Rise and fall of Brazilian industry: what can we learn from China?

Joyce Helena Ferreira da Silva[i]

Resumo: o artigo tem como objetivo indicar as principais debilidades que fizeram a indústria de transformação brasileira atingir os patamares mais baixos da série histórica, voltando aos parâmetros de 1947. Em perspectiva comparativa, será feita a análise do êxito da industrialização chinesa, apontando possíveis lições do país asiático para a experiência brasileira, dadas as particularidades de cada realidade.
Palavras-chave: Desenvolvimento. Industrialização. China. Brasil. Política Econômica.

Abstract: this paper aims to indicate the main weaknesses that made the Brazilian manufacturing industry reach the lowest levels in recent history, returning to the parameters of 1947. In a comparative perspective, it will be made the analysis of the success of Chinese industrialization, pointing possible lessons for the Brazilian experience, given the particularities of each reality.
Keywords: Development. Industrialization. China. Brazil. Economic policy.

Artigo recebido em 05/11/2019 e aceito em 27/11/2019.

1. INTRODUÇÃO

The theoretical framework that analyses the concept on industrial policy is quite vast and hetereogeneuos, being a controversial subject that puts on opposing sides the orthodox and heterodox poles of Economics. In a specific way, this paper aligns itself to the perspectives that identify in industrial an important vector of development, considering industry as the dynamic engine of the process.

After the Second World War, the study of the conditions that could lead to economic development or, in similar way, the inquiry into the causes and possibilities of surpassing underdevelopment were the agenda's top at the time. The USSR, Japan and South Korea's evolution – being the most classical examples – brought new parameters, which indicated what was feasible to reduce the economical-technological gap that separated the countries of capitalism's core and periphery. A large part of these evaluations however, did not pay attention to observe the dependent character of the peripheral countries, in which even with a period of industrial transition, maintained themselves attached financially, technologically, commercially and politically to the core's interests.

In some Latin-America experiences, the convergence with the developed world did not happen; being this a parameter of systematic contradictions that impede some countries may advance inside the capitalist mode of production. In the Chinese case, their project, distinct of international institutions' neoliberal policies, obtained success in reaffirming their position in the international economic-political structure, in reducing the technological gap and the autonomous production of technology and broadening of the domestic market, with substantial wage gains.

In Brazil, the industrial sector's fluctuations have strong relation with State policies and action, showing signs of discontinuity. In this way, the historical analysis shows that there were periods of incisive State participation in designing and executing programs for industry, and moments of strong withdrawal of governmental action, whether by problems of macroeconomic instability that put industrial policy in the background, or by adoption of an ideological deliberate approach, more precisely, neoliberalism's advance and the policies of unrestricted open-up in the 1990s. It is important to point that the model of substitution of imports, adopted in Brazil, showed several shortcomings, producing its own burnout and a series of problems derived from the very process.

The model of substituting imports wasn't capable of modifying substantially Brazil's economy in the International Division of Labor, as the structuralist theory predicted, nor in acquiring concrete gains to the working class. According to Marini (2005, p.166), industrialization didn't impacted decisively enough to change the conditions of development in Latin-American countries:

> Despite the significance that was industrial development in the heart of the exportation economy (and, consequently, in the extension of the internal market), in countries like Argentina, México, Brazil and others, they never became a truly industrial economy that, by defining the character and orientation of capital's accumulation, could also produce a qualitative change in the economic development of these countries. Instead, industry continued to be an activity subordinated to production and exportation of raw materials, that in fact constituted the vital center of the process of accumulation.

With regards to these considerations, the present paper proposes to analyze the process of industrialization in Brazil and China, studying successes and flaws of each one. Understanding that to comprehend China is an exercise that exceeds the pure analysis of the facts, political and economical data, demanding beyond that, the perception of subtle nuances, somewhat subjective. This subjectivity is exposed in a distinct rationalization of social organization, paved by a mentality that ensures the formation of an unique moral system, orientating political action effectively.

China's rise is one of the major events of the 21st Century; however, this economy's magnitude is not an unique phenomenon in history. The evaluation of industrial policies and also, the contemporary dynamics of Chinese development (after reforms of 1978) can't be separated from the previous processes. In this sense, it is necessary to acknowledge China's predominance before the Industrial Revolution, phenomenon that puts Europe in the center of the world economic order, as well as the accumulation of capital promoted after 1949. According to Gunder Frank, the World-Economy is made of several cores, all integrated inside the same global order. According to him, the world's most predominant economic center during a long time was China, not Europe.

