

THE OIL INDUSTRY IN BRAZIL AND ARGENTINA: HISTORIOGRAPHY AND RESEARCH POSSIBILITIES IN LATIN AMERICAN INTERNATIONAL RELATIONS/ECONOMIC HISTORY

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RESUMO

Este artigo pretende analisar e comparar a historiografia sobre a história do petróleo do Brasil e da Argentina, dando ênfase as características políticas de ambos os países e como elas moldaram seu desenvolvimento energético e econômico. Este artigo também pretende perceber de que forma a nova historiografia pode contribuir para a compreensão da economia política do petróleo nos dois países e quais oportunidades ela oferece para novos pesquisadores na área.

Palavras-chave: Petróleo – Historia - Brasil - Argentina

ABSTRACT

This paper intends to analyze and compare the main historiography about Brazil and Argentina oil history, giving emphasis on how political features of both countries shaped its energetic and economic development. This paper also intends to perceive in which ways new historiography can contribute to the understanding of the political economy of oil in both countries and which opportunities it offers for new researchers in that area.

Keywords: Oil Industry – History – Brazil – Argentina

The historiography of oil and nationalism in Latin America tends to focus on Mexico and Venezuela, as these countries are the two major producers in the region. This preference is

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understandable, but leaves aside other crucial facets of oil and power in Latin America. Brazil and Argentina are two of the major economies in the Americas and important oil markets in the continent. Their growing domestic industrialization fostered an increasing demand for oil, which by its turn made evident that both countries were dependent on foreign oil, exacerbating the limitations of their developmental strategies. Over the course of the twentieth century, Brazil and Argentina went through similar processes of political-economic development, starting with classic liberal republics, moving through populism, military conservatism and finally the neoliberal age. During all those historical twists and turns, oil has been a major part of the public life, social imagination and government strategy.

The state oil companies of Brazil and Argentina, Petrobras and Yacimientos Petroliferos Fiscales (YPF) became the embodiment of dreams of self-development and national power. It can be argued that these same trends can be seen in other places, where oil and nationalism have also played a major role during the 20th century. But in the case of Argentina and Brazil, this convergence was complicated by the dual conditions of these nations as producers, developing a state-led domestic industry, and consumers, heavily engaged with the major multinational oil corporations. Their entanglements with the majors and the need to develop a capital-intensive industry such as oil at a time when that was financially beyond their reach make them important cases in the global history of oil. In this light, my goal in this historiographical essay is to assess where scholars converge and diverge in their treatment of three different historical moments. Comparison and contrast of different perspectives on the origins, consolidation and maturity of Petrobras and YPF allows fuller appreciation of the importance of oil to the development of Brazil and Argentina, of the importance of Petrobras and YPF to the history of global oil, and the key topics for further scholarly investigation.

Origins of the Oil Industry

Oil emerged as an important national theme and as an industry in Argentina earlier than in Brazil. Given the historical context, that might be considered an expected outcome. In spite of the fact that the Brazilian territory is much bigger than Argentina and that Brazil has always had a larger population, by the late nineteenth century the Argentine economy was developing faster than Brazil's.

The full integration of the Argentine economy with that of Great Britain, through the trade of beef and wheat, brought impressive profits and easier access to British credit. As many historians have noted, Argentina served lunch while Brazil served dessert, explaining why the meat-wheat based Argentine economy was developing faster than the coffee-based Brazilian economy. While Brazil was still only running on coal, by the late nineteenth century a more developed Argentina already had a considerable consumption of Kerosene, especially for public illumination in Buenos Aires.

