



Helio Jaguaribe and Brazil's Oil Question

Helio Jaguaribe e a questão do petróleo no Brasil

Francisco Ebeling*

Abstract

When Helio Jaguaribe published his book "O nacionalismo na atualidade brasileira" (Nationalism in Brazil Today), its impact in Brazil's developmental epistemic community was immediate. Among the nationalists who strongly advocated the 1953 Petrobras oil monopoly, the reaction was one of astonishment and outrage. In this article, it is argued that Jaguaribe did not seek to question the adequacy of the monopoly solution, but rather to frame the debate about the oil question on a more rational and pragmatic basis. Jaguaribe's pioneering contribution would be followed by a rich intellectual debate of some decades between sociologists, political scientists, and economists about the significance of the Brazilian oil issue and the importance of the foundation of Petrobras in 1953 for economic development and Brazil's affirmation in its quest for economic and political independence. The article also shows that at various times of his career Jaguaribe would return to the oil question, emphasizing in a lucid and pragmatic way, and, above all, imbued with a developmental spirit, its challenges, and possible solutions.

Keywords: oil question, Hélio Jaguaribe, nationalism, Petrobras, industrialization

Resumo

Quando Hélio Jaguaribe publicou seu livro "O nacionalismo na atualidade brasileira", seu impacto na comunidade epistêmica desenvolvimentista foi imediato. Em particular, entre os nacionalistas que defendiam arduamente o monopólio da exploração petrolífera da Petrobras, concedido em 1953, a reação foi de espanto e indignação. Neste artigo argumenta-se que na realidade Jaguaribe não buscou questionar a adequação do monopólio, mas sim posicionar o debate sobre a questão petrolífera em bases mais racionais e pragmáticas. À contribuição pioneira de Jaguaribe seguir-se-ia um rico debate intelectual de algumas décadas entre sociólogos, cientistas políticos e economistas acerca do significado da questão petrolífera brasileira e sobre a importância da fundação da Petrobras em 1953 para o desenvolvimento econômico do país e para sua independência política e econômica. O artigo também mostra que em vários momentos de sua carreira Jaguaribe voltaria à questão petrolífera, ressaltando de forma lúcida e pragmática, e, acima de tudo, imbuido de um espírito desenvolvimentista, os desafios que se punham e possíveis soluções.

Palavras-chave: questão petrolífera, Helio Jaguaribe, nacionalismo, Petrobras, industrialização,

* Candidato a Doutor, Instituto de Economia, Carl von Ossietzky Universität Oldenburg, Oldenburg, Alemanha. <https://orcid.org/0000-0002-2502-4338>. E-mail: ebelingbarros@gmail.com

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INTRODUCTION

In 1958, when Helio Jaguaribe published his “O nacionalismo na atualidade brasileira” (Nationalism in Brazil Today) (Jaguaribe 1958), the Brazilian developmental debate was still in full swing. Although Petrobras had been founded in 1953, giving a more nationalistic solution to the Brazilian oil question, and, despite the already felt success of the diverse attempts to plan Brazil’s economic development, some very pressing issues had not been entirely answered. How would the development and expansion of the Brazilian electricity sector take place, with a state-owned company that coordinates the expansion, or with public and/or private companies performing such a function? What would be the role of international private capital in promoting Brazilian development? Would this sector assume the responsibility of steering the rise of the durable goods sector, or would national capitalists have the financial breath and technological capabilities to achieve higher flights?

In his national-bourgeois interpretation of the Brazilian economic development process, Hélio Jaguaribe had an arsenal of answers to these questions. For Jaguaribe, considered ISEB’s main theoretical formulator and also its most reputed political scientist, it was clear that the most appropriate model for advancing Brazil’s development after 1930 would be a nationalistic brand of capitalism” (BRESSER PEREIRA, 1997, p. 20). In this development project, a class of entrepreneurs from the national bourgeoisie, which “would be nationalist, industrializing, modern and socially progressive, would have a leading role, but would be “captained by the state, which emerges as the coordinator of the entire economy” (MANTEGA, 1991, p. 60). Nevertheless, in analyzing the resolution of the Brazilian oil question, with the foundation of Petrobras in 1953, Jaguaribe concludes that the monopoly solution would require that the nation would not give up foreign capital in other sectors of the economy, due to a scarcity of resources. This position, considered overtly pragmatic what concerns the issue of foreign capital by the most radical nationalists, leads to Jaguaribe’s and his associates’ resignation from ISEB (SMITH, 1976)

In this article, it is argued that while Jaguaribe’s interpretation of the Petrobras foundation contains some misconceptions, it has the undeniable merit of having placed the debate on Brazil’s oil question on a much more pragmatic and realistic base. Moreover, it is shown that Jaguaribe was the main forerunner of a series of high quality and more rigorous academic interpretations about this question. The article also reviews Jaguaribe’s other contribution to the oil problematic (1974; 1977; 1989), considering their historical context.

The rest of the article is organized as follows. The first section describes the resolution of the Brazilian oil question, which would culminate in a nationalist solution, with Petrobras the founding of Petrobras in 1953. The second section analyzes the pioneering contribution of Jaguaribe to understanding the importance of this issue and reviews the other contributions that followed in the debate. Finally, the third and last section reviews Jaguaribe's other contributions to the oil subject considering their historic meaning.

THE SETTLING OF THE OIL QUESTION IN BRAZIL

After taking office for a second term (1951-1954), Getulio Vargas was determined to find an answer for Brazil's oil question. A postwar nationalist campaign (1948-49), "O Petróleo é Nosso!" (Petroleum is ours!), had put that issue in the center of Brazil's policymaking agenda, leading Vargas to include the state monopoly in the field of petroleum in his political platform of the 1950 election. That campaign was a reaction to an attempt by Dutra's administration (1946-1950) to loosen nationalist oil control, a move that was perceived as a threat to Brazil's industrialization (SMITH, 1976, p. 163). With it, the security arguments against majors had gained traction in military ranks. Drawing on General Horta's views, most of the officer corps were convinced to "drop its brief flirtation with economic liberalism with respect to oil". (WIRTH, 1985, p. 134-135).