> Ming and Qing China experienced massive increases of production, consumption, and population, which were only briefly interrupted at the time of the Ming/Qing transition in the mid-seventeenth century. [...] China was unrivaled in porcelain ceramics and have few rivals in silk, which was China's largest export product (FRANK, 1998, p. 111).

The revolutionary vanguard of the industrial workers was not a reality in the Chinese Revolution of 1949, as it hadn't also been in the Russian Revolution of 1917. Being predominant agrarian countries, the peasants were the class that lead the process and, facing the necessity of primitive accumulation of capital through agriculture, the allocation of resources and the very dynamics of socialist accumulation acquired singular characteristics.

It is in this phase that the socialist transition can be identified, in which the economic pillars are (i) agriculture's collectivization and (ii) industrialization following the Soviet model – with relevant technical aid. This model has as characteristic the industry's monopoly by the State, the mobilization of resources for a rapid growth through heavy industry (*big push development strategy*)**,** to the detriment of light industry, and the fundamental adoption of central planning through the formulation of Five-Year Plans (FAIRBANK; GOLDMAN, 2006).

To properly grasp the size of China's industrialization effort, the participation of the State's investment in the GDP since the 1950s until today in poor countries is on average 20% (during phases of economic booms); in China, in 1954, investment was already above 26%. Of these, 80% were destined to industry, especially heavy industry. In China after the opening-up, public investment reached 40% of the GDP, while this remains one of the largest holes of Brazil's economy (NAUGHTON, 2007).

A key point to understanding Chinese economy is the role of consumption and creation of new products as a social necessity – that may seem aspects of capitalist accumulation; however, this process occurs simultaneously with a robust broadening of the working class' power of consumption, a deliberate policy of real wage gains, enlargement of social security, strongly reducing inequality, and with a memorable presence of the State through planning and enterprise's ownership in key sectors (POMAR, 2015; KENNY, 2008).

In a comparative perspective inside Socialist, it would be possible to relate the Deng Xiaoping of 1978 to the measures taken by Lenin during the establishment of the New Economic Policy (NEP) in 1921? Kenny (2008) argues 'yes', understanding the NEP created in the USSR a kind of State capitalism: (i) the establishment of joint-ventures and concessions to foreign companies; (ii) cooperatives based on market's mechanisms; (iii) formation of technical cadres with management and capitalist organization; (iv) the lease of State-owned companies and natural resources to private national and foreign companies. With this, it is fundamental to demarcate the constant indication by media and academics, that China is a country that is passing to a transition to capitalism, is in fact an erroneous understanding of the complex Chinese project.

Through these initial considerations, this paper proposes to put into perspective the agendas of industry in Brazil and China in the period that comprises, especially, the 1970s until the contemporary period. With this, we plan on giving visibility to the flaws that allowed the dismantlement of Brazilian industry and the mechanism that led the Asian country to a successful model, not only in the enlargement of the technological border and productivity gains, but also in the quality of life of the participating working class.

2. BRAZILIAN INDUSTRIALIZATION'S MISTAKES

From the 1950s onwards, there is a more clear, well defined strategy of development led by the State, being created a orientation for establishment of specific industries. It is here that happens the transition of the period of industrial growth to the phase of effective industrialization, as a conscious and organized project. From this moment on, the State's expenditure shows bigger participation in the total investments, according to data present by Furtado (2007, p. 227), in the early 1960s, total State investment in Brazil was 39,2% of the total; by the end of the same decade, the State was responsible for more than over half the total investment, with 52%.

Therefore, it is from this moment that a clear option for public investment exists, with the creation of State-owned companies, especially, in the energy sector, and also of a national development bank in 1952 (BNDE). This political orientation for investments through public companies is reinforced with the execution of a law, launched in 1951, that resulted in 1953, in the creation of Petrobras, venture with public and private capital, with most shares being owned by the government (SKIDMORE, 1982). Until the early 1960s, the trade and exchange policy were directed for the two roles (i) of impeding a crisis in the balance of payments, and also (ii) promote a process of substituting imports (MOREIRA, 1999, p.98).

The difficulties on the balance of payments produced restrictions to imports. However, "industrialization relied on the capacity of buying basic equipment and raw materials necessary abroad. On its turn, this question remained dependent on the Brazilian capacity of producing foreign currency or else, fall into foreign debt" (SKIDMORE, p.122). Despite the difficulties on the balance of payments referring to the generation of foreign currency, and the wavering of the rules of commerce in international trade, Brazil was able between the 1950s and 1960s to build an industrial structure of great proportions.

