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Report Highlights:

Post forecasts an increase in cattle production by 2.8 percent in 2022 and one percent in 2023, driven by global demand, elevated beef prices, and a general trend of expansion in the sector. Nevertheless, increasing production costs, especially feed prices, inflation, and unstable weather are expected to pose challenges to cattle ranchers. Beef production is expected to increase due to higher prices and strong global demand. In 2022, Post expects beef exports to increase by 27 percent, and by one percent in 2023, while domestic beef consumption should remain stable in 2022, and increase one percent in 2023. The swine sector is expected to reduce its animal stock in 2022 and 2023, with increasing slaughter rates. In 2022, Post forecasts a small decrease in pork production due to challenges of unfavorable weather and elevated production costs, especially feed costs, while in 2023 production should increase by two percent, reaching 4.4 million tons (CWE), and pork exports should rise three percent.

EXECUTIVE SUMMARY

The Brazilian bovine sector is expected to increase its cattle production in 2022 by 2.8 percent and in 2023 by one percent, driven by global demand, elevated beef prices, and a general trend of expansion in the sector. Nevertheless, in 2022, increasing production costs, especially feed prices, general inflation, and unstable weather are expected to pose challenges to cattle ranchers. Although La Niña's weather phenomenon is supposed to end in early 2023, the elevated production costs and low domestic consumption will continue posing difficulties for cattle producers.

Tracking with higher slaughter rates, Post forecasts an increase in beef production motivated by higher prices and strong global demand. In 2022, Post expects beef exports to increase by 27 percent, and by one percent in 2023, while Brazil's beef imports continue at a relatively modest volume, supplied mostly by neighboring Mercosur-member countries. Meanwhile, domestic beef consumption is anticipated to have a small decrease (0.3 percent) in 2022, due to the lack of family disposable income, but increase one percent in 2023, as beef prices experience a slight reduction.

Post forecasts that the swine sector will reduce its animal stock in 2022 and 2023, while slaughter rates increase. The higher demand for pork meat in the domestic market provides an incentive for larger pork production in 2022 and 2023. In 2022, Post forecasts a tiny decrease in pork production, due to the challenges of unfavorable weather and elevated production costs (especially feed costs). However, in 2023 production should increase by two percent, reaching 4.4 million tons (CWE). Post projects a reduction of two percent in pork exports for 2022, partly due to China's lower demand, and in 2023 pork exports should expand 3 percent.

CATTLE

Production, Supply and Distribution

Animal numbers, cattle	2021		2022		2023	
Market Begin Year	Jan 2021		Jan 2022		Jan 2023	
Brazil	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<i>(* 1000 head)</i>						
Total Cattle Beg. Stks	193195	193195	193780	193780	194365	194365
Dairy Cows Beg. Stocks	39400	39400	38720	38720	39020	39020
Beef Cows Beg. Stocks	54600	54600	54900	54900	55150	55150
Production (Calf Crop)	46550	46550	47836	47836	48160	48160
Total Imports	0	0	0	0	0	0
Total Supply	239745	239745	241616	241616	242525	242525
Total Exports	62	62	150	150	160	160
Cow Slaughter	10000	10000	10050	10050	10100	10100
Calf Slaughter	200	200	300	300	320	320
Other Slaughter	29900	29900	31900	31900	32250	32250
Total Slaughter	40100	40100	42250	42250	42670	42670
Loss and Residual	5803	5803	4851	4851	4595	4595
Ending Inventories	193780	193780	194365	194365	195100	195100
Total Distribution	239745	239745	241616	241616	242525	242525

Note: See footnote¹ on the revision of Brazil's cattle size numbers.

1.1 – Production

Cattle numbers

Post forecasts that in 2022, total cattle production will grow three percent, producing 47.8 million cattle head. Considering the beginning stock of 193.8 million head, the production and slaughter numbers for 2022, Post anticipates the ending stocks to be 194.4 million head. In 2023, Post anticipates that cattle production will grow one percent, producing 48.2 million head, and the ending stock should reach 195.1 million head. The increase of 0.3 percent in cattle size in 2021

¹ Post revised Brazil's cattle size numbers after an analysis of official statistics and the previous methodology for estimating the total number of cattle heads in the country. There is an ongoing debate in Brazil regarding the actual size of Brazil's cattle herd. The government has two official numbers, one based on the Census (carried out every ten years) and the other based on an annual compilation of state surveys and market research. Also, there is the issue of unregistered cattle, which exist mainly in the north and parts of the center-west. After analyzing different statistics and the issue of unregistered cattle, Post established new numbers for Brazil's cattle herd, which are more approximate to the official statistics and consider the animals that exist in the market, despite not being officially registered in certain cattle ranches and slaughterhouses.

represents a similar percentage increase in overall cattle stock that is expected to occur during 2023.

As explained in the previous GAIN report ([BR2021-0032](#)), the high prices of bovine animals and meat have provided a steady incentive for cattle growers to expand production in 2022. Post anticipates a similar trend in 2023. In addition, the high demand for beef from other countries, especially from countries in Asia, should be an incentive for Brazilian ranchers. Post also expects the slaughter rate to grow in 2022, leading to an increase in beef production, while in 2023 the increase should be smaller. However, several challenges remain, such as the bovine sector's ongoing recovery from the livestock cycle's depression phase, input cost inflation, and poor pasture conditions due to unstable weather.

In 2023, Post anticipates that the increased supply of cattle should lead to an increase of one percent in cattle slaughter, totaling around 42.7 million head.

Factors Affecting Production

The Post forecast for an increase in cattle production in 2023 is based on the current market conditions and trends that are expected to persist during this year.

Economic Recovery and Foreign Demand

In 2022 and 2023, Post anticipates cattle and beef production to increase in response to economic factors. The Brazilian economy has been greatly affected by the pandemic with the GDP falling 4.1 percent in 2020. The recovery was equally swift in 2021, as the Brazilian economy grew by 4.5 percent. To date, despite the economic improvement, beef demand has not recovered. So far in 2022, bovine meat demand in the Brazilian market remains low, due to both less income available in the middle-lower classes and high beef prices at retail. Market forecast for Brazil's GDP growth in 2022 is around 2.2 percent, while in 2023 GDP may increase only 0.5 percent.

As described in the previous report, the government subsidies offered to lower income families during the pandemic crisis (known as the 'Corona voucher') helped families to cover their essential living expenses but still lead to consumption of cheaper proteins, such as chicken and pork. In 2022, the elevated beef prices maintain this protein as a 'luxury item' for most of the low-income families and part of the middle-class. Nonetheless, the government approved a family-income subsidy in July of 2022, called 'Auxilio Brasil', that provides R\$ 600 per month to the poorer families. Although this policy was a political decision to gather support from voters ahead of the presidential elections in October, the program will allow families to buy additional food, including more expensive protein options, like beef. Further, the World Cup, taking place in November, will increase beef consumption as Brazilians have festivities to watch the football matches. Therefore, the domestic demand for meat is expected to increase through the end of 2022, with the annual consumption increasing one percent. Considering that domestic consumption accounts for around three fourths of beef produced in Brazil, it should have an important effect on the sector's production.

In 2023, Post anticipates that domestic beef consumption will increase around 1.3 percent. Low- and middle-income families should begin to have more income available for non-essential expenses as Brazil's economy continues its slow recovery and because the 'Auxilio Brasil' is expected to continue being distributed in 2023, albeit likely at a slightly lower value. The economists project the Brazilian economy to grow by only 0.4 percent in 2023. Regardless of the results of the presidential elections in October, there are several challenges to making Brazil's economy grow. One is the dire condition of the government's finances, especially due to overspending on emergency welfare programs to promote the President's popularity in the run-up to the elections. The prospect of a global recession also lowers the expectations for the Brazilian economy's performance in 2023.

Global Demand

Brazil's currency, the Real (R\$), saw a contraction on the order of 25 percent due to the pandemic crisis, falling from USD \$4.25 in February 2020 to \$ 5.30 in July 2022. Although this devaluation of the currency posed an advantage to Brazilian beef exports, it represents a challenge to cattle growers and ranchers. While the former enjoys profitable prices in the foreign market, the latter face steeper input costs, including fertilizer costs, which are mostly imported. National banks expect the exchange rate to remain around the current level of R\$ 5.3 until the end of 2022 despite fluctuations due to the political uncertainties surrounding the elections, thereby maintaining the attractiveness of Brazilian beef in the global market.

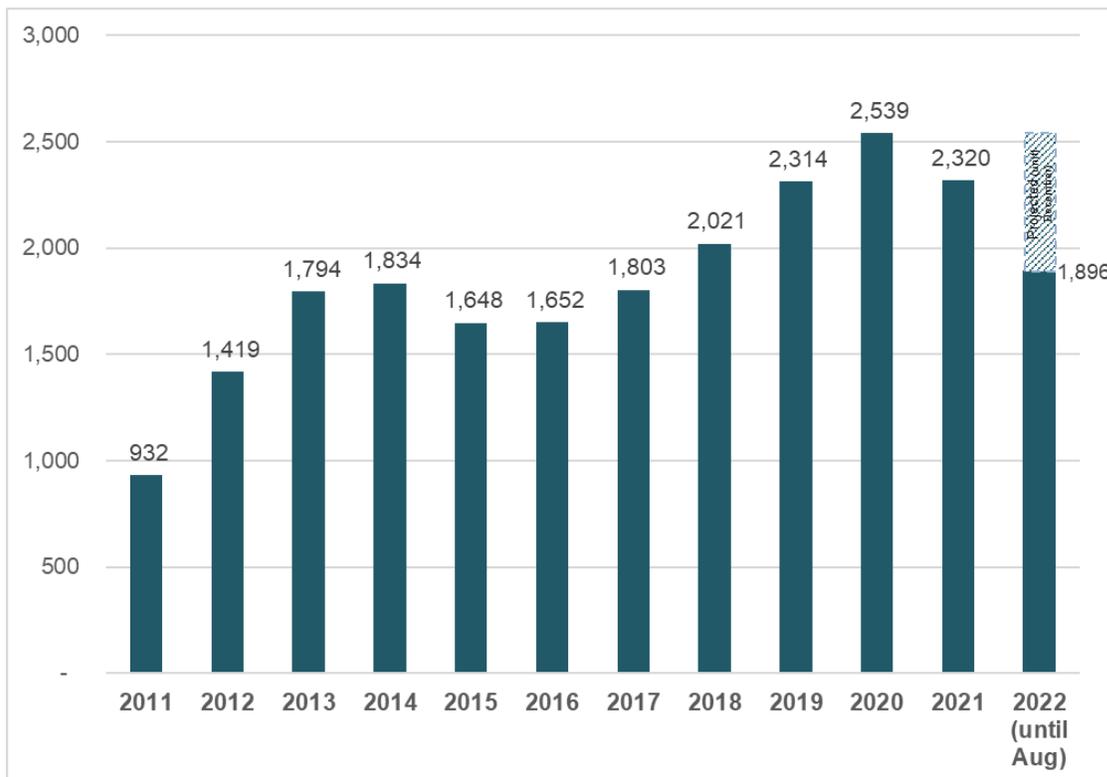
Demand for Brazilian beef has been elevated since 2021 despite the continuation of the Covid-19 pandemic crisis and China's embargo on imports from Brazil in September-December 2021. In 2022, China has had unpredictable behavior towards beef imports from Brazil, suspending Brazilian exporting plants for rather obscure and vague reasons (often related to package contamination of COVID). Nonetheless, it continues being the main buyer of Brazilian beef, accounting for 51 percent (January through July 2022) of total beef exports. Other countries have increased their purchases from Brazil, including the United States, Egypt, Israel, and specific Asian countries.

Brazilian beef products continue to be attractive in the global market due to the devalued Brazilian currency, at an average of R\$ 5.30 per dollar during 2022. Considering the current economic condition of Brazil and the upcoming elections, most economists expect the currency exchange to remain around R\$ 5.20 to R\$ 5.50 per dollar during the year. In 2023, the currency exchange is projected to remain around R\$ 5.20 per USD, i.e. at a level similar to that of 2022. In other words, through 2023, the beef exporters can continue relying on foreign demand for selling their beef products.

