

Required Report: Required - Public Distribution **Date:** September 27, 2022

Report Number: BR2022-0051

Report Name: Poultry and Products Annual

Country: Brazil

Post: Brasilia

Report Category: Poultry and Products

Prepared By: Camila Aquino

Approved By: Joseph Degreenia

Report Highlights:

Post forecasts production at 14.85 million metric tons in 2023, up three percent due to strong external demand and improved domestic consumption, setting a historical record. Consumption for 2023 is forecast at 9.85 million metric tons, growing two percent. Brazil is expected to continue to be the world's largest exporter of chicken meat and Post forecasts a six percent increase for 2023 totaling 5 million metric tons. Overall, exports are expected to account for 34 percent of total production, with China being the top destination for Brazil's poultry. Poultry prices were impacted by the rapidly rising input costs, which increased from 5 to 20 percent of production in the period of January to July 2022.

EXECUTIVE SUMMARY

Brazil's economy is still recovering from the negative impacts of the pandemic on its GDP growth, employment, and most sectors of the economy. For 2022, the Brazilian Central Bank (BCB) forecasts GDP to grow two percent and only 0.39 percent in 2023. Higher than anticipated inflation has decreased consumption in 2022. Producers have resorted to exports to benefit from the devalued Real, and compensate costs associated with animal feed in production. For 2023, the outlook for the poultry sector's production and trade is positive, and Post anticipates expansion, mainly due to the global demand increase.

Production:

Brazil is currently the second-largest chicken meat producer in the world, behind the United States, per official USDA data. Post forecasts chicken production will decrease one percent in 2022 and decline to 14.4 million metric tons (MMT), due to stronger than initially anticipated inflation. For 2023, Post forecasts production will rebound, growing at three percent, totaling 14.9 MMT. These production levels are forecast to set historical records. Post forecast production growth is based on strong external demand, notwithstanding decreased domestic consumption. Paraná state is the single largest producer, responsible for one third of total chicken meat coming out of Brazil.

The Brazilian market anticipates that its producers will continue to benefit from robust global demand, which has been reinforced by a decrease in the global supply due to the spread of Avian Influenza in several key producers around the world, the current conflict in Ukraine, and surging prices of animal feed. Notably, some of Ukraine's key poultry markets overlap with Brazil's main markets, such as Saudi Arabia and the United Arab Emirates. These factors are predicted to still likely impact the market in 2023 as the consequences of the conflict in Ukraine on the global supply chain will continue. Profitability of the sector in 2022 has decreased due to increased input costs but this has been countered by the increase in exports due to the devalued Real.

Consumption:

Post estimates consumption in 2022 will close at 9.7 MMT, a six percent decrease from 2021. Post anticipates that 67 percent of the Brazilian chicken production will be destined for the domestic market in 2022, which is below average for the previous five years, which was a little over 71 percent. Post's expectation for this reduction in domestic consumption is based on reduced domestic availability, higher prices, lower consumer purchasing power due to high inflation, and increased egg consumption. However, in 2023, Post forecasts domestic consumption will increase two percent from 2022, reaching 9.85 MMT, or 66 percent of total production, due to the improved global economy.

Chicken is the most widely consumed protein in Brazil, as it is often the substitute for the preferred, but more expensive, beef option. As a result of the economic uncertainties, many families resorted to purchasing lesser expensive meat, hence, boosting the domestic prices of poultry. Between July 2021 and July 2022, domestic retail prices of chicken increased an average of 15.13 percent for whole chicken and 19.74 percent for chicken cuts in Brazil.

Trade:

Post forecasts a 11 percent increase in Brazilian chicken exports in 2022 from the record in 2021, for a total of 4.7 MMT. In 2022, Post forecasts exports will represent 33 percent of total production. For 2023, Post forecasts Brazil to export 5.0 MMT, a six percent increase from 2022's forecast. Note that Post and official USDA estimates do not include chicken paws but that official Brazilian statistics do. Brazil is the world's largest exporter of chicken meat, followed by the United States, the European Union, Thailand, and Turkey. The outbreak of African Swine Fever (ASF) in China in 2018 and in other parts of the world, outbreaks of Avian Influenza in Europe, the Middle East, Africa, Asia, and North America, and the ongoing conflict in Ukraine generated animal protein production shortfalls in many markets. As Brazil was not directly affected by these crises, this has, in turn, increased demand and opportunities for Brazilian poultry.

The favorable exchange rate has further accentuated Brazil's advantage when it comes to commodity exports. In the period of January to July, 2022, the top markets for Brazil's chicken exports were, in order: China, the United Arab Emirates, Japan, Saudi Arabia, and South Africa. As the world's largest exporter of halal animal protein, Brazil is seeking to increase its exports to the Arab world, and the government is working towards opening new markets and increasing market participation in other countries. The UAE is the largest importer of Brazilian halal animal protein and thus far this year it was the second largest destination of Brazilian chicken meat exports. In the first seven months of 2022, Brazilian exports to the UAE rose over 66 percent. The removal of import tariffs on chicken meat in Mexico and the lifting of anti-dumping measures against Brazil in South Africa point to improved exports to those countries. Post forecast chicken imports will remain at 5 thousand metric tons, mostly coming from Argentina.

1. POULTRY

FIGURE 1 - CHICKEN MEAT PRODUCTION, SUPPLY, AND DISTRIBUTION TABLE

Meat, Chicken	202	21	202	22	2023			
Market Year Begins	Jan 2021		Jan 2	2022	Jan 2023			
Brazil	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post		
Beginning Stocks (1000 MT)	0	0	0	0	0	0		
Production (1000 MT)	14500	14500	14700	14400	0	14850		
Total Imports (1000 MT)	5	5	5	5	0	5		
Total Supply (1000 MT)	14505	14505	14705	14405	0	14855		
Total Exports (1000 MT)	4225	4225	4600	4700	0	5000		
Human Consumption (1000 MT)	10280	10280	10105	9705	0	9855		
Other Use, Losses (1000 MT)	0	0	0	0	0	0		
Total Dom. Consumption (1000 MT)	10280	10280	10105	9705	0	9855		
Total Use (1000 MT)	14505	14505	14705	14405	0	14855		
Ending Stocks (1000 MT)	0	0	0	0	0	0		
Total Distribution (1000 MT)	14505	14505	14705	14405	0	14855		
(1000 MT)								

Source: USDA FAS Brasília. Not Official USDA Data.

