AGRIBUSINESS: PANDEMIA COVID-19 AND THE IMPACTS ON TRADE BETWEEN BRAZIL AND CHINA

Ubirajara Garcia Ferreira Tamarindo* & Marcos Cordeiro Pires**

ABSTRACT: The pandemic caused by the SARS-CoV-2 coronavirus has impacted life and the economy in the world since February 2020. And with the deterioration of the economic environment and the levels of employment and purchasing power of the Brazilian population, a significant part of the industry, services, tourism and commerce, which still do not see the end of the problem, accentuated by the tightening of social distance measures and the discovery of variants of the virus, will continue, until the discovery of the cure or mass vaccination, with enormous difficulties. Nevertheless, agribusiness, the country's economic sector that exports and generates the most trade surplus, was not affected and continues to have very favorable prospects, mainly due to Chinese demand, conflicts in Sino-American relations and the strong devaluation of the Brazilian currency. against the dollar. In this context, this article, through a bibliographic and documentary review, analyzed, from the perspective of Sino-Brazilian trade relations, the impacts caused by the pandemic on agricultural product exports between countries, as well as the possible Chinese changes in their strategies for food security and geographical diversification of imports of agricultural products, accelerated by the Covid-19 pandemic and which require special attention on the part of the national sector.

KEYWORDS: Agribusiness–Brazil–China–Covid-19–Trade

I. Introduction: The 'Covid-19' pandemic and the research object

Few nations currently have agricultural and agroindustrial sectors as diversified and relevant as Brazil. In fact, the country ceased to be a large-scale importer of technology and food to become, from 1960 onwards, a generator of knowledge, especially on the production of grains and meat, capable of exporting today to around 170 countries, with enormous impact on the national trade balance (BRASIL, 2018; TAMARINDO; PIGATTO, 2020).

Nevertheless, Brazilian agribusiness still operates in a world of many uncertainties and risks, ranging from 1) unpredictable product and commodity markets, 2) fluctuating input prices and exchange rates, 3) political and ideological disputes, 4) complex tax burden and costly, 5) lack of infrastructure, financing and competitive insurance, 6) market access barriers, 7) uncertain climate, 8) outbreaks of diseases, pests, etc. (TAMARINDO; PIGATTO, 2020). In addition, the current global pandemic of the new SARS-CoV-2 coronavirus, which caused a huge degradation of socioeconomic indices around the world, brought a new context and geopolitical insecurities to the national agribusiness chains (CASTRO; BOTEON; BACCHI, 2020).

While the exact origin and cause are still unknown, but the infectious disease caused by the new coronavirus SARS-CoV- 2 (severe cute respiratory syndrome coronavirus 2), which

* Universidade Estadual Paulista Júlio Mesquita Filho, Marília, Brazil.
** Universidade Estadual Paulista Júlio Mesquita Filho, Marília, Brazil.

generated Covid-19, reached more than 111 million people by February 2021, when we are concluding this article, and caused the death of more than 2.4 million people infected worldwide (WHO, 2020a; WHO, 2021a; PAHO, 2021).

The virus, which causes severe infections in the respiratory system in some people and aggravates pre-existing illnesses, is transmitted, especially, through contact with droplets generated by the cough of an infected person (WHO, 2021b).

According to the World Health Organization (WHO, 2021a), which declared a pandemic for Covid-19 in March 2020 (WHO, 2020b), the most affected regions of the world until February 2021 with confirmed cases were: 1) Americas, 49,587,660; 2) Europe, 37,679,536; 3) Southwest Asia, 13,390,316; 4) Eastern Mediterranean, 6,235,740; 5) Africa, 2,796,838 and 6) Western Pacific, 1,589,025.

Also according to the World Health Organization (WHO, 2021a), United States (27,828,370.00), India (11,016,434.00) Brazil (10,168,174.00), Russia (4,177,330.00), United Kingdom United Kingdom (4,115,513.00), France (3,543,295.00), Spain (3,121,687.00 and Italy (2,809,246.00) were the most affected countries with confirmed cases until February 2021.

In relation to Brazil, whose first case was confirmed in February 2020, there were more than 330 thousand deaths caused by the infection until March 2021, in addition to more than 10 million confirmed cases, making the country, whose disease is present in 100% of municipalities, the third in absolute numbers (BRASIL, 2021c; WHO, 2021a). The country also has more than 10 million people recovered from the disease, according to information from the Ministry of Health (BRASIL, 2021c).

In turn, China, supposedly the origin of the pandemic, according to the World Health Organization (WHO, 2020a; PAHO-2021), had just over 101,000 confirmed cases and 4,842 deaths in the same period (WHO, 2021a). And because it is supposedly the origin of the pandemic and, above all, the most populous country in the world, the low number of infected and deaths draws attention. However, certifying the numbers and their reasons is not the object of this work; nevertheless, this important context and the organized and efficient way in which the Chinese in theory fought and stopped the spread of the pandemic in the country deserves to be highlighted and reflected on here.

In addition to the serious effects on health, social relations, employment, industrial production, services, tourism and commerce, the SARS-CoV-2 coronavirus has impacted, in particular, the levels of international trade, thereby causing many other socioeconomic problems as a reflection of the pandemic (WTO, 2020a; KAUFMAN; LEIGH, 2020; UNCTAD, 2020a; UNCTAD, 2020b).

With regard specifically to Brazil, there was a 10.9% drop in GDP in the second quarter of 2020 and, with the recovery in the following months, an accumulated drop of 5% in the year, with a sharp decrease in employment levels (14, 6% in the third quarter of 2020), industrial activity (-5.5%), services (-8.3%) and trade (+1.2%), in various economic sectors, such as artistic, creative and show activities; tourism, air transport; passenger rail and metro-rail transport; interstate and intercity passenger transport; urban public transport; accommodation services; food services; manufacture of motor vehicles, trailers and bodies; manufacture of footwear and leather goods and sale of vehicles, parts and motorcycles (BRASIL, 2020a; IBGE, 2021).

In this way, with the degradation of economic levels, huge fiscal deficit, tightening of social distancing measures and discovery of variants of the coronavirus, most Brazilian economic segments should continue with difficulties in 2021, impacting the recovery of the economy, while the agribusiness, despite all the environmental turmoil and recent pressure from the international community – which even proposes the rejection of agricultural products from Brazil due to the supposed lack of protection for the Amazon biome – continues with excellent perspectives, especially in exports, in reason of, among other things, 1) Chinese demand – with its economy forecast to grow by 8.2% already in 2021 -, 2) deterrence by the Chinese of importing commodities and animal proteins from the US and, furthermore, 3) the strong devaluation of the Brazilian currency against the dollar and the euro (FITCH, 2020; SHETTY, 2020; FITCH, 2021; JUNK, 2021; SHETTY, 2021).

In fact, the year 2020 was very atypical, and Brazilian agribusiness experienced major instabilities in relation to geopolitical movements. However, in the end, the balance is still very satisfactory. This is because the sector, which is essential to the national economy, has never stopped producing, even registering a record grain harvest. In turn, projections for 2021 indicate that this should be higher (20/21 harvest), with an incredible 265.9 million tons, 3.5% above the previous harvest (19/20), and growth in the agricultural GDP in around 1.2%, according to IPEA (2020a).

Although the World Trade Organization (WTO, 2020a) has stipulated an approximate drop of 9.2% in global trade in 2020, there was, on the other hand, significant growth in the economic activities of Brazilian agribusiness in the same period, mainly with China, the country's largest economic partner (BRASIL, 2021a).

From the perspective that agribusiness is the country's economic sector that exports the most and generates a surplus in the trade balance, this work aims to analyze the impacts caused by the pandemic on exports of agricultural products between Brazil and China, as well as the possible changes Chinese companies in their food security strategies, accelerated by the Covid-19 pandemic, and which will require special attention from the national sector, which is very dependent on Chinese demand.

It is in this context of discussion, therefore, that this work is directed, using a qualitative approach, as well as a bibliographical and documental review.

II. Theoretical framework: Brazilian agribusiness and its trade balance

The concept of agribusiness was developed in 1957 by American researchers John Herbert Davis and Ray Allan Goldberg, from Harvard University, and consists of the total sum of all operations involving the production and distribution of agricultural supplies, production operations in agricultural units, the storage, processing and distribution of products and items produced from them (DAVIS; GOLDBERG, 1957; NEVES, 2016; TAMARINDO; PIGATTO, 2020).

In fact, the contemporary concept of agribusiness does not allow viewing agricultural production in isolation, but within a systemic context, integrating all business chains. And, taking the place of entry to the rural property as a reference, that is, the gate, we speak of: upstream sector, **"before the gate",** the link in the chain where the agents who hold the inputs and production goods; production sector, **"within the gate",** that is, production within the limits of the property; downstream sector, **"after the gate",** responsible for the processing, commercialization, marketing and distribution of the product (BRASIL, 2014).

