China’s Maritime Silk Road Initiative
Economic Drivers and Challenges

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THE ISSUE

- **China’s Maritime Silk Road Initiative** (MSRI) seeks to connect Beijing with trading hubs around the world.
- **Beijing insists the MSRI is economically motivated**, but some observers argue that China is primarily advancing its strategic objectives.
- **This article examines several economic criteria** that should be used when analyzing port projects associated with the MSRI.
China’s leaders have mapped out an ambitious plan, the Maritime Silk Road Initiative (MSRI), to establish three “blue economic passages” that will connect Beijing with economic hubs around the world. It is the maritime dimension of President Xi Jinping’s Belt and Road Initiative (BRI), which could include $1–4 trillion in new roads, railways, ports, and other infrastructure. Within this broad and ever-expanding construct, Chinese investments have been especially active in the Indo-Pacific region, raising questions about whether it is China’s economic or strategic interests that are driving major port investments.

The Indo-Pacific is already central to global commerce and will become even more important in the coming years. Each of the 10 busiest container ports in the world are situated along the shores of either the Pacific or Indian Ocean, and more than half of the world’s maritime trade in petroleum transits the Indian Ocean alone. The ocean’s commercial shipping volume has increased four-fold since 1970, with an estimated 9.84 billion tons of products being transported each year. Exports from Asian economies are expected to rise from 17 percent in 2010 to 28 percent in 2030, further indicating the economic vibrancy of the region.

Continuing this growth will require further reforms and investment. South Asia is the least integrated region in the world, with intraregional trade amounting for less than 5 percent of the region’s total trade. Standing in the way of further integration are “soft” infrastructure challenges, such as customs and trade barriers, as well as hard infrastructure challenges. The World Bank has estimated that between $1.7 trillion and $2.5 trillion needs to be invested in South Asia to close its infrastructure gap. As a result of these challenges, it is more than twice as expensive to export or import a container in South Asia than it is in East Asia.

Beijing insists the MSRI is intended to increase global integration and boost growth, but some analysts question China’s motivations, particularly those behind its investments in ports. During the first half of 2017 alone, Chinese companies announced plans to buy or invest in nine overseas ports, five of which are in the Indian Ocean. Those critical of the MSRI typically argue that while some economic factors may be at play, these investments are driven primarily by strategic objectives. At the heart of this critique is a concern that China will use ports associated with the MSRI to service military assets deployed to the region in support of China’s growing security interests. These concerns have focused on several port projects, including those in Gwadar, Pakistan; Hambantota, Sri Lanka; and Kyaukpyu, Myanmar.

One way to begin testing these competing narratives is to explore the economic viability of new port construction projects associated with the MSRI. To be sure, many of the same attributes that make a port commercially competitive can also increase its strategic utility. For example, deep water ports can accommodate larger commercial vessels as well as larger military ships. It is also true that ports with weak economic fundamentals are not necessarily strategic plays. Political incentives can also motivate the funding of questionable infrastructure projects. With few exceptions, however, these projects have been advertised by Beijing and recipient countries as economic opportunities. Examining the economic merits is a practical first step in assessing the motivations of the MSRI.

This article outlines three economic criteria that should be used when analyzing port projects associated with the MSRI: (1) proximity to major shipping lanes; (2) proximity to existing ports; and (3) hinterland connectivity. While far from exhaustive, these initial criteria are intended to lay the groundwork for more detailed assessments of individual port projects. The following sections explore these factors with reference to the three port projects (Gwadar, Hambantota, and Kyaukpyu) mentioned above.

**PROXIMITY TO SHIPPING LANES**

One of the most important—and perhaps the most obvious—determinants of a port’s economic viability is its geographic location. Major ports are typically situated near busy shipping routes and benefit from topographical features such as deep channels or natural harbors. Sri Lanka, for instance, is strategically situated along the Europe-Asia trade route, which has contributed to Colombo Port’s status as the 25th busiest container port in the world.
In Sri Lanka’s Southern Province, a port at Hambantota is only 10–15 kilometers from the Europe-Asia trade route. Advocates for the port, which Chinese firms now operate, point out that it is even closer to those ship lanes than Colombo Port, which sits on Sri Lanka’s western coast. Given the volume of trade that travels along this maritime corridor—estimated to be 23.1 million twenty-foot equivalent units (TEUs) in 2017 and expected to grow in the coming years—they argue that Hambantota can succeed by capturing just a fraction of this traffic.

Gwadar’s proximity to shipping routes is less optimal than it appears at first glance. It is located at the mouth of the Gulf of Oman, a vital maritime passageway for tankers carrying petroleum from the Arabian Peninsula to the energy-hungry countries of East Asia. More than half of the 7.6 million barrels of crude oil that China imports each day come from countries along the Persian Gulf.

Global Shipping Routes
Photo: B.S. Halpern (T. Hengl; D. Groll) / Wikimedia Commons

Gwadar includes high-speed rail and road networks that could carry oil from ships arriving at Gwadar to Western China. This would reduce the total distance that oil would travel from the Persian Gulf to China, but increase transportation costs while incurring other risks, namely those associated with traveling through restive western Pakistan. At present, much of this supporting infrastructure is yet to be developed, as the final section of this article explains.

