

Demystifying the Belt and Road Initiative

A Clarification of its Key Features, Objectives and Impacts

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Preface

This report discusses the Belt and Road Initiative (BRI), which is a project for transcontinental infrastructure construction developed and sponsored by China since 2013. The report identifies what is different about the BRI compared with other global aid efforts and discusses the effects that these differences may have on how the BRI is conceptualized and operated. Furthermore, the authors recommend a framework for assessing the BRI and review evidence on the impacts of the BRI.

This report should be of interest to persons interested in China's growing use of the BRI as a tool of statecraft and those seeking a broader understanding of the role of state capital in promoting infrastructure development.

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Summary

The Belt and Road Initiative (BRI) is a global infrastructure plan conceptualized in China in 2013 and implemented in more than 100 countries, primarily with emerging economies. As of 2019, 166 countries and international organizations have signed agreements with China to participate in the initiative. By providing development finance and implementing projects, the BRI helps build the infrastructure that connects the partner countries domestically and globally. The project thus appears to address a critical shortage of infrastructure in developing countries. Over the past few years, the BRI has become a key instrument of Chinese foreign policy, intended to provide commercial and strategic benefits to China and its partner countries.

Despite its needs-based approach, the BRI has been widely criticized. The criticisms do not usually question the need for infrastructure. Instead, they raise questions about project selection and the broader impacts and consequences (externalities) created, such as trade dependencies and adverse national security effects.

In this report, we identify and address these critiques. At the heart of most critiques, we argue, is uncertainty about what is different about the BRI. To address this, we first identify and substantiate four key features that make the BRI different from traditional development finance initiatives: a national-level scale, a portfolio approach, global connectivity, and the role of the state. We then identify the externalities that these features may create and show that the common criticisms may be outcomes of the BRI's four key features. We also provide a framework to assess the externalities.

We conclude the report by discussing the evidence that is available on the externalities. Although much work remains to be done, the initial evidence suggests that many of the concerns about the BRI are overstated. Our recommendations focus on the need to understand the long-term, critical contribution of the BRI to Chinese foreign policy and what this means for countries that receive BRI assistance.

Acknowledgments

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Abbreviations

| | |
|------|----------------------------------|
| BRI | Belt and Road Initiative |
| CPEC | China-Pakistan Economic Corridor |
| GDP | gross domestic product |
| GW | gigawatt |
| SDG | Sustainable Development Goal |

Introduction

The Belt and Road Initiative (BRI) is a global infrastructure plan conceptualized in China and implemented in more than 100 countries, primarily with emerging economies. As of 2019, 166 partner countries and international organizations have signed agreements with China to participate in the BRI. China has directly invested more than U.S. \$80 billion in more than 70 participating countries since the launch of the initiative in 2013, and these investments have grown at an average annual rate of 7.2 percent.¹ This makes the BRI the world's largest development finance initiative.

The establishment of more than 82 overseas economic and trade cooperation zones under the BRI, with more than \$28.9 billion invested, has created more than 244,000 jobs and \$2 billion of additional tax revenue.²

The financial logic for the partner countries to participate in the BRI is straightforward. Although the developed world is awash in cheap capital, most developing countries cannot access this capital on reasonable terms and are desperately short of physical infrastructure as a result.³ For example, the Asian Development Bank estimates a financing gap in infrastructure of \$459 billion a year for Asia.⁴ The BRI, despite its large scale, will be able to address only a small portion of the gap.

Providing finance for infrastructure is one aspect of the BRI. The second aspect is implementation. BRI-funded companies build physical infrastructure that will connect the partner country locally and globally. Such connectivity is at the core of the BRI's investment strategy, including projects that connect key locations, such as roads, and projects that leverage connectivity, such as export processing zones.

Once a partner country signs on to the BRI, its leaders negotiate with China's National Development and Reform Commission to decide on the projects to be undertaken. The commission is the federal agency under the State Council (the apex administrative authority of the

¹ All dollar values in this report are in U.S. dollars.

² These figures were current as of August 2019. See China Development Bank and United Nations Development Programme, *Harmonizing Investment and Financing Standards Towards Sustainable Development Along the Belt and Road: Economic Development Along the Belt and Road*, 2019, pp. 3–6.

³ Christopher Smart, "The World Is 'Awash with Cash,' So Why Aren't We Investing in Infrastructure?" World Economic Forum, September 13, 2016.

⁴ Asian Development Bank, "Closing the Financing Gap in Asian Infrastructure," webpage, undated.

Chinese federal government) that has been assigned responsibility for developing the BRI.⁵ Once the projects and financing are agreed to with the partner country, the National Development and Reform Commission assigns funding and implementation responsibilities to state-owned institutions.⁶

Thus, the BRI is first and foremost a development finance, or foreign aid, initiative of China. China itself is an upper middle-income country.⁷ This makes it an outlier in the world of foreign aid, which has overwhelmingly been provided by high-income countries, either directly or through multilateral agencies, such as the World Bank.

Second, the BRI is an infrastructure investment initiative aimed at addressing a domestic and global connectivity gap in developing countries. Infrastructure aid is usually a small component of the foreign aid initiatives of other countries, and connectivity infrastructure is an even smaller component. This also makes the BRI unusual—although, as noted, there is a need for such an approach.

Despite its needs-based approach, the BRI has been widely criticized. The criticisms are not directed at the goal of building infrastructure, the shortage of which is widely recognized. Instead, the criticisms focus on project selection, finances, costs, and effects beyond the immediate projects (externalities). The externalities that have come under attention include economy-wide effects (such as on national wage rates) and national security effects (such as China's influence over the partner country's foreign policy).

We reviewed the literature on the BRI and noted the following criticisms:

1. **Partner country's economic dependence on China.** The BRI makes the partner country more dependent on trade with China and potentially less global. As one source notes,

If successfully implemented, the BRI could help re-orient a large part of the world economy toward China. Increasing the amount of trade, investment, and connectivity between China and countries throughout Eurasia will also render these countries more dependent on the Chinese economy, increasing China's economic leverage over them. This may empower China to more readily shape the rules and norms that govern the economic affairs of the region.⁸

A related outcome of economic dependence is that Chinese firms will have privileged access to the partner country's resources and markets.⁹

⁵ Wang Xinsong, "One Belt, One Road's Governance Deficit Problem: How China Can Ensure Transparency and Accountability," *Foreign Affairs*, November 17, 2017. See also National Development and Reform Commission, "Roles and Responsibilities of the Regional Development Department, National Development and Reform Commission," webpage, undated; and China Academy of Belt and Road Initiative, "Development of Chinese Provinces' Incorporation into Belt and Road Initiative," August 2019.

⁶ China Development Bank and United Nations Development Programme, 2019.

⁷ This is according to World Bank classification. See Espen Beer Prydz and Divyanshi Wadhwa, "Classifying Countries by Income," World Bank, September 9, 2019.

⁸ "How Will the Belt and Road Initiative Advance China's Interests?" China Power, October 18, 2019.

⁹ LSE IDEAS and CIMB ASEAN Research Institute, *China's Belt and Road Initiative (BRI) and Southeast Asia*, Kuala Lumpur, October 2018.

2. **Global and regional commercial benefits for China.**
 - a. The BRI is a vehicle that enables China to internationalize the renminbi and convert it into the world's reserve currency.¹⁰
 - b. BRI projects are overwhelmingly awarded to Chinese firms.¹¹
 - c. The full suite of BRI projects in a region will create a regional infrastructure network with China at its hub. This benefits China directly, as Lauren A. Johnston has noted,¹² and increases the region's dependence on China.
4. **Inadequate attention to Sustainable Development Goals (SDGs).** The BRI pays inadequate attention to the complementary aspects of economic development embodied in the SDGs. These include economic aspects, such as local area development (SDG 11) and human capital issues (e.g., skill development and employment, SDG 8), as well as noneconomic aspects, such as the environment and health care (SDGs 3, 5, 6, 7, 10, and 13).¹³
5. **Uneconomic projects.** BRI projects may not always be viable, especially when they have low operating returns, high-cost finance, or poor-quality implementation. Consequently, many BRI projects are likely to go into bankruptcy. One analysis notes, "On their own, many of the BRI projects would not produce sufficient returns on investment."¹⁴ Another describes the widely cited case of the \$1 billion Hambantota Port in Sri Lanka, built under the BRI, as an investment gone sour and terms the port "China's \$1 billion white elephant."¹⁵ Note that this is a different concern from what is commonly known as the public goods problem. Such infrastructure as roads and railways are not good investments in the traditional sense that investors are able to recoup their costs through toll and freight charges. Instead, roads and railways support area development by enabling such activities as housing and manufacturing to leverage the transport infrastructure. We deal with this issue later.
6. **Debt-trap lending.** The sum of project finance provided under the BRI's various projects to a partner country is so large that it raises the partner country's debt to unsustainable levels (a *debt trap*). The partner country then needs to be bailed out by its creditor (China) on terms that force the partner country to accept China's control over its domestic and foreign policies.¹⁶
7. **Inadequate attention to compliance.** The BRI finances and sustains corruption and ignores standards regarding project governance and other public-interest regulations.¹⁷

¹⁰ LSE IDEAS and CIMB ASEAN Research Institute, 2018.