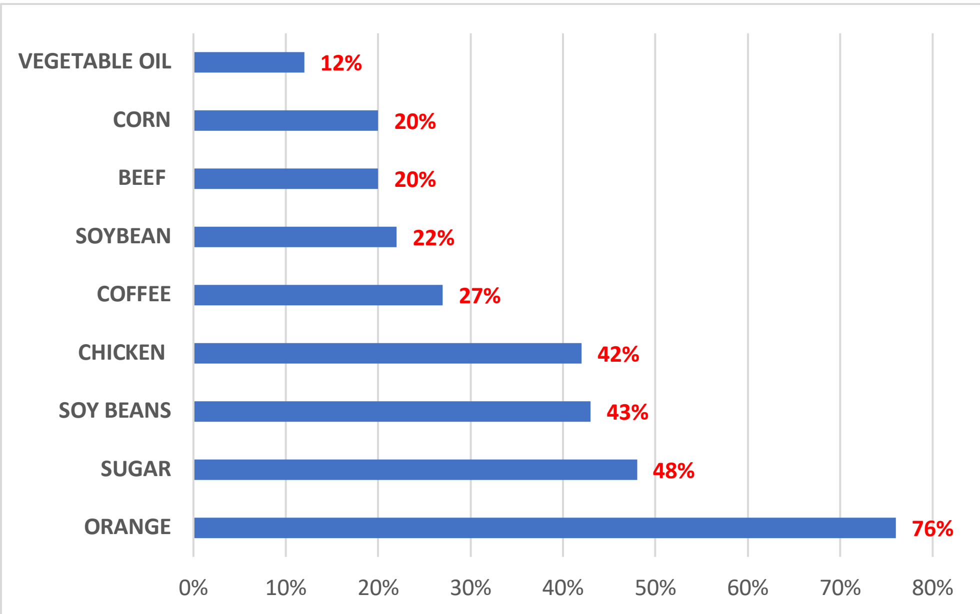
Among the various segments of Brazilian agribusiness, the main products produced are **food** - grains, cereals, vegetables, fruits and meat animals - **biofuels**, **textile products** - fabrics for bed, table and bath articles, for decoration and for the manufacture of shoes - and wood - raw material for cellulose and other raw materials for the furniture industry, civil construction and for obtaining firewood as a form of fuel - (TAMARINDO; PIGATTO, 2020).

With regard to the origin and development in Brazil, until the 1970s the country was dependent on the importation of various foodstuffs. However, this scenario of external dependence began to change with the beginning of the modernization of agriculture and national livestock, in the 1960s, whose government at the time gave broad support to the expansion of agricultural frontiers, acquisition of machinery, implements, industrialized inputs and mechanization. of processes, as well as the training of technical labor and the development of new agricultural technologies, especially through the creation of the Brazilian Agricultural Research Corporation (EMBRAPA), founded in November 1972 (TAMARINDO; PIGATTO, 2020).

Thus, Brazil became self-sufficient, especially due to the numerous technological innovations in production that it developed, making it one of the world leaders in terms of efficiency, competitiveness and innovation in the sector. In addition, the country has become one of the world leaders in the production and export of rural and agro-industrial products: it is the third largest exporter of agricultural products in the world, behind only the USA and the European Union (CNA, 2020).

Regarding the country's socioeconomic development, agribusiness is currently the economic base of many Brazilian states and municipalities, enabling the production of food not only to meet domestic needs, but also to generate surpluses for export. As shown in Figure 1, Brazil is currently the world's largest exporter of sugar (48%), coffee (27%), orange juice (76%), soybeans (43%), beef (20%) and chicken (42%); the second largest exporter of corn (20%), soybean oil (12%) and soybean meal (22%). It is also the world's largest producer of sugar, coffee and orange juice; the first in the production of soybeans, the second in beef and chicken and the third in the world production of corn (TAMARINDO; PIGATTO, 2020; USA, 2021).

Figure 1: Main agricultural products exported by Brazil



Source: elaborated by the authors with data from TAMARINDO; PIGATTO, 2020; USA, 2021.

Still according to projections by the Food and Agriculture Organization of the United Nations (FAO, 2020), Brazil, by 2030, should account for almost 52% of world exports of soybeans, 35.3% of chicken, 23.2% of corn, 22.7% of cotton and 9.7% of pork.

All this economic strength can be better exemplified after the analysis of the size and strength of its GDP: according to the Center for Advanced Studies in Applied Economics - CEPEA, of the Escola Superior de Agricultura "Luiz de Queiroz" (ESALQ-USP), the sum of goods and services generated by agribusiness was BRL 1.55 trillion in 2019, that is, 21.4% of the national GDP (CEPEA, 2020; NEVES; MARQUES; MARTINEZ; CAMBAÚVA, 2020).

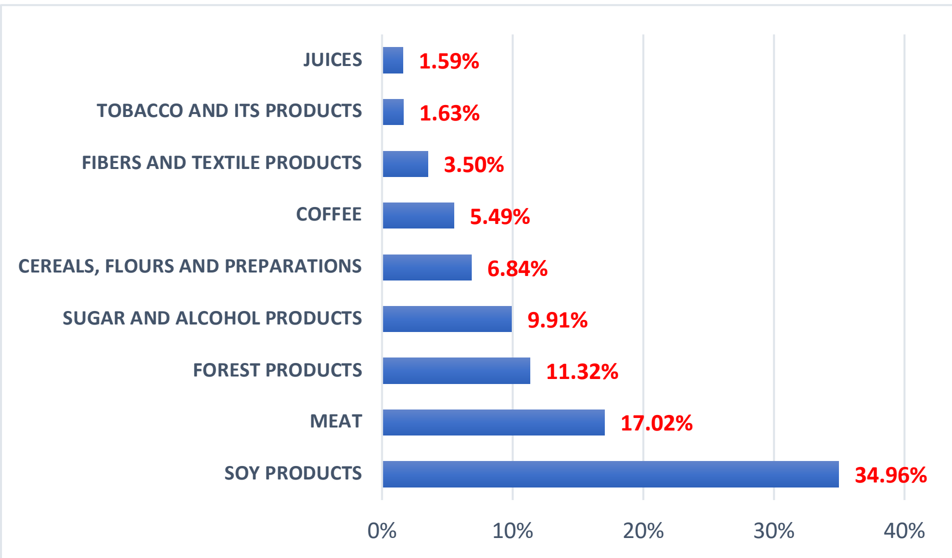
Regarding the weight of each segment, Barros and Castro (2020, p. 4-5) clarify:

> In 2019, the primary segment had a weight of 22% in agribusiness GDP, with 13% for agriculture primary and 9% for livestock. Within agriculture, 70% of the gross production value (GPV) of crops was concentrated in just five crops: soybeans (33%), sugar cane (16%), corn (13%), cotton (4%) and coffee (4%). In livestock, beef cattle represented 39%, poultry, 11%, laying 13%, swine, 11% and milk, 19%. Agroindustry, on the other hand, accounted for 30% of agribusiness GDP in 2019, with 23% for agriculture and 7% for livestock. The sectoral distribution of the agricultural agro-industry is also shown in Figure 1, with high emphasis on pulp and paper, other foodstuffs and wood products and furniture. For livestock-based agroindustry, 81% of GDP was due to slaughtering. As for the agro service segment, which accounted for 43% of GDP in 2019, on the one hand, its behavior follows that of the upstream sectors.

Also noteworthy is the importance of agribusiness in the country's balance of payments, given that it represents a significant part of total Brazilian exports. In 2020, for example, sector imports totaled US$ 13,046,703.314 billion, while exports reached US$ 100,806,667.925 billion, a 6.77% increase compared to 2019 (R$ 96,850,624.360), and a surplus of US$ 87.76 billion, representing 48% of all Brazilian revenues on the foreign market (BRASIL, 2020b).

According to Figure 2, the main agribusiness export sectors in 2020 were: soy industry (34.96%); meats (17.02%); forest industry (11.32%), sugar and alcohol complex (9.91%); cereals (6.84%); coffee (5.49%), fibers and textile products (3.50%), tobacco and its products (1.63%) and juices (1.59%). In fact, these nine sectors were responsible for 92.25% of the sector's total export value in 2020 (BRASIL, 2020b).