As shown in the Figure 1, Brazil's beef exports experienced a steady growth since 2016, which was interrupted in 2021, mainly due to China's ban on beef imports from Brazil. Nonetheless, experts believe, and the statistics for 2022 so far indicate, that total exports in 2022 will outgrow 2021's value, reaching just over 2 million tons. The value of these exports increased at a greater rate because of the increasing prices of beef in the global market. The average price of beef in 2020 was USD 3.2 per Kg, in 2021 it was USD 3.7 per Kg and in July 2022 it was USD 4.8 per Kg, representing a 50 percent increase during this period.

In 2023, it is anticipated that global demand for beef will continue to be elevated, despite the possible onset of the global economic recession and the ongoing conflict in Ukraine. Such demand will be essential for Brazilian beef exporters, given that domestic demand should remain, at best, lukewarm. Assuming that China does not impose any embargo on Brazilian beef, and that Asian countries and the US continue buying more beef from Brazil, then exports should have a similar performance as that of 2022.

Figure 1
Brazil's Beef Exports (in 1000 tons CWE)



Source: Brazil Ministry of Economy, via Trade Data Monitor. Graph Source: OAA Brasilia.

Cattle Production Cycle

Post forecasts a one percent growth in cattle production in 2023, after a 2.8 percent cattle production increase in 2022. Since 2020, the Brazilian bovine sector was at a recovery stage of the production cycle, where producers were increasing the number of animal head. The cattle availability was relatively low until 2021, which maintained prices high. Such prices provided an incentive for cattle ranchers to increase their stock, as they expect to receive higher prices.

In 2022, Post forecasts the total slaughter rate to increase 5.4 percent, especially of 'other slaughter' – i.e. mainly beef cattle (expected to reach 6.7 percent). Unlike in 2021, this year cattle growers are selling their cattle to the slaughterhouses, after holding their animals to complete the

animal's normal development cycle. And so, while the slaughter rate in 2021 fell 1.4 percent, in 2022 it is expected to increase significantly.

Challenges and Risks Faced by the Bovine Sector

Although Post anticipates cattle production to grow in the coming year, producers will continue to face a number of challenges and risks in the second half of 2022 and in 2023.

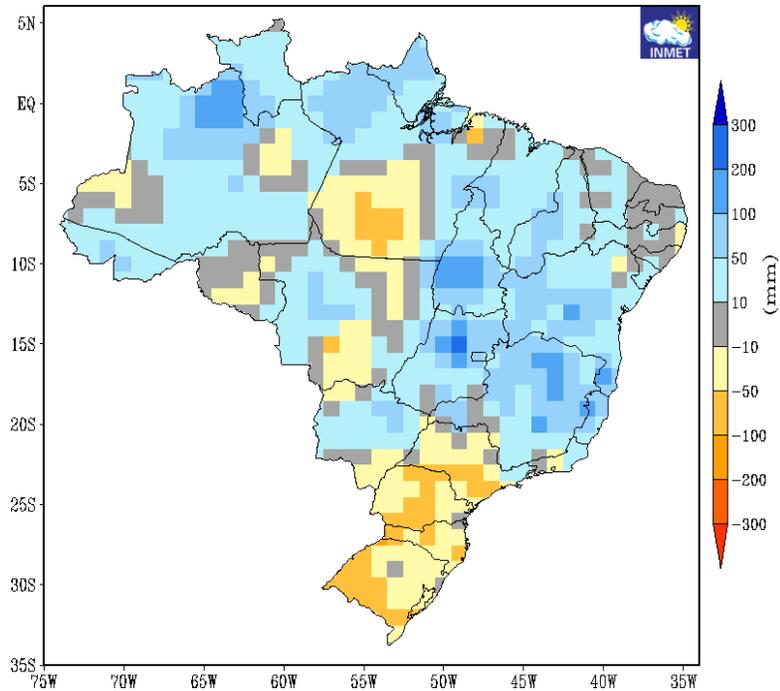
Weather conditions

The effects of the *La Niña* weather pattern suffered by Brazilian agriculture in 2021 are anticipated to continue in 2022. This climate phenomenon caused significant droughts in the south of Brazil, especially in the winter season, but also abundant and excess rain in the southeast and center-west of the country. The drought had two effects on cattle ranchers: poor pasture conditions reduced the natural feed available for the cattle; and the production losses caused to crops like corn and soybeans raised the feed costs for the ranchers. The poor pasture, together with high feed costs (corn and soybeans), pressured producers into holding their cattle longer until they could reach market weight. Many smaller cattle producers, however, lost significant amounts of animals (most died due to starvation), as they did not have the financial conditions for feeding their animals. Some of these cattle were culled and sold on the market, although the prices were not too favorable during this period.

Thus far in 2022, the weather has been unfavorable to pasture conditions in parts of the center-west and the south regions. In the former, the summer period had relatively normal weather for the region and the period, but in the winter months humidity has been lower than average, resulting in less rainfall. The temperatures have been higher than usual, causing dry weather conditions, thereby causing pastures conditions to be poorer than normal. In the south, rainfall has been lower than the average, in part because of the effects of *La Nina*, while temperatures were slightly lower than the average, in part because of cold waves from the Polar Regions that hit the region during July and August. These effects had little impact on pasture conditions, although the impacts on corn and soybean plantations were noticeable.

La Nina is expected to influence harvest of corn and soybeans of the winter season (*safrinhas*) and the early summer period (in December). The expected impact should be lower rainfall in the south of the country, as shown in Figure 2, thereby hampering crop yields and harvest. Considering that corn and soybeans are used as cattle feed, especially in the south, it is expected that this may affect cattle and beef production in this region (which accounts for 15 of total cattle slaughter). As for the summer period in end of 2022-early 2023, rainfall is forecast to be higher than average in the center-west, and lower in the south of the country. This should be favorable for pasture development in the center-west (that accounts for one-third of total cattle slaughter), which should bring relief to cattle growers, and less favorable for pastures in the south.

Figure 2
Rainfall Forecast (mm)
September-November 2022 (reference period: 1981-2010)

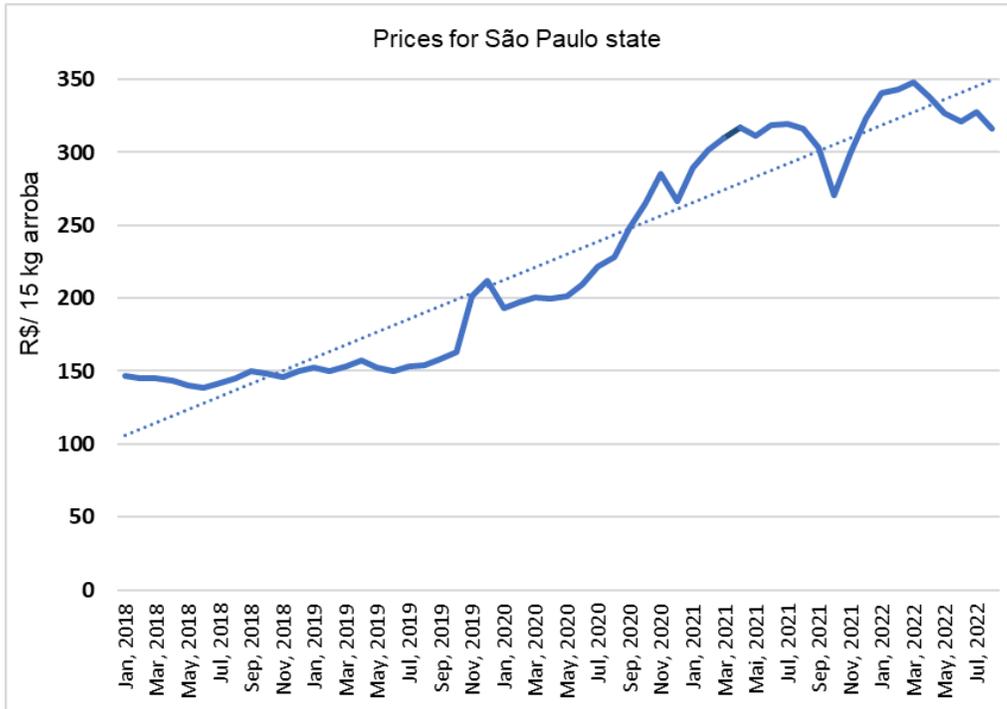


Data source: INMET Monthly Agri Climatological Report December 2021.

Inflation and Production Costs

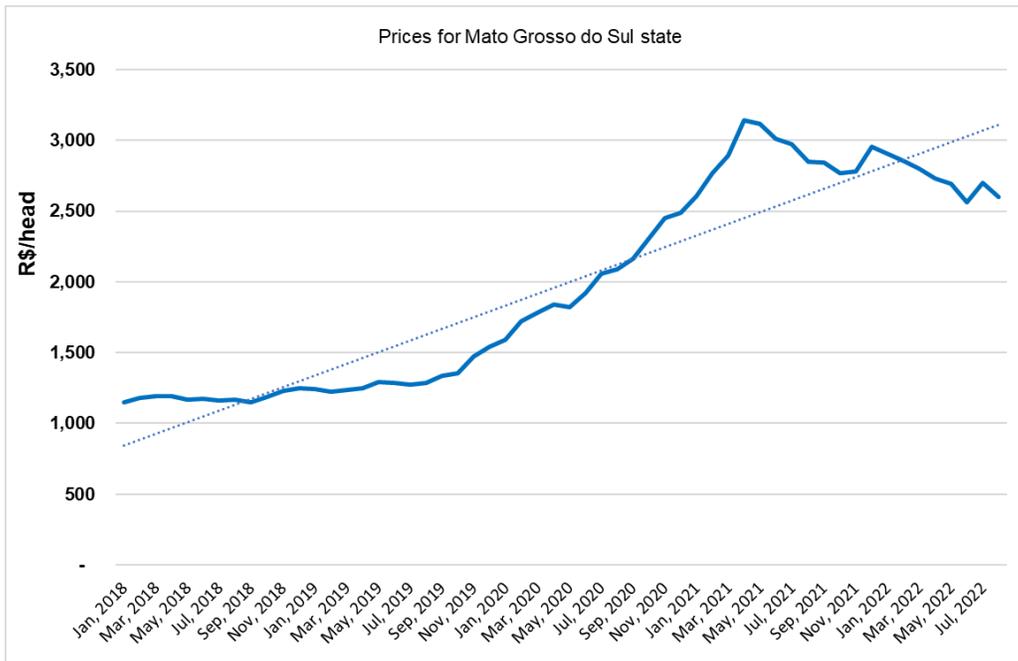
As in 2021, cattle production costs, especially feed inputs and animal costs, continued rising in 2022 (January until July). This has a direct impact on cattle and beef prices, which remained elevated throughout 2021 and has remained so from January until July of 2022. Cattle prices increased from R\$ 289 to R\$ 323 (USD 62 at the current exchange rate) per 'arroba' (unit of weight corresponding to 33 pounds) throughout 2021, representing a 12 percent increase, and in 2022 has remained around R\$ 320. Although prices increased in January-February of 2022, reaching a record price of R\$ 348, the price has fallen to around R\$ 310 in July.

Figure 3
Average Monthly Fed Cattle Prices



Data source: CEPEA, Chart: OAA-Brasilia.

Figure 4
Average Monthly Calf Prices

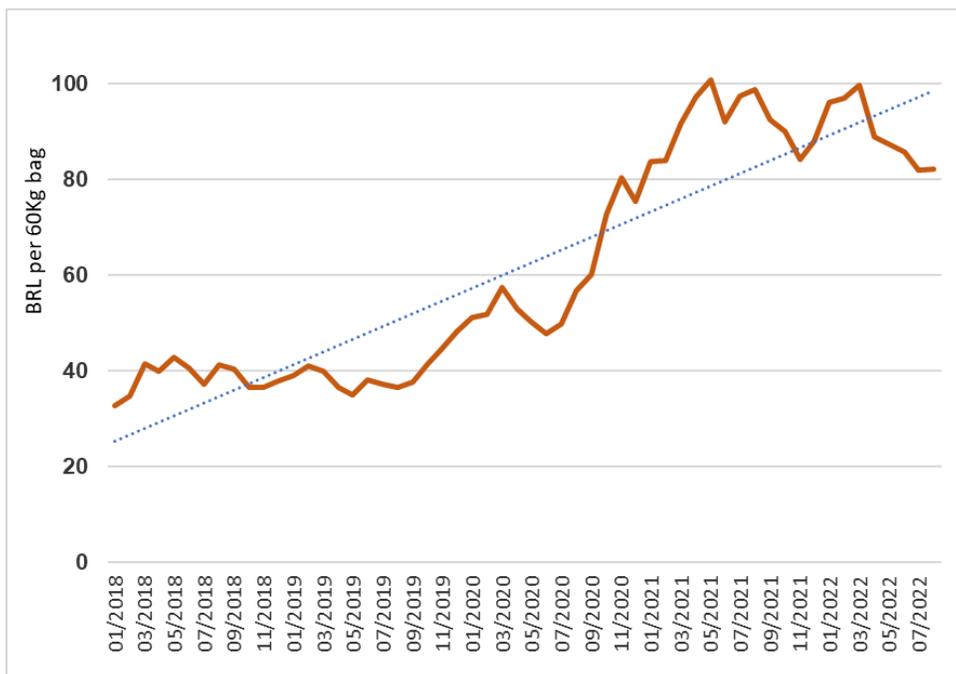


Data source: CEPEA, Chart: OAA-Brasilia.

