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A Report By The China Senior Analyst Group

China's Belt and Road Initiative: Is This The World's Largest Venture Capital Project?

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*(**Editor's note**: This is a report by S&P Global's China Senior Analyst Group. Please see end notes for the names of the group members.)*

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China's Belt and Road Initiative (BRI) surely qualifies as the most ambitious geopolitical plan of the 21st century. Conceived in 2013, it aims at nothing less than connecting--or under some interpretations, reconnecting--the Eurasian supercontinent. This is to be done by land and by sea "Silk Roads," using infrastructure and industry and led, at least initially, by Chinese official financing. Many of the specifics of the BRI remain fluid, but it appears to be a decades-long effort involving dozens of countries and with a cost in the trillions of U.S. dollars.

Can China's "seed money" attract private sector flows?

An undertaking of this magnitude has potentially large payoffs as well as large risks. In this report, S&P Global's China Senior Analyst Group looks at the BRI through the lenses of economic geography, energy security, and project and credit risk. Success will ultimately rest on whether Belt and Road projects can win local hearts and minds in the recipient countries, and whether China's initial "seed money" in the initiative will create creditworthy projects that attract true private sector outside money. Seen in this way, the BRI is arguably the world's largest attempted venture capital project.

Key Takeaways

- China's Belt and Road Initiative is an ambitious plan aimed at connecting the Eurasian supercontinent through land and sea "Silk Roads" using infrastructure and industry projects.
- The drivers of the BRI are China's geopolitical realities (creating a buffer zone/sphere of influence) and security issues (including energy supply).
- S&P Global views the BRI as akin to a venture capital project of the Chinese government, whose broad objectives generate a more favorable risk-return trade-off than other public and private investors.
- Success will depend on whether: (1) recipient countries buy in (BRI wins local hearts and minds), and (2) private sector money eventually comes in (BRI creates credit worthy projects).

Introduction To Belt And Road: Not Quite The Marshall Plan

Chinese President Xi Jinping first introduced the Silk Road Economic Belt concept in a speech in Kazakhstan in September 2013. This is considered to have been the birthdate of the BRI (as it was later to become known). This initial strategic vision was developed further in the ensuing years, converging around regional connectivity and economic integration through the movement of goods, services and information. This culminated with a report by China's National Development and Reform Commission entitled "Vision and Actions on Jointly Building the Silk Road Economic Belt and 21st Century Maritime Silk Road."[1] Given its somewhat fluid definition, there is some debate as to whether the BRI is a new initiative versus a platform on which to group a collection of existing initiatives. Whatever the correct interpretation, the ambition and scale are massive.

