



THE SPATIAL STRATEGY FOR THE INTERNATIONALIZATION OF BRAZILIAN COMPANIES IN THE MEATPACKING SECTOR: THE CASE OF JBS AND MINERVA¹

A ESTRATÉGIA ESPACIAL DE INTERNACIONALIZAÇÃO DE EMPRESAS BRASILEIRAS DO SETOR FRIGORÍFICO: OS CASOS DA JBS E DA MINERVA

LA ESTRATEGIA ESPACIAL DE INTERNACIONALIZACIÓN DE EMPRESAS BRASILEÑAS DEL SECTOR FRIGORÍFICO: EL CASO DE JBS Y DE MINERVA

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Abstract

Internationalization of Brazilian companies is a recent phenomenon that calls attention to the accelerated process of opening production facilities abroad. Upon assessing trade barriers affecting Brazilian beef exports, it was found that restrictive measures in the international meat trade propelled the geographical dispersion of Brazilian companies outside the national territory, with the aim of increasing their share in the global market. The case study of the multinational corporations JBS and Minerva has found that opening branches in foreign territories is a spatial strategy adopted by the companies, since the location of production facilities aims to access domestic and foreign target markets. By having a large, strategically positioned production and marketing platform, Brazilian meat multinationals have established direct integration with major global markets and leveraged their operating revenues.

Keywords: Internationalization, trade barriers, spatial strategy.

Resumo

A internacionalização de empresas brasileiras é um fenômeno recente e que chama atenção pelo acelerado processo de abertura de unidades de produção no exterior. Ao averiguar barreiras comerciais que afetam as exportações brasileiras de carne bovina, constatou-se que as medidas restritivas existentes no comércio internacional de carne impulsionaram a dispersão geográfica de empresas brasileiras para fora do território nacional, com o intuito de aumentarem as suas participações no mercado mundial. A partir do estudo de caso das multinacionais JBS e Minerva, verificou-se que a abertura de filiais em territórios estrangeiros é uma estratégia espacial adotada pelas empresas, uma vez que a localização das unidades de produção visa acessar mercados-alvo internos e externos. Ao dispor de uma ampla plataforma de produção e comercialização, estrategicamente posicionada, as multinacionais brasileiras da carne estabeleceram uma integração direta com os principais mercados globais e alavancaram suas receitas operacionais.

Palavras-chave: Internacionalização, barreiras comerciais, estratégia espacial.

Resumen

La internacionalización de empresas brasileñas es un fenómeno reciente y que llama la atención por el acelerado proceso de apertura de plantas de producción en el exterior. Al analizar las barreras comerciales que afectan a las exportaciones brasileñas de carne bovina, se constató que las medidas restrictivas existentes en el comercio internacional de carne impulsaron la dispersión geográfica de empresas brasileñas fuera del territorio nacional, con el fin de aumentar sus participaciones en el mercado global. A partir del estudio de caso de las multinacionales JBS y Minerva, se verificó que la apertura de filiales en territorios extranjeros es una estrategia espacial adoptada por las empresas, ya que la ubicación de las unidades de producción tiene por

objeto acceder a mercados objetivo internos y externos. Al disponer de una amplia plataforma de producción y comercialización, estratégicamente posicionada, las multinacionales cárnicas brasileñas establecieron una integración directa con los principales mercados globales y apalancar sus ingresos operativos. Palabras clave: Internacionalización, barreras comerciales, estrategia espacial.

Introduction

Despite attempts by the World Trade Organization (WTO) to eliminate tariff and non-tariff barriers in trade relations in favor of a world market without so many protectionist measures, the existence of these and the recent actions of nation-state leaders reveal that the market is still a fragmented and contested economic space. Governments establish trade barriers to encumber or even restrict the performance of foreign capital in their territories, claiming to defend national interests, as seen in the speeches of President Donald Trump.

According to Ordoñez et al. (2007), it was from the 1930s that protectionism and restrictions on international trade became the institutional framework of the entire world economy. Since then, national market interventions have affected meat exports, despite attempts to create “free trade” and the gains made under the General Agreement on Tariffs and Trade (GATT) and its successor, the WTO. To circumvent trade barriers imposed by protectionist policies in other countries, according to Hilferding (1981), since the beginning of the twentieth century the more developed nations have stimulated the export of capital rather than the exportation of goods by shifting part of the production to foreign countries.

In the 1970s, the authors Brandt and Hulbert (1977, p. 179) defended that the national company should “move beyond the borders of Brazil and become full-fledged multinationals”. This assertion is supported by the fact that only when becoming multinationals Brazilian companies would be highly competitive in the world market since countries impose different barriers to foreign trade in order to protect their local productions.

However, the inverse trajectory of the internationalization process, with the opening of subsidiaries abroad by companies from countries considered to be underdeveloped or emerging, gained momentum only in the late twentieth and early twenty-first centuries. Thus, according to Mathews (2006), multinationals from emerging countries began to challenge the logic established in the global economy up until then, which

privileged the corporations of the economic centers and began to operate in several global markets.

In the case of the Brazilian meatpacking sector, JBS, Minerva, Marfrig, and BRF chose to move forward in the process of internationalization with foreign direct investment (FDI), acquiring operational units outside Brazil, such as commercial offices and industrial plants characterizing them as multinationals. Among the aforementioned companies, the first two were selected to deepen this research, which is due to the fact that they work with a focus on beef processing.