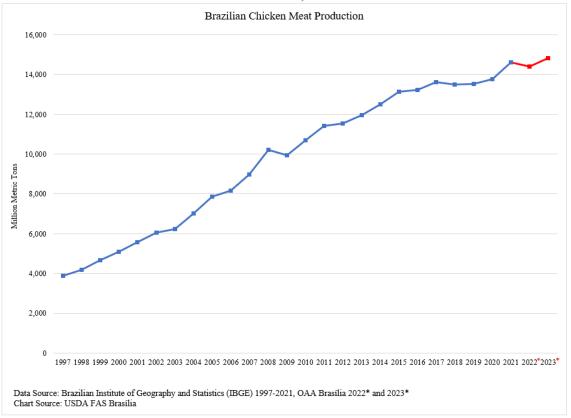
1.1 – Production

Chicken numbers

Brazil is currently the second-largest chicken meat producer in the world, behind the United States, per official USDA data. Post forecasts chicken production will decrease one percent in 2022 and decline to 14.4 million metric tons (MMT). Post revised down its forecast production because of stronger than initially anticipated inflation hampering domestic consumption, increased cost of inputs, and reduced availability of chicken inventories. For 2023, Post forecasts production will rebound, growing at three percent, totaling 14.8 MMT, which would set a historical production record as demonstrated by the graph below. Post forecast production growth is based on strong external demand and improved domestic consumption from current year.

The Brazilian Institute of Geography and Statistics (IBGE) has been compiling monthly slaughter data since 1997. For 2022, official data shows that the first semester of 2022 registered 7.4 MMT produced. For 2023, Post anticipates that Brazil will increase production and surpass annual record levels set in 2021.

FIGURE 2 – BRAZILIAN CHICKEN MEAT PRODUCTION, 1997-2022 AND 2023 PROJECTIONS



The following IBGE map shows chicken meat production across the five different regions of Brazil for the first quarter of 2022. The South region of Brazil – composed of the states of Paraná, Santa Catarina, and Rio Grande do Sul – leads the country in chicken production, representing over 60 percent of the national production. This quarter's numbers are very much in line with annual numbers for the past few years. Paraná state is the single largest producer, responsible for 33.5 percent of total chicken meat coming out of Brazil in the first quarter of 2022, followed by Rio Grande do Sul state, with 13.5 percent of total production, and Santa Catarina state, with 13.2 percent of national production. The states of São Paulo and Goiás round out the top 5 producers.

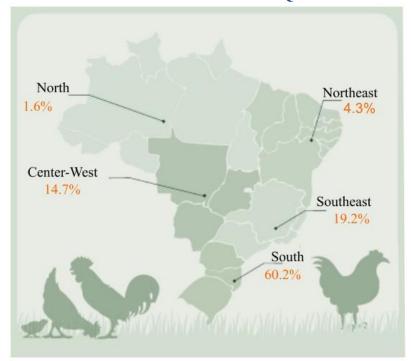


FIGURE 3 – CHICKEN MEAT PRODUCTION BY REGION – FIRST QUARTER OF 2022

Data source: IBGE Livestock Production Statistics, Final Results for First Quarter of 2022 (published on June 8, 2022).

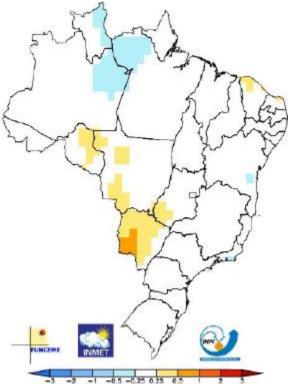
Weather Conditions

Climate is an important factor in chicken production. The ideal temperature for chicken production varies between 18°C to 28°C (64° to 82°F). Temperatures outside of this range impact the chickens' thermal balance. Subject to higher temperatures, chickens tend to drink more water and eat less feed – hence gaining less weight and producing fewer eggs. Subject to lower temperatures, chickens tend to pile up, not eating or drinking enough to gain adequate weight for slaughter and becoming more susceptible to respiratory diseases. In a recent crop travel made by Post, representatives from all major Brazilian chicken meat producing companies highlighted that the increased cost of energy has been having an impact on production costs. Frigid weather negatively pushes up production costs, as producers must devote more resources to keeping a healthy environment for the chickens. Low temperatures also impact chicken production costs collaterally due to the negative impact on crop quality and yields.

Based on data from the National Meteorology Institute (INMET), weather temperatures should return to average in the most of Brazil in the period of August to October 2022. However, temperature in the South region of Brazil, the key producing states for poultry, may be affected by some cold air masses influx, which can result in a drop of temperature specially in the mountain range regions of Rio Grande do Sul and Santa Catarina states. INMET also forecasts below close to average or slightly below average rain incidence in the Center West region of Brazil, with temperatures close to or slightly above average,

and for the Southeast region, where São Paulo state is located, rain should be close to or slightly below average in the period, with temperatures above the historical average.

FIGURE 4 – AUGUST-OCTOBER 2022 TEMPERATURE FORECAST

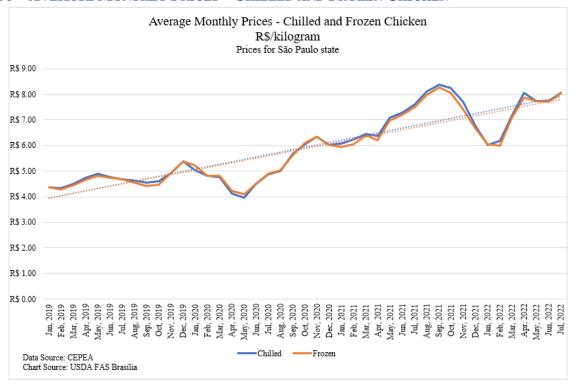


Source: INMET Monthly Agri Climatological Report August 2022.