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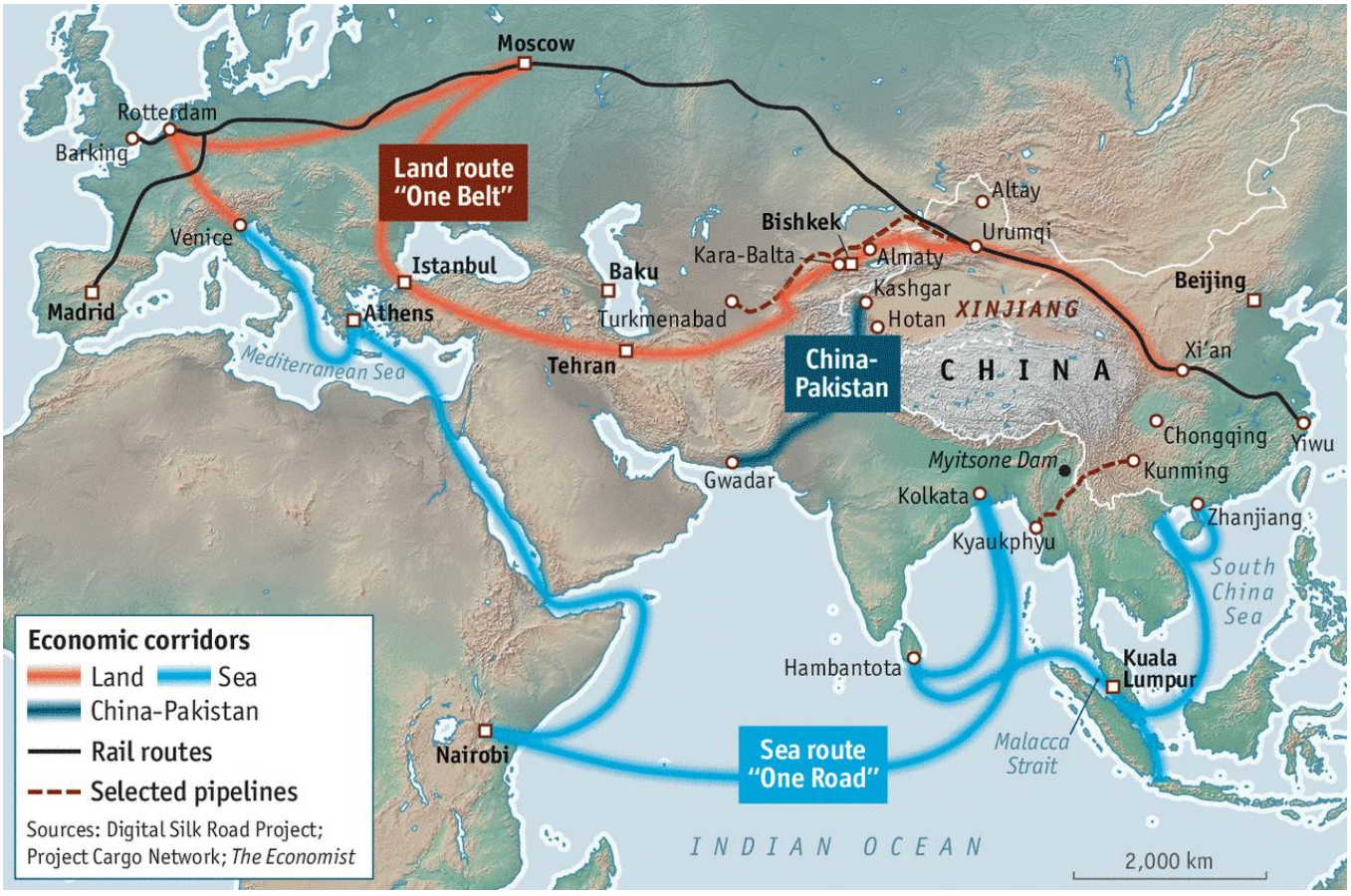
Not surprisingly, comparisons with other ambitious geopolitical projects abound, in particular the Marshall Plan, launched by the United States to rebuild Western Europe after the Second World War. The Marshall Plan was funded by one country at least initially, and was expected to lead to self-sustaining forces of economic development. In this sense, the Marshall Plan can be seen as a success. But one key difference is that the Marshall Plan was designed to rebuild a previously developed and relatively homogenous region that was devastated by war and which had lost considerable wealth. It was also meant to establish a bulwark against westward encroachment by the Soviet Union. The BRI aims at connecting an even larger land mass, with the added challenges of building, rather than rebuilding, the foundations of a modern economy across a collection of countries that have little history of working together, few commonalities in culture, and differing geopolitical aspirations and competing spheres of influence (Russia, India, Iran, Turkey).

A final introductory issue is the "why" question. Why is China undertaking this massive and arguably expensive and risky project when Japan, the Asia power China has supplanted, did not? The answer is that China has decided it wants to have a greater control than Japan in shaping both its economic and security environment. We see this objective as a main driver of the BRI and a key differentiator from the Marshall Plan.

China wants to be a different kind of Asian power than Japan. BRI exemplifies this ambition.

Chart 1

Belt and Road Initiative: Partial Map



Source: Economist.com

Economic Geography And Geopolitics: Defusing Risk On China's Multicultural Borders

We begin our analysis of the Belt and Road Initiative by considering its geography. Once thought to be out of fashion as a discipline, geography has made a huge comeback in recent years[2]. A look at the map above shows why it is so relevant to the BRI.