According to Michalet (2003), a multinational is a company that from a national base has deployed branches outside its country of origin, expanded its economic space by adopting a global strategy and organization. In this sense, internationalization can be considered as a space strategy used by companies to overcome existing impasses in foreign trade, to expand the framework of suppliers and the consumer market; while at the same time promoting competitiveness, as the subsidiaries operate within or close to the target market.

The spatial strategy, as argued by the geographer André Fischer (1979), is related to the selection of suitable places for the company's performance, in which productivity and competitiveness are considered. For a better understanding of this theme, this article presents the objectives: to analyze the influence of commercial barriers that affect the beef sector in the space strategy of internationalization of Brazilian companies; evaluate the role of the State / BNDES in the leverage of selected multinationals; and to verify the correlation between the number of production units abroad and the operating income of JBS and Minerva.

To do so based on bibliographical and documentary research, commercial barriers exist that exist in the world market of beef. At the same time, using secondary data, a table demonstrating Brazil's participation in the supply of beef in the main import markets. Then, it went into the case study of the Brazilian multinationals JBS and Minerva to understand their forms of geographic dispersion, identifying the countries where they had production units and the main markets served by their subsidiaries. This part of the work was based on the annual reports of the companies and on field work.

Furthermore, in order to demonstrate the degree of correlation between the number of "production units (PU) abroad" and the variation

in the “operating income” of the multinationals, the Pearson Linear Correlation Coefficient (Function Correl). According to Rogerson (2012), this coefficient is a covariance with values in the range of -1.0 to 1.0, and the positive values close to 1 indicate a strong degree of association between the variables, which would be directly correlated.

Trade barriers in the world beef market

According to Da Mata and Freitas (2006, p. 371), trade barriers “may manifest themselves in relatively explicit forms with *ad valorem* tariffs or in less transparent formats such as sanitary, phytosanitary, or even technical regulations and/or labeling”. Thus, among the trade barriers, we can distinguish two more common categories: tariff barriers, with import tariffs, miscellaneous charges and surcharges; and non-tariff barriers, such as quotas that limit imports, sanitary and phytosanitary measures, etc.

In the case of tariff barriers, the increase in the price of meat with customs duties leads to a reduction in the consumption of foreign product, due to tariffs that raise costs to consumers in the importing country. Thus, the refrigeration sector located in that country tends to be favored by not suffering the same taxations. This situation is perceived in meat exports from Brazil to some of the main consumer markets in the world.

As shown in Table 1, although the United States is the world’s largest importer of beef, Brazilian market share remains below 3%. In the year 2000, the US imported 1.3 million tons of beef, which represented 23.7% of world volume, but the Brazilian shipments to the country were only 38,077 tons. The volume sent from the slaughterhouses located in Brazil was even smaller in 2016 when the Brazilian share was 2.4%. This helps us to understand the desire of some Brazilian companies in the meatpacking sector to set up operational units within the United States.

Trade barriers also restrict Brazilian participation in the Japanese market. According to Silva et al. (2008), Japan applies high import tariffs on meat produced in foreign territory, with the *ad valorem* tariff for fresh beef *in natura* being around 28%, with a minimum of 12.8% and a maximum of 50% for cuts of chilled meat, refrigerated or frozen. Between 2000 and 2016, shipments from Brazil were less than 1% of the volume imported by Japan, dropping significantly from 1.914 tons to 4

tons during the analyzed period (ABIEC, 2016). This is partly due to the trade restrictions imposed on the Brazilian product and Japan's choice to obtain meat from countries in Oceania and Asia.

Table 1 - Main import markets for beef in the world and the volume coming from the Brazilian territory, per thousand tons (2000/2016)

Market Importer	2000			2016		
	Total importation	Brazilian shipments	Participation (%)	Total importation	Brazilian Shipments	Participation (%)
United States	1.375	38	2,8	1.368	33,2	2,4
China	16	0,631	3,8	812	165,7	20,4
Japan	1.045	1,914	0,2	719	0,004	0,0
Russia	425	0	-	518	138,7	26,8
South Korea	333	0,216	0,1	513	0,175	0,0
Hong Kong	71	30,2	42,5	453	330,5	73,0
European Union	429	179,9	41,9	369	116,9	31,7
Egypt	228	3,8	1,7	340	176,8	52,0
Chile	124	31,7	25,6	269	71	26,4
Canada	290	3	1,0	254	3	1,2
TOTAL*	5.808	358,6	6,2	7.711	1.400,4	18,2

* The total import is the sum of the volume imported by the countries from the USDA database.

Source: Data organized by the author with information from the ABIEC (2016) and USDA (2017).

Canada is another country that is one of the main importing markets for beef but has a low share of Brazilian meatpackers in its market, around 1% when receiving about three thousand tons of beef from Brazil (Table 1). The European Union applied an *ad valorem* tariff on imports of fresh or chilled boneless beef to around 15%, provided that the quantity imported was within the limit determined by the quota system (SILVA et al., 2008). Despite this import tariff, the bloc has a significant share of Brazil in the volume imported, 41.9% in the year 2000 and 31.2% in 2016, when 179,972 and 116,983 tons were sent respectively.

In a context of protectionism that restricts the access of the Brazilian meatpacking sector to the most developed countries, as Hirst explains (2009, p. 50), Brazil has acquired a strategic importance "the economic and commercial gains of cooperation with developing countries". "This

search for new trade cooperation is expressed in the increase in the volume of meat shipments and the Brazilian participation in countries considered emerging. Between 2000 and 2016, for example, beef shipments from Brazil to China rose from 631 to 165,754 tons; which resulted in an increase in the share of Brazilian production in that market from 3.9% to 20.4%, an increase of 16.5 percentage points (Table 1).

