

ANALYSIS

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The Belt and Road Initiative—Six Years On

Executive Summary

China's Belt and Road Initiative, announced almost six years ago, puts Asia and emerging markets around the world at an inflection point on their trajectory towards economic development. For many countries, the BRI presents an opportunity to obtain infrastructure financing that they might not otherwise get, and without conditionality such as a requirement for economic reforms. If BRI investments are made wisely, they have the potential to create new growth industries, increase job opportunities, boost productivity and trade, and ultimately, economic growth.

Using the Moody's Analytics Global Macroeconomic Model to estimate the potential impact of BRI-related investments on Southeast Asian countries, we find that the higher the investment level, the greater is the impact on economic growth and productivity. While the specific growth rates vary and are highly dependent on the underlying economic conditions, every country featured in our study would have progressively faster growth rates as the level of BRI funding increases. Indonesia and the Philippines would see the greatest boost to long-term GDP growth, followed closely by Laos and Myanmar.

Notably, debt does rise in all of the countries studied but remains manageable for most countries throughout our forecast period, suggesting concerns about increased debt burdens due to the BRI may be somewhat overblown, assuming efficient project management. We find the largest increase in debt to GDP in the long run to be in Thailand and Vietnam.

Although the benefits of improved infrastructure are not in question, doing so while incurring an unsustainable debt burden can offset such benefits. The local impact of BRI investments can be reduced further at times through poor project administration, which often favors Chinese contractors. Compounded by China's reluctance for transparency about the projects, the viability of BRI projects is increasingly being called into question. Two cases often cited are the Hambantota Port project in Sri Lanka and the China-Pakistan Economic Corridor, which have added to the debt burden of both countries. Thus, Malaysia, among other BRI countries, has renegotiated the terms of certain BRI contracts, indicating growing unease and scrutiny of the initiative.

The second BRI Forum held in April may well mark a turning point for the initiative. To address criticisms aired during the forum, projects in the future will likely involve more local input and greater scrutiny, be less expensive and of higher quality, and increasingly sponsored by multiple agencies. These changes, if implemented, may improve transparency, generate more efficient planning and execution, and include more appropriate risk assessments to future BRI projects.

The Belt and Road Initiative—Six Years On

BY VEASNA KONG, STEVEN G. COCHRANE, BRENDAN MEIGHAN, AND MATTHEW WALSH

In 2013, President Xi Jinping outlined his vision to revive China's cultural and commercial links with Eurasia that were a feature of the ancient Silk Road. He also called for the building of a Maritime Silk Road. Together with the Silk Road Economic Belt, this has collectively come to be known as the Belt and Road Initiative. Few, if any, development plans have captured the imagination quite like the BRI. Some are enthused by its potential benefits, some have doubts about its financial viability, and others question Beijing's motivations for BRI. With the initiative approaching its sixth year, this article discusses some of the challenges faced by the BRI.

This paper is presented in three sections. Section 1 provides a brief history of the BRI and a review of some of the problems that the program has recently faced in its execution. Section 2 uses the

Moody's Analytics Global Macroeconomic Model to estimate the future impacts of BRI on economic growth and on debt burdens in participating Southeast Asian countries. Section 3 provides an overview

of how the BRI may change and improve, based on comments made at the April BRI forum held in Beijing, and what this may mean for both recipient countries and for China itself.

Section 1: Growth and Development of the BRI

History

An official BRI blueprint was issued in March 2015 emphasizing five broad areas of cooperation:

1. Coordinating economic development strategies and policies
2. Infrastructure connectivity
3. Lowering trade barriers and improving investment and trade relations
4. Deepening financial cooperation
5. Strengthening people-to-people links¹

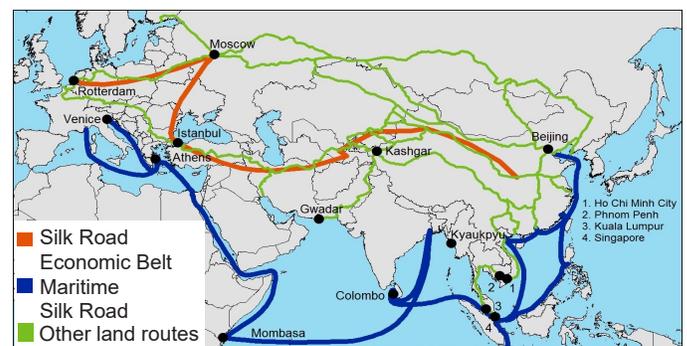
Despite the BRI's breadth, it is the promise of improved infrastructure that has captured the most attention. The idea of a vast rail network to link Asia is not new, but the BRI is the largest development proposal seen in recent times, involving a vast infrastructure development program that promises to link the rest of Asia, Europe, and Africa with China. It combines a myriad of existing and planned infrastructure

projects into the Silk Road Economic Belt, the land-based initiative that links China with central Europe via a railway running through central Asia, and the Maritime Silk Road, which is a sea-based initiative to build infrastructure along maritime routes from China through Southeast Asia, the Middle East, and Europe (see Chart 1). In short, the BRI is a vastly ambitious, ever evolving and broadly defined initiative, with estimates of its scale ranging from US\$1 trillion to US\$8 trillion.