Price and Profitability Outlook

Post forecasts poultry prices will remain elevated for the remainder of 2022 and onwards to 2023. The forecast is based on higher input costs, domestic inflation, and external volatility. In the first seven months of 2022, the average price for chilled chicken was R\$ 7.27 (US\$1.42) per kilogram and R\$ 7.21 (US\$1.41) per kilogram for frozen chicken. Post anticipates that 2022 prices may surpass the records set in 2021, and 2023 prices will remain elevated when compared to previous levels. As a comparison, in 2021, the average price for chilled chicken was R\$ 7.19 (US\$1.34) per kilogram and a record R\$ 8.60 (US\$1.60) per kilogram in mid-September. In comparison, in 2020, the record price had been R\$ 6.51 (US\$1.26). For frozen chicken, the average price during 2021 was a bit lower at R\$ 7.05 (US\$1.31) per kilogram, and the record price was R\$8.55 (US\$1.59) per kilogram, also in mid-September.

FIGURE 5 – AVERAGE MONTHLY PRICES – CHILLED AND FROZEN CHICKEN



For the remainder of 2022, Post anticipates that domestic food prices in Brazil will continue increasing due to higher inflation, the conflict in Ukraine which has disrupted the global trade of commodities and fertilizers, and domestic factors such as increased cost of energy and inputs. Post anticipates that global chicken prices will also be supported by a global decrease in chicken meat supply due to conflict in Ukraine as well as the spread of Avian Influenza in key poultry producing countries. As both these key external factors do not have a defined period of duration, this scenario is expected to linger on in 2023. Finally, Post believes that Brazil's domestic chicken prices will likely continue high reflecting the higher cost of production, as seen on the previous graph.

Global Demand

The Brazilian market anticipates that in 2022 the country's producers will continue to benefit from robust global demand, which has been reinforced by a decrease in global supply. The supply was impacted by the spread of Avian Influenza in several parts of the world, as well as by the current conflict in Ukraine. The conflict has greatly affected Ukraine's export capacity, and despite the late July agreement reached with Russia for exports of grains, exports have been minimal. Notably, some of Ukraine's key poultry markets overlap with Brazil's main markets, such as Saudi Arabia and the United Arab Emirates. As many of Brazil's major competitors worldwide are facing challenges with production – rather because of the impact of armed conflict, feed availability and costs, or animal health - Brazil has reinforced its position as a reliable supplier, assisting the world in its food security by supplying to foreign markets. Additionally, Brazilian chicken meat exports will continue to benefit from the devalued Real, which lost a third of its value with the onset of the pandemic. The Brazilian Central Bank (BCB) expects that the exchange rate will remain above 5 reais (R\$) to the U.S. dollar for the remainder of 2022 and through 2025.

Domestic Consumption

Post projects that Brazil's domestic chicken consumption will be reduced by six percent this year, due to slower economic growth and reduced purchasing power caused by sustained higher inflation. The expected downward pressure on consumption will be mitigated to an extent by the resumption of social, work, school activities, and social benefits to the population in most need. Chicken is the most widely consumed animal protein in Brazil, as it is often the substitute for the preferred, but more expensive, beef option.

Production Costs

While the price outlook is robust, input prices are weighing on the sector's profitability. The table and chart below show that for the first seven months of 2022, Paraná producers saw production costs increase from 5 to over 20 percent when compared to the same periods in 2021. The table "Prices for Paraná state" shows the fluctuations in the price of inputs, as well as in the price of a live chicken which has rocketed in the end of the first quarter of 2022 and remained high ever since.

FIGURE 6 – CHICKEN PRODUCTION COST FOR PARANÁ STATE

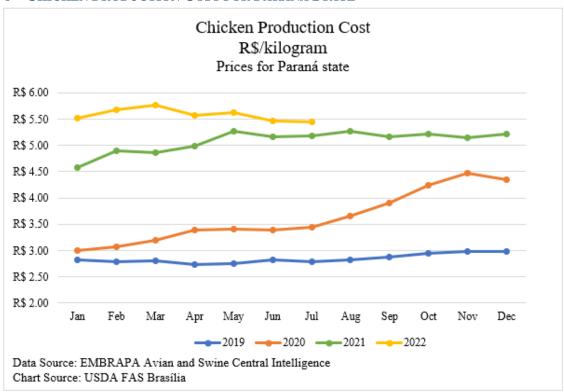


FIGURE 7 - PRICES FOR PARANÁ STATE

Prices for Paraná state - R\$/kilogram													
	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Live Chicken	2019	2.89	2.82	3.07	3.04	3.10	3.06	3.11	3.08	3.06	3.10	3.11	3.11
	2020	3.42	3.23	3.23	3.19	3.20	3.45	3.54	3.60	3.86	4.16	4.59	4.00
	2021	4.62	4.74	4.9	4.79	5.03	5.12	5.36	5.6	5.91	5.91	5.87	5.41
	2022	5.08	5.09	5.36	5.69	5.58	5.58	5.53					
Soybean	2019	1.30	1.25	1.26	1.29	1.30	1.35	1.68	1.30	1.34	1.34	1.40	1.45
	2020	1.45	1.44	1.58	1.78	1.82	1.77	1.82	1.96	2.20	2.71	2.93	2.82
Meal	2021	3.18	3.15	2.72	2.60	2.56	2.36	2.40	2.38	2.37	2.40	2.29	2.36
	2022	2.73	3.00	3.18	2.79	2.59	2.54	2.73					
Corn	2019	0.59	0.60	0.59	0.55	0.53	0.58	0.58	0.57	0.57	0.62	0.66	0.71
	2020	0.75	0.75	0.81	0.78	0.77	0.74	0.77	0.86	0.94	1.11	1.26	1.19
	2021	1.34	1.34	1.44	1.65	1.68	1.49	1.63	1.70	1.58	1.54	1.46	1.50
	2022	1.64	1.68	1.67	1.46	1.51	1.48	1.38					

Data Source: EMBRAPA Avian and Swine Central Intelligence

Chart Source: USDA FAS Brasilia

The Brazilian Company of Agricultural Research, EMBRAPA, compiles an index for poultry production costs, called *ICPFrango*. In 2021, nutrition (feed) costs accounted for 75 percent of the total production costs. Moreover, at the end of the year, total costs were almost 18 percent higher when compared to the previous 12 months. The following table shows that by July 2022, nutrition costs increased to over 72 percent of the total poultry production cost. Poultry producers saw their total cost of production increase by 12 percent in average thus far this year. For the remainder of 2022 and for 2023, Post believes that the costs of production will surpass the levels seen in 2021, due to higher global corn prices.

