Brazilian Export Dynamism and the Threat of Chinese Exports from 2008 to 2012

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Abstract: The future of Brazilian external trade has become uncertain due to the country´s trade surplus decline since 2007 as a result of an increase in the trade deficit with manufactured goods. The growth of Chinese external demand is one of the main causes for the recent changes in international trade through two opposing effects: the "complementary effect", which benefited Brazilian exports, and the "competitive effect", associated with China´s becoming the most important producer and exporter of manufactured goods. These two effects have been reinforced after the global economic and financial crisis of 2008-2009 due to the Chinese strategy to raise its presence in the capitalist periphery in order to compensate for the losses within developed economies. This paper analyses the impact of the "competitive effect" on the Brazilian exports to Mercosur, LAIA and NAFTA. The main conclusion is that this effect – which was already high in 2008 – increased after the crisis, displacing Brazilian exports of manufactured goods from their traditional destinations.

Key-words: China-Latin America trade, Brazilian exports, global crisis of 2008-2009

JEL Code: F1; O5

1. Introduction

The fall of commodity prices during the first half of 2013, intensified in June by the dollar appreciation (sparked by expectations of less flexible policies by the Federal Reserves - Fed), highlighted the high vulnerability of the Brazilian trade surplus to the evolution of these prices. The Brazilian total trade balance remains positive due exclusively to the significant primary commodity surplus. The trade deficit for manufactured goods has followed an ascending path since 2007, as a result of significantly higher growth rates of imports in comparison with those of exports.

The Chinese external demand growth was one essential determinant of Brazilian foreign trade performance over 2003-2012 through two opposing effects. On the one hand, this demand resulted in increasing exports of commodities to China as well as of Brazilian manufactured goods to other

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Latin-American economies, which increased their import capacity due to the boom of commodity exports. On the other hand, the consolidation of China as a producer and exporter of manufactured goods negatively affected the Brazilian manufacturing production. The first effect is coined as "complementary effect" and the second one as "competitive effect". These two outcomes were strengthened after the global financial and economic crisis of 2008-2009 due to the Chinese strategy of increasing its presence in the capitalist periphery to compensate for the so-called "great recession" and the following low growth in core economies.

This article analyzes the impact of the "competitive effect" of Chinese exports on Brazilian exports after the crisis to three target markets: Mercosur, Latin American Integration Association (LAIA) and North American Free Trade Agreement (NAFTA) (which accounted for 38% of the total in 2008 and 32% in 2012). The aim is to identify to which extent Chinese exports contributed to the worsening of the Brazilian trade balance of manufactured products. The findings of this study are also crucial for thinking about the future of Brazilian foreign trade and the appropriated trade and industry policies.

The paper is organized in five sections, including this introduction. Section two overviews the Brazilian foreign trade and summarizes the literature on the impact of Chinese exports on Brazilian exports before the global crisis of 2008-2009 and the performance of these exports after the crisis. Section three analyzes the dynamism of Brazilian and Chinese exports to the three selected regions. Section four evaluates the threat posed by Chinese exports on the Brazilian ones Section five presents the main conclusions.

2. Overview of Brazilian foreign trade and Chinese exports.

The Brazilian total trade balance was in surplus from 2006 to 2012 due to the expressive primary commodity surplus. The latter was directly linked to the growth trajectory of emerging countries, mainly China, and high commodity prices due to this trajectory and, other factors, such as speculation in derivatives markets in a context of historically low interest rates in developed countries (Hiratuka and Sarti, 2009; Prates, 2010). The trade deficit for manufactured goods (non-commodities), beginning in 2007, followed an increasing trajectory, as a result of greater growth rates of imports in comparison with those of exports (see Table 1).

Table 1 - Trade Balance, Exports and Imports of Primary Commodities and Non-Commodities. Value in millions of dollars

Period	Trade Balance Primary Commodities	Trade Balance Non-Commodities	Trade Balance Total	Primary Commodities Export	Primary Commodities Import	Non-Commodities Export	Non-Commodities Import
2006	44962.46	1500.94	46463.41	53973.08	9010.62	83833.11	82332.17
2007	53686.22	-13658.22	40028.00	65475.55	11789.33	95173.32	108831.54
2008	69294.90	-44549.09	24745.81	84838.95	15544.05	113103.49	157652.58
2009	64948.21	-39600.80	25347.41	75268.36	10320.14	77726.39	117327.19
2010	88243.93	-71346.28	16897.65	103217.35	14973.42	94139.09	165485.37
2011	116949.63	-87154.33	29795.29	135635.97	18686.34	120402.73	207557.07
2012	106769.73	-87339.08	19430.65	123811.32	17041.59	118768.46	206107.53

Source: Comtrade. Own elaboration.

The export of non-commodities in 2012, for example, was greater than that of 2008 in only 5.7%, which is a much lower percentage than that recorded in imports of non-commodities (increase of 30.7 percent on the same basis of comparison). The same is also applied between 2006 and 2008, when exports of non-commodities advanced 34.9% compared to the growth of 91.5% of imports of these goods. Consequently, the foreign trade deficit for products that are not primary commodities, which was already very significant in 2008, nearly doubled between this year and 2012 (96.1% increase). Notwithstanding this growth, the Brazilian total trade balance still remained positive due to the expressive primary commodity surplus.

This surplus was directly related to the growth trajectory of emerging countries in recent years, mainly China , which sustained the global demand for energy, food and other primary goods and contributed to the high prices of these goods (Gallagher and Porzecanski, 2010; Hiratuka and Sarti, 2009). The Chinese economic activity and external demand growth were the main responsible for the performance of the Brazilian foreign trade in the analyzed period through two different effects. On the one hand, the "complementary effect", which benefited Brazilian exports both directly (by boosting external sales of commodities) and indirectly (by increasing exports of manufactured goods to Latin American countries that are also exporters of commodities). On the other hand, the "competitive effect", associated with the consolidation of China as a producer and exporter of manufactured goods, which negatively affected the Brazilian industry through two channels: flood of Chinese imports and growing exports to traditional markets of Brazilian suppliers of manufactured goods, such as Mercosur and LAIA.[3]

[3]Jenkins and Edwards (2005) were the first to call attention to these two antagonistic effects.

Cunha *et al*. (2012) highlight that these two channels were strengthened after the global financial and economic crisis of 2008-2009 due to the Chinese strategy of increasing its presence in the capitalist periphery to compensate for the loss of dynamism in developed economies. Under this strategy, Chinese exports to three important target regions of Brazilian foreign sales of manufactured goods (Mercosur, LAIA and NAFTA) surpassed the value registered by Brazil in 2012.

Several works focused on the recent growth of Chinese exports to Latin America. Some highlighted the advantages of Latin America's exports to China, while others set off the importance of a broader analysis that include imports of Chinese manufacture goods and its consequences to these country's economic activities.

Lall and Weis (2007) examined the threat from the Chinese competition to the foreign trade of Latin American countries, seeking to grasp the impact of China´s emergence as a major exporter of manufactured goods. They analyzed exports and specialization patterns of China and Latin America for the world and for the United States (the largest market for both exporters) over 1990-2002. Their main conclusions are: (i) although China became increasingly competitive in a wide range of products, its growth would have a positive effect on the world trade, enabling an expansion of markets to other countries; (ii)albeit some countries in Latin America were benefited from the increasing Chinese imports of primary products, China was still a small market for the region; (iii) as the structure of exports of China and Latin America countries, with the exception of Mexico, were very different, China would not be an important competitor for the region.