Following this scenario, the Hong Kong market, which in the year 2000 already had a significant share of Brazilian beef shipments in the imported volume, recorded an increase of 30.4 percentage points over the observed period. In recent years, after international negotiations, the Egyptian market also opened its doors to the Brazilian product. According to Table 1, in 2000, the export of 3,815 tons of Brazilian beef represented only 1.7% of the volume of 228,000 tons imported by Egypt; later in 2016, the Brazilian participation increased to 52%.

Another form of protectionism that affects the refrigeration sector is non-tariff barriers, and the meat import quota system is one of the most used ways to restrict the quantity of foreign product entering the country. The European Union is an important consumer market that adopts the quota system for the import of meat from Brazil, with the “GATT quota” and the “Hilton quota”.

For the import of cuts of frozen forequarters, the European Union adopts the “GATT quota”. This quota determines the total entry of 63,703 tonnes of frozen beef in the European market, a volume that is disputed by the countries qualified to export to the block, which includes Brazil, Argentina, Uruguay, Australia, etc. The customs tariff applied is 20% plus a fixed value for each ton of the product entering the European market, ranging from € 994.5 to € 2,138.4 (European Union, 2009).

In turn, the Hilton Quota involves the select cuts (rump, filet, filet mignon etc.) with high prices. With the Hilton Quota, the Commission of the European Communities regulated the requirements deemed necessary for the importation of high-quality beef and it established an *ad valorem* customs duty of 20% on the cost of the product (European Union, 2008).

Since the creation of the Hilton Quota in 1980, as explained by Ameghino (2007), the countries with the largest participation in the quota system have been Argentina and the United States, together with Canada, since they are considered to be the countries that produce a higher quality of beef. In 2005, the quota of Argentina was of 28,000

tons, a value superior to the individual quota of the other participating countries. Following this, the United States and Canada (11,500 tonnes), Australia (7,000 tonnes), Uruguay (6,300 tonnes) and Brazil, with a quota of 5,000 tonnes (Ameghino, 2007).

Recently, the quota of Argentina increased to 30 thousand tons, concentrating 44.6% of the annual amount destined to the countries accredited in 2015. This information helps us to understand the interest of Brazilian meatpacking companies in acquiring operational units in the Argentine territory. In second the US and Canada enjoyed a combined quota of 11,500 tons (Beef Point, 2015). Since 2009, Brazil has held a quota of 10,000 tons, double the amount that was determined by the quota system until 2008. This increase was the result of constant negotiations with the European market and proof of the quality of Brazilian beef.

The United States, Russia, and Japan are other examples of markets adopting the quota system for meat imports. In the case of the United States, according to Abdenur (2005), with only Canada and Mexico being exempt from US quotas, countries that benefited from free access under North American Free Trade Agreement (NAFTA). For *in natura* beef in 2005, the author reports that the annual export tariff quota for the US was 696,621 tons, with a tariff of 4.4 cents per kilo.

The countries with the largest share in the quota were Australia (378,214 tonnes), New Zealand (213,402 tonnes), Argentina, and Uruguay, with quotas of 20,000 tons each. For other countries interested in exporting *in natura* beef to the US, including Brazil, there would be around 65 thousand tons of quotas to be disputed (Abdenur, 2005). Thus, we were able to understand the interest of Brazilian meatpackers in setting up operational units in countries “benefited” by the quota system. Argentina, Uruguay, and Australia, for example, attracted the interests of large Brazilian companies, which promoted FDI, with the opening of production units in foreign territories.

Mazzali (2000) reminds us that, since the 1990s, the import quotas applied to the international meat trade posed important challenges for the livestock sector, highlighting the need to eradicate foot-and-mouth disease in the Brazilian territory. According to Neves et al. (2012), the companies of the meatpacking sector in Brazil are attentive to the demands of the international market, with the implantation of sanitary measures that guarantee a better quality of the product.

Companies engaged in foreign trade, according to Nogueira (2006, p. 13), are the first to perceive the problems of trade barriers; “Brazilian companies and their sector representatives need to be aware that it is possible to challenge the trade barriers of other countries and thus open up new markets for their competitive products in the international market”. The protectionism of developed countries, as Bender Filho and Alvim (2008) affirm, hampers the Brazilian meat exports, especially the *in natura* product.

For these authors, only the elimination of non-tariff barriers and reductions in tariffs would lead to a considerable increase in exports. Far from a barrier-free world market, one of the measures adopted by Brazilian companies to leverage their participation in foreign markets has been the opening of industrial plants abroad, in other words, they are moving forward in the process of internationalization and becoming multinationals with production in strategic locations.

JBS S.A.’s spatial strategy to dominate the world market

In the meatpacking sector, JBS (formerly Friboi) became the first Brazilian company to realize FDI and to acquire production units abroad. In 2005, in a deal worth \$ 200 million, JBS bought Swift Armor S.A., a company that has existed since 1907 in Argentina and which became the largest producer and exporter of beef in that country. In order to complete the purchase, the BNDES provided the group with 80 million US dollars in financing (Estadão, 2006). The acquisition included operating units located in Rosario and São José, which exported to 70 countries, according to Juliboni (2013), with the US as the largest import market.

