Grading China’s Belt and Road

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Acknowledgments

The authors give special thanks to CNAS colleagues Ashley Feng, Bob Jones, Carisa Nietsche, Rachel Rizzo, and Kaleigh Thomas for essential research support, and to Jude Blanchette for providing an external review of an earlier draft. A wider set of CNAS colleagues also provided support: We are grateful to Neil Bhatiya, Eric Brewer, Melody Cook, Richard Fontaine, Allison Francis, Ilan Goldenberg, James Kim, Maura McCarthy, Ellen McHugh, Ely Ratner, Elizabeth Rosenberg, Loren DeJonge Schulman, Matthew Seeley, Andrea Kendall-Taylor, and Hannah Suh. Lastly, the authors would like to thank speakers and participants at a workshop CNAS convened at the start of the project.

The views presented in this report are the authors’ alone and do not represent those of CNAS or any other organization. The authors are solely responsible for any errors in fact, analysis, or omission.

Since 2017, CNAS has conducted cutting-edge research on addressing China’s Belt and Road. CNAS is grateful to the U.S. Department of State for funding its latest round of research.

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The CNAS Asia-Pacific Security Program addresses opportunities and challenges for the United States in the region, with a growing focus on issues that originate in the Asia-Pacific but have global implications. It draws on a team with deep government and nongovernment expertise in regional studies, U.S. foreign policy, international security, and economic statecraft. The Asia-Pacific Security Program analyzes trends and generates practical and implementable policy solutions around three main research priorities: U.S. strategic competition with China, American alliances and partnerships, and the North Korea threat.
GRADING CHINA’S BELT AND ROAD

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Executive Summary

Since its launch in 2013, what China calls “One Belt, One Road” has emerged as the cornerstone of Beijing’s economic statecraft. Under the umbrella of the Belt and Road, Beijing seeks to promote a more connected world brought together by a web of Chinese-funded physical and digital infrastructure. The infrastructure needs in Asia and beyond are significant, but the Belt and Road is more than just an economic initiative; it is a central tool for advancing China’s geopolitical ambitions. Through the economic activities bundled under the Belt and Road, Beijing is pursuing a vision of the 21st century defined by great power spheres of influence, state-directed economic interactions, and creeping authoritarianism.¹

As Beijing prepares to host the second Belt and Road Forum in late April 2019, countries that once welcomed Chinese investment have become increasingly vocal about the downsides. This report is intended to serve as a resource for governments, corporations, journalists, and civil society groups now re-evaluating the costs and benefits of Belt and Road projects. Building on previous research by the Center for a New American Security and other institutions,² this report provides a high-level overview of the primary challenges associated with China’s Belt and Road. It explores these challenges in the context of 10 cases that have received little high-profile attention and identifies future concerns generated by the Belt and Road’s growing digital focus. Lastly, the report puts forward a checklist for evaluating future infrastructure projects involving China.
Seven Challenges Created by Chinese Investment

Although not monolithic, Chinese infrastructure projects feature a number of common challenges for recipient states. These challenges include:

**1. EROSION OF NATIONAL SOVEREIGNTY**
Beijing has obtained control over select infrastructure projects through equity arrangements, long-term leases, or multi-decade operating contracts.

**2. LACK OF TRANSPARENCY**
Many projects feature opaque bidding processes for contracts and financial terms that are not subject to public scrutiny.

**3. UNSUSTAINABLE FINANCIAL BURDENS**
Chinese lending to some countries has increased their risk of debt default or repayment difficulties, while certain completed projects have not generated sufficient revenue to justify the cost.

**4. DISENGAGEMENT FROM LOCAL ECONOMIC NEEDS**
Belt and Road projects often involve the use of Chinese firms and labor for construction, which does little to transfer skills to local workers, and sometimes involve inequitable profit-sharing arrangements.

**5. GEOPOLITICAL RISKS**
Some infrastructure projects financed, built, or operated by China can compromise the recipient state’s telecommunications infrastructure or place the country at the center of strategic competition between Beijing and other great powers.

**6. NEGATIVE ENVIRONMENTAL IMPACTS**
Belt and Road projects in some instances have proceeded without adequate environmental assessments or have caused severe environmental damage.

**7. SIGNIFICANT POTENTIAL FOR CORRUPTION**
In countries that already have a high level of kleptocracy, Belt and Road projects have involved payoffs to politicians and bureaucrats.

These challenges associated with China’s Belt and Road are not limited to a particular region or type of infrastructure project. A survey of 10 lesser-known Chinese projects across the globe shows that all feature three or more of these challenges.

### CHINESE INFRASTRUCTURE PROJECTS: A GLOBAL SNAPSHOT

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<th>REGION</th>
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Looking Forward
Due to these challenges, the Belt and Road has provoked growing international resistance, most acutely in the Indo-Pacific. This rising backlash has not gone unnoticed in Beijing. Yet it is unlikely that China’s approach will fundamentally change in the years ahead. The sheer size of ongoing Belt and Road projects limits China’s ability to refocus on smaller and less controversial efforts. Moreover, the Belt and Road is ultimately a vehicle for China’s geopolitical ambitions. Liabilities for host countries – loss of control, opacity, debt, dual-use potential, and corruption – are often strategic assets for Beijing.

The primary adaptation of the Belt and Road will be its growing focus on the digital domain. This emphasis on information connectivity will serve to export elements of China’s high-technology domestic surveillance regime, as well as further expose recipient states to possible information compromise.

The first five years of the Belt and Road provide ample evidence of the types of projects that countries should avoid. It is imperative that governments, companies, journalists, and civil society groups possess a shared framework for assessing the costs and benefits of future infrastructure projects involving China. The following checklist – the inverse of the seven challenges outlined above – provides an initial starting point. Projects proposed by Beijing that check each box merit serious consideration; those that leave one or more boxes empty require close scrutiny.

### CHECKLIST: ASSESSING FUTURE BELT AND ROAD PROJECTS

*What Countries Should Ask*

- Sovereignty-Upholding?
- Transparent?
- Financially Sustainable?
- Locally Engaged?
- Geopolitically Prudent?
- Environmentally Sustainable?
- Corruption-Resistant?
China’s Belt and Road Strategy
Originally announced by President Xi Jinping in 2013, “One Belt, One Road” has been promoted by the Chinese government as the “project of the century.” It seeks to connect large parts of the globe through rail lines, pipelines, highways, ports, digital technology, and other infrastructure.

The Belt and Road has the potential to address real infrastructure needs. At the same time, it is a serious strategic endeavor with support from the highest level of China’s Communist Party (CCP). The party has repeatedly referred to the Belt and Road as essential to its regional and global ambitions. A series of high-level party documents and addresses by senior leaders make clear that the Belt and Road is a core part of China’s efforts to achieve “national rejuvenation” and to create what the party calls a “community of common destiny” across the Indo-Pacific and beyond.

Estimates for the Belt and Road’s size vary dramatically even as the project now approaches its six-year anniversary. Some put its total cost at roughly $1 trillion; others say that many of these commitments have not or will not be honored and that actual investments are closer to one-third that amount. Although more than 100 countries are nominally involved in the Belt and Road, the overwhelming share of China’s efforts remains concentrated in the Indo-Pacific.

A significant number of Belt and Road projects have explicit geopolitical applications. These projects can be understood as a form of “economic power projection,” one that allows Beijing to reshape the world’s strategic and digital geography and to place China at its center through targeted investments. Indeed, the People’s Liberation Army (PLA) has described the dual-use potential of certain port and rail projects. Beijing has taken control of some projects, including the Hambantota Port, and reportedly pushed for military access; and many of the digital components of the Belt and Road could give Beijing access to critical infrastructure and information that might not otherwise be easily accessible.

Seven Challenges Emanating from Belt and Road Projects
When the Belt and Road was first announced, the program generated a positive response from many countries seeking additional sources of investment in needed infrastructure. With China a relatively new provider of infrastructure, expectations of the Belt and Road were generally high, despite lingering skepticism from Japan, India, and the United States. But six years after that initially warm reception, the effort has now provoked a backlash.

The Belt and Road began as an Indo-Pacific program, and this region is unsurprisingly the domain where its challenges have become most obvious. As a direct result of these challenges, a number of states have chosen to scale back or postpone projects, with most of these same states seeking to renegotiate financial terms. For example, in 2016, Bangladesh opted to cancel cooperation with China on the country’s first deep-water port and instead chose to work with Japan. Nepal canceled a costly hydroelectric dam project with China over concerns about cost overruns. Burma similarly canceled a dam project with China and dramatically scaled back a major port project. The Maldives asked to renegotiate Belt and Road projects after political supporters of closer economic cooperation with China were voted out of office. A similar political transition led Malaysia to cancel three Chinese pipeline projects and to re-evaluate a $20 billion rail project, again over concerns about cost overruns. Even China’s closest partner, Pakistan, has canceled a $14 billion dam project as its government seeks to renegotiate the financial terms of the China-Pakistan Economic Corridor (CPEC).

