Brazil and China: Paths of Strengths and Turmoil[1]

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Abstract:
Has China's economic success brought about Brazil's economic failure? Or should we look elsewhere for the causes behind the disaster into which the South American nation is currently sinking? There is a path out of the rentier trap, but it is narrow. Brazilian administrations have preferred not to pursue loans, convinced that raw materials prices would keep rising, and that even without making structural changes, it would be possible to enact policies designed to reduce the wage gap and mitigate poverty, with no concern for declining competitiveness, and a blind eye to the top 1%, which is becoming wealthier. An increasingly asymmetrical relationship with China has made room for crisis, but not growth.
Key Words: Economic crisis, deindustrialization, investment, manufacturing industry, raw materials, economic relations

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Introduction

Rising raw materials prices and export volumes in the aughts changed the external pressures facing Brazil. These pressures currently weigh less heavily on the country than they did before. This new context is known as a "tailwind" situation, which spurred: *1*) higher growth than in the 1990s; *2*) marked deindustrialization; *3*) insertion in the international division of labor underpinned by less technology-intensive products (with the exception of a few sectors, such as aeronautics), with this lack of industrial product manufacturing prompting, since 2008, a trade balance deficit, which has rapidly widened into an abyss, as the country has also failed to remedy the surplus coming from the sale of raw materials; and *4*) said shortly, a divorce between the labor supply and demand in industry, which led to declining demand for skilled labor at companies, even to below the supply, which had been on the upswing thanks to efforts made in education (increasing the number of school years).

This “tailwind” in turn boosted the minimum wage and overall wages, and significantly enhanced social policy. But it also favored more or less opportunistic behavior on the part of governments, which has generated the profound economic crisis currently ailing the country. The economic slowdown, in the wake of the crisis, is inscribed in a growth regime centered on economic reprimarization and capital inflow. That is why plummeting raw materials prices have only precipitated a latent crisis. Government opportunism consisted of believing “that what had worked” could last and that it was not necessary to prepare to confront future conflicts among the classes, and that the abundancy of foreign currency would give the country a way out.

Thus, China is not the reason why Brazil is in crisis. The relationship between Brazil and China is reminiscent of a song by a French singer-songwriter, Serge Gainsbourg, who sang: “I love you, I don’t anymore;” the “I love you,” because that relationship had given the country wealth, and the “not anymore,” because that wealth was the seed of the crisis that successive Brazilian administrations have been unable or unwilling to prevent through the application of appropriate policies.

China and Brazil, two countries with vastly divergent economic conditions and a close, but asymmetric, relationship, comprise a pair in which one is on an economic path in which reconversion is its alpha and omega of growth, and the other capitalizes on the demands China makes of it, which on the surface, seems like a throwback to the past, as the country has returned to specialization in mining activities. The (economic) success of one means the (economic) misfortune of the other. Or should we look elsewhere for the causes behind the disaster into which Brazil is currently sinking?

A Few Stylized Facts: What Makes Brazil Different from China

1) GDP Per Capita

In the 1980s, Latin America was trapped and overtaken by the Asian dragons (South Korea, Taiwan, Hong Kong, and Singapore). However, in the period 1990-2000, Latin America returned to moderate growth and income per capita in the main countries in the region (Argentina, Brazil, Mexico, Colombia...) rose in 2012 to a little over one-fourth of income in the United States, while per capita income in South Korea and Taiwan hovered around 70% and 80% of American income. In spite of this higher growth, Latin America became marginalized. In 1980, per capita income in China reached 306.7 dollars measured in

purchasing power parity (PPP), and 4,809.6 dollars PPA in Brazil. In 2015, the numbers hit close to 14,107.4 dollars PPP and 15,614 dollars PPP, respectively (IMF). Between 1980 and 2015, the Gross Domestic Product (GDP) per capita was multiplied by a factor of 46 in China, but only a factor of 3.25 in Brazil.

The economic paths of the two nations have been very different. In China, growth has been driven by an impressive rise in exports of manufactured products and excess investment; in Brazil, in the aughts, the motor of the economy consisted primarily of raw materials exports, and a lack of investment put the brakes on growth. Higher growth in one (China) was behind the overall weak growth in the other (Brazil), although slightly higher than the figures attained in the 1990s.

With the arrival of President Lula da Silva to power (2003), growth took off somewhat, and poverty fell drastically, but contrary to the official discourse, the rich got richer, and the earnings of the top 1% of the population grew on par with those of the same group of people in developed countries. What Brazil is doing is no exception to the rule, besides its ability to diminish poverty. Many economists began to question whether Brazil would really become the new "El Dorado." However, the myth was debunked once and for all in 2011 when the dreams dissipated, and the miracle was revealed to be a mirage, or even a nightmare, beginning in 2014.

2) Demographics

China (1.4 billion people) is densely populated as compared to Brazil (207 million). Taking into account income inequality and how it has evolved over time, the impact of demographics on the size of the domestic markets has been different in the two countries: *a*) income inequality in China is similar to that of Brazil. In this sense, China has been "Latin Americanized," and rising inequality is becoming increasingly severe. However, this does not constitute an obstacle for continued growth due precisely to the significance of consumer goods, intermediate goods, non-durable goods, and capital goods tied to population growth. In China, increasing idle capacity in production, added to insufficient demand and real estate speculation, is due more to policy decisions made at the province-level because these decisions have allowed factories to proliferate dedicated to producing the same product in each of the provinces.

Even so, despite this important problem, the industrial production boom verifies Kaldor's law: "more industry, more productivity" and economies of scale, and higher growth. Although Brazil does have a large population (207 million people) as compared to other countries in Latin America, the law is not entirely demonstrable. Income inequalities are significant and the domestic market dimension may not be enough when it comes to obtaining

the supply necessary to benefit from economies of scale for manufacturing certain products, except to complement domestic demand through foreign markets, as South Korea, for example, has done.

International competition, stimulated by trade liberalization, currency appreciation, subsidy cuts, the exacerbated challenges facing domestic production in adequate conditions of profitability, rising demand in different social categories, and the demand for intermediate products and equipment goods were increasingly satisfied by more imports, made possible by the disappearance of external restrictions, following the rise in primary products exports and the abundance of foreign currency derived from burgeoning investment in the country.

