## **Petrochemicals**

## **Fighting to Keep Fit**

apan's petrochemical industry maintained relatively smooth operations in 1986 despite drastic changes in the business environment. The strong yen and the oil glut severely affected most materials industries, the yen especially bringing both higher import and lower domestic prices. But petrochemical producers were an exception.

First, the supply-demand relationship for petrochemicals, and particularly ethylene derivatives, remained tight in such major markets as Japan, the U.S. and Western Europe. Demand in these markets has been firm since the 1983 global economic recovery, although admittedly the high plant operating rates were maintained in part because of earlier elimination of excess capacity in industrialized countries.

Declining crude oil prices also helped petrochemical producers, enabling them to reduce feedstock (raw material) cost far more than other materials industries. That in turn helped them regain competitiveness in international markets. The twin effects of the strong ven and lower crude oil prices sent the price of naphtha, the major raw material for Japanese producers, nosediving to one-third of pre-1985 levels in ven terms. The petrochemical industry thus enjoyed production cost cuts to the tune of ¥500 billion (about \$3 billion). The renewed competitiveness of Japanese products marked a remarkable comeback for an industry that once suffered from structural recession because of the lower-cost natural gas (ethane) feedstock available to competitors in other countries.

Another factor should not be ignored, however. The petrochemical industry has also made structural improvements,





The petrochemical product industry remains relatively healthy thanks to solid domestic demand.

induding disposing of excess capacity and realigning the marketing system. This improved structure contributed to preventing excessive price wars.

For these reasons, the domestic supply-demand situation remained healthy and tight in fiscal 1986. Some petrochemical products enjoyed even stronger demand than in 1985, when many products hit record high levels. In its foreign trade, Japan's petrochemical industry has not suffered as serious a deficit as was once feared. As a result, ethylene production in fiscal 1986 is estimated at 4.2 million metric tons, virtually unchanged from the 1985 level.

The situation was not entirely favorable, though. Two major client industries—automobiles and household electric appliances—demanded price cuts from petrochemical suppliers to help reduce costs in the face of the yen's appreciation and lower export sales. The strong yen also spurred imports of lower-priced petrochemicals. Domestic retail prices fell substantially, particularly for ethylene glycol and styrene monomer.

Despite the price cuts, however, the industry remained relatively healthy, even despite the inevitable profit decline, thanks to solid domestic demand, a manageable import-export balance and lower feedstock cost.

The prognosis for fiscal 1987 is not so cheery, however. Japan's petrochemical producers are expected to suffer slowly falling profits under the impact of three major adverse factors.

First, the general economic outlook is unfavorable. Japan's gross national product (GNP) is likely to increase slightly in 1987, but the disinflation brought on by the high yen will be felt more strongly than before. Demand for petrochemicals will soften accordingly. In addition, U.S. economic growth has slowed since the second half of 1986, and U.S. petrochemical producers could try to refire their export drives targeted on the Japanese market.

Second, home appliance and automobile makers plan to increase production outside Japan. These plans, adopted because of the strong yen, mean declining demand for petrochemicals at home. If full-fledged foreign production materializes, it will have a serious impact on petrochemical companies. It is unlikely that the industry will be badly hurt in fiscal 1987, but serious problems are a real possibility over the medium and long terms.

The final negative factor will be continuing pressure from clients for lower prices to help them cope with the high yen. At the same time, the price of naphtha is expected to rise in international oil markets, immediately affecting producers' profits.

In fiscal 1987, demand for petrochemical products will begin to fade. Soft product prices and higher raw material costs will steadily erode producers' profits. The industry will have to fight to maintain or even raise prices while refraining from boosting production.

(Junro Mitsuoka, senior economist)

Petrochemicals Supply and Demand (ethylene equivalent)

(ethylene equivalent)					(1,000 metric tons)	
	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986 (estimate)	FY 1987 (forecast)
Domestic demand	3,610	3,810	4,080	4,370	4,390	4,330
Exports	430	430	430	420	520	500
Imports	410	400	440	550	680	720
Production	3,570	3,970	4,340	4,220	4,180	4,110
Profits (¥ billion)	-42.7	34.8	136.9	97.6	65.0	50.0

Note: Profits for five diversified producers and two petrochemical makers