The Belt and Road has also provoked concerns outside of Asia. Uganda owes China $3 billion for dam and highway projects that are being attacked by the Ugandan political opposition for a lack of competitive bidding, cost overruns, and construction defects. Kenya’s politics were roiled by concerns of corruption in Chinese infrastructure projects as well as leaked letters from the country’s auditor general suggesting overly generous terms offered for Chinese loans. These terms reportedly included Kenya offering the assets of the Kenya Ports Authority – which include the largest port in East Africa – as collateral for China’s loans. Concerns over the difficulty Zambia faces in paying back Chinese loans have prompted a domestic debate over whether the country will lose operational control over its critical infrastructure.
Even as the Belt and Road faces growing challenges, many states find themselves unable to pull away from China, both for fiscal reasons as well as domestic political ones – with Beijing frequently exercising lingering influence. For example, although Sri Lanka voted out President Mahinda Rajapaksa in part because of his willingness to indebt Sri Lanka to China, his pro-Indian successor, Maithripala Sirisena, nonetheless had no choice but to give China a 99-year lease on the Hambantota Port after proving unable to meet $1.4 billion in payments. He later moved closer to China, went back to Beijing for another $1 billion for highway construction, and even plunged the country into a major political crisis when he fired his prime minister and closed Parliament – appointing pro-China Rajapaksa as a replacement.15 Beijing was quick to congratulate Rajapaksa, who resigned only after the Supreme Court intervened.16 A less dramatic transition occurred in Nepal, where a government that had canceled a dam project with China over cost concerns was later replaced by a more pro-China government that restored the project and subsequently expanded additional projects, demonstrating the impermanence of the Belt and Road backlash.17

Even when political coalitions remain skeptical of China, Beijing has proved adaptable. For example, China has renegotiated projects with Malaysia and is likely do so with Pakistan as well.18 With the Belt and Road part of the CCP’s Constitution, Beijing is likely to remain committed to the initiative even as difficulties persist. Xi’s apparent push to reorient the Belt and Road toward high-quality projects with clear local benefits is more theoretical than practical and warrants some skepticism.19 Beijing appears to realize that even if it fails to reform the Belt and Road, it can afford to play the long game and expect that governments skeptical of China will eventually leave office or find themselves receptive to economic inducements.

The setbacks the Belt and Road confronts are rooted in growing political, economic, and security concerns in recipient countries that fall into roughly seven categories. Countries have become increasingly vocal about whether projects are (1) sovereignty-eroding; (2) nontransparent; (3) financially unsustainable; (4) locally disengaged; (5) geopolitically risky; (6) environmentally unsustainable; (7) and corrupting of domestic institutions. This report briefly discusses each of these seven categories.

**Sovereignty-Eroding.** A number of Belt and Road projects are operated by China’s state-owned enterprises, either by contract or because of inadequate local capacity. For example, Chinese companies operate a number of ports, including Sri Lanka’s Hambantota Port as well as Greece’s Piraeus Port, and contracts for Chinese operation of additional ports have been signed in Israel, among other countries.20 China’s operation of infrastructure – especially critical infrastructure such as hydroelectric dams – complicates negotiations over financial terms and can create enduring political influence and dependence. In some cases, China’s operation or control of Belt and Road projects is long term, with the 99-year lease of the Hambantota Port the most extreme example.

**Nontransparent.** In many cases, Belt and Road projects feature opaque bidding processes and terms that are not made public to stakeholders in recipient countries. Concerns over a lack of transparency and a subsequent inability to hold political leaders accountable have grown in over a dozen countries, including Malaysia in Southeast Asia; Sri Lanka, Nepal, Bangladesh, and the Maldives in South Asia; Kenya, Uganda, and Zambia in Africa; and Venezuela and Ecuador in Latin America, among many others.21 Even Pakistan has raised concerns over no-bid contracts and opaque terms, pushing for renegotiation.22

**Financially Unsustainable.** The Center for Global Development released a report last year showing that eight countries involved in the Belt and Road – Djibouti, Kyrgyzstan, Laos, the Maldives, Mongolia, Montenegro, Pakistan, and Tajikistan – are facing serious challenges in repaying their loans to China.23 Beijing is the largest foreign creditor for most of these states, with some owing it more than half their foreign debt. A number of countries, including Thailand, Malaysia, Sri Lanka, Nepal, Pakistan, Burma, and Bangladesh, have canceled or scaled back costly projects for financial reasons. Of those projects that were completed, many have been unable to generate enough revenue to justify the initial investment, arguably leaving the recipient country in worse financial shape than before. For example, when Sri Lanka was unable to service its loans, it had little choice but to give China a 99-year lease on the country’s Hambantota Port. In some cases, such as Venezuela and Ecuador, China’s investments are secured with commodities.
from the recipient country, a model of lending that most developed countries abandoned because of its colonial overtones.24

**Locally Disengaged.** Recipient countries are increasingly criticizing Chinese investments as disengaged from local economic development. In many cases, Beijing’s investments mandate the use of Chinese firms and labor for construction projects, require the acquisition of land from locals, and sometimes even call for Chinese state-owned enterprises to operate the resultant infrastructure, thereby inhibiting the transfer of skills to local workers. These requirements fit a broader pattern of China’s overseas business. For example, a 2017 McKinsey study found that Chinese enterprises in Africa hire Chinese citizens for the majority of their administrative positions, while state-owned enterprises are even less likely to hire locals than private companies.25 Concerns about imported labor have appeared even in countries with strong political ties to China, including Pakistan and Laos.26 With respect to profit-sharing arrangements for infrastructure projects, many agreements are inequitable, especially if recipient governments prove unable to make debt payments to Beijing. Finally, many Chinese infrastructure projects, especially in Africa, appear built primarily to facilitate the extraction of commodities that are then exported to China.

**Environmentally Unsustainable.** Belt and Road projects have increasingly generated environmental concerns. In some cases, these projects have proceeded without adequate environmental impact assessments or have involved targeted bribes to circumvent them. For example, Burma suspended China’s investment in the Myitsone Dam project in part over insufficient attention to environmental concerns, and dam and rail projects in Indonesia were criticized for not having undergone adequate environmental assessments.29 Some projects that nonetheless advanced have caused seemingly irreversible environmental damage. China’s investment in a Sri Lankan development project damaged 175 miles of coastline and impacted 80,000 households that rely on the sea to make a living, problems earlier environmental assessments said would not manifest.29 Beijing has increasingly been willing to punish companies for environmental lapses, and Chinese firms do not appear to be significantly concerned with the environmental impact of their investments – especially if recipient countries lack adequate regulations around environmental standards. In some cases, even projects that were thought to be environmentally sustainable have subsequently proved to be more damaging than expected.

**Geopolitically Risky.** There are growing concerns that infrastructure projects financed, built, or operated by China can compromise the recipient country’s security or place the country in the crosshairs of strategic competition pitting Beijing against other great powers. For example, Sri Lanka's decision to agree to a debt-for-equity deal with China has given Beijing a 99-year lease on a strategically positioned port, generating anxiety in New Delhi, Tokyo, and Washington. The Maldives’ growing indebtedness to Beijing and Bangladesh’s initial interest in Chinese construction of the country’s first deep-water port raised concerns in India that these countries might eventually host Chinese military facilities close to Indian shores.27 Even in nondemocratic countries, concerns over the geopolitical risk of projects have produced domestic unrest. For example, Vietnam’s decision to allow three 99-year special economic zones for Chinese companies in strategically important regions resulted in widespread popular protests.28

**Corruption-Prone.** In countries that already have a high level of kleptocracy, Belt and Road projects have often involved payoffs to politicians and bureaucrats. Projects that are financially or environmentally unsound are sometimes approved as a direct result. The Belt and Road’s initial statement of principles makes no mention of corruption, and companies are not punished for corrupt practices overseas. Indeed, over the last few years, evidence of bribery has been uncovered across a wide range of projects. Bangladesh blacklisted a major Chinese state-owned enterprise, China Harbour Engineering Co., for trying to bribe a senior government official.32 China Communications Construction Co., one of the Belt and Road’s main builders, has been credibly accused of bribery in the Philippines, Malaysia, Equatorial Guinea, and Sri Lanka.32 More specifically, projects in Malaysia appear to have been contracted at inflated prices so that some of the surplus funds could be used to cover up embezzlement by top political leaders. In Sri Lanka, Chinese companies appear to have funneled bribes directly to the family of Rajapaksa, the prime minister. In Equatorial Guinea, Chinese companies made multimillion-dollar payments to the president’s son and
the country’s vice president, Teodorin Nguema Obiang.\(^4\) In Ecuador, the country’s former vice president is under investigation on allegations of accepting bribes from China over a dam project.\(^5\) Even Pakistan has halted Belt and Road projects over concerns related to corruption.\(^6\) As these examples suggest, China’s willingness to pay politicians to facilitate these projects not only corrodes democratic institutions but also results in policies that are directly against the public interest of the countries in question. When new governments take power, they often unearth evidence of corruption from their predecessors, embarrassing Chinese companies in the process.