Even with evident hardships, this allowed some broadening of the internal market, even if it had as its core base a determined group of consumers, and in favorable conditions also had the elastic offer of labor force.

With these conditions, the rise of a Brazilian industrial park wasn't able to revert underdevelopment, as the CEPAL's theorists predicted. This happened understanding that industrialization wasn't capable of breaking with dependence. This explanation concerns the question of economic surplus of periphery countries towards the central ones. Paul Baran (1986) indicates that one of the main problems of capitalist accumulations in underdevelopment countries is the scarcity of investment for the enlargement of the productive apparatus:

> […] despite what commonly is reffered in Western literature about underdeveloped countries, the main obstacle to their development is not capital's scarcity. What is scarce in all these countries is what we call economic surplus effectively invested in the enlargement of their productive apparatuses […] the main obstacle to the rapid growth of backward countries is the way their potential economic surplus is used. It is absorbed in several manners of sumptuary consumption of the capitalist class (BARAN, 1986, p.203).

In this same process, industrialization, especially in Latin American countries, happens with lower technological level and lower productivity to the central countries. This mechanism makes that, even with an industrial base, a transfer of economic surplus happens from the periphery to the center, by the logic of labor's super exploitation, key aspect of dependency. In this point, we can present another debility of Latin-America's industrial formation:

> Latin American industrialization happens above distinct bases [of the central countries' conditions]. The permanent compression that exporting-oriented economy produced into the worker's individual consumption didn't allowed more than the creation of a weak industry, that only expanded when external factors partially closed the access of the high sphere of consumption to imports. It is the incidence of these factors that accelerates industrial growth […] and also provokes the qualitative change in dependent capital. Therefore, Latin American industrialization doesn't create, as in the classic economics, its own demand, but it is born to fulfill a pre-existent demand, and will build itself according to advanced countries' market demands (MARINI, 2005, p.170).

Let us look closer why Brazilian industrialization fulfills a pre-existing demand, being tied to the movements of capitalism's core. It was developed, in Brazil, a pattern of accumulation between the 1950s and 1970s that brought monopolistic capital, with notable participation of multinational companies. This movement, besides weakening the growth of national ventures, also strengthened Brazilian economy's relation to foreign capital. This process coupled with the low productivity levels and gains through super-exploitation of labor, with low wages and extended working hours. Such process generated a rupture between worker and consumer, that didn't ensured an expansion of the internal market that was correspondent with the industrialization effort.

Capital's centralization also shows itself as one of the interpretations regarding the hyperinflation that afflicted the country from the 1980s, often referred to as "The Lost Decade". When looking at foodstuff's supply, Ignácio Rangel (1963) understands that oligopolies' actions always followed a policy to increase their profit rates, both in moments of economic growth and crisis. Understanding that foodstuff's demand was inelastic, there would be more 'aggressiveness' of these producers on their attempts to seize more gains, in that case, such process would be aggravated in the context of hyperinflation, deepening it even more.

Such aspect indicates that microeconomic components, like market structures, would be capable to explain the inflationary question in Brazil, when noting that oligopolies are intrisically inflationary, since they (i) would be less tolerant to costs' rise, with bigger power to transfer such costs to the final price of products and (ii) are less hurt by the constricting monetary policy adopted in scenarios of inflation (RANGEL, 1963; MODENESI et al., 2012; MORENO, MODENESI, 2014).

In the 1990s, there was an acceleration of the process of economic open-up, that became more intense and imposed into Brazilian companies a (not always possible) fitting need from the standpoint of competitiveness and eficiency, keywords of the 'new policy' for industry. In this research, we don't agree with that this constitutes an industrial policy, understanding that, distinctively from what was seen in the previous decades, there was no clear project for national industry. What was put on the agenda was the abrupt competition with foreign adversaries and the liquidation of important State-owned assets, through a wide privatization program, also under the excuse of private capital's efficiency.

The table below, based on Lyra's work (1996), shows objectively the liberalization process of Brazilian economy, with very different contours of what was practiced in the Asian case. Here, there was a broad fiscal loosening to bring foreign capital, however, without the countermeasures to ensure technological transfer or partnerships with local companies. The policies applied during the 1990s also happened together with a privatization process: between 1991 and 1994, 30 State-owned companies were sold in important sectors like steel, petrochemical and fertilizers (Ibidem).