Nicolas Gadano, a professor of economics and a former employee of YPF, explores this context in "Historia del petroleo argentino, 1907-1955", 2006. His status as a YPF insider with full access to the company's archives added to the extensive research conducted in the diplomatic documents of at least three countries, making his book the most thorough work available on the origins and consolidation on the Argentine oil industry. Gadano shows that by 1890, oil was already a polemic issue in Argentine public life. (GADANO, 2006:P.15) He describes in detail how the free-trade oriented government of Argentina did not hesitate to offer Spanish companies full access rights to the Salta oil fields close to the border with Paraguay. But while rabid nationalists might regard this as a sell-out typical of oil history, Gadano treats the negotiations with greater nuance, emphasizing Argentina's delicate position regarding energy issues. Argentina depended on Welsh coal for more than 90% of its energy demands and the Argentine political elite feared that any disruption in transatlantic trade might cause a severe economic crisis. In Gadano's interpretation, this explains the extremely favorable conditions given to the Spanish entrepreneurs in the Salta concession. (GADANO, 2006: P. 27)

The Spanish ultimately lacked the necessary resources to fully develop the concession and ended up bankrupt before it could achieve any meaningful results. After that initial setback, the Argentine government sent teams of geologists to survey the sedimentary basins of the country in search of promising oil fields. On December 13th 1907, a team found a major breakthrough in the coastal city of Comodoro Rivadavia. The geologists found what was later considered to be the major oil field in Argentina at that point and the geologists believed that this could be the path for Argentine energy independence. (GADANO, 2006: P.23)

The discovery triggered an internal political fight for the development rights. Carl Solberg's classic work, "Oil and Nationalism in Argentina", 1979, explores this context and its importance in the

foundations of the Argentine oil industry. Solberg's work complements that of Gadano: where Gadano focuses more on the economic and technical aspects of the industry, Solberg gives greater importance to the political aspects of the Comodoro Rivadavia finding. Solberg argues that the discovery of the new fields came in a moment of political transition. There was a growing conflict among Argentine elites, where the free trade oriented PAN clashed with the UCR, a more nationalistic sector, albeit still part of the nation's elite. (SOLBERG, 1979: P.22) President Roque Saenz Pena was instrumental not only in resolving this conflict, but in giving an important incentive to the birth of the Argentine oil industry. In challenging his Anglophile political allies, he risked political capital by announcing that the new oil fields would be under the control of the Ministry of Agriculture. The decision enraged Standard Oil, Royal Dutch Shell and Anglo-Iranian, the three majors that dominated the oil and kerosene market in Argentina. Solberg's work makes key contributions in clarifying this decisive moment in Argentina's oil history.

In the excellent overview *Oil and Politics in Latin America* George Philip demonstrates that Anglo-Iranian was particularly disappointed with the Saenz Pena's decision. (PHILIP, 1982:P.10) This confirms Solberg's argument that Argentina was virtually an "economic colony" of Great Britain. The British government expected unlimited access to those new fields, or, at least, that Argentina would keep its more Liberal approach of an open market. British strategists, doubtful of Persia's reliability as Britain's preferred oil-supplier, also hoped that Argentina—more firmly ensconced in the British sphere of power—would turn into a stable source of oil. As Philip demonstrates, Britain's geopolitical oil strategy hinged the vital South Atlantic coaling station of Port Stanley. If the British companies had access to the new fields, Port Stanley could have become an even more pivotal point in the British naval strategy.

While each brings key insights, Gadano, Solberg and Philip converge in their interpretations of YPF's origins. The Ministry of Agriculture proved incompetent in developing the Comodoro Rivadavia fields. Tough environmental conditions and terrible working conditions made strikes and riots a routine. The rise of the UCR and the president Hypólito Yrigoyen to power in 1916 promised change. The deepening crisis of World War I heightened the sense of urgency for both Britain and Argentina. War brought transatlantic trade to a halt, causing a severe energy crisis in Argentina. Yrigoyen recognized that reality, but was unable to change it during his term. As Solberg demonstrates, Yrigoyen's response to the crisis was the creation of Yacimientos Petrolíferos Fiscales (YPF) in 1922, the first

State oil company of the Americas, and one of the first in the world.(SOLBERG, 1979:P.28) The 1920s would see the consolidation of the company: the progress would be impressive, but some of the troubles that marked that initial stage endured.

