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Report to the Chairman, Subcommittee on International Economic Policy and Trade, Committee on Foreign Affairs, House of Representatives

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U.S.-MEXICO ENERGY

The U.S. Reaction to Recent Reforms in Mexico's Petrochemical Industry

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National Security and
International Affairs Division

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The Honorable Sam Gejdenson
Chairman, Subcommittee on International
Economic Policy and Trade
Committee on Foreign Affairs
House of Representatives

Dear Mr. Chairman:

As you requested, we examined recent reforms in Mexico's petrochemical industry. Specifically, in this report we (1) discuss the Mexican petrochemical industry's investment needs, (2) describe the reforms made by Mexico in its petrochemical industry and the U.S. petrochemical companies' response to these reforms, (3) identify the major impediments discouraging U.S. companies from investing in Mexico's petrochemical industry, and (4) provide information on the factors encouraging U.S. investment in Mexico.

Background

Petrochemicals are created by breaking oil and natural gas into their basic chemical components. These components are then transformed into a wide variety of intermediate petrochemical compounds, which in turn are processed or combined with other chemicals to create finished consumer products ranging from nylon stockings and styrofoam cups to antifreeze and compact disks.

Mexican law imposes restrictions on both foreign and private Mexican ownership of petrochemical production. The Mexican government has the exclusive right to produce and distribute all "basic" petrochemicals. While the law allows private investment in "secondary" or intermediate petrochemicals that result from chemical transformations of basic petrochemicals, the law limits direct foreign investment to no more than 40 percent of the plant equity. (See app. I for examples of Mexico's petrochemical classification system.) Petroleos Mexicanos (PEMEX), the government-owned oil company, operates all of Mexico's basic petrochemical production as well as some of its secondary petrochemical production.

Results in Brief

While Mexico's petrochemical industry has grown rapidly, it currently faces shortages in both investment funds and supplies of basic petrochemicals due to a financial crisis in the 1980s.

In order to encourage foreign and private investment in its petrochemical industry, Mexico undertook a series of policy reforms including the reclassification of "basic" and "secondary" petrochemicals, the creation of innovative investment schemes, and the formulation of trust arrangements allowing foreign investors to own secondary petrochemical plants. However, these reforms generally have not succeeded in enticing U.S. investment in Mexico.

Impediments that currently discourage U.S. petrochemical companies that we spoke to from investing in Mexico include unfavorable market conditions, insufficient basic petrochemical capacity in Mexico, concern that the Mexican reforms may be reversible, inadequate Mexican protection of intellectual property rights, and lack of investment protection for U.S. businesses.

Cooperation between the two nations in resolving the investment impediments could help U.S. petrochemical companies maintain their positions in a competitive global market, while at the same time provide Mexico with much-needed capital investment and technological expertise. Government officials from both Mexico and the United States agree that Mexico has several features that provide incentives for U.S. investment, including an established manufacturing infrastructure, a favorable location, and potentially abundant raw materials.

