote-ref-43)
44. “Wang Qishan Asked Regulators to Endorse China Railway’s RMB 800 Million Hospitality Report,” *China News Network*, October 21, 2013, accessed May 30, 2018, <http://news.qq.com/a/20131021/008554.htm>. [↑](#endnote-ref-44)
45. “United Nations Convention Against Corruption,” Baidu, accessed May 30, 2018, <http://baike.baidu.com/view/91779.html>. [↑](#endnote-ref-45)
46. “U.S. Investigates Whether Huawei Violates U.S. Export Control Regulations,” *Xinhuanet*, June 3, 2016, accessed August 5, 2018, www.xinhuanet.com/2016-06/03/c\_1118988118.htm. [↑](#endnote-ref-46)
47. “China Railway Construction Confirmed That Three Employees Were Killed in the Mali Attack,” *China Network*, November 21, 2015, accessed May 30, 2018, <http://news.163.com/15/1121/08/B8UA9PG800014JB6.html>. [↑](#endnote-ref-47)