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Pivotal Ports: Delivering in Uncertain Times

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Introduction

During the first quarter of this year, agribusiness players all over the world kept a close eye on China. Specifically, attention was focused on how the coronavirus crisis would impact demand for commodity imports and whether the flow of imports would suffer from logistical problems resulting from the crisis.

Today, we are witnessing something of a reversal of this process. With China apparently emerging from the crisis with its appetite for agri imports as strong as ever, all eyes have now turned to its major suppliers, the US, Brazil, and Argentina. Will Brazil be able to maintain the flow of exports over the coming months as it deals with the crisis?

How Vulnerable Are Brazil´s Major Agri Commodity Trade Flows to Port Disruption?

Brazil´s logistics have always been seen as a weak link in the supply chain that channels the country´s grain, meat, sugar, and other agri exports to destinations around the world. The risk of port disruption as a result of coronavirus was highlighted in March of this year when a strike by workers at the country´s most important port, Santos, was threatened but averted by the implementation of a new package of measures to reduce the risk of infection at the port.

This brief report takes a look at Brazil´s main agri commodity exports (and fertilizer imports) in order to better understand the vulnerability of these flows to possible problems in one or more port. To evaluate this vulnerability, we focused on various indicators (*see Table 1*). These are:

Concentration: We highlight the share of total exports in 2019 accounted by the leading port of export for each commodity, along with the number of Brazilian ports that together account for 95% of that commodity´s total shipments.

Seasonality: We highlight the quarterly pattern of shipments.

Type of terminal: Port organization is complicated in Brazil. We highlight the proportion of terminals handling each commodity under three different categories of ownership/operation. These are: (i) public terminals within a public port, (ii) terminals rented on long-term leases by private-sector operators but within the public port, and (iii) private terminals operating outside the public port system. The distinction is relevant in terms of the likely impact of labor disputes on operations.

Form of exports: Bulk shipment (grains, sugar, cellulose, fertilizers) versus container (cotton, coffee, animal protein).

Main destinations: We have also added information on the concentration of export destinations – the implication being that if an important destination were to suffer its own logistical problem, the consequences would probably soon be felt at the port of origin.

A critical point to note is that many terminals for bulk commodities operate with multiple commodities over the year. For example, there are many terminals that handle soybeans, corn, and sugar at different times of the year. Capacity in such terminals cannot be considered as dedicated to one commodity, and, in years where harvests are large and the potential flow of commodities to the ports is abundant, there can be competition for capacity at port terminals (and also for transport capacity taking commodities into the ports). This is shaping up to be an issue in 2020 (see text on sugar).

