



Houston Business

A Perspective on the Houston Economy

The politics of Mexican oil seems to have brought privatization to an impasse that is likely to leave the country with an unhealthy mix of private and public chemical production.

Petrochemical Privatization Stalls in Mexico

Privatization of Mexican business has been a dominant trend in the 1990s, as ports, steel, railroads, telephones, satellites and other industries have moved steadily from the public to the private sector. Privatization of Mexico's energy industries has proved difficult, however, with mixed results for natural gas, electric power and petrochemicals. Since the government's expropriation of foreign oil companies in 1938, oil has been a political lightning rod for strong national feelings. Mexican control of Mexican oil is embedded in the nation's constitution, and the state oil company, Pemex, has been an important symbol of Mexico's ability to keep its oil resources out of foreign hands. For the Mexican petrochemical industry, these nationalistic feelings, and the oil politics they breed, have been a significant barrier to privatization.

Liberalization of petrochemicals began with Mexico's entry into GATT in 1985, which was followed by a shortening of the list of petrochemical products that could only be produced by Pemex. The Salinas administration (1989-94) first proposed the outright sale of Pemex petrochemical facilities, and the Zedillo administration has seriously pursued sale of or private investment in Pemex plants since 1995. Recently, however, the politics of Mexican oil seems to have brought privatization to an impasse that is likely to leave the country with an unhealthy mix of private and public chemical production. This article looks at how this impasse came about and why it is a barrier to development of a vertically integrated Mexican chemical industry.

THE MEXICAN PETROCHEMICAL INDUSTRY

The Mexican and American petrochemical industries face each other across the Gulf of Mexico. The Mexican industry stretches south from Tampico around the Bay of Campeche, with many facilities concentrated at Veracruz. Only 700 miles away is Houston, centerpiece of a Texas–Louisiana petrochemical belt that is the largest, most modern and most successful collection of chemical plants in the world. For a basic building block such as ethylene, for example, Texas and Louisiana have nameplate capacity of 25.9 billion tons per year, a figure that dwarfs that of the world's second-largest producer, Japan, with 6.9 billion tons per year.

Mexico also has the key ingredients for a successful petrochemical industry: a large and rapidly growing internal market, access to U.S. and other Latin American markets and a rich supply of ethane feedstocks from oil and gas production. Ethane and ethylene kick off a petrochemical chain that leads to production of four of the world's most widely used plastics—polyethylene, polyvinyl chloride, polyethylene terephthalate and polystyrene.

Despite its advantages, the Mexican petrochemical industry remains relatively small, ranking 14th in the world in ethylene production, for example, with 1.3 billion tons per year of capacity. There are four complexes in the Houston metropolitan area alone that have more ethylene capacity. Only about half the ethane currently produced in Mexico is used as feedstock; the rest is returned to the natural gas stream to be burned.

Pemex's petrochemical subsidiary owns 70 plants in 10 complexes that produce a wide array of base and intermediate products for plastics and synthetic fibers and rubber. Most of these plants were built in the mid-1980s or earlier, with the notable exception of those in the large Morelos complex, where production started between 1988 and 1994. A recent assessment of these plants by the Mexican Secretary of Energy found them small by current world standards, employing obsolete technologies and needing improvements to enhance performance, safety and environmental controls. The report estimated that if these plants were located in Texas or Louisiana, less than

half their combined capacity would be economically viable.

Complementing Pemex operations are a large and growing number of private Mexican and foreign petrochemical operations with successful niches in the Mexican market. Leadership among the Mexican companies belongs to Alpek, a subsidiary of Monterrey-based conglomerate Grupo Alfa. Along with Shell and BASF, Alpek has spearheaded development of the private petrochemical complex at Altamira, near Tampico. The most aggressive of the foreign companies is BASF, which operates nine facilities with 2,000 employees in Mexico. Its largest investments are in styrene and copolymers at Altamira.

PRIVATIZING PETROCHEMICALS

Opening petrochemicals to private Mexican and foreign investment has been a prolonged process of defining and redefining what is “oil”—national patrimony reserved to Pemex—and what is simply value-added in a production chain that begins with oil and natural gas liquids. In Mexican terminology, products reserved to Pemex are “basic,” and other, “secondary” petrochemicals may be privately produced, in some cases with a permit from the federal government.

Pemex domination of Mexican petrochemicals peaked in 1986, when the number of basic petrochemicals was reduced from 70 to 34 and a 40-percent limit on foreign participation in secondary petrochemicals was dropped. The list of basic petrochemicals was shortened again in 1989, 1991 and 1992, and in 1996 all restrictions on secondary petrochemicals were eliminated. As recently as 1989 the basic list included such important commodity chemicals as ethylene, propylene, methanol, benzene and toluene. However, the restricted list today is confined to carbon black and naphthas, plus the natural gas liquid feedstocks: ethane, propane, butane, pentane, hexane and heptane. In principle, the petrochemical industry is open to Mexican and foreign capital alike, apart from a Pemex monopoly on feedstocks.

It is important to distinguish Mexico's basic/secondary terminology from the industry's definition of base or commodity chemicals that

appear early in chemical commodity chains. The petrochemical industry is sometimes divided into four parts, according to where products appear on the production chain. Feedstocks are the energy product input: naphtha, methane, ethane, propane and so on. The first stage of processing produces high-volume commodity base petrochemicals, with methanol, ammonia, ethylene, propylene and toluene among them. A large number of intermediate products appear between the base chemicals and final products: formaldehyde, nitric acid and ethylene dioxide, for example. Final products would include resins, fertilizer, polyester, synthetic fibers and polyurethane foam. From this perspective the Mexican basic petrochemicals are simply the feedstocks, and privatized, secondary petrochemicals are the base, intermediate and final products.