In order to encounter a viable solution for the oil question, Vargas setup the President's Economic Assessorship, composed, among others, by Rômulo de Almeida and Jesus Soares Pereira (CANO, 2015, p. 444). One of its most important tasks was to formulate a proposal to settle Brazil's oil question. As Jaguaribe explains, although the Assessorship lacked an administrative machinery which had been made available for the Joint Brazil-United States Economic Development Commission, it produced "a no less far-reaching program for the country's economic development" (JAGUARIBE, 1968, p. 147). Vargas submitted the "petroleum plan" (JAGUARIBE, 1968, p. 147) the Assessorship had produced to Congress in 1951. It was considered a moderate proposal, for it provided for a 51 percent government-owned holding company, and for oil development and refining in which private capital could have a large role in subsidiaries and associated enterprises (RANDALL, 1993, p. 9).

A debate that was both public and political, in congress, ensued after Vargas' proposal. On one hand, "*entreguistas*" claimed that Brazil would not develop its petroleum industry without foreign capitals. Some, like

Odilon Braga, attempted to convince nationalists that without political support from the United States for the oil matter, Brazil would not be able to control the IOCs' advances and would not be able to resist "abuse (...) of an imperialist character" (COHN, 1968: 116). In the second half of 1951, Standard Oil itself advised the President (VICTOR, 1970, p. 297) that:

"for the industrialization of oil in Brazil to be successfully accomplished, there is a need for a climate that favors competition and free initiative. (...) This (...) [law project currently under discussion] (...) [rules out] the participation of foreign capital in this industry and [the establishment] of a favorable [business] climate."

By his turn, the liberal economist Otavio Bulhões (1952), discussed the pertinence of setting up barriers for Foreign Direct Investment (FDI) in the petroleum industry, which he believed were a form of prejudice against foreign capitalist. He also argued that FDI in that industry could enhance the country's overall welfare. Similarly, Juarez Távora contended that it was preferable to develop the oil industry with the aid of foreign capital and to gradually control and nationalize it. He believed that foreign firms would do a better job of exploiting oil and that the discovery of cheap and abundant oil by foreign companies would benefit the economy and compensate for the remittance abroad of income earned by foreign firms (TAVORA, 1955).

In fact, Vargas himself did not rule out the participation of foreign capital in the oil industry. In that context, Rômulo de Almeida defended the participation of foreign capital in the oil business in a congress hearing:

"In the project, what is intended, obeying to nationalist principles, is not to give concessions to foreigners, but to allow Brazilian juridical persons, with the participation of some foreign elements, to become partners of a state organization that is under perfect control of the State. (...) In my view, the identification of the state monopoly with one hundred percent state organization is inadequate. What does state monopoly mean? The State, through any of the organizations it disposes of and manages, is the sole concessionaire of the industry, (VICTOR, 1970, p. 321)."

On the other side of the political debate stood those who believed that oil should be an activity exclusively carried out by the state, which had been defended by the "O Petróleo é Nosso!" campaigners. That campaign eventually succeeded in cohering the views of different factions from the nationalist coalition, and some that formerly were outside it. Even Oswaldo Aranha, who had been an "*entreguista*", claimed that "there is only one conclusion (...) To the State and only to the State belongs the role of exploiting this wealth" (COHN, 1968, p. 170). Similarly, a military, General

Arthur Levy, had summarized the nationalist sentiment that eventually would lead to the formation of Petrobras (LEVY, 1962, p. 25): “Energy is the motor of development and it is the heart of the national organism and therefore should be Brazilian. (...) No one lives with a borrowed heart!!”. In a context of political pressures, Vargas also joined the nationalist camp.

After three years of heated debate, the legislation that was eventually approved was radical, establishing a state monopoly which comprised all activities related to oil, with the exception of the distribution of oil products, an activity that already had been conducted by private enterprise, subsidiaries of the large international corporations, since the early 20th century. Petrobras, which was founded in 1953 as a mixed-economy state company, was assigned by the law Number 2004, from October 3, 1953, the task of carrying out monopolistic activities in the realm of petroleum and gas Exploration & Production and the refining of oil (DIAS LEITE, 2009, p. 11). Petrobras was designed “as a well-capitalized, financially independent company”, which led imports of refined products to fall considerably in the 1950s (WIRTH, 1985, pp. 137-138). As noted by Villela (1962, pp. 112-3), in the first years of its operation, Petrobras and other state companies received massive subsidies from the Federal Government, to finance the company's investments. With this, those corporation's capital formation was considerably high. However, because nationalists feared foreign capital, the creation of subsidiaries was discouraged, which led to a reduction of the resources that could have accelerated Petrobras' process of vertical integration (CARVALHO, 1975, p. 17). Nonetheless, from the mid-1950s onwards, of all state enterprises controlled by the state, Petrobras was by far the most important, as it “gave the state a powerful lever with which to shape and direct the process of accumulation” (EVANS, 1979, pp. 91-2).

AN INTELLECTUAL DEBATE

Some years after a solution to the oil question in Brazil had been found, a debate about the pertinence of that solution continued to occur. One of the main reasons for this was that, in the first years of its operation, Petrobras' exploratory results were disappointing. Petrobras targeted producing a daily output of 100,000 barrels of crude oil and refining 308,000 barrels per day in 1960 (JAGUARIBE, 1968, p. 154-5). By that year, it managed to increase its production to 75,000 barrels per day (75,5 percent of the target) and to expand to 218,600 barrels per day its refining capacity (71 percent of target) (ibid). In the context of poor exploratory results, the publication of Walter Link's report, who concluded that the existence of large oil reserves

on Brazilian territory was improbable (PHILIP, 1982, p. 370), led to a momentary loss of direction, and it took some years before new directives could be established as to continue exploration on land (DIAS LEITE, 2009, p. 13). In that vein, the decision about whether foreign investment should be permitted to find for oil in Brazil was not entirely closed in the late 1950s, even though Juscelino Kubitschek (1956-1961) eventually discovered that it was valuable to assert his commitment to nationalism. In parallel, the US government continued its diplomatic pressures to allow foreign companies to explore oil in Brazil, such that the matter continue to be discussed in the Brazilian policymaking circle (PHILIP, 1982, p. 371-2).