With the Initial public offering in 2007, JBS traded its shares on the São Paulo Stock Exchange. In that year, sales of the shares at a cost of R \$ 8.15 each generated an amount of R \$ 1,853,833,020.00, which enabled the company to expand its industrial park, including outside Brazil (JBS, 2008). Thus, the year 2007 marked the moment of capitalization and wide geographical dispersion of the group.

In the Argentine territory, in 2007, the company bought the meatpackers Berazategui and Colonia Caroya. In addition to supplying the domestic market, the operating platform in Argentina allowed JBS to ship beef to 43 countries, most notably the United States, the European

Union, Uruguay, Israel and Canada (JBS, 2008). In the US, in July 2007, Swift Foods & Company was acquired 1.4 billion US dollars, one of the most important meat processing companies in existence since 1855. This acquisition increased JBS's portfolio by including worldwide brand rights. As a result, the company started to market Swift meats in several countries, including consumers in Europe, Asia, North America, and Latin America (JBS, 2008).

The negotiation counted on financial resources of the National Bank of Economic and Social Development, via the stock market, in the amount of 1.1 billion Brazilian Reals (BNDES, 2014). Thus, BNDESPAR became a major shareholder of JBS, holding 12.95% of its capital stock in 2007. As discussed by Fabrini and Gutierrez (2017), the purchase of shares of companies by the state bank was a strategy widely adopted in the governments of Luiz Inácio Lula da Silva and Dilma Rousseff, with the purpose of creating the "national champions" in some sectors of the economy.

In 2008, after the acquisition of the Tasman Group, for about 150 million dollars, the industrial park in Australia happened to be 10 plants, with a slaughtering capacity of 8,500 head of cattle per day and 16,500 head of sheep and pigs (Juliboni, 2013). In this way, only the Australian production platform was able to market meats to 35 countries, with emphases on South Korea, China, Japan, Taiwan, and Indonesia (JBS, 2008). In the same year, JBS continued its expansionary policy in the United States, acquiring for 565 million dollars the meatpackers Smithfield Beef Group's and 12 Five Rivers confinement farms (JBS, 2012).

JBS's foreign direct investments in the US and Australia in 2008, counted on the contribution of BNDES. The state-owned bank invested 335 million Brazilian Reals, through the stock market, and 662 million Brazilian Reals, through a fund specially created for the transaction (BNDES, 2014). In 2009, BNDES made a contribution of R \$ 3.5 billion to JBS, through a mandatorily convertible debenture, which increased BNDESPAR's share in the capital of the Brazilian multinational, from 17% to 23%, between 2008 and 2009 (BNDES, 2014).

In the same year, JBS invested 800 million US dollars in the acquisition of 64% of the Pilgrim's Pride Corporation through its subsidiary JBS USA Holdings (JBS, 2009). Pilgrim's Pride industrial park was concentrated in the United States, with 29 slaughtering units, and

an additional three production units in Mexico and another located in Puerto Rico; which enabled the industry to process around 4.1 million tons of chicken per year and export to more than 80 countries (JBS, 2009).

In the neighboring countries of Brazil, in 2010, JBS had two cattle slaughtering plants in Paraguay, located in the cities of Asuncion and San Antonio; and an operating unit in Canelones (Uruguay), which belonged to the Bertin Group and was transferred to JBS after the merger process between the two companies in 2009. It should be noted that the Bertin Group received a contribution of 2.5 billion Brazilian reais from BNDESPAR in 2008 for the acquisition of 27.5% of its shared capital (BNDES, 2014).

In 2010, JBS acquired the Australian companies Tatiara Meat Company (TMC) and *Rockdale Beef*. Since the acquisition of Tatiara Meat, the JBS Group has expanded its operations in the sheep meat market in Australia, the United States, Canada, and Europe, considered to be more demanding consumers. The assets of Rockdale Beef included confinement farms and cattle slaughterhouses (JBS, 2011).

In 2011, JBS entered into new trade agreements for its plants located in foreign countries, for example, the units in the United States expanded their exports to already consuming markets (Mexico, Canada, South Korea, etc.) and exported to markets previously untapped by the company, such as Japan and Southeast Asian countries. While the Australian platform became a leader in the local market and exported about 80% of its production, mainly to Asian and European countries (JBS, 2011). This demonstrates that the location of meatpackers in these countries is part of the company's spatial strategy to access important markets.

In 2012, through its subsidiary in the United States, the Brazilian multinational acquired the assets of XL Foods, considered to be the second largest company in the beef sector of the region. The acquisition involved 4 meatpackers (two in the United States and two in Canada), a rural property and a confinement in Canada (JBS, 2012).

In 2014, when using debentures to subscribe for new shares, the BNDES 'interest in the company's capital stock increased to 24.6%, with a total of 723,780,418 shares (JBS, 2014). From the beginning of JBS foreign direct investments up to 2014, the group obtained BNDESPAR a contribution of 5.6 billion Brazilian reais, representing 19.3% of the amount capitalized by the company (29 billion BRL); since in the financial

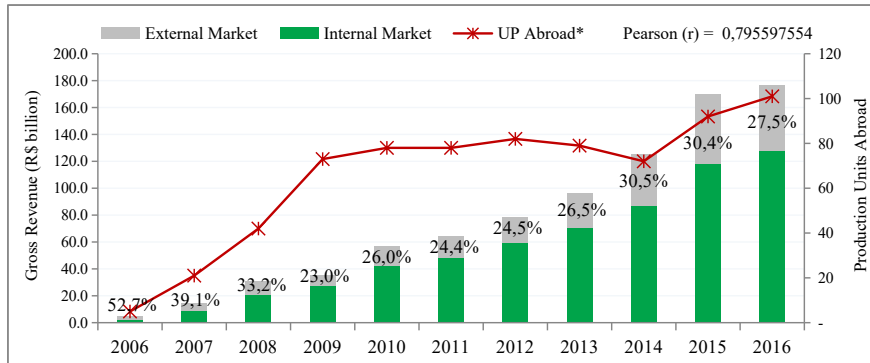
market JBS had raised 23.4 billion BRL (80.7%) between 2007 and 2014 (BNDES, 2014).

