

Eurasia Group Global Trends Quarterly



Shifting Trade Patterns Mean New Opportunities for Port Infrastructure

Executive summary

As world trade and economic growth in developing countries boomed over the past decade, global port infrastructure was strained. As a result, governments around the world are now looking to alleviate bottlenecks. In addition, growing demand for commodities from Asia—particularly, China and India—has altered global trade patterns, boosting demand for a new class of mega-ships and therefore bigger ports. The global economic slowdown has had a mixed impact on public support for port investments. While large public works projects are attractive as economic stimulus measures, their hefty price tags have caused some governments to hesitate before disbursing funds. Some OECD countries are stalling on investment because of heightened sensitivity to ballooning budget deficits. Persistent infrastructure bottlenecks will pose challenges for companies that ship products via ports and could drive up global commodities prices if major exporting countries experience shipping delays. At the same time, plans for upgrades to and construction of new ports will create considerable opportunities for shipping and logistics companies.

Overview

The surge in world trade over the past decade—in conjunction with rapidly growing economies in the developing world—drove up demand for maritime shipments of goods and the infrastructure to support such shipments. Investment in global port infrastructure has generally lagged demand, leading to congestion and delays at a number of major ports. In order to address this, and given the benefits of large public works projects for economic recovery and job creation, governments worldwide in the past few years have supported port expansion projects. The rise in seaborne trade and the pursuit of economies of scale have also led to the production of ever larger ships and tankers, which in turn requires upgrades to existing port infrastructure. Meanwhile, the global economic slowdown and concurrent spike in economic activity in China and India have shifted global trade flows, increasing demand for port infrastructure in new locations. The growth in the commodities trade destined for Asia has had a particularly dramatic effect on demand for port infrastructure. In fact, bottlenecks at major ports can drive up global commodities prices.

The economic slowdown has weakened political appetites for deficit spending, however, which could stall some new infrastructure investment—particularly in ports that are not tied to the lucrative natural resources trade. Although existing port congestion will create challenges for companies that use ports to ship their products, investments in port infrastructure will create numerous opportunities for companies in the shipping and infrastructure sectors.

Analysis

Container traffic

Kuwait

Due to overcrowding at Kuwait's two existing ports, the government has for some time planned to build a third. In July, the Ministry of Public Works signed a \$1.2 billion contract with a consortium led by Kuwait's Kharafi Group and South Korea's Hyundai for the construction. The three-and-a-half-year project will feature 60 berths and a rail link connecting Boubyan Island to other Gulf Cooperation Council countries and to Basra, Iraq's main port. Boubyan Island is the part of Kuwait closest to Iraq's entry ports; the decision to build there indicates that Kuwait is thinking about its future as a logistics hub for materials going in and out of Iraq. Iraq has responded positively:

Its Ministry of Oil recently indicated a desire to open the country's border with Kuwait in order to import the heavy equipment and supplies necessary to service reconstruction efforts and develop Iraq's southern oil fields.

Politics still limit the Kuwait-Iraq relationship, however. Trade and economic cooperation between the two countries is hampered by Kuwait's persistent resentment of Iraq's 1991 invasion. Moreover, Iraq has still not complied with several of the UN resolutions that followed that invasion. Recently, Baghdad signaled its interest in taking steps—such as accounting for missing Kuwaiti citizens, recognizing the border, and establishing a plan to repay Kuwait the \$26 billion Iraq owes in reparations—to resolve the dispute. All parties involved seem to recognize the benefits that an improved relationship would bring, but near-term movement on this issue will hinge on the competence of the next Iraqi government, which remains in question. Parliamentary disputes on the Kuwaiti side could also set back progress on the port project.

United Kingdom

The UK government's strong push for low-carbon energy has fueled demand for expanded port infrastructure in order to accommodate shipments of massive offshore wind components. In addition to an existing carbon price as part of the EU emissions trading scheme, the government has set a 2020 renewable energy target of 15% and is considering implementing a carbon price floor to spur the development of non-fossil fuel power generation sources. Given the UK's renewable resource endowment, wind power, including offshore wind, will play a major role in the country's clean energy future, and the David Cameron government (like the Gordon Brown government before it) has made the development of offshore wind power an energy policy priority.