In the same line, Santiso *et al*. (2007) assessed the risks and opportunities associated with the emergence of China in the world trade and its effect on Latin America´s foreign trade. The authors concluded that the increase of US imports from China occurred, mainly, at the expense of exports from Mexico and Central America. The impact of Chinese trade in Latin America would be positive for sectors such as agriculture and negative for textile or labour intensive sectors. However, Santiso *et al*. (*op. cit.*) argue that the pattern of specialization of China and Latin America, with the exception of Mexico, has been different, and conclude that the degree of competition between them is low. However, Brazil would be in an intermediate situation, due to its greater degree of industrialization.

Lederman et. al. (2008) also suggest that China was not replacing Latin American exports due to the complementary exports structures of these countries. They highlighted the benefits of an integration with China associated with the role of this country as an important purchaser of primary products and as a supplier of cheap manufactured goods. The authors also emphasize the possibility of China becoming a financing provider and a partner for technological collaborations. Therefore, the general impact of China on Latin American countries would be positive, although some sectors could be negatively affected.

Other studies emphasize that the increasing Chinese competition creates difficulties to some Latin American industrial sectors. Especially in a setting of favourable relative prices to primary products and products intensive in natural resources, these countries would be stimulated to specialize in sectors with less competitive advantages. At the same time, they would not be able to compete with sectors more intensive in knowledge and technology. The latter are sectors that generate more possibilities to higher economic growth due to its potential to increase productivity and to innovate.

Moreira (2004), for example, shows an increase in competition between Brazil and China in Latin America after 2000, emphasizing that the differences between the export agenda of the two countries would narrow, resulting in greater competition between the two countries in the international trade. Considering the results of Moreira (*op. cit.*), Hiratuka and Sarti (2009) verified an expressive growth of the Chinese threat to the Brazilian exports in 2000 and 2006. These authors conclude that, although the Brazilian export performance has a dwindling capacity to print dynamism to the economy, the stronger presence of Chinese industry goods in the Brazilian market and in major Brazilian export markets may become a growing threat to the maintenance of positive trade balances by Brazil.

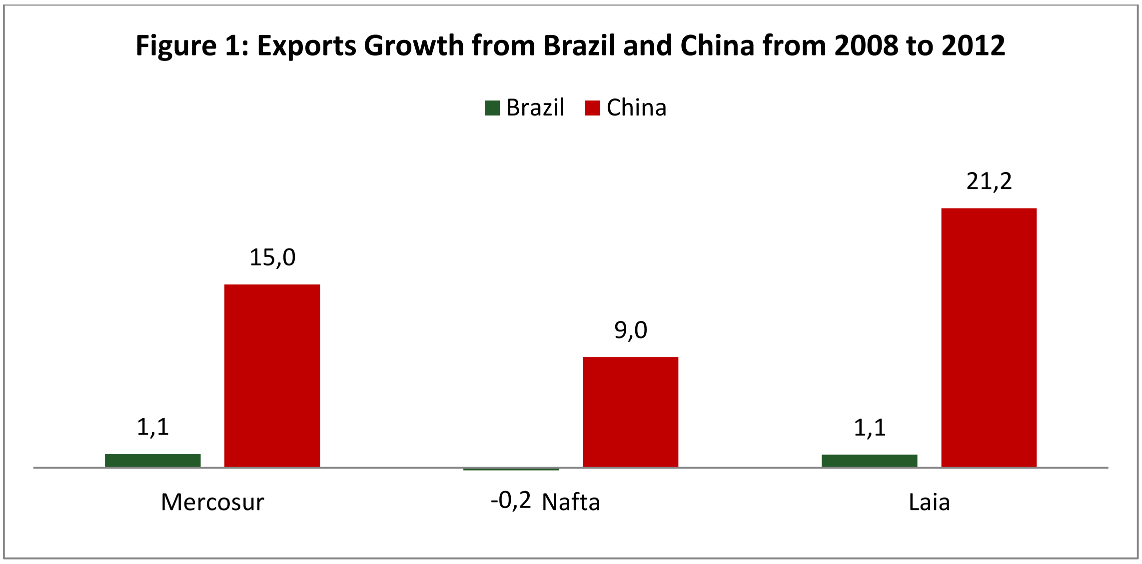
The analysis of Brazilian and Chinese exports from 2008 to 2012 corroborates Hiratuka and Sarti's (2009) conclusion. Table 2 shows the Brazilian and Chinese exports in 2008, 2010 and 2012. The two countries increased the total exported value after 2008, but the growth rate of Chinese exports was almost twice as much as registered in the Brazilian case (23.3% versus 42.8%). Considering the three regions covered here, the performance gap was even greater: while the total exported by China raised 47.6%, the Brazilian exports increased only 1.9%, and there was a slight decrease in the value exported to NAFTA. For Mercosur and LAIA, while the values exported by the two countries were relatively similar in 2008, China started to export twice as much as Brazil in 2012. In addition, the Chinese foreign sales do not seem to have suffered contagion from the global financial and economic crisis, maintaining the growth trajectory in 2010. In the Brazilian case, the exports in 2010 were lower for NAFTA and LAIA, exceeding the values recorded in 2008 only for LAIA. The increase in exports to NAFTA in 2012 was not enough to resume the performance of 2008.

Table 2 - Brazilian and Chinese Exports in Million Dollars

	Brazil			Var.(%)	China			Var.(%)
	2008	2010	2012	2012/2008	2008	2010	2012	2012/2008
Selected regions	68,859	58,430	70,200	1.9	328,755	373,743	485,402	47.6
Mercosur	21,442	22,158	22,424	4.6	25,468	32,678	44,476	74.6
NAFTA	32,564	23,490	32,281	-0.9	286,466	320,497	404,655	41.3
LAIA	14,853	12,781	15,495	4.3	16,822	20,569	36,270	115.6
Other regions	109,712	119,098	150,070	36.8	1,085,675	1,179,984	1,535,026	41.4
Total	178,571	177,528	220,269	23.4	1,414,430	1,553,727	2,020,428	42.8

