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OIL AND PROSPERITY: REFORMING MEXICO'S PETROLEUM MONOPOLY

INTRODUCTION

Ever since its discovery in 1901, oil has held a special place in Mexico as a symbol of the country's sovereignty, national pride, and hope of prosperity. Nationalized in 1938, the oil industry was regarded as so important to the nation's future that all facets of it, from exploration to refining, were reserved exclusively for the government.

Half a century after its creation, however, *Petroleos Mexicanos* (PEMEX), the government-owned petroleum monopoly, is in disarray. Mismanagement, corruption, bureaucratic inertia, insufficient investment, and a host of problems endemic to all state-owned industries have unnecessarily limited the growth of an industry central to Mexico's economic development. So extensive are its failings that the existence of a state-owned, exclusively Mexican oil industry has become a major obstacle to Mexico's true national interest: the development of a prosperous, modern economy.

PEMEX Under Scrutiny. As with so many other state-owned industries around the world, PEMEX is undergoing an unaccustomed scrutiny. In part, this attention has been forced by the monopoly's poor performance in the face of global economic pressures, growing industrial demands at home, and competition from abroad. At the same time, President Carlos Salinas de Gortari's efforts to restructure the Mexican economy—including privatizing state-owned industries and opening the country to foreign investment—have introduced a free-market outlook and approach that is at cross-purposes with the mercantilist, anti-competitive philosophy which underlies PEMEX.

But Salinas has yet to tackle PEMEX head on. The fundamental transformation of PEMEX that many observers had predicted, including even its possible privatization, has yet to materialize. Salinas has forced a reorganization of the company, dividing it into a central holding company plus four independent sectors according to function: exploration and production, refining, natural gas/basic petrochemicals, and secondary petrochemicals. But most of its monopoly powers remain in place, and the private sector—Mexican as well as foreign—still is largely excluded from the petroleum industry.

PEMEX's resiliency owes more to politics than to a good performance. The oil monopoly was created as a political symbol of Mexico's sovereignty and resistance to an imagined United States "economic imperialism." Modeled on the state socialism paradigm which domi-

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nated the 1930s, PEMEX was vigorously promoted as the most effective means of economic development as well as a social vehicle for "sharing the wealth" of the oil industry with the broad public.

PEMEX is the most prominent product of the failed political and economic ideology that Salinas inherited, and is attempting to change. That legacy—the product of the quasi-socialist, authoritarian governments of the past—is one of state control of the economy, hostility to private business, and suspicion of the U.S. However politically attractive this philosophy may have been in the past, its results have been disastrous for Mexico in every sector of the economy in which it was applied. The acknowledged bankruptcy of this ideological approach has allowed Salinas to tackle successfully many of the formerly untouchable bastions of Mexico's socialist past, most notably his reform of the communal farming sector, sale of state-owned industries, and jettisoning of protectionism. But PEMEX remains intact, surrounded by a political minefield of entrenched interests which are prepared to resist an all-out effort to dismantle the monopoly. Among the fiercest defenders of PEMEX's privileged position is the leftist *Partido Revolucionario Democratico* (PRD), and the left wing of Salinas's own party—the *Partido Revolucionario Institucional* (PRI).

Destruction of Myths. Given this powerful opposition, a successful reform of PEMEX will require extensive public education in Mexico, including exposing the political myths which surround the monopoly. The most ingrained, and most destructive, of these myths are:

> **Myth #1:** An opening of the petroleum sector will benefit foreigners primarily, to the detriment of Mexicans; and
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> **Myth #2:** A state-owned oil monopoly is of significant political and economic benefit to Mexico.

Myth #1. The first of these, the belief that foreign oil companies and foreign countries will be the primary beneficiaries of a dismantling of the monopoly, carries enormous emotional weight. The image of PEMEX as a protector of Mexico's oil wealth against foreign depredations has a David vs. Goliath, populist political appeal that is difficult to dislodge and which is used, often quite cynically, by Mexican politicians. For example, attempts by U.S. and Canadian officials in the North American Free Trade Agreement (NAFTA) negotiations to obtain a greater opening of the Mexican oil industry were used by Mexican officials to score political points at home through their obstinate "defense" of this national resource.

It is a profound mistake, however, for either U.S. or Mexican officials to regard an opening of the oil sector as a concession to the U.S. To begin with, the liberalization of the petroleum sector need not involve foreign participation. Even a limited reform that permitted competition but restricted it to Mexican companies would be an improvement over current conditions. While the U.S. indeed would derive some minor benefits from a relaxation of PEMEX's grip, such as an increase in the export of oil equipment and technology and a greater diversification in the world supply of oil that increased Mexican production would bring, these pale in comparison to the benefits that Mexico itself would obtain from a more efficient petroleum industry.

Myth #2. The prominence of the issue of foreign participation and the equating of PEMEX with Mexican nationalism obscure what should be the focus of the real debate regarding PEMEX: its heavy costs to Mexico. Far from being an economic boon, PEMEX has proved

to be a very costly experiment for Mexico. Its monopoly powers and the resulting stifling of market forces have hobbled the development of a modern oil industry, and the resulting inefficiencies have heavily burdened the larger economy which depends on it. Once the world's fourth largest exporter of oil, Mexico will become a net importer by 2004 if current trends continue. The cause of this decline in fortunes is not to be found in dwindling oil resources; Mexico's proven and probable reserves are conservatively estimated at over 160 billion barrels and geologists are confident that vast new fields await discovery and development. Instead, responsibility for PEMEX's increasingly costly failure stems from its very nature as a state-owned monopoly, one which has been inexcusably mismanaged by politicians.