China is bordered by 17 countries--some of which are undeveloped and not politically stable.

China is bordered by no fewer than 17 countries. (Compare this to the U.S., which is bordered by two, with oceans on its eastern and western sides.) Of particular interest to China are the western borders, which abut Central Asia countries that were once part of the former Soviet Union. These nations tend to be less political and economically stable than China. As such, they are seen as potential sources of risk, particularly in Xinjiang province in China's northwest.

Engaging these countries economically and connecting them to western China through the BRI serves several purposes. One is to improve economic outcomes in these countries to lower the risk of border tensions. This can be seen as creating a buffer zone. Another is to increase China's sphere of influence. This means achieving better political alignment with these countries, in tandem or as a result of infrastructure and investment projects under the BRI. It also means potentially creating a network of countries that use the Chinese currency, Chinese engineering standards, and where China plays a dominant role among competing regional and global powers.

Energy Security: Easing Potential Choke Points

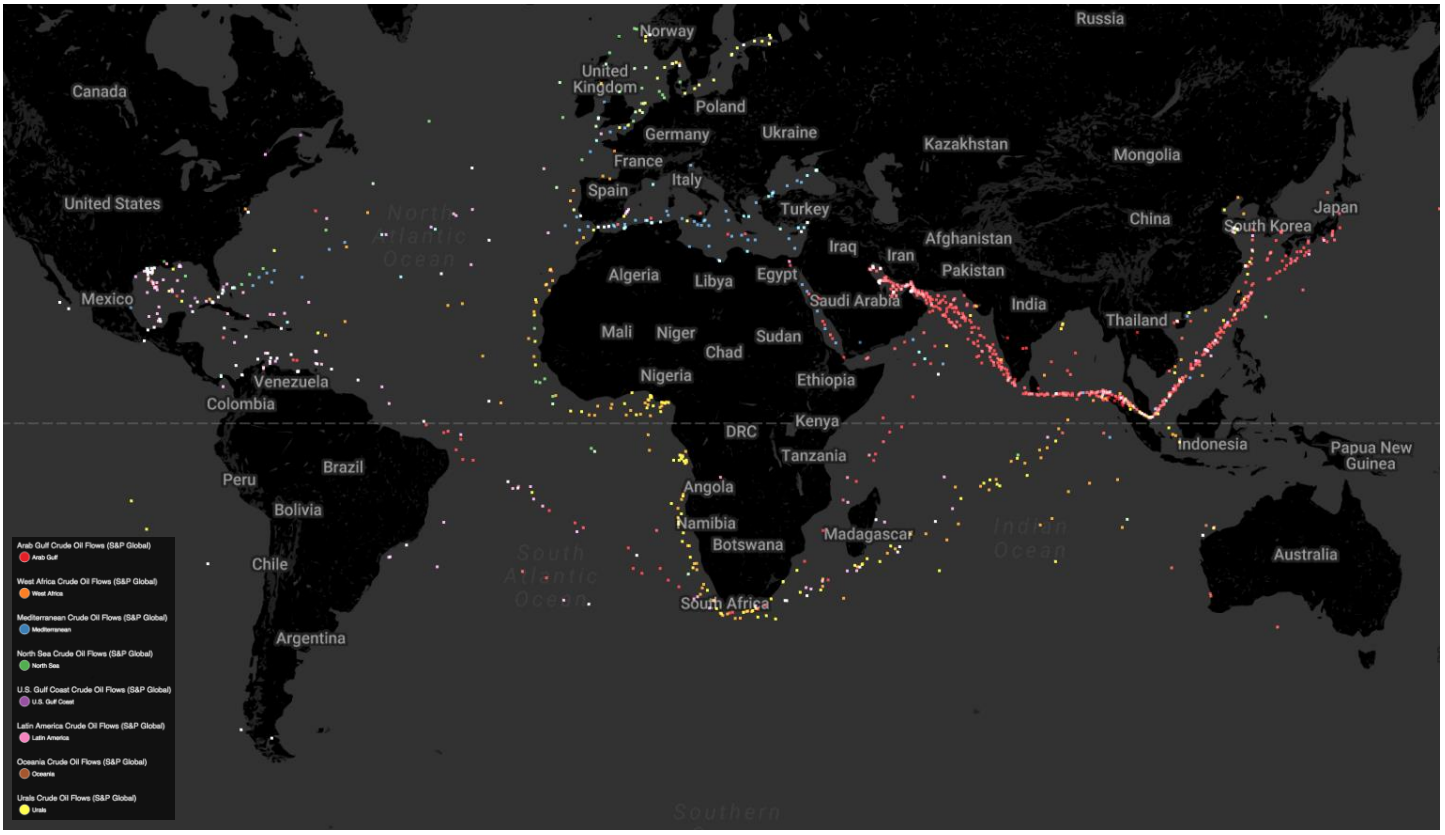
Some 85% of China's oil imports pass through the Straits of Malacca.