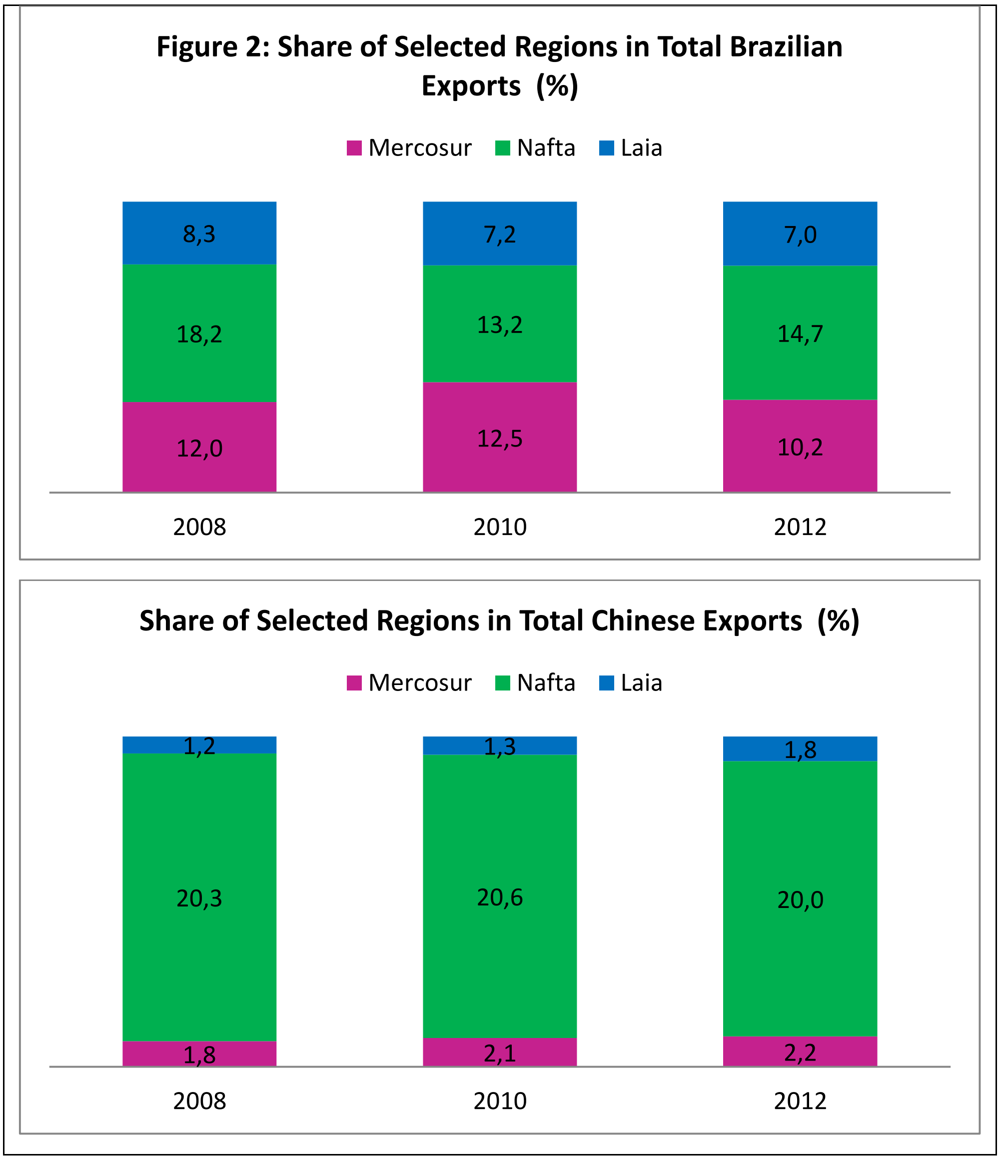
Source: Comtrade. Own elaboration.

Figure 1 shows the growth rate of Brazilian and Chinese exports from 2008 to 2012. The average growth rates also suggest accelerated growth of Chinese exports for the three regions. While in the Brazilian case, the variation was 1.1% p.a. from 2008 to 2012 for Mercosur and LAIA, the Chinese external sales advanced 15% p.a. in the first case and 21% p.a. in the second.



Source: Comtrade. Own Elaboration.

As the growth of Brazilian exports to Mercosur and LAIA was very modest, the share of these two regions in total exports reduced, as well as NAFTA (Figure 2). The weight of these three regions in the total Brazilian exports retreated from 38.5% in 2008 to 31.9% in 2012. In the Chinese case, despite the high growth rates, the relative share of Mercosur and LAIA in the total exports has advanced very little due to the small values of Chinese sales to these regions compared to its total exports. However, from the point of view of the importing countries, the relative share of China grew significantly.



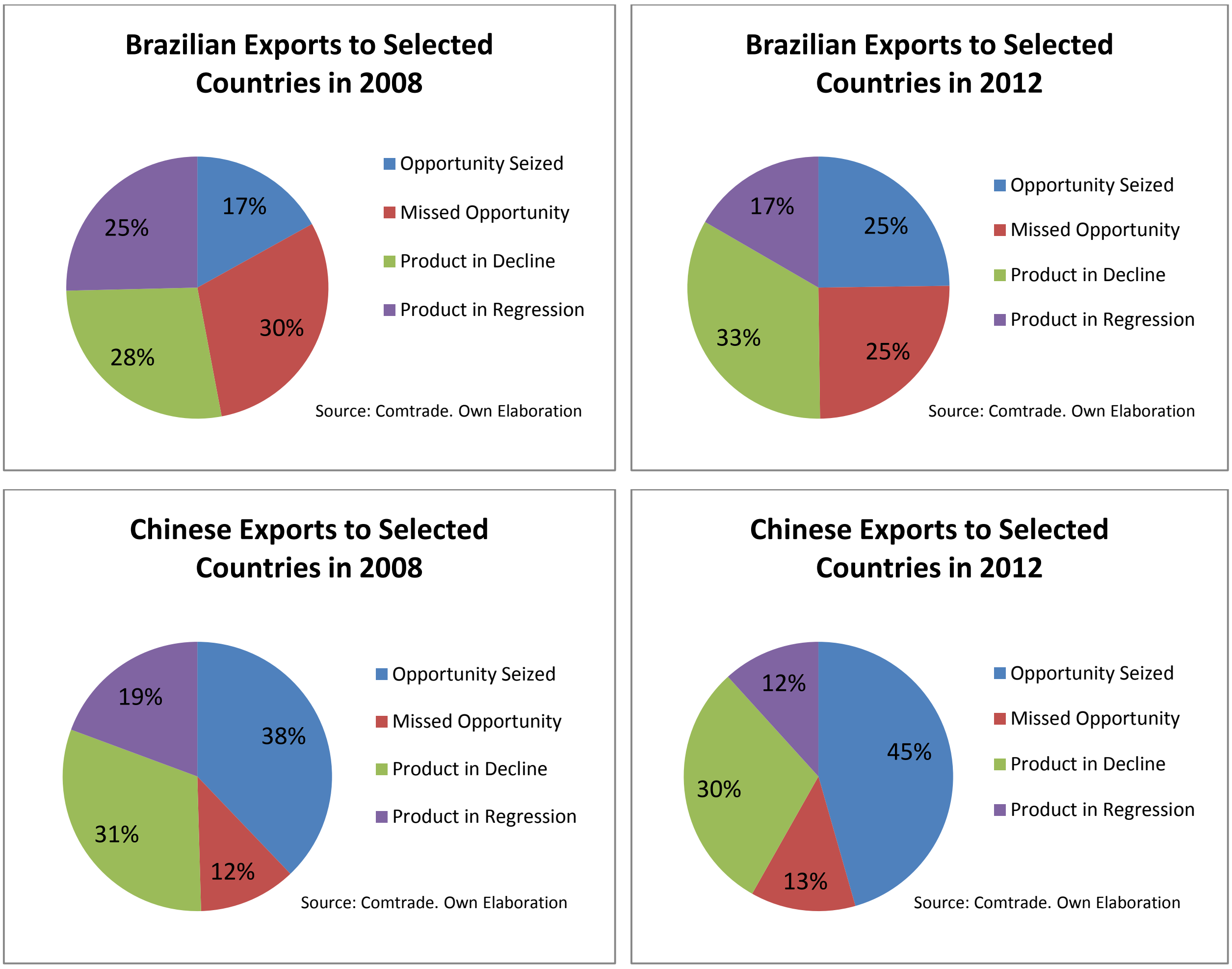
Source: Comtrade. Own elaboration.