Tracking BRI

Since 2013, BRI investments and construction contracts worth US\$614 billion

Chart 1: Routes Along the Belt & Road



Source: Moody's Analytics

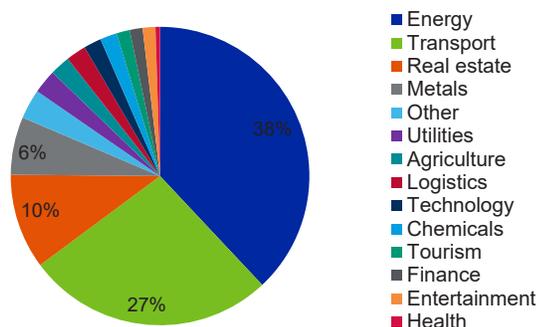
have been made by China, accounting for 53% of the value of all such transactions by China globally from 2013 to 2018, and 61% of the number of such contracts.² Far and away the biggest areas of investment are in

¹ The State Council, The People's Republic of China, last modified March 30, 2015, http://english.gov.cn/archive/publications/2015/03/30/content_281475080249035.htm.

² China Global Investment Tracker, The American Enterprise and Investment Institute, and The Heritage Foundation

Chart 2: Energy & Transport Dominate

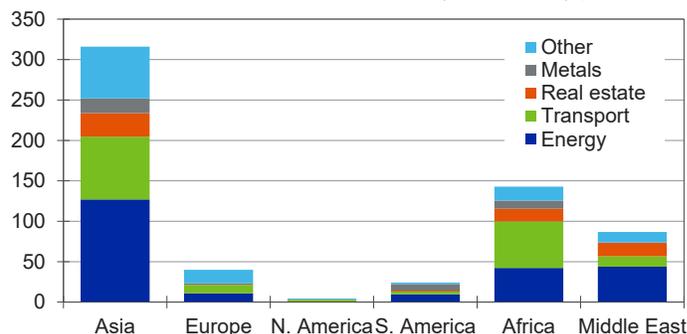
% of total, investment and construction contracts, 2013-2018



Sources: American Enterprise Institute, The Heritage Foundation, Moody's Analytics

Chart 3: Belt & Road Initiative Lifts Asia

BRI investment and construction contracts, 2013-2018, \$ bil



Sources: American Enterprise Institute, The Heritage Foundation, Moody's Analytics

energy and transport, which have accounted for 38% and 27% of BRI investments and construction contracts, respectively (see Chart 2). Real estate (10%) and metals (6%) are the next two largest recipients of investment and construction contracts, with investment elsewhere accounting for a relatively small share.

By region, Asia has attracted the majority of BRI-related investment and construction contracts, receiving just over half of such activity since 2013, with a further 23% received by Africa, and 13% by the Middle East. Within Asia, energy has been the largest beneficiary of BRI spending; the sector accounts for nearly 40% of the total funding in Asia (see Chart 3). At 25%, spending on transport is the second largest component of BRI investment and contracts in the region. Africa is the only region where transportation funding accounts for the largest share of total BRI spending, aside from North America with a fraction of total BRI funds, concentrated in Panama's transport sector. Meanwhile, the Middle East's energy sector boasts the largest share of total regional investment because of the region's wealth of natural resources.

Within Asia³, Southeast Asia has received the majority (46%) of China's BRI investments and construction contracts in the region, equivalent to 24% of all such

BRI activity globally. Pakistan, Malaysia, Singapore, Indonesia and Laos are the top beneficiaries of Chinese BRI activity in Asia. Combined, they have attracted US\$128 billion in investments and contracts, some 40% of the total value in Asia. Notably, Pakistan has received about 6.5% of total BRI spending from 2013 through 2018, the largest for any BRI country. Investments and construction have primarily focused on addressing Pakistan's energy shortage, with the energy industry accounting for nearly 70% of the total value of investment and construction contracts in Pakistan from 2013 to 2018.

The impact so far

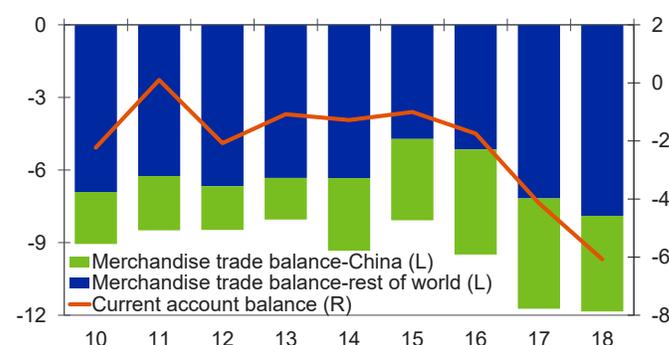
The largest BRI project so far is the China-Pakistan Economic Corridor, which links Kashgar in Xinjiang province with the Port of Gwadar in Pakistan. To date, BRI investments and construction contracts worth almost US\$40 billion have been made in Pakistan, with total spending likely to reach more than US\$60 billion, equivalent to about 20% of nominal GDP. Though investment of this scale promises to help transform the Pakistan economy, it has also exacerbated existing strains in the economy. Indeed, the large increase in im-

ports of materials and capital goods required for BRI projects has added to Pakistan's already-bloated import bill. The current account deficit has widened to more than 6% of GDP from less than 2% in 2016 (see Chart 4). Meanwhile, foreign currency reserves are depleted, the currency has been devalued on multiple occasions since December 2017, inflation is at multiyear highs, and the country just agreed to a US\$6 billion International Monetary Fund bailout, the second for Pakistan since 2013. Pakistan's troubles are not entirely attributable to the BRI, but the added strains from BRI-related projects have not helped.