Figure 2: Main agribusiness export sectors in 2020

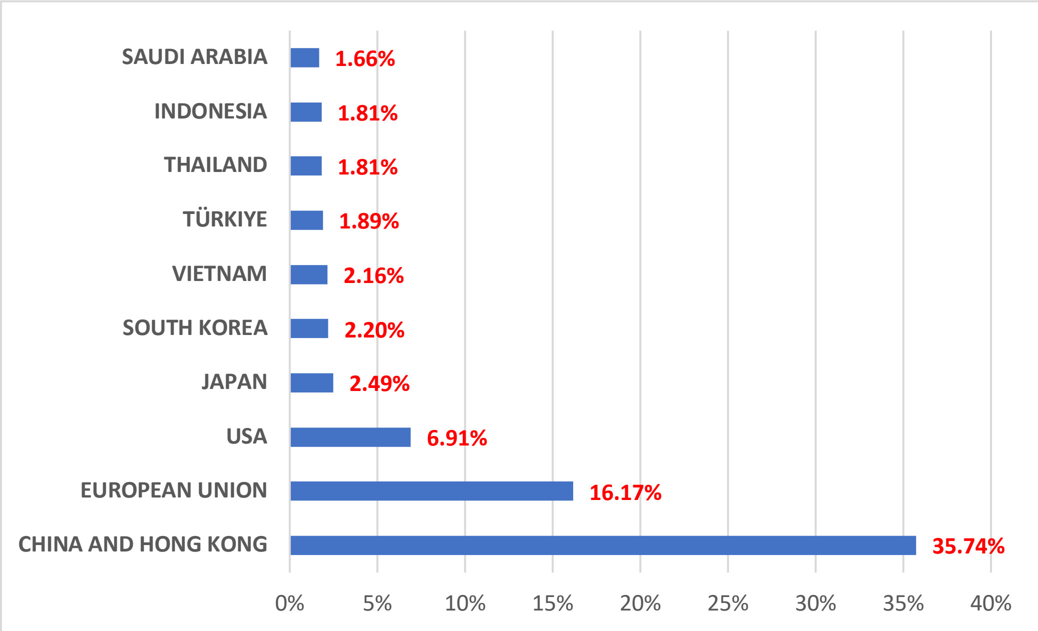


Source: elaborated by the authors with data from BRASIL, 2020b.

In turn, as shown in Figure 3, the countries and bloc that most imported Brazilian agribusiness products in 2020 were: China and Hong Kong (35.74%), the European Union

(16.17%), made up of 27 state members, The United States (6.91%), Japan (2.49%), South Korea (2.20%), Vietnam (2.16%), Turkey (1.89%), Thailand (1.81 %), Indonesia (1.81%) and Saudi Arabia (1.66%) (BRASIL, 2020b).

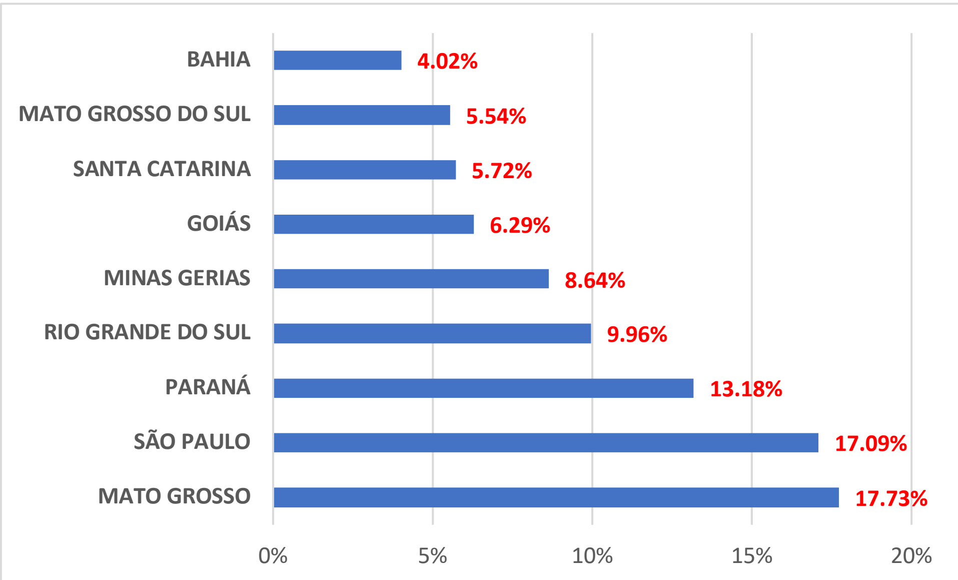
Figure 3: Countries and bloc that most imported Brazilian agribusiness products in 2020



Source: elaborated by the authors with data from BRASIL, 2020b.

As for the Brazilian states that exported the most in 2020, Figure 4 indicates that Mato Grosso (17.73%), São Paulo (17.09%), Paraná (13.18%), Rio Grande do Sul (9.96%), Minas Gerais (8.64%), Goiás (6.29%), Santa Catarina (5.72%), Mato Grosso do Sul (5.54%) and Bahia (4.02%) stood out in the context of agribusiness (BRASIL, 2020b).

Figure 4: Brazilian states that most exported agricultural products in 2020

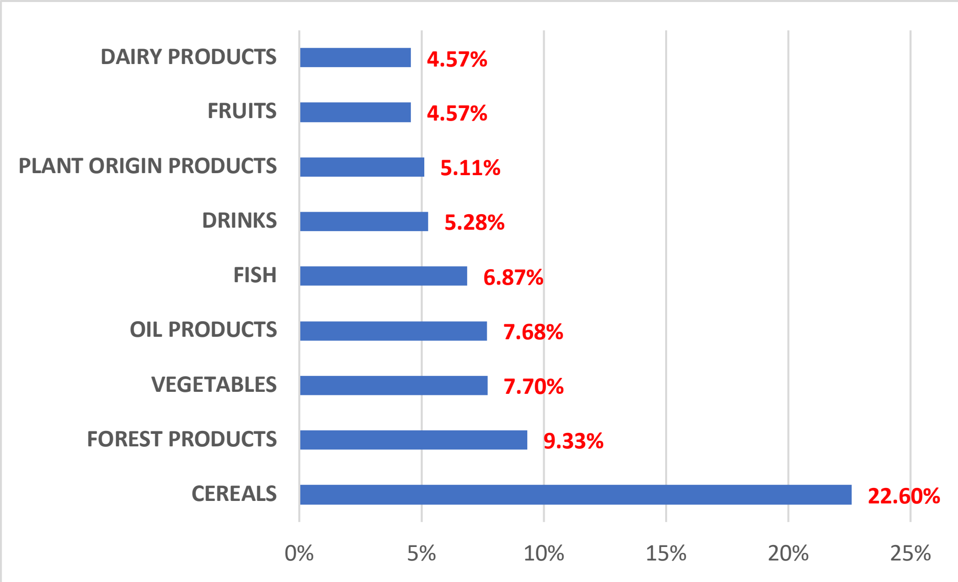


Source: elaborated by the authors with data from BRASIL, 2020b.

With regard to agribusiness imports in 2020, Figures 5 and 6 show that cereals (22.60%), forestry products (9.33%), vegetables, roots and tubers (7.70%), oil products (7.68%), fish (6.87%), beverages (5.28%), vegetable products (5.11%), fruits (4.57%) and dairy products

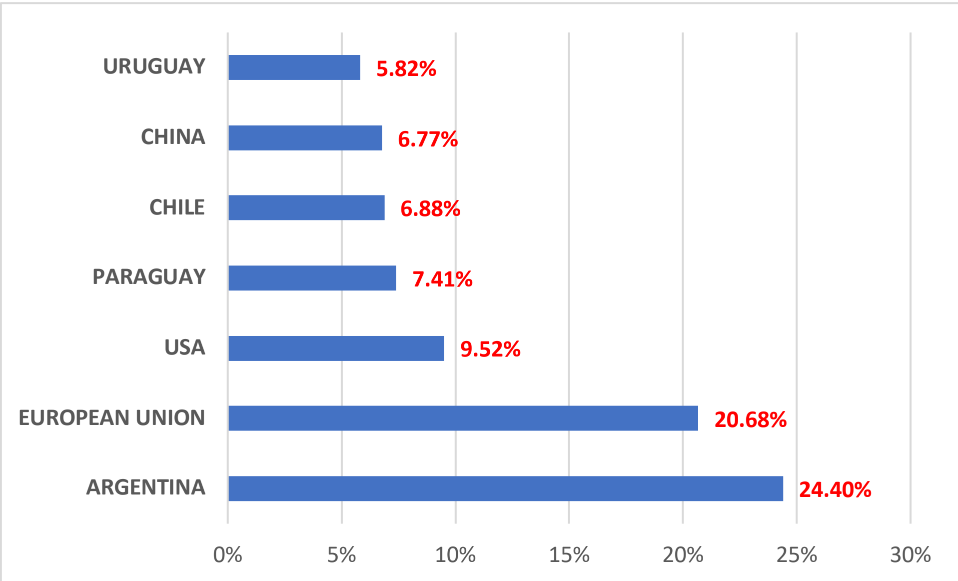
(4.57 %) were purchased, mainly from Argentina (24.40%), European Union (20.68%), United States (9.52%), Paraguay (7.41%), Chile (6.88%), China (6.77%) and Uruguay (5.82%) (BRASIL, 2020b).