The UK is coming up against the hard realities of budget austerity measures, however, which conflict with support for renewables. The Cameron government has committed to 25% budget cuts in all government departments (aside from defense and foreign aid), including the Department of Energy and Climate Change. The future of £60 million (\$94 million) in funding for port upgrades is therefore in question while the government conducts its spending review. The purpose of the infrastructure funds was to expand port capacity to accommodate larger vessels that could carry

bigger wind turbines and other components for massive offshore wind farms. The UK wind industry considers the funds vital to proceeding with investments in offshore projects. The ports that would likely be affected include Pembroke, Swansea, and Port Talbot—near the Bristol Channel wind farm zone. Given the importance of making Britain a global leader in offshore wind technology and manufacturing, the financing for port upgrades will likely be forthcoming, even if austerity measures delay its disbursement.

US

Severe congestion at the Los Angeles port—due to the phenomenal rise of import traffic from Asia to the US—prompted a major undertaking to expand the Panama Canal, enabling importers to bypass the west coast and service east coast and interior markets in the US. The expansion, which was approved in 2006 and is expected to be completed by 2014, will double the canal’s current capacity and lead to major upgrades of port infrastructure along the east coast. The ports most likely to be affected include Norfolk, Savannah, and Charleston, which serve as interstate retail distribution centers.

In response to the surge in global trade, shipbuilders have begun constructing larger and larger ships that can accommodate more containers and take advantage of economies of scale. Although some east coast ports in the US (such as Charleston and Savannah) have the capacity to receive post-Panamax-sized vessels, others will have to

invest in additional capacity. Even in ports that can accommodate large ships, upgrades to deepen the harbor will be needed. In addition, congestion on rail and road transits to these ports could create bottlenecks, limiting the growth of trade.

In response, state and local governments from Tampa to Charleston and Baltimore are urging the federal government to fund port upgrades. The competition for funds and could expedite investments. Ongoing disbursements from last year’s stimulus package and the new drive from President Barack Obama for an infrastructure stimulus package will also boost the likelihood that port financing needs will be met, but new funding could be limited by an increasingly deficit-conscious Congress.

Dry bulk cargo

India

India’s highly ambitious growth program for domestic coal-fired power generation has lent renewed urgency to calls for upgraded port infrastructure to meet an expected surge in coal imports. India intends to bring around 15 gigawatts (GW) of new power generation capacity on line this fiscal year and hopes to add an additional 18 GW next year. Coal imports currently amount to 70 million metric tons (mmt) and could rise to as much as 200 mmt by 2015. The setback of India’s nuclear build out, due to

Global port infrastructure: Drivers and challenges

Country/region	Cargo type	Drivers for port infrastructure	Challenges
Kuwait	Container	Development of Iraqi oil fields	Strained Iraq-Kuwait relations; Kuwaiti parliamentary hold-ups; uncertain Iraqi government competence
UK	Container	Development of offshore wind energy industry	Government budget cuts
US	Container	Panama Canal expansion	Congressional attention to budget deficits could limit federal funding
India	Dry bulk	Surging coal demand tied to power generation build-out	Spotty progress on interstate infrastructure projects to reach inland markets
Southern Africa	Dry bulk	Surging coal demand in Asia, particularly India	Rail bottlenecks; early-stage projects; corruption
Brazil	Dry bulk	Growth in commodities exports; booming trade with China	Inadequate road and rail infrastructure; red tape
Iraq	Liquids	Oil exports	Unstable government; security concerns
Angola	Liquids	Oil exports	Chinese oil-for-infrastructure deals

Source: Eurasia Group

the country's onerous new liability laws, could mean additional growth in coal-fired power generation. And India's coal industry leaders have spurred media reports in recent months with their efforts to secure overseas mining assets, portending a rise in imports. Domestic mining regulations and the ongoing hurdles facing interstate rail and transmission projects will further boost demand for coal imports.