How Mexico's interests are advanced by this hemorrhage of resources and the continued constriction of a major industry is difficult to imagine. Economically, there is no question that it is an enormous burden on the entire economy; the historical record admits no contradiction of this. Even a wealthy country would be hard-pressed to continue this expensive indulgence, and Mexico remains far from wealthy.

Thus, the sole rationale for PEMEX is a political one. The only question is whether or not the political benefits are worth the economic price. That they are not is demonstrated by the Mexican government's own actions in other areas of the economy. In the NAFTA, Mexico has chosen to abandon its impoverishing protectionism by integrating itself into North America. Hostility to the U.S. and the outside world in one sector of the economy and an embrace in all other sectors represent two clearly contradictory approaches. One of the two must be wrong, and logic and all available evidence point to the former. Mexico and the Mexican people as a whole do not benefit from PEMEX's monopoly; the only real beneficiaries of a state-owned monopoly are those special interests that promote their own welfare at a cost to the country as a whole and which cynically disguise self-interest as nationalism.

Reforming PEMEX. The only effective means of reducing PEMEX's costs to the economy is through the introduction of market forces and it is on this that any reform of PEMEX should be concentrated. No administrative reform can accomplish this task; what is required is the privatization of all or part of PEMEX's activities and the complete opening of the oil sector to competition by private companies. Although certain entrenched interests would suffer from a reform of PEMEX, including many with powerful political connections, Mexico and the Mexican people without question would benefit greatly from the removal of this weight from the economy.

The need for the introduction of market forces is such that any move in this direction would be beneficial and should outweigh all other considerations. The politically sensitive issue of foreign participation clearly is of secondary importance; even a market opening that was restricted to Mexican companies would be a major step in the right direction. Nevertheless, the economic argument for foreign participation is a strong one, given the superior technology, expertise, and available capital they possess. Should political realities require some limitation on their role, the economic costs of such a course should be made widely known.

The most effective means of building public support for a free market reform of PEMEX is through a public debate and discussion of the oil monopoly's true costs and benefits to Mexico. Until now, discussion of the issue has been dominated by leftist nationalists who have succeeded in creating an image of PEMEX as a symbol of Mexico's national sovereignty, while preventing a public examination of the company's failings. Only by exposing the fallacies of the many myths which surround the monopoly can the government hope to defuse the emotionally charged arguments of those who oppose real reform.

Liberalizing measures that the Mexican government could implement, in ascending order of importance, include:

- **Allowing performance or "risk" contracts.** PEMEX needs to greatly expand its exploration and development of new oil fields, and risk contracts are needed to attract foreign companies.

- **Changing legislation to allow majority foreign investment in petrochemical production.** In order to attracted badly needed investment in the petrochemical industry, Salinas has broadened the opportunities for Mexican and foreign private companies in this formerly closed sector. But many obstacles remain. Existing restrictions on foreign investment need to be removed if foreign capital is to be forthcoming.

- **Dividing PEMEX into separate, competitive companies.** PEMEX recently underwent an administrative reform which left centralized control largely intact. The company's new divisions need to be given independence if they are to become more efficient.

- **Allowing domestic and foreign competition with PEMEX.** PEMEX's monopoly powers have done great damage to the Mexican petroleum industry and the Mexican economy. If PEMEX is to remain a state-owned company, the government should reduce its costs to the larger economy by allowing unfettered competition in all sectors.

- **Privatizing PEMEX.** A privatization of PEMEX would create a dynamic and efficient oil industry in Mexico, and return enormous profits to the treasury.

THE POLITICAL LEGACY OF MEXICAN OIL

In countries around the world, natural resources commonly are viewed not in terms of their economic utility but as a national inheritance to be jealously guarded against foreign theft. While understandable, this attitude often has led to an unfortunate triumph of politics and emotion over economic rationality, as governments impose numerous restrictions on the extraction and use of those resources. Although the political benefits from such measures usually are given wide play, their economic costs to the country as a whole are rarely discussed.

In this, Mexico is no exception. For decades, the Mexican government has portrayed oil as a national treasure to be safeguarded from exploitation by foreigners. Mexican nationalists have viewed the extraction and export of Mexican oil by foreign companies as a metaphor of Spain's looting of Aztec gold four centuries ago. So powerful was this image that even after the government nationalized oil production in 1938, there was considerable resistance even to selling oil to foreigners for fear that others might benefit from Mexico's "black gold."

Ironically, the discovery of petroleum in Mexico and the original development of the Mexican oil industry was the product of foreigners. Oil was discovered first in 1901 by an American, Edward L. Doheny, in Tampico, Vera Cruz. This was followed quickly by discoveries in other locations, and soon major oil companies such as Gulf, Standard Oil, Royal Dutch Shell, and others were drilling for oil, mostly along Mexico's Gulf coast. By 1921 Mexico was producing 530,000 barrels a day, or one-quarter of the world's output.[1]

Oil and Politics. In 1910, President Porfirio Diaz was overthrown, initiating a seven-year period of political turmoil and civil war known as the Mexican Revolution. The government which eventually emerged was highly nationalist and anti-foreign, particularly regarding the U.S. In addition, it was increasingly influenced by the socialism then in its ascendancy around the world. Whereas Diaz had followed a relatively tolerant policy toward foreign companies, including those in the oil sector, the nationalists in the new government viewed the foreign oil companies as exploiters, the very symbol of a pervasive U.S. imperialism they believed they were fighting against.