3. Brazilian and Chinese Export Dynamism

Following the classification of Marçal and Novais (2009), the Brazilian and Chinese exports to selected target markets were grouped into four categories, considering the products with the greatest possible disaggregation (6 digits in the Comtrade HS classification). The first category is *Opportunity Seized*, in which the product in question acquires participation in the demand of the region, and the country (Brazil or China) also gains share in this market. The second is *Missed Opportunity*, in which the product acquires participation in the region, but the country in question loses participation in the export of this product to this region. The third is *Product in Decline*, in which the product is losing its share in the market in question and the country is acquiring participation with this product in this market. And the fourth is *Product in Regression*, in which the product is losing share on the region's demand and the country is losing market in this product.

In the Brazilian case, products classified as *Opportunity Seized* rose from a share of 17% on the total of exports in 2008 to 25% in 2012, a non-insignificant breakthrough of 8 percentage points (p.p.) (Figure 3). Another positive result was the decline of 5 p.p. of the share of products classified as *Missed Opportunity*, although the percentage of 25% registered in 2012 is still significant. On the other hand, it is worrying the increase (also of 5 p.p.) of the relative share of exports of products classified as *Product in Decline*, which reached 33% of the Brazilian export agenda in 2012, against 28% in 2008. A possible specialization in those products, which have lower relative demand, can generate considerable future problems for Brazilian exports, if the declining trend in demand is maintained.

Figure 3 - Brazilian and Chinese Exports



In the case of Chinese exports, the share of products with *Opportunity Seized* increased significantly between 2008 and 2012, when this group accounted for almost half of Chinese export agenda to the region. The products with *Missed Opportunity*, despite the slight increase in participation (from 12% to 13%), have a small relative weight in Chinese exports to the selected countries. *Products in Decline* also had an important role in the Chinese export to the region in 2012 (30%), but it was smaller than the share of products with *Opportunity Seized* and also smaller than the percentage recorded in the Brazilian exports (33%).

The comparison of Brazilian and Chinese exports between 2008 and 2012 for the selected countries reveals that China entered these markets especially in the segment of products with *Opportunities Seized*, namely those more demanded by the region. Brazil acquired greater space in the exports of products with declining demand, although the share of products with increasing demand also has increased. The next step is to evaluate whether the changes in the Brazilian exports to these selected markets took place due to the increase of Chinese exports to the same markets.

4. Threat from Chinese Exports to Brazilian Exports

Following the classification of Hiratuka and Sarti (2009), the degree of threat from Chinese to Brazilian exports is analyzed according to the four categories classified in the previous section. *Direct Threat* is when the share of Chinese exports of a product to a given country increase, while the share of Brazilian exports of this product to the same country decrease. *Indirect Threat* is when the increase in the share of Chinese exports of a given product is higher than the increase in the Brazilian export's share of the same product to the same country. The products that are not being threatened by Chinese exports are classified as *No Threat*.

The Chinese exports to the selected countries represented a direct threat mainly for products in which Brazil missed market opportunities – the products classified as *Missed Opportunities* –in the two years considered (2008 and 2012) (Figure 4). These products are probably in the group of products with *Opportunities Seized* by China, in which there is an increased demand in the region and of Chinese exports. This direct threat is rather worrying for Brazilian exports since the products with missed opportunities represented 25% of the Brazilian exports to the region in 2012, and the threat from the Chinese exports for these products were 76% in 2012, a little lower percentage than that registered in 2008.

Figure 4: Brazilian Exports to Selected Countries

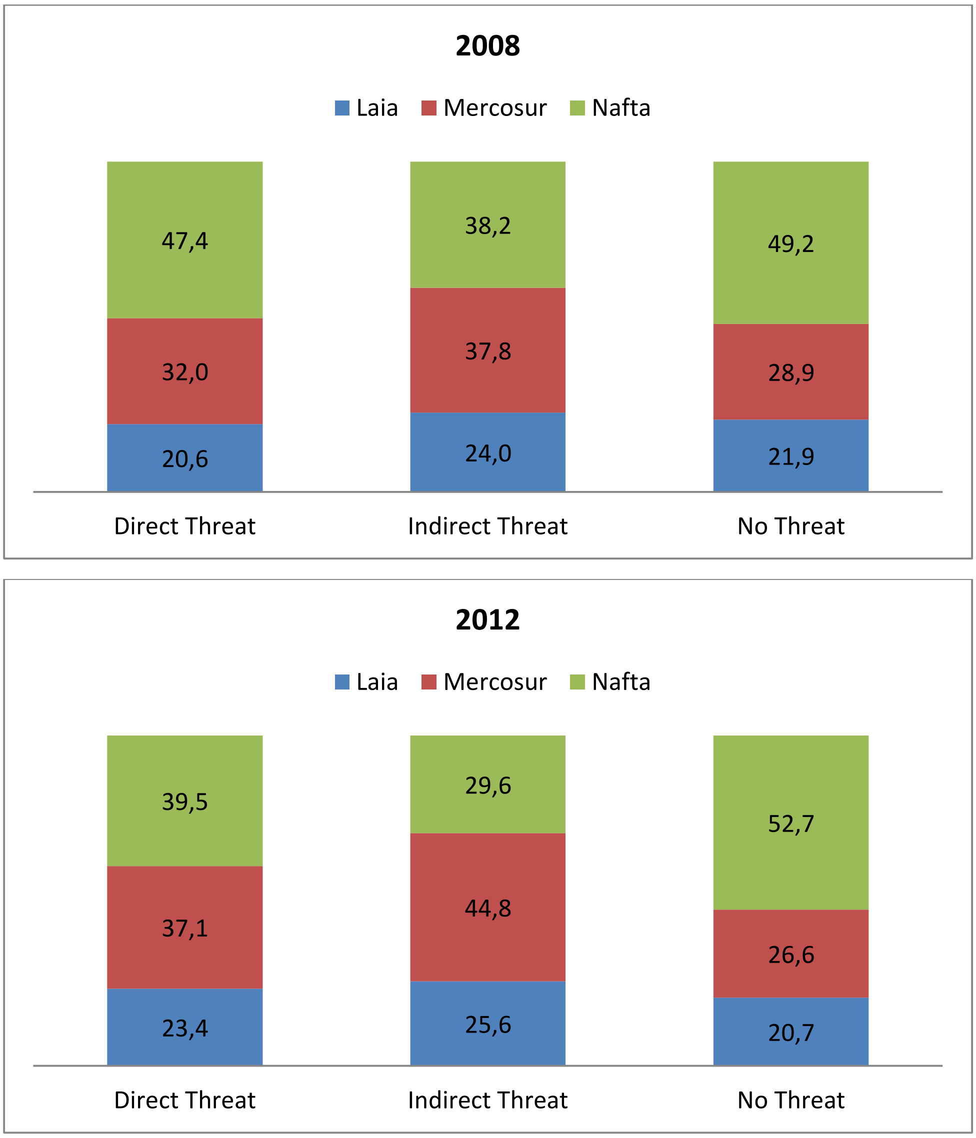
Source: Comtrade. Own Elaboration.