Under the circumstances, it is not surprising that a number of countries, such as Pakistan, Myanmar, Maldives and Nepal, are reconsidering the terms of their BRI participation. Malaysia Prime Minister Mahathir Mohamad cited worries about sovereignty, as well as unfavourable contract terms and

Chart 4: Pakistan's Widening Deficits

% of GDP



Sources: IMF, Moody's Analytics

³ The American Enterprise Institute and The Heritage Foundation include Russia in their "West Asia" aggregate. Since 2013, Russia has accounted for 8% of China's BRI investment and construction contracts.

debt, as reasons for his decision to suspend work on BRI projects such as the East Coast Rail Link in 2018. The ECRL, which began construction in 2017, is China's most prominent infrastructure project in Malaysia and will link ports on both the west and east coasts of peninsular Malaysia with Thailand's tech and infrastructure developments on its east coast. After renegotiating the

terms, including a 33% reduction of the cost, work on the ECRL has resumed. Fixed capital formation accounted for more than one-quarter of Malaysia's GDP growth in 2017, its largest contribution in four years, aided by the commencement of ECRL construction. But with ECRL construction stalling in 2018, this contribution shrank to less than 10% in 2018.

Of course, it has not all been negative. Cambodia and Laos, for example, run persistent current account deficits, and with BRI-related investment on the rise, strong capital goods imports have kept the deficits high. Yet BRI projects have also helped both economies grow at around 7% per annum in the last few years and will help to lift each economy's productive capacity.

Section 2: BRI's Impacts on Growth and Debt Using the Moody's Analytics Global Model

2a. Estimating the growth impact

Given the opacity of China's BRI initiative and its open-ended timeline, impact analysis of the initiative is a challenge. Still, taking advantage of various estimates of its scale, Moody's Analytics created three scenarios with different funding levels disbursed over a 25-year period (beginning in 2013Q4 and ending in 2038Q4) for all BRI projects. The baseline estimate of total funding is US\$5 trillion, with a downside scenario of US\$2 trillion and an upside scenario of US\$8 trillion. Under each scenario, estimates were applied for increases in fixed investment, government debt, potential productivity and government expenditures to eight Asian countries included in the global model.

The scenarios make the following assumptions:

1. Each country's share of the total BRI expenditure is based on its share of total Chinese trade volume with all BRI countries.
2. BRI funds are disbursed evenly over the extent of the investment forecast period.
3. Disbursed funds are put to use immediately and do not collect interest for the recipient.
4. Prior to the forecast period (beginning in 2019Q3), US\$672.5 billion had already been disbursed.⁴
5. BRI investments have an 80:20 loan-to-equity ratio, meaning that 80% of the

total BRI funding under a specific scenario is disbursed in the form of loans.⁵

6. Although interest rates vary wildly between different loans and the recipient countries, loans are assumed to accrue interest in line with the yield on a 10-year government foreign currency bond (Euro-bond). If no such bond exists, or the yield is unavailable, 6% is used.
7. Debts are amortized over a 20-year period beginning in 2020Q3.
8. Total debt for a particular country is equal to the forecast debt under the global model assumptions, plus BRI debt, plus interest on BRI debt, minus amortization.
9. No direct changes to any other variables in the global model other than government debt, government expenditures, investment and potential productivity.

In addition to these assumptions, two additional matters merit discussion. First, one key factor that Moody's Analytics does not directly modify under the various BRI scenarios is trade. Changes to investment, which flow through the other components of the GDP identity through the global model, do alter the forecasts for net exports. However, the global model does not take into consideration the knock-on effects of infrastructure improvements, which may decrease time to trade, lower trade barriers, and improve import/export regulations, all of which may make a particular country a more attractive

trading partner. Because of this, Moody's Analytics believes that the estimates of imports and exports produced by the global model, even in the upside scenario, may be conservative. Recent research from the World Bank demonstrates that these knock-on effects from infrastructure improvements can increase trade flows in BRI-participating countries by up to 4.1%.⁶

Second, Moody's Analytics modified real potential productivity based on growth in foreign direct investment, which much of the BRI falls under. Research shows that for every 1% increase in FDI, there is a 0.145% increase in productivity growth.⁷ An important caveat with this estimate is that different types of investments affect productivity growth in different ways. Airports and seaports will not have the same effects as highways and railroads. Nevertheless, applying this estimate to BRI investments in all eight of the featured countries shows that productive potential increases, as expected. Improved road and rail transportation, for instance, improves trade flows and reduces travel times. Improved transportation infrastructure helps to connect businesses and consumers, creates new opportunities for workers and firms, and allows labour and capital to be used more

4 According to data from the American Enterprise Institute, from 2013Q4, following the announcement of the BRI, through 2018Q4 \$614 billion had been spent. Moody's Analytics arrives at a larger figure by extrapolating the AEI total over an additional two quarters.

5 John Hurley, Scott Morris, and Gailyn Portelance, "Examining the Debt Implications of the Belt and Road Initiative from a Policy Perspective," Center for Global Development, 2018.

6 Baniya, Rocha, and Ruta, "Trade Effects of the New Silk Road," World Bank Group, January 2019.

7 Moody's Analytics conducted a review of the relevant literature on relationship between foreign direct investment and productivity. For the studies that featured regressions of productivity on FDI and other controls, it took an observations-weighted average of the coefficient on FDI to estimate the relationship between BRI-related investment and real potential productivity.

efficiently. Investment in energy infrastructure, too, helps provide more stable power supply. The positive spillovers go beyond the impact on GDP, such as the improvement to people's well-being from reduced congestion. Overall, improved infrastructure makes it easier for the economy to prosper.