In the years following the Mexican Revolution, a long struggle began between the Mexican government and the foreign oil companies over the control of the oil industry and the wealth it produced. To a large extent, this struggle was an outgrowth of the Mexican government's nationalism and socialist economic policies which opposed the control of such an important sector of the economy by foreign companies. But it also concerned a more practical issue: who would control the money. The Mexican government maintained that the oil companies were not compensating Mexico adequately for the wealth they were extracting and were instead enriching only themselves.

The battle between the foreign companies the government came to a head in March 18, 1938, when President Lazaro Cardenas nationalized the British and American oil companies in Mexico, citing their "defamation, disobedience, and challenge." In Mexico, the measure was portrayed as a national defense against foreign threats to Mexican sovereignty. A country-wide effort was launched to raise the money needed to compensate the oil companies for the expropriations, enlisting even school children in what became a national campaign.

Three months after the expropriations, the Mexican government created *Petroleos Mexicanos* (PEMEX) and gave it monopoly control over the nation's oil industry. The debate over whether the government-owned PEMEX should be run as a profit-oriented company or as a tool for political and social ends was settled when the Oil Workers' Union—which was closely tied to Mexico's ruling party, the quasi-governmental PRI—quickly gained control.

Doubled Production. Although politically attractive, union control proved economically unworkable, and oil output stagnated during the first five years after nationalization. Union officials in 1942 ceded control of the company to a board of directors, which ran it on a profit-oriented basis. This strategy, along with increased oil demands from the Allied Powers in World War II, helped PEMEX double production during the next decade.

In the 1950s the Mexican government took increasing control over PEMEX's strategic decisions and operations, with unfortunate results. By foregoing price increases, the government's policies impoverished the company and prevented it from investing in new equipment, exploration, and refining operations. By the late 1950s, PEMEX was nearly insolvent, unable to pay its taxes or repay its loans. Corruption became widespread as the politicians now in charge of PEMEX handed out contracts as political patronage. Under such a regime, PEMEX did not surpass its 1921 production levels until 1972. By then, Mexico—a country with the world's fifth largest oil reserves—was importing over 100,000 barrels a day from Venezuela. Created to safeguard Mexico's oil, PEMEX had been converted by politicians into a political tool, one which was draining wealth from the country.

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1 Alan Riding, *Distant Neighbors: A Portrait of the Mexicans* (New York: Alfred A. Knopf, 1985), p. 158.

PEMEX AND THE ECONOMIC CRISIS

Although oil has played a major political role in Mexico since the Revolution, its prominence in the Mexican economy emerged only in the 1970s. Major discoveries—a 20-billion-barrel field in Tabasco in 1972 and a 17-billion-barrel-field near Vera Cruz soon after—were followed by a quadrupling of the world price of oil in 1973. As a result, Mexico became the sudden and unexpected beneficiary of enormous and ever-increasing wealth.

In 1976, Jose Lopez-Portillo became President of Mexico with ambitious plans for the country, seeing oil as the means to fund the modernization of Mexico's economy. Lopez-Portillo poured $15.5 billion into PEMEX with the goal of increasing production from 800,000 barrels per day in 1976 to 2.25 million in six years. From 1978 to 1980, 28 percent of all Mexican public expenditures were spent on PEMEX in pursuit of this goal.[2]

Meanwhile, Mexico's proven reserves continued to grow. In 1977, offshore reserves of 34.4 billion barrels were discovered in the Gulf of Campeche. By 1981, Mexico ranked fifth in the world, with 72 billion barrels in proven reserves and an additional 90 billion barrels in estimated reserves. Mexico also ranked seventh in natural gas reserves, with major discoveries constantly adding to its total.

In this heady atmosphere of seemingly unlimited wealth, a widespread perception took hold in Mexico that oil was the answer to all of the country's financial and developmental problems. Confident in its future income from oil exports, the Mexican government borrowed enormous sums to finance vast government spending programs. International banks were eager to lend, secure in the knowledge that the price of oil would continue to increase.

And for a time, it did. Oil prices doubled again in 1979, and predictions for yet another doubling were commonplace. But in 1981 the world price of oil crashed, falling by half. One immediate casualty was Mexico's solvency. It quickly became apparent that, cut off from additional borrowing and vastly overextended, Mexico would not be able to service its existing international debt of nearly $90 billion, one-quarter of which was owed by PEMEX alone.

Diverting Revenues. President Miguel de la Madrid took office in 1982 amid a rapidly worsening economic crisis. Desperate for cash, de la Madrid decided to use PEMEX's foreign currency revenues to cover the nation's $16 billion in international debt obligations for 1982. For the next five years, PEMEX's revenues were diverted away from investment in its own production and refining operations toward Mexico's debt payments. The resulting loss of investment in PEMEX led to neglect of existing infrastructure and new production, resulting in a steady decline in output. By 1992 PEMEX produced less than one-third of Mexico's foreign currency earnings, down from 80 percent in 1986. Nevertheless, the government continues to extract a large portion of its revenues from taxes on PEMEX, approximately $10 billion, or one-third of all taxes collected in 1991. Condemned to inefficiency, repeatedly exploited by the government as a source of ready income, a failure in its primary mission, PEMEX has become a heavy burden on the economy.