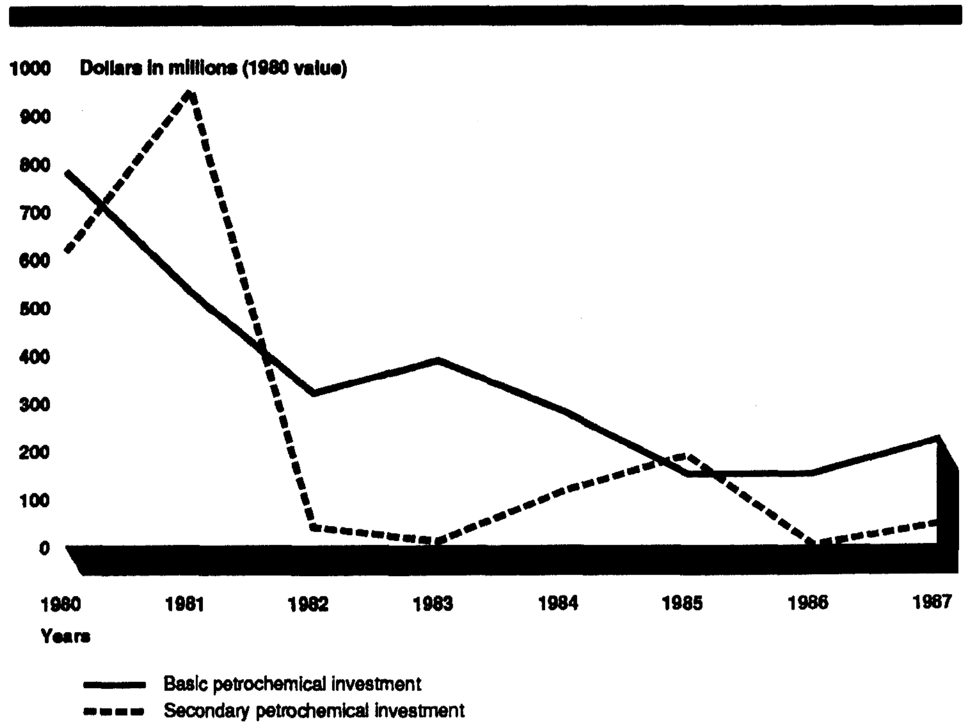
Mexico's Petrochemical Investment Needs

As a result of a series of Mexican financial crises in the early 1980s, Mexico is short about $1.7 billion needed to construct 21 petrochemical plants planned over a decade ago, according to PEMEX officials. In addition, the Mexican government estimates that its industry will require between approximately $5 billion and $10 billion by 1995 or it could continue to incur large trade deficits in basic petrochemicals.

Mexico also lacks financial resources for natural gas exploration and development. Natural gas is the primary raw material for the petrochemical industry. Industry experts forecast a continued fall in natural gas production unless PEMEX substantially increases its investment funds.

Since Mexican law prohibits private and foreign investment in basic petrochemicals, the petrochemical industry had no other source of investment after the government cut back its investment spending in the early 1980s. The reduction in government investment in basic petrochemicals was followed by a corresponding investment reduction by secondary petrochemical producers (see fig. 1).

Figure 1: Declining Investment in the Mexican Petrochemical Industry, 1980-1987



Source: Mexico's Petrochemical Commission data.

Because PEMEX does not have enough installed basic petrochemical capacity, it depends on imported basic petrochemicals to supply its industry. According to PEMEX officials, between 1980 and 1988 Mexico spent about $5.5 billion to import these commodities and has continued to be a net importer of basic petrochemicals.

The Mexican trade deficit in basic petrochemicals is expected to increase because of insufficient investment in basic petrochemical plant capacity. The Mexican Petrochemical Commission[1] believes that without sufficient investment, the need for dollars to pay for petrochemical imports could grow even greater, reaching as much as $8.6 billion by 1995.

[1]The Mexican Petrochemical Commission advises the government of Mexico on petrochemical policy and is also responsible for promoting petrochemical development, conducting industry research, and compiling industry statistics.

Mexico's Recent Petrochemical Reforms

In 1986 the Mexican government began to increase the opportunities for foreign investment in the petrochemical industry by reclassifying 36 products from the basic to the secondary category. Thirty-four products continued to be defined as basic petrochemicals.

In 1989 the Mexican government instituted further reforms to increase foreign investment in the petrochemical industry. These reforms included the following measures:

- The Mexican government reduced from 34 to 20 the number of petrochemicals classified as basic. At the same time, the government decreased the number of petrochemicals classified as secondary from over 700 to 66 and for the first time provided a definitive list of these products. All petrochemicals not included in these two categories are unregulated and therefore open to 100-percent private and foreign ownership.
- The Mexican government gave foreign investors the ability to acquire 100-percent ownership of a secondary petrochemical plant if they establish a special trust with a Mexican credit institution. The trust would give the foreign investor the profits from the venture, while direct control of the company would remain with the trustee.
- PEMEX created a program to obtain private or foreign investment in its basic petrochemical plants. In exchange for capital funds to construct the plant, PEMEX promised to repay companies with petrochemical products from the plant. Under PEMEX supervision, the companies can build the plants but PEMEX must be the operator.
- The Mexican government established specific time frames for processing petrochemical permits to produce secondary petrochemicals, thus reducing bureaucratic delays.