¹¹ Jonathan E. Hillman, "China Must Play Fair over BRI Contracts," *Nikkei Asian Review*, February 6, 2018a.

¹² Lauren A. Johnston, "The Belt and Road Initiative: What Is in It for China?" *Asia & the Pacific Policy Studies*, Vol. 6, No. 1, January 2019.

¹³ D. Banik, "Can China's Belt and Road Initiative Help Achieve the SDGs?" Oslo SDG Initiative blog, August 9, 2018.

¹⁴ Marshall W. Meyer and Minyuan Zhao, "China's Belt and Road Initiative: Why the Price Is Too High," Knowledge@Wharton, April 30, 2019. See also Jonathan E. Hillman, "China's Belt and Road Is Full of Holes," Center for Strategic and International Studies, September 4, 2018c.

¹⁵ Iain Marlow, "China's \$1 Billion White Elephant," *Bloomberg*, April 17, 2018.

¹⁶ Dylan Gerstel, "It's a (Debt) Trap! Managing China-IMF Cooperation Across the Belt and Road," *New Perspectives in Foreign Policy*, No. 16, October 2018.

¹⁷ We refer here to general public-interest regulations, such as those regarding product safety, functional standards, and nondiscriminatory pricing.

One analyst argues that, “in many cases, the leaders of BRI-recipient countries see the projects as opportunities to sustain and legitimize their own corruption, as well.” He further asserts that, given how cumbersome regulations regarding infrastructure can be, “China might prefer working with corrupt regimes.”¹⁸

8. **Noncommercial motives.** BRI funding decisions are made based on partner countries’ willingness to accommodate China’s international relations interests.¹⁹ As a result, the BRI is a way to bring partner countries under Chinese influence.²⁰
9. **Subversion of stated use.** Chinese firms that control key infrastructure projects built under the BRI divert the infrastructure to the Chinese government’s military uses against the wishes of the host country. For example, U.S. Vice President Mike Pence alleged that China had set up the commercial port in Hambantota, Sri Lanka, to be used by the Chinese navy against the wishes of the Sri Lankan government. However, the Sri Lankan government has denied this allegation.²¹

Some of the critiques identified in here are common to most countries’ foreign-aid initiatives and likely do apply to China and its BRI. For example, every donor country’s foreign-aid effort has soft-power targets embedded within the aid. Rarely, if ever, is aid given solely on the basis of need.²² In some cases, the noncommercial aims are explicit. For instance, the United States’ Marshall Plan, with which the BRI is sometimes compared, included explicit soft-power goals, such as the promotion of “individual liberty” and “genuine independence” (see Appendix B). More recently, U.S. President Donald Trump stated, “Moving forward, we are only going to give foreign aid to those who respect us and, frankly, are our friends.”²³

Similarly, Japan’s overseas development agency, the Japan International Cooperation Agency, advocates the promotion of “good governance, democracy and respect for basic human rights.”²⁴ A review of the development agency’s performance by its sponsoring ministry, the Ministry of Finance, notes that its operations contribute “to the establishment and maintenance of good relationships with developing countries through continued assistance from Japan.”²⁵

Hence, the criticism that China has noncommercial motives applies to nearly every country that provides foreign aid. The ethics of this approach are widely questioned, but there is no particular justification to single China out.

The criticism that Chinese firms obtain most of the contracts to fulfill BRI projects is also likely true but is also common to most foreign-aid initiatives. The reality is that foreign

¹⁸ W. Doig, “The Belt and Road Initiative Is a Corruption Bonanza,” *Foreign Policy*, January 15, 2019. See also Andrew Chatzky and James McBride, “China’s Massive Belt and Road Initiative,” Council on Foreign Relations, January 28, 2020.

¹⁹ Pearl Risberg, “The Give-and-Take of the BRI in Africa,” *New Perspectives in Foreign Policy*, No. 17, April 8, 2019.

²⁰ Reid Standish, “China’s Central Asia Plans Are Unnerving Moscow,” *Foreign Policy*, December 23, 2019.

²¹ “Sri Lanka Rejects U.S. Claims, Says No Chinese Military Base at Port,” *Economic Times*, October 11, 2018.

²² C. Apodaca, “Foreign Aid as Foreign Policy Tool,” Oxford Research Encyclopedias, 2017.

²³ Michael Igoe, “In Trump’s US Aid Review, Can Development Principles Prevail?” *Devex*, September 26, 2018.

²⁴ Japan International Cooperation Agency, “Japan International Cooperation Agency,” presentation slides, September 2019.

²⁵ Japan International Cooperation Agency, “Japan International Cooperation Agency (Incorporated Administrative Agency) (Finance and Investment Account),” undated.

aid is increasingly used by donors to boost their own economies. To ensure this, most aid is tied to the recipient country using the donor country's vendors to fulfill the aided projects. For example, the United States has historically tied about 75 percent of its aid to using U.S. vendors.²⁶ The Marshall Plan was no different: Most of the funds were used to import food, fuel, and manufactured goods from the United States (see Appendix B). Again, although the ethics of this approach are questionable, there is no particular justification to single China out.

One of the criticisms that is not possible to address with current evidence is the future subversion of infrastructure to the Chinese government's military uses against the host country's wishes. This is an example of a possible Chinese foreign policy goal that would be against the host country's laws, desires, or interests. Although there have been such allegations about the port in Sri Lanka, they are denied by the governments on both sides. There is no evidence of such illegal use in any BRI project so far, but it could happen.

Some other criticisms, such as that China is using the BRI to create debt-traps for borrowers, are new arguments about the risks of foreign aid. Traditionally, lenders of foreign aid have been worried about their money being poorly used and have imposed conditions to prevent misuse, such as audit requirements and phased lending. In other words, lenders have been more concerned about being trapped into debt themselves than about trapping borrowers. And there is good reason for lenders to be concerned about the borrowing country being unable repay debt. Such a situation can trigger sovereign bankruptcy, leading, in most cases, to large financial losses for the lender and a resulting poor reputation in the borrowing country.²⁷ To argue the reverse for the BRI suggests that there are features about the BRI that make it different from other lending situations.

To address these and other issues related to the BRI, we proceed as follows in this report. We first propose that the BRI indeed contains new aspects that make it different from traditional foreign-aid and investment programs and, therefore, in need of a customized assessment framework (Chapter Two). We then discuss what an assessment framework should look like and argue that it should focus on measuring externalities (Chapter Three). Next, we present preliminary evidence of externalities found in the literature (Chapter Four). Finally, we describe the implications and provide recommendations for policymakers in partner countries who are trying to determine how to assess and leverage the BRI (Chapter Five).

²⁶ Apodaca, 2017.

²⁷ See J. Roos, *Why Not Default? The Political Economy of Sovereign Debt*, Princeton, N.J.: Princeton University Press, 2019.

The Defining Characteristics of the BRI

In this chapter, we discuss four characteristics about the BRI that differ from traditional development finance initiatives:

1. national-level scale
2. a portfolio approach built around physical infrastructure but combining other, related noninfrastructure initiatives
3. a focus on achieving global connectivity
4. the role of state-owned banks and enterprises in financing and implementing BRI projects.

First, BRI projects are being implemented on a scale that adds significantly to the partner country's stock of physical infrastructure. If a new project adds, say, just 5 percent to a country's electric power-generation capacity, it is unlikely to have large national-level effects, such as on the average national price and supply of electricity. The project's worth can be easily measured by valuing the inputs and outputs of the project at market prices. So, what does it mean when, as a result of the BRI, a partner country increases its national energy capacity by 100 percent? This could have significant national-level effects on the price and supply of electricity. In addition, greenhouse gas emissions may increase, and there could be significant effects on national factor prices (prices of labor and capital).¹

Such large changes that could significantly alter the national value of inputs and outputs are examples of externalities that may arise from the BRI. Some of these externalities may be explicit objectives of the BRI, such as raising skill levels. Other effects, such as rising greenhouse emissions, are not. If such effects indeed occur, the usual way of assessing projects—using current prices—may not be valid. This is a familiar problem from the public goods literature and indicates that the assessment of the BRI must include an assessment of its externalities.

Second, the BRI is being implemented as a group, or portfolio, of projects in many countries, with a focus on infrastructure. While a portfolio approach is not uncommon, it has not been tried in large scale in poor countries that have a small infrastructure base to start with. What are the cross-effects when a country's energy capacity and its transportation network both increase by 100 percent?² Does the portfolio approach have significant national effects on the risk borne by the host country?