Table 1. Changes in Taxes and Regulation of Foreign Direct Investment in the 1990s

Supplementary Tax of Income	Elimination of the 40-60% tax regarding dividends that exceed 12% of capital	Law nº 8 383/91
Income Tax regarding Dividends	Tax reduced from 25% to 15%	1993
Income Tax regarding Gross profits	Eliminated	Law nº 8 383/91
Prohibition of royalties' payments and technical aid provided by subsidiaries to headquarters	Eliminated	Law nº 8 383/91
Register of financial profits as foreign capital	Eliminated	Circulary Notice BACEN nº 2 266/92
Temporary prohibition of shipping dividends to the Central Bank's record update	Eliminated	Circulary Notice nº 2 165/91
Market share for national companies in industries of electronics	Eliminated	Circulary Notice nº 8 248/91

SOURCE: Adaptaded from Lyra (1996, p. 12).

In this way, flexibilization in favor of foreign capital didn't occured as a process continuing from the previous model, understanding that national companies didn't had the competitive capacity to bear such a change. As an example of this policy's effects in Brazilian industry, "out of the 9 biggest national groups that, during the 1980s, advanced towards new technology intensive sectors, five of these retreated immensely in these strategies, while the other four had their positions weakened" (SILVA; LAPLANE, 1994, p.88).

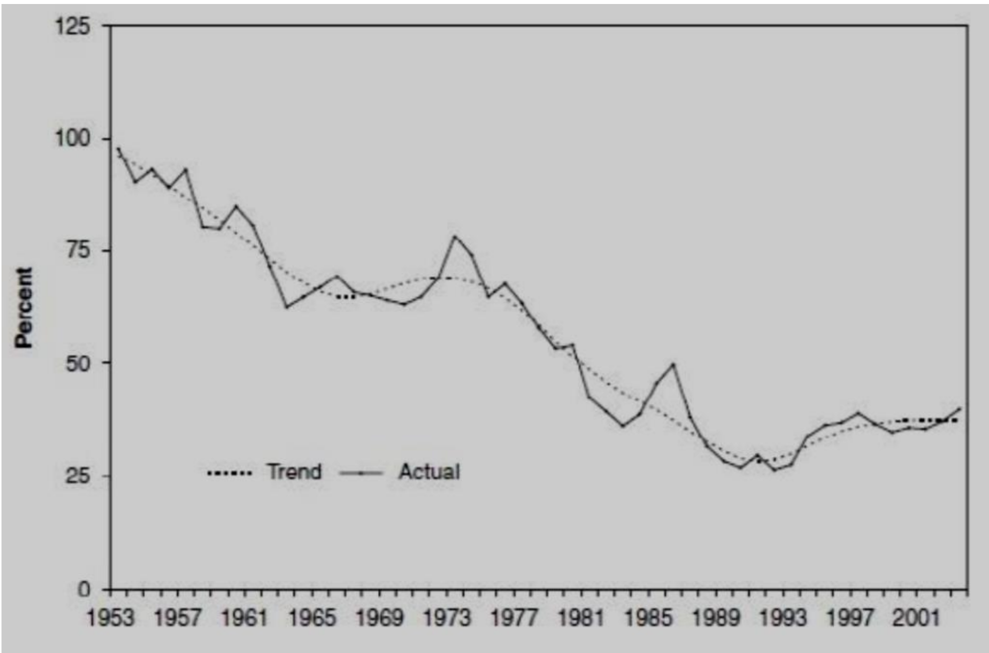
In short, the main barriers to Brazilian industry's strengthening were: the disarticulation between (i) industrial policy and international context; (ii) industrial policy and the action of transnational companies; (iii) industrial policy and financing; (iv) industrial policy and regional disparity and, finally, (v) industrial policy and the formation of a more robust national system for innovation. Regarding this last element, some further commentary is needed.

The model of substituting imports brought in its execution some flaws. Namely, the question of importing machinery and the establishment of foreign companies in Brazil. It was from these two pillars that a technological transfer occurred, that reiterated a dependent relation of technologic progress, being this progress merely transported from other countries, but incapable of creating national technology.