**PROXIMITY TO EXISTING PORT(S)**
Given that most maritime traffic follows well-established routes designed to reduce shipping times, and thus costs, it comes as little surprise that some of the construction projects associated with the MSRI lie close to existing ports. In general terms, the construction of a new port close to an established port makes economic sense if the established port cannot satisfy demand. In practice, assessing these factors is more challenging. Colombo Port, for instance, operates predominately as a transshipment port that services the Indian subcontinent, and has witnessed its throughput—measured in millions of TEU of containerized cargo—increase from 4.9 million TEUs in 2014 to 6.2 million TEUs in 2017. But with a reported capacity of 7.1 million TEUs and plans to further expand its capacity, Colombo is well-positioned to handle future growth in maritime trade.

If Colombo continues to expand its capacity to meet demands, Hambantota may struggle to attract shipping traffic well into the future. According to Sri Lanka’s Ministry of Shipping and Ports, only 183 ships arrived at Hambantota in 2017, down from 281 ships in 2016—far less than the nearly 4,500 that annually visit Colombo. Most of the ships (40 percent) that did visit Hambantota over this period were vehicle container vessels, a result of the Sri Lanka Port Authority’s decision in 2012 to route vehicle carriers to Hambantota.

The case for Kyaukpyu is comparatively stronger. Some 200 nautical miles north of Kyaukpyu on the coastline of the Bay of Bengal is the much-maligned Port of Chittagong. For years, reports have indicated that Chittagong is congested and inefficient, with throughput in 2017 double that of the port’s designed capacity. Kyaukpyu could serve to alleviate this pressure, especially for vessels traveling between the Indian Ocean and the South China Sea. In 2017, over two-thirds of the port
calls made at Chittagong by container ships and bulk carriers were conducted by vessels traveling (in either direction) between Colombo and ports along the Malacca/Singapore Straits.  

HINTERLAND CONNECTIVITY

The commercial success of all three port projects hinges on improving their connectivity to the “hinterland” (areas located further inland). The specific requirements of this connectivity depend on the services that each port aims to provide. For example, connectivity requirements are lower for ports specializing in transshipment, which involves moving cargo between ships rather than transporting it along overland routes. Nonetheless, all three ports aspire to be more than just transshipment hubs.

At Gwadar, port facilities have advanced faster than the area’s supporting infrastructure. The port recently received its first container ship, but the lack of adequate transport connections—particularly roads and rail—between Gwadar and the more developed areas of Pakistan hamper the port’s operations. An uptick in shipping traffic at Gwadar, particularly cargo destined for locations elsewhere in Pakistan, would result in serious delays due to the area’s limited connectivity. Importantly, connectivity isn’t just limited to transportation. Ample water and power supplies are also critical. Reports also indicate a shortage of basic services at Gwadar, including potable water.

Much like Gwadar, Hambantota’s port is relatively isolated from Sri Lanka’s more developed areas. According to one optimistic projection, traffic leaving the port could surge from under 1,000 vehicles a year to nearly 25,000 vehicles by 2040. Much of that traffic would be destined for areas closer to Colombo. To service this growth, Sri Lanka’s road and rail networks would need to be considerably upgraded and expanded. Some of these supporting projects are underway.

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The success of Kyaukpyu could also depend on the development of the China-Myanmar Economic corridor. The proposed multiphase project is designed to promote interstate connectivity between areas in southwest China and Myanmar. These connections, including oil and gas pipelines, could also help to expedite trade from Europe and the Middle East to inland China by allowing it to enter the continent at Kyaukpyu rather than at Chinese ports in the South China Sea, where goods must travel overland for hundreds of miles before reaching inland provinces like Yunnan.

To be sure, connectivity gaps are not limited to Chinese port investments. Chabahar Port in Iran faces similar challenges, particularly its isolation from Iran’s railway network. State-backed companies in India have recently announced investments aimed at addressing this shortcoming.

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POLITICAL CURRENTS AND CHANGING TIDE

These cases highlight how the domestic political incentives for port construction do not always align with the economic merits. Hambantota, Gwadar, and Kyaukpyu are all advertised as engines of development for historically underdeveloped areas. As rural locations, they are less connected to broader transportation networks. In other words, the appeal of building a “game-changing” port in an undeveloped area almost always brings with it broader connectivity challenges, most of which are not captured in the cost of the port itself.

Sometimes better investments do not offer as many political benefits. Improving an existing port’s operations is often a cost-effective way to increase trade competitiveness, but technical and management enhancements do not generate the same excitement as ribbon-cutting and ground-breaking ceremonies. The duration of many infrastructure projects also magnifies the political incentives for starting projects. Successful projects can take years to complete and even longer before they become profitable. As such, officials who reap the political benefits of the new projects are often unaccountable for the project’s long-term performance.

Maritime trade is a fluid business. Shipping lanes are slow to change, but they are not immune to revision. As the Arctic warms, for example, northern sea lanes are remaining open for longer each year. There are also ambitious plans, like the Kra Canal, that could impact future shipping lanes, albeit not as dramatically as the Suez and Panama Canals did in the past. Individual ports may rise and fall, based not only on their location but also on their ability to compete and provide services. As the new ports examined in this article mature, they will need to overcome connectivity and services challenges or they will remain constrained. Further research is needed, not only to better understand each port’s characteristics, but also their related connectivity projects.

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ENDNOTES

1. The MSRI was originally announced in 2013. A document released in 2017 elaborated on the MSRI concept and outlined three “blue economic passages.”
2. Based on authors’ calculations using automatic identification system (AIS) data.
3. Services is another area of interest that warrants further analyses.