The origins of the oil industry in Brazil can be traced to the early 20th century, when the Brazilian government followed Argentina's example and conceded exploration rights to small British entrepreneurs in São Paulo and Bahia. They failed to find any meaningful reserve, which outraged the Brazilian government. The Brazilians thought the British could only be cheating—it seemed impossible that a giant country like Brazil had no meaningful oil field. That mix of disappointment, mismanagement and nationalism marked the Brazilian oil industry from 1900 until 1953. Peter Smith's 1979 work *Oil and Politics in Brazil* and Drielli Peyerl's book *Oil of Brazil* still remain the best analysis of those first years. Smith demonstrates that what the Brazilian political elite perceived as the main advantage of the country in the end proved to be its greatest trouble. The Brazilian rulers believed that the sheer size of the country's landmass was a huge asset, since it had every kind of resource in it. But that impressive landmass made the geologic survey for oil a herculean task. And some of the most promising sedimentary basins were located in places of extremely difficult access, like the Amazon forest. (SMITH, 1979: Pp. 7-43) The enormous amount of resources, coupled with the knowledge of easily accessible sources in Venezuela, Peru and Argentina, scared the majors away from Brazil. Meanwhile, Peyerl's book is a major contribution to the understanding of the development of the technical aspects of the Brazilian oil industry. Her analysis stretches even further than Smith's, starting with the very early beginnings of the oil exploration in Brazil, when the Emperor himself was trying to concede oil contracts to foreigners as early as 1868. (PEYERL, 2020: p.17)

Getúlio Carvalho's 1977 work *Petrobras: do monopólio aos contratos de risco*, explores the origins of Brazil's state oil company. Carvalho's work, while extensive, is limited by curtailed access to the company's documents, written during the most repressive years of the authoritarian period of Brazil's military regime. Smith and Carvalho converge on two important points, pivotal to any understanding of Brazil's early oil history. The first is the rise of Getúlio Vargas to national power and the Brazilian position within the global oil market. Vargas led the coup that brought down the liberal Old Republic in 1930. Since the coffee economy struggled during the Great Depression, Vargas believed that it was time to start a new national project orientated towards import substituting

industrialization. Vargas and his cohort perceived oil to be the energy that would fuel the future of Brazilian industrialization. Carvalho demonstrates that oil, nationalism and the military were tied together during that period. Within the military circles that supported Vargas, there was a mythological belief that Brazil had to become one of the major oil producers in the world. (CARVALHO, 1977: Pp. 45-73) They urged Vargas to take immediate measures to achieve that goal.

Vargas, a master strategist, acquiesced. In 1932, he passed the law that nationalized all subsoil resources. Two years later he created the Petroleum National Council (CNP), whose task was to prospect and explore oil fields yet to be discovered. Typical of his strategy, Vargas then entrusted this Council to the military allies that had pressed him to nationalize oil, securing their loyalty and keeping them where he could monitor their actions. Until 1945, nevertheless, Brazil remained a secondary player both as a producer and a consumer. Coal and wood remained its primary sources of energy. The retail market for gasoline was profitable for Esso and Shell, but was much smaller than that Argentina. But as World War II ended and Brazilian industrialization soared, the demand for oil finally surged. As was the case with the Ministry of Agriculture in Argentina, Brazil's Petroleum Council proved incapable of responding to this demand. Brazil needed a new institution, with technological, political and financial power, to develop its oil potential. Petrobras, created in 1953, was expected to be the game changer.

Consolidation of the state companies

Meanwhile, YPF had already become a colossal presence in Argentine life. In less than a decade YPF became a major player in extracting, refining and retailing Argentine oil. The official narrative treats Colonel Enrique Mosconi, YPF's chief strategist, almost like a saint, a man who sacrificed himself for the dream of national development based on energy self-sufficiency. Gadano, Solberg and Philip offer more balanced treatment. They agree that Mosconi was a gifted administrator: he was able to control the strikes in the oil fields of Comodoro Rivadavia and Plaza Huincul. He also brought an enhanced sense of organization and made YPF more effective than it was in 1922. Under Mosconi's leadership, YPF forged a partnership with Bethlem Steel at the La Plata refinery, the largest in South America. The La Plata refinery gave YPF the lead in refining in the South America's largest oil-consuming country. Solberg's account gives much of the credit to YPF president Marcos Alvear. Gadano, in contrast, draws on vast archival