These seven challenges, though common across Belt and Road projects, are not inherent to infrastructure investments involving external powers. Indeed, as illustrated later in this report, projects in recipient states that lack capacity and negotiating power can avoid these challenges entirely if appropriately scoped.

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**BELT AND ROAD IN THEIR OWN WORDS**

As international concerns about the challenges associated with China’s infrastructure investments have intensified, political and business leaders and civil society representatives around the world have become increasingly forthcoming in their criticism of the Belt and Road.

“**These roads cannot be those of a new hegemony, which would transform those that they cross into vassals.**”\(^37\)

**EMMANUEL MACRON, PRESIDENT OF FRANCE, JANUARY 2018**

“The Belt and Road Initiative can provide much-needed infrastructure financing to partner countries. However, these ventures can also lead to a problematic increase in debt.”\(^38\)

**CHRISTINE LAGARDE, INTERNATIONAL MONETARY FUND MANAGING DIRECTOR, APRIL 2018**

“**The strategy of China is clear. They take economic control of countries.**”\(^39\)

**CARLOS PÉREZ, ECUADORIAN MINISTER OF ELECTRICITY AND RENEWABLE ENERGY, DECEMBER 2018**

“**Media institutions are working under fear of the government, with the help of the Chinese.**”\(^40\)

**LIKEZO KAYONGO, CHIEF EXECUTIVE OFFICER OF ZAMBIAN WATCHDOG, JANUARY 2019**

“This was willful corruption. [...] We do not have the fiscal health to carry on with these [Belt and Road] contracts. So it is in our interest to renegotiate.”\(^41\)

**IBRAHIM AMEER, MALDIVIAN MINISTER OF FINANCE, JANUARY 2019**

“They [Chinese companies] have taken predatory practices in something that (is termed) today to be a debt trap, whereby they overextend their debts to countries and eventually take their assets.”\(^42\)

**SULTAN AHMED BIN SULAYEM, DUBAI PORT (DP) WORLD CHIEF EXECUTIVE OFFICER, JANUARY 2019**
Chinese Infrastructure Projects: A Global Snapshot

This report investigates each of the preceding seven challenges by selecting from a wide range of Belt and Road projects. Some of China’s infrastructure projects – such as its investments in Malaysia, the Maldives, and Sri Lanka – have received considerable media attention. To obtain a more comprehensive look at China’s economic activities, this project avoids revisiting these well-documented cases and focuses instead on a range of projects that have received little high-profile coverage and that span multiple continents and infrastructure categories.

The cases are drawn from seven regions: Latin America, Europe, Africa, the Middle East, South and Central Asia, Southeast Asia, and the Pacific Islands. They also cover five infrastructure categories: ports, power, railways, pipelines, and digital infrastructure. This variation across geography and infrastructure categories provides a more comprehensive look at Belt and Road projects. The table below lays out the distribution of cases.

### CASE SELECTION ACROSS GEOGRAPHY AND INFRASTRUCTURE CATEGORIES

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<tr>
<th>REGION</th>
<th>PROJECT</th>
<th>INFRASTRUCTURE CATEGORY</th>
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<tr>
<td>Latin America</td>
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These cases are evaluated for the presence of the seven challenges identified in the preceding section. To assess these cases as objectively as possible, the report puts forward a set of detailed questions used to examine Belt and Road projects across each category. These are listed in the table below.

### CRITERIA FOR ASSESSING BELT AND ROAD PROJECTS

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<th>CHALLENGE</th>
<th>EVALUATIVE CRITERIA</th>
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<tr>
<td>Sovereignty-Eroding</td>
<td>Does China have long-term equity in the project? Does China have a long-term lease? Will a Chinese company operate the infrastructure over the long term?</td>
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<tr>
<td>Nontransparent</td>
<td>How clear are the companies involved, the status of negotiations on the project, the terms of the deal (including financial arrangements), the organizational structure of the project, and the progress of development?</td>
</tr>
<tr>
<td>Financially Unsustainable</td>
<td>Has Chinese financing for the project increased the chance of a financial crisis or created repayment difficulties? Is the project subject to major cost overruns or profitability concerns?</td>
</tr>
<tr>
<td>Locally Disengaged</td>
<td>Are the profit-sharing arrangements related to the infrastructure equitable? Can locals access or benefit from the infrastructure? Does the project involve local firms or mostly Chinese companies? Does the project transfer skills to local workers? Is local labor involved or are Chinese workers imported?</td>
</tr>
<tr>
<td>Geopolitically Risky</td>
<td>Will the project compromise a country’s telecommunications infrastructure security? Will the project constrain a country’s ability to partner with other states, including the United States? Will the project create the potential for future Chinese military access, placing a country at the center of strategic competition between Beijing and other great powers?</td>
</tr>
<tr>
<td>Environmentally Unsustainable</td>
<td>Were environmental impact studies conducted? Have local environmental concerns been taken into account in the planning/review process? Will the project create long-lasting ecological damage</td>
</tr>
<tr>
<td>Corruption-Prone</td>
<td>Does the country receiving Chinese investment already have a high level of kleptocracy (scoring either “high” or “very high” on the TRACE Bribery Risk Matrix)? Does the main Chinese company involved have past issues with corruption overseas? Are there instances of confirmed or alleged corruption relating to the project?</td>
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Coca Codo Sinclair Hydroelectric Dam, Ecuador

EVALUATION: 6 CHALLENGES PRESENT

China’s financing of Ecuador’s Coca Codo Sinclair hydroelectric facility is a prime example of how infrastructure projects facilitated by Beijing can run against the host country’s public interest, corrupt institutions, and indebted recipient governments.

Sovereignty-Eroding? Yes.
The development and construction of Coca Codo has mainly been controlled by enterprises linked to the Chinese government. Sinohydro, a Chinese state-owned enterprise, has an 89 percent stake in the Sinohydro-Andres joint venture that won the Coca Codo contract in October 2009. The Ecuadorian company Coandes took an 8 percent stake, with the remaining 3 percent split between the Italian company Geodata and China’s Yellow River Engineering Consulting Co., which is affiliated with China’s Ministry of Water Resources.

Nontransparent? Yes.
A condition of the loan from China’s Export-Import (ExIm) Bank was that Chinese companies must be made the general contractor. This prevented open bidding and complicated oversight. In April 2018, the comptroller general of the state of Ecuador issued a report criticizing Sinohydro for major construction flaws. These complications might have been avoided with a better bidding process.

Financially Unsustainable? Yes.
The project was financed by a $1.7 billion loan from China’s ExIm Bank, with 7 percent interest over 15 years, requiring Ecuador to pay China $125 million annually on interest alone. The project’s cost increased to $2.8 billion, which was triple the estimate provided by a Federal Electricity Commission of Mexico study. Coca Codo accounts for roughly 9 percent of Ecuador’s $19 billion repayment to China. Roughly 80 percent of Ecuador’s oil exports, a key foundation of the country’s economy, will be sent to China to repay loans for at least five years – including those related to the dam project.

Locally Disengaged? Yes.
The dam is essentially inoperable, providing no economic benefits. Water released from the dam causes flooding that cripples some downstream farming and has drowned farmers.

Even during construction, 26 complaints were filed against Sinohydro over poor work conditions, inadequate safety conditions, a lack of overtime, worker mistreatment, and discrimination in favor of Chinese workers on salary levels. More than a dozen workers were killed in a tunnel collapse during construction.

Geopolitically Risky? No.
The dam does not place Ecuador at the center of U.S.-China strategic competition.

Environmentally Unsustainable? Yes.
Local community leaders opposed the project during the planning period on environmental grounds. Previous feasibility studies were ignored, including those that indicated the project was high risk due to the eruption of the nearby El Reventador volcano and that cautioned that water levels “had not been studied for nearly 30 years.” For these reasons, even modest versions of the project had been rejected in the 1980s. Environmentalists had pointed out that the construction and operation of the dam would divert too much water, nearly drying out parts of the Coca River for months of the year, wiping out aquatic systems.