Cattle and calf prices have decreased slightly in 2022 (January until July) in part because the Brazilian currency has gained some value during this period. Figure 4 shows that calf prices have decreased through 2022, though the average price remains elevated, at around R\$ 2,600 (USD 490) in July 2022. Nonetheless, as cattle supplies are expected to increase in the Brazilian market until the end of 2022, prices should decrease.

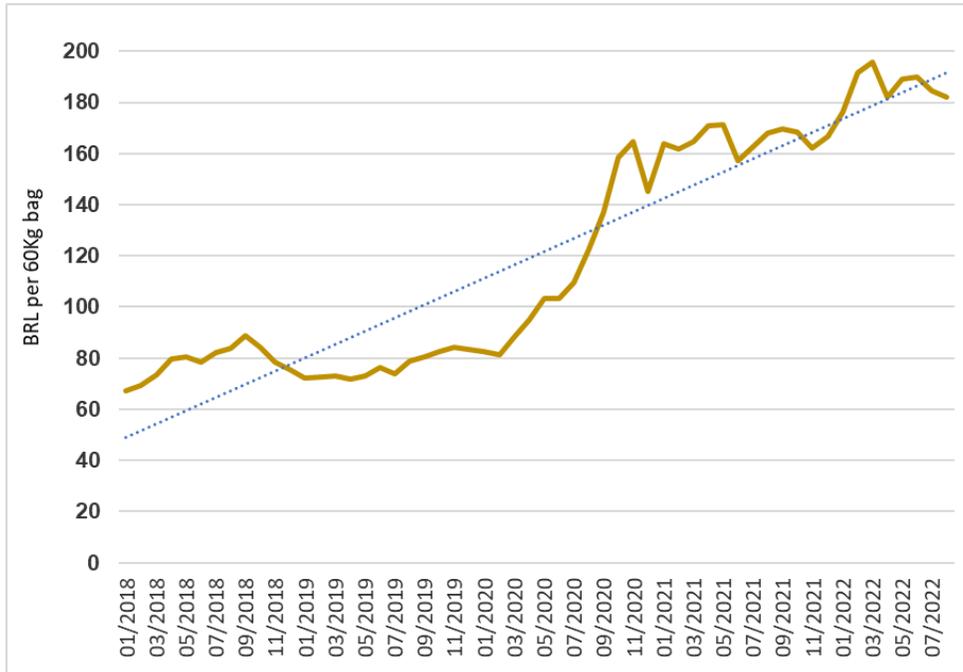
As in 2021, so far in 2022 production and operational costs of cattle producers and slaughterhouses remain high. And so, despite the favorable prices of cattle and meat, profit margins remain narrow. As Figures 5 and 6 show, corn and soybean prices remain at very high levels in 2022. Despite the fluctuations, average prices of corn remain at levels similar to those of the second half of 2021, i.e., around R\$ 88 (USD 16.6) per bag. Soybeans prices have also fluctuated in 2022, yet remain at a level higher than in 2021, notably around R\$ 184 per bag. Soybean meal prices demonstrated a similar behavior, varying slightly around an average of R\$ 2,550 per ton, as shown in Figure 7.

Figure 5
Corn Prices in Brazil (monthly)



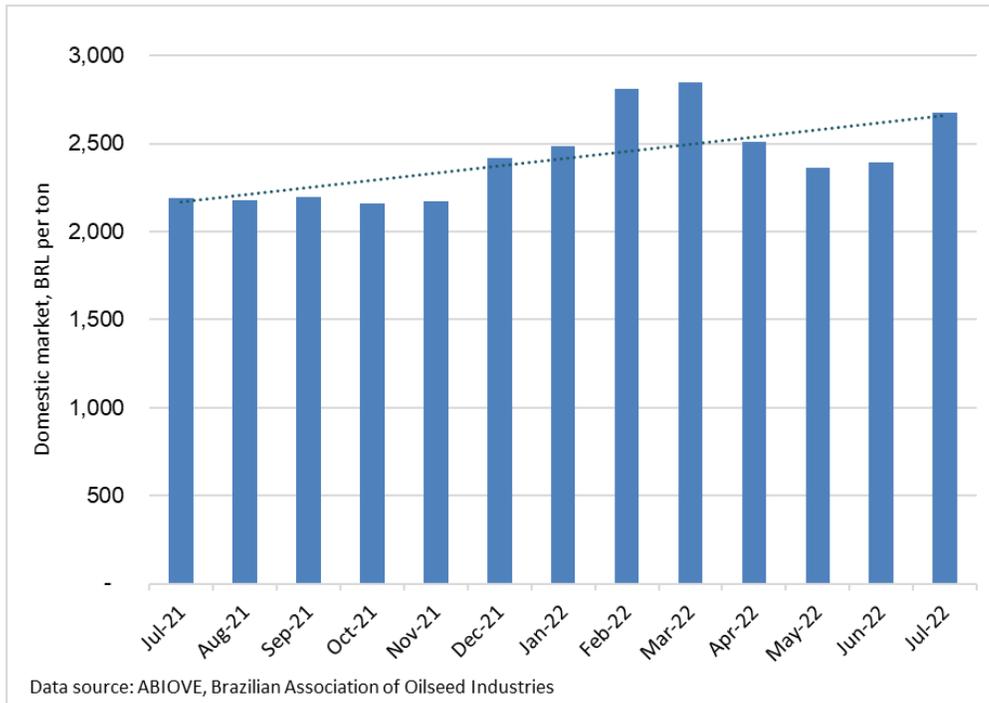
Data source: CEPEA, corn price indicator Esalq/BM&F-Bovespa. Chart: OAA-Brasilia.

Figure 6
Soybean Prices in Brazil (monthly)



Data source: CEPEA, soybean price indicator Esalq-Parana. Chart: OAA-Brasilia.

Figure 7
Soybean Meal Prices in Brazil



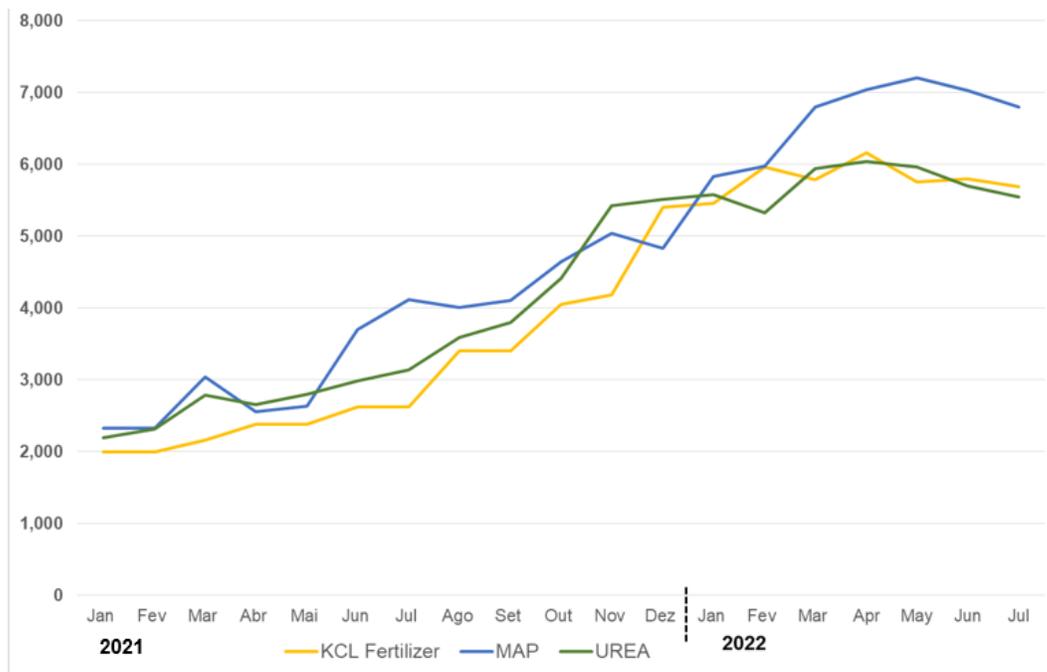
Data source: ABIOVE, Brazilian Association of Oilseed Industries

Data source: ABIOVE, Brazilian Association of Oilseed Industries. Chart: OAA-Brasilia.

In 2022, the conflict in Ukraine, global food inflation and weather conditions in Brazil are expected to maintain prices of these two crops at high levels. Corn and soybeans are considered the main animal feed used in cattle raising. However, given that most of cattle production in Brazil uses open pastures, the influence of these inputs has a limited effect on overall cattle production costs. Nonetheless, maintaining pasture conditions often requires fertilizers, whose prices have been steadily growing over recent years, especially in 2022. The conflict between Russia and Ukraine has created much uncertainty in the global market of fertilizers, driving up prices to historic levels.

Brazil’s government implemented a ‘fertilizer diplomacy’ policy since the start of the conflict in Eastern Europe, which allowed it to secure sufficient fertilizers from the main suppliers in the world. Fertilizer prices, nonetheless, have risen noticeably during this period, thereby making the costs of importing such inputs an expensive operation (shipping and logistical costs have also increased since the onset of the conflict), as shown in Figure 8 below. The average costs of urea fertilizer remained relatively stable during the initial months of 2022 and began decreasing until July, however the prices remain much higher than those of recent years. Monoammonium phosphate (MAP) prices increased by 40 percent, yet has stabilized since June, and potassium chloride (KLC) increased by around 18 percent. Since June 2022, fertilizer prices have plateaued, and some decreased. Still, the average costs of fertilizers are more than double than in early 2021. Experts believe these fertilizer prices should remain high until 2023, affecting pasture and feed costs.

Figure 8
Fertilizer Prices in Brazil (average in Reais)



Source: CONAB, Chart: OAA Brasilia.

According to experts interviewed by Post, the growing production and operational costs associated with cattle raising have pressured some farmers into leaving the activity or switching to other agricultural activities. Although this has occurred mainly in the south of Brazil, a few observations can be made regarding other regions. In the center-west, the smaller cattle growers have integrated their operations with other growers, in order to reduce operational costs. Some have focused on specific activities, outsourcing other activities of the cattle production chain. For instance, confinement activities have been abandoned and transferred to the larger confinement establishments (mainly due to the rising animal feed costs). In other regions of Brazil, some cattle growers are adopting the integrated-production system, where crop plantations and forests are grown in the same plot of land where cattle are raised. This farming method diversifies production, reduces costs and makes the agricultural production more environmentally sustainable.

Sanitary Risks

The risk of diseases breaking out in Brazil's cattle is almost negligible. Serious sanitary outbreaks or issues are rare, such as in 2021, when two cases of 'mad-cow disease' (BSE) were detected, but were considered the abnormal type, which poses no risk to other cattle or humans. However, China used this as a pretext for suspending imports of beef from Brazil. As will be described below, the consequence was a 102-day export suspension and losses between US\$ 1 billion and US\$ 2 billion for the cattle sector. Other diseases, such as foot-and-mouth disease, have been under control over the years, as both the private sector and government take the respective measures seriously.

In April 2022, the Ministry of Agriculture decided to classify the states of Espírito Santo, Goiás, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Federal District and Tocantins, as 'free from FMD (Foot-and-Mouth-Disease)' without vaccination. These states include approximately 113 million cattle and buffaloes, which corresponds to almost 50% of the country's total herd. The decision was celebrated by the livestock sector, signaling to other countries that the Brazilian bovine sector takes the necessary sanitary precautions against such cattle diseases. As a precautionary measure, MAPA has over 300 million vaccines in stock for FMD, to be used in case of an outbreak. The goal is for Brazil to become completely free of FMD without vaccination by 2026. Currently, in Brazil, only the states of Santa Catarina, Paraná, Rio Grande do Sul, Acre, Rondônia and parts of Amazonas and Mato Grosso have the OIE certification of FMD-free without vaccination.