Growth in the aughts was fed by rentier activities. Deindustrialization became entrenched and productivity evolved modestly. *b*) The demographic growth rate, according to the National Institute for Statistics and Economic Studies (INSEE, in French) in 2011 was on the order of 0.48% in China, in spite of the one-child policy, and in Brazil, is currently 1.1%. Birth rates are different. In China, the one-child policy, in place since 1979 to slow the demographic explosion, led to a lopsided aging population and transformed the age pyramid, progressively becoming a barrier to jumpstarting growth. Moreover, the ratio of effectiveness/ineffectiveness grew weaker over time, culminating in the abandonment of the policy in 2015.

Brazil is undergoing a fairly rapid demographic transition: according to data from the Brazilian Institute for Geography and Statistics (IBGE), the birth rate in 1980 was 4.10, followed by 2.80% in 2000 and 2.40% in 2015, with respect to the rate of 1.70% observed in Europe. Insofar as the shift has been faster, the working-age population (15 to 64 years of age) is the largest in relative terms, with 140.9 million people out of 207 million total inhabitants. Brazil must find jobs for this swath of people, which will imply achieving a high growth rate, especially because the country is more urbanized than most industrialized countries. With a weak growth rate, the risk that unemployment will rise is high, even with a low productivity growth rate. The advent of the crisis came in 2014 and became manifest in 2015-2016 when the unemployment rate, primarily affecting young people and recent graduates, doubled. On the contrary, in China, migration from rural areas to cities has slowed down, and the lack of labor can be felt, although the growth rate remains elevated.

3) Natural Resources

Besides the “rare earth,” coal, China does not have raw materials to cover its own needs. The country is obliged to import them to fuel its growth and meet new requirements related to changing consumption patterns, a consequence of rising per capita income. By contrast,

Brazil is rich in raw materials of mineral or agricultural origin. This situation is explained in turn by the growth in raw materials production for exportation and the return in the twenty-first century to international specialization tending towards economic primarization, using ultra-sophisticated techniques that could be described with the term the “commodities consensus” (M. Svampa). In summary, in order to guarantee the supply of raw materials, China's foreign direct investment in Brazil has mainly focused on buying land or mines. China has become Brazil's top trading partner. In 2013, 19% of Brazil's exports were destined for China, out far ahead of the United States (10%). This is likewise the case for Chile (25%), Uruguay (22%), and Peru (18% on par with the United States). This is not, however, the case for Colombia, where the United States continues to be the top trade partner (32%), followed by China (9%) (FMI-DOTS). This translates into more or less serious vulnerability, depending on the degree of openness and the share of exports to China out of the total. As can be seen, this share is rather high in Brazil (BR), but less than in Chile (CL), which is a more liberalized country and therefore has a higher share of exports, and even more so in Venezuela (VE), Peru (PE), and Uruguay (UY).

Closer Economic Relations Marked by a Dual Asymmetry

China has become Brazil’s top customer. Relations between the two countries grew closer starting in the aughts; Brazilian exports to China reached nearly one billion dollars in the year 2000, and ballooned to 40 billion dollars by 2013. In the year 2000, China was Brazil's twelfth export trading partner, and ranked eleventh for imports; by 2009, China had become Brazil's top export partner, and soon became its top import partner, too, in 2012. Already by 2014, Brazil's exports to China accounted for 18% of its global exports, and imports from China represented 16% (OCDE/CAF/CEPAL, 2016). The trade balance between the two countries was negative in the year 2000 (137 million dollars), but subsequently turned positive, except in 2008, as sales of raw materials from Brazil to China progressed. In 2011, the positive balance was two billion dollars. From there, it took a nosedive. The value of Brazilian exports to China withered, and at the same time, imports receded, although less so than exports, hitting 3.27 billion dollars in 2014 and 4.88 billion dollars in 2015 (CEPII).

Trade relations between China and Brazil are characterized by a dual asymmetry: China sells manufactured goods to Brazil and buys raw materials. China is indeed Brazil’s top trade partner, but the opposite cannot be said of Brazil. These asymmetries have consequences for negotiations between the two nations.

The structure of exports from Brazil to China is dominated by the sale of raw materials and natural resource-intensive products, accounting for 66.7% and 13.8%, respectively, in 2000, and 83.7% and 10.3% in 2011. On the contrary, the structure of exports from China to Brazil

is led by the sale of manufactured goods. Primary products and natural resource-intensive goods never accounted for more than 8% and 13.6%, respectively, in the year 2000, and 2.5% and 9.6%, respectively, in the year 2011, while research-intensive manufactured goods added up to 20.4% of exports (Secex/MDIC).

In 2013, Brazil provided to China 75% of the latter country's agricultural imports from Latin America, and Argentina 16%. In turn, soy exports to China represented 37% of total exports to this country. Agricultural product exports are strongly concentrated in soy; in 2011, 78% of all exports were sales of soy and flour, and 6% was soy oil (OCDE/CAF/CEPAL, 2014 and 2016). Soy sales expanded to 15% of all of Brazil's exports on September 1, 2014.[3] Prior to that, specifically, between 2002 and 2011, sales picked up from 896 million to 9.513 billion dollars, and soy oil went from 127 to 660 million dollars. Agricultural exports are highly concentrated, making Brazil particularly vulnerable to fluctuations in this raw material. Although the volume of soy sold by Latin America grew 28% in 2015, its value fell by 7% (China-Latin American Economic Bulletin, 2016: 3), and the significant rise in volume failed to offset slumping prices. Between 2013 and 2015, the price of soybeans went from 538 to 391 dollars per metric ton (see Figure 1).