The pertinency of Petrobras' exploration monopoly was also debated by Brasil's intellectuals also debated the pertinency of Petrobras' exploration monopoly. The liberal economist Roberto Campos, for instance, attacks the state monopoly in the petroleum industry and pleads for the liberalization of the 1953 Petroleum law in a conference during the 1950s, that was later republished in Campos (1964). In this work, Campos is concerned with the exchange rate crisis Brazil was then facing, and he believed that the attraction of foreign investments to the domestic petroleum industry could lead to a "radical and sudden elimination of our current balance of payments problems" (CAMPOS, 1964, p. 125). Campos also warned that Petrobras' decision to construct refineries and oil tankers was a dubious blessing for the country. In his view, although this could permit to save foreign currency in the long run, the incentive that this decision would give to industrialization would create more demand for foreign exchange in the short term, making the pressing balance of payments problem even worse.

Although Jaguaribe's (1958) contribution to this debate was not the first one, he was the first who presented a more technical and intellectual rigorous interpretation of the settling of Brazil's oil question and its historical, economic and political importance. Moreover, due to its reception, it had probably the most far-reaching consequences, because it was the first one with a genuine developmentalist perspective, having attracted much attention from his peers.

In his book "Nationalism in Brazil Today" Helio Jaguaribe (1958) compared and juxtaposed in a rigorous analytical approach, in a stylized way, the two possible solutions that were available to solve Brazil's oil question. On one hand, he the presented the nationalist solution, which, in his words, aimed at "making Brazil a historical individuality, assuming the risks and paying the price of this decision" (JAGUARIBE, 1958, p.143). On the other stood the solution presented by the advocates of "a cosmopolitan thesis", whose preference laid in the "colonial situation" (IBID). In his comparison,

Jaguaribe parts from the premise that in the petroleum industry – which requires the use of specialized technology, that is constantly progressing forward and that must compete for the international supply and demand of factors – foreign capital has an inherent advantage when the question is considered solely in terms of economic efficiency (JAGUARIBE, 1958, p. 143). However, the nationalist thesis also has its validity in this sector of the economy because development is “a global social process, not just an economic one” (IBID). Jaguaribe argued that after systematic confrontation, both sides would tend to mutually neutralize each other. He thus argued that an unambiguous decision in favor of one them based on a purely rational analysis was difficult to achieve (COHN, p. 181). Jaguaribe thus contends that:

“By proposing to consolidate the nation as its ultimate political goal, the community is confronted with the choice of sectors or activities in which it will most radically engage itself in its purpose of self-determination. (...) What is at issue is the assumption of one’s own freedom, of creating the nation as the center of its own decisions. (...) The choice of sectors or activities in which this struggle for the affirmation of freedom occurs is something that can be done with greater or lesser reasonableness. (...) In the Brazilian case, the chosen sector (...) must necessarily be economic because it is in this area that the greatest obstacles to our development lie. This was done by the Brazilian community, after a broad and democratic discussion in which all participated, and the sector elected by it to fight the struggle for its freedom was oil. (...) The petroleum sector was the chosen one partly for entirely rational reasons, partly because of a dramatic act of arbitrariness. (...)” (JAGUARIBE, 1958, pp. 145-146)

Whilst resolving this dilemma, the country had to face a trade-off. If on one hand, the state monopoly favors an increase in the country’s economic independence, on the other, it implies the elimination of the most efficient form of allocating investments from the point of view of economic rationality (COHN, 1968, p. 181). Having chosen the nationalistic monopoly solution, Jaguaribe advised that Brazil would have to bear the costs of its economic-political freedom. This would require from the country an increase in its national savings and the acceptance of the participation of foreign capital in more advanced sectors of the economy (JAGUARIBE, 1958, pp. 146-7)

As Souza (2009, p. 163-4) explains, members of the ISEB had the habit of presenting their studies to the other members’s criticism before publication. When this was done with the first part of Jaguaribe’s book, it was considered “heretical” by the nationalist sectors, mostly because they interpreted that Jaguaribe was defending the participation of foreign capital in the economy (SOUZA, 2010, p. 163-4). At that time, the question of the Brazilian

state oil monopoly was inseparably tied to the nationalist issue, which led some students, sectors of the press and public opinion even to believe that Hélio Jaguaribe was cooperating with Standard Oil (IBID). By then, even though foreign investment had an important role in Brazil's process of industrialization, there was a fierce controversy about how much foreign capital should be accepted (SANTORO, 2008, pp. 12-13). The publication of his 1958 treatise on the petroleum question and the state monopoly thus led to Jaguaribe's departure and from his more conservative colleagues from ISEB (CHILCOTE, 2014), even though he had been clearly misunderstood.

In the decades that followed, several of high-quality contributions and valuable contributions – by political scientists, economists, and sociologists – sought to analyze both the mechanism that led to the settling of Brazil's oil question in 1953 and its historical, political and economic significance. Some of them were clearly inspired by Jaguaribe's contribution or attempted a response to him.

One such contribution was given by the structuralist economist Celso Furtado, who, like Jaguaribe, also identifies an acute conflict between two rivaling ideological groups for the case of oil. He identifies one line of thought that was committed to “the old export economy” (FURTADO, 1961, p. 215), for which the domestic scarcity of resources was a reason not to channel scarce resources into an uncertain sector such as petroleum, were foreign capital was abundantly available. Also, like Jaguaribe, Furtado argues that the developmental strand does not handle the petroleum question in strictly economic terms. That strand was concerned with the defense “of the newly acquired dominance of its decision-making center” and was wary that the international petroleum companies' interests would be difficult to cohere with the ones from the nation. (FURTADO, 1961, p. 215). For Furtado, the synchrony between developmental interests and decisions was fundamental to overcome the phase when Brazil was a reflex economy, thus requiring an individualization of the country's economic system. Furtado hence regards the state as the economy's main decision-making center and attributes it with the task of coordinating the process of development.