Table 1: Logistics for key Brazilian agribusiness commodities in 2019

Commodity (volumes in 2019)	*% Share of main port used*	*# of ports needed to reach 95% of total volume*	*% share of top-three ports*	*Export seasonality by quarter*	*% share of top-three destinations*	*% share of terminals by type: public/ leased/ private*	*% share of cargo: container/bulk*
Beef (1.8m metric tons)	Santos (SP) – 63%	5	Santos (SP) – 63% Paranaguá (PR) – 16% S. F. do Sul (SC) – 9%	Q1– 22% Q2 – 22% Q3 – 26% Q4 – 30%	China – 27% Hong Kong – 19% Egypt – 9%	Public – 6% Private – 19% Leased – 75%	Container – 100%
Coffee (40.7m 60kg bags)	Santos (SP) – 78%	3	Santos (SP) – 78% R. de Janeiro (RJ) – 13% Vitória (ES) – 5%	Q1 – 25% Q2 – 22% Q3 – 24% Q4 – 29%	USA. – 19% Germany – 17% Italy – 9%	Public – 3% Private – 8% Leased – 89%	Container – 100%
Corn (42.7m metric tons)	Santos (SP) – 43%	8	Santos (SP) – 43% Paranaguá (PR) – 14% Barcarena (PA) – 13%	Q1– 15% Q2 – 6% Q3 – 46% Q4 – 33%	Japan – 16% Iran – 12% Vietnam– 9%	Public – 62% Private – 25% Leased – 12%	Bulk –100%
Cotton (1.6m metric tons)	Santos (SP) – 97%	1	Santos (SP) – 97% Salvador (BA) – 1% Paranaguá (PR) – 1%	Q1– 19% Q2 – 14% Q3 – 16% Q4 – 51%	China – 31% Vietnam – 13% Indonesia –13%	Public – 0% Private – 14% Leased – 86%	Container – 100%
Fertilizers (29.4m metric tons)	Paranaguá (PR) – 28%	11	Paranaguá (PR) – 28% Santos (SP) – 19% Rio Grande (RS) – 14%	Q1 – 17% Q2 – 23% Q3 – 31% Q4 – 29%	Russia – 16% Canada – 10% USA – 9%	Public – 72% Private – 16% Leased – 12%	Bulk – 100%
Orange juice (2.2m metric tons)	Santos (SP) – 98%	1	Santos (SP) - 98% Salvador (BA) - 1% Paranaguá (PR) – 1%	Q1– 26% Q2 – 22% Q3 – 24% Q4 – 27%	Belgium – 39% USA – 27% Netherlands – 26%	Public – 4% Private – 20% Leased – 75%	Bulk – 77% Container – 23%
Pork (0.74m metric tons)	Itajaí (SC) – 58%	4	Itajaí (SC) – 58% Rio Grande (RS) – 20% Paranaguá (PR) – 13%	Q1 – 22% Q2 – 25% Q3 – 25% Q4 – 28%	China – 34% Hong Kong – 22% Chile – 6%	Public – 2% Private – 33% Leased – 65%	Container – 100%
Poultry (4.1m metric tons)	Paranaguá (PR) – 40%	5	Paranaguá (PR) – 40% Itajaí (SC) – 36% Santos (SP) – 8%	Q1 – 24% Q2 – 26% Q3 – 26% Q4 – 24%	China – 14% Saudi Arabia – 11% Japan – 10%	Public – 6% Private – 27% Leased – 67%	Container – 100%
Soy (74m metric tons)	Santos (SP) – 23%	10	Santos (SP) – 23% Rio Grande (RS) – 18% Paranaguá (PR) – 16%	Q1 – 21% Q2 – 38% Q3 – 23% Q4 – 18%	China – 78% Spain – 3% Netherlands – 2%	Public – 49% Private – 36% Leased – 15%	Bulk–100%
Pulp (14.7m metric tons)	Vitória (ES)- 32%	5	Vitória (ES) - 32% Santos (SP) - 32% Rio Grande (RS) - 15%	Q1 – 26% Q2 – 26% Q3 – 23% Q4 – 25%	China – 43% USA – 13% Netherlands – 11%	Public – 3% Private – 49% Leased – 48%	Bulk – 97% Container – 3%
Sugar (17.6m metric tons)	Santos (SP) – 75%	3	Santos (SP) – 75% Paranaguá (PR) – 18% Maceió (AL) – 4%	Q1- 20% Q2 - 24% Q3 - 29% Q4 - 26%	Algeria – 13% Bangladesh – 10% Nigeria – 9%	Public – 2% Private – 12% Leased – 86%	Bulk – 92% Container – 8%

Note: Blue=import flows
Source: Secex, Antaq, CECAFE, Rabobank 2020

Animal Protein

Exports of beef, poultry, and pork are made exclusively via refrigerated containers, making the availability of this kind of container at the main exporting ports a key point to watch. Poultry and pork exports are heavily concentrated among a handful of southern ports (Itajaí, Rio Grande, and Paranaguá), while Santos is important for beef exports. Meanwhile, China led the ranking of destinations in 2019 and is very likely to do so again in 2020, as rebuilding its pork production after the African swine fever outbreak will take years.

Cellulose Pulp

Two-thirds of total cellulose pulp exports in 2019 were made via fully dedicated terminals at the ports of Vitória and Santos. In the event of problems in these ports, options to divert these flows to other ports are limited, as sector players have invested in a large amount of dedicated/integrated logistical capacity in Vitória and Santos in order to optimize costs.

Coffee

Close to 80% of Brazil´s coffee exports leave the country via Santos, all in containers. The vast majority of this activity takes place in leased terminals, which indicates some mitigation in the event of labor disputes. Any downturn in container availability, which is conditional on broader general trade flows, would also be a point to watch.

Fertilizers

Brazil´s fertilizer imports usually begin to rise in Q2 every year, peaking in Q3 with the onset of planting of summer crops. Sixty percent of imports enter the country via the ports of Paranaguá, Rio Grande, and Santos, all in the South/Southeast. The balance of imports are handled in various ports from the north to the south of the country. If there were a problem in one of the lesser ports in the south, one of the three leading ports could take up the slack. However, problems in northern ports could prompt either higher prices or, possibly, lack of supply for regions served via these ports.

Grains and Oilseeds

Soybean and corn exports are less concentrated (i.e. they are spread among more ports) than many other commodities, though Santos is nevertheless important. Soybean exports usually peak in Q2, while corn exports are highest in the second half of the year. Despite earlier concerns, exports to date have gone smoothly, with the country achieving record monthly soybean exports of 16.3m metric tons in April 2020.

Sugar

Sugar exports are highly concentrated in Santos and Paranaguá. 2020 is shaping up to be a complicated year, as it was only in Q1 of this year that it suddenly became clear that the sector would maximize sugar production in 2020, boosting export availability considerably versus 2019 and 2018. Mills and traders found railway and terminal capacity already almost fully booked up for Q2 with a bumper soybean crop, so sugar export flows may be somewhat restricted in Q2 as a result. Mills may, therefore, be obliged to hold on to stocks longer than they might wish, especially given that they are already holding higher ethanol stocks in the face of sharply reduced fuel consumption.

Imprint

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