Source: Commodity Market Monthly, IMF, Sept. 2015

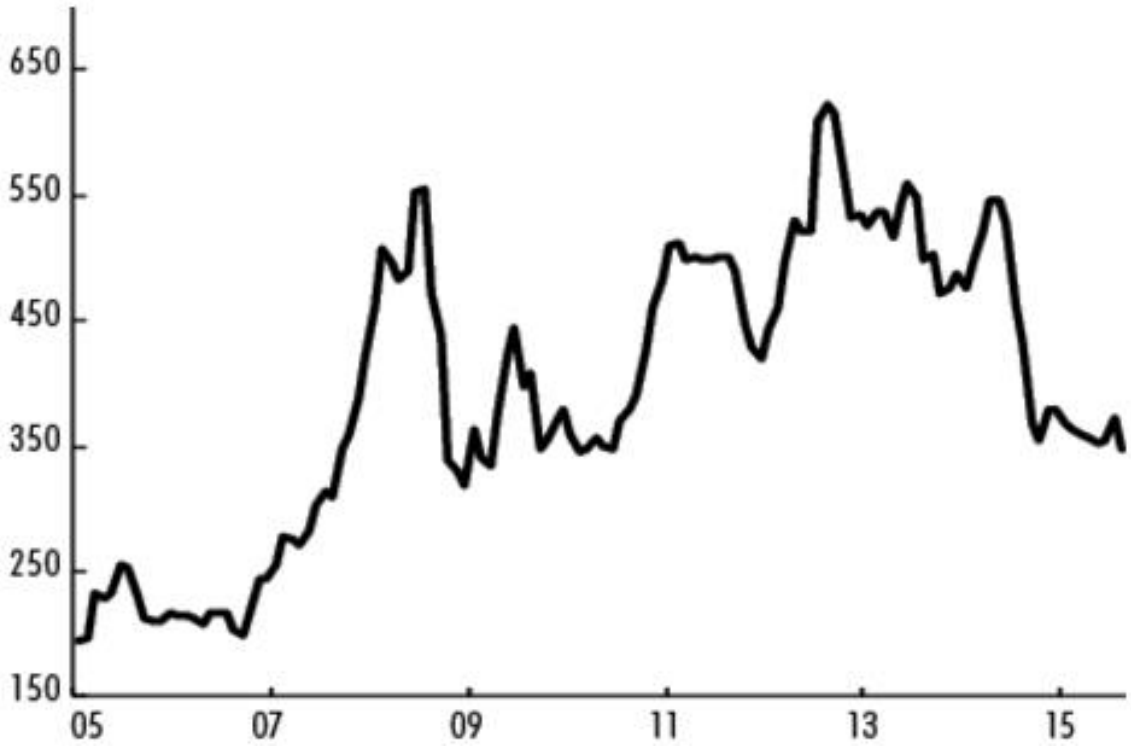

Figure 1. Soybean Prices per Metric Ton, 2005-2015 (Dollars)

Brazil also exports other raw materials, including iron ore, which is its most important mineral export. The value of exports of iron ore and its byproducts climbed to 35% of Brazil's exports to China in 2014. The dip in iron ore prices has been sharp. With an index of 100 in 2010, prices sagged to an index of 28 in December 2015 (Banco Mundial, 2016), and it was not until the end of 2015 that the curve began to reverse itself. Although the volume of iron ore rose by 10% between 2014 and 2015, the drop in the value of exports was especially high, at 34% (China-Latin American…*op. cit*)[4] (see Figure 2).

Source: Commodity Market Monthly, IMF, Sept. 2015

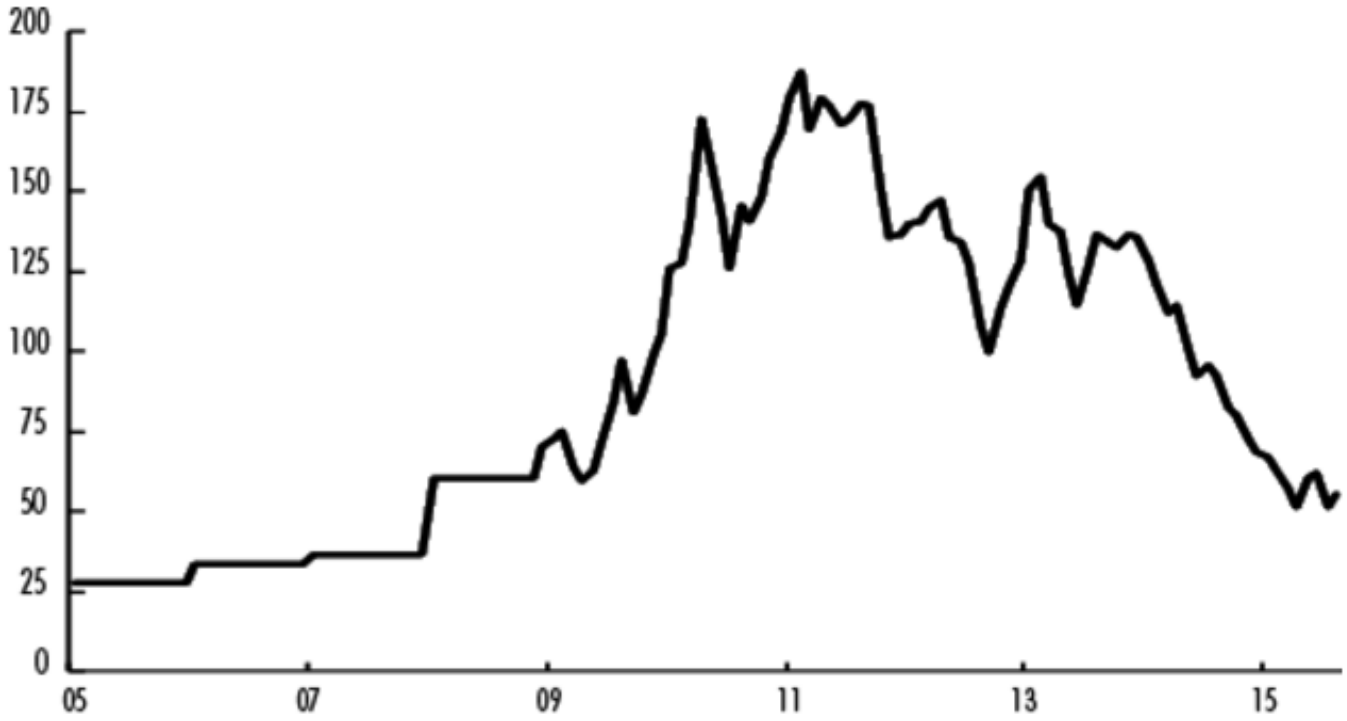

Figure 2. Iron Ore Prices per Metric Ton, 2005-2015 (Dollars)

As can be observed in the figure below, Brazil's vulnerability resides precisely in the magnitude of its trade with China, which is apparently less than that of Peru, Chile, and Uruguay, because the country is less commercially open, and the potential for contagion is less significant.

Source: IMF, DOTS, IMF WEO, UNCTAD, Deutsche Bank Research.