Sylvio Monteiro, an economist who was a member of ISEB during its second and explicitly more radical phase – that lasted from 1960 to 1964 – (BRINGEL, 2018), also deals with the issue of petroleum in his 1963 “How does Yankee imperialism work?” (MONTEIRO, 1963). Bringel (2018) suggests that this book is a response to Jaguaribe (1958), even though the author does not cite him directly. In Monteiro's view, ‘yankee imperialism’ was to blame for the lack of oil exploitation in the country as it has succeeded “in preventing any oil exploration and processing initiative

from being carried out in our country, thereby maintaining it as a market for its products and at the same time reserving for itself" (MONTEIRO, 1963, p. 109). Furthermore, for Monteiro oil majors never demonstrated much interest in exploring oil or investing in the refining business in Brazil. (IBID). In his view, then, Petrobras' foundation would be a bold answer to the claims of US imperialism, and would also represent "a victory of the Brazilian people for its economic emancipation" (IBID, pp.110, 113). Nevertheless, in Monteiro's view Brazil's oil question had not been settled yet, because the country's state oil monopoly would still be under the siege of its internal and external enemies. Monteiro highlighted as a particularly worrisome threat "the insemination, within the key organs of the state, of a pessimistic mentality of discouragement" (IBID, p. 113) regarding Petrobras' prospects of finding oil in the country's sedimentary basins. As the country would be "facing a great struggle for the conquest of Brazilian oil", Monteiro calls upon "our people in general, the workers, the students and all the other workers to unite" (IBID, p. 122).

With a much more moderate tone than Monteiro, the engineer and economist Antonio Dias Leite (DIAS LEITE, 1966) welcomed the existence of public enterprises such as Petrobras in what he called the country's "nucleus of economic expansion" (SINGER, 1976, p. 158). For the author, activities belonging to that core "should have their expansion accelerated as to avoid them becoming an obstacle to the overall development of the country" (DIAS LEITE, 1966, p. 36). Dias Leite believed that "the success or failure to meet the accelerated expansion goal of these industries has largely defined the country's overall development pace" (IBID). As Singer explains, Leite defends the "primacy of national capital vis-à-vis multinational companies and required the State to play an active role in the promotion of growth" (SINGER, 1976, p. 158). In the realm of the petroleum industry, which he regarded as paramount for the achievement of economic development, Dias Leite highlighted the importance of capital accumulation and of investments in exploration and development for the overall performance of the economy. Dias Leite, however, did not rule the participation of private national and private foreign capitals as sources of funding for the expansion of the petroleum industry. What regards the possible inefficiency of public enterprises such as Petrobras, Dias Leite contended that it could be minimized through a targeted program to achieve efficiency, be it through training programs or through the establishment of a system that incentivized workers' participation in the company's results, "conditioned to the improvement of sectoral and global efficiency." (DIAS LEITE, 1966, p. 53).

Some years later the sociologist Gabriel Cohn also presented his contribution to the oil question debate (COHN, 1968). While emphatically criticizing Jaguaribe's approach, he proposes an explanation for the process leading to Petrobras' foundation, which he calls the Dynamics of the situation. According to that interpretation, the outcome of the process, namely the petroleum policy of 1953, was not the result of some carefully architected plan or the outcome of a Socratic dialogue between rivalling conceptions that could be rationally confronted, as he interpreted that Jaguaribe had argued before. In Cohn's view, the decision to create Petrobras was not "derived from the crystallization of a collective will." (COHN, 1968, p. 182). For him, the oil policy in the form that it emerged in 1953 "was imposed as a requirement of a material order" on whose definition hinged the very continuity of the Brazilian developmental process (IBID, p. 183). Cohn believes that, in general, no social group had had a decisive influence on the institution of the state oil monopoly in Brazil, as there was "a complex interaction between [interest] groups, (...) prompted and stimulated by pressing problems to sustain the global process of change that was taking place at all levels of national society" (IBID). For him, under a different set of circumstances another solution could have been found, as was the case in other Latin American countries. Hence, it was the "dynamics of the situation [that had] led to this [particular] decision, and not another one" (IBID). For Cohn, however, the dynamics of the situation could be distinguished from mere chance:

"this constellation of options was neither causal nor unlimited; on the contrary, it was limited and structured. Given the greater problem of the oil policy, its solution was imposed. (...) In these historical conditions, a certain number of options, limited in function of the social groups in presence, presented itself; (...). (...) What is sought to show, then, is the progressive narrowing of this field of decision-making possibilities, by virtue of the successive redefinition of its historical determinants, until the final solution adopted is reached (...)" (IBID, pp. 185-6)"

Nonetheless, Cohn particularizes a specific force that led to the solution adopted, which was the agency, in critical junctures, "of influential agents, capable of articulating the various aspects of the problem as they presented themselves at a given moment" (IBID). For Cohn, "in 1938, this synthesis was made by the military – under the leadership of Horta Barbosa; in 1951-53, by the parliamentary opposition, which included representatives of the Petroleum Campaign and the UDN" (IBID).

In quite an opposite direction, the liberal economist Eugenio Gudin attacked the nationalist petroleum policy in a series of articles written in the mid-1960s, which were republished in 1969 (GUDIN, 1969). For instance, he criticized the import substitution industrialization (ISI) type of policy that had led to Petrobras' creation: "it is not possible to explain to people that industrialization was done to make goods and products not cheaper, but more expensive. Industry is not intended to enrich the industrialists but to enrich the nation" (GUDIN, 1969, p. 413). The author, who believed that the cost paid by the Brazilian people of financing Petrobras was too high, defended that foreign investments in that field should not be ruled out, as foreign capital and its technology had made possible the construction of Brazil's first large hydroelectric plants, that eventually were owned by Brazil's first large hydroelectric plants, that eventually were owned by Brazilian state companies. He also attacks Brazil's absurd "nationalistic complex of some of our ruling classes", which he classifies as being "xenophobic" (GUDIN, 1969, p. 428).

By his turn, the sociologist Octaviani Ianni (1971, pp. 127-8) argues that Petrobras' creation was a critical milestone in the creation of Brazil's state apparatus. According to the author, all the studies and debates carried out within the executive branch's sphere to find a solution for the petroleum question attempted to attend to the demands and interests of local and foreign capitalists, the military, economists, and politicians, in the political context of a democratic regime. Nonetheless, these actors had a preoccupation in achieving a compromise between that was necessary in economic, political, and technical terms, and that what was possible. Thus, Petrobras's foundation was a revelation of the executive's style of action and thinking, one in which consensus-building between the interests at play was permanently sought for. This thinking style underlies the creation, perfection, and development of an efficient government bureaucracy and state technostructure. Although Petrobras' initial technostructure was poorly developed and lacked structure, this was an essential experience in improving and increasing the Brazilian State's size. Thus, Petrobras' success created increasing returns for the policy traction of a national-developmental economic ideology that favored making even more stringent policy experiments with state-led industrialization.

