

Petróleo y potencia mundial: PEMEX y PETROBRAS

Rosales Torres, César Said

 **César Said Rosales Torres**
cesarsaid.rosales01@estudiant.upf.edu
Universidad de Georgetown, Estados Unidos

Analéctica
Arkho Ediciones, Argentina
ISSN-e: 2591-5894
Periodicity: Bimestral
vol. 0, no. 4, 2014
revista@analectica.org

Received: 03 March 2014
Accepted: 30 April 2014

URL: <http://portal.amelica.org/ameli/journal/251/2511080005/>

DOI: <https://doi.org/10.5281/zenodo.3843527>

Abstract: Petróleos Mexicanos (PEMEX) and Petróleo Brasileiro S.A. (PETROBRAS) are two of the most important oil companies in Latin America and the world. Both have served to the economic development of their countries since their creation, and have gone through times of expansion, contraction, political tension, and reform. However, Pemex and Petrobras are two very different companies that have evolved in opposite ways. After the expropriation of Mexican oil in 1938, Pemex consolidated its strategic role in developing the energy sector in the country, and during the following decades it became a pillar of the domestic economy. However by the mid-2000s oil production began to shrink drastically, resulting in a constant questioning of the company's management, the state ownership of subsoil resources, and the role that it plays in the Mexican economy. In a different direction, Petrobras has become one of the top oil producing companies as well as a global reference of public-private business relations. Even though the oil sector in Brazil was not attractive for private investment during its early years of development, the Brazilian company managed to improve its operations to become the 11th top oil producer in the world in 2012 according to the EIA, just 2 places behind Pemex. What is striking about this data is that in year 2004 Mexico ranked 5th and Brazil did not even appear in the top 15 producers list. So, what happened to the Mexican and Brazilian industries to evolve in such different ways? Why has Mexico's production decreased so rapidly in the last decade whereas the Brazilian industry is showing important signs of progress? At what point in time did Pemex's operations began to deteriorate and those of Petrobras to improve?

Keywords: progress, oil, expropriation.

Resumen: Petróleos Mexicanos (PEMEX) y Petróleo Brasileiro S.A. (PETROBRAS) son dos de las compañías petroleras más importantes de América Latina y del mundo. Ambos han servido al desarrollo económico de sus países desde su creación, y han pasado por tiempos de expansión, contracción, tensión política y reforma. Sin embargo, Pemex y Petrobras son dos compañías muy diferentes que han evolucionado de manera opuesta. Después de la expropiación del petróleo mexicano en 1938, Pemex consolidó su papel estratégico en el desarrollo del sector energético en el país, y durante las siguientes décadas se convirtió en un pilar de la economía nacional. Sin embargo, a mediados de la década de 2000, la producción de petróleo comenzó a reducirse drásticamente, lo que resultó en un cuestionamiento constante de la administración de la compañía, la propiedad estatal de los recursos del subsuelo y el papel que desempeña en la economía mexicana. En una dirección diferente, Petrobras se ha convertido en una de las principales

compañías productoras de petróleo, así como en una referencia mundial de las relaciones comerciales público-privadas. Si bien el sector petrolero en Brasil no era atractivo para la inversión privada durante sus primeros años de desarrollo, la compañía brasileña logró mejorar sus operaciones para convertirse en el undécimo productor mundial de petróleo en 2012 según la EIA, solo 2 lugares detrás de Pemex. Lo sorprendente de estos datos es que en el año 2004 México ocupó el quinto lugar y Brasil ni siquiera apareció en la lista de los 15 principales productores. Entonces, ¿qué pasó con las industrias mexicana y brasileña para evolucionar de maneras tan diferentes? ¿Por qué la producción de México ha disminuido tan rápidamente en la última década mientras que la industria brasileña muestra importantes signos de progreso? ¿En qué momento comenzaron a deteriorarse las operaciones de Pemex y mejorar las de Petrobras?

Palabras clave: progreso, petróleo, expropiación.