¹ For example, the demand for skilled labor relative to unskilled labor might go up once electricity supplies are large enough to enable more mechanization.

² For example, if energy supplies can leverage the transport network, industrialization might be more export-oriented than it otherwise would be.

Third, the infrastructure projects of the BRI promote the partner country's domestic and global connectivity—first locally, then to China, and then to the world. Connectivity can transform a country. For example, a pipeline project that connects a raw material, such as liquefied gas, in the partner country to a user in China may convert the producing country from a trade deficit country to a trade surplus country because of savings in resource transportation costs. Or a local supply chain might globalize when a high-speed rail system connects the partner country more closely to China. Hence, there could be significant national and regional effects on the trade profile and supply chain as a result of the BRI's focus on infrastructure projects.

Note that not all these effects must be virtuous. There could be adverse effects that arise from the scale of BRI projects and the focus on connectivity. For example, the pipeline project may come with contractual obligations on minimum quantities of gas that must be reserved for the project. If this project tied up only, say, 5 percent of national reserves of gas, this would likely have small effects on national availability of gas for other uses. But what if this project affects, say, 50 percent of national gas reserves? The external effects on the country's energy security could then be significantly negative.

Another negative externality of global connectivity could be rising dependency on China as a market for the partner country's outputs. This is a familiar situation to students of colonial history. In colonial times, colonizing countries often forced colonies to stop producing finished goods and to export their raw material to the colonizer. (For example, this was the dynamic when Britain forced colonized India to stop producing textiles and apparel and export raw cotton to Britain.) The colonies were then forced to buy finished goods from their colonial rulers.³ Is the BRI designed to help China create dependencies of this type?

The fourth distinguishing feature of the BRI is that it is being financed and implemented largely by state-owned enterprises.⁴ This differs from the more common approach of foreign-aided projects in which a sovereign lender provides the funding directly or through guarantees, while projects are implemented by private firms. In the BRI, the financial component is similarly provided by the state, but the implementation of projects is undertaken by state-owned enterprises, often sole-sourced.

The implication of this feature is that foreign aid under the BRI could be even more closely tied to China's foreign policy than is found in projects aided by other countries. For example, in addition to creating trade dependencies, BRI projects might also create financial dependencies by forcing partner countries to accept onerous repayment terms.

We discuss each of these features in more detail in the following sections.

³ S. I. Habib, "Colonial Exploitation and Capital Formation in England in the Early Stages of the Industrial Revolution," *Proceedings of the Indian History Congress*, Vol. 36, 1975.

⁴ This insight is derived from Ching Kwan Lee, *The Spector of Global China: Politics, Labor and Foreign Investment in Africa*, Chicago, Ill.: University of Chicago Press, 2017.

National-Level Scale

In aggregate scale, the BRI is already the world's largest development finance initiative, as noted earlier. More than \$80 billion was invested in its first six years, and that number is set to grow significantly in coming years.⁵ As a result, China is already the largest investor in several developing countries and regions, including Africa and Central Asia.⁶

Table 2.1 provides the number of projects underway in different regions.

In several partner countries, the individual BRI projects are the largest investments in the history of those countries, and the aggregate investment is also the largest portfolio of projects in their history. For example, the China-Pakistan Economic Corridor (CPEC), which is the BRI project in Pakistan, is developing ports, transport routes, power stations, and other infrastructure, with a committed investment of \$62 billion.⁷ More than half the investment, \$33.79 billion, is in electric power generation.⁸ This will raise Pakistan's total electricity capacity from 28 gigawatts (GW) at the start of CPEC in 2017 to 38.4 GW by 2020 and 45 GW when all the projects are completed; this amounts to an increase of 60 percent.⁹ As of 2018, the first phase was on track, with national capacity at 31 GW, the increase being largely due to CPEC.

Another example of a BRI project with national-level externalities is the Nairobi-Mombasa Standard Gauge Railway, built at a cost of \$3.2 billion. It is both Kenya's most expensive infrastructure project since independence in 1963 and the first railway built in Kenya in the past 100 years.¹⁰

Table 2.1
Number of Projects, by Region, as of December 2019

| Region | Africa | Central Asia | Middle East | Asia Pacific | Europe | North America | Latin America |
|--------------------|--------|--------------|-------------|--------------|--------|---------------|---------------|
| Number of projects | 23 | 62 | 62 | 274 | 22 | 6 | 2 |

SOURCE: Hong Kong Trade Development Council, "Search Investment Projects," web tool, undated.

⁵ Jonathan E. Hillman, "How Big Is China's Belt and Road?" Center for Strategic and International Studies, April 3, 2018b.

⁶ Payce Madden, "Figure of the Week: Foreign Direct Investment in Africa," Brookings Institution, October 9, 2019; and Standish, 2019.

⁷ H. Azhar and A. Syed, *Impact of China-Pakistan Economic Corridor (CPEC) on the Energy Sector of Pakistan*, Islamabad: Pakistan-China Institute, October 2017.

⁸ This is a needed intervention, given that Pakistan has chronically experienced a growing peak power deficit, currently estimated at 4.5 GW. Over the first phase of three years, from 2017 to 2020, the CPEC projects will add 10.4 GW. Subsequent projects will add 6.6 GW (Faisal Mehmood Mirza, Nishat Fatima, and Kafait Ullah, "Impact of China-Pakistan Economic Corridor on Pakistan's Future Energy Consumption and Energy Saving Potential: Evidence from Sectoral Time Series Analysis," *Energy Strategy Review*, Vol. 25, August 2019).

⁹ Maha Rehman, "Pakistan's Electricity Generation Has Increased over Time. So Why Do We Still Not Have Uninterrupted Supply?" *Dawn*, June 10, 2019. Much of the increased capacity is in coal-fired plants using a relatively clean type of coal (bituminous coal) and clean carbon technologies. See Misbah Saba Malik, "Feature: CPEC Power Plant Provides Clean Electricity, Green Environment to Pakistan," *Xinhua*, August 11, 2019.

¹⁰ Nancy Kacungira, "Will Kenya Get Value for Money from Its New Railway?" *BBC*, June 8, 2017; and Railway Technology, "Kenya Inaugurates Nairobi-Mombasa Standard Gauge Railway," June 1, 2017.

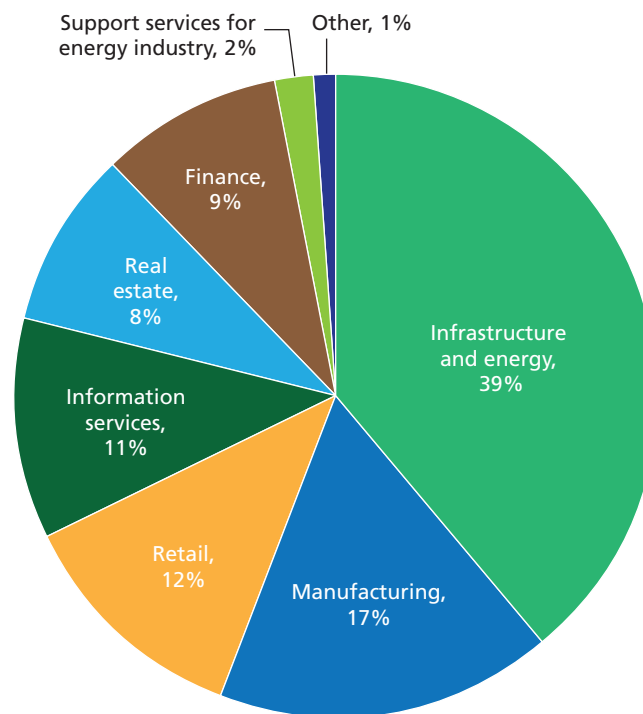
A Portfolio Approach

The development of the BRI appears to follow a phased, comprehensive development approach, starting with infrastructure and then leveraging the infrastructure through the development of trade zones, retail, and other complementary services.

As Figure 2.1 shows, although infrastructure and energy projects constituted the single largest sector of investment in 2017 (39 percent), total investments included manufacturing, retail, information services, real estate, and other sectors.¹¹ Such diversity was not always the case. In the first four years of the BRI, 2013–2016, infrastructure and energy accounted for 70 percent of total investments.

The focus on infrastructure is one of the aspects of the BRI that is new. Most donor countries have reduced their focus on infrastructure lending over time and moved to finance human capital development. For example, in 2017, \$706 million of the U.S. foreign-aid budget was allocated to infrastructure. This constituted 3.8 percent of the budget's allocation of \$18.7 billion for economic, social services, and governance assistance.¹²

Figure 2.1
BRI Investments by Sector, 2017



SOURCE: Zhou et al., 2018.

¹¹ Yvonne Zhou, Alex Xie, Feng Lu, and Kevin Zhang, *The Belt and Road Initiative: An Inclusive and Symbiotic Approach to Shared Global Prosperity*, Boston, Mass.: Boston Consulting Group and China Development Research Foundation, March 2018.