India's port infrastructure is insufficient to accommodate the expected increase in coal imports, however. In particular, Indian ports cannot currently handle vessels larger than Panamax size. In response, the Indian port industry has seen an influx of investment into a number of expansion projects. The Indian coal group Adani's west coast port of Mundra in Gujarat will be capable of importing 60 mmt of coal by 2012. On the east coast, the Capesize ports of Krishnapatnam (60 mmt) and Gangavaram (35 mmt) in Andhra Pradesh and Dhamra (83 mmt when construction is complete) in Orissa are scheduled to come on line in coming years. Other ports, such as Karaikal in Tamil Nadu and Visakhapatnam in Andhra Pradesh are also being expanded in order to receive Capesize ships.

Nevertheless, while demand growth near the coasts can be met by imports, shipping coal by rail or sending coal-fired electricity to India's interior regions via transmission lines is another story. The country will continue to struggle to link interstate infrastructure projects to ports. As a result, excess coal supply could develop at coastal centers. In this case, east and west coast ports will likely compete, navigating complex interstate politics in order to meet interior demand and find secure offtakers for import capacity.

Southern Africa

Given growing coal demand from Asia, particularly India, southern African countries have been attempting to ramp up export capacity. While the region's largest producer, South Africa, already boosted export capacity at Richards Bay Coal Terminal, rail capacity from mines to the terminal remains well below the port's export capacity. Although plans are underway to boost capacity on the rail lines serving Richards Bay by 2014 or 2015, the poor fiscal position of the state-owned rail operator, Transnet, means that these plans are likely to fall short of expectations. Labor strikes at South Africa's mines also increase the likelihood that the country will struggle to fill the full capacity at Richards Bay.

Other countries in the region are hoping to take advantage of growing Asian coal demand in light of South Africa's

expected inability to meet it. Coal and infrastructure companies in both Botswana and Mozambique plan to invest heavily to increase the export capacity of their coal mines. Mozambique is slightly ahead of Botswana in constructing the necessary infrastructure. The Mozambican port of Maputo is currently undertaking a major expansion, led by Dubai Ports World, to accommodate larger ships, with a goal of reaching 16 to 25 million tons of export capacity a year by 2013. Mozambique's northern coalfields in the Tete province are looking to export via northern rail and port infrastructure. The first step was to begin upgrading the Beira corridor (the rail line first resumed operations last year), while Nacala port is a longer-term project.

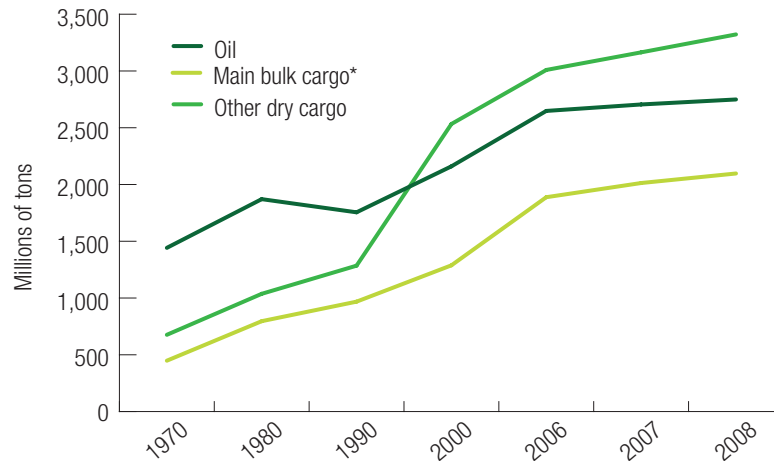
In landlocked Botswana, Canada's CIC Energy and the Trans Africa Rail consortium plan on building a 1,500-km trans-Kalahari rail line to transport coal westward to a yet-to-be upgraded Namibian port capable of handling Capesize vessels. The World Bank has funded a feasibility study on the rail and port project, and the companies expect the estimated \$5 billion project to be completed by 2016. If this project does not take off, however, Botswana's coal producers are eyeing export capacity at Maputo.