FIGURE 8 - POULTRY PRODUCTION COSTS

Poultry Production Costs - July, 2022						
Item	Value difference compared to previous 12 months	Percentage of total				
Nutrition (feed)	+0.78%	72.27%				
Day-old chick	+2.31%	14.75%				
Labor	+0.14%	3.67%				
Transportation	+0.16%	1.62%				
Depreciation	+0.78%	2.64%				
Capital Cost	+0.49%	2.02%				
Eletric Energy/ Bed/ Heating	+0.38%	1.65%				
Maintenance/ Financial/ Funrural	+0.25%	0.84%				
Diverse/ Others	+0.01%	0.17%				
Sanity	+0.21%	0.36%				
Total	+5.51%	100%				

Data Source: EMBRAPA Swine and Poultry, ICPFrango

Chart Source: USDA FAS Brasilia

Much of the increased cost of production is due to spiraling domestic and international prices of corn and soybeans. Poultry production profitability is highly dependent on the price of animal feed – corn, for instance, represents around 70 percent of the feed given to poultry.

USDA estimates market year (MY) 2021/22 corn crop at 116 MMT and MY 2022/23 at 126 MMT, which is a new record for Brazil. Post notes that strong demand for corn from the domestic livestock and poultry industry, high export prices, and diminishing uncertainty over the availability of fertilizers motivate growers to continue investing in corn production. Due to the increased priced of corn both domestically and internationally, Post forecasts production will remain high for the 2022/23 MY. Post forecasts poultry producers will benefit as a result of this increase in production of corn.

Furthermore, Post highlights in its latest Grain and Feed Report that according to Brazil's National Union for the Animal Nutrition Industry (SINDIRAÇÕES), total feed production by the sector grew close to five percent in 2021. SINDIRAÇÕES data also indicates that the production of feed rations for broiler chickens grew by 4.1 percent in 2021, feed production for laying hens grew by 1.5 percent. SINDIRAÇÕES projects feed production to grow between 4 and 4.5 percent in 2022 under the current trade dynamics and domestic economic scenario. (For more corn analysis see: Grain and Feed Update Report, Report Number BR2022-0044)

The following graph shows the fluctuations of corn prices in Brazil over the last few years, with current prices today being at least double what they were back in beginning of 2019, for example. At a point this March, price of corn was 2.5 times more expansive than 2019, reaching BRL 103 per 60 kilograms bag of corn. Since then, however, prices have decreased as a result of corn supply improvement from the availability of the second corn crop harvest.

FIGURE 9 - BRAZIL - CORN PRICES



The other commodity commonly used for animal feed in the poultry industry is soybean meal. Soybean meal prices have also spiked in Brazil, as seen in the following graph. For the 2022/23 soybean harvest, Post estimates production at 144 MMT, raised as Brazil has managed to secure sufficient fertilizer supplies. Despite problematic weather conditions, the soybean crop performed slightly better than expected. The industry association, Abiove, has indicated strength in soybean processing, in face of good margins for the production of soybean meal and oil. On the demand side, very attractive crushing margins and rising international prices for soybean oil and soybean meal are favoring exports of oil and meal – and consequently, decreasing domestic availability for the poultry industry.

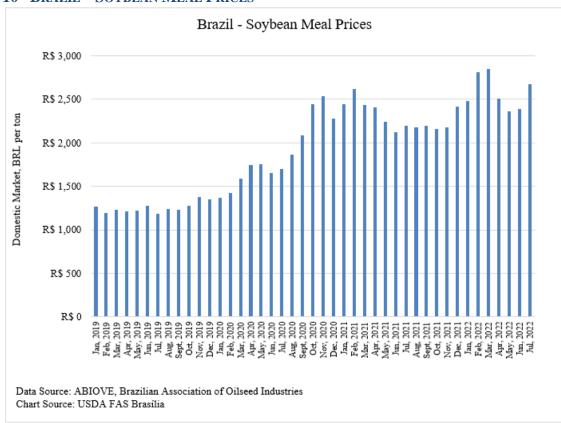


FIGURE 10 - BRAZIL - SOYBEAN MEAL PRICES

Due to the ongoing spike in prices of animal feed, the EMBRAPA Wheat unit, Swine, and Poultry unit, and Corn and Sorghum unit are researching feed substitutes for corn and soybean meal for chickens and hogs. The research developed shows that winter crops such as wheat, oat, rye, barley, and triticale are viable options to substitute corn in the formulation of animal feed. Millets are also being considered. (For more on this program, please refer to Post's Poultry Semi-Annual Report, Report Number BR 2022-0032)

During the largest poultry fair in Brazil, held in August 2022, Post attended a session on incentivizing production of winter cereal crops and corn. In it, EMBRAPA spoke about the activities developed by the unit and explained that the intent is not only to expand winter crops cultivation, but also to increase profitability per hectare for the rural producers via improved genetics and management practices.

EMBRAPA shared data demonstrating that having crops planted, instead of leaving the field empty, is also better for the environment and generates less carbon emissions than empty fields.

This session also included Farsul, the Rio Grande do Sul Federation of Agriculture. The federation explained that the state is the second largest producer of winter crops, and that Farsul launched a program in April called "Two Harvests", to stimulate corn planting in the second harvest (winter), which was considered as a "micro harvest". The studies performed by the Federation demonstrated that if the state produced 45 percent in the second crop, as it does in the first, it would add R\$ 31.9 billion (US\$ 6.23 billion) to its GDP on industry overall, not just agriculture, by 2030. The idea for the panel was to focus on showing the benefits of the winter crops production, and specially targeted the states of Rio Grande do Sul and Santa Catarina, since Paraná already has a more developed second crop, and is serving as a positive example to its neighboring states. As the poultry and swine industries are largely based in the states in the south of Brazil – which together account for over 60 percent of national chicken and pork production, - this increased production of winter crops and alternative solutions to animal feed would be tremendously positive for those industries, decreasing input and transportation costs.