Corruption-Prone? Yes.
Ecuador, ranking 136 of 200 countries, scores “high” on the TRACE Bribery Risk Matrix. Officials affiliated with the hydroelectric project, including former Vice President Jorge Glas Espinel and former anti-corruption official Carlos Pólit, are under investigation on allegations they overlooked problems associated with the dam in exchange for bribes. The project’s no-bid contracts likely also facilitated graft.

The red icons denote the presence of a challenge. The blue icons denote the absence of a challenge or that there is insufficient evidence to make a determination.
Space Complex, Argentina

EVALUATION: 4 CHALLENGES PRESENT
In March 2018, China’s $50 million satellite and space mission control station built in Quintuco, Argentina, officially turned operational. The project demonstrates the ways China has leveraged its economic influence in Latin America to obtain facilities that could serve military purposes.62

Sovereignty-Eroding? Yes.
China has a 50-year, rent-free lease on the space and plans to operate the infrastructure over the long term. According to Reuters, President Mauricio Macri’s former foreign minister, Susana Malcorra, said that Argentina has no physical oversight over the station’s operations. There is, however, an agreement in place that “obliges China to inform Argentina of its activities at the station but provides no enforcement mechanism for authorities to ensure it is not being used for military purposes.”63

Nontransparent? Yes.
The project was negotiated largely in secret and the deal was eventually signed in 2012.64 The deal governing the project allegedly includes secret provisions, a claim that was later denied by the Argentine Ministry of Planning.65 According to a New York Times report, local politicians were surprised and taken aback when they were made aware of the deal, which was signed without their knowledge.66

Financially Unsustainable? No.
This project is financially sustainable. It has not increased the risk of a financial crisis in Argentina or created repayment difficulties.

Locally Disengaged? Yes.
This project is fully Chinese-led and -operated. No local firms or workers are involved in the operation of the facility.67

Geopolitically Risky? Yes.
The space center implicates Argentina in U.S.-China military competition, as it is run by an arm of the PLA. According to the Nuclear Threat Initiative, the Argentine center falls under the China Satellite Launch and Tracking Control General, which is based out of Beijing and subordinate to the PLA’s General Armament division.68

Environmentally Unsustainable? No.
There are no clear negative environmental effects from the project. Given that it was negotiated largely in secret, it is unclear whether there were environmental impact studies conducted, though given the relatively small scope, the answer is probably not.

Corruption-Prone? No.
Argentina, ranking 111 of 200 countries, scores “moderate” on the TRACE Bribery Risk Matrix.69 There are no confirmed cases of corruption related to the project.
Budapest-Belgrade Railway, Hungary

EVALUATION: 3 CHALLENGES PRESENT
In 2013, Romania, China, Serbia, and Hungary signed a Memorandum of Understanding (MOU) to build a high-speed Belgrade-Budapest railway to connect the Chinese-operated port in Piraeus, Greece, with the rest of Europe – what Chinese Premier Li Keqiang called China’s “express lane” to Europe. In Hungary, most construction work will modernize the current railway infrastructure, with China likely to cover 85 percent of the cost through 20-year loans. The entire railway project is slated to be completed in 2023.

At this stage in the process, it is unclear whether China has long-term equity in the project or will operate the infrastructure over the long term. A Sino-Hungarian joint venture has been established to prepare the tenders, contracts, and project management. Chinese railway companies – China Railway International Corp. (CRIC) and China Railway International Group (CRIG) – own 85 percent of the joint venture, while Hungarian State Railways (MAV) owns only 15 percent. The bidding process to select the firms that will complete the construction is still underway, though with China providing the vast majority of financing, it is possible Beijing will take an equity stake.

[Nontransparent? Yes.
No stage of the project has been transparent. The initial bidding process’s lack of transparency spurred a European Union (EU) investigation. A Chinese-Hungarian joint venture, the Kínai-Magyar Vasúti Nonprofit Zrt, is controlling the issuance of a contract, though it is not clear what this company’s role will be after the completion of the railway construction. Further, the Hungarian Ministry of National Development will not release the project economic impact report for 10 years.

[Financially Unsustainable? Yes.
Initially, the Hungarian portion was to cost $1.95 billion, with the ExIm Bank of China providing a $1.66 billion, 20-year loan to cover 85 percent of the project. The cost has since risen to $2.66 billion, totaling $3.37 billion with interest. Chinese financing for the Hungarian portion of the railway will create a strain on the country’s national finances, with the initial estimate criticized for running counter to Hungary’s debt reduction plan even before cost increases. Further, the loans from China are not competitive with EU infrastructure funding.

[Locally Disengaged? Yes.
Some Hungarian news outlets have estimated the project will take hundreds of years to break even. The project does not include construction on the most economically profitable tracks for Hungary, which would connect it to Western Europe, Romania, or Ukraine. Previous tenders solicited for construction had two main contenders, both of which were Sino-Hungarian joint ventures. According to Hungarian officials, the interest rates on the loan would depend on how much work is completed by Chinese companies, with greater local involvement corresponding with higher interest rates.

[Geopolitically Risky? No.
The infrastructure project does not appear to compromise Hungary’s telecommunications security. Additionally, this project would not place Hungary at the center of military competition between China and other great powers.

A Natura 2000 environmental impact assessment is alluded to in the initial contract, but it is unclear if the assessment has been conducted at this time.

[Corruption-Prone? No.
Hungary, ranking 93 of 200 countries, scores “moderate” on the TRACE Bribery Risk Matrix. There are no clearly demonstrable instances of corruption relating to this project.
Facial Recognition Project, Zimbabwe

**EVALUATION: 4 CHALLENGES PRESENT**
In March 2018, under the auspices of the Belt and Road, Zimbabwe signed a strategic partnership with a Chinese startup, CloudWalk Technology, to implement facial recognition screening across the country, with cameras expected to be installed at airports, transit facilities, and potentially city streets by the Chinese firm Hikvision. Under President Emmerson Mnangagwa, a politician and military leader once trained in Beijing, Zimbabwe has used violence against protesters and elected to shut down internet access during times of instability, leading many to fear Zimbabwe will emulate Beijing’s digital authoritarian model.

**Sovereignty-Eroding? Yes.**
China’s CloudWalk will build much of the digital infrastructure, and though the precise terms of the agreement are not public, China will likely directly operate the infrastructure for some period given Zimbabwe’s limited technical capabilities in data management and artificial intelligence. In addition, CloudWalk has requested that all Zimbabwean facial data be sent to China, suggesting Zimbabwe may not have exclusive control over the data of its citizens.

**Nontransparent? Yes.**
There are no public details of the terms of the agreement between Zimbabwe’s government and CloudWalk, the agreement was not subject to a vote, and ordinary Zimbabweans have lacked the opportunity to deny consent for their data to be shared with CloudWalk to refine its algorithms.

**Financially Unsustainable? Insufficient information.**
CloudWalk has declined to share details on the financial terms of its partnership with the Zimbabwean government, though it does seem that Zimbabwe expects a financial discount on CloudWalk’s technology in exchange for providing data.

**Locally Disengaged? No.**
It is not yet known to what degree local labor and expertise will be employed in CloudWalk’s efforts to build Zimbabwe’s facial recognition system. However, Zimbabwe and CloudWalk have agreed that the system will be linked to financial transactions, thereby facilitating electronic payments and potentially providing domestic economic benefits.

**Geopolitically Risky? Yes.**
Zimbabwe’s reliance on CloudWalk to build and likely operate a nationwide facial recognition system compromises the personal data of the country’s citizens. This is especially the case because CloudWalk has insisted that Zimbabwe share all facial recognition data with China so that CloudWalk can refine its algorithms. The system also risks entrenching Zimbabwe’s authoritarianism.

**Environmentally Unsustainable? No.**
China’s export of digital surveillance will have limited environmental impact.

**Corruption-Prone? Yes.**
Zimbabwe, ranking 185 of 200 countries, scores “high” on the TRACE Bribery Risk Matrix. Although an artificial intelligence partnership creates fewer opportunities for graft than conventional infrastructure projects, the potential for corruption lies in the supporting infrastructure investment required for building and operating a surveillance apparatus, including cameras, data centers, and cables.
Haifa Port Bay Terminal, Israel

**EVALUATION: 3 CHALLENGES PRESENT**

In 2015, the Shanghai International Port Group (SIPG) was awarded the contract to develop a new terminal of Haifa Port, Israel, and to operate the terminal for 25 years after it opens in 2021. The new terminal is expected to be the largest in Israel upon its completion. SIPG operates the Shanghai Port and its business focuses on port handling, logistics, commerce, and services.

**Sovereignty-Eroding? Yes.**

SIPG, which is majority-owned by the Shanghai government, will run the new Haifa Port terminal for 25 years. Given the absence of competing bids despite an international offering, SIPG could potentially extend its management of the terminal beyond this time horizon.