2 *Ibid.*, p. 165.

OPENING MEXICO'S OIL INDUSTRY: THE NEED FOR DEBATE

There is little doubt that dramatic changes are needed to modernize Mexico's oil industry and make it more responsive to market forces. Many issues, however, are clouded by rhetoric, and there is sharp disagreement in Mexico over which reforms should take place. Free market reformers want to open the Mexican oil sector to greater domestic and foreign participation, while leftist Mexican nationalists want to rescind even the most recent reforms of PEMEX. It is clear that the political costs of liberalization could be substantial, if these issues are not properly addressed. Too often, assertions about the importance of PEMEX go unchallenged, the result being to inhibit effective action by the government. The best method for dealing with many of the myths which surround PEMEX is to expose them to a public debate and to examine the most emotionally based and politically sensitive arguments against opening Mexico's oil industry. These include:

Does Mexico Profit from PEMEX?

When the foreign oil companies were nationalized in 1938, the government's slogan "The Oil is Ours" mirrored the sentiment that the profits from Mexican oil belonged to the people. But placing oil revenues into the government's coffers does not necessarily benefit the Mexican people. Not included in these calculations are the substantial costs to the Mexican economy as a whole resulting from PEMEX's monopoly position. Its inefficiency and monopoly powers have limited the development of what should be one of Mexico's principal industries. The thriving, world-class, private Mexican oil industry that should have developed—along with its new jobs and higher tax revenues — has not materialized. Other resources such as natural gas are greatly underutilized. PEMEX cannot deliver its surplus of natural gas in southern Mexico to users in the industrial north, necessitating imports from the U.S. It is estimated Mexico will needlessly become a net importer of oil by 2004 because PEMEX cannot develop even existing resources, much less bring new ones into production. Already, an average of 75,000 barrels of gasoline per day must be imported because PEMEX has been unable to increase its refining capacity. The money used to import oil will divert resources from industrial investment within Mexico.

Some Mexicans argue that because PEMEX pays such high taxes, it benefits the national economy as a whole. To be sure, in 1991 the Mexican government took $9.9 billion from PEMEX in taxes, representing 94 percent of PEMEX's gross profits.[3] But this seemingly high level of tax income is illusory. For one thing, PEMEX is currently pumping only 2.6 million barrels per day, but most oil experts estimate that production could be increased to 4.5 million barrels per day through more efficient operation. If taxed at the regular Mexican corporate rate of 35 percent, this extra 1.9 million barrels per day would almost double tax revenues.

More important, this confiscation on PEMEX's earnings has resulted in severe under-investment and a consequent decline in PEMEX's infrastructure, exploration, and production. The long-term costs in foregone development in this industry alone outweigh the quickly dissipated tax revenues, to say nothing of the resulting costs to the larger economy stemming from the hobbling of one of its most promising and central sectors.

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3 Sergio Sarmiento, "The Restructuring of Pemex," *El Financiero International*, June 22, 1992, p. 9.

Is Mexico's Sovereignty Threatened by Foreign Oil Companies?

Since the Revolution, Mexico has labored under the illusion that its industries needed special protection from foreign threats. Realizing the enormous costs to the Mexican economy resulting from these policies, Salinas has thrown this approach overboard and moved quickly to open the economy to the outside world and attract foreign investment. But the old defensive mentality still reigns in the oil industry.

The hostility to the foreign oil companies stems, in part, from a belief that Mexico had little control over its oil sector before 1938 and that extraordinary measures, including state ownership, were required to create an indigenous industry. Regardless of the situation in the past, however, there can no longer be a realistic fear that foreign oil companies will act as sovereign powers in Mexico; no one can credibly argue that the Mexican government's authority over the economy is too limited or that the private sector is too unrestrained.

Similarly, Mexicans need not fear that their own people will have little influence in a private oil industry. After nationalization, a sophisticated, albeit inefficient, petroleum industry was developed, with virtually all positions filled by Mexicans. Mexican engineers, geologists, accountants, lawyers, economists, managers, and technicians would be indispensable to companies wishing to operate effectively in Mexico.

Mexico has paid a heavy economic price for a governing ideology which combined a socialist model of development with strong anti-U.S. and anti-foreign sentiment. Although politically useful to some interests, such economic nationalism is self-destructive. As late as 1982, President Lopez-Portillo nationalized all commercial banks in Mexico, ostensibly to protect the nation from "foreign interests." The result of this and other such politically based measures was an economic crisis lasting a decade.

What Are the Costs of Political Control?

Although the 1938 nationalization was politically popular in Mexico, its economic costs are still being felt. In Mexico, and in all other countries, government intervention in the economy for political reasons always has economic costs, even if these are not widely recognized. Economic nationalism often collides with economic reality. For example, in 1981 PEMEX announced a $2 increase per barrel in the price of its oil despite a global price drop. PEMEX justified the action with the nationalist argument that it would not let foreign buyers dictate the price of oil. That political decision received strong support inside Mexico, but cost Mexico $1 billion in lost contracts in the first month alone. PEMEX was forced to reverse its decision one month later.