In short, production costs rose across nearly every category, from the cost of day-old chicks to transportation, electric bill costs, and especially animal feed. The strong global demand, nevertheless, point to increased production, which Post forecasts will reach 14.85 MMT in 2023, a new record for Brazil.

1.2 – Consumption

Post estimates consumption will close 2022 at 9.7 MMT, reduced from Post's previous forecast, and from 2021 consumption. Post anticipates that 67 percent of the Brazilian chicken production will be destined for the domestic market in 2022 which is below average for the previous five years, which was a little over 71 percent. For 2023, Post forecasts domestic consumption will increase two percent from 2022, reaching 9.85 MMT, or 66 percent of total production, due to improved economic scenario globally. Post's expectation for a six percent reduction in domestic consumption is based on reduced domestic availability, higher prices, the lower purchasing power of the consumers due to high inflation, and higher egg consumption. Beef remains the preferred source of protein for most Brazilians but is increasingly out of reach for low-income citizens.

Socio-Economic Factors to Weigh on Domestic Consumption

Post forecasts this year's middling economic performance and higher food prices are likely to lead to lower meat protein purchases including chicken. For 2022, the Brazilian Central Bank (BCB) forecasts GDP to grow 2.02 percent and only 0.39 percent in 2023. The GDP growth for 2022 is a slight improvement over economic forecasts from earlier in this year, which puts Brazil's growth slightly above pre-pandemic levels. In August 2022, the Brazilian Central Bank Monetary Policy Committee (Copom) noted that the set of indicators continues to suggest the economy grew throughout the second quarter of 2022, with the labor market recovery stronger than expected. Indicators related to both formal job openings and employment and unemployment rates suggest a rapid normalization in the laborintensive sectors after the pandemic. The BCB also noted that consumer inflation remains high, with

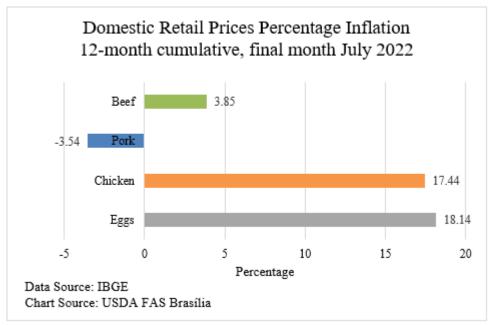
increases spread among several components, and continues to be more persistent than anticipated. The Central Bank Focus survey published on August 19 anticipates inflation at 6.82 percent for 2022 and 5.33 percent in 2023. Domestic consumption patterns are decreasing due to consumer inflation lowering purchasing power. Post forecasts a six percent decrease in consumption of poultry in 2022 compared with 2021.

Brazil is working towards decreasing unemployment numbers, which further impacts consumption patterns. In 2021, Brazil closed the year with 11.1 percent unemployment, according to IBGE. Although analysts initially believed that in 2022 Brazil would end the year with an 11.2 percent unemployment rate, results from the first two quarters of 2022 are better than expected. Recent data on Brazil's economic performance shows the unemployment rate decreased from 11.2 percent in February 2022 to 9.5 percent in July 2022, the lowest level for the second semester since 2015, when the country was going through a recession. The number of people employed reached 98.3 million people in June 2022, and is the highest in the series, which began in 2012.

To assist families in poverty and extreme poverty conditions, the government reconstituted the traditional social benefit "*Bolsa Família*" in late December 2021. Furthermore, it implemented a new program known as "*Auxílio Brasil*", which has fewer conditionalities than *Bolsa Família* and includes more potential families. In August 2022, the government increased the *Auxílio Brasil* from R\$ 400 (US\$ 78.15) to R\$ 600 (US\$ 117.20), and 18.13 million families will receive it. It is expected that many of these families use the funds to purchase basic food supplies. The increased *Auxílio Brasil* will be in force until December 31, 2022. A new presidential term starts on January 1st, 2023, after elections in October this year. The government is also paying a cooking gas subsidy including close to 5.4 million families, in which it provides up to 50 percent discount on the price of cooking gas.

As a result of the economic uncertainties, many families resorted to purchasing less expensive meat, hence, boosting the domestic prices of poultry. At the same time, the price of chicken has remained the most affordable of the three main types of meat. Cumulative for the past 12 months, as of July 2022, domestic consumers saw retail prices of chicken increase an average 17.44 percent increase overall.

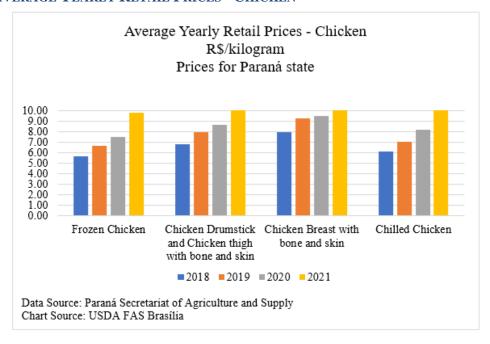
FIGURE 11 – DOMESTIC RETAIL PRICES PERCENTAGE INFLATION



Post notes that Brazilian consumption patterns have changed and now include more eggs in daily meals, as those are, despite the significant increase seen on the graph above, still the cheapest source on animal protein in Brazil.

The state of Paraná, which serves as the reference for chicken production in Brazil, monitors more cuts than IBGE does, and their data shows the variation in prices for all types of chicken cuts. Please see both figures below which indicate average monthly and yearly chicken retail prices for the state of Paraná.