Another worrying result refers to the Brazilian exports with *Opportunities Seized*, in which the indirect threat from Chinese exports was 36.4% in 2012, which is slightly lower than the percentage recorded in 2008 (39.9%). Although Brazil has managed to increase the share of those products in its exports, the growth rate of China's foreign sales of these same products for the region was more significant. Therefore, it may become a direct threat to the Brazilian exports in the future,. It is worth noting, however, that there was a small fall in the percentage of indirect threat in the comparison between 2008 and 2012. In other words, in both direct and indirect threat, the situation of the Brazilian exports did not deteriorate between 2008 and 2012.

The Brazilian exports that suffered the lowest threat from the Chinese exports in 2012 were classified as *Products in Decline*. Then,Brazil managed to be competitive in relation to China in the products that have been suffering from reducing demand in those regions.

In terms of region of destination of exports, the results are even more worrisome. We can note that more than 50% of the products exported by Brazil that have suffered direct threat from Chinese exports had as destination Mercosur and LAIA (Figure 5). Both regions have increased their share in this category in 2012. The result was the same for products that have suffered indirect threat. In both cases, the products destined to Mercosur were the most affected. Only in the case of NAFTA, the percentage of products with direct and indirect threat decreased from 2008 to 2012, but it stayed in a high plateau (39.5% and 29.6% respectively).

Figure 5: Threatened Brazilian Exports by Region (%)



Source: Comtrade. Own Elaboration.

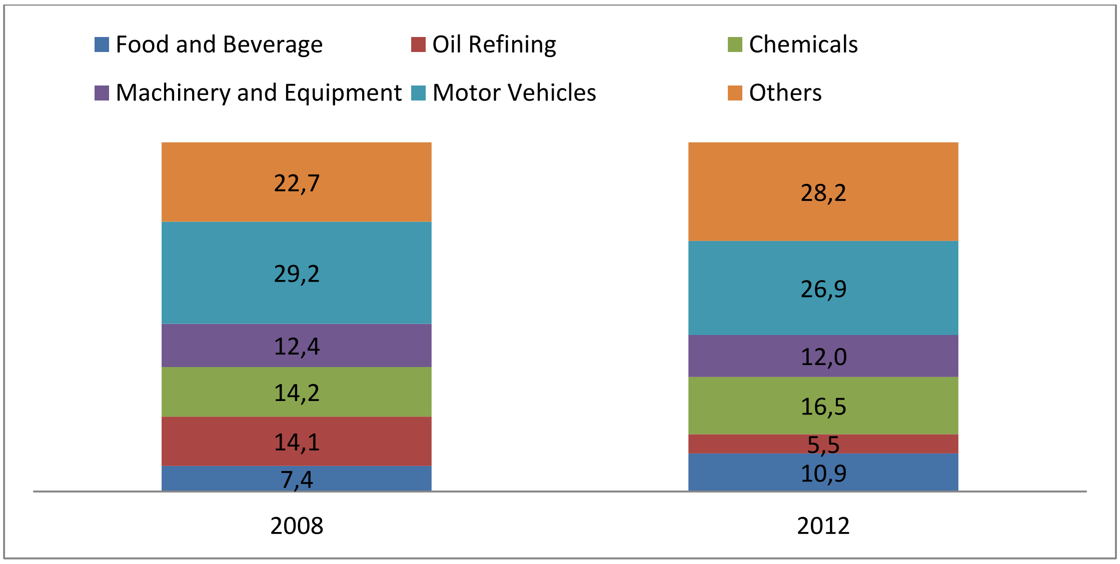
Considering all these changes, we now analyze each group of products (opportunities seized, missed opportunities, products in decline and product in regression) separately, providing information of the most important sectors in each group.

4.1.Sectorial Analysis

Opportunities Seized

The main Brazilian exports of products with *Opportunities Seized* belong to the sectors of food and beverage, oil refining, chemicals, machinery and equipment, and motor vehicles (Figure 6). In the case of chemicals, there was an increase of Brazilian exports´ relative share to the selected countries.

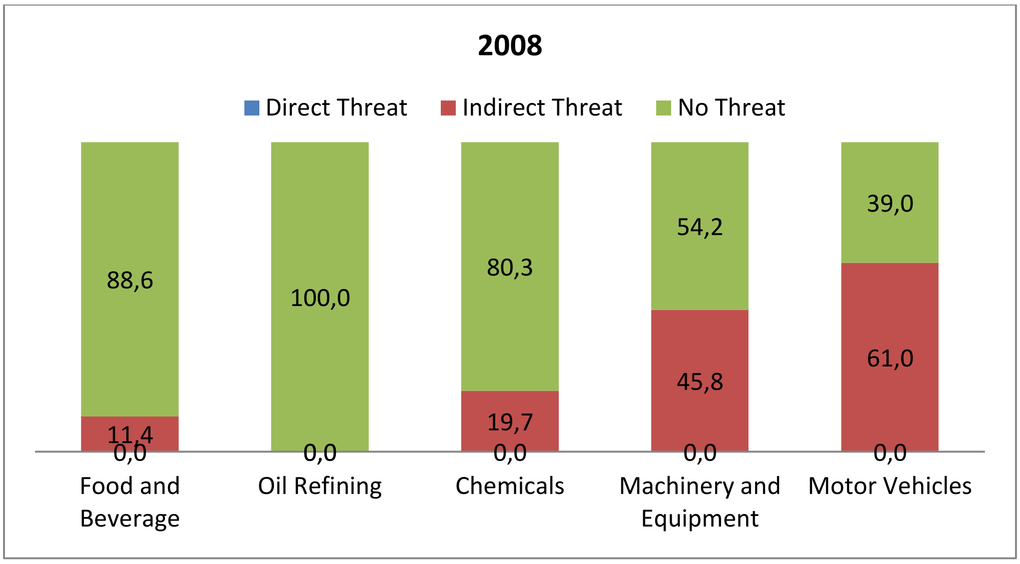
Figure 6: Opportunities Seized by the Brazilian Exports to Selected Countries

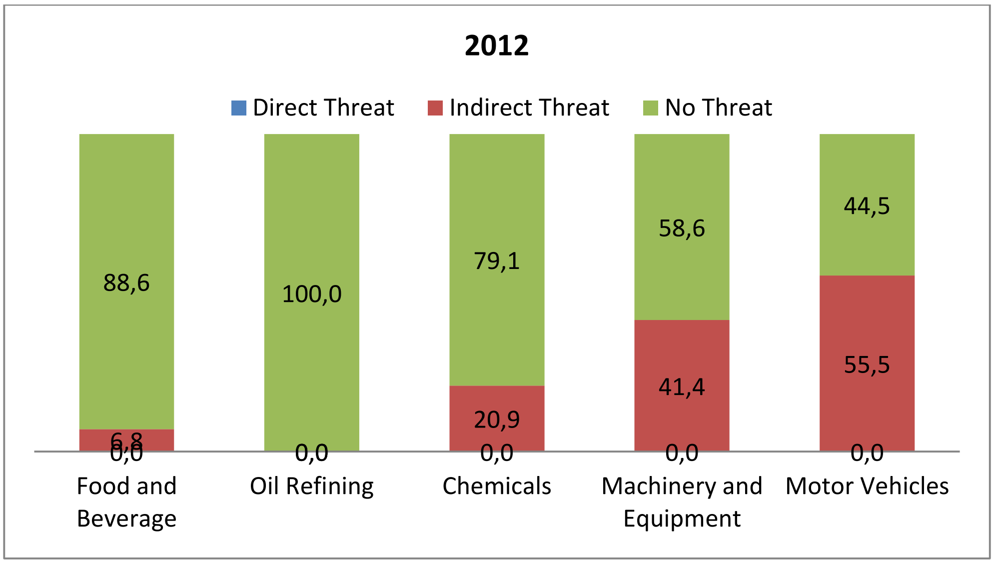


Source: Comtrade. Own Elaboration.