Political control of an industry such as oil means that rewards are distributed not on the basis of economic merit but according to political clout. The Mexican Oil Workers' Union played a key role in supporting President Lazaro Cardenas's nationalization of the industry. Afterwards, PEMEX gave the labor union power to award up to 50 percent of all its supply and service contracts. In many cases these contracts went to companies owned by union officials, leading to overbidding and shoddy service. This increased the overall cost of PEMEX operations and lowered profitability that, in turn, discouraged reinvestment. Union control also led to gross overstaffing and an abysmal productivity record.

In the absence of competition, management was able to run the company inefficiently and often corruptly. During President Luis Echeverria's administration, PEMEX management became involved in numerous contracting schemes involving kickbacks and overbilling that di-

verted millions of dollars in profits from the company. Under Lopez-Portillo the theft has been estimated in the billions of dollars.

Will Mexico Benefit by Pumping More Oil Now?

Opponents of privatizing Mexico's oil industry attempt to put a positive spin on PEMEX's lackluster development record by arguing that Mexico benefits from keeping oil in the ground for future extraction and sale. But there is a world oil glut, and all estimates point to decades of ample world supply. The oil-producing nations of the Middle East have increased production of crude oil and expanded their refining capacity and distribution network as part of a strategy to keep world oil prices low and supply plentiful. If Mexico continues producing at its current rates, it will simply lose revenues. It will lose even more revenues if, as expected, less expensive alternative fuels become widely available in the coming decades.

Optimal production for Mexico today is estimated at 4.5 million barrels, a 73 percent increase over existing levels of 2.6 million per day. At current rates of production, Mexico will not exhaust these reserves for sixty years.[4] This estimate is actually conservative because it does not include possible discoveries in promising areas PEMEX has not yet explored.[5] Tens of billions of barrels could be extracted from existing reserves with the advanced technology —horizontal drilling, water injection, deep sea drilling, and seismic exploration—that international oil companies could provide. Without foreign investment, these economic opportunities will be lost to this generation that has more pressing and realistic problems than hypothetical ones Mexico may face in fifty years.

LIBERALIZING THE MEXICAN OIL INDUSTRY

The situation in PEMEX was only one of many problems in the economy facing Salinas upon his taking office in 1988. Although he has successfully implemented far-reaching free market reforms throughout the economy, his reshaping of PEMEX has been limited to modest administrative measures which are insufficient to correct the monopoly's many failings. The greatest obstacle he faces are the powerful political interests which view the creation of a government-owned petroleum monopoly as the most important accomplishment of the Mexican Revolution. These political factors inevitably distort decision-making on the economy. For example, during the negotiations for the NAFTA, the Mexican government successfully excluded the petroleum sector from the market-opening provisions of the agreement, and foreign investment remains all but impossible in most areas of the oil industry. This "victory," however, means only that Mexico will be denied the capital and expertise needed to revive its oil sector.

These political victories, however, are purchased at considerable cost to the economy, and any government which is serious about modernizing the Mexican economy and creating conditions for long-term growth eventually must find a way to liberalize the petroleum sector.

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4 "The Importance of Energy to a Free Trade Agreement with Mexico," American Petroleum Institute, Policy Analysis Department, June 1991, p. 5.

5 Joseph P. Riva, Jr., "Mexican Petroleum," Congressional Research Service, Library of Congress, Report No. 83-178 SPR, September 8, 1983, p. 30.

There are a number of steps which the government could take which would improve PEMEX's performance. In ascending order of importance, it could:

- **Allow performance or "risk" contracts.**

Exploration for oil was hard-hit by the decline in investment in the 1980s. From 1980 to 1990, proven oil reserves actually shrank by 10 percent as exploration slowed and few new wells were drilled. In 1990 PEMEX announced plans to raise $20 billion in investment over the next five years, $8 billion of that from international capital markets, mostly for purposes of exploration and production.[6] So far PEMEX has attracted around $1.6 billion in investment, far short of what it needs to sustain even current production. Oil analysts estimate that it will take an additional $3 billion per year for the next five years to meet rising domestic demand for gasoline—which is increasing at 8 percent annually—and also maintain current export levels of 1.3 million barrels per day.

Despite these limitations, PEMEX continues to follow practices which make little economic sense, even when reform is the stated goal. For example, PEMEX has begun awarding contracts to foreign oil companies for exploration and drilling, primarily to take advantage of these companies' expertise and advanced technology. Unfortunately, PEMEX restricts these companies to "fixed-fee" or service contracts in which a set amount is paid for specific services. In general, however, international oil companies prefer to operate under what are known as "risk contracts." Under these contracts, oil companies use their own funds to explore for oil and are compensated with a percentage of the oil they discover. Current Mexican law, however, prohibits any foreign claim to oil. Since fixed fee contracts will not attract most foreign oil companies, PEMEX has been forced to raise badly needed capital by borrowing abroad, a limited option due to PEMEX's existing heavy debt load.

Even when successful, fixed-fee contracts are very costly for Mexico. Drilling for oil is a risky and costly business, and many dry wells are drilled before a profitable site is located. Under fixed-fee contracts, however, PEMEX is obligated to pay companies for all wells drilled—even those that produce little or no oil. In addition, under the fixed-fee arrangement, service companies provide none of their own capital. An illustrative example is the recent contract between PEMEX and Triton Engineering, a U.S. oil company. PEMEX paid $20 million for Triton to drill for crude. Although not yet under production, the well is expected to produce only 50 barrels per day in a field that produces 500,000 barrels per day. With risk contracts, U.S. companies would get only a percentage of the oil they actually find, and would not be compensated for unproductive wells. Under fixed-fee contracts, PEMEX assumes all risk and expenses.