FIGURE 12 - AVERAGE YEARLY RETAIL PRICES - CHICKEN



Average Monthly Retail Prices - Chicken R\$/kilogram Prices for Paraná state R\$ 18.00 R\$ 16.00 R\$ 14.00 R\$ 12.00 R\$ 10.00 R\$ 8.00 R\$ 6.00 Apr. 2021 May, 2021 Jul, 2021 Jul, 2021 Sept, 2021 Oct, 2021 Nov, 2021 Jan, 2022 Jan, 2021 2021 2021 Nov. 2 Feb, 2 Mar, 2 Dec, 2 Sep, Oct, Frozen Chicken Chicken Drumstick and Chicken thigh with bone and skin Chicken Breast with bone and skin Chilled Chicken Data Source: Paraná Secretariat of Agriculture and Supply

FIGURE 13 - AVERAGE MONTHLY RETAIL PRICES - CHICKEN

1.3 - Trade

Chart Source: USDA FAS Brasília

Exports

For 2022, Post forecasts exports will represent 33 percent of total production and will increase in 2023 to 34 percent of all production. Post forecasts a 11 percent increase in Brazilian chicken exports in 2022 from the record amount set in 2021, to a total of 4.7 MMT. For 2023, Post forecasts 5.0 MMT to be exported from Brazil, a six percent increase from 2022's forecast. Note that Post and official USDA estimates do not include chicken paws but that official Brazilian statistics do, as Brazil does not currently have an HS Code designated for chicken paws. Post forecasts Brazil will remain the world's largest exporter of chicken meat in 2022 and 2023.

According to the Ministry of Economy data, from January to July 2022, Brazil's total chicken exports (including paws) amounted to 2.64 MMT, worth US\$ 5.2 billion. This represents a 33 percent increase when compared to the same period in 2021 in value terms, and six percent increase in volume. In conversations with industry contacts, Post has learned that the stagnant domestic market consumption, global supply chain difficulties - and the market opportunities generated by them -, have helped Brazilian industry invest in exports, as current prices and the devalued Real make exports more profitable. Brazil's Central Bank's outlook shows the real (R\$) trading at above R\$5 to the USD until

2025, which further incentivizes exports, and assists domestic companies balance the domestic and external scenarios.

FIGURE 14 - BRAZILIAN CHICKEN MEAT EXPORTS TO THE WORLD

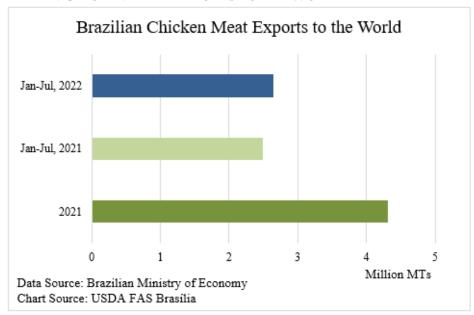


FIGURE 15 - AVERAGE YEARLY EXCHANGE RATE

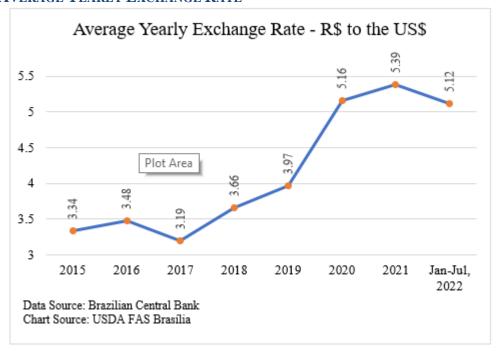
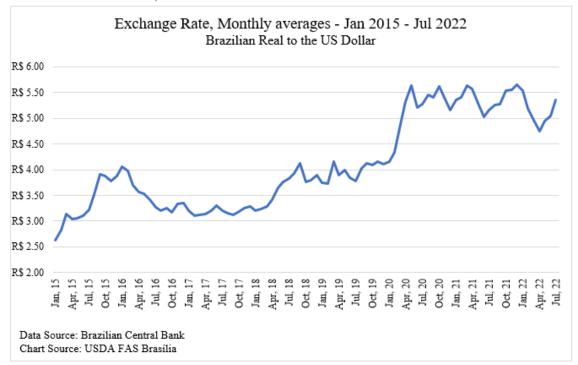


FIGURE 16 - EXCHANGE RATE, MONTHLY AVERAGES



Brazil is the second-largest global producer of chicken meat and is the world's largest exporter of chicken meat, followed by the United States, the European Union, Thailand, and Turkey. In 2021, the top markets for Brazil's chicken exports were, in order: China, Japan, the United Arab Emirates, Saudi Arabia, and South Africa. Thus far, until July 2022, the top five markets have remained the same, however, the UAE has surpassed Japan and is currently the second largest destination of Brazilian chicken meat, with 282.6 MT.

Brazilian Chicken Meat Exports to the World Share of the total - January-July, 2022 China 12.54 United Arab Emirates 10.69 Japan 9.00 Saudi Arabia South Africa 6.73 Philippines 5.25 South Korea 3.83 Mexico 3.63 Singapore 3.01 Qatar 2.24 Rest of the world 35.63 Data Source: Brazilian Ministry of Economy Chart Source: USDA FAS Brasília

FIGURE 17 - BRAZILIAN CHICKEN MEAT EXPORTS TO THE WORLD - JAN-JUL, 2022

Brazil-China Poultry Export-Import Relationship

Brazil has been China's main supplier of chicken meat since 2014. As of 2021, 44.5 percent of China's total chicken imports were sourced from Brazil. Conversely, China is also the lead market for Brazil's chicken exports. Based on data from the Brazilian Ministry of Agriculture, Brazil has 47 plants authorized to export chicken meat and parts to China, 30 of which are from the top five producing states. In Post conversations with industry, contacts noted difficulties with the accreditation of new plants for exports to China since the beginning of the pandemic.

In the first seven months of 2022, China decreased its chicken meat imports by close to five percent. Official data shows Brazil remained the largest supplier to that market in the period, providing approximately 45 percent of the total imports, followed by the United States, Russia, Argentina, and Thailand. China's imports from Brazil increased by 1.6 percent in the period, while the United States, Brazil's lead competitor in that market, observed a 19.4 percent decrease in its exports in the same period. Brazil shipped more than 350,000 metric tons of chicken to China from January to July, 2022, which is on pace with the 650,000 metric tons of chicken meat it exported to China last year.

For 2022, despite the current decrease in overall poultry imports from China, Post expects China will remain the top market for the Brazilian poultry exports, with local producers benefitting from their well-established customer base. Post forecasts China to likely remain Brazil's top destination of chicken meat. Post anticipates that in 2022 and assuming *ceteris paribus* for 2023, Brazil's chicken exports to China will be boosted by supply constraints in its main competitor markets, such as the outbreak of Avian Influenza, challenges with feed input availability and prices, armed conflict, and logistical challenges.