In the two years analyzed, among the products with *Opportunities Seized*, those who belong to the oil refining sector are the only ones that did not suffer any threat from the Chinese exports, but these products lost relative share (Figure 7). Food and Beverage also faced a small indirect threat from the Chinese exports. Moreover, in this case, the relative share of the sector in the export of products with opportunities seized increase. On the other hand, the products from the sectors of Motor Vehicles and Machinery and Equipment suffered a quite significant indirect threat from the Chinese exports (61% in 2008 and 55% in 2012).

Figure 7: Chinese Threat in the Brazilian Exports with Opportunities Seized





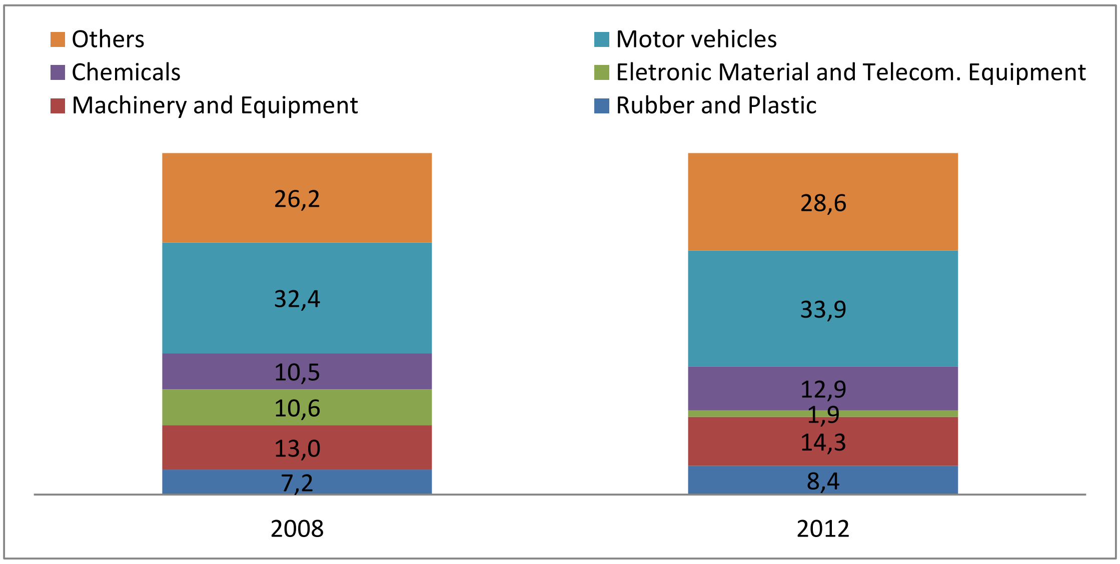
Comtrade. Own Elaboration.

Thus, Brazil managed to be competitive in relation to China in the group of products with *Opportunities Seized* for goods with lower industrial content, such as the Food and Beverage sector, or in products in which the country has a competitive advantage, such as in the oil refining sector products. Examples of these products are preparations used in animal feed and oil wastes. In the sectors of motor vehicles and machinery and equipment, the threat of China´s exports is high, which can jeopardize Brazilian exports in the coming years. Examples of these products are engine parts and shock absorbers for vehicles.

Missed Opportunities

The most important sectors among the products with *Missed Opportunities* in the region were motor vehicles, machinery and equipment, chemicals, and rubber and plastic (Figure 8). Although they have increased their share in the exports of products with *Missed Opportunities*, the participation of these sectors in the Brazilian total exports decreased.

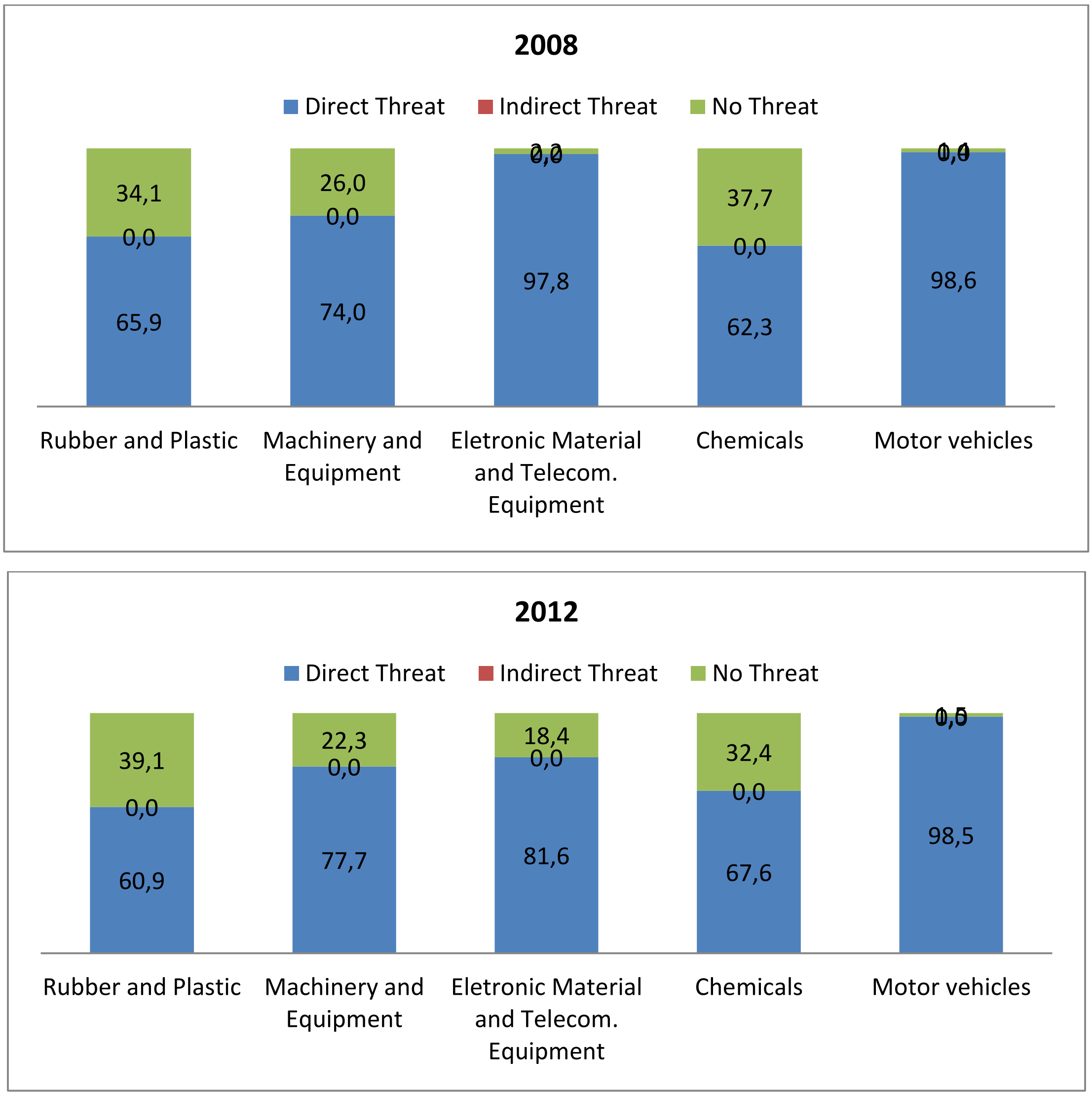
Figure 8: Missed Opportunities by the Brazilian Exports to Selected Countries



Source: Comtrade. Own Elaboration.