The results of the increased investments under the BRI are clear: The higher the investment level, the higher the economic growth. The specific growth rates vary and are highly dependent on the underlying economic conditions, but every country featured in this study sees progressively higher growth rates as the level of BRI funding increases (see Table 1).

As one would expect, the faster rates of GDP growth are driven directly by higher levels of investments and indirectly through higher private consumption induced from investment, and then maintained by increased productivity growth rates as the improved infrastructure enables more efficient use of capital and labor. However, increased investments also mean higher levels of imported capital goods are needed to build the infrastructure the investments are directed towards. Additionally, higher debt levels result in a rising share of the government's budget directed towards debt service and away from consumption, which drags on GDP growth (see Table 2).

Shifting composition of GDP

The effects of the BRI investment boost play out in a number of ways. As with most of the world, each of the eight countries that Moody's Analytics examined has most of its GDP derived from private consumption. However, the increases in consumption growth over the no-BRI scenario are not all equal. In the baseline BRI scenario, consumption in the Philippines, which is blessed with a large and young population, rises by around 30% above that in the no-BRI scenario over the two-decade forecast period, while in Cambodia, this figure is closer to 20%. Unsurprisingly, the Philippines, which is already a standout in GDP growth, leads the pack with average real GDP growth of 7.2% in the baseline BRI scenario.

Across countries, government consumption rises over the investment period but the

Table 1: Average Annual Real GDP Growth: 2018 to 2038

	No BRI	US\$2 tril	US\$5 tril	US\$8 tril
Cambodia	5.3%	6.1%	6.2%	6.3%
Indonesia	4.6%	5.8%	5.9%	6.0%
Laos	5.4%	6.2%	6.4%	6.7%
Malaysia	3.4%	3.9%	3.9%	4.0%
Myanmar	4.4%	5.3%	5.4%	5.6%
Philippines	6.1%	7.0%	7.2%	7.5%
Thailand	2.2%	2.3%	2.5%	2.6%
Vietnam	5.3%	5.9%	6.0%	6.2%
Avg	4.6%	5.3%	5.4%	5.6%

Source: Moody's Analytics

Table 2: Average Annual Real Potential Productivity Growth: 2018 to 2038

	No BRI	US\$2 tril	US\$5 tril	US\$8 tril
Cambodia	4.1%	5.0%	5.0%	5.1%
Indonesia	3.5%	4.5%	4.6%	4.7%
Laos	3.9%	4.5%	4.8%	5.1%
Malaysia	2.3%	2.9%	3.3%	3.9%
Myanmar	3.6%	4.5%	4.6%	4.8%
Philippines	4.3%	5.2%	5.4%	5.7%
Thailand	2.8%	3.0%	3.2%	3.3%
Vietnam	4.7%	5.6%	5.7%	5.9%
Avg	3.6%	4.4%	4.6%	4.8%

Source: Moody's Analytics

growth generally is in line with top-line real GDP growth. There are some exceptions, however. In Malaysia, which registers the second lowest GDP growth over all three scenarios, government consumption growth rises dramatically over the forecast period. As the most developed of the eight countries in the study, the government can afford to add its own infrastructure projects to take advantage of what the BRI funding has built. Conversely, in Thailand, which has the lowest rate of growth over the forecast period, government consumption grows more slowly than GDP, as high debt levels require increasing government expenditures to be put towards debt service rather than consumption.

Most of the BRI investment is focused on developing energy and transport infrastructure. As a result, most countries see large upticks in imports early in the investment period, as capital goods are shipped in from overseas, while exports grow more evenly as trade rises as more efficient infrastructure comes on line. Laos is a prime example of

this pattern. Under the three BRI scenarios, net exports fall initially and remain below the no-BRI scenario for the first decade. However, improved infrastructure pays off as net exports surpass the no-BRI scenario in the second half of the forecast period.

Vietnam experiences the most impressive export growth, reflecting a fast-developing intermediate goods manufacturing industry. Exports of high-skill and technology intensive manufactures have increased to one-third of all exports, up from 15% in 2010. Over the same period, exports of electronic parts and components have increased more than twelvefold. Vietnam also benefits from its proximity to China, which suggests it could become an important transit country for goods originating from China (see Table 3).

Inflation and labor markets

Under the BRI, CPI growth in most countries in the sample rises above that in the no-BRI scenario, in line with real GDP growth rising compared with the no-BRI scenario.

Table 3: China Trade
2018

	Trade with China, \$ bil	Total trade volume \$ bil	China % of trade
Cambodia	6.0	30.5	19.8
Indonesia	65.0	447.8	14.5
Laos	2.9	13.7	21.4
Malaysia	98.2	468.7	21.0
Myanmar	13.8	32.1	43.0
Philippines	51.6	246.7	20.9
Thailand	81.9	622.7	13.2
Vietnam	123.5	504.8	24.5
Avg	55.4	295.9	22.3

Source: Moody's Analytics

However, in Vietnam, Thailand and the Philippines, CPI growth in the three BRI scenarios falls below the no-BRI scenario. In the case of Thailand and the Philippines, this reflects an appreciating exchange rate against the U.S. dollar, as stronger economic growth and higher interest rates attract capital inflows while unit labor cost pressures moderate as GDP outpaces wage growth. Although Vietnam has a fixed exchange rate with the U.S. dollar, real labor costs also rise slower than the baseline as GDP growth outpaces wages.