This structure can also be used to describe the ownership pattern of Mexican petrochemicals, beginning with the Pemex monopoly on feedstocks. Base petrochemicals and most early intermediates (such as ethylene oxide or ethylene dichloride) remain dominated by Pemex, which held 74.6 percent of this base and intermediate market in 1995. Private Mexican and foreign firms generally operate further downstream, well into the intermediates (formaldehyde or phenol) or producing final plastic, resin or synthetic rubber. In 1995 non-Pemex production was about one-third of Mexican petrochemical output, most of it concentrated well downstream.

PRIVATIZATION STALLS

In January 1995 the Zedillo administration announced its intent to sell all Pemex petrochemical complexes, with the Cosoleacaque ammonia plant the first to go on the block. Pemex would remain as a minority partner with a 20-percent participation, and the oil union contract would be transferred to the new owner. Companies in Mexico, the United States and Norway expressed interest in purchasing the complex. But political opposition, led by the oil workers union, ultimately killed the deal in the summer of 1996. The transfer of Pemex property to private or foreign hands simply proved impossible.

This was the point at which the opportunity was lost to move the bulk of the existing Mexican petrochemical industry into private hands. Further efforts have been made to attract private capital to Pemex plants, but to no effect. The modern Morelos complex was recently marketed under a cumbersome bidding process. Unable to sell the complex outright, the Secretary of Energy sought private Mexican and foreign partners for Pemex that might be willing to invest in modernizing the plant and share in the ownership of Morelos in proportion to the capital brought to the table. However, Pemex would remain majority owner, the oil union workers contract would remain in place and foreign ownership would be even further restricted to 24 percent or less of the complex. Despite some initial interest, this restrictive scheme ultimately drew no formal bids.

The Secretary of Energy is again studying the future of Mexican petrochemicals, but the dilemma is clear. The country has higher priorities for its public investment than petrochemicals and has not invested much more than routine maintenance in its plants since the early 1990s. Two-thirds of Mexican chemical production is in the hands of an increasingly unreliable supplier. Attracting foreign investment to the commodity petrochemical niche Pemex now occupies is problematic at best (such investment has been rare outside of Canada and Saudi Arabia), and it is complicated further by the Pemex monopoly on feedstocks. Ironclad guarantees of globally competitive feedstock prices would be imperative.

Mexico's National Association of Industrial Chemists recently described the emerging future as one of a maquiladora chemical industry—one in which basic feedstocks are purchased abroad and the potential for domestic value-added is limited to less capital-intensive downstream processes. Given Mexico's rich resource base, this is a high price to pay for not bringing its energy institutions into line with the global market.

— Robert W. Gilmer
Joan E. Williams

Houston purchasing managers reported a nice increase in their March index of the local economy, perhaps an early indication mining and manufacturing are bottoming out. The rig count has been stable for the past month, although at very low levels. The recent increase in oil prices could slowly improve conditions in the oil patch by summer or fall. Any improvement would probably come too late to help Houston's job growth this year, but it could point to a much better 2000 for the local economy.

RETAIL SALES

For the first time since the oil market soured early last year, retailers reported sales had softened, although not by much and from high levels of performance. Appliance and furniture stores performed below what were very high expectations, and department store sales were weaker. However, discount and specialty stores continued to perform well.

CRUDE OIL AND PRODUCT PRICES

A surprise agreement to cut oil production sent crude prices soaring, from \$12.23 on March 1 to \$16.73 by March 31. Prices have since moved close to \$18 per barrel. The market has pushed futures prices upward along with spot prices, indicating confidence that OPEC cuts will occur and be maintained. Respondents, however, expressed concern that it was only this one fundamental piece of news that nudged up prices, and if OPEC disappoints the market, prices will fall as fast as they rose.

Gasoline prices soared along with crude, with wholesale spot prices rising from 34 cents to 54 cents during March. Planned and unplanned refinery outages, strong demand and inventory restocking seemed to play a role. The sharp rise in product prices was a bonus for refiners, who enjoyed a nice increase in profit margins.

Natural gas prices also followed crude prices upward, rising from \$1.65 in early March to \$2 or more. Natural gas liquids per-

formed even better, giving processors a needed boost in margins.

OIL SERVICES AND MACHINERY

Oil service and machinery companies unanimously agreed that the increase in oil prices had yet to boost business. If oil prices hold, however, the outlook will brighten substantially. Producers need to pay down debt and improve their balance sheets before beginning new drilling programs, and respondents pointed to summer or fall as the time this might begin. Meanwhile, the Baker Hughes U.S. rig count slipped under 500 for the first time ever and has hovered at that level for the past several weeks.

PETROCHEMICALS

Too much capacity and weak pricing remain the norm for the industry and the likely outlook for some time. Domestic demand is extremely strong but not enough to tighten supplies at a time many new plants are coming on line. The important exceptions to stable or falling prices are ethylene and polyethylene, whose prices increased 5 cents or more per pound in recent weeks. A combination of unanticipated and planned outages left customers scrambling for supplies. Stocks were already low, as customers were unwilling to carry inventories while prices fell, and the outages pulled these inventories even lower. The price increases are expected to reverse as capacity returns to production.

FINANCIAL INSTITUTIONS

Financial institutions experienced an excellent first quarter. All loan categories report strong gains, except for commercial and energy lending. Consumer lending is particularly strong, with two respondents reporting record auto loans. Deposit growth has not weakened, and respondents were generally pleased with their deposit positions. They report ample funds in investments to support further loan growth.

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