In 1990 PEMEX formed a petrochemical subsidiary to specialize in marketing petrochemical products. The U.S. State Department reports that this move is intended to counteract the tendency for PEMEX's oil operations to take precedence over its petrochemical operations.

U.S. Companies' Response to Mexico's Petrochemical Reforms

According to Mexican government and industry officials, despite the Mexican government's petrochemical reforms, private U.S. petrochemical companies generally have not substantially increased their investments. We contacted 20 U.S. petrochemical companies known to be interested in doing business in Mexico (see app. II). Four of these companies have investments in Mexico's petrochemical industry. However, only one of these companies' investments was made after the recent reforms, and none are producing the petrochemicals recently opened to foreign investment.

Major Impediments to U.S. Investment

About two-thirds of the U.S. companies we talked to told us they are considering investing in Mexico's petrochemical industry. However, they are hesitant to do so for the following reasons:

- The world market currently has excess production capacity for basic petrochemicals, and present market conditions may not warrant additional investment in plant capacity. Mexico's 1989 petrochemical investment reforms occurred after the cyclical demand for petrochemicals peaked in 1988; analysts now predict that world markets will be stagnant and oversupplied through 1991. Eighteen of the 20 U.S. companies we spoke to currently are exporting excess supplies of petrochemicals to Mexico.
- Mexico is presently not able to provide a guaranteed supply of basic petrochemicals because of insufficient productive capacity. To encourage foreign investment in such capacity, even more basic petrochemicals than were reclassified in the 1989 reforms must be removed from government control. A majority of the companies we interviewed said that the Mexican government's monopoly over basic petrochemicals was a significant reason why they were discouraged from investing in Mexico.

  According to a Department of Commerce official, the Mexican government could reduce its monopoly list of 20 basic petrochemicals by about 50 percent and still control the major raw materials for the petrochemical industry. PEMEX officials said that some petrochemicals currently classified as basic could be reclassified under Mexican law. However, Mexicans consider additional reclassification to be a politically sensitive issue.

- Mexican petrochemical investment reforms are subject to a possible risk of reversal, according to most U.S. company representatives, because the reforms were made by administrative decree rather than by changing the law. For example, a representative from a company that has never invested in Mexico told us that his company would not approve a major investment project without having some evidence that the ground rules would not be changed.

  Mexican Foreign Investment Commission officials, however, cited two industries where similar administrative changes have not been a barrier to substantial foreign investment: tourism and automobile manufacturing. Therefore, they believe that administrative changes to investment regulations should not be viewed as an impediment to foreign investment in the petrochemical industry.

The administrative changes to investment regulations may not be as threatening to established investors as they are to companies with no investment experience in Mexico. One U.S. petrochemical company that has invested in Mexico's petrochemical industry for many years told us that it has been able to negotiate with the Mexican government to obtain profitable investment arrangements.

- The protection of patents and technical expertise in Mexico is a matter of concern to most U.S. companies we interviewed. While the production technology for basic petrochemicals is widely available, the protection of specialized equipment or plant design for more complex petrochemical production is a problem. Furthermore, U.S. companies are troubled by the possibile infringement of patents on products derived from "specialty" petrochemicals, such as perfumes, detergents, herbicides, and pharmaceuticals.

  American Chamber of Commerce of Mexico officials told us that new legislation to strengthen intellectual property rights was to be voted on by the Mexican Congress in December 1990. The legislation has not yet been voted on, however, but is expected to be addressed in the current session of the Mexican Congress.