Introduction

Petróleos Mexicanos (PEMEX) and Petróleo Brasileiro S.A. (PETROBRAS) are two of the most important oil companies in Latin America and the world. Both have served to the economic development of their countries since their creation, and have gone through times of expansion, contraction, political tension, and reform. However, Pemex and Petrobras are two very different companies that have evolved in opposite ways. After the expropriation of Mexican oil in 1938, Pemex consolidated its strategic role in developing the energy sector in the country, and during the following decades it became a pillar of the domestic economy. However by the mid-2000s oil production began to shrink drastically, resulting in a constant questioning of the company's management, the state ownership of subsoil resources, and the role that it plays in the Mexican economy. In a different direction, Petrobras has become one of the top oil producing companies as well as a global reference of public-private business relations. Even though the oil sector in Brazil was not attractive for private investment during its early years of development, the Brazilian company managed to improve its operations to become the 11th top oil producer in the world in 2012 according to the EIA, just 2 places behind Pemex. What is striking about this data is that in year 2004 Mexico ranked 5th and Brazil did not even appear in the top 15 producers list. So, what happened to the Mexican and Brazilian industries to evolve in such different ways? Why has Mexico's production decreased so rapidly in the last decade whereas the Brazilian industry is showing important signs of progress? At what point in time did Pemex's operations began to deteriorate and those of Petrobras to improve?

This essay argues that the tipping point for both companies took place during the 1970s when Mexico's production prospects seemed limitless but policy choices were taken under the assumption that oil was perennial. In contrast, in the same decade Petrobras had to operate under a military regime and sought all the means possible to secure oil supply through domestic regulations and international ventures, thus better preparing the country for the upcoming crisis of the 1980s. To understand how this occurred, the essay explores the origins and

organizational structures of both companies to assess their performance during the 1970s, 1980s and the 1990s. In order to build a coherent narrative of the evolution of both Pemex and Petrobras, I consulted books written in each of the aforementioned decades to get insights of the topics and issues discussed in those particular years. For the case of Pemex I consulted *The Political Economy of Mexican Oil* (1989) by Laura Randall as a reference of the historical development of the company since the 1950s until the 1990s; *Endangered Mexico* (1998) by Joel Simon provides an excellent framework about the environmental impact of Pemex operations in the country during the 1990s; and *Nuevo Régimen Fiscal de Pemex* (2006) by Fernando Calzada Falcónis an example of how the government continues to rely on taxing Pemex to distribute the benefits of the oil industry. In the case of Brazil I consulted *Petrobras: Do Monopólio aos Contratos de Risco* (1976) by Getúlio Carvalho which describes the role of the monopolies over certain areas of oil production and ends up describing the figure of risk contracts in the late 1970s; *Os Contratos de Risco e a Petrobras* (1976) by Fausto Cupertino is another book that adds on the repercussions of the risk contracts and provides a political understanding of the contracts; and finally *The Political Economy of Brazilian Oil* (1993) by Laura Randall includes relevant considerations about the oil industry in Brazil during the 1980s and the early 1990s.

The Impact of Nationalism in the Origins of Pemex and Petrobras

Despite the fact that Pemex and Petrobras were the result of nationalistic ideologies in Mexico and Brazil, both state companies were designed to achieve different objectives. Consequently, their organizational structures were planned on different conceptions about which should be their role in their respective economies. This difference is the basis to explain why Pemex and Petrobras achieved dissimilar levels of economic and financial performance in the following decades. Mexico's national oil production started by the end of the 19th century, but it was until 1910 that the oil fields started to be exploited by foreign companies in a relevant scale. Even during the violent period of the Revolution, Mexican production increased at an average annual rate of 43%, rapidly positioning Mexico as one of the top producers in the continent (Gutiérrez, 2006, 17). Therefore, by the time of the expropriation of oil in March 18, 1938 Mexico already had a competitive and a developed oil industry with refineries, processing plants, and considerable transportation infrastructure (Randall 1989, 9). The case of Brazil is quite the opposite because domestic laws granted rights to landlords and provinces that inhibited oil exploration. The result was that foreign companies were not interested in Brazilian oil prospects during the 1920s and 1930s (Randal, 1993, 9). In fact, the government in 1918 was the only entity that barely invested in the oil industry, but it was until the administration of Getúlio Vargas that the state's investment in oil extraction and production was irreversible. His government set the legal and ideological basis for the modern oil industry in Brazil through the elaboration of a Mining Code and the establishment of the National Petroleum Council– NPC in 1938, which was in charge of overseeing the production activities in the country (Carvalho, 1976, 9).