Some years later, the liberal economist Campos would return to the oil question in his notorious work on the Brazilian developmental model of the military dictatorship, which he co-authored with Mario Henrique Simonsen (CAMPOS & SIMONSEN, 1974). Campos was an ardent defender of Petrobras' investments abroad – particularly in Bolivia (Campos, 1963 – and one of the main articulators of risk contracts in his role as Brazilian ambassador to the United Kingdom (see KUCINSKY, 1977, p. 58). In this

work, Campos would argue that one of the most pressing “controversies” of the time – the nationalistic question – had been solved, in the case of petroleum, as Petrobras, in the aftermath of the “1964 Revolution, [was now] guided by industrial and pragmatic criteria, without political and ideological concerns, which, at different times in the past, have disrupted the company’s efficiency” (CAMPOS & SIMONSEN, 1974, p. 74). As proofs of this pragmatist turn, Campos identifies two openings to the private sector – one “oriented towards associations with foreign companies to explore oil abroad and within the country” and Petrobras’ decision to take “a minority stake in petrochemical companies, in association with national and foreign firms” (IBID). Campos, who in the 1950s had participated in the Joint Brazil – United States Technical Commission and was aware that the take-off of Brazil’s economic development had to be carefully planned by the state (which included the foundation of state companies in the realm of energy such as Petrobras), however disfavored the monopolistic solution in the realm of petroleum and gas exploration and production, as he was also oriented by a very pragmatist stance. Thus, if Campos at the very minimum tolerated Petrobras’ creation for its potential role as remover of growth strangling points – albeit in association with foreign companies –, he envisioned its future role much more as a modern and efficient enterprise than as a bureaucratized state capitalist venture.

The political scientist Getúlio Carvalho, by his turn, interprets the state’s pioneering activity in the petroleum industry as “the creative response to the Brazilian oil crisis” (CARVALHO, 1977, p. 92), in analogy to Schumpeter’s concept of creative destruction (see SCHUMPETER, 1912). Whereas Schumpeter relates the rise of capitalism to the heroic agency of individual entrepreneurs, Carvalho argues that it was the state, and not Brazil’s capitalist class, that took the pioneering initiative to kickstart the impressive ascent of Brazil’s petroleum industry. Brazilian capitalists, Carvalho argues, “were happy to receive benefits from the government, such as political support, tax exemptions, and tariff protection (...) but refused to see any merit in the government’s initiative”, even though they themselves clearly lacked the interest in performing the heavy investments that the petroleum industry required (IBID). For Carvalho, then, the hostility faced by Petrobras in its initial stage of institutionalization can be explained in the light of a lack of a consensus about what should be the role of the state in the economy (IBID). According to the author, the opposition to Petrobras was mostly of an ideological nature, because the creation of Petrobras was not part of a socialist program of any kind, as it solely aimed at resolving a very specific problem, which was the lack of both foreign and private domestic capitals to build an

industry with the size required by Brazil's then booming industrialization process (IBID, p. 93).

Some years later, the sociologist Luciano Martins (1985) identifies in Petrobras foundation an ideology of state intervention. As he describes it, "statism, nationalism, or developmentalism (...) often appeared as confused as interchangeable concepts, to the extent that they were perceived as instrumental to a nation's development project, served to politically justify the existence of state enterprise and the role played by its administrators" (MARTINS, 1985, pp. 59-60). According to the author's interpretation, the state's business action did not arise accidentally, as if it were disconnected from a well-defined political project, but rather after a long political debate. For Martins, that debate gave Petrobras the political legitimacy it required, as the state company's initial success depended on "an allocation of resources, based on forced savings, which had to be politically justified, given the system of representation of interests (IBID, p. 60).

Another author, the political scientist and economist Carmen Alveal (1994, p. 73) shows that different political and economic initial conditions favored a faster solution for Brazil's oil question, where "the decisive aspect that favored the sharpness and consequent political victory of the state option in the case of petroleum refers to the lack of any corporate structure of a certain relevance, public or private, national or foreign, implanted in the activities that constituted Petrobras' monopoly". In contrast, Eletrobras was founded in a context of an already existing institutional framework and of a consolidated sectorial productive structure, with the felt presence of foreign companies in the classical activities of the electricity industry (generation, transmission and distribution). Alveal thus contends that the same determination to give a bold solution to the petroleum question was not observed in the electricity industry, mainly due to a coexistence pact with foreign capital that established a division of labor between energy-producing and distribution activities in the electricity sector, permitting an accommodation between private and public interests in that industry (ALVEAL, 1994, p. 74). In the petroleum industry, these conditions were not present, paving the way for the nationalistic solution.

A final interpretation for Petrobras' creation worth mentioning here was presented by the engineer Joao Lizardo de Araujo and by the economist Adilson de Oliveira. The authors contend that (ARAUJO & OLIVEIRA, 2004, p. 24-25) Brazil's process of industrialization and the ensuing development of a continental roads network faced the country with a considerable challenge, as the growth of oil imports would tend to press the country's balance of payments, thus tending to limit economic growth. This

required the construction of an efficient domestic oil industry, with the statist solution imposing itself as the best solution to organize the nascent industry. The authors argue that Petrobras' creation led to a rationalization of efforts, the programming of exploration efforts, and a reduction of geological risk (IBID). After the monopoly was established and there was guarantee that competing companies would exploit no other basin, Petrobras could start to program its risks, "starting with the basins with greater prospects, and, progressively, exploring the others (IBID)." Hence, in the author's view "the facts converged to the creation of Petrobras, [as] only the state monopoly was capable of reaching more rapidly the optimum scales of production" (IBID).

JAGUARIBE AND HIS LATER CONTRIBUTIONS TO THE OIL QUESTION

After his first groundbreaking to the subject Jaguaribe would return to the oil question in other occasions (JAGUARIBE, 1974; 1977; 1989). This last section reviews them while locating them in their historical context. It is argued that Jaguaribe's relatively pragmatic stance in matters of economic development was well-equipped to deliver a valuable and timely diagnosis of the challenges that Brazil's petroleum industry faced over the decades.