The Brazilian exports of every product with *Missed Opportunity* suffered a strong threat from the Chinese exports in the two years analyzed (Figure 9). Exports from the motor vehicle sector that lost opportunities in the region, for example, are completely compromised by the Chinese exports. Examples of these products are passenger vehicles and motor vehicles for the transport of goods. The products from the other sectors, which are also important industrial sectors, also face significant threat from Chinese exports, such as refrigeration compressors. Brazil is a major exporter of these manufactured goods to the selected countries and thus the threat from the Chinese exports in these markets can result in serious problems for Brazilian exports.

Figure 9: Chinese Threat in the Exports with Missed Opportunities for the Selected Countries

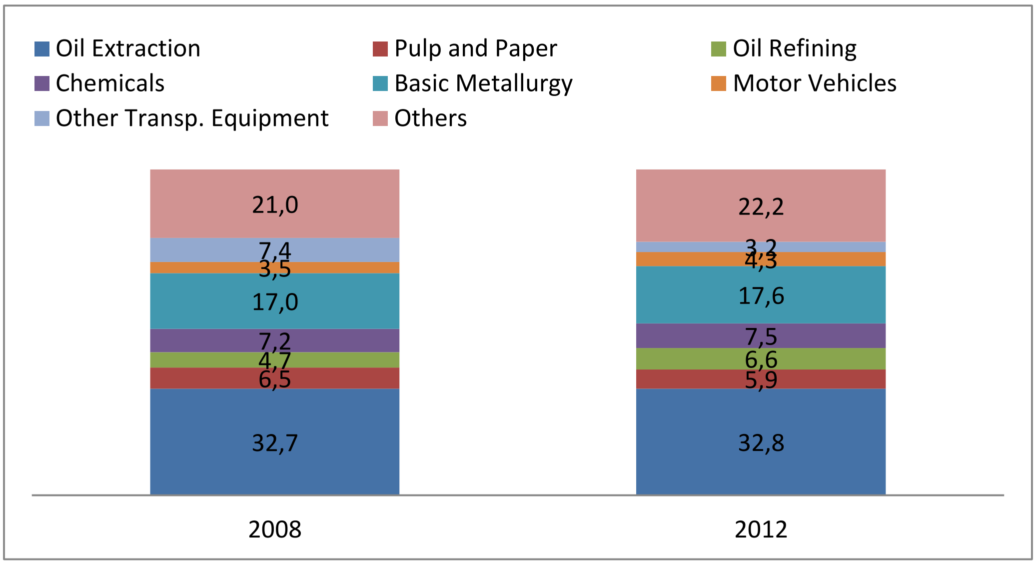


Source: Comtrade. Own Elaboration.

Products in Decline

The Brazilian export share in products with declining demand from the region raised in the period covered. The main sector is oil extraction, in which Brazil has competitive advantages, followed by basic metallurgy (Figure 10).

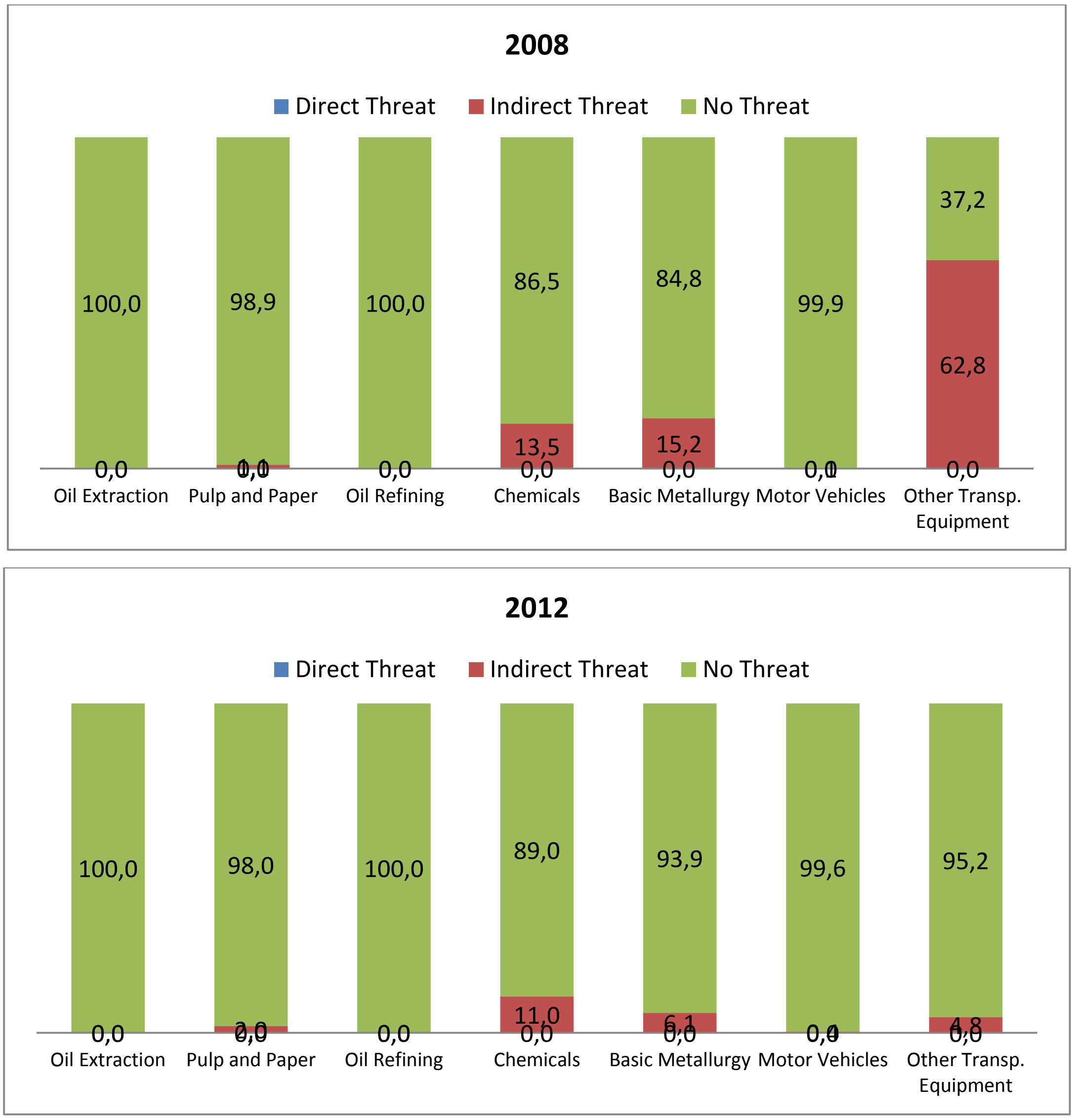
Figure 10: Product in Decline in the Brazilian exports to Selected Countries



Source: Comtrade. Own Elaboration.