Figure 5: Main products imported by Brazilian agribusiness in 2020



Source: elaborated by the authors with data from BRASIL, 2020b.

Figure 6: Origin of Brazilian agribusiness imports in 2020



Source: elaborated by the authors with data from BRASIL, 2020b.

Indeed, from the detailed analysis of these figures, it is possible to conclude that Brazilian agribusiness has a natural and strategic vocation for the export of commodities and animal proteins and, above all, the ability to generate a surplus in the trade balance.

Despite this incredible economic performance, it cannot be ignored that Brazilian agribusiness has several challenges to its sustainable development, as is the case, for example, of a climatic and socio-environmental nature, which can impact it, in the short and medium term, especially on the international scene, which is why the sector will have to adapt to the environmental requirements of nature protection, above all, of the Amazonian biome, or better dialogue/negotiate with the international community which, from its point of view and interests, condemns the increase illegal deforestation of the Amazon rainforest – mainly for agricultural production purposes (STABILE; GUIMARÃES; SILVA; RIBEIRO; MACEDO; COE; PINTO; MOUTINHO; ALENCAR, 2020).

III. Trade relations between Brazil and China in the field of agribusiness

Monte, Lopes and Contini (2017) argued that, until the industrial revolution, China and India were, by the year 1800, the largest economies in the world, accounting for approximately three quarters of the world's GDP, especially due to the number of inhabitants and the high internal demand for products of all kinds. However, since the industrial revolution, western countries, especially England and the USA, have come to lead this ranking. However, currently, China is on the verge of resuming the global leadership of the US, mainly due to the high production, competitiveness and industrial, technological and scientific efficiency achieved in recent decades, permeated by the country's expressive economic growth (MONTE; LOPES; CONTINI, 2017; USDA, 2021).

In fact, China in the 21st century is a major player in the economy and in global discussions, mainly due to the effects of all kinds that its economic and geopolitical steps can cause to the global economy, especially to Brazil. Not by chance, the president of the Brazilian Rural Society recently warned that, for Brazil, "talking about the future is talking about China", as well as "the demand of the country's main trading partner for over a decade", so that “Brazil must behave in a commercial manner and with great respect” (VENDRAMINI, 2021, p.1).

With regard to Brazil, Paulino (2017) teaches, in general terms, that the first contacts between the countries took place around 1808, notably, after the change of the capital of the kingdom and the Portuguese court to the city of Rio de Janeiro. And at the invitation of Dom João VI, Chinese farmers arrived in Brazil in 1812, with the aim of starting the cultivation of tea in Rio de Janeiro (PAULINO, 2017), while the first Brazilian mission to China “was carried out in the Second Empire, in the second half of the 19th century, when D. Pedro II, the emperor of Brazil, sent a delegation led by the chief minister of the Brazilian delegation in Asunción to propose an agreement on friendship, trade and navigation” (PAULINO, 2017, p. 226).

Still in this context, Paulino (2017) said that official contacts between Brazil and China, in the 20th century, took place in 1949, especially after the founding of the People's Republic of China, as well as the visit to the Chinese in In 1961, on the part of João Goulart, then vice-president of Brazil, further tightened relations between the countries, as he had been received as a great friend of the country. However, Paulino (2017) and Pires (2015) clarified that, after the implementation of the military regime in Brazil, which took place in 1964, there was an interruption in the relationship between the countries, for a period of ten years, with diplomatic relations officially reestablished in 1974.

Regarding this, Pires (2015) points out that political and commercial relations between Brazil and China during the period from 1974 to 2000 gained some volume, but they were not significant and were not priorities in the countries’ geopolitical strategy and agenda, a situation that has changed, mainly, after 2001 - the year of China's entry into the World Trade Organization, supported by Brazil -, an opportunity in which several agreements of mutual interest were signed.

And due to the size of the Brazilian territory and the supply of important natural resources, Pires (2015, p. 269) stated that “China sees Brazil as a great breadbasket and also a great provider of minerals. But also due to the size of the internal market and the possibility of internationalization of its companies, the country is also seen as a great potential for business".

In this context, and specifically from 2003 onwards, this closeness between the countries gained a new dimension, mainly in the evolution of the trade relationship, which showed enormous expansion from 2008 onwards, so that, currently, China is the biggest economic partner of Brazil and the main destination of Brazilian exports (PIRES, 2015; PAULINO, 2017), however, these " are focused on food, ores and raw materials, while imports are predominantly finished industrial products and inputs" (PIRES, 2015, p. 259).

As an example, trade between countries increased from US$ 3.2 billion in 2000 to an incredible US$ 104 billion in 2020, with China importing Brazilian products totaling US$ 67.6 billion: which is why China was responsible for the surplus in the Brazilian trade balance of US$ 33.6 billion in this period (PIRES, 2015; PAULINO, 2017; BRASIL, 2020c; BRASIL, 2020d; BRASIL, 2020e).

In turn, Hong Kong, one of the two special administrative regions (SAR) of China (the other is Macau) which had been ceded to the United Kingdom in 1842, after the first Opium War, and returned to China in 1997 (PAULINO, 2017), bought US$ 2.3 billion and sold US$ 590 million to Brazil, generating a surplus in the Brazilian trade balance of US$ 1.7 billion (BRASIL, 2021b).

Regarding these numbers, Pires (2015, p. 259) already warned that, "if it weren't for the trade surplus obtained with China, the country would face greater difficulties in closing its balance of payments since 2008".

China is also the main destination for Brazilian agribusiness exports, with US$ 33.9 billion in 2020 alone, mainly in soybeans, beef, chicken and pork, cellulose, sugar and molasses (China almost doubled purchases of Brazilian sugar in 2020 relative to imports in 2019), leather, vegetable oils, paper, leaf tobacco, fruit juices, synthetic and artificial rubber, vegetable extracts and waxes, cotton, vegetable residues for animal feed and wood (BRASIL , 2020c; BRASIL, 2020d; BRASIL, 2020e; IPEA, 2020b).

In the soybean industry alone, the Chinese were responsible for acquiring an incredible 73.2% (US$ 21 billion) of the production exported by Brazil in 2020 (16.3 million tons). Thus, China had a share of almost 33% of the total Brazilian agribusiness exports in 2020, double the share of the European Union and almost five times that of the USA in the same period (BRASIL, 2020c; BRASIL, 2020d; BRASIL, 2020e).

With regard to imports from China in the context of agribusiness, Brazil purchased just over US$ 882 million, especially in forest products, vegetables, legumes, roots and tubers, animal feed, teas, cereals and fruits, as well as insecticides, ant killers, herbicides, organic and inorganic compounds, fertilizers, soil enrichers, nucleic acids, salts and sulfonamides (BRASIL, 2020c; BRASIL, 2020d; BRASIL, 2020e).

In fact, all these numbers are impressive, mainly because China, feeding about 20% of the world's population, with only 7% of the world's arable land, is the largest consumer of meats and grains, still with annual growth of approximately, 25% in dairy consumption (MONTE; LOPES; CONTINI, 2017).

At this point, Monte, Lopes and Contini (2017) argue that the Chinese territory has 9.6 million km2, around 10% larger than that of Brazil, however, only 10% to 15% of the territory has the capacity to rural production, in addition to the fact that urban expansion removed approximately 1/5 of Chinese arable land, currently occupying around 110 million hectares for agricultural production and 20 million for agricultural and cattle development (MONTE; LOPES; CONTINI, 2017; USDA, 2021).

But this is not just good news: Monte, Lopes and Contini (2017, p. 7) also warn that, "despite the success achieved, the Chinese agricultural sector faces serious problems such as: a) 40% of arable land is degraded; b) more than 3 million hectares are contaminated, with serious environmental damage, resulting from the excessive use of inputs; and c) pollution affects breathing capacity and, consequently, human health".

In addition, Chinese agricultural land is not private, it belongs to the Chinese government, which leases it to the rural producer. However, in some situations, the Chinese government allows rural producers themselves to lease, sublet, subcontract or transfer land rights to third parties (MONTE; LOPES; CONTINI, 2017).