¹² M. L. Lawson and E. M. Morgenstern, *Foreign Aid: An Introduction to U.S. Programs and Policy*, Washington, D.C.: Congressional Research Service, R40213, April 16, 2019. Not much is known about why development finance has moved away from infrastructure finance. It may reflect donors' higher priority on human capital development or perhaps a commercial decision, because developed countries are more competitive in services than in manufactured goods.

Within infrastructure, transport and energy are the two largest components of the BRI. Table 2.2 shows the BRI projects focusing on transport.

Global Connectivity

The shift in recent years away from a nearly exclusive focus on infrastructure to a portfolio of typical development projects seems intended to leverage the connectivity infrastructure of the BRI. The CPEC, for instance, initially developed roads, rail, ports, and electric power. As the connectivity infrastructure became operational, the types of projects have expanded to include communications, industrial zones, water supply, and healthcare.¹³ The new projects are located in zones that are along the route of the connectivity infrastructure.¹⁴ For example, the map in Figure 2.2 shows the optical fiber network being developed under CPEC. It overlaps with the northern section of the rail network being developed as part of the same initiative in Pakistan.

Table 2.2
Number of BRI Road, Rail, and Port Projects, as of March 2019

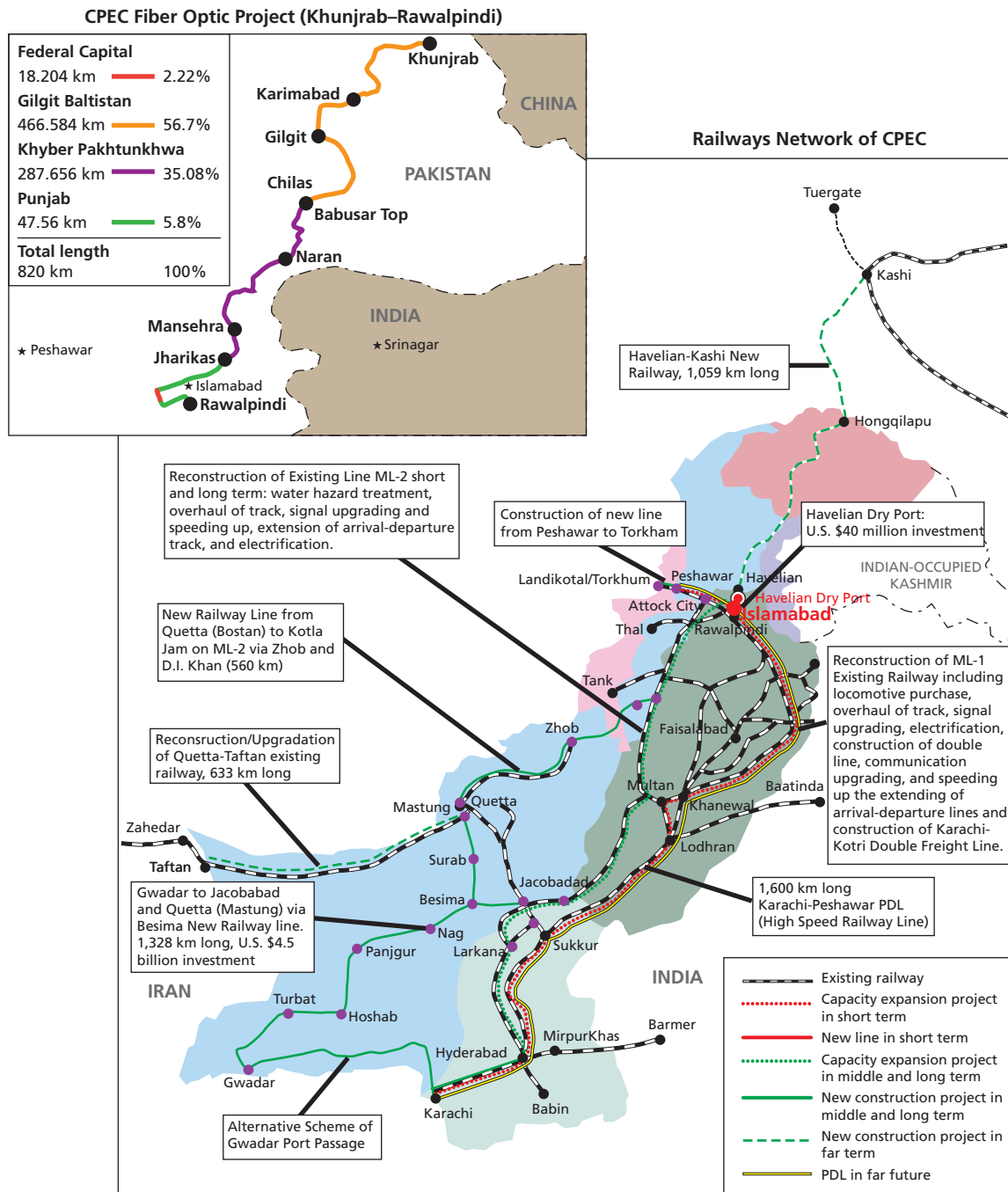
| | Corridors/Sea Passages (Projects) | Operational | Under Construction | Planned/Proposed |
|-------------------------------|--|-------------|--------------------|------------------|
| BRI economic corridors | China-Mongolia-Russia (27) | 16 | 3 | 8 |
| | Eurasian land bridge (14) | 13 | 0 | 1 |
| | China-Central Asia-West Asia (18) | 11 | 4 | 3 |
| | China-Pakistan (17) | 5 | 3 | 9 |
| | Bangladesh-China-Myanmar (7) | 0 | 2 | 5 |
| | China-Indochina Peninsula (13) | 0 | 6 | 7 |
| Africa land-based development | Africa development (3) | 1 | 1 | 1 |
| BRI maritime sea passages | China-Indian Ocean-Africa Mediterranean (22) | 8 | 8 | 6 |
| | China-Oceania-South Pacific (1) | 1 | 0 | 0 |
| | Ice Silk Road (3) | 0 | 0 | 3 |

SOURCE: Tristan Reed and Alexandr Trubetskoy, "Assessing the Value of Market Access from Belt and Road Projects," World Bank, Policy Research Working Paper 8815, April 2019.

¹³ Through China's South-South Fund, BRI funds are also being used for humanitarian aid. See China International Development Cooperation Agency, "South-South Cooperation Assistance Fund," webpage, undated.

¹⁴ China-Pakistan Economic Corridor, homepage, undated-a.

Figure 2.2
Overlapping Infrastructure Networks of the China-Pakistan Economic Corridor



SOURCE: China-Pakistan Economic Corridor, "China Pakistan Economic Corridor Maps," webpage, undated-b.

Similarly, Gwadar Port at the southwestern end of the road and rail network is the site of several area development projects, including a free trade zone, an international airport, water supply systems, and a hospital.¹⁵

It should be noted that BRI projects that improve connectivity always include improved connectivity to China. This does not mean that connectivity is only to China. The connectivity infrastructure is an open system available to all users. However, it has been designed to make connectivity to China easier. For instance, while the Gwadar Port will provide its services to clients from any country, the back-end rail and road network connects it not just to leading manufacturing centers of Pakistan, such as Punjab, but also to western China.

Along similar lines, the Kyaukphyu Deep Sea Port being developed in Myanmar as a BRI project is a key component, from a Chinese perspective, of the land-to-sea corridor connecting China's Yunnan Province with the Indian Ocean (see Figure 2.3). Kyaukphyu is the starting point of both oil and natural gas pipelines to Kunming in China's Yunnan Province and is the terminus of the China-Myanmar Railway. The Kyaukphyu Deep Sea Port project, together with other ongoing transport links, will save up to 5,000 km for shipments traveling to China from the Middle East, South Asia, and Southeast Asia.