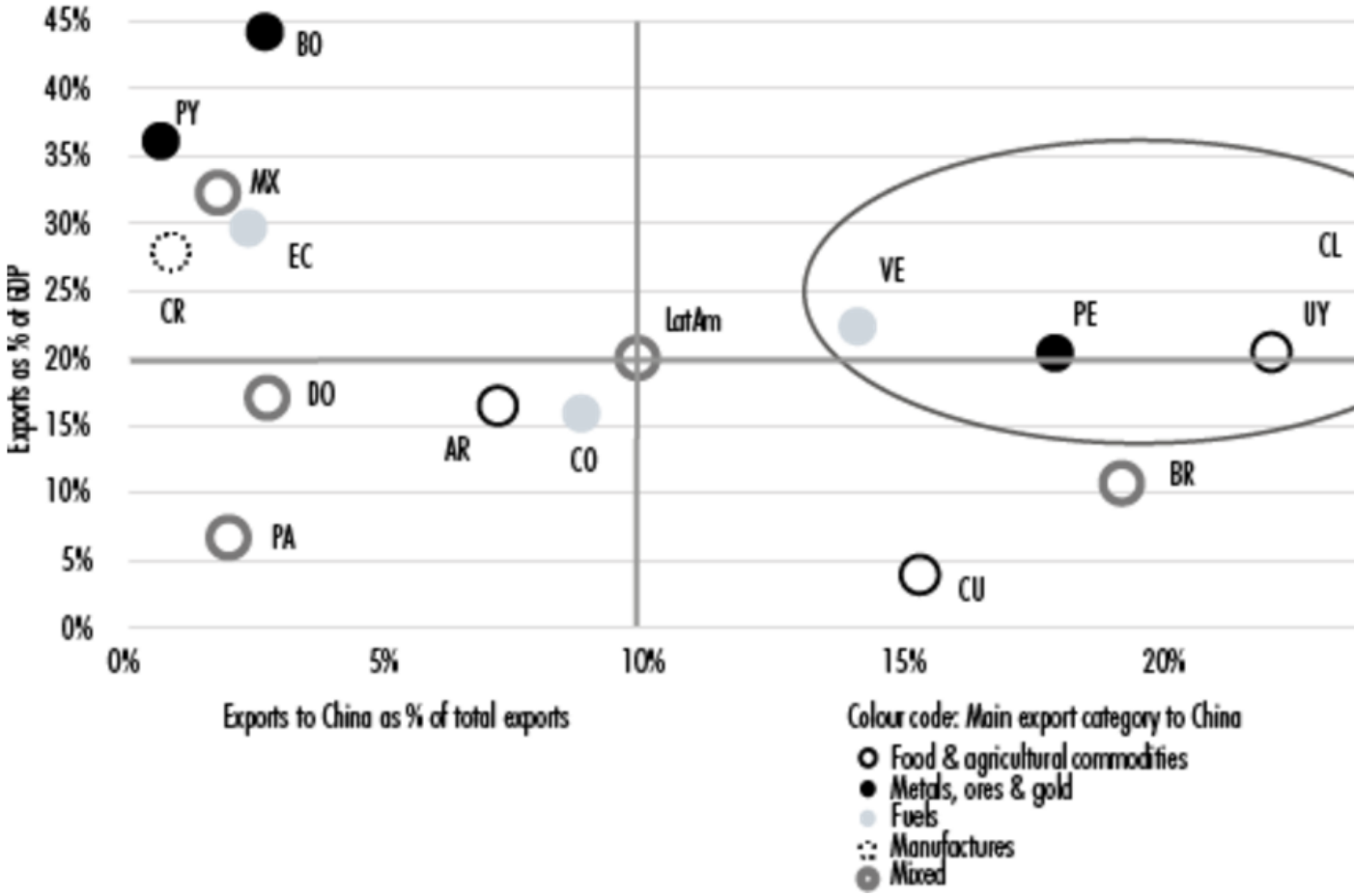

Figure 3

However, we must be careful with an approach limited to analyzing only these two variables.

Besides the degree of openness and the relative importance of trade with China, we must also examine the impact of trade on the industrial fabric, the nature of the exported products, and the role they play in the international value chain. For example, Mexico exports very little to China, due to a lack of raw materials, but by contrast, imports many products from the transformation industry in China. For every dollar that Mexico exports to China, it imports the equivalent of 10 dollars. Trade relations between Mexico and China, or, more precisely, the way in which the trade is practiced, have influenced the deindustrialization of some of its productive sectors.

Table 1. Mexico and Brazil: Evolution of the "Competitive Threat" Index 2000, 2005, 2010, and 2013 (Percentages)

	2000	*2005*	*2010*	*2013*
Mexico	47.590	44.812	46.168	41.942

Brazil	26.174	21.760	12.726	14.197

Source: OCDE/CAF/CEPAL, 2016: 110.

The index is borrowed from Lall's work, repeated by Gallagher, and is calculated as the percentage of productive sectors (four digits) in which China's growth is higher than that of the export growth of any country in the time period 2000-2012.

Brazil and the rest of the countries in Latin America do participate (less than China) in the international value chain. There are two ways to participate in the chain: from behind or from the front. The former measures imported goods that are incorporated into a country's exports, as a percentage of its gross exports, whether China or Brazil. The latter measures the goods exported by a country incorporated into its exports as a percentage of gross exports. In both types of participation, Brazil is at a disadvantage with respect to China. Brazil's share, measured as the behind type, was 11.4% in 2000 and 10.7% in 2011, while in China, in the two years, the figure was 37.2% and 32.1%, respectively. The somewhat weaker performance in 2011 than in 2000 is revealing of China's efforts to further integrate its production lines. Participation in the value chain in the forward type for Brazil exceeded that of China: 17.1% in 2000 and 24.5% in 2011, against 10.8% and 15.6% for China in the same years (OCDE/Cepal/CAF, 2015). With the reprimarization of its economy, Brazil is exporting more goods, and raw materials, to other countries, but it is China that is incorporating them into producing its exports. Based on these data, we can deduce that fragmentation is lesser in Brazil than in China, with fewer products with high elasticity of demand with respect to income, and is therefore less subject to the dynamic insertion in the international division of labor than China and the majority of Asian countries.