**Nontransparent? Yes.**

Details of the financial agreement the Israeli Ministry of Transport reached with SIPG are unclear. While SIPG is said to have committed $2 billion to the development of the port, the terms of the agreement to operate the port have not been enumerated publicly.

**Financially Unsustainable? No.**

The contract awarded to SIPG was part of a planned effort by the Israeli government to modernize several ports through partial privatization in order to reduce the costs of goods in Israel. Overall, the strength of the Israeli economy – which enjoys a per capita gross domestic product (GDP) much higher than that of many European countries – means it is unlikely to experience financial stress as a result of this deal.

**Locally Disengaged? No.**

Although SIPG will operate the new terminal, two Israeli firms are responsible for construction. Israeli officials have claimed that the port project in Haifa (and a separate Chinese-built port at Ashdod) will create thousands of local jobs and hope the expansion of the Haifa Port and its operation under SIPG will improve shipping efficiency and lower consumer costs in Israel.

**Geopolitically Risky? Yes.**

Haifa Port regularly hosts U.S.-Israel naval drills and port calls for the U.S. Navy’s 6th Fleet. U.S. National Security Advisor John Bolton conveyed American concerns about China’s future control of the port’s operations, and the Israeli government is reviewing the deal.

**Environmentally Unsustainable? No.**

As part of its bid, SIPG was required to submit a plan for environmentally friendly operating methods.

**Corruption-Prone? No.**

Israel, ranking 30 of 200 countries, scores “low” on the TRACE Bribery Risk Matrix. There have been no publicly confirmed cases of corruption associated with the project.

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On August 13, 2012, Chinese vessels arrived at Israel in order to celebrate 20 years of cooperation between the Israel Navy and the Chinese Navy. (Israel Defense Forces/Flickr).
Coal Plants, Pakistan

EVALUATION: 5 CHALLENGES PRESENT
As part of CPEC, Beijing plans to invest $15 billion in Pakistan to build about a dozen coal-fired power plants. These plants are expected to generate domestic power that Pakistan needs, with the country’s demand for electricity expected to grow to 49,000 megawatts daily in the next six years. Pakistan currently faces electricity shortfalls and challenges to uninterrupted supply.

Sovereignty-Eroding? Yes.
Chinese consortiums are responsible for constructing and operating the new coal-fired power plants under CPEC, with Chinese and other foreign financing covering the costs. The Chinese companies will then sell the electricity to Pakistan for distribution.

Nontransparent? Yes.
While the executing company of the project is listed on the CPEC website, it is difficult to determine which subcontractors are involved in the construction and operation of the plants. Additionally, the terms of the deals between the Chinese power-producing companies and the Pakistani purchasers are not public.

Financially Unsustainable? Yes.
In partnering on these coal projects, China demanded that the Pakistan Ministry of Finance back Pakistani purchaser funds with sovereign guarantees to ensure uninterrupted payment to the Chinese power providers. Pakistan has reportedly already fallen behind on payments for electricity from the new Chinese-operated plants. More generally, the power plants are major components of a larger set of infrastructure projects by China that have strained Pakistan’s national finances.

Locally Disengaged? No. Pakistani residents and the broader economy will benefit from the increased electricity delivered by the new plants. Beyond this, however, the project’s contribution to Pakistan’s economy is more limited. Ownership of the projects by Chinese companies has meant that many have not transferred skills to local workers.

Geopolitically Risky? No.
Although other aspects of CPEC such as the Chinese-built port at Gwadar have dual-use potential, these coal plants do not on their own implicate Pakistan in U.S.-China or India-China strategic competition.

Environmentally Unsustainable? Yes.
Pakistan’s growing use of coal-fueled power will increase air pollution in the country and damage public health. There has reportedly been no environmental impact assessment of the coal-based power plants associated with CPEC. According to the Asian Development Bank, the new coal plants will also substantially contribute to greenhouse gas emissions.

Corruption-Prone? Yes.
Pakistan, ranking 152 of 200 countries, scores “high” on the TRACE Bribery Risk Matrix. The Chinese consortiums operating these projects have not been implicated in any confirmed cases of corruption, but historically, many Chinese companies that have been alleged to receive bribes work in the power generation sector. The government of Pakistan has raised concerns about corruption in CPEC dam projects and has even canceled highway construction projects over bribery. All this taken together suggests it is plausible that some of these power projects have involved graft.
Chinese-Turkmen Pipeline Line D, Tajikistan

EVALUATION: 4 CHALLENGES PRESENT

The Chinese-Turkmen Pipeline, also known as the Central Asian Pipeline network, encompasses a bundle of deals that China has with Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan, and Tajikistan. Line D, the fourth and last line of the pipeline, stretches from Turkmenistan through Tajikistan, Uzbekistan, Kyrgyzstan, and into western China. The majority of the pipeline will run through Tajikistan, previously not a part of the pipeline network. Tajikistan’s state-run national gas distributor, Tojiktransgaz, and Trans-Asia Gas Pipeline Co. Ltd., a subsidiary of China National Petroleum Corp. (CNPC), signed an agreement in March 2014 to create a joint venture for the pipeline’s construction and operation. 

Sovereignty-Eroding? Insufficient information. The joint agreement between the subsidiary company of CNPC and the Tajik state-owned gas distributor to manage the pipeline’s construction ensures that China has some equity in the project, though detailed terms of the agreement are unclear. CNPC also signed agreements with the Tajik Ministry of Energy and Water Resources and Tojiktransgaz on “the construction and operation of the Tajikistan section of Line D,” suggesting some external control is likely. Overall, the extent and duration of CNPC’s involvement in the operation of the pipeline are unclear at this time.

Nontransparent? Yes. While it is clear what major Chinese companies are involved in Line D’s construction within each of the countries through which it passes, the terms of these deals and the progress of the pipeline’s development have not been detailed publicly. Construction has been postponed in Uzbekistan since early 2016 and Kyrgyzstan in May 2016. Construction in Tajikistan began in September 2014 but stopped in March 2017 as development of Line D was indefinitely suspended as a whole. CNPC did not publicly give reasons for the postponement, though officials from Uzbekistan and Kyrgyzstan cited technical issues and lack of clarification on total project costs, respectively. Construction of Line D was restarted in Tajikistan in January 2018.

Financially Unsustainable? Yes. While the Tajik government expects to receive $3.7 billion in transit fees and taxes from the pipeline and Tojiktransgaz will share in the expected $15 billion revenue over 32 years, details of the profit-sharing arrangements between Tojiktransgaz and the CNPC subsidiary are unclear. Given the halt on construction of the Uzbekistan and Kyrgyzstan portions of the pipeline, Tajikistan risks losing all of this expected revenue if the pipeline is never fully completed. As of 2017, China held 51 percent of Tajikistan’s external government debt. Notably, the Center for Global Development has assessed Tajikistan as one of eight countries at high risk of future debt distress due to current and planned Belt and Road financing.

Locally Disengaged? Yes. Beyond potential transit fees and taxes, the project is disconnected from the local economy. The construction of the tunnels associated with the pipeline was contracted to China Road and Bridge Corp. and not a local entity. Further, Tajikistan will not be able to access the gas that runs through the pipeline for its own energy needs despite its reliance upon Uzbekistan as its sole supplier of gas.

Geopolitically Risky? No. The project will not place Tajikistan at the crosshairs of strategic competition between China and other great powers. However, Chinese development of Line D involves a related project where fiber-optic communications cables will be installed alongside the pipeline for use in its operation and management. The project includes provisions for commercial use by which Tajikistan could purchase data. This would give China significant control over Tajikistan’s telecommunications in a country where the spread of connectivity has been slow.

Environmentally Unsustainable? Insufficient information. China and Tajikistan have reportedly not agreed upon a full route for the pipeline as Tajikistan prefers a route that would require the pipeline to use costlier and more technically advanced technology to move the gas up thousands of feet in elevation. It is unclear whether local concerns over the environmental impact of cheaper routes will be heard.