These products in decline, such as crude oil and petroleum oilswere not threatened by the Chinese exports in 2012 (Figure 11). Only a small share of chemical sector products suffered threat, such as antibiotics and its derivatives, and basic metallurgy, such as pipes for oil pipelines. Thus, again, Brazil acquired space and competitiveness in sectors where it has competitive advantages in relation to China, but suffered demand reduction in the selected countries.

Figure 11: Chinese Threat in the Export of Products in Decline to Selected Countries

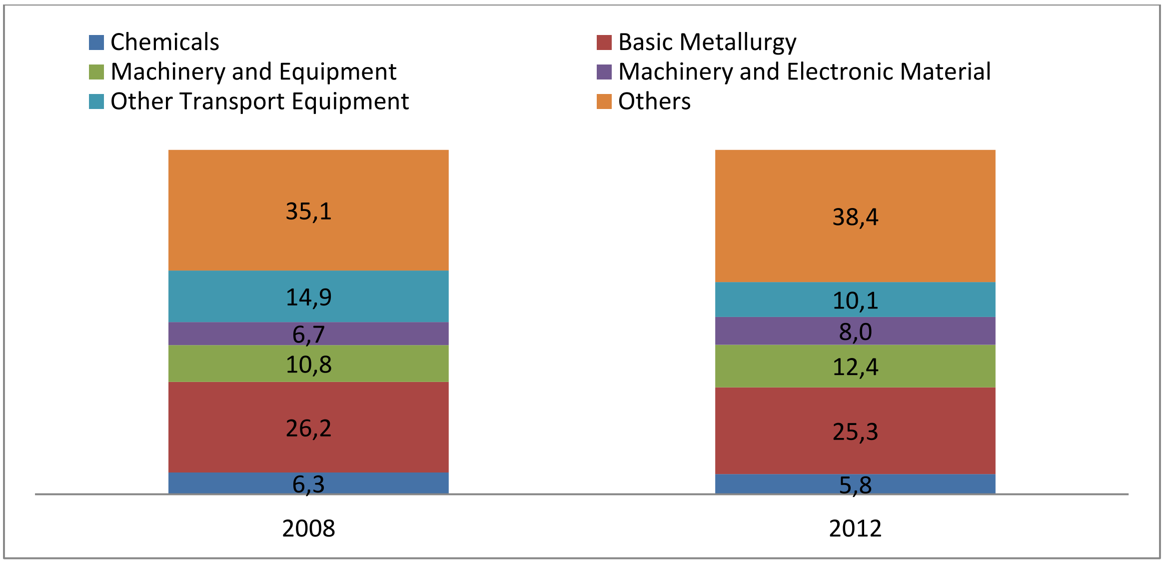


Source: Comtrade. Own Elaboration.

Product in Regression

The sectors with greater share of products in Regression were Basic Metallurgy, Machinery and Equipment, and Other Transportation Equipment (Figure 12). These important industrial sectors suffered reduced demand in the region and Brazil lost participation in its exports. But, even in these cases, the threat from the Chinese exports was quite significant.

Figure 12: Product in Regression in the Brazilian Exports to Selected Countries



Source: Comtrade. Own Calculation

In both years, 2008 and 2012, virtually 100% of the exports of *Products in Regression* from the sector of other transport equipment suffered direct threat from the Chinese exports, such as planes and other aircrafts weighing more than 15,000 kilos (Figure 13). The exports of products belonging to the machinery and electronic material sector also faced strong threat. Some examples are antennas and reflectors and radio-broadcast receivers.

Figure 13: Chinese Threat in the Export of Products in Regression to Selected Countries

Source: Comtrade. Own Elaboration.

5. Conclusions

This article analyzed the impact of the "competitive effect" of Chinese exports after the crisis on Brazilian exports to three target markets – Nafta, LAIA and Mercosur –, which accounted for 38% of total exports in 2008 and 32% in 2012. For this purpose, the exports of the two countries were grouped into four categories of dynamism: *Opportunity Seized; Missed Opportunity; Product in Decline; Product in Regression.* Then, the threat (direct or indirect) from the Chinese to the Brazilian exports was calculated in these four categories. The products that are not being threatened by the Chinese exports are classified as *No Threat*. Finally, the study also detailed these two variables (product category in terms of dynamism and degree of threat) by sector.

From the point of view of dynamism, the comparison between Brazilian and Chinese exports between 2008 and 2012 revealed that China has entered the three regions selected, especially in the segment of products with *Opportunities Seized*, namely the more demanded ones in those regions. Brazil increased its market share in exports of products with declining demand, classified as *Products in Decline*. If this trend of falling demand is maintained, which is the most likely hypothesis, the specialization in those products may compromise even more the performance of Brazilian exports in the coming years. Moreover, in the case of products with *Opportunities Seized,* Brazil managed to be competitive in relation to China only for goods with lower added value, such as the Food and Beverage sector, or in products in which the country has a competitive advantage, such as products from the oil refining sector.

Another worrisome result refers to the degree of threat from Chinese exports to the selected regions. They represented a significant direct threat (76%) especially in products in which Brazil lost market opportunities, i.e., products classified as *Missed Opportunities*, which accounted for 25% of the Brazilian exports to these regions in 2012. These products are probably in the group of products with *Opportunities Seized* by China, for which there is an increased demand in the region and of Chinese exports. Moreover, the Brazilian exports that suffered the lowest threat from the Chinese exports in 2012 were the products that have lost relative share in the market of the regions (*Products in Decline*). In other words, Brazil managed to be competitive in relation to China in products that faced a decreasing demand. It is also worth mentioning the significant indirect threat from the Chinese exports in the sectors of motor vehicles and machinery and equipment (55.5% and 41.5%, respectively), classified in the Group of *Opportunities Seized*.

In terms of region of destination of exports, the results are also worrisome. In 2008, more than 50% of the products exported by Brazil that suffered direct threat from the Chinese exports (exclusively manufactured goods) had Mercosur and LAIA as destination. The percentage of this threat increased in both regions in 2012, exceeding 60% of the total. The same was observed for products that suffered indirect threat, and those destined to Mercosur were the most affected. Only in the case of NAFTA, the percentage of products with direct and indirect threat decreased in 2012 in comparison with 2008, but stayed at a high plateau (39.5% and 29.6% respectively).

Thus, the "competitive effect" of the Chinese exports – which was already expressive in 2008 – increased even more in the context of fierce competition for markets caused by the crisis, displacing Brazilian exports of manufactured products in traditional destination regions, such as Mercosur and LAIA. In this context, to stop and reverse the loss of dynamism and market share of those exports, in addition to the maintenance of key macroeconomic prices (interest and exchange rates) in competitive levels for the exports, it is essential for the Brazilian Government to adopt an industrial policy and foreign trade strategy seeking a favorable model of international trade agreements and encouraging the integration of the Brazilian manufacturing industry in global value chains through the diversification of the industrial base and investments in the regional market. The sectoral description of products that lost markets and endured a greater (direct or indirect) threat from Chinese exports in 2012 provides crucial information for designing this strategy.

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