Regional Context

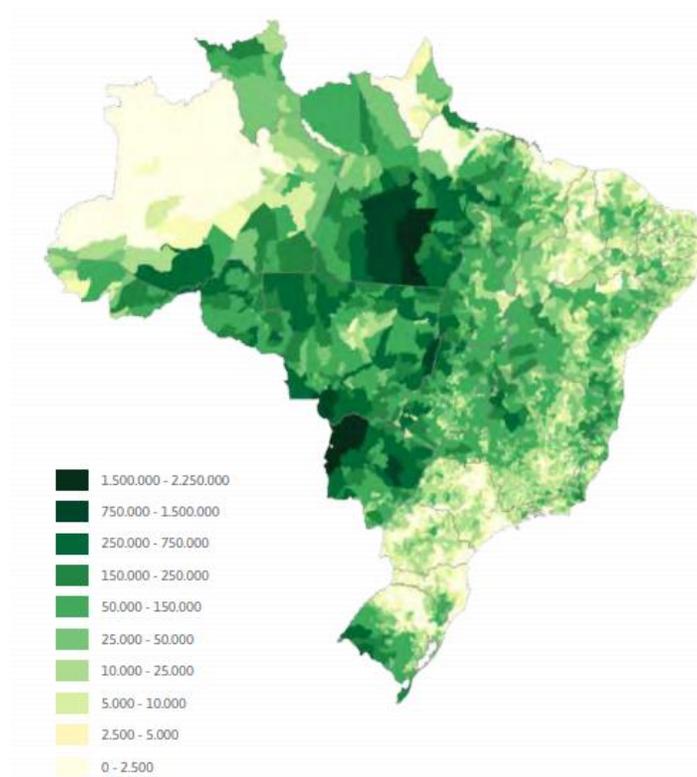
In 2022, all cattle-growing regions of the country faced challenges of rising input and operational costs, increasing loan interest rates, decreasing domestic demand for beef and uncertain foreign demand for Brazilian exports. Yet, each region faces different situations. In the south, as reported by Post in the previous GAIN report ([BR2021-0032](#)), cattle growers continue facing serious problems with the feed costs and operational costs. Indeed, a portion of the small and medium-sized ranchers ended up abandoning the activity, either by selling their stocks and land, or switching to crop growing, which is a more predictable and profitable activity.

On the other hand, in the center-west region, the largest cattle-growing region that accounts for 35 percent of national production, producers are having fewer difficulties facing the current challenges, in part because of their larger structures and availability of financial resources. In addition, given that they rely more on pastureland for cattle grazing, and less on cattle feeding or confinement, the pressure from the high feed costs has been and will continue to be lower. However, the larger focus of these cattle ranchers is on exporting their products, which means that they face risks related to trade disruption, such as in September of 2021, when China suspended its beef imports from Brazil.

The center-west region of Brazil is the largest supplier of beef to China, having coined the term ‘China beef’ to refer to the cattle produced according to the standards required by Chinese importers. The embargo incentivized these cattle ranchers to hold on to their cattle for longer periods, but also to find alternative buyers. The result has been greater diversification of export destinations, as shown below. Although China resumed its imports in December, the country has suspended specific beef export plants with random justifications, thereby causing concerns among cattle growers in the region.

The map below shows the distribution of bovine herds in Brazil; the largest cattle concentration is in the center-west region, especially in Mato Grosso State and Mato Grosso do Sul State, as well as in Pará State, in the north. Post does not anticipate major shifts in production from these states in 2022 or 2023.

Figure 9
Distribution of Bovine Herd 2021 - head



Source: ABIEC Beef Report 2022

Cattle Confinement Expansion to Remain Limited

As Post anticipated in the previous report, cattle confinement (in feedlots) in 2022 is expected to remain stable, at a similar volume as 2021. The main reason is the elevated animal feed costs, along with the general inflation in Brazil, which turns the confinement activity more expensive and less profitable. As calf prices are on a downward trend in 2022, it becomes more beneficial to place cattle in confinement, as the operation is more lucrative. Also, animal feed costs indicate a stable trend until the end of the year, which makes confinement economically viable. And so, in line with market analysts, Post anticipates a small increase in confined cattle, up to 6.7 million cattle head, three percent larger than 2021 (6.5 million head). In 2021, the main states that use confinement are Mato Grosso, São Paulo and Goiás, with 1.38 million, 1.12 million and 1.07 million of bovine cattle, respectively. In 2022, confinement is expected to fall 10 percent. Mato Grosso should have around 1.15 million head, Goiás 0.99 million and São Paulo 0.96 million head.

One trend taking place in the bovine sector is that the small-to-medium operations are abandoning their confinement activities, due to elevated animal feed costs and operational costs, and preferring to transfer the cattle to the larger confinement operations. This is happening mainly in the center-west of the country, where larger confinement centers are growing. Another trend of the sector is the use of confinement for specific and short stages of the cattle's development. Post's sources estimate that at least 12 percent of all cattle has passed through confinement during specific periods of their growth.

Slaughter and Supply

In 2022, many cattle ranchers sold their animals that they had kept on the field during the drought and dry period in late 2021. The decision was to obtain better returns for the cattle, as they increased their weight after a period in open pastures. However, the problem faced in 2021 repeated itself in 2022. Droughts occurred in different regions of the country, especially in the south and southeast, resulting in poor pasture conditions. Cattle ranchers in these regions faced difficulties in fattening their animals, especially because using supplemental feed is economically challenging – due to elevated costs.

Nonetheless, cattle slaughter rates are expected to increase in 2022, because fed animal prices have stabilized, and so cattle owners will sell them before prices decrease. Also, cattle growers are increasingly selling their cattle as soon as the adequate weight is reached. The objective is to increase turnover of the cattle production, instead of waiting for market prices to improve. Although cattle prices have stabilized in the middle of 2022, such prices tend to increase in the second half of the year, especially in a year of elections, and as confinement for fattening increases during the third quarter. Still, in July 2022, cattle prices had an average of R\$ 280 per *arroba* (equivalent to 33 pounds), i.e. USD 1.6 per pound, in the center-west region. This price level is lower than that of September 2021, when the prices peaked at R\$ 320 per *arroba*, i.e. USD 1.83 per pound, thereby posing a challenge for producers to operate at a tight financial margin.

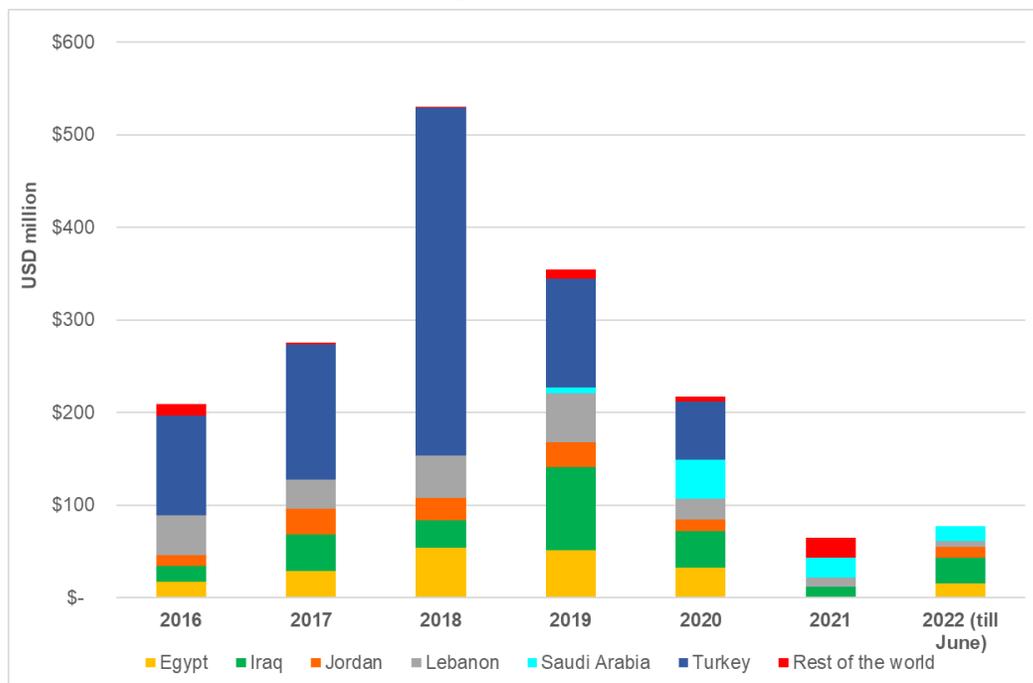
In 2023, the larger availability of cattle in the domestic market will lead to an increase in slaughter, resulting in lower animal prices. An analyst expects animal prices paid by slaughterhouses, to fall to an average of R\$ 250 per arroba (USD 1.43 per pound) in 2023 (from an average of R\$ 320 per arroba [USD 1.83 per pound] in 2022). The knock-on effect will be lower prices of beef and beef products at the retail-level.

1.2 – Trade

Exports

Brazil is the fifth largest exporter of live cattle in the world. In 2021, Brazil’s exports of live cattle fell 69 percent, mainly because of the limited supply of cattle and higher cattle prices. However, as commented in the previous report (Semi-annual, [BR2022-0018](#)), as the global economy recovers from the Covid 19 pandemic, so too does the foreign demand for live cattle. So far in 2022, Brazil has exported USD \$77 million of live cattle, which is 13 percent larger than 2021’s value. Post believes exports of live cattle will increase around 140 percent in 2022, reversing the trend of decreasing export volumes since 2018. Brazil’s exports are under tariff HS Code 0102.29.90 – ‘Other live cattle’, and sold mainly to developing countries, especially in the Middle East, as shown in the graph below.

Figure 10
Brazilian Exports – Bovine Animals



Data Source: Brazil Ministry of Economy, via Trade Data Monitor. Chart: OAA-Brasilia.

Brazil’s top markets for live cattle in recent years have been Iraq, Jordan, Egypt, and Saudi Arabia. In January until June 2022, Iraq was the main importer of live cattle from Brazil, whereby imports

were USD 27.6 million, over double the value of 2021's imports from Brazil. Jordan imported USD 12 million, which is almost the same value for 2020's value. As countries recover from the pandemic crisis's implications, countries resume its operations of live animal imports, which require sanitary precautions and specific logistics.

Imports

Brazil imports a very small volume of live animals, mostly for improved genetics for breeding. So far in 2022, as in 2021, all of the imports were supplied by the United States. In terms of value, imports in 2022 should reach levels similar to that of 2021. In 2020, Brazil imported 36 units of cattle from the United States, 72 units in 2021, and 40 heads in Jan-Jun 2022, under the tariff HS Code 0102.21.90 ('Other pure-bred cattle, for breeding'). Brazil has also been a long-time importer of bovine genetics and a traditional market for U.S. cattle genetics exports. Genetic improvement by artificial insemination is a technique being used in Brazil to enhance productivity.

Table 1
Brazilian Imports – Live Cattle (in USD)

Country	2016	2017	2018	2019	2020	2021	2022 (till June)
United States	98,015	10,000	24,000	113,458	429,679	805,464	363,310
Argentina	15,050	35,085	33,225	-	60,781	-	363,310
Uruguay	1,898,092	104,835	20,868	15,982	-	-	
Total	2,011,157	149,920	78,093	129,440	490,460	805,464	363,310

Data Source: Brazil Ministry of Economy, via Trade Data Monitor

2. BEEF

Production, Supply and Distribution

Meat, Beef and Veal	2021		2022		2023	
	Jan 2021		Jan 2022		Jan 2023	
Brazil	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<i>(* 1000 MT CWE)</i>						
Slaughter (Reference) (1000 Head)	40100	40100	42250	42250	42670	42670
Beginning Stocks	0	0	0	0	0	0
Production	9750	9750	10350	10350	10450	10450
Total Imports	62	62	71	71	72	72
Total Supply	9812	9812	10421	10421	10522	10522
Total Exports	2320	2320	2950	2950	2975	2975
Human Dom. Consumption	7492	7492	7471	7471	7547	7547
Other Use, Losses	0	0	0	0	0	0
Total Dom. Consumption	7492	7492	7471	7471	7547	7547
Ending Stocks	0	0	0	0	0	0
Total Distribution	9812	9812	10421	10421	10522	10522

2.1 – Production

Brazilian beef production in 2022 is expected to increase 6.2 percent, reaching 10.35 million tons Carcass Weight Equivalent (CWE), and increase one percent in 2023, reaching 10.45 million tons CWE. The increase in production is projected due to the high beef prices in the global and the Brazilian market, and because of higher cattle availability for slaughter. In 2022, the average weight per animal that arrives at the slaughterhouses should be slightly higher than that of 2021, because in early 2022 cattle ranchers held cattle for longer periods to benefit from increasing prices of beef, which increased animal weight. However, since then the high feed costs have made it harder to fatten cattle, meaning the average weights should stabilize in 2023.