In these circumstances, and aiming at strategic food security, the tendency is that Brazil continue to be a special supplier of rural products to China (PIRES, 2015), especially if there is maintenance or even an increase in the intensification of Sino-American economic, technological, military and geopolitical disputes. (SEIXAS, 2020; SCHNEIDER; CASSOL; LEONARDI; MARINHO, 2020; FGV-EESP, 2021).

IV. Discussion and results

The efficiency and competitiveness of Brazilian agribusiness chains continue to grow year after year, regardless of the economic, agricultural, land, tax, labor and exchange rate policies of successive governments. However, it should be recognized that the recent devaluation of the Real against the Dollar, more than 30% since the beginning of 2020 (IPEA, 2020b), as well as the animosity in Sino-American economic and geopolitical relations and, furthermore, the high Chinese internal demand for grains and meat - the latter item severely affected since 2019 with the African swine fever -, potentiated the current scenario very favorable to Brazilian exports (BRASIL, 2020b; BRASIL, 2020c; BRASIL, 2020d; BRASIL, 2020e; SCHNEIDER ; CASSOL; LEONARDI; MARINHO, 2020).

Regarding the trade balance of Brazilian agribusiness exports, it reached US$ 100.8 billion in 2020, 6.77% higher than 2019, as well as imports in the order of US$ 13.04 billion, a decrease of 5.2%, resulting in a surplus for the sector of US$ 87.76 billion, 48% of all foreign market revenues (BRASIL, 2020b).

In turn, China, currently, the world's largest agricultural importer, surpassing the European Union and the United States in 2019 with imports totaling US$ 133.1 billion (USDA, 2020), is the largest buyer of rural products from Brazil, acquiring US$ 30.9 billion in 2019 and US$ 33.9 billion in 2020, while the US, for example, bought a total of US$ 7.1 billion in 2019 and US$ 6.9 billion in 2020 Therefore, comparing purchases made in 2019 and 2020, it appears that China, even during the Covid-19 pandemic, increased their Brazilian agricultural imports by 9.8%, with a share of 31.97% in 2019 and 33.7% in 2020 (BRASIL, 2021c; BRASIL, 2021d).

China was also the main destination for **grains of soybeans**, acquiring 73.2% of the production exported by Brazil in 2020 (US$ 20.9 billion), as well as US$ 20.5 billion in 2019, with a participation of 78, 4% (BRASIL, 2021c; BRAZIL, 2021d).

In addition, China is also a major buyer of: 1) **cellulose**, US$ 3.3 billion in 2019 (43.5%) and US$ 2.9 billion in 2020 (48%); 2) **fresh or frozen beef**, US$2.7 billion in 2019 (41%) and US$4 billion in 2020 (50.3%); 3) **fresh or frozen pork**, US$619 million in 2019 (41.6%) and

US$1.23 billion in 2020 (58.1%); 4) **poultry and offal**, US$ 1.24 billion in 2019 (19.1%) and US$ 1.27 billion in 2020 (22.9%); 5) **sugars**, US$ 390 million in 2019 (7.51%) and US$ 1.28 billion in 2020 (14.5%); 6) **raw cotton**, US$ 820 million in 2019 (31.1%) and US$ 1.016 billion in 2020 (31.5%); 7) **carded, combed cotton or linters**, US$ 2.85 million in 2019 (25.1%) and US$ 4.52 million in 2020, (53.1%); 8) **leather**, US$ 290 million in 2019 (25.1%) and US$ 267 million in 2020 (27.5%); 9) **textile fibers**, US$ 26.9 million in 2019 (61%) and US$ 23.7 million in 2020 (62.9%); 10) **frozen fish**, US$ 18.7 million in 2019 (15.4%) and US$ 12.6 million in 2020 (11.5%); 11) **crustaceans**, US$16.8 million in 2019 (18%) and US$10.7 million in 2020 (14%); 12) **vegetable oils and fats**, US$187 million in 2019 (24.4%) and US$216 million in 2020 (23.8%); 13) **raw wood**, US$ 32.5 million in 2019 (37.2%) and US$ 53.5 million in 2020 (46.1%); 14) **wood chips**, US$ 51.5 million in 2019 (34.2%) and US$ 69.6 million in 2020 (49.7%) (BRASIL, 2020d).

In this context, China imported US$ 30.9 billion in 2019 and US$ 33.9 billion in 2020 of total exports made by Brazilian agribusiness, US$ 100.8 billion in 2020 and US$ 96.8 billion in 2019, double, therefore, the participation of the European Union and almost five times that of the USA in the same period (BRASIL, 2020c; BRASIL, 2020d).

All these figures become even more relevant when it is verified that Brazil exported a total of US$ 209.8 billion in 2020 (-6.9%) and US$ 225.3 in 2019 (-5.8%), however, it is a warning about the growing dependence on Chinese acquisitions, considering that the Asians buy, in general numbers, a total of 70% of the soybeans produced; 60% of beef; 45% of the cellulose; 23% of poultry meat and offal; 30% of cotton; 60% from vegetable textile fibers and 23% from vegetable fats and oils. Also noteworthy is the Chinese purchase of 64% of crude oil and 66% of iron ore and their concentrates (BRASIL, 2020b; BRASIL, 2020c; BRASIL, 2020d; BRASIL, 2020e; SCHNEIDER; CASSOL; LEONARDI; MARINHO, 2020).

Moreover, add to the final result the agricultural acquisitions made by Hong Kong, US$ 2.3 billion in 2020 and US$ 2.4 billion in 2019, as well as, by Macao, US$ 5.34 million in 2020 and US$ $46.3 million in 2019 (BRASIL, 2020d). In fact, China and Hong Kong were responsible for acquiring 63.7% of the exported volume of beef in 2020, a percentage 65.58% higher than in 2019 (IPEA, 2020b).

However, the Chinese government still maintains high restrictions on Brazilian imports, especially chicken, animal genetics, corn, dairy products, rice, fruits, ethanol, sugar and processed products derived from soybeans, such as oil and soybean meal. In fact, Brazil exports a lot of soybeans to China, however, the processed elements, which contain greater added value, are subject to strong tariff restrictions by the Chinese government (PIRES, 2015; TAMARINDO; PIGATTO, 2020).

As a result, there are virtually no significant exports of soy derivatives, as well as strong sanitary, fiscal and bureaucratic barriers to the export of poultry and pork. The same occurs with manufactured products, which are restricted by China, which have an insignificant share in the export basket to the Asian country: approximately 4.0% of the total in 2020 (JANK, 2018; BRASIL, 2020d; TAMARINDO; PIGATTO, 2020).

Despite all the impact caused by the Covid-19 pandemic on the global economy, especially in China, which faced a historic drop of 6.8% of its GDP in the first quarter of 2020, closing the year with recovery and growth of 2.3% , however, the lowest percentage in 44 years (SEIXAS, 2020; HANCOCK; ZHU; LIU; SALAMAT; CURRAN; WANG, 2021), such a situation, when evaluating the results of Brazilian agribusiness singly, did not impact the levels of Brazilian exports to the Chinese market, which are mostly agricultural products.

And even with the strong slowdown and deterioration of the Brazilian economy, the increase in unemployment rates and the fall in purchasing power, with regard to Brazilian international sales, what we saw, in 2020, therefore, is that the economic crisis caused by the Covid-19 pandemic did not harm the country's trade balance due to the performance of agribusiness, which showed an increase in exports, mainly in soybeans, beef, pork and poultry, cellulose, vegetable oils and sugar (BRASIL, 2020b; BRASIL, 2020c; BRASIL, 2020d; SCHNEIDER; CASSOL; LEONARDI; MARINHO, 2020).

Without the external resources of agribusiness, there would be a deficit in the balance of payments of US$ 50.7 billion in 2020 and US$ 48.8 billion in 2019 (BRASIL, 2020d).

And the trend, at least in the medium and short term, is that Chinese imports of commodities and animal proteins from Brazil do not change or, ultimately, even increase in some chains, as is the case, for example, of beef, since the Chinese population is growing – mainly the urban one – as well as the domestic consumption of grains, meat and dairy products. Nevertheless, its rural population is decreasing, a situation that will make it difficult to reduce the current dependence on grain and animal protein imports (EMBRAPA, 2020; SEIXAS, 2020; SCHNEIDER; CASSOL; LEONARDI; MARINHO, 2020; FGV-EESP, 2021; SALATI, 2021).

Another important point to be considered in this economic and geopolitical equation is the Sino-American relations, in case they remain conflictual also in the Biden government, which, in turn, should put even more pressure on Brazilian agribusiness due to the commitments assumed in its environmental and climate agenda (SEIXAS, 2020; SCHNEIDER; CASSOL; LEONARDI; MARINHO, 2020; FGV-EESP, 2021; SALATI, 2021).