Corruption-Prone? Yes. Tajikistan, ranking 169 of 200 countries, scores “high” on the TRACE Bribery Risk Matrix. Trans-Asia Gas Pipeline Co. Ltd. has not been directly implicated in corruption allegations, though its parent company (CNPC) and former stakeholder (PetroChina) both have.
Kyaukpyu Port, Burma

EVALUATION: 7 CHALLENGES PRESENT
As part of the China-Myanmar Economic Corridor (CMEC), the two countries agreed to a $10 billion development project for the Kyaukpyu Port and industrial special economic zone (SEZ) in 2016. Work on the project has since been delayed, most recently by the Burmese government’s desire to reduce its cost and scale, as well as over whether its economic benefits outweighed the financial leverage it might give China.\(^{137}\)

**Sovereignty-Eroding? Yes.**
China’s CITIC Group Corp. Ltd. was awarded the contracts for dredging the Kyaukpyu deep-sea port and developing the SEZ in 2016.\(^ {138}\) Port construction and development will be led by CITIC subsidiaries, including China Merchants Port Holdings, China Harbour Engineering Co. Ltd., and Yunnan Construction Engineering Group.\(^ {139}\) CITIC’s ownership stake in the port project will be 70 percent, down from 85 percent initially agreed upon.\(^ {140}\) CITIC’s stake in the SEZ is expected to be 51 percent.\(^ {141}\) Additionally, CITIC owns rights to operate the port for 50 years, with an option to extend the agreement for an additional 25 years.\(^ {142}\)

**Financially Unsustainable? Yes.**
In August 2018, Burma announced that it would scale back the size of the port project from $7.3 billion to $1.3 billion due to cost and debt repayment concerns, roughly equal to the cost of Sri Lanka’s Hambantota Port.\(^ {145}\) At the time of the original cost determination, the deputy finance minister, Set Aung, also stated that Burma would not guarantee any loans and that all financing would come from private sources. Burma’s supposed decision to scale back the project may not be enduring: CITIC has claimed that the $1.3 billion is slated for the “initial phase” of a four-part development process and that it had not agreed to any third-party auditing of the agreement.\(^ {146}\) Moreover, the project remains embedded in the $23 billion CMEC program – an amount equal to one-third of Burma’s GDP, raising the potential for fiscal stress.\(^ {147}\)

**Locally Disengaged? Yes.**
The port project is unlikely to produce significant economic benefits, particularly given that it will compete with the $3.28 billion port of Thilawa south of Yangon financed largely by Japan. Although CITIC has promised to train workers for the industrial park and port, and despite the fact that China has suggested the SEZ will create more than 100,000 jobs with 90 percent of management positions allotted to Burmese citizens by 2025, there is reason for skepticism.\(^ {148}\) No timeline has been announced for opening the industrial park, and the SEZ’s success rests in part on the port’s usage.\(^ {149}\) There are also reasons to doubt that the construction of the port will create jobs. For example, China’s pipeline construction projects in Burma have fallen short of Beijing’s promises, especially since considerable labor was imported.\(^ {150}\)

**Geopolitically Risky? Yes.**
Kyaukpyu Port is a strategic imperative for China that grants Yunnan province direct access to the Indian Ocean and allows Beijing to receive oil imports without relying on the Straits of Malacca.\(^ {151}\) As a deep-sea port, Kyaukpyu would have dual-use capabilities. It would also be positioned directly across from an Indian facility for nuclear submarines and could ultimately expand the PLA Navy’s ability to operate in the Indian Ocean, placing Burma at the center of regional competition between China and the United States and its allies and partners.\(^ {152}\)

**Environmentally Unsustainable? Yes.**
The International Commission of Jurists (ICJ) estimated that more than 20,000 Rakhine residents will be displaced by the SEZ and pointed out that little is known about how much pollution it will generate.\(^ {153}\) In February 2018, the Kyaukpyu SEZ Management Committee (KSMC) announced it would conduct a strategic environmental assessment (SEA) over the next one to two years and delay the execution of environmental and social impact assessments (ESIA). However, CITIC stated it had already been authorized to start the ESIA, adding it would “engage leading international firms joined by local experts to work as a third party.
to independently carry out EIA and SIA” and promised work that “will be openly monitored by the general public.” It is unlikely the SEA will delay the start of construction once CITIC completes the ESIA.

**Corruption-Prone? Yes.**

Burma, ranking 158 of 200 countries, scores “high” on the TRACE Bribery Risk Matrix. Although there has not yet been public evidence of corruption, the hasty bidding process and the absence of public scrutiny for the feasibility studies and MOUs increase the risk of graft.

**Jakarta-Bandung High-Speed Railway, Indonesia**

**EVALUATION: 3 CHALLENGES PRESENT**

The Jakarta-Bandung high-speed rail (HSR) project will connect Indonesia’s capital city of Jakarta to the textile hub of Bandung, reducing the current three hours’ travel time to just over 40 minutes. Beijing poached the HSR project from Japan in 2015. Construction was slated to begin in 2016, but the project has experienced significant cost overruns and delays.

**Sovereignty-Eroding? No.**

After China won the bid for the high-speed rail project, the project was negotiated to be carried out on a business-to-business basis, with Indonesia retaining a 60 percent interest in the joint venture and China retaining 40 percent. The present shareholding arrangement has four Indonesian state-owned enterprises holding a majority of the high-speed rail consortium.

**Nontransparent? Yes.**

Since 2008, Japan had planned to supply Indonesia with its shinkansen bullet trains, but Joko Widodo’s victory in the presidential election of October 2014 dramatically shifted the domestic political landscape in Indonesia. The overall bidding process was opaque. After Widodo invited other countries to submit counterproposals, China quickly submitted an alternative project plan that offered lower costs, a shorter timeline for completion, and a financing scheme that did not require Indonesian government funding or a government guarantee. Ultimately, Jakarta made the decision to award the project to China in a closed-door Cabinet meeting in 2015, heavily influenced by Widodo’s minister of state-owned enterprises, Rini Soemarno, who once noted that “the decision [was] based on the financial, not purely on the technical.” 162

**Financially Unsustainable? Yes.**

The project has suffered from cost overruns, with the price tag rising from $5.5 billion at its inception to more than $5.9 billion. Due to delays in project construction, by July 2017, the Indonesian government considered offering China a majority stake in the project – up to 90 percent from 40 percent – in order to relieve the burden on its state-owned enterprises, but the original stakeholder structure was kept in place. Finally, even when the project is completed, there are concerns about its long-term profitability, as tickets are expected to be priced at a relatively expensive 200,000 rupiahs (or $13.15), as compared with cheaper transportation options, including buses and express trains.

**Locally Disengaged? Insufficient information.**

Beijing initially heralded the project as having the prospect of generating 40,000 jobs a year during construction. Chinese news sources have stated that there are currently more than 2,000 local employees working on the railway, but this number has not been independently verified by the Indonesian government, and these remain far below the hoped-for 40,000. China Railway Corp. (CRC) has claimed that it will continue to train local employees and support Indonesia in developing its corps of high-speed railway professionals, which would provide a significant benefit. Meanwhile, five Indonesian companies have already filed lawsuits – three of which proceeded to court in 2018 – against the railway project in the Karawang District Court in West Java in relation to damage the project has inflicted on their property.
Geopolitically Risky? No.
The HSR project will not compromise Indonesia’s telecommunications security, constrain its ability to partner with other states, or place it at the center of strategic competition between China and other great powers.

Environmentally Unsustainable? Yes.
There were no extensive environmental impact studies conducted in advance of the project’s initiation. Areas along the planned route are already prone to landslides and quakes, which could be exacerbated by the building of long bridges and tunnels associated with the railway. Some Indonesian civil society groups have also contended that Chinese companies are in violation of Indonesia’s Guidelines for Environmental Protection in Foreign Investment and Cooperation, which require that companies “take full into account of the impacts of their development and construction as well as production and operation activities on the social environment,” and “prior to the construction of the project, conduct environmental monitoring and evaluation for the proposed construction site.” In particular, activists have cited concerns that the construction of four proposed stations along the planned railway route will exacerbate air and water pollution.

Corruption-Prone? No.
Indonesia, ranking 92 of 200 countries, scores “moderate” on the TRACE Bribery Risk Matrix. Despite the overall lack of transparency in the bidding process, there have been no publicly confirmed cases of corruption associated with the project.

Luganville Wharf, Vanuatu

EVALUATION: 4 CHALLENGES PRESENT
Over the past decade, China has become deeply involved in Vanuatu. Its infrastructure projects range from upgrading the government’s information technology system to expanding the main airport’s runway to building a national convention center. However, one project has attracted the most international scrutiny: a massive wharf at Vanuatu’s second-largest city, Luganville, potentially capable of docking an aircraft carrier.

Sovereignty-Eroding? No.
Management of the port facilities was handed over to the Vanuatu government after completion of the construction project in August 2017.

Nontransparent? Yes.
The original agreement signed between Vanuatu and China in 2014 to initiate the wharf project was not publicly disclosed. Only in June 2018, when Vanuatu came under pressure from countries concerned about China’s potential military use of the Luganville Wharf, did Vanuatu disclose the details of the agreement that confirmed there was no swap clause that would give China control in the event of debt default.