Brazil

Brazil's booming commodities export industries are also hampered by insufficient port capacity, but private investment and planned government reforms could help alleviate some bottlenecks. At Brazil's main port for international trade routes—the Santos port in Sao Paulo state—upgrades in recent years have not alleviated the congestion and delays that are stifling commodities exports, particularly during the harvest season. This summer, heavy rainfall in Sao Paulo state led to delays at Santos, slowing shipments and driving up global sugar prices. Over the longer term, strong economic growth in Asia will mean accelerating demand for Brazilian commodities, so Brazil's port capacity will have to grow even more.

In the most telling sign of surging Chinese demand, the Brazilian logistics giant LLX Logistica SA is currently constructing what will be Brazil's largest port, at Acu, in Rio de Janeiro state. The port—which is slated to open in 2012 and will be capable of receiving the world's biggest Chinamax vessels—has been dubbed the Highway to China because its primary traffic is expected to be iron ore, soy, grains, and oil exports to China. In fact, the Chinese company Wuhan Iron and Steel plans to build a steel mill at Acu that will

International seaborne trade



*Iron ore, grain, coal, bauxite/alumina and phosphate
Source: UNCTAD, *Review of Maritime Transport 2009*

produce 5 mmt a year. The Brazilian steelmaker Terenium also plans to establish a mill in the area, and LLX hopes to build an oil processing facility there as well.

In addition to port capacity, upgrades are needed for supporting export infrastructure such as rail and road connections. At present, commodities from Brazil’s northeastern and midwestern states make long truck journeys on poor roads to reach ports in the southeast. Demand for additional ports in the north could lead to other investment there as well. Brazil’s plans to dramatically expand sugarcane ethanol exports—particularly to the US as import barriers fall—will further strain existing port and supporting transport capacity. Currently, close to 70% of ethanol exports are shipped via the already congested Santos port.

Brazil’s burdensome regulatory structure has been a major hurdle for infrastructure projects. In response, the Brazilian government is taking increasingly aggressive measures to expedite infrastructure investments. New regulations will facilitate private investment through concessions, including in port facilities. Other reforms currently under consideration include streamlining a cumbersome environmental licensing process and oversight by the Federal Accounting Tribunal, a body that has become a significant source of delays to infrastructure projects. New legislation that delineates environmental licensing respon-

sibilities among different levels of government has already been approved in the lower house of congress and is pending approval in the senate.

Liquids

Iraq

As Iraq seeks to ramp up its oil industry quickly, export capacity at the Basra port will become a growing problem. Following years of stagnant growth during the sanctions period under former president Saddam Hussein, Iraq’s export potential is significant; the country has the third largest proven oil reserves in the world. Although a fraction of exports are transported through the Kirkuk-Ceyhan pipeline in the north, the vast majority (more than 80%) is shipped through the Basra port. The center of demand for Iraqi oil will increasingly be emerging Asia, particularly China, rather than the EU and the US (where most pipeline exports are destined), so the Basra port will become even more important.

To that end, the Iraqi cabinet signed an agreement on 28 September with Leighton Offshore Private Ltd., a Singaporean subsidiary of Australia’s Leighton Group, to build a new offshore oil export terminal near Basra. The \$733 million facility will add 1.8 million barrels of export capacity, doubling Iraq’s southern capacity. The facility’s planned completion

in early 2012, coinciding with what is likely to be the initial ramp-up in production in southern Iraq, helps to allay concerns that tanker terminal capacity in the Gulf could limit Iraq's full realization of its oil potential.