The Brazilian technological policy gained bigger advancements in the State-owned sectors, especially oil, mining, telecommunications and aerospace. In contrast, what was a barrier in establishing a national system for innovation was: (i) macroeconomic instability of the 1980s and 1990s; (ii) short-term economic policies; (iii) fiscal weakness; (iv) productive sector's crisis and its privatization; (v) the small scale of national private groups; (vi) low cooperation between companies; (vii) low capacity of international penetration; (viii) absence of a system of private/non-university research institutes and (ix) inconformity of the institutional apparatus of Science and Technology (PACHECO, 2007, p.9).

Another fundamental factor is the comprehension of the financial sector's growth. There is a class configuration that behaves in different manners in accordance with the economy's fluctuations. The moments of conciliation happened during a tendency of favorable economic cycles, such as the improvement in exchange during the Vargas and Lula governments. In periods of the falling rate of profit, class struggle exacerbates, making that political associations organize themselves to launch rough projects for the working class, like in 1964 and, more recently, 2016. During the period analyzed in this topic, more precisely, between the 1950s until 2003, Brazil's rate of profit has the following behavior.

Graph 1. Average rate of profit in Brazil between 1950 and 2003



Source: Marquetti; Maldonado; Lautert (2010, p. 492).

The graph above shows that, in the early 1960s, there is a steep drop of the country's rate of profit and, in the same period, class struggle is deepened, consolidating the political power of the ruling class through the military *coup d'état*:

> In 1964, a military coup overthrew the left-wing government, restoring capitalist power, carrying out institutional reforms, and launching a

> stabilization program to control inflation. Insofar as the reforms are concerned, the most important ones were implemented in the years 1964-1965 which reshaped the financial markets, the tax system, and labor markets. The labor market reform plus the repression against labor unions and the left-wing political parties led to the increase in the rate of surplus value (MARQUETTI; MALDONADO; LAUTERT, 2010, p. 487).

Another noteworthy phase of Brazilian economy's re-estructurization was through the policies of the 1990s, when during the Fernando Henrique Cardoso presidency the neoliberal project was consolidated. It is in this phase, more precisely since 1999, that the macroeconomic tripod is solidified (establishing inflation goals, primary fiscal surplus and floating exchange), which is put as the maximum priority of the government.

The great difficulty created around the macroeconomic tripod is that it produced a harmful dynamic to the Brazilian economy, leading to the formation of a negative tripod: high real interest rates (favorable to financial speculation), the exchange rate's appreciation (harmful to the national industry) and low or hard to maintain economic growth (NASSIF, 2015). The intertwinement of economic policy's questions (high interests rates and valued exchange rate) with financial capital's strengthening and high commodity prices produced a primary sector trap for the Brazilian economy, making that industrial policies adopted between 2008 and 2014 were neutralized. Concerning this, our interpretation converges with Leda Paulani's (2012, p. 94) analysis:

> Before the 2008 crisis, the high real interest rates coupled with gains in derivative markets produced by the continuous valorization of our currency made the country the paradise of rentiers' gains. Soon after the crisis, the modest Real's devaluation weren't enough to compensate the high interest rates that still exist inside internally: despite its fall through 2009 they continue to be extremely attractive, in a moment of derisory or even negative […] The combined result of these movements couldn't be another: the Brazilian economy drowned in dollars and the domestic currency in a permanent state of overvaluation. From the productive sectors' standpoint, this means deindustrialization and reprimarization of the country's exports.

The elements organized in this section are enlightening regarding the last results of transformation industry's participation in the GDP. In 2018, the sector represented only 11.3% of Brazil's GDP, being this the worst result since 1947. Industrial activity currently employs about 9.4 million workers, and is responsible for 20% of the formal labor market

(CNI, 2019). In a context of precariousness, industry's withdrawal becomes even more severe in its social impacts. Even in such a small level, it is possible to check through the following table, this sector's impact in the economy:

Table 2. Profile of Brazil's Transformation Industry in 2018

Transformation industry accounts for	**Multiplier effect**	**Average wage in transformation industry**	**Average wage in other activities**
62.8% of private investment in R&D	For each R$ 1 produced in industry, R$ 2.63 are generated in the economy	Workers with higher education gain, on average, R$7.316	Workers with higher education gain, on average, R$5.750
26.5% of Federal Taxes' income (except social security's income)	In agriculture, each R$1 produced generates only R$ 1.66	Workers with full high school education gain, on average, R$2.337	Workers with full high school gain, on average, R$ 2.110
20.2% Social Security's income	In trade and services, each R$1 produced generates an impact of R$ 1.49		

SOURCE: Confederação Nacional da Indústria[ii] (2019)

2. THE SUCCESSES OF CHINESE INDUSTRY

In this paper, we will not make a historical analysis defining all the process of China's industrializaiton and modernization, themes already widely studied. We will highlight the State's role in conducting industrialization and utilizing industrial policies together with a general picture of economic development.