The crisis of the miracle and the oil question

In 1974, when the economic model of the military dictatorship was to a large extent established, Jaguaribe diagnosed the main economic problems that Brazil was still facing in what he believed was still a stage of dependent development:

"[a style of] economic development through the predominant participation of large foreign companies in the strategic sectors of the manufacturing and capital goods industries (...) necessarily leads to the perpetuation and worsening of dependency. The simplest and most commonly used technological processes are quickly mastered by national companies. The most sophisticated and state-of-the-art technological processes are increasingly under foreign control. For these and other reasons, foreign companies are developing at a level and pace incomparably higher than domestic ones (...). National companies are relegated to small and medium-sized businesses or to traditional, slow-growing, low-tech sectors." (JAGUARIBE, 1974, pp. 70-71).

In that context, Jaguaribe (1974) underscores that only public national companies such as Petrobras were progressing forward. Nevertheless, for him it would be an illusion to believe that their growth would compensate for the "hypertrophy of foreign companies in the manufacturing and capital

goods sectors” (JAGUARIBE, 1974, p. 71), or that having set up those large public national companies would be enough to control the country's productive system. Although Petrobras and other state companies provided basic inputs on which foreign companies depended, for them far more important resources were technology and appropriate state regulations, on which they already could count on. In that vein, Brazil's public-controlled corporations would be in an unfavorable situation because “the goods and services offered by the Brazilian public companies to the industrial park of the country, under the control of multinationals, are supplied at extremely low prices, close to cost, [sometimes even] subsidized by the state (...) [as] is currently happening with oil and its derivatives” (IBID). Even though this was a bleak scenario, Jaguaribe did not defend the “suppression of multinationals” as for him it would be “feasible, within varying limits, to discipline such companies as to better adjust them to the national interest” (IBID). Furthermore, the author believed that peripheral countries could reinforce their domestic power through the implementation of domestic consortia or common markets. For Jaguaribe, a far more crucial step towards the overcoming of dependence would be “the creation of an alternative technological and organizational capacity” (IBID). He thus contended that:

“in order to acquire conditions for proper technological and organizational development, it is necessary, on the one hand, to have a critical mass, in terms of human and material resources, which implies, again, for the peripheral countries, an effort of consortium and coordination. On the other hand, if there is a critical mass, it is essential to stimulate the development of science and technology” (JAGUARIBE, 1974, p. 74).

In fact, like Jaguaribe probably would have favored, from the second half of the 1970s onwards, Petrobras started to accelerate the development of a domestic petroleum goods and services industry and to step up its own and this industry's technological capacities. Faced by mounting balance of payment pressures after the first oil shock had considerably increased the country's oil bill, Petrobras started to tackle with great seriousness its plan to raise domestic oil production through increased offshore exploration. As early as in the late 1970s the “calculus of public investment in Petrobras [was altered], (...) making the cost of technological innovation to explore the continental shelf financially viable in comparison to the import cost” (BROOKS & CURTZ, 2016, p. 44). This eventually would result in the development and utilization of growingly sophisticated technology to exploits Brazil's Deep water oil reservoirs (IBID, pp. 43-4). By then, “Petrobras was forced to build a large network of national suppliers that could contribute to the development of its activities” (ZAMITH, 2001, p.

88). It started to use a nationalization system, thus replacing the import of priority products and seeking alternative suppliers. In that arrangement, Petrobras had much autonomy in decisions related both to technological and industrial aspects. As Randall reports, “if in 1957 Petrobras imported 80% of its equipment and spare parts; by 1979, this was reduced to 20%.” (RANDALL, 1993, p. 88). By the mid-1980s, Brazil was thus able to reduce its imports of capital goods to one fifth, being able to save around \$2.2 billion through its import substitution policy in 1984 (IBID). In the late 1980s, as a result of the incentives given to Brazilian manufacturers and due to a shortage of foreign exchange, domestic manufacturers were able to supply more than 90% of Petrobras’ necessities. Furthermore, Petrobras’ insistence on quality led to improvements in the capital goods industry:

“As a result of the sophistication of Petrobras’ requirement, its suppliers were more likely to have R&D and to purchase technology than the rest of the metal mechanical industry, which did not have to meet such stringent standards. New products were developed by 90.6% of Petrobras’ suppliers, compared to 77.8% of firms not supplying Petrobras. Petrobras’ suppliers generally used more modern methods and had fewer losses due to poor quality of raw materials, machines and equipment, and inadequate workers than firms not supplying Petrobras.” (RANDALL, 1993, p. 235-6).”

As was seen, Jaguaribe also regarded as a possible solution to overcome the phase of dependent development the establishing of consortia with multinational companies, through the intelligent harnessing of their more abundant technological and financial resources. In that vein, Evans contends that the development of Brazil’s petrochemical industry during the 1970s and 1980s was “an archetypal example of alliance-building” (EVANS, 1979, p. 227). In 1973 Petrbras, through its subsidiary Petroquisa entered into the petrochemical business after a domestic private group – The Capuava Group – had pioneered this industri’s large scale-development some years before. Thus it assumed a crucial position in Brazil’s petrochemical usiness when it was clear that group lacked financial strength. Evans (1979) thus sees the “tripod” formed between Petrobras, multinationals and private domestic partners in the petrochemical business as a novel institutional arrangement in Brazil’s industrial structure, and as proof that the state was attempting to attenuate the economy’s foreign dependence through novel solutions.

The 1973 oil shock and Brazil’s oil question

In a 1977 paper (JAGUARIBE, 1977), Jaguaribe discussed the economic and socio-political implications of the 1973 oil shock. According to his analysis, the oil shock could lead either to a third World War, to the establishment of a

global regime under the shared direction of the superpowers, or to the radical restructuring of the flow of economic transactions and of the international system (JAGUARIBE, 1977, p. 658). For the author, the third possibility would be the most likely to happen. He contended that the oil shock had occurred a divide between the industrialized and underdeveloped countries where the former would export their modern goods and services at very high prices to the latter and import from them goods and primary services at much lower fares. In that context, the shock had dramatically changed exchange relations, as with the quadrupling of oil prices, major oil exporters would now be able to capture a much larger share of the global value-added. Jaguaribe was confident that the world trade solution for the oil crisis could be negotiated between its main protagonists, both major oil producers, the United States and the soviet bloc. For the author, the oil crisis could “open (...) up an exceptional opportunity for underdeveloped countries to make a decisive contribution (...) in the structuring of a new democratic and open-world system, with the use and support of the mechanisms of the United Nations” (JAGUARIBE, 1977, p. 664). He also believed that “countries that are in an advanced stage of industrialization, such as Brazil and Mexico” were capable to contribute to the establishment of “a new, democratic and open world system” (IBID).