The following year, JBS acquired the assets of the Primo SmallGoods Group in Australia and New Zealand. Also, in 2015, for 1.5 billion USD, the Brazilian multinational acquired the assets of Moy Park Holdings Europe Limited (JBS, 2016). As one of the leading companies in processing and sales of chicken *in natura* and processed food in Europe with 13 poultry processing units located in England, Northern Ireland, France, and the Netherlands. In the United States, JBS bought Cargill Pork, a company dedicated to the processing of pork and elaboration of derived products that belonged to Cargill Meat (JBS, 2017).

In Paraguay, in 2015, JBS disbursed 80 million USD in the construction of a new meatpacker, located in Belén (Department of Concepción), in order to serve foreign markets (Russia, Chile, Israel, Brazil, etc.). In 2016, JBS invested in the consolidation and integration of its national and foreign units, since it already had processing platforms located in the main animal protein producing countries (Argentina, Australia, Brazil, United States, Mexico, Uruguay, etc.), with a wide production and distribution network that allowed access to the largest markets in the world, marketing to more than 150 countries (JBS, 2016).

Between 2006 and 2016, JBS showed a significant increase in the number of production units (PU) abroad that carried out activities in the animal protein sector, from 6 to 101 of these subsidiaries (Figure 1). In 2009 alone, the company added 35 production units outside Brazil, with the acquisition of Pilgrim's Pride. Another prominent acquisition of JBS was Moy Park in 2015. In 2016, after the reopening of slaughter and processing units that had been temporarily paralyzed, the Brazilian multinational had 101 production units active outside the Brazilian territory, with activities related to animal protein.

Figure 1 - JBS production units abroad and gross revenue by market (2006-2016)



*. Production units abroad with activities related to animal protein (slaughter and/or processing).

Source: Data organized by the author with information from the JBS (2008, 2011, 2012, 2014, 2016, 2018).

During the period observed in Figure 1, the number of production units (PU) abroad favored the increase of the company’s gross operating revenue, which increased from 4.75 billion in 2006 to 176.89 billion Brazilian reais in 2016. Such growth is related to two factors: firstly, to increase sales in the domestic market, the company started to have meatpackers in several countries, which supplied the markets where they were installed; second, the new export agreements that led to an increase in revenue from the foreign market, since many countries served as export platforms. Santos’ statement on the geographical dispersion of multinational companies is valid (2011, p. 151), that “the ultimate goal, everywhere, is to increase profit and extract a maximum rate of surplus.”

In the case of JBS, Pearson’s linear correlation coefficient indicates that the variables “PU abroad” and “gross operating revenue” are positively associated, because the value found was 0.795, which means a moderate/strong correlation. In relation to net revenue, the diversified operating structure allowed the company to obtain an amount of 170.38 billion Brazilian reais in 2016; with only JBS operations in the United States accounting for 68.9% of this value (JBS, 2016).

In relation to beef, in 2016, the company had a total capacity to process 84,000 heads per day in its production units in Brazil, Paraguay, Uruguay, Argentina, the United States, Canada, and Australia (Figure 2). In poultry processing, the company had operations in Brazil, the United

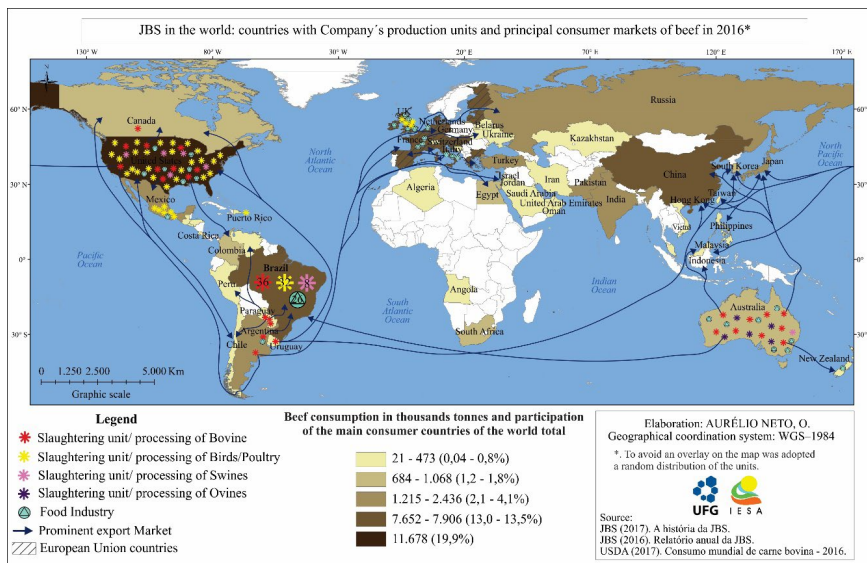
States, the United Kingdom, Mexico, and Puerto Rico, with a total capacity to slaughter 14.3 million birds per day; in the production of pork, the company had plants in Brazil, Australia, and the United States, with a total capacity to process 111,200 pigs per day (JBS, 2016).