In its initial phase, the reform established collectivization's end in rural areas, the opening up to foreign investment and private capital, despite large industries remaining under State control. From this, the basis of an industrialization model that privileges exports is built up, and having as a keystone the creation of a favorable institutional environment with currency devaluation (PINGYAO, 2004).

The first stages of the reform had as a key target the areas of agriculture and foreign trade, especially during 1978-1984. Macroeconomic and macrossocial planning were brought together with market mechanisms, that gave the foundations for economic calculations, being the State the caretaker for market deviancies and also a guide for ensuring this process was directed to general development strategies. It is fundamental in this dynamics the maintenance of State-owned monopolies in strategic areas, especially in sustaining lower living costs through administrated prices in basic commodities like foodstuff and transports (POMAR, 2003).

Between the 1980s and 1990s, the country kept an average growth rate of 9.5%, although it must be recognized that, between 1965 and 1980, economy was already growing at an annual rate of 6.5%, which is no trivial data. Once more, agriculture was fundamental to Chinese industry's strengthening – in the Mao era for widening the basic sectors, and after 1978, to the consolidation of consumer goods. Through reforms, agriculture's mechanization and the creation of a agro-industrial complex allowed light industry's expansion (MEDEIROS, 1998).

China guided its industrial development in the post-reform period following these pillars: (i) structural change; (ii) State-owned properties and State controlled economic activities; (iii) State capacity and (iv) evolution of consumer demands (LO; WU, 2014). The table below explains each one of these bases:

Table 3. Chinese development's structure

Structural change	Transition of a labor-intensive industrialization in the first phase (1978-1992) to a capital-intensive model (1992-ongoing)

State-owned property and State control over economic activities	State property's predominance in the first phase of reform with low participation, albeit a relevant one in the second phase (1992-ongoing). State control over financial resources' allocation and major participation of State-owned banks.
State Capacity	Power's decentralization as a characteristic of economic transformation, being local government important economic players.
Demand's evolution	Chinese development was conducted, at first, by the bigger participation of consumption in the aggregate cost and, after the 1990s, by investment and, to a lesser extent, in exports. In this movement, the end consumption's participation in the aggregated cost was over 10% between the late-1980s and mid-1990s.

Source: Adapted from Lo; Wu (2014). Author's elaboration.

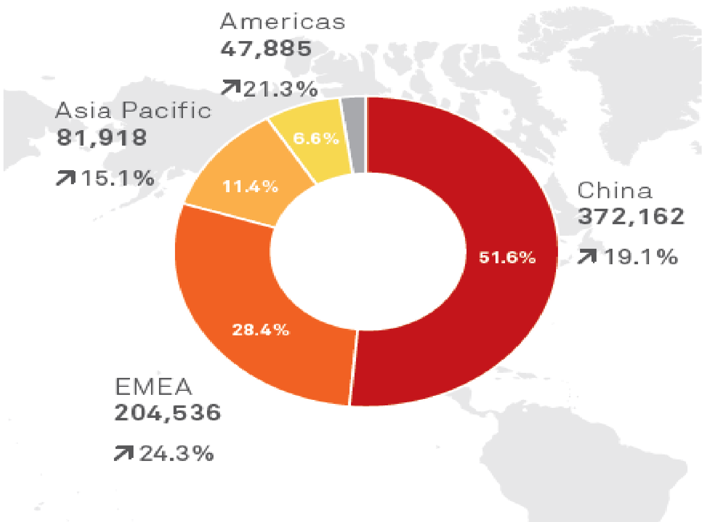
This "structural change", that marks the transition of a labor-intensive industry to a capital-intensive one, was facilitated by industrialization's effort previous to the reforms, between the 1950s and 1970s. In other words, this labor-intensive form and the widening of consumption in aggregate cost had their bases built upon heavy industry. Concerning State-owned property, State companies and public Chinese banks[iii]:

> […] were responsible for sustaining the existing pattern of egalitarian income distribution. They provided job security and social services for virtually the entire urban population, thus fostering the "consumption revolution", which was essential for the industrialization drive of that period (LO; WU, 2014, p. 314).