It should be noted, at this point, that Brazil and the US are major competitors in agribusiness, since they have very similar production and export chains of agricultural products and, above all, are fighting a battle for the world's largest customers of commodities and animal proteins: China and the European Union. And the recent trade and tariff tensions in Sino-American relations, at first, greatly benefited Brazilian agribusiness in the Trump administration, however, any new agreement, alignment or truce in conflicts, in the current Biden administration, should impact Brazilian agricultural exports to the Chinese market, given that the Beijing government has already committed to the Americans – still under the Trump administration – to increase purchases of agricultural products by US$ 32 billion by December 2021 (SEIXAS, 2020; SCHNEIDER; CASSOL; LEONARDI ; MARINHO, 2020; USDA, 2020; WONG; KOTY; 2020; FGV-EESP, 2021; SALATI, 2021).

It is important to remember that the United States used to be China's largest agricultural supplier, but has been overtaken by Brazil and, more recently, even by the European Union. Other currently important Chinese suppliers are Australia and New Zealand, both partners in free trade agreements with China (USDA, 2020), of which Brazil is not a part of.

Notwithstanding the trade opportunities, from now on it will be necessary to follow China's geopolitical steps very carefully, since in addition to the strategic search for control over production and trade chains, that is, from origin to export, notably of grains and unprocessed meat, the fact is that the Chinese have been investing and developing new agricultural suppliers in Africa, as it is the case, for example, in Tanzania, in Southeast Asia and even in Russia (ESCHER; WILKINSON; PEREIRA, 2018; JANK, 2018; SEIXAS , 2020; PIRES, 2021).

Also due to the impacts of the Covid-19 pandemic, Seixas (2020) warns that China is accelerating the change of some of its strategies in the agricultural sector, aiming, therefore: 1) to increase the diversification of its geographic import channels; 2) technologically modernize production, input and labor chains; 3) increase storage capacity, to better manage demands, especially in times of crisis; and, 4) to resume the 'new Chinese silk road' project, also known as 'one belt, one road', which provides for the connection of 70 countries in Asia, Europe and Africa, for commercial purposes and to increase the food production and processing capacity (SEIXAS, 2020).

Despite the defense of Chinese interests, this geopolitical mobilization could bring enormous instabilities and distortions, especially with regard to prices, product offerings, market share, land control and even production and input chains, thus destabilizing the dynamics of established markets and the sustainable development of Brazilian agribusiness itself, which will face limitations of buyers, especially of its soy, corn, cotton, meat, cellulose and sugar (ESCHER; WILKINSON; PEREIRA, 2018; JANK, 2018; SEIXAS, 2020).

At this juncture, the geopolitical scenario will require attention from agribusiness, especially in relation to the largest producers and exporters, as the trend is indeed towards greater international competitiveness, which is why national authorities must establish new routes and trade partners and review the strategy of the production chains, inputs and trade of the main exported products, mainly to the Chinese market (SEIXAS, 2020; SCHNEIDER; CASSOL; LEONARDI; MARINHO, 2020).

As an attempt at diversification, Walendorff (2021) points out that Brazil, since 2019, has already opened 108 new markets for Brazilian agricultural products, as it is the case, just in 2021, of eggs to Chile, rice seeds to Colombia, pork and other by-products to Cambodia, cattle and sheep to Saudi Arabia, beef tripe and bladders to Argentina.

Finally, one cannot ignore, in casu, the deleterious effects of internal political and ideological tensions on the result of this geopolitical equation, as well as the uproar involving Chinese participation in the implementation of 5G technology in Brazil. In fact, all these issues, aggravated unnecessarily and without any counterpart in the Jair Bolsonaro government, mainly due to excessive statements by the president himself, members of his family and high-ranking government officials, as it is the case of the chancellor, Ernesto Araújo, end up harming the country too much and moving it away from the expected pragmatism in international trade relations, especially with regard to Brazil's largest economic partner and the largest absolute buyer of Brazilian rural products.

V. Conclusion

As with the outbreak of the 'Spanish flu' at the beginning of the 20th century, the pandemic caused by the Covid-19 disease severely shook the world, destabilizing, since the beginning of 2020, all social relations and global economic chains. And despite some improvement in socioeconomic indices and prospects, the beginning of 2021 continues to be permeated by the increase in cases of the disease, fear of new waves of infections, discovery of virus variants and tightening of social distancing measures, situations that continue to harm several segments of the national economy, which had already been severely damaged by the first wave.

Despite the degradation of a) economic levels, b) huge fiscal deficit, aggravated by the increase in additional government spending to face the pandemic and grant social aid, c) increase in unemployment rates and d) fall in the purchasing power of Brazilians , what was seen in 2020 is that the global economic crisis caused by Covid-19 did not harm the production and trade chains of national agribusiness, mainly its exports of the soybean products (soybeans, oil and meal), animal proteins, forest products, vegetable oils and sugar.

In fact, there was substantial growth in agribusiness production and exports in 2020, compared to 2019, and the reason for this impressive performance was mainly due to a) high and continuous Chinese demand, b) deterrence by Chinese imports of North American commodities and animal proteins and, also, c) the strong devaluation of the Brazilian currency against the dollar and the euro, over 30% since the beginning of 2020. And for being one of the main sectors of the economy and, currently, the largest generator of balance of payments surplus, there was attention to how the Covid-19 pandemic would impact Brazilian exports of commodities and animal proteins, mainly by the European Union and China, Brazil's main economic partners for more than a decade and absolute leaders in the acquisition of Brazilian agricultural products.

This article also demonstrated to Brazil the importance of trade relations with China, as well as that the Asian country will continue to represent unique opportunities for the national economy and, specifically, for Brazilian agribusiness, since the growth of the Chinese population, mainly urban, and their income, they will demand even more food and many other products of animal and vegetable origin, such as the soybean industry, corn, meat, sugar, cellulose and dairy products.

The results of the present work also indicated that in addition to the various climatic and socio-environmental challenges contemporary to its sustainable development, especially in the Joe Biden government, as well as the possible cooling off of the recent trade conflicts between the USA and China, the Brazilian agricultural sector must remain alert with the current Chinese geopolitical movements, having to reduce the concentration of sales to a few buyers as soon as possible and, consequently, establish new routes and commercial partners and, above all, review the current strategy of the production and trade chains of the main products exported to the Chinese market, which is moving to reduce its external dependence on grains and animal proteins.

Indeed, the desired strategic changes in the Chinese agricultural sector and the search for diversification of geographic import channels, through the development of new agricultural suppliers, will represent significant losses to the national agribusiness economy in the medium and long term, notably, if the substantial development of new routes, commercial and production agreements and partnerships do not occur.

However, it is very unlikely that only one country or even a combination of countries will be able to efficiently meet the potential demand of China, notably due to the efficiency and competitiveness of national agribusiness. Therefore, China represents – and will continue to represent – unique opportunities for national agribusiness and, above all, for the Brazilian economy itself, since its population and income growth will demand more food, mainly grains and meat.

However, as the president of the Brazilian Rural Society rightly warned, for Brazil, “talking about the future is talking about China”, so that the country “must behave in a commercial manner and with great respect” (VENDRAMINI, 2021, p. .1).

In short, the potential of Brazilian agribusiness to produce, export and supply the internal and external market, even during the Covid-19 pandemic, has been one of the main factors supporting the Brazilian economy, however, due to international geopolitical disputes, it is necessary to focus on pragmatism in foreign trade relations, especially in relation to Brazil's largest economic partner and agribusiness itself, because, as it is common to be warned in rural environment, each one reaps as he sows or, ultimately, who sows wind reaps storm. As the Brazilian saying goes

And Brazil needs, in fact, not to sow wind so as not to end up reaping a windstorm.

References

BARROS, Geraldo Sant'Ana de Camargo; CASTRO, Nicole Rennó Castro. Especial Coronavírus e o Agronegócio, volume 2, Impactos no PIB e no mercado de trabalho do agronegócio – Centro de Estudos Avançados em Economia Aplicada – CEPEA – ESALQ/USP. Disponível em: https://cepea.esalq.usp.br/br/documentos/texto/especial-coronavirus-e-o-agronegocio-volume-2.aspx. Acesso em: 20 jan. 2021.

BRASIL, 2014. Conselho Administrativo de Recursos Fiscais. Processo 11080.013885/2007-65. Acórdão 1103-001.094, 1ª Câmara/3ª Turma Ordinária, Relator André Mendes de Moura. Disponível em: http://idg.carf.fazenda.gov.br/. Acesso em: 17 jan. 2021.