In addition to direct access to the markets of the countries where FDI was carried out, JBS began to serve markets previously restricted to meat packing plants located in Brazil, especially in the marketing of meat *in natura*, such as Japan, South Korea, Taiwan, United States, Canada, and Mexico. That is, JBS gained access to markets that domestic competitors could not participate in. Therefore, we agree with Hilferding (1981) when affirming that the advance in the process of internationalization makes that the protectionist measures are used by the big companies in their favor.

In the case of exports, it is observed in Figure 2 that the platform located in Argentina, Paraguay, and Uruguay has enabled JBS to gain greater access to the European, Russian, American, Chilean, Israeli, and other markets. The JBS North American platform (US and Canada) enabled the company to lead the regional market and export meat to various markets (Mexico, South Korea, Hong Kong, Indonesia, Japan, Taiwan, Chile, Colombia etc.). The platform in Europe granted JBS direct access to the European market (England, Northern Ireland, France, Netherlands, Spain, Greece, Germany, etc.) and indirect in countries in the Middle East and Africa (JBS, 2016).

As Fischer (1979) points out, the spatial strategy expands the company's control over the market, since the appropriate positioning guarantees proximity to suppliers and access to customers. For example, the platform in Oceania (Australia and New Zealand) favored exports to local markets, European and Asian, mainly from China, Hong Kong, Japan, South Korea, Taiwan, and Indonesia (Figure 2).

Figure 2 - Map of JBS production units abroad, indicating the main consumer markets for beef (2016)



Source: JBS (2017, 2016); USDA (2017).

In the process of geographic and productive expansion, between 2005 and 2016, JBS is considered the company from the meatpacking sector that obtained the most BNDES financial resources. In that time period, the BNDES disbursed 31.2 billion Brazilian reais for the animal protein sector, and the financial contribution to the JBS and Bertin groups accounted for 26% and 12%, respectively. With the merger of these two groups in 2009, the amount that the state bank assigned to the company represented 38% of the R \$ 31.2 billion. Being that 8.1 billion Brazilian reais of this amount were through a BNDESPAR shareholding system. Thus, the state bank ended up “giving access to the resources needed for the company’s acquisition strategy” (BNDES, 2017, p. 244).

However, the year 2017 was marked by the testimonies of the Batista brothers in the Federal Police and their donations to the Attorney General’s Office, according to Mendes et al. (2017), with information on the payment of bribes to politicians and managers of public institutions, including BNDES. The operation triggered by the Federal Police verified

the irregular use of public money and led to a leniency agreement, with a fine of 10.3 billion Brazilian reais applied to the owners of JBS. Following, the JBS group announced the sale of assets in Mercosur and in Europe (MENDES et al., 2017).

The assets of JBS in Mercosur countries (Argentina, Paraguay, and Uruguay) were acquired by the company Minerva S.A. Contrary to how it may seem, this deterritorialization of JBS does not mean the end of the largest meat multinational. As Andrade (1998) explains, deterritorialization can lead to the reorganization of the company in other spaces that present better conditions of management and use; behavior that has been demonstrated by the business group, especially in the United States.

The spatial strategy of Minerva Foods S.A. in South America

The first acquisition of a production unit abroad by Minerva took place in Paraguay in 2008. Therefore, the company disbursed 5 million US dollars in the purchase of 70% of the capital stock of Friasa S.A., located in Asunción (Minerva, 2011). Paraguay was already among the largest exporters of beef; in addition, the country had been recognized internationally as an area free of foot-and-mouth disease. Thus, the acquisition gave direct access to the Paraguayan market, in addition to allowing the conclusion of new agreements with foreign markets (Minerva, 2012).

With the sale of shares in the capital market in 2007, Minerva raised 444 million Brazilian reais, a financial resource that contributed to its geographic and productive expansion process (BNDES, 2014). Although more restrained, Minerva's expansion was also boosted by the government, through a diversified loan portfolio involving Banco da Amazônia (Basa) in 2007, with a credit line of 55,215 million Brazilian reais; the BNDES in 2009, with a development line of 121.9 million Brazilian reais; and the Financier of Studies and Projects (FINEP) in 2010, with a contribution of 57,208 million Brazilian reais (Minerva, 2012).

In addition to these lines of credit, the company carried out the issuance of debt securities abroad in 2010, with the purpose of capitalizing and advancing in its internationalization (Minerva, 2011). In 2011, Minerva carried out an EDI for the acquisition of Frigorífico Pul, located in the

city of Melo (Uruguay). This productive unit was active in the slaughter of cattle and boning, with 85% of its sales destined to the foreign market, since it enjoyed the qualification to export fresh meat to the strict markets of the United States and the European Union (Minerva, 2011).

The company Minerva perceived the existence of labor, abundant natural resources, favorable climate for cattle raising and the availability of land at a low purchase price, as competitive advantages of production located in South America (Minerva, 2012). This will become more emblematic when considering the high production costs of other countries, such as the United States and Australia. Thus, the geographical dispersion outside Brazil continued in South America in 2012, when it acquired Frigomerc S.A., a production unit located in Asuncion, Paraguay (Minerva, 2012).