The fact that Mexico started earlier its operations in the oil industry and was more experienced than Brazil in energy matters positioned Pemex as a reference of a relatively successful company for Petrobras (Carvalho, 1976, 79). Pemex was established in June 7, 1938 three months after the oil expropriation, and Petrobras was founded sixteen years later on October 3, 1954. Since the company had more than a decade of experience in managing its own oil resources, some Brazilian leaders were interested in finding a formula that could help them figure out how to establish the participation of the government in national energy matters (Carvalho, 1976, 209). Consequently, during the early years of Petrobras, Pemex was regarded as a model of nationalism and efficient production. It is also important to note that the Brazilian government did not start oil production with Petrobras, but with the NPC under Horta Barbosa (Randall 1993, 9). Nonetheless, it was with the establishment of Petrobras that a more structured oil producing policy was implemented.

The nationalization of oil in both countries was regarded as a symbol of economic independence and control over their own resources to achieve economic development. For Mexico, it was also a reassurance of the values of the Revolution, which was meant to distribute the wealth of the country to all its citizens. In Brazil, nationalism was the result of the vulnerabilities that the country had as an exporter of raw materials, especially those experienced during the Great Depression of 1929 and the coffee crisis in the same years (Carvalho, 1976, 10). It was also during the government of President Vargas that there were open discussions about the formation of Petrobras, which included a strong rejection to the inclusion of foreign capital into the new company. This was especially supported by the nationalist campaign “O Petróleo é Nosso” (Oil is ours) that gained relevance in 1948 during the government of Eurico Gaspar Dutra (1946-1951) (Carvalho, 1976,11). Most of the nationalist legislation in Brazil was issued at the time when Major Juarez Távora was Minister of Agriculture. Távora helped to draft the Constitution of 1934 that abolished the right of ownership of the subsoil by private entities, and granted the federal government the exclusivity of exploration of the mineral resources. During the Estado Novo (1937-1945) domestic regulations required the Brazilian nationality for the shareholders of the NPC, and declared of public utility the oil supply, banning foreign participation in activities such as refining (Carvalho, 1976, 21).

Hence, nationalism was expressed through total control over natural resources in the form of state monopolies over production. In Mexico, Pemex was initially conceived as a state company that should serve the nation, and not as a business whose primary objective is to maximize profits (Randall, 1989, 28). Consequently, concessions were banned and the whole production chain of hydrocarbons was monopolized by the state (Gutiérrez, 2006, 18). In Brazil the monopoly over oil production was slightly different. It was conceived to be the best solution to guarantee oil supply in the long-term (Carvalho, 1976, 32). Therefore the conception of the Mexican oil industry granted enormous importance to oil ownership, whereas in the Brazilian conception ownership was important as long as it provided a secure source of energy supply. Perhaps this conceptual difference opened the door for discussions over the inclusion of private participation in some subsidiaries of Petrobras. In fact, when Petrobras

was created, it was established that the government should own at least 51% of the shares of the company, and foreign participation was accepted but limited to a maximum of 1/10 of 1% of the shares with voting rights (Carvalho, 1976, 50-51).

Despite the limitations in the inclusion of private participation for the expansion of the industry, Mexico was a model of self-sufficiency due to its huge production capacity. It was until 1956 when a major drop in oil reserves occurred that the government decided to invest more heavily in the expansion of exploration activities (Randall, 1989, 135). This led Pemex to export cheap crude oil and import expensive oil products, which resulted in a deterioration of its terms of trade. Nonetheless, for most of the years prior to the 1980s, Mexico was self-sufficient in crude oil, except for the period between 1970 and 1974, but when Pemex struck oil in Tabasco and Chiapas the trend reverted and the brief period of the “oil boom” (1978-1981) started in the country. In Brazil, the government declared in 1952 that the oil supply was a matter of national security (Randall, 1993, 10) and by 1961 Petrobras already supplied 81% of the total domestic demand (Carvalho, 1976, 120). Yet, despite the attempts of the company to achieve self-sufficiency by the 1970s Brazil still had to import oil. For this reason the discussion about production in the country opened the possibility to include joint ventures in the areas in which the government was not profitable (Carvalho, 1976, 192) as one high official mentioned: monopoly [in Brazil] was not an end but a mean to achieve self-sufficiency.