Financially Unsustainable? Yes.
In recent years, Vanuatu has been assessed as a moderate risk for debt distress because its debt-to-GDP ratio of 30 percent was typical for the region and because Vanuatu stopped taking large loans in 2016 after receiving a warning from the International Monetary Fund. Vanuatu’s debt to China accounts for half of its outstanding obligations, and the loan for the wharf added to the $440 million owed and again increased concern among analysts that Vanuatu could be forced into a Sri Lanka-like “debt-credit swap.” This is especially the case because Vanuatu’s November 2018 loan from China charges 2 percent interest over a 20-year repayment schedule with a no-more-than-seven-year grace period. By comparison, a similar loan from Japan carried an interest rate of 0.55 percent over 40 years with a 10-year grace period. If this loan is structured like an earlier loan Vanuatu received through China’s ExIm Bank for the wharf project, the contract will be entirely subject to Chinese law, with arbitration through the China International
Economic and Trade Arbitration Commission (CIETAC), and the full debt can be called in immediately in the case of nonpayment.  

**Locally Disengaged? Yes.**  
Vanuatu has not significantly benefited from the Luganville Wharf. The Shanghai Construction Group built the wharf, which is more than the local economy requires given existing demand. The Luganville Wharf has failed to become a transport hub for container ships and cruise ships. Traffic from container ships has not increased significantly since the wharf opened, and an official from a local Vanuatu company, the Northern Islands Stevedoring Co. Ltd., has admitted that the cruise ship investment is “just not working out at this point in time.”

**Geopolitically Risky? Yes.**  
Although Vanuatu’s government has stated that it has no interest in providing a military base to any country, experts have assessed the wharf project as having the most potential for dual civil-military use “of all the work the Chinese are doing in the South Pacific.” In fact, the U.S. Coast Guard has already indicated the wharf is deep enough for an American aircraft carrier. A future Chinese military presence in Vanuatu would place the island at the center of military competition pitting Beijing against Washington and Canberra.

**Environmentally Unsustainable?**  
*Insufficient information.* The Vanuatu government did not conduct any publicly accessible environmental impact assessment for the Luganville Wharf development project. Studies conducted by the government of New Zealand have underscored the need for a more in-depth look at how increased vessel transit would impact the Luganville port area, which has historically been vulnerable to cyclone damage.

**Corruption-Prone? No.**  
Vanuatu, ranking 97 of 200 countries, scores “moderate” on the TRACE Bribery Risk Matrix. Transparency remains a concern and was the biggest issue cited by TRACE, but other factors, including press freedom, limit the potential for corruption in the future.
Chinese Infrastructure Projects

A World of Problems

- Coca Codo Sinclair Hydroelectric Dam, Ecuador
- Budapest-Belgrade Railway, Hungary
- Haifa Port, Israel
- Jakarta-Bandung High-Speed Railway, Indonesia
- Luganville Wharf, Vanuatu
- Space Complex, Argentina

Key Issues:
- Erosion of National Sovereignty
- Lack of Transparency
- Un sustainable Financial Burdens
- Disengagement from Local Economic Needs
- Geopolitical Risks
- Negative Environmental Impacts
- Significant Potential for Corruption

Facial Recognition, Zimbabwe

Chinese Infrastructure Projects: A World of Problems
Chinese-Turkmen Gas Pipeline Line D

Tajikistan

Coal Plants

Pakistan

Kyaukpyu Port

Burma

Jakarta-Bandung High-Speed Railway

Indonesia

Luganville Wharf

Vanuatu

Facial Recognition

Zimbabwe

KYAU

EROSION OF NATIONAL SOVEREIGNTY
LACK OF TRANSPARENCY
UNSUSTAINABLE FINANCIAL BURDENS
DISENGAGEMENT FROM LOCAL ECONOMIC NEEDS
GEOPOLITICAL RISKS
NEGATIVE ENVIRONMENTAL IMPACTS
SIGNIFICANT POTENTIAL FOR CORRUPTION
**A BETTER WAY: PORT VILA WHARF, VANUATU**

**Evaluation: No Challenges Present**
Of the 10 Belt and Road cases surveyed, all generated significant challenges for recipient states. Yet other infrastructure investments involving external powers create none of these challenges. The authors applied the same evaluative framework to another project in Vanuatu, the Port Vila Lapetasi International Multi-Purpose Wharf Development Project. Jointly developed by the Japan International Cooperation Agency (JICA), Australia Aid, and the Asian Development Bank, this project was free of the seven challenges that define China’s Belt and Road.

**Sovereignty-Eroding? No.**
There were multiple stakeholders in the project, including JICA, the government of Vanuatu, Australia Aid, and the Asian Development Bank. The majority of the work was run through Vanuatu’s Ministry of Infrastructure and Public Utilities, which then contracted out the project, including to some foreign companies. The port was handed over to Vanuatu on February 23, 2018.

**Nontransparent? No.**
While the majority of contractors were Japanese companies, the Vanuatu Ministry of Infrastructure and Public Utilities and the Ministry of Finance were the executors of the project. All terms of the loan were publicly available on JICA’s website.

**Financially Unsustainable? No.**
Previous feasibility studies had originally estimated the project would cost around $76 million, which ended up being approximately $10 million less than what the project eventually cost. The project began in June 2012, when former Vanuatu Prime Minister Sato Kilman Livtuvanu and Minister of Finance Willie Jimmy signed a Japanese Official Development Assistance (ODA) loan for almost $45 million to build the wharf. The terms of the loan included an annual interest rate of 0.55 percent for the project itself and 0.01 percent for consulting services. It also included a grace period of 10 years, with repayment within 40 years.

**Locally Disengaged? No.**
Port Vila is Vanuatu’s primary port and an economic hub. The project is expected to significantly expand the capacity of the port to handle cargo. According to regular newsletters released by the Vanuatuan government, more than 200 Vanuatu workers were engaged with various construction activities relating to the project.

**Geopolitically Risky? No.**
The wharf has a clear commercial rationale and was officially handed over to the government of Vanuatu.

**Environmentally Unsustainable? No.**
The feasibility study that was done by the Vanuatu Department of Environmental Protection and Conservation prior to construction of the wharf determined that the project had the potential to significantly impact the environment around Port Vila, which caused the project to undertake a supplementary environmental impact assessment (EIA). To mitigate these risks, the supplementary proposed an environmental management and monitoring plan for all operational phases of the project, which concluded that there would be no unacceptable risk of adverse impact if the plan was appropriately implemented. This plan was also assessed to comply with Australia Aid’s criteria for overseas loan projects.

**Corruption-Prone? No.**
Vanuatu, ranking 97 of 200 countries, scores “moderate” on the TRACE Bribery Risk Matrix. There were no reports of corruption associated with this project.
The Belt and Road's Future: Adaptation, Evolution, and the Digital Silk Road

The Belt and Road is facing a significant backlash that is most pronounced in the Indo-Pacific but is also readily apparent in a diverse array of regions. The resistance appears to be most robust in democracies, with several politicians elected in part because of growing public concern over Chinese investments in countries such as Sri Lanka, the Maldives, and Malaysia. Once in office, these politicians often uncover the corrupt practices their predecessors may have engaged in with China’s state-owned enterprises and are forced to cope with the financial or environmental implications of projects that were not necessarily in the public interest.

If the Belt and Road is in part a propaganda effort to project the inevitability of China’s global ascent, the growing international concern over certain high-profile projects seriously risks undermining Beijing’s intended narrative. These obstacles raise an important question: Will China be able to adapt its economic statecraft, or are there major limits to the Belt and Road’s ability to evolve?

With Xi’s personal status deeply intertwined with the Belt and Road’s prospects, and with the effort now embedded in the CCP’s Constitution, abandonment is not politically viable. Instead, on the fifth anniversary of the Belt and Road last year, Xi announced a “new phase” of the program even as he seemed to acknowledge some of its limitations.204 The Belt and Road would remain central to China’s economic statecraft, but Xi encouraged focusing more on “high-quality” investments that are smaller-scale, arguing that the “broad brushstrokes” had been made in the first phase and the second phase would require “fine brushwork” instead. Smaller projects would ostensibly have fewer issues with financial sustainability, local detachment, environmental sustainability, and corruption. In addition, Xi has reiterated that Chinese state-owned enterprises are brand ambassadors for Beijing, and he has called for greater party oversight of the Belt and Road and launched new state institutions – such as the China International Development Cooperation Agency (CIDCA) – that might provide supervision to mitigate the risks of embarrassing scandals related to corruption or environmental impact.

Despite Xi’s suggestion of more limited ambitions, China continues to advance the Belt and Road as a project of global scale. It remains heavily involved in major infrastructure initiatives of all categories – ranging from rail lines that will connect Chinese cities all the way to Singapore to an ambitious project to build a massive Shenzhen-like port city in Tanzania’s town of Bagamoyo. It is possible that Beijing will reduce the volume of projects that it launches in the future, but the sheer size of the existing ones strongly suggests it will be difficult for China to nimbly refocus on smaller and less controversial efforts.