The higher availability of cattle and elevated beef prices provide an incentive for slaughterhouses to increase their beef production in 2022. Average cattle weight should experience a slight increase as animal feed costs are projected to have a slight reduction, and favorable pasture conditions are expected. The same incentive should continue through 2023, although beef prices are expected to experience a slight decrease starting in the middle of 2023. The current trend of decreasing fed cattle prices is expected to continue until the end of 2022, due to favorable pasture conditions and a growing availability of animals for slaughter, which allows slaughterhouses to increase their profit margins.

Although China will remain the largest importer of Brazilian beef, the Chinese government's import suspensions generate uncertainty in Brazilian slaughterhouses. The lack of rational explanation for such suspensions makes Brazilian beef exporters seek other importers in order to avoid the setbacks and losses caused by China's suspension in September-December 2021. Brazil has increased its beef exports to countries like the United States, the Philippines, Egypt, among others.

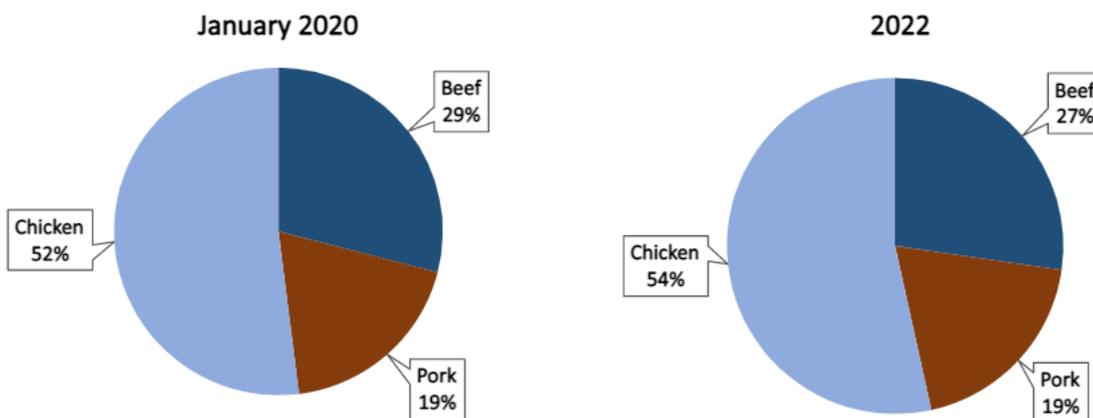
2.2– Consumption

Post forecast beef consumption to increase one percent in 2023, while 2022 should have a consumption volume similar to that of 2021. In 2022, as in most countries, Brazil's food inflation (IPCA index) has been higher than general inflation. Food inflation was 9.8 percent (Jan-July), which is a high rate that has become a burden for most Brazilian families. Considering that food purchase is essential, the increasing costs weigh on all families' expenditures. And so, in 2022, Post forecast beef consumption to experience a slight decrease of 0.3 percent, reaching 7.47 million tons (CWE). Domestic beef consumption in the first half of 2022 had a slight reduction, mainly due to the low-income availability in most families and the elevated beef prices at retail level. However, beef consumption is expected to increase in the second half of the year because of: stable beef prices in the market; the subsidy provided to low-income families from August 2022 onwards; and the higher consumption expected in the social gatherings during the World Cup.

According to the National Supply Company (CONAB), in Brazil, meat consumption changed since the onset of the Covid-19 pandemic crisis, with a lower domestic demand for beef as consumers look to other meats on the account of elevated beef prices. As the pandemic wore on, total meat consumption fell in Brazil to its lowest level since 1996, and currently beef consumption is at 24.8 Kg per person per year (IBGE), which is eight percent lower than 2020's level. Pork consumption in 2021 was 16.8 Kg per person (IBGE), which is five percent higher than in 2020, when consumption was 16 Kg per person, and is 17.5 Kg per person in 2022. Chicken consumption was 48 Kg per person in 2021, 2 percent higher than in 2020, and is 48.6 Kg per person in 2022.

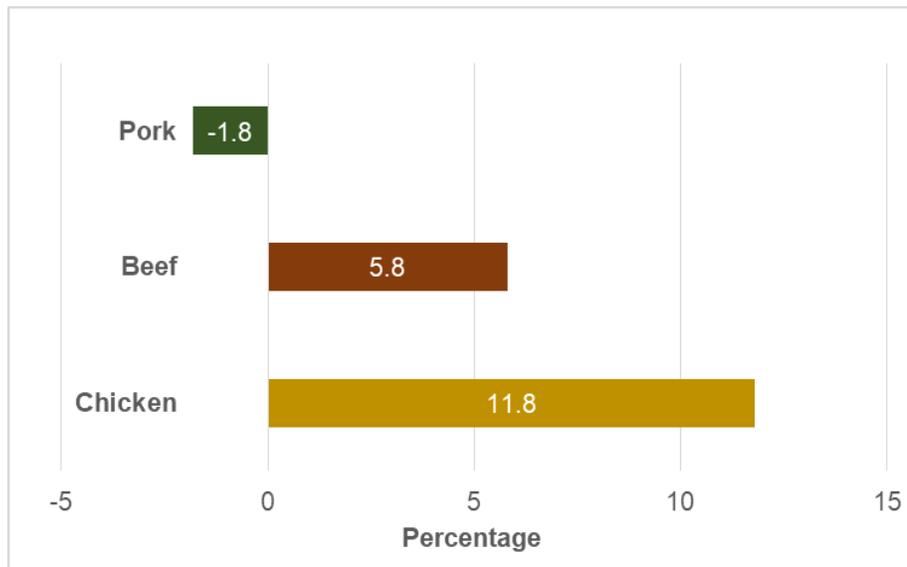
Years before the pandemic, beef consumption represented 34 percent of total meat consumption, but in 2022 this number dropped to only 27 percent of the total meat consumption in Brazil. Chicken consumption, on the other hand, increased its share from 49 percent to 54 percent of all meat consumed, given that it is the less expensive protein option. During the same period, pork consumption increased from 17 percent to 19 percent. The financial hardship of most families during the pandemic crisis accounts for this change in consumer preference, and Post believes this new proportion of protein consumption should stabilize through until the end of 2023.

Figure 11
Brazilian Meat Consumption



Data: CONAB. Chart Source: OAA Brasilia.

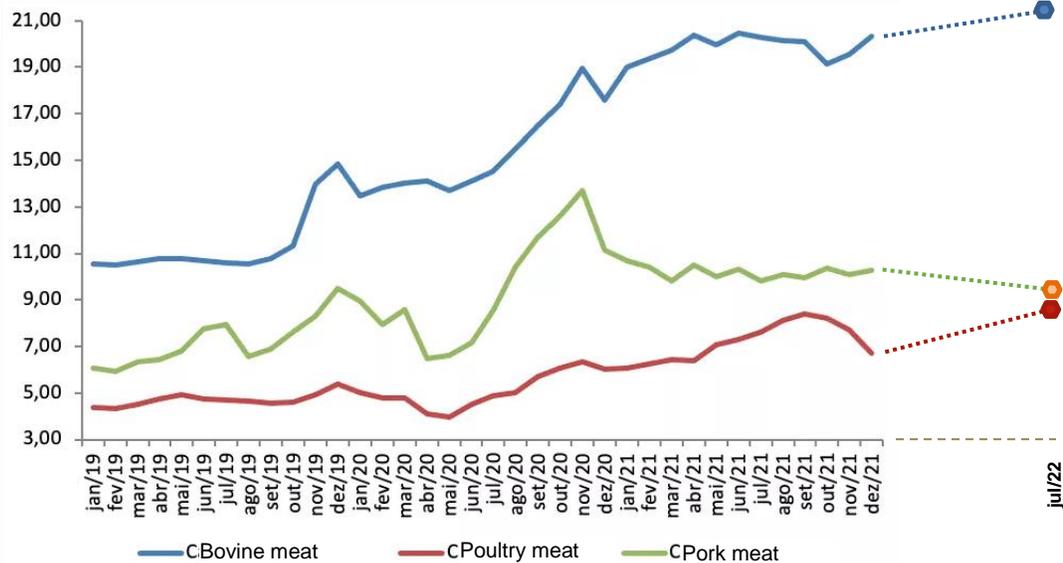
Figure 12
Domestic Retail Prices Changes in Jan-July 2022



Data Source: IBGE. Prepared by OAA-Brasilia.

As shown above, the retail prices of beef and chicken increased so far in 2022: beef increased 5.8 percent and chicken prices increased by 11.8 percent. Pork retail prices, on the other hand, fell 1.8 percent. Despite the largest percentage increase, the retail price of chicken in 2020 remained the most affordable of the three main types of meat, as shown in Figure 13. In 2022, the price of pork stabilized, while that of beef continued to increase.

Figure 13
Prices of Bovine, Swine and Poultry Meats – Wholesale (Reais per Kg)



Data Source: Cepea. Prepared by CNA; updated by OAA-Brasilia.

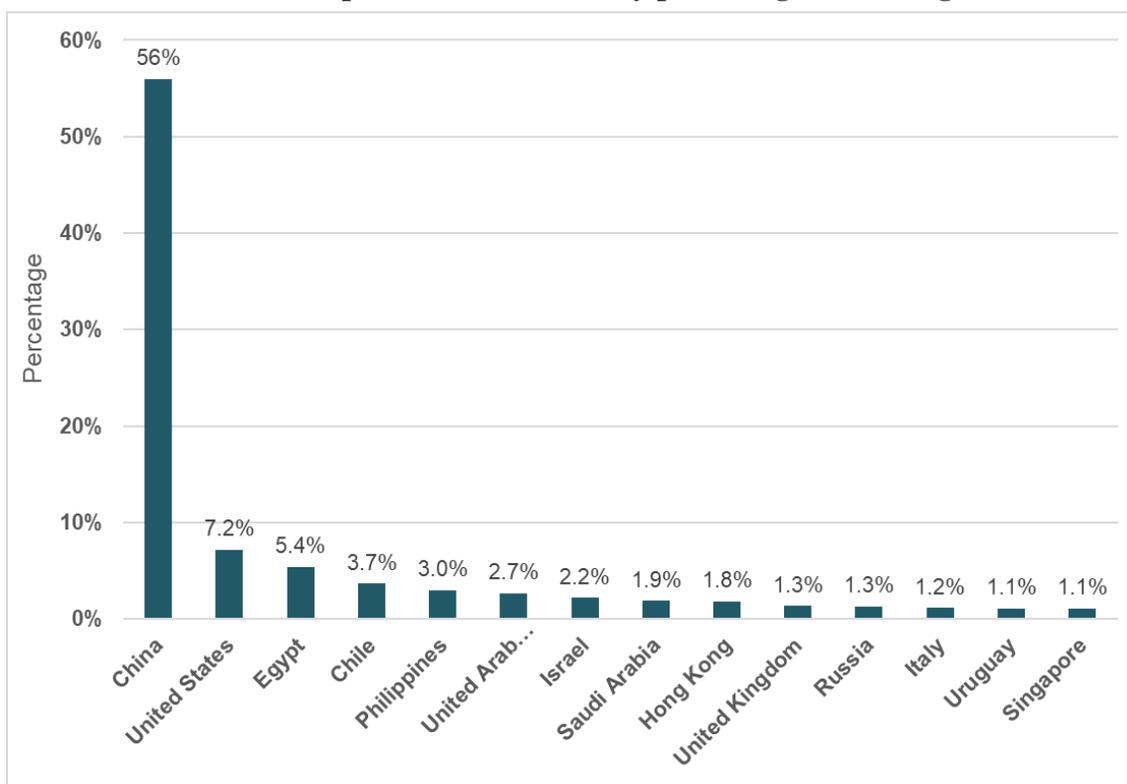
According to the Brazilian Institute of Geography and Statistics (IBGE), the prices for meat cuts most consumed by lower-income families experienced increases between 3 and 5 percent. The beef cuts that are slightly more expensive, but most enjoyed by Brazilians, experienced higher price increases: 9.2 percent for rump-steak and rump, and 11.1 percent for sirloin. Post anticipates that prices are meat prices are likely to experience a slight decrease but remain elevated in 2023. One market analyst expects beef prices to fall around R\$ 15 to R\$ 20 per Kg of the main beef cuts, like *picanha* (rumpsteak) and tenderloin. This represents around 30 percent reduction in the average price in 2022, which is a significant difference.