A second driver of the BRI calculus is energy security. China's image as a structural trade surplus economy does not apply to energy, where it runs persistent trade deficits. Although China had a current account surplus of 2% of GDP in 2017, the energy trade balance showed a modest deficit. Over time, the energy trade balance deteriorates or improves as global energy prices rise or fall, respectively. But the fact remains that China is an "energy short" country since the energy trade deficit has averaged around 3% of GDP over the past decade. Moreover, China's continued projected fast growth means that energy demand will likely outstrip supply. The vulnerabilities of this recurring deficit factor prominently in the BRI.

One look at S&P Global's Data Wall (see below), will convince the reader of China's longstanding concerns about the vulnerability of its energy supply[3]. Specifically, there is a potential choke point at the Straits of Malacca, roughly where Singapore sits. Around 85% of China's oil imports pass through the Straits of Malacca as well as around 50% of its gas imports, numbers that have remained broadly stable for some time. For geopolitical reasons, this is more of an issue for China than for Japan and South Korea, which face similar potential vulnerabilities and energy trade deficits.

Chart 2

S&P Global Data Wall: Global Crude Oil Flows in 2015



Source: S&P Global Platts Crude Oil Flows 2015.

Several of the early BRI projects directly address China's energy supply issue. The common theme of these projects is that they ensure energy supply while bypassing the Straits of Malacca:

- **China-Pakistan Economic Corridor.** The CPEC is one of the more advanced, and reportedly the biggest, BRI project to date. The corridor involves extensive energy and transport infrastructure projects that will link western China to the port city of Gwadar on the Arabian Sea. Chinese firms are converting Gwadar into a multi-purpose, deep water port.
- **Trans-Myanmar pipelines.** Recently built oil and gas pipelines from the Bay of Bengal cross Myanmar and terminate in the western Chinese city of Kunming in Yunnan province, where considerable refining capacity is reportedly being built. Kunming is also the terminus of an extensive rail network for Southeast Asia, currently in various states of production.
- **Central Asia Gas pipelines.** This pipeline system will upgrade and extend an earlier system build by the Soviet Union. The goal is to (further) tap Turkmenistan's sizeable gas reserves as well as Kazakhstan's sizeable oil reserves. The newest pipeline will pass through Khorgos, along the Kazakh border, where China is currently constructing the world's largest dry port.

In addition to supply diversification, another strategy would be to lessen China's reliance on imported fossil fuels. This, however, strikes us an unrealistic given China's relatively fast growth path and likely continued income and energy usage convergence with the advanced economies. China is moving aggressively to improve energy efficiency and adopt (and in some cases spearhead the technology for) renewables. But it won't come close to meeting the coming

generation's demand. Recent work by S&P Global's China Senior Analyst Group estimated that even if China gets 50% of its energy from renewables in 2050 (from 12% in 2015) and becomes more energy efficient that any OECD country to date (in line with the Chinese government's forecast), fossil fuel demand will still skyrocket. Under the China's own ambitious energy-intensity reduction scenario, oil consumption will almost double from 2015 to 2050, reaching 19.2 million barrels per day. Natural gas consumption will almost quadruple to reach 771 billion cubic meters per day.