Opponents of risk-based contracts claim these violate the Mexican Constitution. However, Salinas could allow risk or performance-based contracts without violating the provision that only the Mexican government may own the oil. Ecuador, for instance, has a similar constitutional prohibition; risk contracts are allowed by awarding royalties on the oil produced to foreign companies that locate and drill for it, while the actual ownership of the oil remains with Ecuador.

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6 Damian Fraser, "Mexican Oil Reforms Still Have a Long Way to Go," *Financial Times*, May 31, 1991, p. 25.

♦ Change legislation to allow majority foreign investment in petrochemical production.

The Mexican petrochemical industry is in great need of foreign investment. According to the Mexican Petrochemical Commission, Mexico is becoming increasingly reliant on petrochemical imports because of shortages in domestic supply. Although Mexico today enjoys a small trade surplus in petrochemicals, its petrochemical plants are running at 97 percent capacity. Mexico currently imports 50,000 to 100,000 gallons of gasoline per day because of a shortage in its own refining capacity.[7] The mandated introduction of unleaded gasoline in Mexico to combat air pollution will greatly increase the demand for petrochemicals used in gasoline refining. By 1995 the Commission expects petrochemical imports to reach $8.6 billion.[8]

Although the Mexican constitution reserves ownership and production of oil resources to the state, it does not explicitly prohibit foreign investment in petrochemical production. Under Mexican law, petrochemicals are classified as basic (or primary), secondary, and tertiary, depending on their level of refining and processing. Under current restrictions, foreigners are allowed 100 percent ownership in tertiary production and 40 percent ownership in secondary petrochemical production, but are completely excluded from producing primary petrochemicals, which are reserved exclusively for the state.

As PEMEX's investment funds contracted in the 1980s, its investment in petrochemical production declined as well. The Mexican government attempted to compensate for this by attracting investment from the private sector. In 1986, the government broadened the opportunities for private companies by reclassifying 36 primary products as secondary petrochemicals. This was the initial step in a strategy which President Salinas has since greatly expanded, whereby this formerly closed sector of the oil industry has been privatized *de facto* by use of a low-key, administrative approach which has avoided a political backlash. In 1989, Salinas further pared the 36 primary products reserved to the state to 22 and the 700 secondary petrochemical products to 66, thereby further opening the sector to domestic and foreign participation. In 1992, all but two basic petrochemicals were reclassified as secondary.[9]

For private Mexican petrochemical companies, these reclassifications have opened important new opportunities. Foreign companies nevertheless still face many barriers. Particularly troublesome is Mexico's outdated foreign investment code, which severely limits foreign ownership and control of Mexican companies. Restricted to minority ownership of Mexican petrochemical companies, foreign concerns have been reluctant to invest large sums without management control over production decisions.[10]

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7 Miguel Angel Sanchez and Ted Bardacke, "The Private Memoirs of Petroleos Mexicanos," *El Financiero International*, February 10, 1992, p. 15.

8 "The Importance of Energy to a Free Trade Agreement with Mexico," American Petroleum Institute, Policy Analysis Department, June 1991, p. 7.

9 "U.S. Mexico Energy: The U.S. Reaction to Recent Reforms in Mexico's Petrochemical Industry" (United States General Accounting Office, Report to the Chairman, Subcommittee on International Economic Policy and Trade, Committee on Foreign Affairs), May 1991, p. 4.

10 Through the creation of a Mexican "trust," foreign companies can acquire majority ownership over existing secondary petrochemical production. However, this process—which involves the creation of a series of subsidiaries over which the foreign company has minority control at each level, but ends up with aggregate majority ownership—is complicated and exposes the company to multiple taxation liabilities. "PEMEX to Relinquish Basic Petrochemical Production,"

Foreign petrochemical companies are also reluctant to invest in secondary and tertiary petrochemical production because the building blocks for their products, the basic petrochemicals, are still produced and controlled by PEMEX, which is unable to guarantee a constant supply at free market prices. In addition, these companies fear that the executive decrees Salinas has used to reclassify petrochemicals could be easily overturned by his successor unless they are made more secure through legislation.

Some foreign investment is taking place through joint ventures between PEMEX and private companies. For example, PEMEX and Valero, a U.S. petrochemical company, have created a joint venture to construct and operate a plant making MTBE, a chemical additive used in the making of unleaded gas. However, joint ventures alone will not bring in the estimated $5 billion to $10 billion needed to solve Mexico's shortfall in petrochemicals.

It is clear that half-measures of reform have not been sufficient to liberalize the petrochemical sector. Salinas has made enormous strides in opening this industry to private and foreign investment through the use of presidential decrees, but he may have already exhausted the possibilities of this administrative approach. A more permanent, constitutional basis must be established for opening Mexico's petrochemical industry to the outside world if Mexico is to attract the investment that it needs.

♦ Divide PEMEX into separate, competitive companies.