2.3 – Trade

Exports

For 2022, Post forecasts a 27 percent increase in beef exports, mainly due to the growing global demand, while in 2023 the increase should be around one percent. In 2022, Post forecasts exports will represent 28 percent of total production. This proportion was 24.4 percent in 2021.

Figure 14
Brazilian Beef Exports – destinations by percentage – Jan-Aug 2022

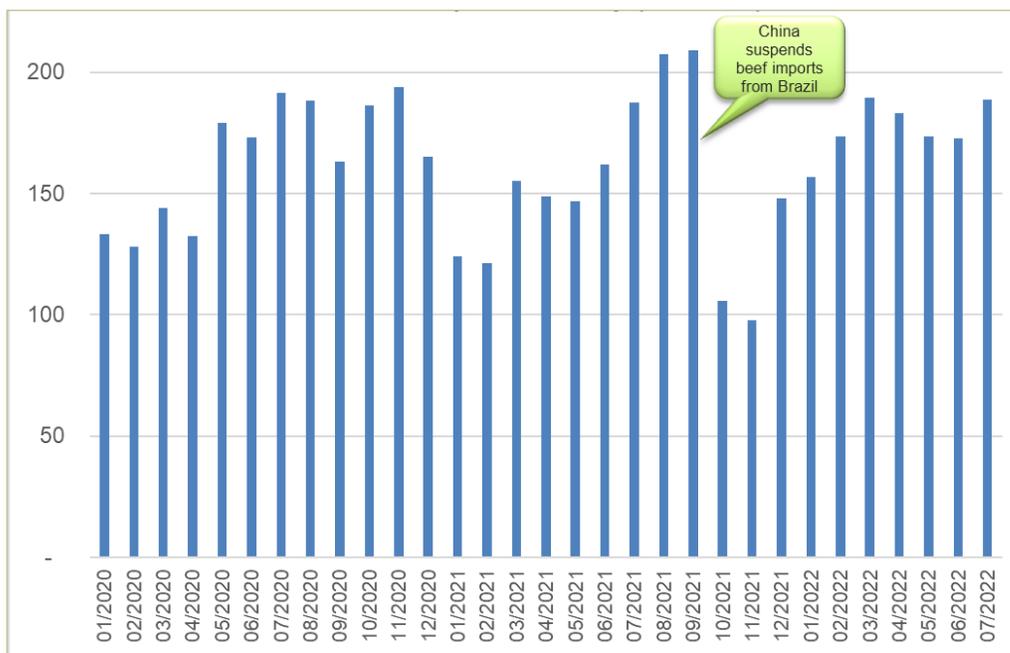


Data Source: Brazil Ministry of Economy, via Trade Data Monitor

In the first half of 2022, Brazil exported a total of 1.4 million tons of beef CWE, which is 24 percent greater than the same period in 2021. The value of these exports reached US\$ 6.16 billion, in the first half of 2022, which is 53 percent larger than the same period of 2021. As Figure 15 shows, the top markets for Brazilian beef in Jan-August 2022 were, in order: China, United States, Egypt, Chile and the Philippines. Chinese demand in January-August 2022 accounted for 56 percent of the total exports, followed by the United States with 7.2 percent, and Egypt in the third position with 5.4 percent of all Brazilian beef exports. Exports to the United States, in Jan-Aug 2022, is 33 percent larger than the same period in 2021, reaching 136.5 thousand tons CWE.

Brazil's beef exports in early 2022 sought to recover some of the reduction caused by China's embargo from September until December 2021. The embargo was due to Brazil's detection of two cases of atypical mad cow disease (BSE) in Mato Grosso and Minas Gerais. After 102 days of negotiations and requests from the Brazilian government, China lifted its suspension on December 15. Brazilian cattle growers and beef producers incurred significant financial losses, with estimated damage in the range of \$1 billion to \$2 billion. The graph below shows the impact of China's import suspension on Brazil's beef exports.

Figure 15
Brazilian Beef Exports per month (1000 Tons)



Data Source: Brazil Ministry of Economy, via Trade Data Monitor.

Note: although the graph does not use CWE, it shows the impact of China's import suspension.

Given that China represents over half of Brazil's beef exports, Brazilian exporters had to develop new export destinations. Indeed, so far in 2022, countries like the Philippines, the United States, Egypt and Israel increased beef purchases from Brazil.

Table 2

Brazilian Exports – Beef (1000 tons CWE)

	2017	2018	2019	2020	2021	2022 (until Aug)
China	287,299	438,323	676,835	1,181,438	983,584	1,061,470
United States	61,458	56,425	68,316	97,112	207,709	136,503
Hong Kong	340,572	381,223	305,817	285,173	184,811	34,813
Chile	88,086	156,201	150,318	123,128	150,513	69,697
Egypt	200,642	236,590	210,168	166,671	94,427	101,873
Un. Arab Emirates	29,773	52,118	98,261	54,435	65,954	50,728
Philippines	13,421	37,388	47,923	54,147	63,178	56,106
Saudi Arabia	56,593	57,522	57,238	54,813	53,851	35,360
Israel	24,749	24,654	34,966	33,128	46,427	41,208
Italy	39,948	44,083	43,215	37,012	40,119	21,967
Russia	187,680	4,964	86,623	72,300	38,078	24,827
United Kingdom	44,476	48,467	42,378	43,767	37,691	25,566
Singapore	24,435	24,547	28,305	28,142	34,335	20,627
Uruguay	5,883	18,730	38,379	35,925	31,145	20,905
Netherlands	30,416	31,071	25,541	30,215	30,389	17,194
Other countries	367,885	408,550	399,807	241,975	257,523	177,377
Total	1,803,316	2,020,856	2,314,090	2,539,381	2,319,734	1,896,221

Data Source: Brazil Ministry of Economy, via Trade Data Monitor

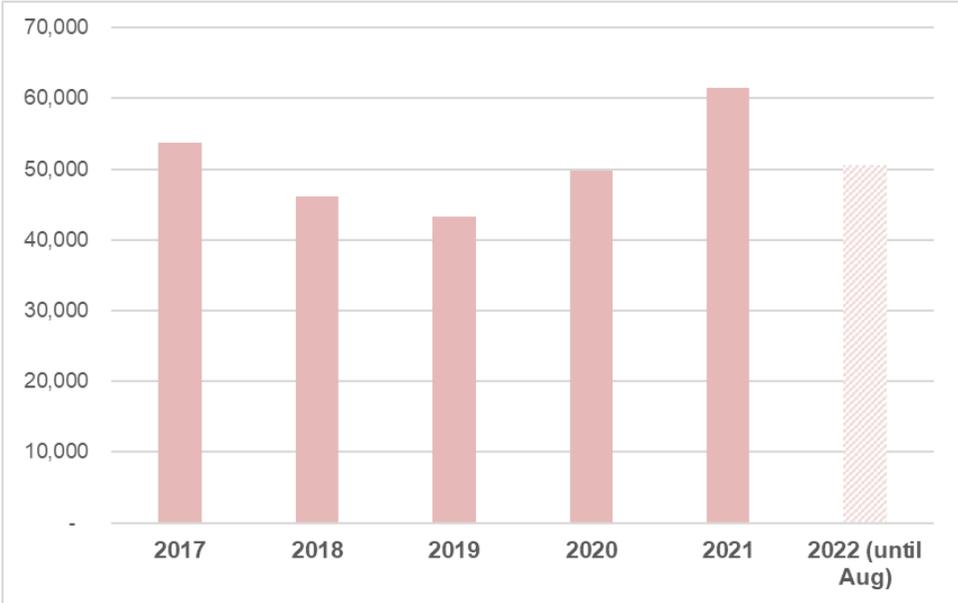
In 2022, the revenues from beef exports have increased at a higher rate than the export volumes, because beef prices increased during the year. While a kilogram of beef cost US\$ 3.8 in January, it cost US\$ 4.5 in August, an 18 percent price increase. The higher prices paid by importers indicates an elevated demand for beef in the global market. The average price of beef exports has been increasing since the second half of 2020. The only exception was during China's import suspension, from September to December 2021, when the average price decreased from US\$ 4.24 per Kg to US\$ 3.62 per Kg. Beef prices are expected to remain elevated until 2023, given that global demand for beef should remain high.

Imports

As the world's largest beef exporter, in 2021 Brazil imported just 0.8 percent of all its domestically consumed beef. In the first half of 2022, Brazil's beef imports represent 0.7 percent of the total supply. Brazil's main suppliers of beef are the neighboring countries of Paraguay, Argentina, and Uruguay. Beef exports from these markets benefit from lower transportation costs, as well as Mercosur's duty-free import regime. Together, these three countries represented 98.2 percent of imports in the first half of 2022. Brazil also imported beef from Australia, the United States and Poland. The United States exported 104 tons of beef to Brazil, which represented 0.3 percent of total Brazilian beef imports in the first half of 2022, worth US\$ 0.8 million. In the first half of 2022, total import volume increased 15 percent, in relation to the same period of 2021, while the increase was 41 percent in terms of value. Imports in 2022 are expected to be slightly

higher than 2021, around 14 percent, mainly due to the growing imports of high-quality gourmet and special cuts.

Figure 16
Brazilian Beef Imports (Tons CWE)



Data Source: Brazil Ministry of Economy, via Trade Data Monitor

3. SWINE

Production, Supply and Distribution

Animal numbers, Swine	2021		2022		2023	
	Jan 2021		Jan 2022		Jan 2023	
Brazil	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<i>(* 1000 head)</i>						
Total Beginning Stocks	37350	37350	35688	35688	34250	34250
Sow Beginning Stocks	3010	3010	2980	2980	3040	3040
Production (Pig Crop)	44515	44515	44850	44850	46000	46000
Total Imports	2	2	2	2	3	3
Total Supply	81867	81867	80540	80540	80253	80253
Total Exports	2	2	2	2	1	1
Sow Slaughter	140	140	150	150	140	140
Other Slaughter	44900	44900	45000	45000	45500	45500
Total Slaughter	45040	45040	45150	45150	45640	45640
Loss and Residual	1137	1137	1138	1138	1212	1212
Ending Inventories	35688	35688	34250	34250	33400	33400
Total Distribution	81867	81867	80540	80540	80253	80253

3.1 – Production

In 2022, Post forecasts swine production to increase by one percent, reaching 44.8 million head, while in 2023 the increase should be three percent, reaching 46 million head. The demand for pork meat is high and should remain so in 2022, however, Post’s forecast takes into account the elevated production costs, especially of animal feed, which represents over 80 percent of the total cost of production for swine producers in Brazil. Although the prices of corn and soybeans are stabilizing, many swine growers continue having difficulties closing their balance sheets with a positive profit margin. The market anticipates that margins will not improve until 2023.

The higher demand for pork meat since the onset of the pandemic crisis has made slaughterhouses increase their production at a rate higher than that of swine production. This difference resulted in decreases of swine animal inventories. Indeed, the ending stock in 2022 and in 2023 is expected to decrease four percent and 2.5 percent, respectively.

China’s appetite for pork imports declined since 2021, as it restored its sows and swine national production, which generated uncertainty among slaughterhouses as to future foreign demand. Indeed, Brazil’s pork exports in 2022 are expected to fall two percent. On the other hand, domestic demand for pork continues to grow, given that pork remains an interesting protein alternative, due to its lower prices. Domestic pork consumption in 2022 should increase marginally (around 0.3

percent) and one percent in 2023. Such demand allowed slaughterhouses to slightly increase their pork production and maintain their operations.

Factors Affecting Production

The Post forecast for an increase in swine production in 2022 is based on the current market conditions and recent trends.