Labor markets perform largely as expected in the eight countries. However, although the unemployment rate falls below the no-BRI scenario in each country, the extent of the fall varies by country and the declines are generally more mild than one might expect given the BRI investments. For instance, the decline in the unemployment rate is especially mild in Cambodia and Myanmar. These modest falls are consistent with reports that China often substitutes local labor with imported Chinese workers when building out infrastructure in other countries. A study by the Center for Strategic and International Studies found that 89% of the contractors working on transport infrastructure projects funded by China were Chinese, well above that for multilateral bank projects.⁸

2b. Estimating the debt impact

Although the benefits of improving infrastructure are not in question, doing so

⁸ J. Hillman, "The Belt and Road's Barriers to Participation," Reconnecting Asia, Center for Strategic and International Studies, February 2018.

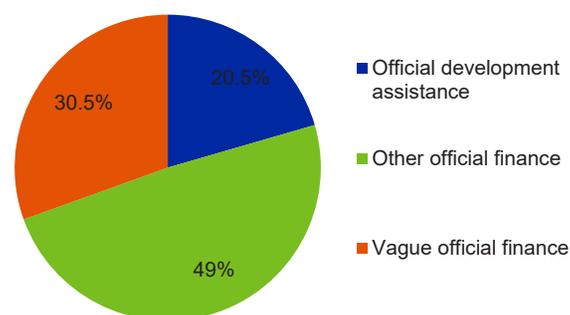
while incurring a rising debt burden can have negative implications for a country. Large debt overhangs could undermine spending on other areas of the economy that are also in need and hurt growth prospects in the process. Instead of benefiting from the infrastructure investments made by China, they could end up trading water in economic development and serving more as a way station for transient goods destined for richer, and perhaps less indebted, countries. This is especially relevant given that participants are overwhelmingly developing economies.

Chinese state-owned enterprises are a key source of funding, and most BRI projects are funded via lending from China's banks, including the policy banks such as the China Development Bank and Export-Import Bank of China. These banks do not disclose the interest rates at which the loans are made, while recipients also keep this information closely guarded. However, AidData, which covers 4,300 projects financed by Beijing from 2000 to 2014, indicates that interest rates for some 40% of loans to BRI countries are above 5%, with 25% of loans at 2% to 5%.⁹ According to Hurley, Morris and Portelance, certain loans to Pakistan from Chinese SOEs are interest-free, while, in the case of some African countries, the interest rates are at commercial levels.¹⁰

⁹ Taylor, Li, Li and Cheung, "BRI report card: deeper linkages, greater caution," Moody's Investor Services, 2019.

¹⁰ John Hurley, Scott Morris, and Gailyn Portelance, "Examining the Debt Implications of the Belt and Road Initiative from a Policy Perspective," Center for Global Development, 2018.

Chart 5: China's Lending to BRI Countries
% of total, cumulative 2000-2014



Sources: AidData, Moody's Analytics

Official development assistance, which has a grant element of at least 25%, has accounted for a relatively small share of China's official financing in BRI countries (see Chart 5). Instead, most financing has been non-concessional with a grant element of less than 25%, known as "other official finance". The remainder of Chinese official overseas financing is classified as "vague official finance" because of insufficient information.¹¹ However, although China's official overseas financing is not generally made on concessional terms, it does come without conditionality such as a requirement for governance reforms, which is a common feature of multilateral loans from institutions such as the World Bank. For some countries, this feature of BRI funding is particularly appealing.

Moody's Analytics calculations demonstrate a complicated relationship between the debt-to-GDP ratio at the beginning of the BRI investment forecast period and the ratio at the end. BRI investment increases debt in absolute terms, but it also increases GDP. Faster GDP growth engenders more trade and investment from abroad, which, while beneficial, can then feed back into a higher debt load. For most countries, debt-to-GDP growth remains manageable throughout the forecast period. In the case of Myanmar, which enters 2019 with moderate debt levels, debt-to-GDP under the BRI is actually

¹¹ William & Mary Global Research Institute, AidData, <https://www.aiddata.org/china-official-finance>

Table 4: Debt-to-GDP Ratios in the \$5 Trillion Scenario

	Debt/GDP, 2018	Debt/GDP in 2028			Debt/GDP in 2038		
		No BRI	Effect from BRI	Total	No BRI	Effect from BRI	Total
Cambodia	29.5%	25.6%	14.0%	38.6%	28.7%	18.5%	47.2%
Indonesia	29.2%	14.8%	-0.1%	14.7%	9.0%	-2.0%	7.0%
Laos	55.9%	36.7%	5.9%	42.6%	29.6%	6.8%	36.5%
Malaysia	51.8%	37.6%	17.6%	55.2%	24.9%	20.0%	44.9%
Myanmar	43.6%	52.6%	-6.8%	45.7%	39.4%	-9.6%	29.8%
Philippines	10.2%	14.1%	6.2%	20.3%	9.8%	7.3%	17.1%
Thailand	41.6%	39.9%	17.3%	57.2%	32.0%	40.0%	72.0%
Vietnam	61.7%	73.0%	7.6%	80.5%	90.9%	-6.5%	84.3%
Avg	40.4%	36.8%	7.6%	44.4%	33.1%	9.3%	42.4%

Source: Moody's Analytics

lower for most of the investment period than the no-BRI debt-to-GDP estimate due to higher GDP levels. Indonesia exhibits a similar trend.

Additionally, compared with 2018 levels, the total debt-to-GDP ratio declines over time in Indonesia, Laos, Malaysia and Myanmar. The ratio increases in Cambodia, the Philippines, Thailand and Vietnam, even though the Philippines' debt-to-GDP ratio remains quite low. The ratio in Vietnam, and particularly in Thailand, raises some concern in the long run. Vietnam ended 2018 with the highest debt-to-GDP ratio in

the Moody's Analytics sample of countries and is projected to remain the highest at the end of the two-decade forecast period. Meanwhile, Thailand ended 2018 with the fifth highest debt-to-GDP ratio among countries in the sample. However, over the next two decades, Thailand's debt-to-GDP ratio is projected to rise about 30 percentage points under the BRI, the most for any country in the sample (see Table 4).