The Chinese NIS is propelled after 1985, when the organization of the Academies and Research Institutes is reconfigured, promoting reforms that, gradually, integrate the process of catching up to industrial diversification. In 2004, the strategy for science and technology gained new impulses, starting to prioritize the necessary transformations for key-sectors of Chinese industry. The National Innovation System becomes robust because of its (i) wide availability of funding, (ii) its coordination with macroeconomic policies, (iii) harmonization with trade policy, (iv) capacity to attract foreign investments and (v) its impact in gains of China's competitiveness in international trade (JAGUARIBE, 2015).

The NIS' success is noticeable by the advancement of Chinese companies, especially in high technology sectors. In R&D for example, Huawei invested in 2018 approximately 10% of their annual gross, making it the fifth company that invest the most in research in the world (HUAWEI[iv], 2018). The graph below shows that, between 2017 and 2019, Huawei obtained an important growth in several parts of the world. In China, the revenue's increase was 19.1%, while in the American continent, revenue increased 21.3%.

Gráfico 2. Huawei's annual revenue (2017-2018)



Source: Huawei Investment & Holding Co., Ltd. 2018 Annual Report

Differently from Brazil, the process for industrial strengthening in China was fundamental in their "*going global*" strategy (MASIERO; COELHO, 2014). In this sense, industrial policy wasn't disconnected from a repositioning in the International Division of Labor, especially when striving for the growth of capital-intensive sectors. Between 1990 and 2009, China gained an average of 46% of the industry's participation in the

GDP (WORLD BANK, 2011 apud MASIERO; COELHO, 2014). Basing on a conscious industrial policy focused on broadening competitiveness in international trade, Masiero and Coelho (2014, p.151) identify that:

> The transformations verified in Chinese's industrial structure, mainly in their metal-mechanical, eletroeletronic and chemical sectors show that the country's industrial policy was the key factor in their international going global strategy. Through industrial reorganization (consolidation and efficiency), technological development and quality supply capacity, quantity and price, combined with a policy for attracting investments, China consolidated, at the end of the 2000s, an internationally competitive industrial fabric, capable of not only attracting foreign companies to produce in their country, but also to articulate them with Chinese ones and, mainly, making them capable of developing technologies in and through China.

Facing these evidences, it is observed that China articulates a gradual movement of widening their productive capacity, giving attention to strategic sectors, of high technology, through the strengthening of national companies that could obtain competitiveness in other markets. Through the points made in this section, it is possible to go to the final considerations, making a brief comparison between the Brazilian and Chinese experiences.

3. FINAL CONSIDERATIONS

In comparative terms, it is important to highlight that the two experiences in question adopted a model of industrialization led mainly by the State. To Brazil, however, the discontinuity of industrial policies (first because of the macroeconomic instability and, later, by the neoliberal rupture) made that it wasn't possible to break free from the subordinate position in the International Division of Labor. More than that, it is fundamental to highlight that the structuralist diagnosis, that is, industrialization itself was capable of modifying the level of development of Latin-American countries, was wrong. Dependency of the countries of the region not only was maintained, but also deepened with industrialization, given the relation tying not only the technology produced in capitalism's core, but also from the capital exported from these countries.

While China imposes conditions to foreign capital that enters the country, benefiting from the worldwide changes in value chains, Brazil receives multinational companies that, in general, have no relation of subordination to transfer technology. Without effective control of shipping profits there is the favoritism of expropriation of the economic surplus that could enlarge the process of internal capital accumulation.

Planning is another instrument that was common to both processes. In China, this meant coordination between the government and economic agents, and also between the industrial policy and a broader plan of development, with the substantial widening of the domestic market. In Brazil, economic planning is less efficient, having been practically abandoned by the early 1980s. The industrial policies of the 2000s are so fragile in their mechanisms of execution of counterparts, shy in goals and unarticulated in the economic policies that, as we tried to demonstrate, have formed obstacles to economic growth overall.

Notes

[i] PhD in Political Science at Federal University of Pernambuco. Professor of International Relations at Faculdade Damas (Recife-PE) and associate researcher at Institute of Asian Studies (UFPE). Email: joyce.hfs87@gmail.com.

[ii] Available in: < industriabrasileira.portaldaindustria.com.br>. CNI/DDI/GPC/Coordenação de Divulgação. Updated em 10/22/2019. Acess in October 25 2019.