Economy and Market demand

As described in the cattle section of this report, Brazil's economy recovered in 2021, growing 4.5 percent last year, after a 4.1 percent fall in 2020. The average household income fell in 2021 to R\$ 1,326, which is four percent lower than the 2020 value of R\$ 1,380. At the same time, inflation hit 10 percent in 2021, and the prices of many select food items grew even more. This reduced the purchasing capacity of many families, especially the poorer ones, forcing them to choose cheaper options in their regular food shopping at the retail stores. Economists expect that by the end of 2022, the economy will recover to the same levels as before the Covid-19 pandemic, yet consumer spending will take longer to recover due to the debt accumulated during the period. Currently, the GDP forecast for 2022 is around 2.2 percent and only 0.5 percent in 2023.

The Brazilian consumption of pork increased during the pandemic crisis: the higher beef prices made many consumers seek alternative meat options, including pork, which has lower prices at the retail level. While pork accounted for 17 percent of all meat consumption before the pandemic, currently it accounts for 19 percent. Although small, this two percent increase represents a large volume, as Brazilians are large consumers of meat. Additionally, in 2021, the prices of chicken increased 20 percent and beef prices increased 17 percent, whereas pork only increased two percent. In other words, pork prices remained below the inflation rate, making it even more affordable. Post anticipates that in 2022 most families will continue to buy the more affordable options of meat, namely pork or chicken. Consequently, the domestic demand for pork should expand in 2022, and Post forecasts an eight percent increase.

Challenges and Risks Faced by the Swine Sector

Weather conditions

As described in the cattle section of this report, Brazil's agriculture is still suffering the effects of *La Niña*, which caused drought and excess rain in different regions of the country in 2021. Although the effects are expected to be lighter in 2022, it remains unpredictable, and is expected to continue causing such unpredictability until the end of 2022. The damage caused by *La Niña* in 2021 to the production of corn and soybeans, also impacted the swine sector, which relies on the two crops for animal feed. Considering that such animal feed accounts for around 80 percent of swine production costs, any increase will have a direct impact of swine producers' operational costs. In fact, the increasing prices of corn and soybeans since 2020 left many swine producers at a negative income margin, i.e. operating at a financial loss. Although some producers abandoned the sector in 2021, many remained because of growing demand for pork, especially in the Brazilian market.

Although La Nina is expected to influence the weather until February 2023, the effects should be mild on soybean and corn production, given that the regions most affected are in Rio Grande do Sul and the northeast, both of which produce a relatively small portion of these crops.

Production Costs

The Brazilian swine sector has been experiencing high inflation rates in 2022 for production costs, especially for feed inputs, animal transportation costs and operation costs. In 2022, corn prices vacillated at around R\$ 84 to R\$ 100 per 60 kilogram (kg) bag, compared to the average of R\$ 40 per bag before the pandemic crisis; soybean prices have remained relatively stable between R\$ 180 and R\$ 195 per 60 Kg bag, compared to the average of R\$ 80 per bag before the pandemic crisis. Such elevated feed costs pressure the overall production costs, which have increased from R\$ 7 per Kg in December 2021 to R\$ 7.9 per Kg in March 2022. Despite the fluctuations, the average costs remain around 12 percent higher than the average of 2021.

Swine producers' profit margins improved somewhat in 2022 because corn and soybean prices have decreased slightly in 2022. The larger swine availability has reduced hog animal prices by around 15 percent.

As in 2021, Brazil's general inflation continues to increase in 2022, with increases in electricity costs, transportation costs, feed prices, animal transportation costs, among other items relevant for livestock production. The table below shows that corn costs began to decrease in 2022, from R\$ 2 per Kg to R\$ 1.53 per Kg in July. On the other hand, soybean prices continued to increase, from R\$ 2.61 in January to R\$ 2.69 in July. Hog prices decreased slightly from R\$ 5.91 per Kg to R\$ 5.61 per Kg. Nonetheless, the average production costs in 2022 are higher than in 2021, at an average of R\$ 7.5 per Kg, compared to R\$ 6.8 per Kg, indicating that swine producers will continue facing significant challenges in maintaining any profit margins from their activities.

Table 3
Prices of Inputs and Production Costs - Swine

Prices for Santa Catarina State - R\$/Kg													
	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Hog Live Weight	2020	4.61	4.54	4.64	4.58	4.51	4.51	4.67	4.88	5.23	5.63	6.76	6.84
	2021	6.66	6.44	6.37	6.17	6.41	6.36	6.45	6.45	6.41	6.35	6.27	6.24
	2022	5.91	5.27	5.10	5.50	5.10	5.10	5.61					
Corn	2020	0.81	0.84	0.84	0.83	0.83	0.82	0.86	0.94	1.01	1.22	1.42	1.35
	2021	1.46	1.48	1.52	1.71	1.77	1.61	1.73	1.79	1.72	1.67	1.61	1.63
	2022	2	1.78	1.78	1.62	1.60	1.59	1.53					
Soybean Meal	2020	1.49	1.46	1.60	1.86	1.92	1.91	1.95	1.98	2.07	2.6	2.89	2.76
	2021	2.89	3.13	2.95	2.64	2.66	2.50	2.54	2.39	2.3	2.29	2.22	2.23
	2022	2.61	2.85	3.00	2.80	2.61	2.65	2.69					
Production Costs (full cycle)	2020	4.27	4.32	4.44	4.6	4.64	4.62	4.73	5.04	5.37	6.17	6.77	6.56
	2021	6.63	6.88	6.87	7.03	7.3	6.82	7.1	7.12	6.87	6.8	6.65	7.00
	2022	7.48	7.64	7.9	7.49	7.34	7.34	7.63					

Data Source: EMBRAPA Avian and Swine Central Intelligence

EMBRAPA’s index for swine production costs, called *ICPSuínos*, shows that, in the state of Santa Catarina, feed costs increased 5.5 percent in 2021. In the same year, swine producers saw their total cost of production increase a cumulative 6.8 percent, mainly due to the cost of animal feed. In the Brazilian pork industry, as most of the production is done intensively, nutrition costs accounted for 78.6 percent of total costs in July 2022. In 2022, corn feed costs in Santa Catarina State have fallen from R\$ 2 to R\$ 1.53 per Kg, a 23.5 percent decrease, while soybean increased from R\$ 2.61 to R\$ 2.69 per Kg, a 3 percent increase, after reaching a peak value of R\$ 3 per Kg. Although the average cost of feed crops increased only slightly between January and July, the total production costs fluctuated and reached July with a two percent increase (compared to January 2022). Although the costs of feed crops are expected to decrease until the end of 2022 and through 2023, it is uncertain whether total swine production costs will follow such a trend.

Table 4
Swine Production Costs - 2021

Swine Production Costs - July 2022		
Item	Jan-Jul 2022	Percentage of total
Nutrition (feed)	4.95%	78.6%
Maintenance/ Financial/ Funrural	1.86%	4.55%
Transportation	2.42%	4.48%
Labor	0.56%	3.37%
Capital Cost	0.01%	2.94%
Others	-0.20%	2.61%
Depreciation	0.15%	2.20%
Sanitary	-0.66%	0.71%
Eletric Energy/ Heating	0.05%	0.58%
Total	+7.42%	100%

Data Source: EMBRAPA Swine and Poultry, ICPSuínos.

Embrapa’s ICP index increased in 2022, from 400 in December 2021 to 432 in July 2022, an eight percent increase. It peaked at 452 in March and then decreased since then. As stated in the previous GAIN report ([BR2022-0018](#)), the private sector and the state-level governments have been discussing ways of lowering animal feed expenses, given the sector’s importance to certain states, particularly in the southern Brazil. Different measures and policies were proposed, however, so far, these have had very limited effects on the feed prices paid by producers, thereby having little impact in the attempt to lower their costs.

Swine producers faced a dire situation in early 2022, as prices of hog carcass fell around 20 percent until March, while total production costs increased around six percent. Several swine producers abandoned the activity, or planned to do so, given that the activity became economically unviable. The costs of maintaining the animals until prices improved is often too high to maintain, especially during a period of high inflation, elevated production costs, and economic uncertainty in the country. However, animal prices improved until July 2022, thereby bringing optimism to swine producers.

Demand for animal feed should remain high during the year, given that the protein sector is experiencing good performance, especially in the international market. Different experts expect corn and soybean prices to remain relatively stable until the end of 2022.

Sanitary Risks

Similar to the case of cattle, though relatively small, the risk of diseases breaking out in Brazil's swine sector is not completely negligible. Although so far there has been no serious sanitary outbreaks or issues in 2022, African Swine Fever (ASF) disease is a constant threat, given that it may arise at any time. Swine related diseases have been under control for many years, due to the rigorous vaccination, sanitary conditions required, the government control mechanism, and the investments made by the private sector. For instance, the last time ASF was detected in Brazil was in the early 1980s.

In August of 2021, ASF was detected in the Dominican Republic in July 2021, and there was a risk of it spreading to other countries in the Western Hemisphere. In response, the Brazilian Ministry of Agriculture implemented various measures to prevent the disease from entering the country. Additionally, the Ministry committed US\$ 500 thousand as part of a partnership program with the Inter-American Institute for Cooperation on Agriculture (IICA) to control the spread of the virus in Haiti and the Dominican Republic. Since then, the Brazilian Ministry of Agriculture continued to implement its national plan to monitor swine diseases (*'Plano Integrado de Vigilância de Doenças dos Suínos'*), seeking to strengthen the country's capacity of early detection of ASF, Classical Swine Fever and Porcine Reproductive and Respiratory Syndrome (PRRS).

Geography of Brazil's Swine Production

In terms of the main swine production regions of Brazil, there has been no noticeable change during 2022, and Posts anticipates that this trend will persist in 2022 and continue in 2023. The three largest swine-producing states are in the south of the country: Santa Catarina, Paraná, and Rio Grande do Sul, with 19.2 percent, 17 percent and 14.1 percent, respectively. Together, they are responsible for half of the total pig population in Brazil (as of 2021). In terms of slaughter, Embrapa's data indicates that these states are responsible for 71 percent of all swine slaughter in 2021 in Brazil. In 2020, the south accounted for 60 percent of total animals, the center-west and the southeast for almost 20 percent each, with three percent in the northeast. Goiás and Minas Gerais states have important swine and cattle production. Conab's forecast for 2022 points to a swine population of 42.6 million heads in Brazil, i.e. 3.6 percent larger than in 2020.

Main Swine Producing States Supply (million head)



Data source: IBGE Livestock Production by Municipality 2020.
Prepared by OAA-Brasilia.

3.2 – Trade

Although Post expected (as per the previous GAIN report ([BR2022-0018](#))) Brazil's live swine exports in 2022 to remain similar to the value of 2021, exports in 2022 have so far been much lower than expected. Live swine exports in January until July 2022 were USD 297 thousand, which is 81 percent lower than the same period in 2021. The main reason was that exports to Argentina did not occur so far in 2022.

On the other hand, the previous report correctly stated that imports would continue the upward trend of previous years, which occurred so far in 2022. Despite being the fourth largest swine producer in the world, exporting live swine is not an important activity for the sector. Brazil primarily sends hogs to its most important traditional market, Argentina, as well as to other neighboring countries like Paraguay, Bolivia, Uruguay and, in 2021, to Venezuela.

Exports

Brazil is the twelfth-largest exporter of live hogs, mostly for slaughter as well as for purebred breeding for genetic improvement. From the traditional markets where Brazil exports live swine, Argentina accounted for 74 percent of all exports in the past six years. In 2021, exports to this neighboring country were USD 2.78 million, which is almost half the amount exported in 2019. Post believes that this sharp fall was likely a consequence of the pandemic. So far in 2022, Brazil did not export live swine to Argentina. This is the situation since November 2021, when Argentina decided to suspend imports of live swine, after the SENASA (*Serviço Nacional de Saúde e Qualidade Agroalimentar*), the national sanitary inspection agency, detected three animals with the Porcine Reproductive & Respiratory Syndrome virus (PRSS). In 2021, Paraguay was the second main importer (USD 633 thousand), followed by Venezuela (USD 435 thousand) and Bolivia (USD 329 thousand).

In 2022, live swine exports are very small in volume and value: until August, Brazil only exported USD 297 thousand. So far, Paraguay is the largest importer of live swine from Brazil, accounting for 76 percent of the total export value. Bolivia was the other main importer, accounting for 23 percent of Brazil's exports. It is uncertain how much Brazil will export by the end of 2022, as it will depend mainly on whether, and when, Argentina may decide to resume its imports of live swine. As for 2023, there are, so far, no foreseen issues that could influence Brazilian exports of live swine. Assuming that Argentina resumes imports, Brazil may export quantities and values similar to those of 2020 or 2021.