When PEMEX was created in 1938, it was given responsibility for operating all sectors of Mexico's oil industry that had previously been controlled by seventeen foreign oil companies. That mandate became more difficult as the industry diversified and began manufacturing petrochemicals. Centralized PEMEX control over everything from exploration and crude oil production to distribution, marketing, and refining of petrochemicals has prevented these industries from growing efficiently.

In 1989 President Salinas initiated a modest restructuring of PEMEX, reducing the size of its bloated work force and reorganizing the exploration and production divisions. Then, in April 1992, a series of explosions caused by a leaky PEMEX pipeline in Guadalajara killed over 200 people and devastated an entire section of the city. The resulting public outcry gave Salinas an opportunity to push through a much more thorough restructuring of PEMEX. This reorganization centered on a division of the company into a central core and four independent divisions: exploration and production, refining, natural gas and basic petrochemicals, and secondary petrochemicals.

Despite Salinas's extensive reorganization of PEMEX, his reforms are less than meets the eye. PEMEX will retain most of its former control as a holding company for these subdivisions. Although each division will have its own board of directors, the president of PEMEX will preside over each; these new boards will have only limited power to determine investment and operational plans and limited responsibility regarding finances. The holding company will be responsible for all taxes, will regulate prices among the various divisions, and will set strategic goals. The subsidiaries have no budget of their own, but instead are dependent on PEMEX for their funding.

El Financiero Internacional, August 31, 1992, p. 26.

This continued centralization will deny the subsidiaries the flexibility they require to respond to changes in their industry and will prevent them from becoming more efficient. Further, the restructuring failed to remove political appointees from the operations of these divisions, ensuring that political favoritism, not efficiency, remains the criterion for major decisions.

It is difficult to know what Salinas has in mind for PEMEX. Some see this reorganization as but the first step in a more thoroughgoing privatization of the monopoly; its division into four subsidiaries could make the process more politically palatable by allowing a future liberalization to take place one sector at a time. The industry would best be served by a complete privatization, but if the intention is to retain state control, a much more beneficial approach would be to make each division truly independent, responsible for its own budget and operations and able to determine foreign participation in its activities. Most important, each division should be operated on a for-profit basis. Political interference should be curtailed by giving these new companies autonomy, and the Oil Workers' Union should lose its monopoly status.

By this reorganization, many of the worst characteristics of PEMEX can be ameliorated, even though government ownership will ensure continued inefficiency.

♦ Allow domestic and foreign competition with PEMEX.

Mexico's oil industry is in serious need of capital, management expertise, and advanced exploration technology, but the Mexican government does not have the necessary resources to invest in these. Although attempting to squeeze more efficiency out of PEMEX through reorganization will produce some benefits, such gains will inevitably be limited and increasingly difficult to obtain. Without question, the most effective way of achieving maximum gains is by privatizing the petroleum industry altogether. But even if PEMEX is to remain a state-owned company, significant results can be obtained by giving PEMEX competition from the private sector.

Most of PEMEX's failings and burden on the economy stem not from the fact that it is owned by the state—although that is a serious limitation—but that it is a monopoly. It is not only foreign companies which are barred from most sections of the petroleum industry; Mexican companies are excluded as well.

Without competition from the private sector, PEMEX officials have had the luxury of running the company inefficiently without fear that competitors would provide a better service at lower cost. Example: for fifty years the politically powerful Oil Workers' Union extracted concessions from PEMEX that led to enormous inefficiency and extensive padding of the payroll. Example: in the 1980s, falling oil prices forced PEMEX to reduce costs by cutting the size of its work force from 450,000 to around 100,000. Such overmanning on the order of 400 percent is only one example of abuses which would not be possible in a private company or even in a state-owned company which was subject to market forces. Without question, even further economies are possible: Venezuela's government-owned oil company uses only 30,000 employees to produce approximately the same amount of oil as PEMEX.

By removing the restrictions on the private sector's activity in the petroleum industry and allowing it to compete with PEMEX, Mexico would benefit immediately from improved service and productivity. Given PEMEX's dominance of the industry and its political clout, however, the government would also have to create the conditions that would allow true competition to take place. In addition to removing PEMEX's monopoly rights, these include: creating

an open bidding system for all contracts and services; clearly defining property rights for companies, including the extent and terms of drilling concessions and exploration rights; and denying PEMEX preferential treatment in the awarding of contracts or concessions.

For maximum benefit, foreign companies should be allowed to compete without discrimination alongside private Mexican companies. PEMEX should also be given full freedom to enter into joint ventures with foreign companies. To the limited extent this has already occurred, the results have been promising. The Houston-based company, Triton Engineering, Inc., recently drilled a well for PEMEX in the Campeche region in one-half the time it took PEMEX workers, and at less cost. And cooperation between PEMEX and several U.S. companies to increase natural gas supplies in northern Mexico has been very productive, providing the region's rapidly growing industries with clean energy resources which PEMEX had been unable to supply.

♦ Privatize PEMEX.

Even without privatizing PEMEX, Mexico can gain enormous benefits by allowing full competition throughout the petroleum industry. In such an environment, PEMEX could continue as a government-owned entity, albeit a more efficient one. It is unlikely, however, that a truly profitable and efficient government-owned PEMEX could ever exist because of the temptation of government officials to remain involved in decision-making. Since PEMEX was created in 1938, it has been viewed more as a vehicle for political and social ends than as a profit-seeking company. Only by full privatization can the petroleum industry be freed of the constraining hands of bureaucracy and politics and be allowed to develop its potential.