Going even further, the complementarity between Brazil and China is far from a "win-win." One loses, because its specialization is centered on commercial crops and produced with more or less long-term investments, and therefore, recouping these investments takes time, which in turn debilitates its industrial apparatus. The other wins because it obtains the raw materials it lacks, which makes its industrial apparatus more flexible and bolsters integration, while at the same time facilitating a move away from the production of goods that need little capital and a lot of unskilled labor, in favor of producing more sophisticated goods with higher demand, just as South Korea and Taiwan did in their day.

A dearth of raw materials, with the exception of coal, and a scarcity of land, makes China more vulnerable. As such, it is unsurprising that for years now, the country has been harnessing a portion of its international reserve to multiply direct investments in countries with a wealth of raw materials, promoting the development of port and railway infrastructure, and investing in land purchases in order to protect its environment. It is very difficult to gain an exact idea of the extent of foreign direct investment (FDI) from China in Latin America. If we rely on the official statistics, Latin America is not the main destination: in 2010, Latin America received 15.3% of Chinese investment, as compared to 65% for other Asian countries. Brazil was a marginal destination (0.7% of Chinese FDI, source: Mofcon China).

However, these data are underestimates. Much of the investment money goes through Hong Kong, Luxembourg, the Cayman Islands, and the Virgin Islands, and is not necessarily counted by Mofcon of China. China's purchase of 40% of Repsol-Brazil was booked as a buy made out of Luxembourg. More globally, ONECH data (2014) reveal that between 2010 and 2013, the Virgin Islands received 51% of Chinese foreign direct investment destined for Latin America, the Cayman Islands 32%, and Brazil only 3%. If, as the ECLAC did in 2015, these data were to be "corrected," we would see that between 2010 and 2015, in reality, Brazil secured 56% of Chinese FDI, Peru 16%, Argentina 15%, and Venezuela and Colombia 5% each.[5]

Since 2010, these investments, as well as loans, have flourished, although it is difficult to say precisely how much. Loan promises escalated, as well as actual loans granted, although it is unclear exactly how and when the former became the latter. Sometimes, these loans are paid back in raw materials, as is the case for Venezuela. From 2013 to 2014, loans surged, reaching 22 billion dollars (71%) in 2014, of which 8.6 were allocated to Brazil, 7 to Argentina, and 5.7 to Venezuela, according to the *China Latin America Finance Database Report.* Direct investment picked up for two reasons: the depreciation of Latin American currencies reduced investment costs, and negotiations between China and Latin American countries, especially Brazil, resulted in direct investment pledges, particularly in the industrial sector, to compensate for the rise in imports coming from China. According to calculations by the *Financial Times* and the Van Dikj Bureau (China-Latin American Bulletin, 2016), Chinese FDI, for more than 10 billion dollars, ended up in Latin America. Between 2011 and 2015, the amounts would be 31.3 billion dollars in non-urbanized land, and 18.8 billion dollars on mergers-absorptions. The composition of these two types of investments is not the same. Investment in non-urbanized land principally concerns the following sectors: manufacturing (20%), agriculture (18%), logistics (15%), communications (14%), finance and real estate (14%), acquisitions—primarily oil—(39%), and the extractive sector (37%). The first two destinations account for more than three-fourths of total acquisitions, with the manufacturing sector representing only 1%.

China's strategy in this case is different from its game plan for dealing with advanced countries. The purchase of foreign enterprises aims not to acquire foreign technologies but rather, preeminently, to secure its supply of raw materials. In these two sectors, mergers or absorptions are proportionally more important than those carried out in the rest of the world, amounting to 15%. Conversely, mergers-absorptions coming from China, in the manufacturing sector, nearly non-existent, are as high as 13% for the rest of the world. Chinese direct investment in the manufacturing sector is principally directed towards Brazil and, to a lesser degree, Argentina.

Is China Responsible for Brazil's Weak Growth and Deindustrialization?

It is unnecessary to refer to the development phases theorized by Rostow in his day to recognize that some paths lead to a future, and others do not. Economies can be sorted into four categories: *1*) lagging economies (emerging or not), *2*) "tigers," *3*) "champions," and *4*) mature economies, using a four-quadrant graph and organizing countries by industrial density measured in added value per inhabitant in dollars on the y-axis and the weight of the manufacturing sector with respect to GDP on the x-axis. The x- and y-axes cross at three thousand dollars and 18%.

Leading emerging economies are located in the first quadrant. Their industrial density is not significant and the weight of manufactures in GDP is likewise weak. This is not the case of the "tigers," whose density is undoubtedly relatively more or less weak, but the weight of manufactures is higher. Their success, in terms of growth, low volatility, and resilience over time, suggests we ought to raise the relative importance of industry. The highest phase is a logical consequence of this elevated growth, but it allows for the effects of relative deindustrialization to become manifest and the weight of services becomes increasingly important. The final phase, in which mature economies find themselves, is characterized by a trend towards secular stagnation. This is especially true of advanced economies (see Figure 4).

Source: Albrieu R. *et al.* (2015). *Argentina: una estrategia de desarrollo para el siglo XXI,* Turmalina edition, p. 54.