Indeed, when Brazil was hit by the first oil shock of 1973, it was already a consolidated industrial economy, with an industry that operated almost at full capacity (DORIA, 1976, p. 58). In the context of strong industrial growth, Brazil also had managed to increase its production's technological content. For instance, Bonelli (1976) – who employed a growth-accounting approach and data for the period 1959-1970 for twenty-one manufacturing industries – found that 22 percent of the total output growth of all those industries was not explainable either by growth in the capital stock or increases of the labor force. The author interpreted the residual as representative of technological change, and for some industries – such as machinery, electrical equipment, and pharmaceutical - those residuals were especially high.

When the oil crisis effectively hit Brazil, its immediate impact was an increase oil bill. Whereas Petrobras could import a barrel of oil (CIF) for an average US\$2,07 in 1969, in 1974 it had to disburse US\$12,50 for the same amount of oil (CARVALHO, 1977, p. 185). Thus, a growing oil bill was causing worryingly growing balance of payments problems. By then, Brazil's frenetic pace of growth of the early 1970s had slowed down, while inflationary pressures had restarted. According to Boa Nova (1985, p. 131), those were early signs of the recession in which the country would land in the 1980s. Thus, the military administration thus realized that it would have to

do a major effort of economic expansion in order to resolve Brazil's external constraints. The diagnostic was that Brazil required a more aggressive strategy to overcome its external constraints, requiring it to improve its export base. In that context, the II PND, launched in 1974, emphasized the further substitution of capital goods imports and basic inputs such as basic inputs such as petroleum. According to Frieden (1991, p. 119-123):

“(...) The government made massive investments in activities that provide basic inputs to modern industry. The investment program was primarily carried out by parastatal enterprises, often in the form of such imposing “big projects” as the Itaipu, (...). Public enterprises’ share of gross fixed capital formation went from 20% in 1970 to 23% in 1974 and 29% in 1979 (...) [Another] major feature of the ‘big projects’ period was a systematic network of subsidies and incentives to more advanced portions of private industry. (...) The investment programs of the 1970s would have virtually unthinkable without the availability of foreign finance. (...)”

Heavily relying on abundant external finance, the II PND thus “effectively ignored the constraints imposed on the economy by the emergence of domestic capacity limitations and the quadrupling of oil prices in 1973.” (BACHA, 1980, p. 22). As Dias and Quaglino explain, from 1974 onwards external lending started to sum an ever-larger share of Petrobras’ budget (DIAS & QUAGLINO, 1993). In particular, both the energy sector as a whole and the petroleum sector were thus important culprits of the debt crisis of the 1980s.

The crisis of the Brazilian state and the oil question

Jaguaribe would return to Brazil's oil question by the end of the 1980s when he discussed the crisis of the Brazilian state, which he saw as a direct outcome of the economic policies implemented during the 1970s. Jaguaribe argued that the Brazilian state's crisis was related to “an increasing structural and functional deterioration, (...) a loss of rationality, transparency, functionality, efficiency, and responsibility” (JAGUARIBE, 1989, p.11). At the root of the state's crisis he also identified “a dysfunctional tendency to state hypertrophy (...) an immanent propensity on the part of all bureaucratic power, if not restrained by other forces, to expand (...) its own power” (IBID). Thus, in his view, even “the most successful public companies (such as Petrobras) acted as holdings of a private conglomerate, and multiplied the creation of subsidiaries, justifying them as vertical or horizontal integrations producing economies of scale” (IBID, p. 53).

This growth tendencies, according to Jaguaribe, had become worse during Figueiredo's (1979-1985) and Sarney's (1985-1990) administrations. The state insolvency problem would be characterized by "a structural imbalance between revenue and public dispatch" (IBID, p. 66). At the federal level, the financial crisis mainly refers to a "relative decline of gross taxation and, particularly, of net taxation" (IBID). He also related it to a policy of controlled prices by the government, which it implemented due to the existence of an "important multiplier effect that the price of infrastructural inputs and services has on the final composition of prices" (IBID). In that sense, "the federal government, in its continued (and misdirected) attempts to control inflation, has been systematically imposing on public companies operating in the infrastructure and basic sectors, prices below their cost level, also harming their competitiveness".(ibid). This price gap was a difficulty that was also faced by the oil sector, both due to depressed fuel prices to a policy of subsidizing Brazil's ethanol production. This pricing policy would not only lead to a deterioration of the quality of public services, but also to a decreased morale of the companies, and, ultimately, would force the Union into conceding more and more subsidies, eventually eroding its net revenue. (IBID, p. 65).

For Jaguaribe, the key to solving the country's structural economic problems were substantial investments in social policy, infrastructure, energy, and scientific-technological development (IBID, p. 19). Nevertheless, within an inflationary context also characterized by high public deficits and elevated interest rates, these disbursements would be practically unviable and would tend to trigger a potentially out of control explosive hyperinflation. In that vein, Jaguaribe believes that there would be no other remedy than setting "in motion a drastic anti-inflationary policy" and to face "its inescapable recessive effects", which he regarded as an "undeniable prerequisite for a major development and reform program" (IBID).

Another problem that Jaguaribe related to the state's crisis was what he called "notarial corporatism", which he related to a tendency by public companies' unions – such as Petrobras' and Eletrobras - to make unfair and excessive demands. Because those companies operated under monopoly or oligopolistic conditions and provided essential services to the population, those unions' excessive demands would potentially be felt by the entire population (IBID, p. 22). As a side effect, consumers and society would blame the state – and not unions – for the abused suffered and become susceptible to embracing radical pro-market policies.