Even if Beijing were to succeed in reorienting the Belt and Road, it is important to note that limited projects can have outsized political, economic, and strategic influence, especially when they involve telecommunications infrastructure. This area is a major focus of Belt and Road’s next phase, and China has exported much of the infrastructure for not only communications but also surveillance and censorship.

Indeed, Chinese telecommunications companies are active in a majority of African markets. Under the auspices of the Belt and Road, many of these companies are laying the foundations for internet connectivity and cellular infrastructure. Chinese firms helped construct the African Union’s headquarters and may have relayed data from those offices back to Beijing for five years undetected. Despite these concerns, a wide variety of countries are continuing to pursue telecommunications cooperation with China, especially in Africa. Huawei helped build Kenya’s communication network and has assisted Kenyan police in installing video surveillance in Nairobi. Zambia is spending $1 billion on Chinese telecommunications, broadcasting, and surveillance technology – including a data center that will house all of Zambia’s government data. When asked whether allowing China to build such a facility might compromise vast amounts of sensitive and personal information, the center’s Zambia general manager responded that “once someone’s built you a home, you change the locks,” a viewpoint that dramatically discounts the ease with which the country’s data can be secured.205 With respect to censorship, some reports suggest technology...
provided by Chinese firms has been used by Zambia to block access to certain websites and to monitor online activity. Zimbabwe, for its part, is importing China's facial recognition system and will likely apply it in ways that will reduce the cost of authoritarianism.

Outside of Africa, Beijing is involved in much of the world's digital infrastructure. With companies such as Huawei and ZTE as its standard-bearers, China is building or operating telecommunications infrastructure in countries as varied as Burma, Kyrgyzstan, Nepal, Bangladesh, Mexico, and Kenya, along with dozens of others. Other Chinese hardware providers, such as Hikvision, are assisting recipient countries with setting up networks of cameras to monitor public spaces in cities.

China's Belt and Road investments have also been accompanied by efforts to externalize the standards that support its domestic model of digital surveillance. In his 19th Party Congress address, Xi called attention to China as an alternative governance model, and China's surveillance apparatus is integral to those efforts. According to Freedom House, China held trainings with representatives from more than 30 countries on new media and information management. Tanzania and Uganda passed restrictive laws on online media, and Zambia is considering adopting certain China-influenced standards on censorship that would seek to limit some forms of freedom of expression to achieve greater social stability. Similarly, Kenya passed the Computer Misuse and Cybercrimes Act, which creates a variety of vague categories for which free speech could be punished that range from creating social “chaos” to publishing false information.

China's digital infrastructure compromises the information security of recipient countries. When these are combined with surveillance and censorship capabilities and the standards and laws to implement them, they can provide a full suite of capabilities that can weaken democracies and strengthen autocracies.

**Conclusion: Evaluating Future Belt and Road Projects**

The first five years of the Belt and Road demonstrate the challenges for recipient states caught up in China’s economic statecraft. To avoid a repetition of the past, it is essential for governments, companies, journalists, and civil society groups in developed and developing countries to have a common framework for evaluating the upside and downside of future infrastructure projects involving China. The framework advanced below is the inverse of the seven challenges outlined earlier in this report. It articulates what countries should expect from China – a type of high-quality and mutually beneficial interaction that deviates significantly from Beijing’s behavior to date. Chinese projects that fulfill all seven of the positive criteria in this framework deserve serious consideration, while projects that fall short warrant close scrutiny.
## A Checklist for Chinese Infrastructure Projects

<table>
<thead>
<tr>
<th>Positive Criteria</th>
<th>Evaluative Questions</th>
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<tr>
<td>Sovereignty-Upholding</td>
<td>Will the recipient country have long-term equity in the project? Will its companies ultimately operate the infrastructure over the long term?</td>
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<tr>
<td>Transparent</td>
<td>Will the project agreement clearly stipulate the companies involved and clarify the organizational structure? Will the terms of the deal and progress of development be made public?</td>
</tr>
<tr>
<td>Financially Sustainable</td>
<td>Will the project impose a manageable repayment burden on the recipient country? Will the project ultimately generate sufficient revenue to cover the costs?</td>
</tr>
<tr>
<td>Locally Engaged</td>
<td>Will the project significantly involve local companies and labor and transfer skills? Will the infrastructure directly benefit the local economy? Are profit-sharing arrangements equitable?</td>
</tr>
<tr>
<td>Geopolitically Prudent</td>
<td>Will the project have a neutral or positive impact on the recipient country’s telecommunications security? Is the project unlikely to generate dual civilian-military use concerns? Will the project have a neutral or positive impact on the country’s relationships with other external powers?</td>
</tr>
<tr>
<td>Environmentally Sustainable</td>
<td>Will the project include an environmental impact study? Will it take into account domestic environmental concerns and have a neutral or positive impact on the local ecosystem?</td>
</tr>
<tr>
<td>Corruption-Resistant</td>
<td>Is the project structured to minimize bribery risk and opportunities for corruption? Are the companies involved highly ranked on measures of transparency?</td>
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5. For example, the Asian Development Bank estimates that “Developing Asia” alone will need to invest $1.7 trillion per year through 2030 “if the region is to maintain its growth momentum, eradicate poverty, and respond to climate change (climate-adjusted estimate).” “Meeting Asia’s Infrastructure Needs” (Asian Development Bank, February 2017), https://www.adb.org/publications/asia-infrastructure-needs.


19. “Xi Jinping: Promoting Belt and Road Cooperation to Deeply Benefit the People [习近平：推动共建‘一带一路’走深走实造福人民].”


43. In some cases, there is insufficient information to make a definitive judgment, leading to the designation “insufficient information.” Where evidence suggests that a Belt and Road project is likely to manifest a particular challenge in the future – though it has yet to emerge – we highlight this evidence but do not classify the project as featuring the challenge at present.


48. Kraul, “Ecuador faces a huge budget deficit because of loans it received from China.”


51. “La grieta de USD 2000 millones de Coca Codo Sinclair [Coca Coda’s ],” Plan V.

52. Kraul, “Ecuador faces a huge budget deficit because of loans it received from China.”


59. “TRACE Bribery Risk Matrix.”


61. Kraul, “Ecuador faces a huge budget deficit because of loans it received from China.”


64. Londoño, “From a Space Station in Argentina, China Expands Its Reach in Latin America.”


66. Londoño, “From a Space Station in Argentina, China Expands Its Reach in Latin America.”

67. Garrison, “China’s military-run space station in Argentina is a ‘black box.”

68. Londoño, “From a Space Station in Argentina, China Expands Its Reach in Latin America.”

69. “TRACE Bribery Risk Matrix.”


75. Spike, “EC Launches Infringement Proceeding.”

76. Joo, “Belgrade – Budapest upgrade moves forward.”

77. Novak, “Hungary kicks off USD 3.6 billion Belgrade-Budapest rail line investment.”


85. “TRACE Bribery Risk Matrix.”


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93. “TRACE Bribery Risk Matrix.”


97. “About SIPG,” Shanghai International Port (Group) Co., Ltd.


99. Yu, “Chinese port operator signs deal to run Israel’s Haifa port.”


103. Cohen, “Ashtrom-Shapir sign Haifa port construction deal.”

104. Cohen, “Ashtrom-Shapir sign Haifa port construction deal.”


108. “TRACE Bribery Risk Matrix.”


110. Shaikh and Tunio, “Pakistan ramps up coal power with Chinese-backed plants.”


120. “TRACE Bribery Risk Matrix.”


125. “Flow of Natural Gas from Central Asia.”


129. “Construction of Tajik section of Turkmenistan-China gas pipeline starts, says Tajik official.”


132. “Tajikistan Resumes Building Turkmenistan-China Pipeline.”


135. “TRACE Bribery Risk Matrix.”


140. Poling, “Kyaukpyu: Connecting China to the Indian Ocean.”


155. “TRACE Bribery Risk Matrix.”


158. Negara and Suryadinata, “Jakarta-Bandung High Speed Rail Project.”


165. Negara and Suryadinata, “Jakarta-Bandung High Speed Rail Project: Little Progress, Many Challenges.”


172. Amy Chew, “Discontent in Indonesia over high-speed rail project.”


175. “TRACE Bribery Risk Matrix.”


178. Wroe, “On the ground in Vanuatu, monuments to China’s growing influence are everywhere.”


186. Wroe, “The great wharf from China, raising eyebrows across the Pacific.”


188. Wroe, “The great wharf from China, raising eyebrows across the Pacific.”

189. Wroe, “The great wharf from China, raising eyebrows across the Pacific.”


199. Prasso et al., “China’s Digital Silk Road Is Looking More Like an Iron Curtain.”


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