In 2012, this Brazilian multinational carried out a new public offering of shares on the stock exchange, which contributed to expand its industrial park. In the next year, the *International Finance Corporation* (IFC) became a shareholder of Minerva, by making a financial contribution of 46.9 million Brazilian reals and acquiring 2.9% of the company's capital stock (Minerva, 2013). IFC is a kind of World Bank department that makes investments in the private sector, becoming an important ally of Minerva in its investment plan, helping to access financial resources. As stated in the 2013 report, Minerva entered into a loan agreement with IFC, in the amount of 137.7 million Brazilian reals, to be paid in ten years.

In 2014, Minerva resumed its geographic dispersion abroad, with the acquisition of Frigorífico Carrasco in Uruguay. Already in 2015, the company acquired 100% of the shares of the Red Industrial Colombiana company, now controlling the Red Cárnica Frigorífico, located in the Department of Córdoba, considered the largest beef producing and exporting region in that country. The refrigerator exported to the Middle East, Russia, Egypt, Hong Kong, Venezuela, Peru, and Angola (Minerva, 2015).

Also, in 2015, through its subsidiary in Paraguay (Frigomerc S.A.) Minerva entered into a lease agreement with DIGNA S.A. to rent the Frigorífico Expacar, located in the city of Asunción (Minerva, 2015). In that year, the multinational invested 220.2 million Brazilian reals in its industrial park, of which 156.8 million was allocated to maintain the assets and 63.4 million were allocated to the expansion of its operations in Brazil and abroad (Minerva, 2016).

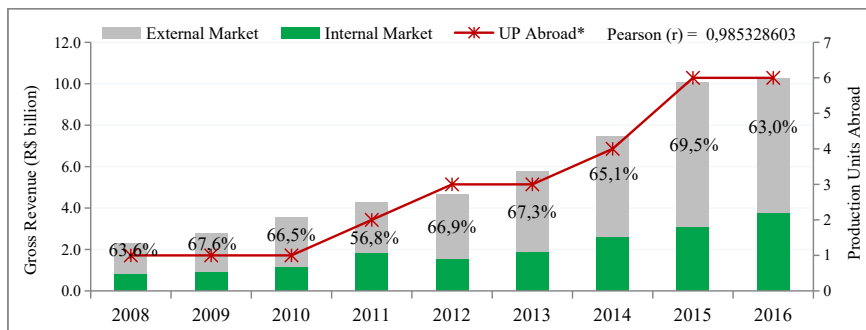
Regarding investments, Ondeí and Moitinho (2017) reported the entry of the Saudi Agricultural and Livestock Investment Company (SALIC) into Minerva's capital stock, after a contribution of 746.4 million Brazilian reais for 20% interest in the company. Thus, the company started to rely on resources from the Saudi Sovereign Fund and established an important partnership to operate in the Middle East and other countries in Asia.

In 2016, the company had export companies (tradings) located in Uruguay and Australia, developing more efficient channels to send its products to foreign markets. In the case of Australian trading, Minerva's FDI was aimed at expanding the company's share in the Asian market, a region with significant population growth and high potential for demand for animal protein.

At the end of 2016, Minerva already had 17 operating units and a daily slaughtering capacity of 17,330 head and deboning of 3.153 tons, eleven slaughterhouses located in Brazil, three in Paraguay, two plants in Uruguay, and another in Colombia; in addition to the slaughter and processing units, the company operated 11 distribution centers, of which eight were in Brazil and the other located in Asunción (Paraguay), Bogotá (Colombia) and Santiago, capital of Chile (MINERVA, 2016).

Among the Brazilian meat multinationals (JBS, Minerva, Marfrig, e BRF), Minerva was the one that had the slowest growth in the number of production units abroad, going from one PU in 2008 to six plants in 2016 (Figure 3). Meatpackers outside Brazil favor the increase in gross operating revenue of the company, which increased from 2.3 billion to more than 10.2 billion Brazilian reais, in the same time interval. In the case of Minerva, Pearson's correlation coefficient indicates a strong linear association (0.985), between the variables "PU abroad" and "gross operating revenue".

Figure 3 - Minerva's production units abroad and gross revenues, by market (2008-2016)



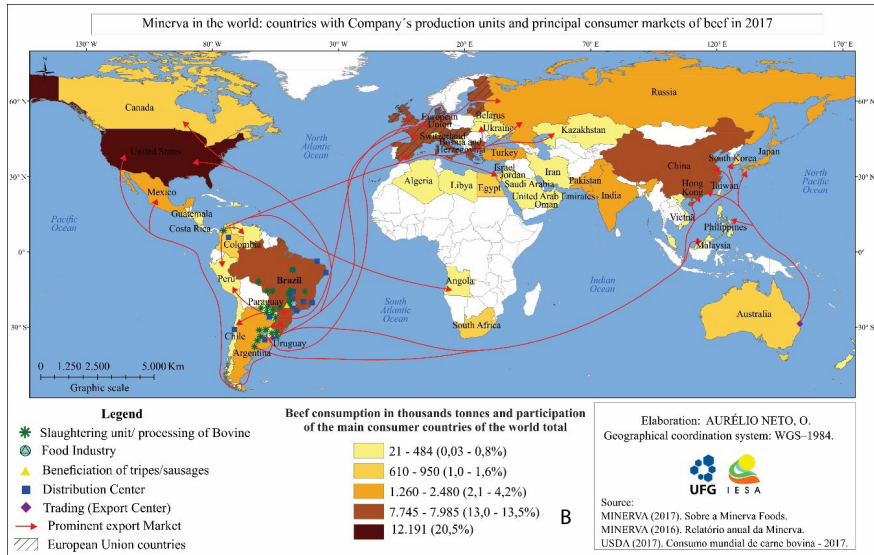
*. Production units abroad with activities related to animal protein (slaughter and/or processing).