BRASIL, 2018. Empresa brasileira de Pesquisa Agropecuária. A Pesquisa Agropecuária e o Futuro do Brasil – Propostas para o sistema brasileiro de ciência, tecnologia e inovação. Brasília-DF. Disponível em: https://www.embrapa.br/documents/10180/1600893/Proposta+para+subsidiar+candidatos+sobre+desafios+da+agricultura+tropical/33991880-61ba-e270-cd26-f4fa155ecf12. Acesso em: 21 jan. 2021.

BRASIL, 2020a. Ministério da Economia. COVID-19: Ministério da Economia divulga lista dos setores mais afetados pela pandemia da Covid-19 no Brasil. Disponível em: https://www.gov.br/economia/pt-br/assuntos/noticias/2020/setembro/ministerio-da-economia-divulga-lista-dos-setores-mais-afetados-pela-pandemia-da-covid-19-no-brasil. Acesso em: 17 jan. 2021.

BRASIL, 2020b. Ministério da Agricultura, Pecuária e Abastecimento. Agrostat – Estatística de Comércio Exterior do Agronegócio Brasileiro. Exportação e Importação. Disponível em: http://indicadores.agricultura.gov.br/agrostat/index.htm. Acesso em: 17 jan. 2021.

BRASIL, 2020c. Ministério da Agricultura, Pecuária e Abastecimento. Agrostat – Estatística de Comércio Exterior do Agronegócio Brasileiro. Exportação e Importação, China, exportações, agronegócio - 2019-2020. Disponível em: http://indicadores.agricultura.gov.br/agrostat/index.htm. Acesso em: 21 jan. 2021.

BRASIL, 2020d. Ministério da Indústria, Comércio Exterior e Serviços. Comex Stat, Exportações e Importações Geral. Disponível em: http://comexstat.mdic.gov.br/pt/geral/26176. Acesso em: 17 jan. 2021.

BRASIL, 2020e. Ministério da Indústria, Comércio Exterior e Serviços. ComeVis, Exportações e Importações Geral. Disponível em: http://comexstat.mdic.gov.br/pt/comex-vis. Acesso em: 17 jan. 2021.

BRASIL, 2021a. Ministério da Economia. Balança Comercial, Jan/Dez de 2020. Disponível em: https://www.gov.br/produtividade-e-comercio-exterior/pt-br/assuntos/comercio-exterior/estatisticas/balanca-comercial-brasileira-acumulado-do-ano. Acesso em: 19 jan. 2021.

BRASIL, 2021b. Ministério da Indústria, Comércio Exterior e Serviços. Balança Comercial Preliminar Parcial Mensal. Disponível em: https://balanca.economia.gov.br/balanca/pg_principal_bc/principais_resultados.html. Acesso em: 21 jan. 2021.

BRASIL, 2021c. Ministério da Saúde. Covid-19. Brasil registra 7.594.771 milhões de pessoas recuperadas. Disponível em: https://www.gov.br/saude/pt-br/assuntos/noticias/brasil-registra-7-594-771-milhoes-de-pessoas-recuperadas.Acesso em: 23 jan. 2021.

CASTRO, Nicole Rennó Castro; BOTEON, Margarete; BACCHI, Mirian. Setores do agronegócio mais dependentes da demanda doméstica devem ser os mais prejudicados pelos efeitos do coronavírus. In: Especial Coronavírus e o Agronegócio, volume 1 – Centro de Estudos Avançados em Economia Aplicada – CEPEA – ESALQ/USP. Disponível em: https://cepea.esalq.usp.br/br/documentos/texto/especial-coronavirus-e-o-agronegocio-volume-1.aspx. Acesso em: 20 jan. 2021.

CEPEA, 2020. Centro de Estudos Avançados em Economia Aplicada. PIB do Agronegócio, 2020. Brasil, Disponível em: https://www.cepea.esalq.usp.br/br/pib-do-agronegocio-brasileiro.aspx. Acesso em: 17 jan. 2021.

CNA. Confederação da Agricultura e Pecuária do Brasil. Panorama do Agro, junho de 2020. Disponível em: https://www.cnabrasil.org.br/cna/panorama-do-agro#_ftn1. Acesso em: 17 jan. 2021.

DAVIS, John Herbert; GOLDBERG, Ray Allan. A concept f agribusiness. Division of Research. Boston: Graduate School of Business Administration. Harvard University. 1957. Disponível em: https://babel.hathitrust.org/cgi/pt?id=uc1.32106006105123;view=1up;seq=11. Acesso em: 10 jan. 2021.

EMBRAPA. Empresa Brasileira de Pesquisa Agropecuária. Estudos socioeconômicos e ambientais. Disponível em: https://www.embrapa.br/busca-de-noticias/-/noticia/53150898/em-busca-de-seguranca-alimentar-china-se-prepara-para-a-fase-pos--covid--19-e-pode-influenciar-o-agronegocio-brasileiro. Acesso em: 23 jan. 2021.

FAO. Food and Agricuture Organization of the United Nations. World Agriculture Toward 2030/2050, The 2012 Revision, ESA Working Paper n. 12-03. Disponível em: http://www.fao.org/fileadmin/templates/esa/Global_persepctives/world_ag_2030_50_2012_rev.pdf. Acesso em: 23 jan. 2021.

FGV-EESP. Fundação Getúlio Vargas, Escola de Economia de São Paulo. Especialistas dizem como o novo governo Biden pode impactar o agronegócio brasileiro. Disponível em: https://g1.globo.com/economia/agronegocios/noticia/2021/01/21/especialistas-dizem-como-o-novo-governo-biden-pode-impactar-o-agronegocio-brasileiro.ghtml. Acesso em: 22 jan. 2021.

FITCH, 2020. Fitch Ratings. Fitch Affirms Brazil at “BB-″; Outlook Negative, 18 Nov, 2020. Disponível em: https://www.fitchratings.com/research/sovereigns/fitch-affirms-brazil-at-bb-outlook-negative-18-11-2020. Acesso em: 21 jan. 2021.

FITCH, 2021. Fitch Ratings. New Brazilian Bankruptcy Law Is a Risk to Corporate Recoveries, 20 Jan, 2021. Disponível em: https://www.fitchratings.com/research/corporate-finance/new-brazilian-bankruptcy-law-is-risk-to-corporate-recoveries-20-01-2021. Acesso em: 21 jan. 2021.

HANCOCK, Tom; ZHU, Lin; LIU, Lucielle; SALAMAT, Rishaad; CURRAN, Enda; WANG, Fran. China's Growth Beats Estimates as Economy Power Out of Covid. In: Economics, Bloomberg, 17 January 2021. Disponível em: https://www.bloomberg.com/news/articles/2021-01-18/china-s-economy-grew-2-3-in-2020-accelerating-global-rise. Acesso em: 21 jan. 2021.

IBGE. Instituto Brasileiro de Geografia e Estatísticas. Indicadores Econômicos. Disponível em: https://www.ibge.gov.br/indicadores#variacao-do-pib. Acesso em: 23 jan. 2021.

IPEA, 2020a. Instituto de Pesquisa Econômica Aplicada. Agropecuária - Conjuntura Agrícola Brasileira. Carta Conjunta nº 49, Nota de Conjuntura 22, 4º trimestre de 2020. Disponível em: https://www.ipea.gov.br/cartadeconjuntura/index.php/category/agropecuaria/. Acesso em: 22 jan. 2021.

IPEA, 2020b. Instituto de Pesquisa Econômica Aplicada. Economia Agrícola. Disponível em: https://www.ipea.gov.br/cartadeconjuntura/index.php/2020/11/economia-agricola-13/. Acesso em: 22 jan. 2021.

JANK, Marcos Sawaya, 2018. Brasil na guerra comercial EUA-China. Disponível em: https://www.linkedin.com/pulse/brasil-na-guerra-comercial-eua-china-marcos-jank/. Acesso em: 04 ago. 2018.

JANK, Marcos Sawaya, 2021. Macron e a falácia da autossuficiência em soja. Folha de São Paulo, Seção Tendências/Debates, publicado em 20 de janeiro de 2021. Disponível em: https://www.linkedin.com/pulse/macron-e-fal%C3%A1cia-da-autossufici%C3%AAncia-em-soja-marcos-jank/. Acesso em: 20 jan. 2021.

KAUFMAN, Martin; LEIGH, Daniel, 2020. The imbalances of the world economy and the crisis of COVID-19. International Monetary Fund, August 4, 2020. Disponível em: https://www.imf.org/pt/News/Articles/2020/08/04/blog-global-rebalancing-and-the-covid19-crisis. Acesso em: 17 jan. 2021.

