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The Panama Canal Needs a Rainy October

Impacts of Panama Canal Drought on Global Agricultural Trade

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Summary

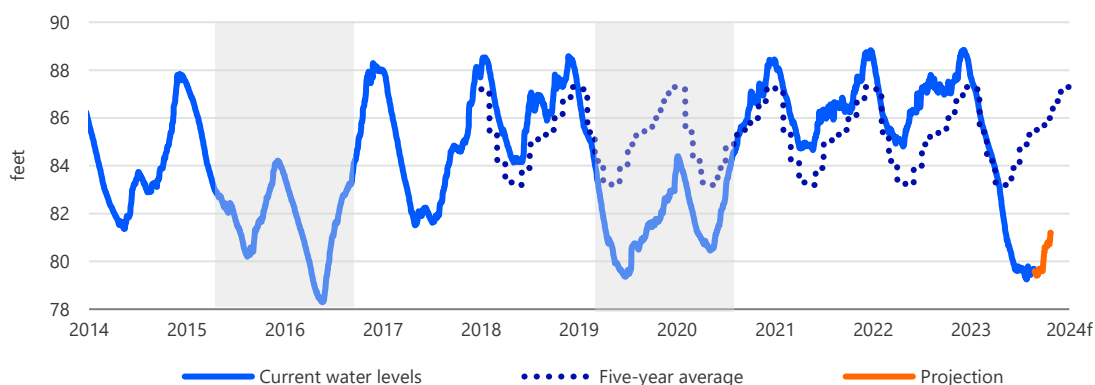
Just as global container shipping was normalizing, traffic jams of vessels queuing at the Panama Canal due to another historical drought gripped headlines. In addition to the current draft restriction¹ issued in late May, a special advisory was issued in late July to mitigate the impacts of the extended dry season and limit the number of vessels for daily transit from 36 to 32.

The delays and resulting cost increases could have a serious impact on both South and North American agricultural trade, given the canal's strategic location connecting the Pacific Ocean and the Atlantic Ocean. We expect temporary relief from the traffic jams in September – a month of low activity – before queueing resumes in October, as Q4 is usually the busiest quarter for agricultural trade. Should the drought progress, we expect lower throughput, longer delays, and higher costs to impact producers' margins.

Droughts on Repeat?

The current water level at Lake Gatún, which feeds into the canal, is about 7% below the five-year average (see Figure 1). Even though it's expected to improve as the rainy season continues up to the end of the year, it may stay well below the average, as El Niño is gathering strength and a significant drought in northern South America and Central America is expected for the remainder of 2023 and early 2024. Will water levels worsen in 2024 as the dry season (December to April) comes? During the 2014-2016 El Niño event, draft restrictions weren't lifted until October. As such, we expect current restrictions to remain in place until water levels at Lake Gatún and Lake Alajuela reach normal levels.

Figure 1: Lake Gatún water levels, 2014-2024f

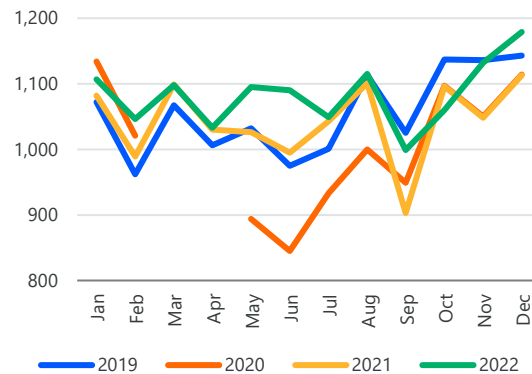


Source: Panama Canal Authority, Rabobank 2023

¹ Current restrictions as of August 24, 2023 include: 1) a limit on the number of vessels transiting through the canal at 32 per day, including 10 vessels in the Neopanamax locks and 22 vessels in the Panamax locks, and 2) a draft restriction of a maximum 44 feet (13.41 m) in the Neopanamax locks and 39.5 feet (12.04m) in the Panamax locks. Draft restrictions of 42 to 50 feet have been announced for Neopanamax locks in recent droughts.

Impact on Global Maritime Shipping

Figure 2: Number of vessels that transit per month, 2019-2022



Note: No data is available for March and April 2020 due to Covid-19.

Source: Panama Canal Authority, Rabobank 2023

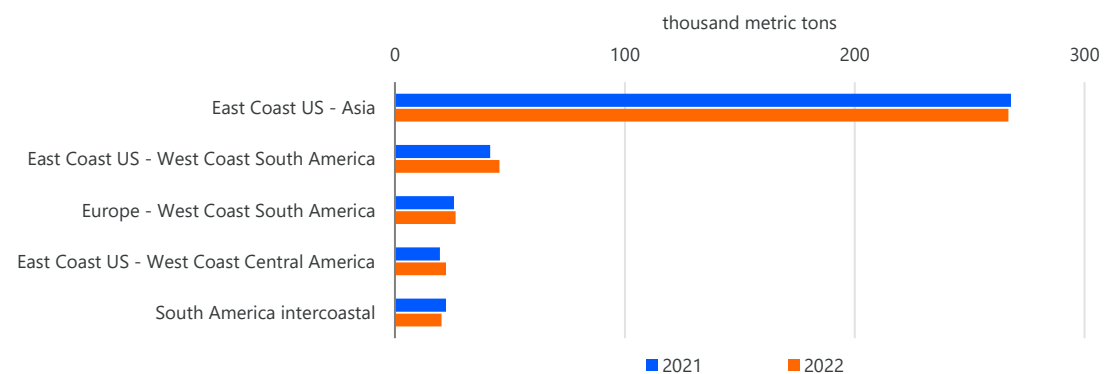
Nearly 3% of global maritime trade volumes transit through the Panama Canal, most of which are dry bulk carriers, followed by container ships, chemical and crude product tankers, and liquified petroleum gas carriers. Among these, only container ships have not suffered from the current increasing waiting times for transit (i.e., 5 to 6 days in July and 9 to 11 days in the first three weeks of August on average) because most container ships have reserved transit slots well ahead of time.