evidence to tell a different story. Gadano shows Alvear was the typical fruit of the Porteno Elite of the early 20th century. He was an Anglophile, the wealthy scion of cattle barons, a fan of horseraces and a believer in free trade. Alvear understood what Hypolito Yrigoyen's gamble in founding YPF meant to the political survival of his party, UCR. The party gained the sympathy of many sectors of the Argentine society for whom oil and nationalism went hand in hand. In the end, Alvear gave full support to Mosconi, but what the president really wanted was to privatize YPF and open the country especially to the British majors, Royal Shell and Anglo Iranian (BP). The British remained keen aspirants to the Argentine oil concession, with or without the partnership of YPF. As Gadano demonstrates, Mosconi, more so than Alvear, developed YPF's capacity to the degree that it could develop the Argentine fields largely on its own. As Philip demonstrates, this enabled YPF to satisfy the nationalist UCR base in congress, without plunging the nation into another energy crisis. (GADANO, 2006: Pp. 185-209)

Gadano, Philip and Solberg nevertheless agree that YPF was not able to transform Argentina into a self-sufficient oil country. By the early thirties, YPF provided only about 25% of Argentina's oil needs of Argentina. Standard Oil of New Jersey (Esso) controlled the majority of supply and retailing. In order to supply the Argentine market, Esso brought considerable quantities of oil from Venezuela. Moreover, Jersey led the exploration of fields in Salta and Mendoza that had not been nationalized in 1907. As Solberg demonstrates, this concession required deft negotiation of conflicting alliances: the Porteño elites preferred British partners to Americans, but the provincial governors of Salta and Jujuy distrusted the Porteños, and sought the most lucrative deal possible—in this case with Standard. Oil thus proved crucial in the delicate political machinations between capital and provinces that became part of Argentina's growing political tension. (SOLBERG, 1979: P.76)

A fragile balance among these various sectors endured throughout the 1920s, but became increasingly precarious by the end of the decade. Yrigoyen, in a second, nonconsecutive term as Argentina's president, tilted more precipitously towards nationalist measures. In 1930, conservative military and political figures reacted, ousting Yrigoyen and the UCR. Gadano attributes the coup in large part to the machinations of Standard Jersey. (GADANO, 2006: P.252) Solberg, in contrast, gives Standard a pass and attributes the coup solely to internal factors. (Solberg, 1979, P.112) Regardless of its origins, the coup's results disappointed the labor left without appeasing the free-traders: the new President, General

Uriburu, reinforced YPF's power and its scope of action. Uriburu and his successors used YPF to strengthen the military control over the state, rather than to build a loyal corps of industrial workers. In 1936, they decreed that all new oil fields in Argentina belonged to the Argentine state. In addition, they obliged Royal Shell and Esso to concede half of the Buenos Aires retail market of gasoline and other petroleum products to YPF.

As Gadano demonstrates, this turned YPF into an important propaganda instrument. Even gas stations used national colors (light blue and white) and evoked the national theme of the gaucho. (GADANO, 2006: P.482) The relations between the Argentine government and Standard Jersey soured further when rumor spread alleging that Esso was smuggling and refining oil from Bolivia in the north in order to avoid new taxes imposed on crude oil imported by the majors. The regime used these rumors to strengthen its control over domestic production. The military regimes of the 1930s thus nurtured an odd combination of labor-repressive, nationalist, state-led capitalism.

World War II then brought renewed energy crisis, as well as political crisis within the Argentine regime. This crisis paved the way for Juan Domingo Perón's rise to power. Perón dramatically improved working conditions in the oil fields and gave oil workers better access to retirement plans, vacation colonies and health care. According to Elana Shever demonstrates in "Oil And Neoliberalism in Argentina," in a strategy typical of Latin American populists, Perón emphasized YPF as a family, firmly hierarchical but bonded by emotional ties and loyalty, as well as financial interest, characteristics that defined the corporation until privatization in 1993. (SHEVER, 2012: P.43) Shever, Gadano, Philip and Solberg offer similar analyses of oil and Peronism. They show that Peronist rule of YPF was marked by corruption and mismanagement. The company was not able to improve its services and also failed to develop Argentina's full capacity as an oil-producing nation. Oil dependence proved the Achilles heel of Perón's enthusiastic import substitution strategy. (ISI) International oil prices rose while domestic oil demand grew, far outstripping domestic supply, and the machinery of ISI ground to a halt by the mid-1950s.