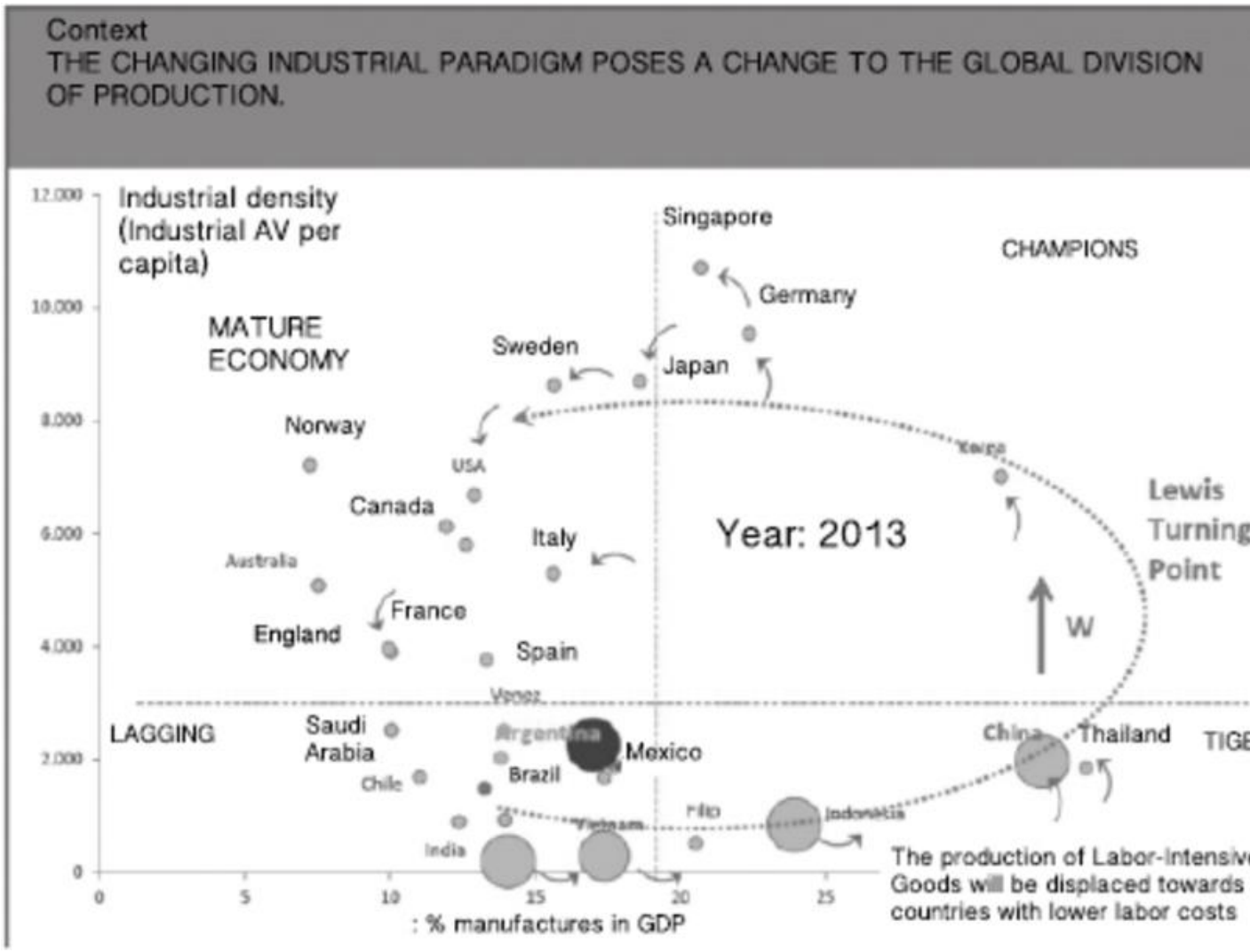

Figure 4. Configuration in 2013

This possible economic trajectory—from quadrant to quadrant—suggests that this figure is an application of Kaldor's law, mentioned earlier. From 1935 to 1980, Latin American economies shifted from left to right and from the bottom (on average) to the top in the first quadrant. They were unable to move into the second quadrant, as South Korea or even Taiwan did in their day. On the contrary, with reprimarization, they moved from the right to the left in the heart of the first quadrant. Thus, must we link the modest, relatively volatile, and rather unsustainable growth of the main Latin American economies to their inability to raise the weight of manufactures in GDP? Can we explain Brazilian deindustrialization by its reprimarization and its increasingly privileged trade relations with China? In a nutshell, then, can we attribute to China responsibility for this weak growth, and now for the crisis that would seem to have been provoked by falling raw materials prices?

Brazil, like so many other countries in Latin America, eluded the external recession thanks to the inflow of foreign capital, rising raw materials prices, and the significant jump in export volumes. This double increase was fed by China's strong, long, and exceptional growth. The abundance of foreign currency ushered in the appreciation of Brazil's own legal tender in the period 2004-2011, which successive administrations have been unable to stem, except erratically from 2011 to 2014, when Dilma Roussef rose to her first term as President of Brazil (see Figure 5).