Imports

Brazil imports a relatively small volume of live swine, being the 18th largest importer in the world (2021). As with live cattle, Brazil's imports of live swine are focused on genetic improvement. Brazil has only imported live swine for purebred breeding (HS Code 010310). In 2021, total imports grew 34 percent (in value terms), and in Jan-July 2022 has increased 52 percent in relation to the same period in 2021. For the whole of 2022, total imports are expected to be 45 percent larger than 2021. Among Brazil's traditional suppliers, the United States supplied over 46 percent of total imports over the past six years. In Jan-July 2022, U.S. live swine exports were 161 percent larger than the same period in 2021, and almost reached the total value for 2021, indicating that exports to Brazil for the year should be larger than in 2021. The US accounted for 18.7 percent in value and 25 percent in volume of Brazil's imports in January-July 2022.

In 2023, imports should remain at a similar level of 2021-22, as there are no factors that should cause an increase or decrease in such imports.

Table 6
Brazilian Imports – Live Swine (in USD 1000)

Country	2016	2017	2018	2019	2020	2021	2022 Jan-Jun
Denmark	314.1	313.2	-	991.8	658.2	1,452.4	1,213.7
Canada	130.5	178.1	164.3	231.9	425.4	701.5	298.5
United States	246.0	520.3	786.5	986.2	1,202.2	462.5	443.8
France	156.5	369.4	238.2	219.7	-	292.6	292.7
Norway	-	-	-	-	-	158.1	121.3
Total	847.0	1,381.1	1,188.9	2,429.6	2,285.7	3,067.2	2,370.1

Data Source: Brazil Ministry of Economy, via Trade Data Monitor

4. PORK

Production, Supply and Distribution

Meat, Swine	2021		2022		2023	
	Jan 2021		Jan 2022		Jan 2023	
Brazil	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<i>(* 1000 MT CWE)</i>						
<i>Slaughter (Reference)</i>	45040	45040	45150	45440	45640	45640
Beginning Stocks	0	0	0	0	0	0
Production	4365	4365	4350	4350	4420	4420
Total Imports	3	3	5	5	4	4
Total Supply	4368	4368	4355	4355	4424	4424
Total Exports	1321	1321	1300	1300	1335	1335
Human Dom. Consumption	3047	3047	3055	3055	3089	3089
Other Use, Losses	0	0	0	0	-	-
Total Dom. Consumption	3047	3047	3055	3055	3089	3089
Ending Stocks	0	0	0	0	0	0
Total Distribution	4368	4368	4355	4355	4424	4424

4.1 – Production

In 2022, Post forecasts pork production to remain almost unchanged, at 4.35 million tons CWE, while the forecast for 2023 is a two percent increase, reaching 4.42 million tons CWE. This production growth is in part due to the growing demand and consumption of pork in the domestic market since the onset of the pandemic crisis. The Post forecast is based on the increased slaughter volume projected for 2022, due to the relatively high demand for pork meat in the domestic and foreign markets.

Although China's lower demand for pork exports from Brazil has impacted Brazil's total export volume, other countries (especially in Asia) have increased their purchases. Although the reduction in pork exports in 2022 may seem worrisome, the domestic demand for pork provided much relief to slaughterhouses. In 2023, the Brazilian currency exchange rate is expected to continue at a favorable level for Brazilian exporters, while domestic demand should remain relatively high, thereby providing incentives for pork production.

4.2 – Consumption

Post forecasts 2023 domestic pork demand to grow one percent. Post's forecast is based on the slower economic recovery of Brazil, the slight decrease (so far) in pork prices in 2022, which is expected to continue through 2023, and the rising prices of the alternative meats, i.e. chicken and beef. The growth in consumption should be limited because pork is still not a favorite option of meat for many Brazilian families. Most consumers prefer beef and chicken meat,

often choosing the latter when the prices of the former are elevated. It will take years for the pork sector to convince Brazilian consumers to increase pork consumption, despite campaigns like the Brazilian Association of Animal Protein - ABPA's promoting the benefits of pork.

Despite the growing trend of pork consumption during the pandemic crisis, mainly due to lower prices at retail, it is uncertain whether low-income families will continue preferring pork in the second half of 2022. The Brazilian government approved in August 2022 a subsidy for low-income families (called *Auxilio Brasil*), which will be distributed until 2023, which may allow such families to spend on more expensive meats, such as chicken or beef. The main sector association expects domestic demand and exports to grow in the second half of 2022, resulting in a good year for swine producers and industry. Per capita consumption is projected to increase to 18 kg per year, up from 16.7 Kg per year in 2021.

In 2021, around 72.7 percent of total pork production in Brazil was consumed domestically, while 27.3 was exported. In 2022 the proportion is expected to be 74.6 percent domestic consumption, and 25.4 percent exported. Post forecasts for consumption take into account China's smaller import volumes of pork, which should pressure pork producers to increase domestic sales, possibly through price reductions. Indeed, the smaller volumes of exports is pressuring prices of pork sold in the domestic market. Low-income families welcome such lower prices, given the high food inflation present in 2022 and the unpredictable economic condition of the country.

4.3 – Trade

Exports

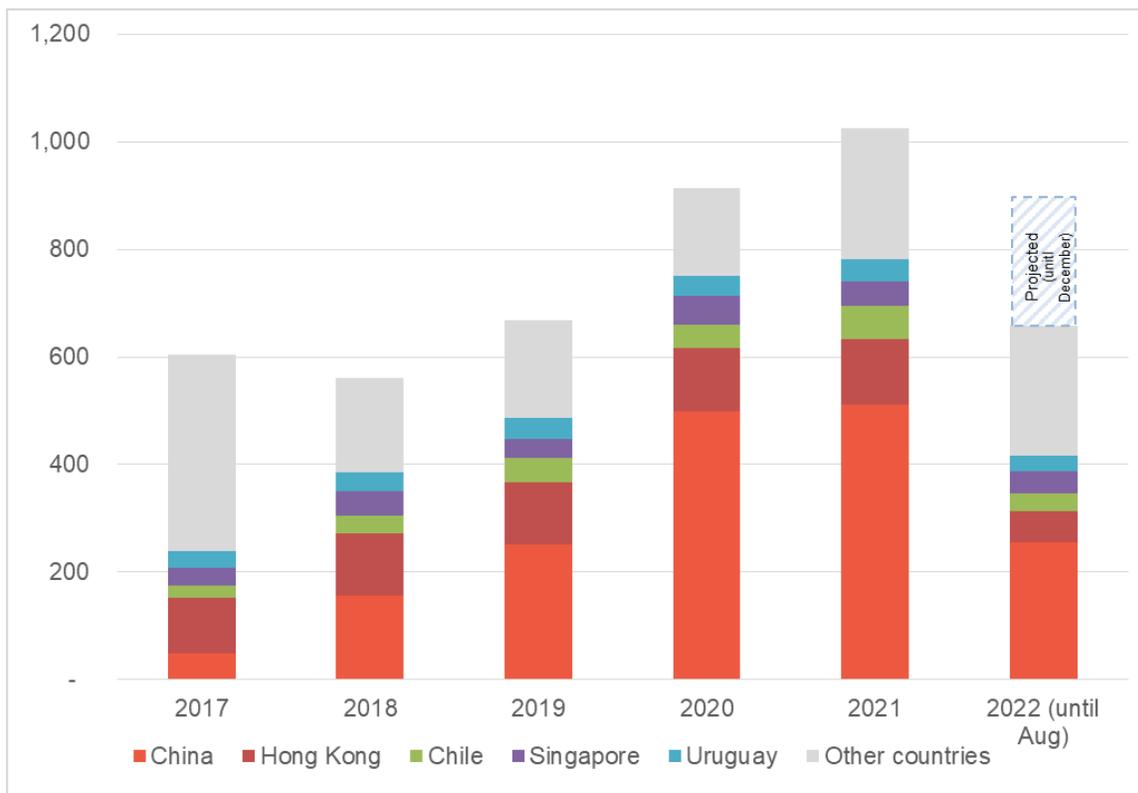
Post forecasts Brazil's pork exports to fall by 1.6 percent in 2022. Although Post's forecasted in the previous report ([BR2022-0018](#)) a 2.9 percent increase in exports in 2022, current export performance indicates otherwise. In the first half of 2022, export volume was 9.5 percent lower than the same period in 2021. In 2022, Brazil is unlikely to repeat the record in volume exports of pork seen in 2021 of 1,024 thousand tons CWE - surpassing one million metric tons (CWE) for the first time in Brazilian history.

The main importers of Brazilian pork over recent years have been China, Hong Kong, Chile, Singapore and Uruguay (in order). Although China became one of the top three export destinations in 2021, due to the drop in national swine production after the ASF outbreak in 2018, China's imports from Brazil only increased by 2.6 percent in 2021. Nonetheless, in 2021, China accounted for 50 percent of Brazil's pork exports. Other countries that also increased purchases of Brazilian pork (in value): Argentina, with a 97 percent increase; Chile, a 39 percent increase; Philippines, with a 638 percent increase, and the United States, which increased imports by 66 percent in 2021.

In the first half of 2022, China reduced its pork imports from Brazil by an astonishing 38 percent, compared to the first half of 2021. Exports to Hong Kong fell by the same proportion, yet it remained the second main destination, importing 49 thousand tons. China's share fell to 37 percent of Brazil's export destinations, while Hong Kong fell from around 14 percent to 10 percent. On the other hand, pork exports increased to Singapore, Argentina, the Philippines and Japan. Pork exports

to the United States have increased 70 percent in the first half of 2022, compared to the same period of 2021, reaching 7.7 thousand tons. Total exports in the first half of 2022 fell 8.4 percent, compared to the same period of 2021.

Figure 17
Brazilian Exports – Pork Meat (1000 tons CWE)



Data Source: Brazil Ministry of Economy via Trade Data Monitor. Chart: OAA-Brasilia.

Figure 17 shows how pork exports were growing since 2018, but in 2022 the total volume is expected to be lower than last year’s volume. It also shows how China became the largest buyer over the years. Further, although there was a concentration of export destinations from 2018 until 2020, which is when China increased its imports from Brazil, the export destinations grew in 2021 and, so far, in 2022. The main reason for the latter is that China’s imports stabilized in 2021, which forced exporters to find new markets.

Prospects for pork exports in the second half of 2022 are positive. China is expected to increase its imports from Brazil, Canada opened its market for Brazilian pork, south Korea and Vietnam lowered their import tariffs, and there is rising demand from new markets (for example, Thailand). The pork association ABPA expects exports to reach 600 thousand tons in the second half of 2022.

In 2023, Post’s forecasts pork exports to grow by three percent, totaling 1.34 million tons CWE. One reason is the relatively low price of Brazilian pork, especially due to the exchange rate, which

allows for opening new foreign markets. Brazil received authorization to export pork to new countries, including Canada, which should lead to increasing volumes in 2023, when the market should be developed by Brazilian exporters and traders. Post’s projection is lower than that of the main sector association ABPA, which expects pork exports to increase by 6 to 8 percent (in relation to 2022), yet market experts consider ABPA’s projection to be over-optimistic.

Imports

Brazil is a small importer of pork: in 2021, Brazil only imported 2,451 tons (CWE) of pork from five countries, worth USD \$21.7 million. Though small, it was 64 percent larger than the volume of 2020, and almost 90 percent was HS Code 021019 (Meat of swine, nesoi, salted, in brine, dried or smoked), mostly coming from Italy and Spain. In the first half of 2022, pork imports were 2.41 thousand tons, representing a 121 percent increase over the same period in 2021. The suppliers were Italy, Spain, Chile, and Portugal. Chile’s volume was 1.55 thousand tons, a 650 percent increase in relation to the first half of 2021. As for 2023, pork imports are expected to be around 20 percent lower than the 2022 volume.

Table 8
Brazilian Imports – Pork Meat (in Tons CWE)

	2017	2018	2019	2020	2021	2022 (until Aug)
Italy	804	750	946	762	1,124	662
Spain	594	761	750	535	643	464
Paraguay	-	-	-	140	638	-
Portugal	57	56	71	51	42	34
France	2	3	2	5	4	1
Hungary	0	-	-	-	-	-
Argentina	-	0	-	-	-	-
Chile	139	-	-	-	-	-
Total	1,596	1,570	1,770	1,492	2,451	1,162

Data Source: Brazil Ministry of Economy via Trade Data Monitor

Attachments:

No Attachments