Debt and dependency

While Thailand's debt burden at the end of the forecast period still appears manage-

able, it is notable given that it has an aging population at a time of relatively low economic development. Thailand's working-age population, which already is beginning to shrink, will have to support a rising number of dependents. The implication for this can be serious, as pressure on the tax base increases. As countries allocate more of their budget towards debt service and benefits for the ageing, there remains less money to invest in human capital. This results in a reduction in the country's long-term productivity, which in turn decreases potential GDP growth.

Section 3: Long-Term Prospects for Success

Macro risks

Though the interest rates and repayment timelines vary substantially from project to project for loans and investments under the BRI, what is clear is that any country accepting Chinese economic investment will be increasing its debt load in the long run and subsequent debt service requirements. Moreover, much of the investment in the BRI involves lending to sovereigns, and the fact that Beijing is the main creditor adds an additional layer of complexity. Although a government in good fiscal shape with a growing economy and a relatively low debt burden can make a strong argument for the benefits of BRI investments outweighing the costs, the Chinese government and related SOEs have not discriminated among clients when looking to invest in various infrastructure projects.

Difficulties servicing debt are likely to increase a country's borrowing costs, which in some cases are already unfavourable given that many BRI projects are in countries that carry relatively high risk. This issue is compounded in economies running large current account deficits, as foreign investors could take flight because of doubts about solvency, depreciating currencies, and increasing the local currency value of the external debt burden. In short, the macroeconomic fallout could be severe.

What is in it for participating countries?

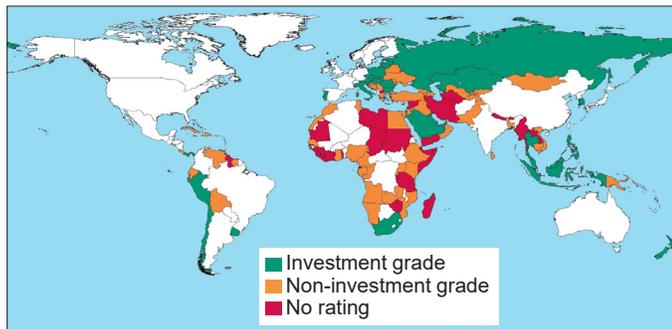
Although there are clearly risks, this is not to say that the BRI is not worth the expense. A cooperative relationship based on infrastructure development would be

economically and geopolitically valuable to both the participant country and China. For instance, the Asian Development Bank estimated that Asia will need US\$1.7 trillion in infrastructure annually to maintain the pace of development.¹² Yet many countries participating in the BRI carry relatively high political, operational and economic risk; of the 130 countries¹³ that have signed BRI cooperation agreements with China, only 25% have an investment grade rating, according to Moody's Investors Service (see Chart 6). Forty-three percent have junk bond status,

¹² Asian Development Bank, "What Infrastructure Does Asia Need, and Why?" 28 February 2017, <https://www.adb.org/news/features/what-infrastructure-does-asia-need-and-why>

¹³ Belt and Road Portal, The State Information Center, China, accessed May 2 2019.

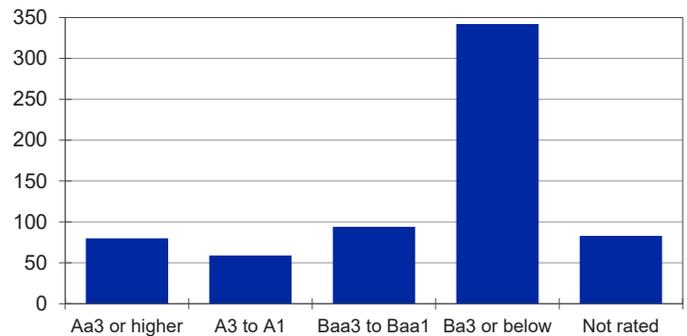
Chart 6: BRI Sovereign Ratings



Sources: MIS, Moody's Analytics

Chart 7: Higher Credit Risk, More Funds

Value of BRI funding by credit rating, \$ bil



Sources: MIS, American Enterprise Institute, The Heritage Foundation, Moody's Analytics

while a further 32% are unrated. For some countries then, the BRI presents an opportunity to obtain infrastructure financing that they might not otherwise get, and without conditionality such as a requirement for structural reforms.

Of the total BRI funding to date, the vast majority is in countries rated Ba3 or below with substantial credit risk (see Chart 7). For example, Pakistan has a B3 negative rating from Moody's Investors Service but has received substantial loans from China. However, Pakistan's external debt-to-GDP ratio has stayed relatively stable from 2005 to 2018, suggesting that China's loans are making up for a lack of funding from other sources. After the 2013 announcement of the BRI, China's share of Pakistani external debt increased noticeably. From 2005 to 2012, China's portion averaged 2.4%, but in the subsequent five years, this increased to 10.2%. The growing share of Chinese financing in Pakistan coincided with declining aid loan and concessional financing. From 2010 to 2015, financing from bilateral aid loans as a share of GDP fell nearly 3 percentage points. Given the high risk to creditors lending to Pakistan, financing from China, despite coming at times with high interest rates, may be the only option for Pakistan.