- The lack of a U.S.-Mexico investment treaty, which the United States commonly uses to help protect U.S. investors in foreign countries, deters U.S. companies from investing in Mexico. A Mexican attorney specializing in foreign investment told us, however, that U.S. investors are not at risk because the government of Mexico has fairly compensated foreign companies when assets have been nationalized in the past. Mexico's Secretariat of Commerce and Industrial Development does not see the need for a bilateral investment treaty when so many major U.S. companies are already operating in Mexico without one.

Factors That Encourage Investment

Several factors provide strong incentives for attracting U.S. investment in Mexico's petrochemical industry, should the two countries resolve the investment impediments identified by U.S. companies. According to government officials from both Mexico and the United States, these factors include the following:

- Mexico has an established infrastructure for manufacturing petrochemicals. Today, Mexico's petrochemical industry has about 700 plants that produce about 585 different products. Furthermore, the Mexican basic petrochemical industry contains world-class plants using up-to-date technology equivalent to plants in the United States and Canada. Mexican and U.S. officials also agree that Mexico has skilled managers and lower-cost labor, land, and construction than does the United States.
- Mexico's accessibility to raw materials makes it most economical for U.S. producers of secondary petrochemicals to locate their plants in that country. Companies that do so can more efficiently distribute their products internally as well as to the North American, Asian, and European markets.
- The U.S. and Mexican petrochemical industries are complimentary. Mexico potentially has abundant raw materials but needs the technology and investment it could obtain from U.S. companies to develop its petrochemical industry. According to the Department of Commerce, U.S. companies will be decreasing domestic production of basic petrochemicals and expanding their production of more valuable finished petrochemical products. To expand successfully and compete in the global marketplace, the U.S. companies will need access to lower-priced raw materials. Both countries can benefit from increased trade and investment. (See app. III for comparative statistics.)

Appendix IV provides details on the objectives, scope, and methodology of our review.

As requested, we did not obtain official agency comments on this report. However, we discussed the information presented in this report with responsible program officials from the Department of State, Department of Commerce, Department of Energy, the International Trade Commission, and the government of Mexico. Their comments have been incorporated in the report where appropriate.

As agreed with your office, we plan no further distribution of this report until 15 days from the date of this letter unless you publicly announce its contents earlier. At that time, we will send copies to the Secretary of State, Secretary of Commerce, Secretary of Energy, the Office of the U.S. Trade Representative, and other interested parties. Copies will also be made available to others on request.

Please contact me on (202) 275-4812 if you or your staff have any questions concerning this report. The major contributors to this report are listed in appendix V.

Sincerely yours,

Allan I. Mendelowitz

Allan I. Mendelowitz, Director
International Trade, Energy,
and Finance Issues

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Abbreviations

GAO	General Accounting Office
PEMEX	Petroleos Mexicanos

Examples of Mexico's Petrochemical Classification System

Raw material (reserved for PEMEX)		**Basic** (reserved for PEMEX)		**Secondary** (private Mexican 40 percent foreign)		**Finished product** (unrestricted)
Natural gas liquids	→	Ethylene	→	Ethylene oxide	→	•Antifreeze •Polyester
Natural gas liquids	→	Propylene	→	Polypropylene	→	•Molded plastics •Automobile parts
Oil	→	Benzene	→	•Ethyl benzene •Styrene	→	•Polystyrene (styrofoam) •Synthetic rubber

The 20 Companies Interviewed by GAO

Air Products and Chemicals, Inc.
Allentown, PA
Amoco Chemical Corporation
Chicago, IL
ARCO Chemical Company
Newtown Square, PA
Chevron Chemical Company
San Francisco, CA
Dow Chemical Company
Midland, MI
Du Pont Company
Wilmington, DE
Eastman Chemical International Ltd.
Kingsport, TN
Ethyl Corporation
Richmond, VA
Exxon
Irving, TX
FMC Corporation
Chicago, IL
G.E. Plastics
Pittsfield, MA
B.F. Goodrich Company
Akron, OH
Monsanto Company
St. Louis, MO
Phillips Petroleum
Bartlesville, OK
PPG Industries, Inc.
Pittsburgh, PA
The Procter & Gamble Company
Cincinatti, OH
Texaco, Inc.
White Plains, NY
Union Carbide
Danbury, CT
UNOCAL Chemicals Division
Los Angeles, CA
Vista Chemical Company
Houston, TX