Hefty investments in renewables will only temper China's towering demand growth for oil and gas.

An additional twist on the geography of the energy story is the recent emergence of the United States as an energy self-sufficient economy. This should mean less U.S. interest in the Middle East from an energy security point of view and, we would imagine, less proclivity to engage militarily in the region. With the likely reduction in U.S. interest in the region and the rising energy needs of China, we would expect Chinese interest and therefore involvement in the Middle East to grow.

Financing Infrastructure: The BRI As A Venture Capital Scheme

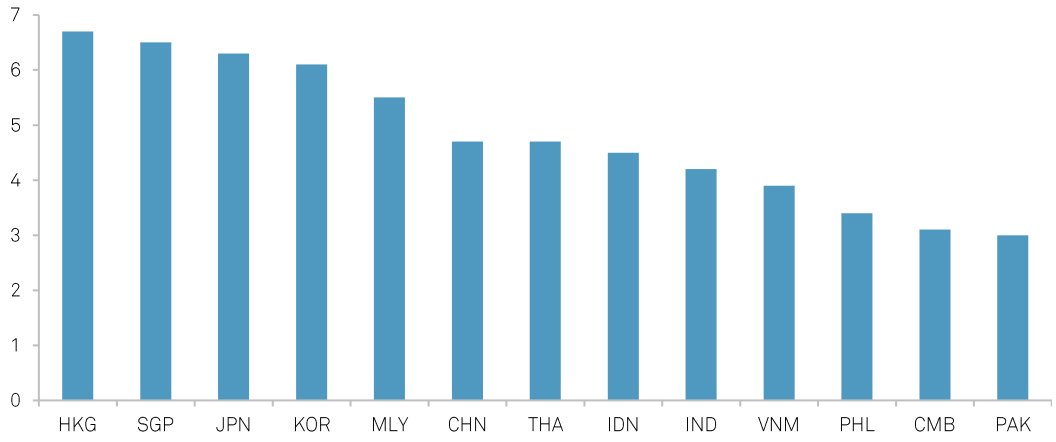
A third driver of the BRI is infrastructure. Getting infrastructure financed and built has been a chronic problem for the Asia Pacific. This is particularly true in Southeast and South Asia (see chart 3). The Asian Development Bank (ADB) now estimates that the region's infrastructure needs will exceed US$22.6 trillion through 2030, in order to maintain sufficient growth momentum. Over half of this will be for power generation and about one-third will be for transport[4]. More importantly, the ADB sees an infrastructure funding gap-- the difference between investment needs and investment levels-- of 5% of GDP in the group of countries excluding China. (China's gap is 1.2% of its GDP).

By all accounts, Asia-Pacific really does need more infrastructure.

Chart 3

Infrastructure Rankings 2017-18

World Economic Forum



Scored Index from 1 (lowest) to 7 (highest). Source: World Economic Forum Global Competitiveness Report 2017-2018, S&P Global.

The funding gap issue is not one of supply and demand. As just noted, there is no shortage of infrastructure demand in the region. Moreover, the potential supply of longer term investors, both regional and global, is ample as well. Pension funds, insurance funds, and sovereign wealth funds all seek long-term assets to match their long-term liabilities. And multilateral development banks including the ADB and the World Bank have deep pockets and broad mandates to fund spending on public goods such as infrastructure.

What is the BRI's risk-return scenario for the Chinese state?

The sticking point has been the risk-return trade-off. Construction risks, political risks (both policies and expropriation), exchange rate risks, commodity price risks, and environmental risks have made creditors hesitant to commit longer-term funds. As a result, infrastructure demand threatens to remain unmet, and investment and growth will correspondingly suffer.

Given the above, why then, does the Chinese government via the BRI, think it can succeed where others have failed, or been unwilling to commit? We see a number of factors that could yield a better risk-return trade-off for China than for other creditors.