The Role of the State in Financing and Implementing Projects

Investments in the BRI are largely financed by China's state-owned banks. The role played by two banks stands out: the Export-Import Bank of China and the China Development Bank. The former is a policy bank—that is, a bank that lends money to support government policy rather than commercial interests. The latter was a policy bank until 2008, when it became a commercial bank. Between them, these banks provide a comprehensive package of loans and other financial instruments, including concessional and nonconcessional short- and long-term finance and risk management instruments. They are considered to be sophisticated lenders and, according to one study, provide more development finance than the World Bank, the Asian Development Bank, and the Inter-American Development Bank combined.¹⁶ For instance, by the end of 2018, the China Development Bank had a total outstanding BRI loan exposure of \$105.9 billion. More than \$190 billion has been cumulatively provided across more than 600 BRI projects.¹⁷

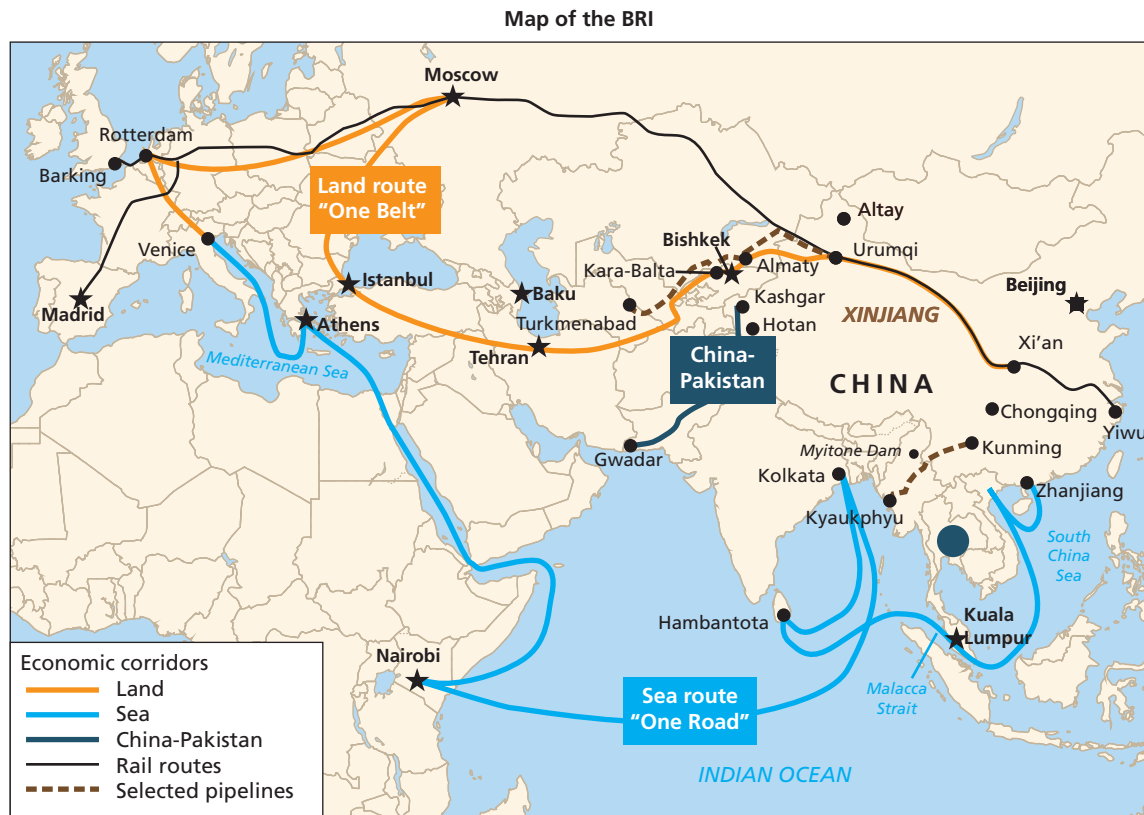
Although we note the role played by state-owned Chinese banks, it remains an open question whether this is a policy choice or whether it is because private banks are concerned about the risks and have stayed away. China has officially welcomed the participation of foreign institutions as both financiers and project implementation bodies. Many non-Chinese banks are indeed involved in BRI projects. These banks include partner country-based institutions that finance the partner countries' financial stake, multilateral lenders, and well-known international banks (such as Deutsche Bank and Standard Chartered Bank). However, to date, the international banks have taken a low-risk approach. They have “tended to focus on offering complementary financial services, like advice on the structuring of projects, currency and

¹⁵ China-Pakistan Economic Corridor, “CPEC Gwadar Projects,” webpage, undated-c.

¹⁶ Eleanor Wragg, “Analysis: From Belt and Road to Stars and Stripes,” *Global Trade Review*, December 17, 2018.

¹⁷ China Development Bank, *Annual Report 2017*, Beijing, 2017.

Figure 2.3
Connectivity to China via the Kyaukphyu Deep Sea Port, Myanmar



SOURCES: "The Belt and Road Express," *The Economist*, May 4, 2017; and Yun Sun, "China's Latest Megaproject Courts Controversy in Myanmar," *Nikkei Asian Review*, November 16, 2017.

interest rate hedging, trade finance services, and assisting clients in issuing bonds on international capital markets,” rather than direct lending.¹⁸

In addition to being largely funded by state-owned banks in China, BRI projects are significantly implemented by state-owned enterprises, such as the China National Petroleum Corporation and the China Harbor Engineering Corporation. As of October 2018, according to one study, Chinese state-owned enterprises contracted about half of BRI projects by number and more than 70 percent by project value.¹⁹

Again, this may be a policy choice or may be forced upon China by the reluctance of private companies, whether Chinese or not, to play a role. Either way, the role of state-owned entities raises the question of whether decisionmaking will differ significantly from a more market-oriented, private-firm approach. To the extent that state-owned entities are not specially privileged in accessing resources and must compete for them in globalized markets, along with other domestic and global competitors, the ownership of these entities might not affect how they operate. To the extent that there are significant externalities, the role of state-owned firms may even be positive, because those firms will likely respond to the externalities, whereas the private sector will not do so. For instance, as we show later in the case of copper mining firms in Zambia, Chinese state-owned firms spend more on training labor than their foreign private-sector competitors do.

And there is yet another issue that the combination of policy-bank lending and commercial implementation raises: Even if the implementing state-owned enterprise would like to work entirely on commercial principles, it may not be able to do so if it receives funding from entities that are not entirely commercial in their approach.

¹⁸ Thomas Hale, “Western Banks Gather to Catch the Chinese Investment Crumbs,” *Financial Times*, September 25, 2018.

¹⁹ Denghua Zhang and Jianwen Yin, “China’s Belt and Road Initiative: From the Inside Looking Out,” *The Interpreter*, July 2, 2019.

Assessing the BRI and Its Externalities

In this chapter, we discuss how to assess the BRI in a way that accounts for how its impacts and externalities may differ from those of traditional development finance approaches. Arguably, the four features of the BRI that make it different from traditional aid-cum-investment programs (discussed in Chapter Two) are the cause for such externalities. To explore this, we discuss how each criticism listed earlier may arise from one or more of the four key features of the BRI and how the initiative's externalities may be measured and assessed.

Partner country's economic dependence on China. Some critics of the BRI argue that, by developing trade links with China through the BRI, a partner country could become dependent on China for its trade. China's official position, stated in the BRI foundational documents and in China's accession to the World Trade Organization, is that it is committed to free trade.

By itself, a rising proportion of trade with China does not prove dependency. Still, dependency might result, perhaps because China may choose not to fulfill its commitments to free trade. For example, Chinese state-owned enterprises could force partner countries to accept uneconomic contracts in trade in return for building the connectivity infrastructure. Of course, nations have the right and ability to turn down projects that come with strings attached. Dependency, if it occurs, will result in declining terms of trade relative to a partner country's trade with other countries, or privileged access, via contracts that require the partner country to channel a substantial share of its output to China or purchase a substantial share of its inputs from China.

These outcomes are measurable by observing trends in the terms of trade (e.g., relative prices of traded items) and volume for the partner country's trade with China relative to terms of trade with other countries subsequent to the implementation of the BRI portfolio.¹

Regional and global commercial benefits for China. As described earlier, critics of the BRI have pointed out how much China can benefit from BRI projects. The benefits could include renminbi internationalization; flow of projects to Chinese banks and firms; and growth of regional infrastructure networks, with China at the hub.

The large scale of the BRI and its focus on developing a network of regional connectivity projects could cause these effects. Although these are typical ambitions of almost all foreign-aided investment projects and there is no particular reason to single China out, it can be useful to measure these benefits to China. Measures that could show such benefits include the share

¹ By themselves, rising trends in volumes traded with China do not necessarily indicate a dependency. To show economic dependence, prices also need to be at non-market rates.

of renminbi-denominated trade in the region, the share of Chinese investment in the region, and the centrality of China to regional trade networks.²

Inadequate attention to SDGs. The large scale of the BRI and its comprehensive approach to building infrastructure could cause a neglect of SDGs. China has officially committed to sustainable development, both as part of the BRI's foundational document on human capital development and through its partnership with the United Nations specifically to address SDGs.

Yet, it is possible that China may not fulfill its commitments. The general problem here is that some SDGs conflict with others, so satisfying all of them can be difficult. Even if China and its partner countries are committed to SDGs, the real question is whether there are preferences for some dimensions of sustainable development over others. Measures to judge the success of this commitment can be found in national statistics on SDG achievements in BRI-project areas.

Uneconomic projects. If leaders select BRI projects with low operating returns, high-cost finance, or poor-quality implementation, those projects could become unviable. The causal factor for selecting such projects could be the role of Chinese state-owned banks or state-owned enterprises. Corruption may also play a role. In return for easy access to funding that they may otherwise not be able to obtain, borrowers may accept the Chinese government handing out projects on a privileged basis to favored Chinese banks and firms without competitive bidding. This could then result in unviable projects being implemented.