Beyond access to financing and the lack of conditionality on the loans, there are a number of other likely factors that attract countries to the BRI. For one, the initiative promises to improve links with the world's largest exporting nation while also reducing transport

times and trade costs.¹⁴ Trade flows among participating countries can also increase, with countries that are highly integrated in global value chains likely to experience the largest gains.¹⁵ It may also increase opportunities to sell goods and services to China's huge and growing domestic market, as well as sell upstream goods to the Chinese supply chain. The latter could help to develop local upstream industries linked to regional supply chains, facilitating transfers of technology and Chinese know-how and providing participating economies with an additional source of income. Overall, if the BRI investments are made wisely, they have the potential to create new growth industries, increase job opportunities, boost productivity and trade, and ultimately, lift economic growth.

A "win-win" for all?

Beijing's motivations for the BRI are equally multifaceted. However, at the heart is pressure to maintain stability and address economic and political objectives within China. This includes internationalizing the renminbi and using up overcapacity in heavy industry, a key focus of the government since 2016. The development of inland China is also key. Aside from helping to utilize excess capacity and improve connectivity, developing the western provinces may also help to quell separatist movements in Xinjiang and

Tibet, especially among ethnic minorities that have not reaped the full benefits of China's economic development.

Meanwhile, at the same time as facilitating trade, the BRI will also help China's 'Made in China 2025' initiative, which seeks to move its industry up the value chain by setting regional and global technology standards. Increased linkages to China's economy could provide China with greater say in setting global standards and drive greater acceptance of Chinese goods. Most important, however, BRI will improve China's access to energy and raw materials and help to facilitate the development of low-value-added intermediate goods suppliers. Many participating countries have cheaper production costs, allowing China to focus on manufacturing higher-end, higher-value-added goods. At the same time, the increase in middle-class and affluent consumers in participating countries promises to provide China with valuable growth markets for its higher-end goods. Total trade with BRI countries is already rising as a share of all external trade in China, increasing some 5 percentage points since 2013 (see Chart 8). This is likely to rise further as BRI projects gradually bear fruit, and as trade tensions with the U.S., China's single largest trading partner, prompt some recalibration of supply chains.

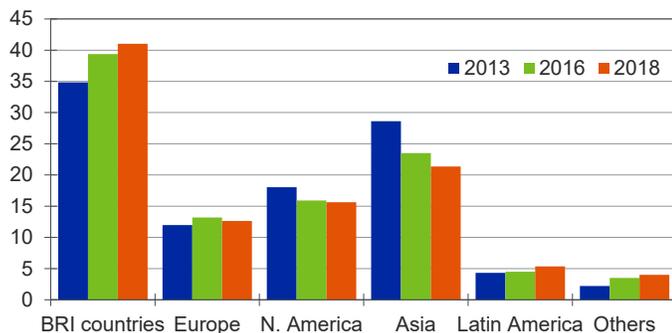
Foreign policy is also part of the equation. One issue that looms large is the perception that Beijing is using the BRI to gain political and economic leverage. This has not gone unnoticed by Beijing, with President Xi stating in 2018 that "China has no geopolitical

¹⁴ De Doyres, Mulabdic, Rocha and Ruta, "How Much will the Belt and Road Initiative Reduce Trade Costs," The World Bank, 2018.

¹⁵ Baniya, Rocha and Ruta, "Trade Effects of the New Silk Road, A Gravity Analysis," The World Bank, 2019.

Chart 8: Trade With BRI Countries Rising

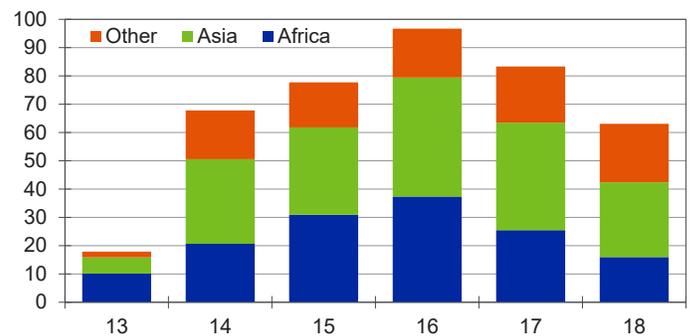
% of Chinese two-way trade



Sources: IMF, Moody's Analytics

Chart 9: New Projects Down Since 2016

Total value of BRI construction contracts by region, \$ bil



Sources: American Enterprise Institute, The Heritage Foundation, Moody's Analytics

calculations, seeks no exclusionary blocks, and imposes no business deals on others.¹⁶ Notwithstanding Xi's assurances, the BRI has geopolitical consequences. For example, by building links to Pakistan, China contains India and also minimizes China's dependence on trade flows via the Straits of Malacca. Furthermore, Beijing's cheque book diplomacy could potentially pull countries closer to its sphere of influence. There is evidence that this may already have paid dividends, with Cambodia—which counts China as its largest source of foreign direct investment—using its voting powers to undermine ASEAN's position on the South China Sea dispute.

The worry for Beijing is that an increasing number of countries are reviewing their BRI agreements, indicating growing unease about the initiative. Since 2016, the total value of new BRI construction contracts has shrunk noticeably (see Chart 9). While this likely reflects increased caution from China, it is also likely to do with rising angst amongst participating countries. A common theme among the recent troubles is that BRI projects are poorly administered under opaque terms that often favor Chinese contractors. In particular, Chinese construction companies are reportedly finding and developing opportunities overseas without a competitive open tender, and thus fueling suspicions of corruption in the form of kick-backs. Compounded by China's reluctance for transparency about the projects, there

are real doubts on the efficiency and effectiveness of the projects and their ability to generate enough of a return to make the investment and debt burden worthwhile.