- **Trade benefits.** BRI projects will likely make the recipient countries more likely to trade with China (and use the renminbi), bringing economic benefits beyond the project itself. The size of markets for Chinese exports would also increase.
- **Energy security.** BRI projects will result in improved energy security for China as sources are diversified, bringing benefits beyond the narrowly defined output of the project. The energy build out will also help develop and raise incomes in China's poorer, western provinces.
- **Network benefits.** China's sphere of influence across the region will increase as a result of BRI projects as both economic and non-economic ties will increase. This will provide in-network benefits as well as a buffer zone against outside influences.

The trade-offs look pretty favorable; they include forging new markets and improving energy security.

The Chinese government structures these infrastructure projects as long term concessions that allow investors to operate and earn returns on the projects. One common form of such concessions, for example, is build-operate-transfer, or BOT. As the name suggests, once an agreement (concession) is granted by the host government, the projects are built (and financed) mainly with Chinese materials and labor. A Chinese firm then operates the facility, usually for a period of 20 to 30 years, splitting the proceeds with the local counterpart or government. Finally, at the end of the operating lease period, the project is transferred to the host government or entity.

The idea is that the costs of the project including a target rate of return, can by amortized by payments during the lease period. This is the intent; however, it is not assured. Namely, there are a number of risks being taken by the Chinese project companies in the BOT scheme, including political risk (including change, or change of view, of the government), technical or construction risk, market risk (inputs prices, interest and exchange rates) and income risk. Ideally, the outcome is that the cost of the project is amortized and the Chinese project company is able to exit. In a bad outcome, the project company may be holding an illiquid asset in a foreign country.

All told, we view the BRI as similar to a venture capital (VC) fund, but with a twist. The Chinese government is investing seed money to fund infrastructure and industry projects in the target countries. These target countries are the equivalent of early-stage or emerging firms in VC parlance. The objective is to reap returns from these investments, cash out and exit. In a pure VC model the financer would simply cash out and move on to the next emerging frim. But in the BRI model, the Chinese project company would also cash out, but there is a clear expectation of an ongoing relationship between the Chinese government and the recipient country. This may not be codified, but will be a combination of non-monetary factors such as winning the hearts and minds

of the local population on the ground, and monetary factors such as creating through the infrastructure investment significant business opportunities for local businesses and, more importantly, the local government.

The analogy to VC financing highlights the risky nature of such undertakings, especially since they are external to China. One way to alleviate at least some of the political or country risks mentioned above would be to have some participation by the host/recipient countries in funding the projects, for them to have "skin in the game."

What Belt And Road Is Not

BRI is not a vehicle for exporting China's industrial overcapacity.

While the BRI is a complex undertaking featuring multiple objectives, we would stress that a number of objectives often discussed in the financial and popular stress strike us as off the mark. We tackle three main ones here: exporting excess capacity in overinvested sectors on the Mainland, furthering the internationalization of the renminbi, and connecting China with the other side of the Eurasian land mass: Western Europe.

It is no secret that China has, via excess investment, created excess capacity in a number of sectors. These include steel, cement, coal, glass and shipbuilding[5]. An often cited purpose of the BRI is that it will help to both reduce and absorb China's excess capacity in key sectors by "exporting" production to projects across Eurasia. While it is true that some of the products that are over-supplied on the Mainland will be needed under BRI projects, the scales are not commensurate.

Oversupply is also diminishing in China with closures of outdated plants and stricter pollution standards under the supply side reform. Moreover, the ability and cost effectiveness of transporting some of these goods such as cement to the various projects strikes us as problematic.

The BRI has also been cited as a vehicle through which to internationalize the renminbi. We are not convinced, at least as regards the renminbi moving toward being a full-fledged reserve currency. The BRI will surely increase the use of (demand for) the renminbi through the need of recipient countries to pay for some project materials and related services in the Chinese currency, increasing trade with borderland countries using RMB for settlement. However, it will unlikely further its (commercial) internationalization. The latter requires private sector money managers to see the renminbi as freely tradable and convertible, liquid, and a stable store of value. In other words, a currency that provides shelter and security in times of market turbulence. It is difficult to see how this aspect of demand for the renminbi will be bolstered by the BRI even though demand for trade finance and project-related payments will increase.