While the potential difficulties of doing business in Iraq—including security risks and political and labor instability—could lead to construction delays, most of the work will be done offshore and the US and Iraqi governments will make a joint effort to maintain security in the oil-producing region. The risks will therefore be limited—at least compared with what is typical in Iraq.

The agreement on the new oil terminal in southern Iraq is expected to move ahead, even though it is not yet legally binding. Iraq is still without a new government nearly seven months after parliamentary elections, and the caretaker government is barred by law from formally entering into contracts. Iraq's political limbo appears likely to end soon, however, with Nouri al Maliki now assured another term as prime minister.

Angola

The Angolan port industry is closely linked to the country's oil wealth. Angola is essentially tied with Nigeria as the continent's largest crude oil producer and ranks among the top oil exporters in the world. It is also one of Africa's fastest growing economies; such growth has fueled significant import demand from the country's booming oil sector as well as other parts of the economy. Significantly, Angola is fast becoming China's most important oil supplier, even temporarily overtaking Saudi Arabia this year.

With an eye to its lucrative oil sector—which accounts for around 90% of export earnings—the Angolan government has made port infrastructure a top priority. Despite ongoing upgrades and expansions, the Luanda port remains one of Africa's most congested, and the government is looking to develop alternatives. In August, the deputy minister of transport, Jose Joao Kuvingua, announced plans to build a new port at Barra do Dande, just north of Luanda, and another in northern Cabinda by 2013. But immediate plans are concentrated on rehabilitating and upgrading the existing ports in Benguela, Namibe, and Cabinda. (The Japanese government financed the first phase of Namibe's rehabilitation.) Moreover, following much delay, the government in 2007 awarded a 20-year concession to a private joint ven-

ture to operate the Luanda port—which should improve efficiency—and earlier this year announced a \$350 million investment plan to modernize and expand it.

The breakneck speed of the country's growth and the booming oil trade with China mean that upgrades and expansions to port facilities will be necessary for the foreseeable future. Moreover, the close link between oil export revenues and infrastructure requirements will help keep port facilities high on the government's list of priorities. China has been involved in oil-for-infrastructure loans with Angola in the past, including a \$9 billion deal in 2006. In fact, the Export-Import Bank of China refers to infrastructure loans that are repaid with natural resource shipments as "Angola mode."

Business implications

- Global trade patterns are changing infrastructure needs:** Following the expansion of the Panama Canal, port infrastructure in the US could see a major overhaul, with new demands for upgrades and expansions at east coast ports. In addition, the ever growing size of ships (to increase efficiency and reduce costs) is creating new demand for deeper harbors.
- Asian commodities demand is creating new shipping routes and infrastructure opportunities in frontier markets:** Rapid growth in emerging Asia, particularly China and India, has created new opportunities for countries that export commodities. In the rush to take advantage of China's and India's voracious appetites for oil, coal, and iron ore, governments and companies have been pouring money into port infrastructure projects to boost export capacity. Sub-Saharan Africa, in particular, has brought new port projects on line. Existing infrastructure there is well below levels that would maximize export revenues. Angolan ports will expand to serve Chinese oil demand, while southern African ports will receive new investments to serve India's rapidly growing coal demand.

- **Economic downturn could slow investment:** The global economic slowdown has led to reduced demand, particularly in a number of OECD markets. Although fiscal stimulus plans could help fund port infrastructure upgrades, government budget cuts, particularly in OECD markets such as the US and the UK, could delay new investments. And given that most governments already disbursed billions of dollars in stimulus funds last year, new funds for infrastructure could be limited.
- **Port upgrades could fuel demand for supporting infrastructure:** As export or import needs boost demand for port infrastructure, the need for supporting links to transport goods from inland areas to coasts, and vice-versa, will also grow. This could lead to new investment opportunities in rails, roads, and pipelines.
- **Port bottlenecks can drive up commodities prices:** Shortcomings in port infrastructure can have significant effects on global commodities prices—particularly when the port in question is the source of a significant share of global supply.

Photo credit: Reuters

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