To assess whether the BRI implements uneconomic projects, one could compare BRI project costs and quality of implementation with best practices and could measure the terms of finance and the use of sole-source allocation to banks and enterprises.

Debt-trap lending. Critics note that the total funding provided to a partner country under the BRI's various projects is so large that it raises the partner country's debt to unsustainable levels. China has sought to address this concern by developing a debt-sustainability framework modeled on the World Bank's approach to lending.

If a debt trap for BRI borrowers does exist, the causal factor would be that Chinese state-owned banks are willing to lend to unsustainable levels. To assess debt-trap lending, one could measure the cost of BRI loans relative to the partner country's growth rate, the partner country's ability to meet sovereign guarantees, and any takeover of key strategic assets by China in the event of default.

Inadequate attention to compliance. Critics argue that the BRI finances and sustains corruption and ignores standards regarding project governance. China has developed a policy coordination framework for BRI projects in order to address this issue.

The causal factor for such noncompliance would be that state-owned enterprises foster corruption and disregard best practices in compliance. To assess the extent that this is a problem, one could measure the implementation of best practices in regulatory systems and the monitoring of the quality of regulation, as assessed by multilateral lenders (e.g., the World Bank).

Noncommercial motives. As discussed earlier, the BRI could be a way to bring partner countries under Chinese influence. This effect is hard to measure. However, because this is a common motive of all foreign aid and there is no particular justification to single China out, we do not consider it further.

² *Centrality* is a concept from the social network literature and may be measured in various ways. See, for example, Linton C. Freeman, "A Set of Measures of Centrality Based on Betweenness," *Sociometry*, Vol. 40, No. 1, 1977.

Subversion of stated use. Some critics have argued, as noted earlier, that BRI projects could be diverted to military use, against the host country's wishes. This possible misuse lacks evidence to date. Hence, we do not consider it further.

In Table 3.1, we summarize this discussion. Column 1 lists the externalities associated with each criticism, and column 2 lists the likely causal factors. The third column lists China's stated commitments intended to address these concerns. The fourth column lists outcome measures that one could use to assess whether the externality exists.

Table 3.1
BRI Externalities of Concern, Causes, and Effects

| Externalities of Concern, by Criticism | Causal Factor | China's Commitments | Outcome Measures |
|---|--|--|--|
| <p>Partner country's economic dependence on China:</p> <ul style="list-style-type: none"> China's privileged access to the partner country's resources and markets Privileged role of China in shaping the economic affairs of the partner country | Chinese state-owned banks and implementing firms instituting contracts that benefit China | Unimpeded trade ^a | <ul style="list-style-type: none"> Terms of trade with China relative to global terms of trade |
| <p>Regional and global benefits to China:</p> <ul style="list-style-type: none"> Renminbi internationalization Flow of projects to Chinese banks and firms Growth of regional infrastructure network, with China at the hub | The BRI's large scale and regional connectivity projects | No specific commitments | <ul style="list-style-type: none"> Share of renminbi-denominated trade in the region Share of Chinese investment in the region Centrality of China in regional trade networks |
| <p>Inadequate attention to SDGs:</p> <p>Development of human capital:</p> <ul style="list-style-type: none"> Skills development Local employment Local entrepreneurship Wage rates <p>Other SDGs:</p> <ul style="list-style-type: none"> Protection of the environment and promotion of social services (such as health care) | The BRI's large scale and portfolio approach | <ul style="list-style-type: none"> Cooperation on youth employment, entrepreneurship training, vocational skill development, social security management, and public administration and management^a Commitment to the SDGs^b | <ul style="list-style-type: none"> National statistics on skills, jobs, and entrepreneurship Composition of gross domestic product (GDP)—whether the share of skill-based products and services is rising Use of Chinese labor National statistics on environment, social services, and other SDGs |
| <p>Uneconomic projects:</p> <ul style="list-style-type: none"> Nonviable projects (because of low operating returns, high-cost finance, or poor-quality implementation) | Chinese state-owned banks and enterprises being allocated projects without competitive bidding | No specific commitments | <ul style="list-style-type: none"> Benchmarking of costs and quality Terms of finance Use of competitive bidding |

Table 3.1—Continued

| Externalities of Concern, by Criticism | Causal Factor | China's Commitments | Outcome Measures |
|--|---|---|---|
| Debt-trap lending <ul style="list-style-type: none"> The funding provided to a partner country raises its debt to unsustainable levels | Chinese state-owned banks lending to unsustainable levels | Debt-sustainability framework for partner countries ^c | <ul style="list-style-type: none"> Cost of BRI loans relative to the GDP rate Country's ability to meet sovereign guarantees Takeover of key assets by China |
| Inadequate attention to compliance <ul style="list-style-type: none"> Corruption and noncompliant standards of governance in project design and implementation | Chinese state-owned implementing firms fostering corruption and disregarding best practices in compliance | Policy coordination, including joint policy support for the implementation of projects ^a | <ul style="list-style-type: none"> Regulatory assessments by multilateral institutions^d |

^a These commitments are described in the Five Pillars of the BRI (see Appendix A).

^b These commitments are described in the memorandum of understanding between China and the United Nations Development Programme on aligning BRI with SDGs. See China Development Bank and United Nations Development Programme, 2019, p. 8; and United Nations Development Programme, "UNDP and China to Cooperate on the Belt and Road Initiative," September 19, 2016.

^c These commitments are in the Debt Sustainability Framework for Participating Countries of the Belt and Road Initiative and the Guiding Principles on Financing the Development of the Belt and Road. See International Monetary Fund, "Joint World Bank-IMF Debt Sustainability Framework for Low-Income Countries," fact sheet, March 19, 2019.

^d See World Bank, "Regulatory Policy and Management," brief, June 18, 2015.

Empirical Evidence of the BRI's Impacts and Externalities

Evidence of the BRI's impacts and externalities is beginning to be available, although much work remains to be done. In this chapter, we discuss the available evidence related to the initiative's effects (by externality; see Table 3.1), whether the criticisms listed earlier may be valid, and what we may learn about policies to assess the BRI going forward.

China's Privileged Access to Partner Country Resources and Markets

In a 2017 analysis, Ching Kwan Lee examines the role of state capital in influencing managerial decisionmaking.¹ She examines Chinese investment in the copper mining and construction industries of Zambia, the two largest sectors of Chinese investment. Her study reveals that state capital can lead to different decisionmaking than private capital can, but it depends on China's strategic interest in the industry. Copper mining in Zambia, which has among the world's largest copper reserves, is a strategic interest for China in its bid to secure access to copper for its industries. Construction is not a strategic interest for China in Zambia. In the latter industry, Lee finds that both state-owned and private Chinese firms are driven entirely by commercial considerations, much like most global private firms are.

However, in the copper mining industry, in which Chinese firms compete with private Western and Indian firms for mining leases, China's strategic interest in securing long-term supplies of copper causes its state-owned firms to behave differently from global private firms. For example, most global private firms quickly adjust output to price, with "a tendency to retrench labor as (their) first response to market volatility."² In contrast, Chinese firms focus on stability of labor as a condition for the desired goal of stable output. This focus on output stability leads to several differences from global private firms:

- Chinese firms' labor market decisions are designed to produce a stable, albeit relatively low-wage, labor force. Chinese firms spend more on training their labor force relative to competitors.
- Chinese firms have more disciplined and stable managerial cadres than global private firms, though again at relatively low wages.
- Securing long-term access to copper mines has led Chinese firms to be more concessionary and negotiable with the state and labor unions than global private firms are. This is

¹ Lee, 2017.

² Lee, 2017, p. 29.

very different, as Lee notes, from the portrayal in some media reports of China behaving as a neo-colonial power and utilizing “coercive means” of force or chartered monopolies.³

In these ways, Chinese firms are seen as more embedded in the local economy. The largest Chinese mining firm in Zambia, Non-Ferrous China Africa (NFCA), is recognized locally as “one of the most stable and responsible producers and employers in the Zambian copper industry.”⁴

Use of Chinese Labor

In a 2015 analysis, Barry Sautman and Hairong Yan explore the allegation that Chinese firms do not employ local labor in their projects in Africa, and the authors find this allegation to be false. Their comprehensive database on workforce localization shows that, on average, “locals are more than four-fifths of employees at 400 Chinese enterprises and projects in 40-plus African countries.”⁵

Lee’s 2017 survey of the use of Chinese labor in the Zambian mining and construction industries shows that Chinese labor makes up a small share (less than 15 percent) of total staff, with a greater concentration at the supervisory and executive levels. This mirrors the practice of other large firms in Zambia, such as Glencore.⁶ In a study of four African countries with large Chinese investments, researchers at Stellenbosch University’s Centre for Chinese Studies find that the share of local workers ranges from 85 to 90 percent.⁷

Debt-Trap Lending

In a 2019 study, Roland Rajah, Alexandre Dayant, and Jonathan Pryke look at the financial structuring of BRI projects in the Pacific. The authors conclude that “the evidence to date suggests China has not been engaged in deliberate debt trap diplomacy in the Pacific.” They note that, “with nominal GDP growth across the region generally well above the 2 per cent interest being charged, even slow-growing Pacific economies can potentially grow their way out of Chinese debt.”⁸

Deborah Brautigam has also studied the issue of debt traps. Using a database on Chinese lending to Africa that covers information on more than 1,000 loans, she concludes that there are no examples to show that “the Chinese deliberately entangled another country in debt, and

³ Lee, 2017, p. 28.