Source: Data organized by the author with information from the Minerva (2011, 2012, 2013, 2015, 2016).

Over the analyzed period, it can be seen in the graph that more than 50% of Minerva's revenues came from exports, which shows the company's interest in foreign markets. In the years 2015 and 2016, the six production units abroad served as export platforms, in a way that contributed to the sales in the foreign market that exceed 6 billion Brazilian reais, together with the exporting meatpackers located in Brazil. In that biennium, the external market accounted for 69.5% and 63% of operating revenue, respectively (Figure 3).

In 2017, with the acquisition of JBS units, Minerva's operating unit board increased to 27 plants, with 15 meatpackers abroad and an industrialized food unit in Argentina. So the slaughter platform of Minerva in countries neighboring Brazil was made up of six slaughterhouses in Paraguay, five in Argentina, three in Uruguay, and one in Colombia (Figure 4).

Figure 4 - Map of Minerva's production units abroad, with indications of the main consumer markets for beef (2017)



Source: Minerva (2017, 2016); USDA (2017).

With its internationalization strategy, the company expanded its customer base and exported to more than 100 countries with operations in Asia, the Middle East, Africa, the European Union, Eastern European countries, North America, and Latin America. From the meatpacker located in Colombia, the company exported to Russia, Peru, Curaçao, Venezuela, Hong Kong, Spain, Egypt, Angola, Libya, Kazakhstan, Lebanon, and Jordan, among other markets (Minerva, 2015).

Operating units in Argentina allowed the company to increase its share in the world meat market, with exports to the European Union, Russia, the United States, Mexico, Brazil, and China, among others. Minerva has developed a premium line of meats coming from its operational units in Paraguay in 2016. The main destination markets were: Chile, Russia, Brazil, Peru, Venezuela, and countries in the Middle East, mainly Israel, Lebanon, and the United Arab Emirates. Among the markets served by the meatpackers in Uruguay, we highlight China, the United States, the Netherlands, Canada, Mexico, Italy, the United

Kingdom, Germany, Switzerland, South Korea, Singapore, Malaysia, the Philippines, and Taiwan (Minerva, 2015, 2016).

At the end of 2017, in a field work in the meatpacker located in Canelones (Uruguay), it could be verified that the unit was already functioning normally under the command of Minerva (Figure 5). With a slaughtering capacity of 900 cattle per day, the production unit in Uruguay kept the approximately 600 former employees of JBS to continue operations, according to the supervisor of the unit. The meatpacker in Canelones enjoyed export qualifications for more than 50 markets, among which were the European Union, the United States, Russia, and China.

It can be seen from Figure 5 that the JBS logo had already been removed from the meatpacker's facade, but the new company did not bother to put its own logo. Minerva's main interest was in the brands and trade agreements resulting from the acquisition of overseas production units, such as the slaughterhouses located in Argentina, Paraguay, and Uruguay exported to some of the main consumer markets of beef in the world.

Figure 5 - Canelones meatpacker, in Uruguay, sold by JBS to Minerva (2017)



Subtitle: **(A)** Refrigerator in the municipality of Canelones, Uruguay, still under the control of JBS, the company's logo is observed in August 2015. Source: GOOGLE MAPS (2015). **(B)** The same meatpacker, but under the command of Minerva, without the logo of that competing company.

Source: Fieldwork conducted on 12/22/2017. Author: Onofre Aurélio Neto.

Therefore, the acquisitions of JBS units in countries neighboring Brazil were strategic for Minerva. This corroborates with Santos' assertion (2015, p.33) that "companies in the search for desired surplus values value localities differently". We agree with this geographer that the sites are chosen based on their physical conditions, infrastructure, commercial opening and other advantages that allow the company greater insertion and use of the foreign territory. Among these advantages are the mitigation of the effects of trade barriers, as was the case in multinationals JBS and Minerva.

Final considerations

The meatpacking sector is one of the agroindustrial complexes in which trade barriers affect, which tends to reduce the participation of Brazilian companies in the world market. In order to circumvent impediments in international trade and expand its areas of activity, JBS and Minerva invested in an internationalization spatial strategy, with the geographic dispersion of production units abroad. Companies have strategically chosen locations and carry out foreign direct investment (FDI).

Public policies aimed at promoting the FDI of Brazilian companies contributed to the emergence of Brazilian meat multinationals, especially BNDES/ BNDESPAR's role in financial contributions. However, the resources of public coffers did not constitute the only sources of capitalization of the companies surveyed. The opening of share capital, through the sale of shares, proved to be essential for raising funds and making investments outside the Brazilian territory. Given that Minerva, having a smaller volume of funds from the state bank than its competitor, sought financing and partnerships with foreign capital.

It should be noted that some markets located in North America, Asia, and the Middle East, which imposed restrictions on the Brazilian meatpacking sector, became more accessible to the companies surveyed due to the location of production units abroad. Thus, the Brazilian multinationals dribbled the effects of some protectionist measures and achieved a greater participation in foreign markets, either with the direct access of the subsidiaries to the consumers where they settled or with the new export trade agreements. Thus, on a global scale, JBS and Minerva increased their operating revenues.

Note

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