MONTE, Damares de Castro; LOPES, Daniela Biaggioni; CONTINI, Elisio. China - Nova potência também no agronegócio. Revista de Política Agrícola, ano XXVI, nº 3, p. 107-123, Jul./Set. 2017.

NEVES, Marcos Fava, 2016. Vai agronegócio! 25 anos cumprindo missão vitoriosa. Editora Canaoeste, 538 páginas. Primeira Edição. 2016.

NEVES, Marcos Fava, 2020; MARQUES, Vitor Nardini; MARTINEZ, Leticia Franco; CAMBAÚVA, Vinícius, 2020. Os Desafios de Comunicação do Agronegócio: O Método "AgroPlanCom". Revista Agronomia Brasileira, e-ISSN 2594-6781, volume 4 (2020). Disponível em: https://agronerd.com.br/wp-content/uploads/2020/10/Comunicacao-no-Agro-Metodo-AgroPlanCom-Fava-Neves-et-al-2020-3.pdf. Acesso em: 17 jan. 2021.

OPAS, 2021. Organização Pan-Americana da Saúde. O que é COVID-19?. Disponível em: https://www.paho.org/pt/covid19. Acesso em: 17 jan. 2021.

PAULINO, Luís Antônio. A China: A procura do caminho para o desenvolvimento. Tese (Livre-docência) – Faculdade de Filosofia e Ciência da Universidade Estadual Paulista "Júlio de Mesquita Filho" – Unesp, Campus de Marília, São Paulo, 2017.

PIRES, Marcos Cordeiro, 2015. Notas sobre a parceria estratégica Brasil-China. In: SOARES, Adrián Bonilla; GARCÍA, Paz Milet (Edit). China en América Latina y el Caribe: Escenarios estratégicos subregionales, 1ª. ed – San José, FLACSO, CAF – Secretaría General, ISBN 978-9977-68-277-8, 2015.

PIRES, Marcos Cordeiro, 2021. Com expansão na China e recessão nos EUA, país asiático deve se tornar 1ª economia global nesta década. Jornal o Globo, Economia, reportagem de VARGAS, Ivan Martínez - 19/01/2021. Disponível em: https://oglobo.globo.com/economia/com-expansao-na-china-recessao-nos-eua-pais-asiatico-deve-se-tornar-1-economia-global-nesta-decada-24843395. Acesso em: 22 jan. 2021.

SALATI, Paula. Especialistas dizem como o novo governo Biden pode impactar o agronegócio brasileiro. Agro, Portal G1. Disponível em: https://g1.globo.com/economia/agronegocios/noticia/2021/01/21/especialistas-dizem-como-o-novo-governo-biden-pode-impactar-o-agronegocio-brasileiro.ghtml. Acesso em: 22 jan. 2021.

SCHNEIDER, Sergio; CASSOL, Abel; LEONARDI, Alex; MARINHO, Marisson de Melo. Os efeitos da pandemia da Covid-19 sobre o agronegócio e a alimentação. Estudos Avançados, vol. 34, n. 100, São Paulo, Sept./Dec. 2020, Epub Nov. 11, 2020, ISSN 1806-9592. Disponível em: https://www.scielo.br/pdf/ea/v34n100/1806-9592-ea-34-100-167.pdf. Acesso em: 21 jan. 2021.

SEIXAS, Mario Alves. China POS-COVID-19, um alerta ao agronegócio brasileiro. In: Série Diálogos Estratégicos (NT33). Secretaria de Inteligência e Relações Estratégicas, Embrapa. Disponível em: https://www.embrapa.br/documents/10180/26187851/China+P%C3%B3s-Covid-19+-+Um+alerta+ao+agroneg%C3%B3cio+brasileiro.pdf/8379c5df-cdb6-7681-6091-00bae689a5b2?version=1.0#:~:text=Por%20outro%20lado%2C%20a%20pandemia,demanda%20de%20carne%20de%20aves. Acesso em: 21 jan. 2021.

SHETTY, Shelly, 2020. Fitch Affirms Brazil at "BB-"; Outlook Negative, 18 Nov, 2020. Disponível em: https://www.fitchratings.com/research/sovereigns/fitch-affirms-brazil-at-bb-outlook-negative-18-11-2020. Acesso em: 21 jan. 2021.

SHETTY, Shelly, 2021. New Brazilian Bankruptcy Law Is a Risk to Corporate Recoveries. In: Fitch Ratings Disponível em: https://www.fitchratings.com/research/corporate-finance/new-brazilian-bankruptcy-law-is-risk-to-corporate-recoveries-20-01-2021. Acesso em: 21 jan. 2021.

STABILE, Marcelo C. C.; GUIMARÃES, Andé L.; SILVA, Daniel S.; RIBEIRO, Vivian; MACEDO, Marcia N.; COE, Michael T.; PINTO, Erika; MOUTINHO, Paulo; ALENCAR, Ane. Solving Brazil's land use puzzle: Increasing production and slowing Amazon deforestation. Elsevier Ltd., ScienceDirect, volume 91, February 2020, 104362. Disponível em: https://www.sciencedirect.com/science/article/pii/S0264837719309809. Acesso em: 23 jan. 2021.

TAMARINDO, Ubirajara Garcia Ferreira; PIGATTO, Gessuir. Tributação no Agronegócio: uma análise geral dos principais tributos incidentes, 2ª edição. Ed: JH Mizuno, 2020 – Leme-SP.

UNCTAD, 2020a. United Nations Conference on Trade and Development. Global foreign direct investment falls 49% in first Half of 2020. Disponível em: https://unctad.org/news/global-foreign-direct-investment-falls-49-first-half-2020. Acesso em: 17 jan. 2021.

UNCTAD, 2020b. United Nations Conference on Trade and Development. COVID-19's economic fallout will long outlive the health crisis, report warns. Disponível em: https://unctad.org/news/covid-19s-economic-fallout-will-long-outlive-health-crisis-report-warns. Acesso em: 17 jan. 2021.

USDA, 2020. United States Departament of Agriculture, Foreign Agriculture Service. China: Evolving Demand in the World's Largest Agricultural Import Market, September, 2020. Disponível em: https://www.fas.usda.gov/sites/default/files/2020-09/china-iatr-2020-final.pdf. Acesso em: 22 jan. 2021.

USDA, 2021. United States Departament of Agriculture, Foreign Agriculture Service: Data & Analysis, Brazil: Exporte Guide, January 7, 2021. Disponível em: https://www.fas.usda.gov/data/brazil-exporter-guide-5. Acesso em: 17 jan. 2021.

VENDRAMINI, Teresa Cristina. Mercado, Agrofolha, entrevista concedida ao Jornal Folha de São Paulo em 4 de janeiro de 2021. Disponível em: https://www1.folha.uol.com.br/mercado/2021/01/falar-do-futuro-e-falar-da-china-que-deve-ser-tratada-com-respeito-diz-presidente-da-srb.shtml. Acesso em: 19 jan. 2021.

WALENDORFF, Rafael. Brasil abre seis novos mercados para o agronegócio em 2021. Valor Econômico, Agronegócios, Brasília. Disponível em: https://valor-globo-com.cdn.ampproject.org/c/s/valor.globo.com/google/amp/agronegocios/noticia/2021/02/12/brasil-abre-seis-novos-mercados-para-o-agronegocio-em-2021.ghtml. Acesso em: 23 fev. 2021.

WHO, 2020a. World Health Organization. What is COVID-19?. Coronavirus disease (COVID-19). Disponível em: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19. Acesso em: 23 fev. 2021.

WHO, 2020b. World Health Organization. Archived: WHO Timeline - COVID-19, 27 Apriel 2020, In: 11 March 2020. Disponível em: https://www.who.int/news/item/27-04-2020-who-timeline---covid-19. Acesso em: 21 jan. 2021.

WHO, 2021a. World Health Organization. WHO Coronavirus Disease (COVID-19) Dashboard, 17 January 2021. Disponível em: https://covid19.who.int/. Acesso em: 23 fev. 2021.

WHO, 2021b. World Health Organization. WHO Coronavirus Disease (COVID-19) Dashboard, 17 January 2021. Disponível em: https://covid19.who.int/. Acesso em: 23 fev. 2021.

WONG, Dorcas; KOTY, Chipman. The US-China Trade War: A Timeline. In: China Briefing, August 25, 2020. Disponível em: https://www.china-briefing.com/news/the-us-china-trade-war-a-timeline/. Acesso em: 22 jan. 2021.

WTO. World Trade Organization. Trade shows signs of rebound from COVID-19, recovery still uncertain, 6 October 2020. Disponível em: https://www.wto.org/english/news_e/pres20_e/pr862_e.htm. Acesso em: 23 fev. 2021.