For Jaguaribe, thus, the solution to control "notarial corporatism" and for the crisis of the state in general was "a prudent but firm policy of opening

inwards and outwards” (IBID). The process of opening up the economy inwards would entail “eliminating privileges and notary immunities, through the legal regulation of these services, the establishment of public controls that supervise, with the necessary powers, their convenient rendering and penalizing abuses” (IBID). By its turn, the process of outwards opening of the economy would require the flexibilization of state monopolies, such as petroleum, to investments by private investors. At this point Jaguaribe highlights that it was important that at a certain stage of the country’s economic history sectors that are key to economic development were subjected to public control, as was the case of oil & gas petroleum from the 1950s to the 1970s. Moreover, in his view from 1940 to the 1960s the state had lacked regulatory and supervisory capacities, which justified certain reservations concerning foreign capital, “as well as the granting of public monopolies for the exploitation of certain sectors, as in the case of Petrobras” (IBID p. 102). However, in the context of the crisis of the 1980s, Jaguaribe advocates for a more modern and mature discussion about the importance of foreign capital in the Brazilian economy. Much of these reservations regarding foreign capitals, Jaguaribe contends, “have become obsolete (...) as Brazil today has ample capacity to regulate and supervise its economy” and because “the world (...) has become extremely integrated, economically and technologically, being generally counterproductive to isolation positions” (IBID).

Nonetheless, Jaguaribe was not a radical adept of the free market solution, as he acknowledges that profitable companies, such as Petrobras, should not be privatized, although they should be removed from their former obsolete monopolistic condition. In conclusion, Jaguaribe calls upon “an intelligent policy to attract foreign capital, which will increase our general investment capacity and give us all the possible advantages of technological and managerial development.” In that context, “foreign investment, under conditions that are appropriate to the national interest, constitute, in addition to a development factor, decisive support for a policy of substantial external debt relief” (IBID, p. 102).

Jaguaribe’s diagnostic of the crisis of the state, and ultimately, of the factors that were retarding Brazil’s economic recovery, was a very pragmatic one, especially what concerns the role of private capital and the importance of a relatively conservative fiscal consolidation path. He had the same pragmatic stance towards the oil question. As a matter of fact, some thirty years after the publication of “O Nacionalismo na atualidade brasileira” (JAGUARIBE, 1958) the author still believed that under certain circumstances foreign capitals could play an important role in the petroleum

sector. With his analysis, Jaguaribe competently anticipated what was to come during the nineties, when Petrobras' monopoly was flexibilized (1995), and when a new regulatory framework was created for that sector in 1997, with the Petroleum Law. Nevertheless, as Jaguaribe recommended, Petrobras was never privatized, although in several occasions rounds of equity underwriting were undertaken. In industry, there is a relatively widespread view that the flexibilization of Petrobras' monopoly was, in fact, an important step for the discovery of the pre-salt layer. The finding of the pre-salt was probably Brazil's most important developmental event in the 21st century, and it has created the hope that the country may develop itself on a more sustainable basis. Although there have been some important drawbacks in recent years, Petrobras is still an important developmental tool, as Jaguaribe probably would have recommended it.

CONCLUSIONS

The publication of Hélio Jaguaribe's 1958 book (JAGUARIBE, 1958) triggered considerable debate in Brazil's developmental circles. Due to his positions on Brazil's oil question, which were considered inadmissible by some of the nationalists, it caused a breach at ISEB, one of Brazil's most important economic and political think tanks, with Jaguaribe's resignation. In this article, it has been argued that his contribution did not intend to question the nation's choice of granting Petrobras's with an oil & gas E&P monopoly, but to frame that debate in a much more a pragmatist and realistic base. Jaguaribe had shown that if Brazil had sovereignly chosen the monopoly option, it would have to deal with its consequences, as Brazil's economic, financial and technological were clearly not unlimited. Having chosen that solution, it would not be possible for Brazil to rule out foreign investments in other sectors of the economy. Because the catching up strategy Brazil was pursuing was very accelerated, dangerous bottlenecks that could lead to balance of payments problems could only be avoided if Brazil supplemented its domestic savings with foreign capitals from MNCs.

Jaguaribe's ground breaking contribution to the oil question – from a genuinely developmentalist standpoint and with much more analytical and technical rigor than the countless more journalistic articles on the subject during the 1950s – was one of the very first ones of an important debate among economists, sociologists and political scientists on Brazil's oil question. Some of the authors were responding directly to him, such as Monteiro (1963) and Cohn (1968), while his contribution likely influenced others. Although Jaguaribe's contributions had analytical flaws, as shown

by Cohn (1968) mainly what concerns the analysis of the mechanism that led to the solution of Brazil's oil question, its influence on this debate is undeniable.

In the decades that followed, Jaguaribe would return to the oil question other times, one in the context of the "Brazilian miracle's" mid-1970s crisis, one in the context of the oil shock, and another when Brazil was still facing the consequences of the 1980s debt crisis. Jaguaribe's realistic and pragmatist stance was highly perceivable, in all these contributions but he never abandoned his developmental convictions. Jaguaribe's views on the crisis of the state likely influenced Bresser-Pereira's initiatives to reform the state during the 1990s, which had consequences in the petroleum industry through the foundation of ANP in 1997. If Jaguaribe, on one hand, never ruled out the participation of MNCs in Brazil's economic life, he also made clear that for him an autonomous developmental policy focusing on the accumulation of human capital, human wellbeing, and technological capacities was the key to Brazil's economic success. Even when the winds of liberalization, privatization and deregulation started to reach Brazil, Jaguaribe acknowledged that Petrobras as a public company had an important role to play in the country's developmental plans.

Helio Jaguaribe's legacy in the realm of the study of Brazil's oil question still resonates today. Even though one and a half-decade of energy-based developmental plans have seemingly been dismissed, Jaguaribe's proposals are still timely. Brazil is no longer in the position to rule out foreign oil & gas investments, but the key to Brazil's endeavor still lays in the accumulation of technological capacities and social expenditures, both to be financed with oil & gas revenues. This is a critical juncture in which a liberal economic policymaking approach irresponsibly wants to use Brazil's petroleum windfall profits to reduce Brazil's short-term debt, in sharp discordance with the recommendations of an enormous resource-based economic growth literature (see for instance BARBIER, 2007). The rereading of Jaguaribe's works on the subject not only shows that this approach will probably result in a missed opportunity but also helps to find ways forward.

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