[iii] Os bancos chineses ocupam posição de destaque no ranking das principais empresas do mundo. Segundo a Forbes (2018), ICBC, China Construction Bank e Agricultural Bank of China são as três empresas de maior poder econômico.

[iv] Huawei Investment & Holding Co., Ltd. 2018 Annual Report.

References

BARAN, P. A economia política do desenvolvimento. 2ª edição. São Paulo: Nova Cultural, 1986.

COELHO, D. B.; MASIERO, G. A política industrial chinesa como determinante de sua estratégia going global. In: Revista de Economia Política. Vol. 34, nº 1 (134), pp. 139-157, janeiro-marco, 2014.

FAIRBANK, K. J.; GOLDMAN, M. China: a new history. London: The Belknap Press of Harvard University Press, 2006.

FURTADO, J. Quatro eixos para a política industrial. In: Fleury, Maria Tereza Leme; Fleury, Afonso (orgs.). Política Industrial 1. São Paulo: Publifolha (Coleção Biblioteca Valor), 2004.

JAGUARIBE, A. Capacidades estatais comparadas: China e a reforma do Sistema Nacional de Inovação. In: Texto para discussão, n. 2085. Instituto de Pesquisa Econômica Aplicada. Brasília: IPEA, 2015.

KENNY, T. Lições da NEP soviética para Economia Socialista de Mercado da China Popular. 2008. Disponível em: <http://www.histsocialismo.com/docs/NEPsovietica-ESMChina.pdf>. Acesso em: 27 Mar. 2017.

LAPLANE, M.; SILVA, A. L. G. Dinâmica recente da indústria brasileira e desenvolvimento competitivo. In: Revista Economia e Sociedade, nº 3, 81-97p., 1994.

LO, D.; WU, M. The State and industrial policy in Chinese economic development. Disponível em: <http://www.ilo.org/global/publications/books/WCMS_315676/lang--en/index.htm>. Acesso em: 27 Abril 2017.

LYRA, F. T. A política industrial brasileira: mudanças e perspectivas. In: IPEA. Brasília. Texto para discussão nº 413, Maio-1996.

MARINI, R. M. Dialética da dependência. In: STEDILE, João Pedro; TRASPADINI, Roberta (org.). Ruy Mauro Marini: vida e obra. São Paulo, Expressão Popular, 2005.

MARQUETTI, A.; MALDONADO, E.; LAUTERT, V. The profit rate in Brazil, 1953 - 2003. In: Review of Radical Political Economics, nº 42, p. 485- 504, 2010.

MEDEIROS, C. A. Notas sobre o desenvolvimento econômico recente na China. Instituto de Estudo Avançados USP, São Paulo: 1998.

MODENESI, A.M.; PIRES-ALVES, C.C.; MARTINS, N.M. (2012) "Mecanismo de transmissão de política monetária: a importância dos fatores microeconômicos". Oikos, 11(2): 203-216.

MODENESI; A. M.; MORENO, O. P. (2014) Rev. Econ. Polit. [online]. 2014, vol.34, n.4, pp. 565-586.

MOREIRA, M. M. Industrialization, trade and market failures: the role of government intervention in Brazil and South Korea. Macmillan Press, 1999.

NASSIF, A. As armadilhas do tripé da política macroeconômica brasileira. In: Revista de Economia Política, São Paulo, v. 35, n. 3, p.426-443, 2015.

NAUGHTON, Barry. The Chinese Economy: transitions and growth. Cambridge, MA: MIT Press, 2007.

PACHECO, C. A. As reformas da política nacional de ciência, tecnologia e inovação no Brasil (1999-2002). In: Manual de Políticas Públicas. CEPAL, 2007.

PAULANI, L. M. A inserção brasileira no cenário mundial: uma reflexão sobre a situação atual à luz da história. Boletim de Economia e Política Internacional, IPEA, n. 10, 2012.

PINGYAO, L. China's economic growth: new trends and implications. In: China & World Economy. N. 1, 2003.

_________. China's foreign trade: achievements, determinants and future policy challenges. In: China & World Economy. V. 12, N. 6, pp. 38-50, 2004.

POMAR, W. O enigma chinês. 2ª Edição. São Paulo: Fundação Perseu Abramo, 2015.

RANGEL, I. (1963). A Inflação Brasileira. São Paulo: Brasiliense.

SKIDMORE, T. Brasil: de Getúlio a Castelo. 7ª Edição. Rio de Janeiro: Paz e Terra, 1982.