Source: Central Bank of Brazil

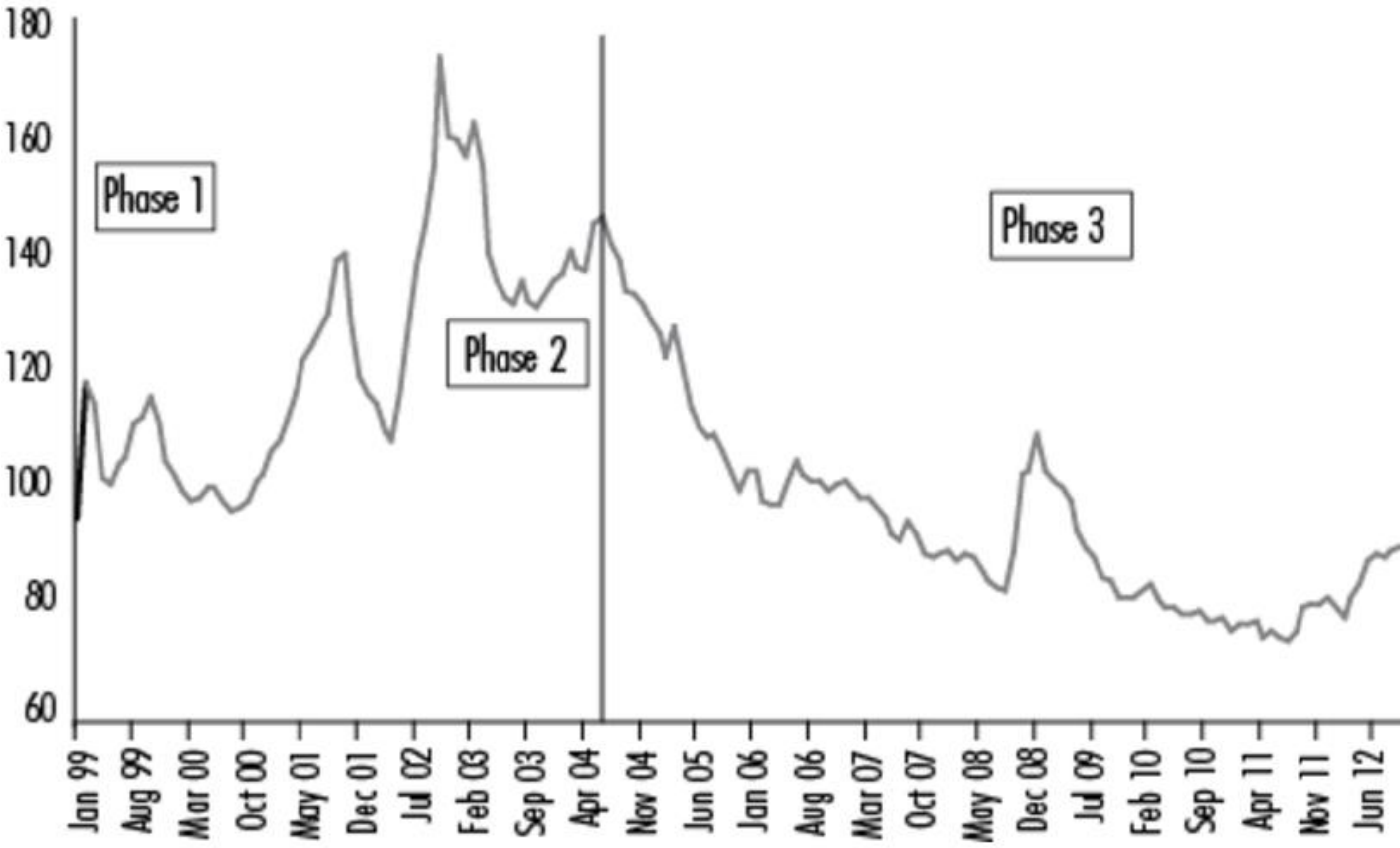

Figure 5. Brazil: Effective Real Exchange Rate, February 1999 to July 2014, Auguring the Crisis (Year 2000 = Base 100)

According to Nassif *et al.* (2015), to help facilitate interpretation of the graph, we must recall that a downward curve means that the national currency appreciated. Exchange rates are expressed in real terms to pay mind to inflation differentials with the United States.

The appreciation of the national currency with respect to the dollar is a barrier to boosting competitiveness, not only because imported products are less expensive, and inversely, exported products more costly, but also because it discourages investment in the highest-risk

sectors, makes way for real estate speculation and, in general, reorients investment towards less risky sectors, and the raw materials producing sector. Lastly, investment barely grows at all and makes it rather difficult to keep the GDP growth rate high (see Table 2).

Table 2. Brazil: Investment and Gross Savings Rates, GDP Growth Rate, 2010-2015

	2010	*2011*	*2012*	*2013*	*2014*	*2015*
Investment Rate	20.5	20.6	20.7	20.9	20.2	18.2
Savings Rate	17.9	18.5	18	18.4	16.2	14.4
GDP Growth Rate	7.5	3.9	1.9	3.0	0.1	- 3.8

Source: IBGE.

The relative weakness of the investment rate in the industrial branch entailed stagnating labor productivity because efforts made in terms of research and development have not been consistent (1% of GDP), especially when compared to South Korea (more than 4%). Labor productivity in the industrial sector has essentially grown little: only 17% between 2004 and 2015. Average real wages rose 34% in the same time period, more than productivity (see Table 3).

Table 3. Productivity and Real Wages in the Transformation Industry in National Currency (Base year 2004=100)

	2004	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*2015 **
Productivity	100.0	102.0	103.5	107.5	107.5	105.5	115.0	115.0	112.5	117.0	117.0	116.0
Wages	100.0	102.5	102.5	106.0	110.0	115.0	118.5	122.5	128.5	132.0	134.0	133.0

*January-August 2015. Source: CEMEC, Note 08/2015.

With a base of 100 in 2004, the non-durable consumer goods import price index was 150 in 2015, on the eve of the crisis and the major depreciation of the real. That of durable consumer goods reached 113, that of intermediate goods 120, and that of equipment goods 100 that same year. Still with a base of 100 in 2004, the unit labor cost index of the transformation industry broadly surpassed that of imported goods to hit 221 (CEMEC, 2015). The three components of the unit labor cost evolved unfavorably (currency appreciation reflected in

import prices, rising wages that outpaced rather weak growth in productivity), and Brazil's competitiveness declined sharply. It is lower than that of sophisticated goods, except in a few sectors, such as aeronautics. Even if we acknowledge that the trade balance of transformation industry products turned negative in 2008, in reality, it subsequently became even more negative until 2014 (with an over 25 billion-dollar deficit).[6] Rising demand in response to higher wages did not help industrial production take off, but rather led to an increase in imports.

Industrial production is stagnating and sinking with the crisis. With an average index of 100 in 2002 (with the slowdown), it hit a peak of 105.5 in June 2013, followed by 99 in November 2014, and 85 in January 2016 and 83 in February 2016. Despite an export revival, the industry continued on the downward trend (IEDI letter, No.726). Disregarding the 2015-2016 crisis, in 11 years, the transformation industry did not grow at all. Once past a certain state of development, it is customary to see a relative decrease of the share of the industrial sector in the GDP in favor of the services sector, without this necessarily meaning deindustrialization.

The term deindustrialization is generally reserved for an absolute decrease in industrial added value and/or a relative shrinking of the weight of national industry in the global industry of open economies. In Latin America, this phenomenon tends to occur much sooner than it has in advanced countries due to the "early" classification used when income per capita at the commencement of deindustrialization is half of the per capita income in advanced countries when the same condition occurred.

The share of the Brazilian transformation industry in the global transformation industry (in added value) was 1.8% in 2005, 1.7% in 2011, after reaching 2.8% in 1980, pursuant to bank information for 2013 from UNCTAD. According to the same source, in China, this proportion was 9.9% in 2005 and 16.9% in 2011. As such, it was relatively lower in Brazil, while it rose considerably in China. Brazilian exports of manufactured products waned in relative terms, going from 53% of the value of exports in 2005 to 35% in 2012, in favor of agricultural and mining raw materials exports. It was not until February 2016 that they began to grow again thanks to a major devaluation and the collapse of raw materials prices, as we have seen.

Conclusions and Reflections to Change the Future

Who made the mistake? Who deserves the blame? China? Or a succession of Brazilian administrations? The deindustrialization observed is reminiscent of "Dutch disease." We know that it is not inevitable. The path to escape the rentier trap is narrow, but it does exist. Brazilian administrations have preferred not to borrow, convinced that raw materials prices

would continue to rise and that this would permit them, without implementing any structural reforms—such as, for example, a profound fiscal reform—to avoid any major conflicts and enact policy oriented towards reducing poverty, while still allowing the top 1% to become even richer. Reprimarization consolidated the rentier behavior present for a long time, a legacy of the past.