Exports to Other Trading Partners

In 2021, the top five markets for Brazilian chicken exports were China, Japan, the United Arab Emirates (UAE), Saudi Arabia, and South Africa, in that order. From January to July 2022, this order is currently the following: China, UAE, Japan, Saudi Arabia, and South Africa.

As the world's largest exporter of halal animal protein, Brazil continues to seek to increase its exports to the Arab world. It currently exports halal chicken to 58 countries, according to the Poultry World. Per ABPA data, halal chicken exports represented close to 50 percent of Brazil's overall exports of chicken in 2021, with 1.915 MMT exported. From January to July, 2022, Brazil has exported over 845 thousand metric tons of chicken meat to the Middle East, representing 32 percent of all its exports – this includes all types of chicken meat exports, not only halal products. The exports to the region in the first seven months of 2022 are almost nine percent higher than the same period in 2021. As a comparison, in 2021, it exported 1.35 MMT to the region in the entire year. Brazil's top ten export markets for January to July 2022 include three Middle Eastern countries – United Arab Emirates (top 2), Saudi Arabia (top 4), and Qatar (top 10). Brazilian companies are constantly thinking of ways to expand access to the Arab-Muslim communities.

The UAE is, according to ABPA, the largest importer of Brazilian halal animal protein in the world and has recently surpassed Japan as the second largest destination overall for Brazilian chicken meat exports. Brazil has exported over 282 thousand metric tons to the country in the first seven months of 2022, a value over 100 thousand metric tons larger than that in the same period in 2021. Thus far this year, Brazilian exports to the UAE rose over 66 percent in volume. Brazil is currently the largest supplier of chicken meat to the UAE, distantly followed by the United States, which has a six-fold smaller export number to the country thus far in 2022. In a July interview to the press, the president of ABPA noted that "the Emirates are not the new China, but rather a great re-export hub to the regions of Asia and Middle East" due to its strategic location.

The Brazilian government has been working on strengthening its branding of Brazilian goods in the world, and Japan has been a key country in which the Brazilian Trade and Investment Promotion Agency, Apex Brasil, has targeted its promotional actions. Japan was the third-largest destination of Brazilian chicken meat exports from January to July 2022. According to the Brazilian Ministry of Economy, in this period Brazil supplied close to 238 thousand metric tons of chicken meat to Japan, which is in par with 2021 numbers. In 2021, Thailand was the largest supplier to the Japanese market, with 41 percent of the market, closely followed by Brazil, with 40.4 percent of the market. For 2022, Post anticipates that Brazilian exports to Japan will increase, and that Brazil is likely to surpass Thailand as the largest supplier of chicken meat to that market. This assumption is made on the basis of the relatively higher costs of the Thai chicken meat production when compared to Brazil's, as well as due to a decrease of over 14 percent in Thailand's exports to Japan in the first semester of 2022. For 2023, Post forecasts Brazil will continue consolidating its presence in the Japanese market and will continuously expand exports there.

The fourth largest destination of Brazilian chicken meat in the period of January to July, 2022 was Saudi Arabia. Brazil has sent 7.5 percent of all its exports to Saudi Arabia in the period or over 200 thousand metric tons. As previously reported by Post, Saudi Arabia blocked in May 2021, 11 Brazilian slaughterhouses, eliminating JBS, the second-largest poultry producer in Brazil, from their market.

Together, these plants accounted for 60 percent of Brazil's poultry exports to Saudi Arabia. Previously, in 2020, Saudi Arabia had suspended the BRF plant in Dois Vizinhos, the largest griller chicken plant in the world, which impacted BRF's exports there. Per official data by the Saudi Food and Drug Authority (SFDA) consulted on August 2022, Brazil currently has 9 plants authorized to export poultry and poultry products to Saudi Arabia.

ABPA is optimistic about sales to Saudi Arabia. In June, the average volumes imported by Saudi Arabia were close to those before the suspension of the 11 plants, around 40 thousand metric tons, as demonstrated by the following graph. Saudi Arabia was partially supplied by Ukraine, and with the ongoing conflict and its arising challenges for exports, Brazil has the opportunity to increase exports to that market.

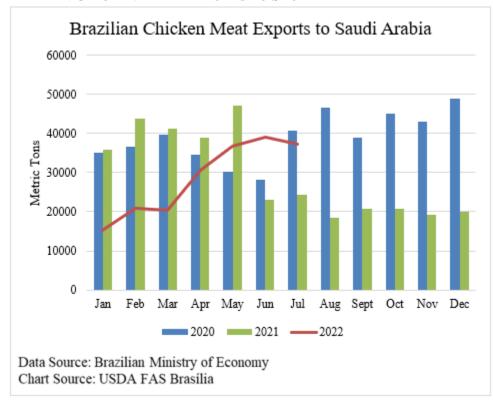


FIGURE 18 - BRAZILIAN CHICKEN MEAT EXPORTS TO SAUDI ARABIA

Post, however, would caveat ABPA's enthusiasm with two points. The first is that the suspensions are still in place and there's only so much room for boosting exports if Saudi does not lift suspensions or accredits new Brazilian plants. The second is Thailand's re-entry to the Saudi market in March this year, after 18 years of suspensions, with 11 plants authorized for exports by the SFDA. Although the Thai will need to build commercial relations with the Saudis and Brazil already has those well-established, Thailand's re-entry to the Saudi market could impact Brazil's export numbers, as Thailand's proximity to Saudi Arabia – in comparison to Brazil – can make the cost of logistics more attractive to the Saudis. Therefore, for 2022, Post anticipates exports level to Saudi Arabia can have a minor improvement from 2021, but for 2023, Post would not rise expectations, as now Thailand has more plants accredited than Brazil does, and logistically, it may become less expensive for the Saudi market to import chicken from there than from Brazil. Post continues monitoring how Saudi Arabia is dealing with its self-imposed

embargo on Brazilian chicken exports, and how it is going to meet its poultry consumption needs since it relies heavily on imports.