As shown in this section, the interpretation of nationalism in Mexico resulted in a strong monopoly over its mineral resources. In Brazil, nationalism was meant to secure the nation’s independence of resources and economic development. Therefore, the state monopoly over oil was just a mean to guarantee energy supply. In this sense, even though discussion about the inclusion of private capital in some areas of Petrobras was highly controversial, the government eventually accepted the inclusion of private capital in some operations of Petrobras. This ideological difference between both companies is of major importance because it determined the evolution and performance of the companies for the rest of the 20th Century.

The 1970s and the Impact of the 1973 Oil Crisis

The 1970s was one of the most dynamic decades for the international oil market. One of the reasons is that in 1973 the OAPEC oil production cuts that aimed at calling the attention of the United States about the Arab-Israeli conflict, ended up increasing the oil prices all over the world, distorting the international market and causing a serious supply and financial crisis. In addition, it was during this decade that Pemex and Petrobras passed through periods of expansion, contraction, reorganization, crisis, and relief. Consequently, Mexico and Brazil designed and implemented most of the policies that determined either the success or failure of their economies at the time of the debt crisis of the 1980s. The Mexican government along with the Mexican Petroleum Institute established the first ten-year plan about the development of the oil sector starting in 1970 and ending in 1980 (Randall, 1989, 129). This plan was basically a guideline for investment, and even though it contributed to the expansion of the sector,

mitigated the effects of the 1973 international oil crisis and the 1976 Mexican economic crisis, it was not successful to build a strong structure that would help Mexico overcome the debt crisis of 1982. Excessive concentration on exploration activities, increasing foreign debt and the imposition of higher tax burdens to Pemex weakened its institutional ability to contribute with the efforts to lessen the effects of the economic crisis.

The country started the decade as a net importer of oil; Mexico had to import large quantities of crude in order to meet the domestic demand between 1970 and 1974. As a result, president Luis Echeverría increased the emphasis on oil exploration mainly in the southern region of the country (Randall, 1989, 129). Exploration yielded its results and by 1972 giant wells were found with vast quantities of oil in Tabasco and Chiapas (Randall 1989, 145). Paradoxically enough, efficient exploration in the South also brought negative effects. The first is that oil wells in the South were depleted too fast, causing financial and environmental damages (Randall 1989, 146). The second and perhaps more important is that the exports of the crude denominated “Maya” contributed to a price drop and a deterioration of the relations between Mexico and some OPEC members (Randall, 1989, 19). Nonetheless, despite these problems the country experienced a rapid expansion of its oil activities from 1973 to 1981 at an annual growth rate of 23% (Randall, 1989, 132). The increase in the oil output motivated the government to tax oil exports in 1975 and to obtain increasingly larger revenues from crude exports (Randall, 1989, 167). Petrochemical production was profitable only between 1977 and 1980, and after that period, Pemex concentrated most of its efforts to export crude (Randall, 1989, 28).

The concentration in oil production led to a period of hyperinflationary growth from 1971 to 1982 with an average GDP growth of 5.5% accompanied by an inflation rate of 22% (Randall, 1989, 158). The good economic prospects of Pemex also increased the debt of the country, which partially helped to overcome the economic crisis of 1976. At that time oil was providing so many economic resources that Mexico even abandoned the austerity program established by the IMF at the end of the 1970s (Randall, 1989, 159). Internationally, Mexico tried to diversify its trade partners and signed deals with Israel, Japan, France, and Spain. Japan for instance was interested in obtaining alternative oil supplies due to the possible oil supply cuts derived from the Iran-Iraq War in 1980. Another relevant aspect was Pemex’s announcement of its intention to purchase 10% of a refinery of the Spanish Repsol with the purpose of obtaining a secure consumer of the Mexican crude exports (Randall, 1989, 185). Therefore, oil abundance in Mexico during the 1970 led the country to an excessive concentration on oil exports rather than refined products to obtain increasing sums of foreign exchange to service its debt obligations and continue funding the federal government. This resulted in an increasing dependency on commodity exports and the acquisition of a debt that was unsustainable during the 1980s when the international interest rates skyrocketed.