Reinvigorating growth through reindustrialization is possible. The raw materials boom seems to have come to an end. Even so, this activity continues to bring a lot of foreign currency into Brazil. This currency could serve as the springboard for more positive insertion in the international division of labor. For those who dream of exporting agricultural products, incorporating more added value, and adjusting to Chinese consumer trends, as forecast by the Institute for Research in Applied Economics (IPEA). More generally speaking, reindustrialization will require five conditions to be met: *1*) a significant increase in labor productivity, reducing the unit cost of labor; *2*) challenging the logic of rentier economies that limit investment rates to a minimum, to a portion congruent with a State industrial policy to help cutting-edge sectors—and not the entire industry—,which may temporarily need protectionist measures; *3*) an active policy designed to neutralize currency appreciation; *4*) fiscal reform to close the income inequality gap and boost the purchasing power of the most vulnerable and poor classes and the lower middle income strati (emerging) and fund quality public services (education, health…); and *5*) a policy that facilitates access to credit for the most vulnerable and poor swaths of society. If just one of these conditions is not met, the success of a growth policy driven by domestic market dynamics could be jeopardized.

International Institutions

OCDE: www.oecd.org

Cepal: www.eclac.org

BID: www.iadb.org

ADB: www.adb.org

[1]Translation into Spanish by Marcia Luz Solorza, Professor at the Faculty of Economics, National Autonomous University of Mexico, UNAM.

[2]Soy production has taken off in Brazil. In 1980-1981, production amounted to 15.2 million metric tons. By 2014-2015, the figure reached 100 million metric tons, half of which were exported, principally to China, which at that time was importing 78.4 million metric tons (see the Commodity Market Outlook, Quarterly Report, World Bank, Jan. 2016).

[3]The outlook is rather pessimistic. Chinese consumption of iron ore is certainly considerable: 43.9% of average global consumption between 2010 and 2014 (between 1990 and 1994, the average was only 6.4%), but it has tapered off drastically in recent years, due to oversupply in the iron and steel sector.

[4]See E. Dussel Peters and S. Ortiz Velásquez (coords.). OFDI Monitor for China in Mexico, num. 1, March 2016.

[5]It was not until the second semester that the deficit leveled off, following peak currency depreciation (from October 2014 to October 2015, currency depreciation reached 47.24%, according to the Central Bank, and is 37% in real terms), and exports fell less than imports. It was towards the end of 2015 when exports started to pick up again, over the months, with increasing strength. The negative trade balance is becoming increasingly positive despite falling raw materials prices. In March 2016 alone, it was 4.43 billion dollars.

Bibliography

Banco Mundial (2016), Commodity Market Outlook, Quaterly Report, January.

BU, Global Economic Governance Initiative (2016), "China Latin America Economic Bulletin", disponible en <https://www.bu.edu/pardeeschool/files/2016/04/China-LAC.Bulletin_2016.pdf>

Cardim de Carvalho, Fernando (2016), "The Narrow Path for Brazil", *Levy Economics Institute for Bard College, Policy Note,* Estados-Unidos, pp. 1-10.

China-Latin America Economic Bulletin (2016), "Global Economic Governance Initiative", *Discussion Paper*.

Costa Pinto, Eduardo y Reinaldo Gonçalves (2015), "Globalização e poder efetivo: transformações globais sob efeito da ascensão chinesa", *Economia e Sociedade, Campinas*, Unicamp. IE. v. 24, n. 2 (54), Brasil, pp. 449-479.

Dussel Peters, Enrique (2016), "A relaçao de comercio e de investimentos de América Latina com a China (2000-2012), uma nova forma de dependencia", *Revista Tempo du Mundo*, Brasil, IPEA, vol. 2, núm.1, pp. 123-142.

Dussel Peters, Enrique y Samuel Ortiz Velásquez (2016), *Monitor de la OFDI de China en México*, año 1, núm. 1.

Foster, Magdalena (2015), "China rebalancing: Blessing and Curse for Latin America *Research Briefing*", *Emerging Markets*, Deutsche Bank Research, pp. 1-6.

Hiratuka Célio y Fernando Sarti (2016), "Relações econômicas entre Brasil e China: análise dos fluxos de comércio e investimento direto estrangeiro", *Revista Tempo du Mundo*, Brasil, IPEA, vol. 2, núm. 1, pp. 83-98.

Kevin,P. Gallagher (2016), *The China Triangle: Latin America's China Boom and the Fate of the Washington Consensus*, Oxford, Oxford University Press.

Macedo Cintra, Marcos Antonio y Eduardo Costa Pinto (2013), "América Latina y China en el siglo XXI: complementariedades y rivalidades", *Revista Vozes en el Fenix*, Brasil, pp. 86-95.

Nassif A, Feijo, C., Araujo, E. (2015), "Structural Change and Economic Development: Is Brazil catching up or falling behind?", *Cambridge Journal of Economics*, 39, pp. 1307-1332.

OCDE/Cepal/CAF (2015), "Perspectivas económicas de América Latina 2016: Hacia una nueva asociación con China", OECD Publishing, Paris.

Salama, Pierre (2012a), "China-Brasil: industrialización y desindustrialización temprana", *Cuadernos de Economía*, 31(56), Colombia, pp. 223-252.

_____ (2012b), "Globalización comercial: desindustrialización prematura en América Latina e industrialización en Asia", Comercio Exterior, vol. 62, núm. 6, México, pp. 34-44.

_____ (2012c), "Una globalización comercial acompañada de una nueva distribución cartográfica", Economía Institucional, vol. 14, núm. 27, Colombia, pp. 57-80.

_____ (2012d), Les économies émergentes latino-américaines, entre cigales et fourmis, Armand Colin, Collection U, publication en cours en espagnol (2016) con postfacio, Universidad de Guadalajara.

_____ (2015), "China-Brasil, una comparación instructiva", Foro Internacional, vol. LV, núm. 220, México, pp. 515-624.

Trebat, Nicholas y Carlos Aguiar de Medeiros (2014), "Military Modernization in Chinese Technical Progress and Industrial Innovation", *Review of Political Economy*, Inglaterra, vol. 26, Issue 2, pp. 303-324.

Vieira Pedro, Abel, Antônio Marcio Buainain y Eliana Valeria Covolan Figueiredo, (2016), "O Brasil alimentará a China ou a China engolirá o Brasil?", *Revista Tempo du Mundo*, Brasil, IPEA, vol. 2, núm. 1, pp. 51-82.