Nor is it a short cut to Europe, or another way to internationalize the renminbi.

Finally, we do not see the creation of a major trade connector to Western Europe as a primary goal of BRI, although it could become a meaningful alternative with huge investments and coordination over customs across the land routes. Yes, many BRI maps (including the one included earlier in this document), show the span of the BRI reaching all the way across the Eurasian land mass. And rail lines already exist although freight capacity and cost will unlikely match that for maritime transport. However, we see this as misleading. If the objectives for China noted above--producing a political buffer zone, enhancing energy security, and building a regional network of trade--are correct, then it follows that the bulk of the Chinese effort towards the BRI will be focused on their own "near abroad." This is not to say that connectivity with Europe will not be enhanced. Indeed, it already is with rail lines and sea "Silk Roads". But it does mean the connectivity (trade or otherwise) with Western Europe is likely not a top tier goal of BRI.

Success: Also Measured In Soft Power

Given the enormity of the BRI, and its broad ambitions, how do we define success? While there are many possibilities, we focus on two areas: soft power and financial sustainability.

Can China win the hearts and minds of recipient nations? That's key to success.

Soft power success boils down to winning the hearts and minds of the recipient countries. The objective here is to build a network of commercial and political alliances that will serve China's broader geopolitical aims: regional influence and security. Measuring this part of the success equation will be difficult since much of it will be behavioral. What is clear is that building ports, road, bridges and pipelines will be necessary but not sufficient. Local populations will at the very least need to feel like they have some say in the Eurasian integration project and that their national identity is being both respected and preserved. In short, via the BRI they will need to buy into the notion of a Chinese-led but not Chinese-dominated Eurasian bloc.

An early possible model of a China-led regional arrangement with contributions from participating countries would be the Asia Infrastructure Investment Bank (AIIB). But it will take time for AIIB to prove its mandate to serve all countries that have joined this China-led multilateral institution.

Financial success is defined much along the lines of a venture capital fund with participation from host/recipient countries to help mitigate some of the country risks. As noted, the early stages of the BRI will constitute China's seed capital into the Eurasian integration project. As the projects become up and running, Chinese project firms will attempt to amortize their investment under the long-term concessions perhaps in the form of build-operate-transfer (BOT) model. Ultimately, the locals will take control. The key here is whether the project (and its spinoffs) will have long-lasting value to the recipient country, or will just have been seen an extractive exercise (host countries' participation can mitigate this risk). The composition of funding in the latter stages of projects will be important as well. Private sector participation will signal that the BRI has created value in the initial stages, and that the risk-return trade-off has improved to the point of being able to attract private capital.

Attracting private-sector capital would indicate that the BRI project returns are rational.

The BRI will alter the physical map of Eurasia, as well as alter China's economic and political relations with the rest of Eurasia, for decades to come. Whether this colossal effort on the part of the Chinese government is successful will depend not only on the factors noted above, but how the BRI accommodates or challenges the existing regional powers on the Eurasian supercontinent, as well as the current global superpower, the United States. Managing these relationships will not be easy, and this dimension of the BRI challenge should not be underestimated. The cost of tensions is this area could overwhelm gains generated elsewhere under the BRI.

1. See http://en.ndrc.gov.cn/newsrelease/201503/t20150330_669367.html
2. The Revenge of Geography: What the Map Tells Us About Coming Conflicts and the Battle Against Fate, Robert D. Kaplan, New York: Random House, 2012. and The Dawn of Eurasia: On the Trail of the New World Order, Bruno Macaes, UK: Penguin House, 2018.
3. See, from about the 21st minute: https://www.weforum.org/events/world-economic-forum-annual-meeting-2018/sessions/a0Wb000000ANkDUEA1?sf180266679=1
4. BRI spending in 2016 on engineering and procurement construction broadly lined up with these ratios, with 45% spent on power, 34% on transport and 21% on telecommunications.
5. See, for example, the IMF's 2017 staff report on China: file:///C:/Users/user/Downloads/cr17247.pdf

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