U.S.-Mexico Comparative Statistics, 1988

	Petrochemical industry employment	Value of petrochemical production	Value of petrochemical trade	
Mexico	95,000 (PEMEX and private plants)	$ 5 billion, approx.	Exports: Imports: Trade deficit:	$978 million 1.214 billion 236 million
United States	253,000	$114 billion, approx.	Exports: Imports: Trade surplus:	$17.6 billion 11.4 billion 6.2 billion

Note: The most recent year for which comparable data are available is 1988.

Source: U.S. Department of Commerce and Mexican Petrochemical Commission data.

Objectives, Scope, and Methodology

The Chairman of the House Subcommittee on International Economic Policy and Trade, Committee on Foreign Affairs, requested that we (1) identify the Mexican petrochemical industry's investment needs, (2) describe the recent reforms made by Mexico in its petrochemical industry and the U.S. petrochemical companies' response to these reforms, (3) identify the major impediments discouraging U.S. companies from investing in Mexico's petrochemical industry, and (4) provide information on the factors encouraging U.S. investment in Mexico.

To obtain information on Mexico's petrochemical investment needs, we obtained copies of the Mexican Petrochemical Commission's 1990-1995 investment plan and PEMEX's 1989 plan for attracting private investment. We obtained data on investment trends in Mexico's petrochemical industry from the Petrochemical Commission's 1989 Statistical Yearbook, the most recent available. We discussed these documents and related issues with officials from Mexico's Foreign Investment Commission as well as with Mexican businessmen knowledgeable about Mexico's legal and investment environment. We did not verify the Mexican data.

We reviewed Mexico's regulations governing foreign investment in the petrochemical industry and discussed them with Mexican officials. We also reviewed reports on Mexico's petrochemical investment reforms prepared by the Department of Commerce, the International Trade Commission, and the U.S. embassy in Mexico. At each of these agencies, we interviewed officials concerning the reforms.

To obtain general information on U.S. companies' responses to the reforms, we interviewed government officials, industry association representatives, and individuals knowledgeable about petrochemical issues in both countries. In Washington, D.C., we met with officials from the Departments of State, Commerce, and Energy; the Office of the U.S. Trade Representative; the International Trade Commission; and the U.S. Export-Import Bank. We also met with representatives from the Chemical Manufacturers Association, the National Petroleum Refiners Association, and the U.S.-Mexico Chamber of Commerce. In Mexico City, we met with the American Chamber of Commerce of Mexico and interviewed businessmen from four major U.S. petrochemical companies' Mexican subsidiaries and one private Mexican petrochemical company. Mexico's chemical industry association, Asociacion Nacional de la Industria Quimica, declined to meet with us.

Major Contributors to This Report

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To obtain detailed information on U.S. companies' responses to Mexico's petrochemical investment reforms, we compiled a list of 22 U.S. companies that produce or use petrochemicals, which the Department of Commerce and the United States-Mexico Chamber of Commerce believe are most interested in doing business in Mexico. Twenty of the 22 companies responded to our questions about whether their business activity in Mexico has changed as a result of Mexico's petrochemical investment reforms.

We obtained the views of the 20 responding companies about the major impediments discouraging U.S. companies from investing in Mexico's petrochemical industry. We also discussed in general terms the responses with officials and industry experts in both countries.

To provide information on the factors encouraging U.S. investment in Mexico, we interviewed Mexican and U.S. industry experts and reviewed independent studies discussing the benefits to investing in Mexico's petrochemical sector. We also asked the 20 companies to rate the factors that were identified by the experts.

We conducted our review between August 1990 and March 1991 in accordance with generally accepted government auditing standards.

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