Brazil is a different story. The Brazilian strategy during the 1970s was to limit consumption, increase production and explore shale oil (Cupertino, 1976, 16). Even though the oil crisis of 1973 was not as significant as the Suez crisis for Brazil because it was not listed as one of the target countries of

the OAPEC, the military government decided to push for diversification of energy supplies as much as possible. In addition to the increase of the price of gasoline, the oil found in the Garoupa field proved to be much limited than expected and a deficit in the current transactions of the country served as the reasons to look for diversification (Cupertino, 1976, 11). To achieve such goals, the government decided to take four main lines of action: increase control over its monopolies, establish risk contracts to increase exploration, created a fuel alcohol program, and started overseas operations through BRASPETRO. The government strengthened its monopoly over petrochemicals (1967), distribution (1971), overseas exploration (1972), foreign trade (1976), and mining (1977). In that sense, despite the fact that Petrobras itself was not able to admit private capital to increase its operations, its subsidiaries were able to do so (Randall, 1993, 29). The discussions about the risk contracts were more difficult and were accompanied by a heated debate about the risks of opening up the sector to the international oil companies (Cupertino, 1976, 83). However, former president of Petrobras and president of Brazil Ernesto Geisel approved the risk contracts in October of 1975. These contracts granted the rights for domestic and international private entities to conduct exploration of oil fields and bear the risk by themselves, while at the same time reaffirming control and sovereignty over the mineral resources (Cupertino, 1976, 35).

In addition, the Proalcool program started in 1975 as an alternative to oil used in transportation and aimed at supporting the sugar cane and automotive industries. The program also was designed to substitute oil imports and save foreign exchange. The first phase of the alcohol program started in 1975 and consisted in the expansion of distillery capacity at sugar mills. The second phase started in 1979 and had the purpose of starting the production of alcohol-powered cars (Randall, 1993, 178). The sales rate of ethanol powered cars increased steadily from 0.3% in 1979 to 87.3% in 1987. However, the total percentage of the car fleet accounted to 7% in 1982. In 1985 low domestic prices of sugar cane led the whole system to a crisis, forcing the government to halt the tax exceptions to alcohol cars and losing much of its initial drive (Randall, 1993, 178).

Finally, due to domestic production concerns, the Brazilian government created a subsidiary for overseas production called Petrobras International S.A. – BRASPETRO in 1972. The former geologist of Exxon, Walter Link suggested the participation of the government in an international venture, but his advice was dismissed due to mistrust and skepticism against him. However, delays in the establishment of the subsidiary led to the loss of relevant opportunities in Nigeria and Trinidad and Tobago (Randall, 1993, 32). Later in 1972 Braspetro found oil in Colombia, Iraq, and Algeria, thus gaining significant experience in joint ventures operating abroad that proved to be helpful in the elaboration of the risk contracts with foreign companies. In sum, the Brazilian government was successful in establishing alternatives that could substitute oil as a transportation fuel and increasing its production through the inclusion of private capital through the risk contracts and overseas exploration. What is more important is that all these actions improved the institutional conditions of Petrobras to better face the continuous periods of crisis of the following decade.

The 1970s was a critical period of evolution for Pemex and Petrobras. In the case of the former, the period of abundance that started when Mexico struck oil in the South was soon eclipsed by the acquisition of an unmanageable debt and wrong depletion policies. By the end of the decade the oil boom and its benefits were almost completely diluted and Mexico got involved in one of the most severe economic crisis of its history. On the contrary, Brazil was more cautious about its energy security and considered all the possible ways to improve oil production domestically and abroad. Therefore, Petrobras was better prepared than Pemex to confront the challenges of the upcoming decade.

Bibliography

- Calzada, Fernando (2006) *Nuevo régimen fiscal de Pemex: dilemas de una reforma necesaria*. Villahermosa: Universidad Autónoma de Tabasco, 2006.
- Carvalho, Getúlio (1976) *Petrobrás: do monopólio aos contratos de risco*. Rio de Janeiro: Forense Universitaria
- Cupertino, Fausto (1976) *Os contratos de risco e a Petrobrás: o petróleo é nosso e o risco deles?* Rio de Janeiro: Civilização Brasileira
- Gutiérrez Lara, Aníbal (2006) "Introduction" in *Nuevo régimen fiscal de Pemex: dilemas de una reforma necesaria*. Villahermosa: Universidad Autónoma de Tabasco
- Randall, Laura (1989) *The Political Economy of Mexican Oil*. New York: Praeger
- Randall, Laura (1993) *The Political Economy of Brazilian Oil*. Connecticut: Praeger
- Simon, Joel (1998) *Endangered Mexico: An Environment on the Edge*. San Francisco: Sierra Club Books