A privatized petroleum sector would not only rapidly increase its productivity but also its dynamism and service. Currently unused or underutilized resources—oil reserves, natural gas, pipelines, property — would be efficiently developed and added to the national economy. Along with these would come increased employment in direct and supporting industries and greatly expanded revenues for the government. The enormous potential of the industry would attract investment capital sufficient to its long-term needs, ending claims on the public treasury.

There are many reasons to privatize PEMEX beyond the strictly economic ones. Because PEMEX is owned by the government it has been virtually immune to legal challenges from government regulatory agencies or private individuals. Unlike a private company, PEMEX need not fear having the government remove its license for poor performance, or even illegal actions.

This is clearly demonstrated in PEMEX's environmental record. In the Chiapas region, uncontrolled drilling during the late 1970s ruined local water supplies. PEMEX's oil distribution system is now plagued with leaking land-based and underwater pipelines, one of which was responsible for the recent explosion in Guadalajara. These and other failings demonstrate a callous disregard for environmental concerns which would not be tolerated in a private company.

One often overlooked benefit of privatizing PEMEX is the enormous opportunity cost of keeping idle the potential revenues of the company's sale. Estimates are that PEMEX could be sold for as much as $148 billion in today's market. Proceeds from such a sale would retire Mexico's entire international and domestic debt of $107 billion. Currently, annual payments on that debt are $7.5 billion in principal alone; when interest payments are included, the total exceeds the tax revenues the government now receives from PEMEX.

CONCLUSION

For over half a century, Mexico's oil monopoly, PEMEX, has reigned over that country's oil industry. During that time, a large and diversified petroleum industry has been developed, and PEMEX's supporters hail its accomplishments as legitimation of the economic nationalism which prompted the 1938 nationalization of the oil industry. Unmentioned by these supporters, however, are PEMEX's extensive failings and the enormous costs at which its accomplishments have been purchased. The belief that a state-owned monopoly such as PEMEX can be cost-free or even beneficial to the wider economy is a fiction which can no longer be sustained.

In the 1970s, oil took center place in Mexico's national attention. The sudden wealth that poured in seemed like a windfall, but proved to be a near-disaster. The gamble of staking Mexico's economy on oil failed, and Mexico is still paying the price of such reckless decisions. PEMEX itself has suffered from control by politicians, who have siphoned off its earnings to support government spending in other areas. The monopoly is seriously undercapitalized; its other industries, such as petrochemicals, urgently need modernization. Unable to supply even current needs, PEMEX's inability to supply Mexico's future requirements is a matter of record. The entire economy will suffer from the squandering of resources, the growing shortages, and the numerous deficiencies of PEMEX.

Legacy of the Past. As well, the political benefits that PEMEX supposedly brings Mexico are illusory at best. The entire ideology upon which PEMEX rests—socialism, state control of industry, protectionism, xenophobic nationalism—all have been decisively demonstrated as failures and are being tossed aside all over the world. PEMEX is a legacy of the past, a product of fear and of an image of Mexico as weak and threatened. Even though they pose as defenders of Mexico, the purveyors of this image peddle a stereotypical image of Mexico as a Third World, backward nation unable to compete in the world. Their economic leadership has been responsible for most of Mexico's economic misfortunes, yet they continue to cling stubbornly to an antiquated, regressive ideology. But far from weakening Mexico, the country's political and economic sovereignty would only be strengthened by a growing and diversified economy and a dynamic petroleum sector, both of which would be advanced by demonopolizing the oil industry.

President Salinas has attempted to modernize Mexico's oil industry, but his reforms have been too limited to have any useful impact. More dramatic reforms are needed if PEMEX is even to approach a modicum of efficiency. Although much attention has been focused on the question of foreign participation in the oil industry, this is at best of secondary importance and plays into the hands of those who oppose any reform of PEMEX. The real need is to introduce market forces into the petroleum industry, most of all by breaking PEMEX's stranglehold and allowing competition. Even restricting participation in the oil sector to Mexican companies would be a substantial improvement over the current monopoly situation.

There is an important argument for allowing foreign participation as well. Foreign companies can provide the Mexican oil industry with the sophisticated financial, managerial, marketing, and capital services that are needed to increase production and profitability. Without question, the principal beneficiary of their involvement would be Mexico.

Open Debate Needed. Given its political volatility, the reform of Mexico's oil monopoly needs to be debated openly in Mexico. For over half a century, discussion of PEMEX has been as monopolized by the left as the oil industry itself. Rational discussions of costs vs. benefits are drowned out by impassioned appeals to nationalism, most vocally by the very groups which benefit economically from the existing situation. However, once the Mexican people are made aware of the bankruptcy of economic nationalism and realize the benefits of liberalization to their own pocketbooks, opposition to reforming PEMEX is likely to give way to enthusiastic support for complete privatization. Not surprisingly, it is this debate which the economic nationalists most fear.

Mexico has outgrown the worldview on which PEMEX is based, and the country's new economic confidence and readiness to participate in the world make PEMEX an obstacle to the realization of Mexico's aspirations. Liberalizing the oil industry will help Mexico fulfill President Salinas's definition of the "new nationalism" — economic growth and prosperity — and prepare Mexico for the opportunities of the 21st century.

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