⁴ Lee, 2017, p. 31.

⁵ Barry Sautman and Hairong Yan, “Localizing Chinese Enterprises in Africa: From Myths to Policies,” HKUST Institute for Emerging Market Studies, Thought Leadership Brief No. 5, February 2015, p. 1.

⁶ Lee, 2017, p. 62.

⁷ L. Corkin and C. Burke, *China’s Interest and Activity in Africa’s Construction and Infrastructure Sectors*, Stellenbosch, South Africa: Centre for Chinese Studies, Stellenbosch University, November 2006. The four countries covered in the study are Angola, Sierra Leone, Tanzania, and Zambia.

⁸ Roland Rajah, Alexandre Dayant, and Jonathan Pryke, *Ocean of Debt? Belt and Road and Debt Diplomacy in the Pacific*, Lowy Institute, October 21, 2019, pp. 4, 12, 14.

then used that debt to extract unfair or strategic advantages of some kind in Africa, including asset seizures.”⁹

In a third 2019 study, John Hurley, Scott Morris, and Gailyn Portelance analyze lending practices under the BRI in 23 countries with relatively high levels of debt (i.e., with debt-to-GDP ratios exceeding 50–60 percent). The authors find that, although “there are some countries, most of whom are small and relatively poor, that face a significantly increased risk of a sovereign debt default,” the BRI is “unlikely to cause a systemic debt problem in the regions of the initiative’s focus.”¹⁰

Uneconomic Projects

A 2018 study of China’s infrastructure projects in Latin America and the Caribbean shows that the financing, selection, and implementation of projects met commercial best practices. The parameters studied included (1) the use of open-bid and market-based systems for allocation of work and (2) performance relative to contract.¹¹

Brautigam’s work discusses the case of Hambantota Port in Sri Lanka.¹² The port was financed by the Chinese government’s Export-Import Bank in 2010. The Sri Lankan government was unable to repay the debt on the port, apparently because of its poor location (as discussed earlier, the port has been described as a white elephant), although poor management is also responsible for its condition. The Sri Lankan government then organized a bidding process for a long-term lease on the port (99 years). A Chinese state-owned enterprise, CM Port, jointly with the Sri Lankan Port Authority (a Sri Lankan state-owned enterprise), won the bid in 2017. They paid \$1.12 billion for the lease.

Though widely cited also as an example of debt-trap diplomacy, the Hambantota Port refinance was not a case of a debt-for-equity swap. The original debt remains as a sovereign obligation of the Sri Lankan government, and the proceeds of the sale of the 99-year lease on the port to the winning bidder were not used to pay off the debt. The port is to be used for civilian purposes only, though with the condition that Sri Lanka may, at its discretion, use the port for its own military operations.

China appears to have paid twice for the port, once as debt and once as equity. First, its lending arm, the China Export-Import Bank, extended loans and credits to build the port at an estimated cost of \$1 billion. This debt remains unpaid and due. China subsequently purchased the rights to operate the port for 99 years for \$1.12 billion. Arguably, if Hambantota Port is indeed a white elephant as alleged, it is far from being an example of a debt trap for the borrower and instead has turned out to be a debt-cum-equity trap for the lender.

⁹ Deborah Brautigam, “A Critical Look at Chinese ‘Debt-Trap Diplomacy’: The Rise of a Meme,” *Area Development and Policy*, December 2019, p. 6.

¹⁰ John Hurley, Scott Morris, and Gailyn Portelance, “Examining the Debt Implications of the Belt and Road Initiative from a Policy Perspective,” *Journal of Infrastructure, Policy and Development*, Vol. 3, No. 1, 2019, pp. 143–144.

¹¹ Enrique Dussel Peters, Ariel C. Armony, and Shoujun Cui, eds., *Building Development for a New Era: China’s Infrastructure Projects in Latin America and the Caribbean*, Pittsburgh, Pa.: Asian Studies Center, Center for International Studies, University of Pittsburgh, 2018.

¹² Brautigam, 2019.

High-Cost Finance

Lee's 2017 study examines the terms of concessional loans by China to Zambia.¹³ She finds that the average concessional loan carries an interest rate of 2 percent, 30 basis points above the 1.7 percent charged by the World Bank. Some of this difference may be explained by China financing higher-risk projects, but more work is needed to establish whether that is the case.

Rajah, Dayant, and Pryke's 2019 study of Chinese lending to countries in the Pacific Islands region shows that

the vast majority (97 per cent) of China's official loans in the Pacific has been in the form of concessional loans from its EXIM Bank. . . . [Typical terms are] an interest rate of 2 per cent, a 5–7 year grace period, and a 15–20-year maturity. . . . China's bilateral lending terms are also vastly more favorable than those available from the market. Among Pacific countries, only Fiji and Papua New Guinea have meaningful access to market-based financing. Long-term government domestic borrowing costs are currently around 6 per cent in Fiji and 11 per cent in Papua New Guinea.¹⁴

Low Operating Returns

In her 2017 report, Lee discusses ethnographic evidence on project costs in the construction sector in Zambia. Her evidence suggests that Chinese road-building costs tend to be high compared with international benchmarks. She argues that this may arise from noncompetitive bidding processes for allocating projects to enterprises, whereas other sources of concessional loans, such as World Bank loans, require competitive bidding. Lee also looks at operating practices for indications of inefficiency. In the mining industry, Chinese costs tend to be lower than competitors', and Chinese firms' operating practices focus on more-sustainable methods of extraction than the practices of competitors do.¹⁵

The analysis of these externalities suggests that there are both genuine and overstated concerns about and criticisms of the BRI. In the next chapter, we focus on these issues to derive recommendations for policymakers.

¹³ Lee, 2017, p.48.

¹⁴ Rajah, Dayant, and Pryke, 2019, p. 14.

¹⁵ Lee, 2017, pp. 51, 66.

Implications and Recommendations for Policymakers

The BRI has become a cornerstone of China's foreign policy, evidenced particularly by the government's large financial commitment to the initiative. In addition, the pursuit of the BRI was written into the Chinese constitution in 2017.¹ The BRI, from its beginnings, was intended to be a grand, transcontinental infrastructure initiative, but its incorporation into the constitution perhaps reflects the reception it has received in partner countries. Although some countries have been skeptical and have declined participation in the BRI, more than 70 countries have signed on, indicating a welcoming approach to the BRI across the world at large.

As a result, other donor countries (such as the United States) need to consider that an increasing number of developing (and some developed) countries will be BRI partner countries, so those donors should adjust their policies for existing and potential recipients of foreign development assistance. The donor countries will encounter and must work with infrastructure that is designed and implemented by China, which might raise security concerns for some donor countries.

The BRI's continuing emphasis on infrastructure seems designed to provide stability to China's political relations with partner countries.² By its nature, infrastructure provides the investor with a long-term physical presence that transcends changes in the partner country's governance.³ Thus, it offers the prospect of building Chinese goodwill and helping ensure a stable relationship between China and the partner country, with the prospect of rising influence over time. This may help explain why the BRI, and economic statecraft generally, have become key components of Chinese foreign policy.

Furthermore, we have argued that the foreign policy goals that China most likely seeks to achieve with the BRI are an increase in Chinese soft power in partner countries, internationalization of the renminbi, new markets for Chinese labor and capital (mostly the latter), access to scarce natural resources, and the creation of regional infrastructure networks that have China at their hub.

¹ The Chinese constitution was amended to include the phrase "following the principle of achieving shared growth through discussion and collaboration, and pursuing the Belt and Road Initiative." See "Belt and Road' Incorporated into CPC Constitution," Xinhua, October 24, 2017.

² The BRI's focus on infrastructure has changed somewhat over time to incorporate a more comprehensive and balanced approach to development. This likely reflects a response to partner country interests, but China has been able to incorporate the new elements around infrastructure.

³ In recent years, there is growing evidence that this is valid. Sri Lanka, Pakistan, and Malaysia are recent examples of countries where a change in government took place after the BRI began. The governments in each case initially expressed reservations about the desirability of the BRI there and later accepted that the initiative should continue, with some modifications. To our knowledge, no country's government has reversed its initial acceptance of the BRI.