The ensuing period, marked by alternation of military and civilian governments in a series of coups and counter-coups, was marked by ingrained corruption, under-investment and incompetence within YPF. The majors, meanwhile, largely steered clear of this risky environment, particularly after Standard Jersey (ESSO) and Standard of California (CHEVRON) lost considerable investments

following coups in the 1950s and early 1960s. As a result, despite YPF's early promise, it failed to reach its potential. Gadano's assessment is persuasive: "after 40 years of YPF, Argentina was still only a country with oil, period."(GADANO, 2006: P.594)

Back in Brazil, the oil debate raged after 1945. Getúlio Vargas was ousted in a coup in 1945, but then returned as elected president in 1950, precisely when Brazil's oil needs became desperate. As Carvalho demonstrates, Vargas seized the momentum of his popularity in the early 1950s to create a state oil company. But Carvalho gives necessary attention to Vargas's insistence that the company include the participation of private capital: Vargas intended to solve the cash flow problem of the new company while avoiding a showdown with the US government and the majors. (CARVALHO, 1977:P.45)

Philip demonstrates that the political opposition and an important part of the Brazilian conservative elite was willing to sink Vargas's plans by any means. (PHILIP, 1982: P.223) When the debate went to the Brazilian congress, the brouhaha reached epic proportions. In the end, the government favored a mixed national company and the monopoly of exploring and refining in the country. The opposition UDN, sacrificing its Liberal roots to the nationalist demands of the moment, voted in favor of a state-owned company. Petrobras was founded in 1953 as a state company with full exploration and refining rights in the national territory. New gasoline taxes underpinned the corporation's financial structure. Petrobras also benefited from unlimited access to foreign currency and tax-free importation of equipment. Despite its newness, Petrobras in the mid-1950s was better organized and funded than YPF. There was only one problem: there was no oil in Brazil, except for some small reserves in Bahia, known as the Lobato well.

As Smith and Peyerl argued, oil issues provoked extreme nationalistic outbursts from even average Brazilians. The idea that a country of the size of a continent did not have oil was an insult to the conceived notion that Brazil was a land of plenty. (SMITH, 1979, P.45) Monteiro Lobato, a famous novelist and failed oil entrepreneur, wrote an extremely popular book in the early 1950s arguing that Brazil was being sabotaged by the oil majors and their governments. In this nationalist climate, Petrobras was severely criticized for bringing Walter Link, the chief geologist of Standard Jersey (ESSO), to supervise and conduct the survey of the Brazilian sedimentary basins. To make matters worse, after five years of research and fieldwork and US\$ 300 million spent, Link delivered an extremely pessimistic assessment about Brazilian oil capabilities. All the major

sedimentary basins of the country were surveyed, and none seemed promising for major oil exploration. The leaked report triggered a predictable nationalist backlash. Link was immediately fired and sent out of the country, and the neologism “Linkism” became slang for treason in Portuguese during the 1960s. (PEYERL, 2020, P. 54)

In writing her 1993 work, *The Economic Policy of Brazilian Oil*, Laura Randall drew on unprecedented access to Petrobras archives. Unfortunately, this plethora of sources did not materialize in a coherent narrative. The topics of Randall’s chapters remain ill-defined, and her exposition is highly repetitive. But her work is not without merits, such as her demonstration that Link was, in fact, pivotal to the development of Petrobras. He left behind a structure of Brazilian engineers, laboratories and geologists that was extremely capable and promising. (RANDALL, 1993: P.68) A Soviet team that conducted similar surveys in Brazil, furthermore, confirmed Link’s conclusions. As a result, Petrobras itself grew more capable and politically influential in the 1950s, despite the dearth of domestic oil.