Is the BRI working for China?

In some ways, the BRI has worked out as planned for China. In particular, land transport from China across central Asia to Europe has improved, allowing direct rail shipping to as far as Germany. Further, via improved port and rail facilities elsewhere, particularly in Africa, China has improved access to resources and markets. Also, the many BRI infrastructure projects funded across the world have brought lucrative contracts to firms from China's heavy industries that might otherwise face diminished domestic demand as the structure of the China economy advances towards services and tech-producing industries. Further, these firms have provided jobs to many construction and engineering workers that, likewise, might face diminished prospects at home as the pace of infrastructure development slows.

The impacts will likely change, however, as the BRI adjusts to changing conditions. To the good, improved planning and financing should lead to greater efficiencies. Projects should be able to be completed more quickly and at lower cost, as is now envisioned by Malaysia's ECRL. China's contractors themselves will be forced to improve productivity if they compete with foreign competitors for leaner contracts. This would be an important positive change for a country that has faced slower productivity growth in recent years.

Also, if indeed funding increasingly comes from a variety of multilateral sources and the BRI focuses more on debt sustainability as mentioned in the communique after the second BRI forum on April 27, then financing practices by China's BRI lending institutions should improve as they more effectively account for country fiscal risk.

But in the future, changes in BRI planning and funding may work to reduce the impact on China. Leaner contracts may mean narrower margins for Chinese contractors and potentially fewer workers hired. Thus, the BRI may be less of a support for heavy industries and their workers in China. Also, as the BRI succeeds in connecting landlocked countries or inland regions to markets and products, other countries, multilateral agencies or private firms will be enticed to enter into planning or bidding for subsequent projects.

What is next?

The second BRI forum, which concluded on April 27, may well mark a turning point. Although the program itself is not in jeopardy, there will be changes to address criticisms that were aired during the forum. Changes in the program will be multifaceted and long term. Projects are likely to be better researched with more transparent cost-benefit analysis. They are also likely to be less expensive and higher quality, and increasingly sponsored by multiple agencies, enabling them to be executed in a much more efficient way. Contracts may not be sole-sourced to Chinese contractors and

¹⁶ "Opportunities, outcomes of BRI to benefit world: Xi," http://www.xinhuanet.com/english/2018-04/10/c_137099836.htm, April 2018.

more local input will likely be sought regarding economic and environmental impacts. In the joint communique issued by the leaders attending the forum, the word quality was used five times to describe future BRI practices. This may simply be political rhetoric, but there are several reasons to expect at least some change.

The first is the criticism that the BRI has faced on several projects regarding inflated cost estimates. The most significant is with regard to the ECRL in Malaysia. High costs and financing arrangements became clear following the change of government in Malaysia's 2018 elections when the true cost to Malaysia of the project as then planned was estimated to be US\$20 billion, versus an official cost estimate of US\$13.4 billion and an original estimate in 2009 of about US\$10 billion. Prior to the second BRI forum, Malaysia and China reached a new agreement for the project, which is now funded at US\$10.7 billion. It was significant that this criticism came from a country that has generally favored investment from China, and that the renegotiations were completed in a rather short time. This will embolden other recipients of BRI funding to critically assess cost proposals before entering into agreements.

A second reason for change is that there is a strong likelihood that funding for BRI projects in the future may not come solely from China and the banking and investment vehicles that it has helped capitalize for this purpose. One factor driving this is most projects are denominated in dollars and contractors prefer to enter into dollar contracts. China has deep dollar reserves, but they are not unlimited and could shrink if China's current account turns negative over a lengthy period.¹⁷ Indeed, during the recent BRI forum, China reached out to multilateral agencies such as the Asian Development Bank and the European Bank for Reconstruction and Development to discuss partnerships to fund BRI projects. And individual leaders have also expressed direct interest in planning and funding infrastructure linkages with China. President Vladimir Putin said at the forum that Russia would like to be more directly engaged in these efforts. However, Russia does not have the same deep pockets as does China. In any case, such partnerships will require greater transparency in planning and financing for projects. And they will require open sourcing of contracts to bidders from any country.

Third, China and the lending institutions that it supports are expected to take

into greater account financial stability of the countries in which they lend. This is in response to criticism that BRI projects such as the Hambantota Port project in Sri Lanka and the China-Pakistan Economic Corridor have saddled both countries with unsustainable debt. While there are many reasons for the high debt levels in both countries, lenders are expected to take greater account of country risk into their risk analysis of project proposals. It is simply not in Beijing's interests to overburden BRI countries with debt, as in the end, this would undermine one of the initiative's overarching objectives to boost trade and improve economic relations with participating countries.

All this suggests that the BRI could progress at a slower pace in coming years. Most attention has been on the risk to participating countries, but perhaps the country faced with the greatest risk is China. The BRI serves as a means for Beijing to display its leadership on the global stage. At the same time, Beijing does not want to be seen as self-serving, and the BRI's success is critical to how China is viewed by the world. But investing in most BRI countries entails a degree of risk, and as some of these risks have come to the fore, it may be increasingly a case of crossing the river by feeling the stones.

¹⁷ This constraint to long-term funding by China is discussed in detail in "China's Belt and Road at Five, A Progress Report," a Citi GPS report, December 2018. https://www.citibank.com/commercialbank/insights/assets/docs/2018/Chinas_Belt_and_road_at_five.pdf

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