These goals need not be inconsistent with the interests of partner countries. However, consistency will not happen on its own. Countries that receive BRI assistance need to ensure, through appropriate policies, that the BRI meets their requirements. Our analysis has shown that there is genuine ground for further inquiry into some aspects of the BRI, such as whether the SDGs are adequately addressed, whether the costs of BRI projects are too high, and whether state-owned capital and implementation lead to decisionmaking that is uneconomic.

On the other hand, some concerns and criticisms appear to be overstated, and the evidence to date suggests that these should not be the focus of policymakers in partner countries. The concerns that do not appear to be justified at this time include whether the BRI is creating a borrower's debt trap by lending too much in the short term and whether BRI projects are largely resourced with Chinese labor. Neither criticism is supported by the evidence. Furthermore, neither question fits with rationalist perspectives of Chinese behavior. On the creation of debt traps, even if the borrower is willing to be trapped, we have argued that such lending would be inconsistent with rational long-term behavior by the lender.

On the use of local labor, a rational investor goes overseas to access comparative advantage arising from differences in labor costs, capital costs, or both.⁴ China's comparative advantage as an investor in developing countries is in capital costs, and its disadvantage is in labor costs. It would, therefore, be relatively unprofitable for China to export both labor and capital at competitive rates. The evidence supports this conclusion, as we have seen, and economic analysis suggests that the criticism was never justified.

The BRI, if successful, could achieve China's goal of transforming its relations with the world by transforming the economic prospects of its partner countries. However, countries that receive BRI assistance need to ensure, through appropriate policies, that their goals are met as well. This requires asking the right questions and identifying the real issues and opportunities. The analysis presented in this chapter should help policymakers better understand the risks and rewards of participating in the BRI.

⁴ Location is a third factor. For instance, the location of the partner country may offer savings in accessing local markets or scarce natural resources. However, this would not affect the comparative advantage of capital versus labor costs.

The Five Pillars of the BRI

China identified five pillars, or cooperation areas, for countries and organizations participating in the BRI. Those pillars are as follows:

1: **Policy coordination**, including building a multilevel intergovernmental macro policy exchange and communication mechanism; coordinating economic development strategies and policies; working out plans and measures for regional cooperation; and providing joint policy support for the implementation of practical cooperation and largescale projects.

2: **Facilities connectivity**, including improving the connectivity of **infrastructure** construction plans and technical standard systems among countries along the Belt and Road; forming **regional infrastructure network**; and promoting **green and low carbon infrastructure** construction by taking into full account the impact of **climate change**.

3: **Unimpeded trade**, including improving **investment and trade** facilitation, removing investment and trade barriers and ensuring the implementation of the **WTO Trade Facilitation Agreement**; expanding mutual investment in such areas as **agriculture, both conventional and renewable energy, information technology, biotechnology, new materials and other emerging industries**.

4: **Financial integration**, including building a currency stability system, investment and financing system and credit information system in Asia; establishing the Asian Infrastructure Investment Bank and BRICS New Development Bank (which are already in operation); strengthening financial regulation cooperation and coordination; improving mechanism[s] of addressing cross-border risks and crisis; and encouraging commercial equity investment funds and private funds to participate in the construction of key projects under the Belt and Road.

5: **People-to-people bond**, including promoting cultural and academic exchanges, personnel exchanges, media cooperation, youth and women exchanges and volunteer services; expanding tourism; sharing epidemic information and exchanging of prevention and treatment technologies; increasing cooperation in **science and technology** by establishing joint labs, international technology transfer centers; and advancing cooperation on youth employment, entrepreneurship training, vocational skill development, social security management, public administration and management.¹

¹ Pingfan Hong, *Strengthening National Policy Capacity for Jointly Building the Belt and Road Towards the Sustainable Development Goals*, prepared for the Belt and Road Forum for International Cooperation, Beijing, May 14–15, 2017, p. 6. See also Belt and Road Forum for International Cooperation, “Full Text: Vision and Actions on Jointly Building Belt and Road,” webpage, March 2015.

Objectives of the Marshall Plan

The Marshall Plan was enacted into law by Congress in 1948 as the Economic Cooperation Act, which is also cited as the Foreign Assistance Act. The policy objectives of the act are found in Section 102(a), as follows:

Findings and Declaration of Policy

Sec. 102(a). Recognizing the intimate economic and other relationships between the United States and the nations of Europe, and recognizing that disruption following in the wake of war is not contained by national frontiers, the Congress finds that the existing situation in Europe endangers the establishment of a lasting peace, the general welfare and national interest of the United States, and the attainment of the objectives of the United Nations. The restoration or maintenance in European countries of principles of individual liberty, free institutions, and genuine independence rests largely upon the establishment of sound economic conditions, stable international economic relationships, and the achievement by the countries of Europe of a healthy economy independent of extraordinary outside assistance. The accomplishment of these objectives calls for a plan of European recovery, open to all such nations which cooperate in such plan, based upon a strong production effort, the expansion of foreign trade, the creation and maintenance of internal financial stability, and the development of economic cooperation, including all possible steps to establish and maintain equitable rates of exchange and to bring about the progressive elimination of trade barriers. Mindful of the advantages which the United States has enjoyed through the existence of a large domestic market with no internal trade barriers, and believing that similar advantages can accrue to the countries of Europe, it is declared to be the policy of the people of the United States to encourage these countries through a joint organization to exert sustained common efforts as set forth in the report of the Committee of European Economic Cooperation signed at Paris on September 22, 1947, which will speedily achieve that economic cooperation in Europe which is essential for lasting peace and prosperity. It is further declared to be the policy of the people of the United States to sustain and strengthen principles of individual liberty, free institutions, and genuine independence in Europe through assistance to those countries of Europe which participate in a joint recovery program based upon self-help and mutual cooperation: *Provided*, That no assistance to the participating countries herein contemplated shall seriously impair the economic stability of the United States. It is further declared to be the policy of the United States that continuity of assistance provided by the United States should, at all times, be dependent upon continuity of cooperation among countries participating in the program.¹

¹ U.S. Congress, Economic Cooperation Act of 1948, Washington, D.C., April 3, 1948.

The aims of U.S. foreign policy in the Cold War are evident in the use of the Marshall Plan for the promotion of “individual liberty, free institutions, and genuine independence.” Not surprisingly, the Soviet Union did not allow countries in Eastern Europe to participate.

Michael J. Hogan’s 1987 assessment of the Marshall Plan shows that the act’s other implicit foreign policy goal was the promotion of U.S. agricultural and manufacturing goods. Almost all the funds were used to import goods from the United States. Initially, the funds were used to import food and fuel and were only later used for reconstruction (the original goal of the plan). By 1951, of the \$13 billion allocated for the plan, \$3.4 billion had been spent on imports of raw materials and semi-manufactured products; \$3.2 billion on food, feed, and fertilizer; \$1.9 billion on machines, vehicles, and equipment; and \$1.6 billion on fuel.² In other words, the amount spent on noninfrastructure items (raw materials, semi-manufactured products, food, feed, fertilizer, and fuel) accounted for a majority (61 percent) of the spending. Some funds in later years were also used to rebuild the armed forces of Europe.³ It seems odd, then, that the Marshall Plan is often described as a plan to rebuild Europe’s infrastructure.⁴ For example, one recounting describes the aims of the plan as being to “reconstruct cities, industries and infrastructure heavily damaged during the war and to remove trade barriers between European neighbors.”⁵

Simon Shen and Wilson Chan’s 2018 comparison of the Marshall Plan and the BRI argues that the two have several similar foreign policy goals.⁶ The economic similarities are to boost the local economies, provide a market for the donor’s exports, and internationalize the donor’s currency. The international relations and security goal that is common is to hedge against a rival’s influence by targeting states that are important but vulnerable to influence by the donor and the rival.

² Michael J. Hogan, *The Marshall Plan: America, Britain and the Reconstruction of Western Europe, 1947–1952*, Cambridge, United Kingdom: Cambridge University Press, 1987, p. 415.

³ Gerard Van Bilzen, *The Development of Aid*, Newcastle upon Tyne, United Kingdom: Cambridge Scholars Publishing, 2015, p. 119.

⁴ The aims laid out by George Marshall, the author of the Marshall Plan, were more general: to address post-war Europe’s “hunger, poverty, desperation and chaos” (George C. Marshall, “The ‘Marshall Plan’ Speech at Harvard University, 5 June 1947,” Organisation for Economic Co-operation and Development, June 5, 1947).

⁵ History.com, “Marshall Plan,” August 21, 2018.

⁶ Simon Shen and Wilson Chan, “A Comparative Study of the Belt and Road Initiative and the Marshall Plan,” *Palgrave Communications*, Vol. 4, Article 32, 2018.

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