The military proved crucial in forming the ethos of Petrobras during this process of consolidation. As Phillip demonstrated, Generals Horta Barbosa and Juarez Tavora, serving on the company’s board, kept Petrobras insulated from political meddling until the 1960s. The generals also helped to develop an impressive network of refineries and tankers that only in a few years transformed Petrobras into one of the largest employers in Brazil. (PHILLIP, 1982: P.329)

The authors converge in their interpretation of what happened to Petrobras with the rise of populism in Brazil during the early 1960s, embodied by the rise of João Goulart to power in 1961. In similar ways to Perón in Argentina, Goulart’s proximity with the unions resulted in better wages and benefits to Petrobras’s workers, at the expense of Petrobras’s strategic development. As Carvalho demonstrates, by 1963 the labor unions virtually ruled Petrobras and the military had lost much of its clout. (CARVALHO 1977: P.126) Declining influence over Petrobras proved crucial in the path towards the military coup of 1964. Immediately following the coup, the military emphasized its control over Petrobras, vowing to insulate Petrobras from labor pressure while restoring technocracy to primacy. The civil-military regime’s investment in Petrobras mark the end of the consolidation stage of Petrobras and the turn to a more mature stage, as Petrobras became a national champion and a player in the international oil market.

Contemporary Age– Debt Crisis and Neoliberalism

Elana Shever's 2012 doctoral dissertation offers a compelling account of transformations in the Argentine oil industry over the last 30 years. Shever explores YPF's changes after its privatization in 1993. YPF was plagued by years of political meddling and administrative mismanagement. The Ménem administration of the 1990s, in its effort to reform the Argentine state, followed the dictates of the Washington consensus. Ménem privatized not only YPF but also Aerolíneas Argentinas and other struggling state companies. Shever's narrative demonstrates that YPF's workers were fired and transformed into outsourced contractors. Rather than going to archives to analyze that phenomenon, Shever opted for an ethnographic method, allowing her to offer a vivid portrayal of the struggles of former YPF employees in adapting to free-market logic. Shever portrays this process as a national tragedy, where the forces of the international market destroyed Perón's old YPF family. Her perspective is that did not need to happen, since YPF was in her eyes a "profitable and efficient company." (SHEVER, 2012: P.75) Unfortunately, Shever adopted an unbalanced view that distorts the realities and demands of the oil industry. After seventy years of life, YPF was a bankrupt and inefficient company and Argentina was not fully self-sufficient in oil. Although its workers had a better standard of living and stability that the average Argentine citizen could only dream about. With so many regime changes, oil regulation in the country was in a state of chaos, where neither the majors nor YPF had the edge in the exploration or refining. Moreover, the Argentine state was bankrupt and did not have the money to invest in modern equipment to fully develop the capacity of the country's oil fields. In the end, privatization seemed the best option to restore YPF to its original purpose of being an oil national champion. Shever fails to provide documentary evidence proving her allegation that the privatization process was marred by irregularities. Shever nevertheless provides an acute portrayal of the rebirth of oil nationalism in Argentina with the Nestor Kirchner government, followed with more verve by his wife and successor Cristina Hernandez de Kirchner. Unfortunately there are few sources available allowing an in-depth analysis of the Kirchner family with Hugo Chavez and PDVSA, and how that influenced the renationalization of YPF in 2012. Writing about the present and the future is always a daunting task for an intellectual, especially because the historical trends are not yet clear.

In Brazil, the contemporary age has brought a remarkable turn of events regarding Petrobras. As Carvalho accurately pointed out, the military promised a total revamp of Petrobras, making the company accountable to improved standards of efficiency.(CARVALHO, 1977: P.195) From 1964 until 1977, the military were able to deliver that in many ways, but after that the company fell in a morass that marked the lowest point of its existence. As Randall argues, during the Debt Crisis of the 1980s, the Brazilian government withdrew money from Petrobras to pay its debt with the IMF and international creditors. Rumors of privatization circulated, particularly in the early 1990s, but, as Randall shows, there was little chance of that happening given the nationalistic feelings towards oil and Petrobras in Brazil. (RANDALL, 1993: P.142)