South Africa is Brazil's fifth largest chicken market. On December 2021, South Africa had imposed anti-dumping measures against Brazilian frozen chicken meat, with tariffs ranging from 6 to 265.1 percent, besides the regular import taxes. Prior to the imposition of the measure, Brazil's chicken exports were subject to the Most Favored Nation (MFN) duty of 62 percent. On August 17, the Brazilian Ministries of Foreign Affairs and Economy published a joint communiqué to celebrate South Africa's decision to temporarily suspend anti-dumping measures against Brazilian frozen chicken meat for a period of 12 months. The communiqué noted that Brazil is a reliable and competitive supplier of chicken meat, and that Brazilian production is important for assuring food safety in different markets, especially in the current moment of international distribution chains imbalance and elevated prices. Local newspapers highlighted that although Brazilian chicken producers celebrated the decision, the argument that Brazil practices dumping in its exports is still under contest in the proper channels.

South Africa is the fifth largest importer of Brazilian meat in volume, but twelfth in value as most exports are mechanically separated meat for further processing, a lower value-added product. The dumping measure refers to other cuts, which is the reason why Brazil was able to see a 3 percent increase in its exports to South African in the first seven months of 2022, despite the measure being in effect. The president of the Brazilian Association of Animal Protein highlighted that similar movements of tariffs and quotas removal are being seen around the globe, so as to avoid lack of products in the domestic markets, in face of the restrained offers caused by the ongoing conflict in Europe.

Brazil's chicken meat exports to Mexico also saw a notable increase, with shipped volumes reaching over 81 thousand metric tons from January to July, 2022. This represents an increase of 50 percent increase from the same period in the previous year. Mexico ended 2021 as the tenth largest market for Brazil, and is currently at the eighth position in the rank. Brazilian poultry exporters benefited from a new chicken import quota in Mexico of 30 thousand metric tons from countries outside the United States, Mexico, Canada Agreement (USMCA) announced on June 23, 2021. Furthermore, on May 16 this year, the Mexican government announced the removal of existing duties on critical food imports to tackle inflation. As the exemption applies to poultry imports, Brazil is likely to benefit from the decision in 2022 and in 2023, since the measure is in place for one year at this point.

As evident in the above table "Brazilian Chicken Meat Exports to the World, Share of the total — January-July, 2022" (Figure 18), Brazil's chicken exports are very diversified. Aside from the top two markets, no other Brazilian chicken meat market corresponds to more than ten percent of the total share. Among the 123 markets Brazil exported to in the first seven months of 2022, 107 of them were below one percent of the total market share. In 2021, Brazil exported to a total of 140 different countries. Though China is the top market for Brazilian chicken, it currently accounts for about 12.5 percent of the total volume exported, and thus the Brazilian poultry industry is less dependent on China than is the case for other meats.

Brazil to Focus on Halal Markets

The Brazilian Ministry of Agriculture is consistently working toward opening new halal markets, such as Indonesia, Pakistan, and others. The State of the Global Islamic Economy Report 2022 shows that the

halal food market globally moved US\$ 1.27 trillion in 2021, and informs that the value of halal market, including services and tourism, is forecasted to reach US\$ 2.8 trillion by 2025. One way in which Brazil has secured its sales to halal countries is by a strong production certification program by accredited companies. Brazilian companies are encouraged to seek certification for the commodities and establish long-lasting relationship with consumers in need of halal products. In the largest poultry fair in Brazil recently attended by Post, the two most known halal certifying companies in country were present, one with a large stand, and the other participated with visitors.

In May, 2022, one of the companies participated as part of the delegation from Brazil, including the Minister of Agriculture, Livestock, and Food Supply, that visited Jordan, Egypt, and Morocco – three countries with Muslim populations above 90 percent, therefore, important countries to expand exports to. Brazilian states with halal meat production facilities include, but are not limited to: Paraná, Rio Grande do Sul, Santa Catarina, Mato Grosso do Sul, and Goiás.

Another major halal market is Indonesia. Since 2014, Brazil has been in discussions at the World Trade Organization (WTO) on measures imposed by Indonesia blocking access to the chicken market. Brazil has already won the case, but Indonesia requested a reasonable deadline to adopt the measures suggested by the WTO. In December 2020, Indonesia appealed to the WTO Dispute Settlement Appellate Body, delaying even further the adoption of the recommendations.

Brazil Implemented Unilateral Retaliation: Sugar and Poultry Cases Were the Motivation

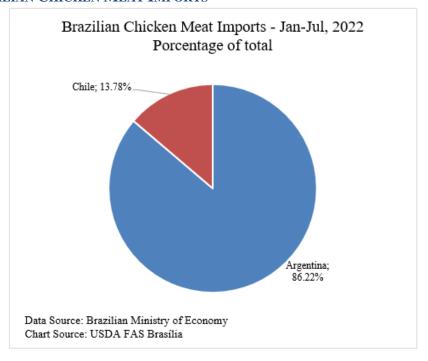
On January 26, 2022, President Jair Bolsonaro signed into effect Provisional Measure (MP) 1098/2022, which enabled the Brazilian government to take unilateral retaliation in certain circumstances against a WTO member in the event of a stalled trade dispute. Specifically, the MP appears to allow the Government of Brazil (GoB) to provisionally suspend certain trade concessions or other obligations granted to a WTO member against whom a WTO panel ruled, provided that the WTO member, as a respondent, has appealed this decision to the WTO Appellate Body, the appeal cannot be heard by the Appellate Body or the Appellate Body's report cannot be adopted by the Dispute Settlement Body.

Local open-source media reports that this measure was specifically designed to try to force two countries to come to the negotiation table: India, on a sugarcane dispute, and Indonesia on this poultry case. This MP was transformed into Law 14353/2022 on May 26, 2022 and is in force. Post is continuously monitoring this measure and if it will be applied to Indonesia. Separately, the Brazilian Ministry of External Affairs (MRE), is seeking to start conversations with Indonesia on a free trade deal.

Imports

Despite being the world's largest chicken exporter, for 2022 and 2023 Post forecasts that Brazil will import five thousand metric tons of chicken meat. So far this year, from January to July, Brazil has imported 2619 metric tons, and the suppliers were the same as in the previous year: Argentina and Chile, distributed as portrayed in the graph below.

FIGURE 19 - BRAZILIAN CHICKEN MEAT IMPORTS



Attachments:

No Attachments