Given the seasonally low activity in September (see Figure 2), we expect temporary relief from delays before queuing resumes in October during the busiest months at the canal in Q4.

Should drought continue to progress in the region, we expect the current measures to stay in place and to have the following impacts:

- **Lower throughput:** Booking restrictions will reduce the number of vessels passing through; ships will also continue lightening loads to meet draft reductions.
- **Longer delays:** Vessels that are unable to get a booking or missed their booking due to previous delays may need to wait up to two to three weeks for a new slot at the canal.
- **Higher cost:** Increased waiting time for transit leads to tighter vessel capacity. Thus, spot rates, especially for the route from the East Coast of the US to Asia, are expected to rise. In the case of re-routing, there will also be extra costs associated with the additional two weeks of sailing for the alternative route around Cape Horn. Additionally, both the Panama Canal Authority and ocean carriers have announced surcharges related to canal transit and may continue to implement or increase them.

Figure 3: The top five trade routes transiting through the Panama Canal, 2023



Source: Panama Canal Authority, Rabobank 2023

Impact on Global Agricultural Trade

More than 50% of the tonnage going through the canal is from the trade lane between the East Coast of the US and Asia, followed by South and Central America's routes (see Figure 3).

Agricultural products are one of the key commodities transported through the canal.

United States

In addition to bulk vessels and tankers, around 40% of North American container vessels go through the canal annually. Among these, grains and oilseeds are the key agricultural products that transit through the canal.

Although export volume growth out of the Pacific Northwest has doubled over the past 20 years while Gulf Coast shipments remained flat, the Panama Canal is still integral to US exports to Asia. In 2022, the US exported over 26% of soybeans and 17% of corn via the Panama Canal, much of which was destined for Asia. Despite its intention to reduce imports of US grains, China may need to slow the rollout of that strategy given that a smaller wheat crop is expected out of Australia and likely to extend China's reliance on US grains and the Panama Canal. The grain export season in the US will begin in earnest in mid-October and last through May. Should water levels at the canal remain low, US grain exports would be heavily impacted.

Chile and Peru

Chile and Peru are among the top ten users of the canal because a large part of their fresh fruit exports is shipped to the US East Coast and Europe. Due to perishability, any delay directly affects product quality and, consequently, the sales price.

For Chile, exports transiting through the canal have declined in the past five seasons, yet they still represent 48% of the country's total exports. September to December is usually not the peak season of exports from Chile; thus, the impact would be limited.

For Peru, 85% of its mangoes, blueberries, grapes, avocados, and citrus on average are exported to the US East Coast. The export of blueberries from Peru starts in September, peaking in the months of October, November, and December. Exports of other fruits come a bit later and peak around January of the following year. If the drought continues, blueberries will be most impacted. Europe is the main destination for avocados. As the current 2023 season is almost complete and the following season starts in late February 2024, the impact on avocado exports will be limited.

Brazil

Delays at the Panama Canal are expected to have a very limited impact on Brazil's grain exports in the coming months. This is because the main ports in the south of Brazil use the Atlantic route along southern Africa to reach the Asian market, while the northern ports mainly export to Europe and North Africa. This means that neither the southern nor the northern export routes from Brazil to Asian markets use the Panama Canal heavily. In addition, Brazil has, year to date, already exported around 72% of its soybeans, soymeal, and corn exports for the year.

If the situation at the Panama Canal worsens significantly by October, US exports of grains and cotton could be impacted, which could create opportunities for Brazil to export higher volumes in Q4 as an alternative supplier for Asian buyers. Brazil is on course to produce a record crop of soybeans, corn, and cotton during 2023, which means that it will have available supply should logistical problems at the Panama Canal drive additional demand from other regions later in the year.

Conclusion

If the drought continues in the coming months, the impact – including shipment delays and rising costs – would be felt most acutely by agricultural exports transiting from the US (grains and oilseeds) and the west coast of South America (Peru's fresh fruits). The impact would be limited for Brazil, and the country's grain and cotton exports could even benefit from additional demand. The increasing risk of climate events – such as wildfires, flooding, water level changes (e.g., the Rhine river in Europe), and drought – disrupting global shipping will bring more schedule irregularities and cost increases throughout supply chains. This will ultimately lead to higher prices, exerting pressure on producer margins and contributing to consumer inflation.

Imprint

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