Even during the low years of the 1980s, Petrobras developed interests that would emerge in stronger form in its period of renewed vigor from the mid-1990s to the present. Former Petrobras engineer, Jaime Rotstein, in his work "Petróleo: a crise dos anos 80," seeks to offer broader perspectives on Petrobras's evolution in that decade. He does not entirely succeed in that regard, as his book is weak on sources and emphasizes the more outlandish tangents of Petrobras's strategy, such as the proposal that Brazil assemble an army to invade the Middle East and force the OPEC nations to lower the oil prices, or to cut 50% of crude oil imports to Brazil, notwithstanding the consequences to the economy. (ROTSTEIN, 1980: P.18) Despite these characteristics, exacerbated by his own nationalist rants, Rotstein does document some important innovations. He shows that the international arm of Petrobras (Braspetro) forged partnerships with Iraq, Angola and Mozambique in order to guarantee oil sources for cheaper prices. In turn, Braspetro developed those fields in a joint venture with those countries. The joint venture with Iraq proved to be extremely profitable to both sides, causing an interesting Brazilian participation in the Iran-Iraq war. The second important trend analyzed by Rotstein was the growing use of sugar cane ethanol after the 1973 oil shock. Ethanol was not the panacea that Rotstein thought it was, but it became an important part of the Brazilian energy mix, especially after the oil prices rose by the early 2000s.

It is Smith, however, that notes the most important novelty, the discovery of the Campos offshore oil field. Since Smith's book was published in 1979, the only thing that he commented on was that the fields were extremely promising. (SMITH, 1979: P.3). About the contemporary age of Petrobras, when the exploration of the Campos Basin became a reality, the works of Tyler Priest and Bruno Biasetto

must be emphasized. Tyler Priest's book chapter about the history of the offshore oil in Brazil in the late 20th century is instrumental to demonstrate how Brazil technological strides allowed the country to consolidate a complex and efficient operation in the Campos Basin. By 1997, Petrobras was extracting something close to 1 million barrels per day from its operations in the Rio de Janeiro coast, making Brazil self-sufficient for the first time in its history. (PRIEST, 2016: p.77) Bruno Biassetto's doctoral dissertation *The Poisoned Chalice*, about the political economy of oil in Brazil (1967-2003) compliments Priest's work in interesting ways. His analysis explained why Petrobras improved financial situation, following some important corporate reforms in the early 1990s, allowed the company to increase its investments in R&D and with that expand its operations in the Campos Basin. Biassetto analysis sheds light on the fact of how Brazil's stabilization plan (*Plano Real*) implemented in 1994 was pivotal to improve Petrobras' fortunes by putting inflation under control and creating a strong currency in the process. (BIASSETTO, 2016: P.275). After thirty years of exploration in Campos, Petrobras has become one of the world's leading companies in offshore oil exploration. It achieved that condition in keeping the tradition of joint ventures, but now with international companies like Halliburton, GALP and Petronas.

Conclusion - Areas for Further Research

Argentina's oil industry has been better covered than Brazil's. Very few works on Brazil offer the depth, breadth and evidentiary foundation of Gadano's work on Argentina, for example. Moreover, there has to be more relevant research about the sweeping changes in Petrobras's administration after 1993, which helped to transform the company into one of the world's most powerful oil companies. Until 2014 Petrobras had a meteoric rise in order to consolidate its position as one of the major players in the global oil market. Since Brazil's oil consumption rate soared from 1994 until 2011, it is interesting to historians revisit the role of oil in shaping environmental damages caused by the oil industry, and how that affects the lives of millions of Brazilian citizens. There is also a plethora of possibilities regarding the studies of corruption in Petrobras, that is clearly evident since the civil-military regime that started in 1964 and that still shows signs of being rooted in the company until nowadays.

Regarding Argentina, the historians have several possibilities in researching the details and the repercussion of YPF's privatization in 1993. That process was far from being an honest affair and

reflects clearly the serious problems with accountability faced by the Argentine state since the return of democracy. Also, a more coherent narrative following Gadano's style could enlighten academics on how Argentina conducted its energy policies since 1983. In summary, the field is open for those who want to research the rise of Brazil as an oil producer and the broader processes that favored such a change.

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