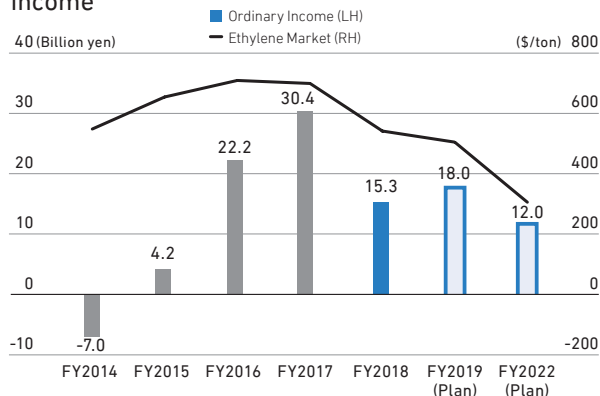




PETROCHEMICAL BUSINESS

Ordinary income



Strengths

- Established a production chain in Asia, a world-leading demand region
- Cost competitiveness based on Japan's largest-scale ethylene production capacity (Maruzen Petrochemical)
- Cost competitiveness based on one of the largest-scale para-xylene production capacity in Asia (Hyundai Cosmo Petrochemical*)

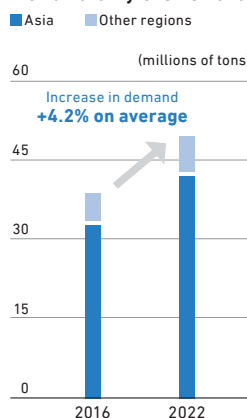
* A joint venture with Hyundai Oilbank (HDO) in South Korea

The Petrochemical Business is a growth driver supported by the expanding international market

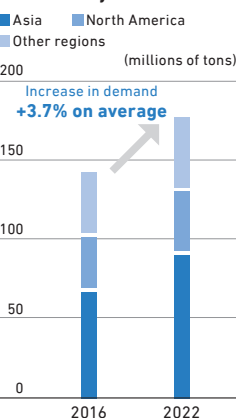
International demand for petrochemical products is expected to grow further on the back of global population growth. In view of this trend, the sixth consolidated medium-term management plan identifies the Petrochemical Business as one of the growth drivers and targets aggressive investment aimed at reliably receiving profits during and after the next medium-term management plan.

By making use of strong competitiveness in the production of ethylene and para-xylene at Maruzen Petrochemical and Hyundai Cosmo Petrochemical (HCP) in the Cosmo Energy Group, we seek to deepen and benefit from synergies with the Petroleum Business.

World Para-xylene Demand



World Ethylene Demand



Source: Global Supply and Demand Trends for Petrochemical Products (October 2018), the Ministry of Economy, Trade and Industry

Maximizing the Group's competitive advantages and aiming to expand new business in functional products

Maruzen Petrochemical in the Cosmo Energy Group has Japan's largest ethylene production capacity, at 1.29 million tons per year, with its plants in the Keiyo Industrial Area in Chiba Prefecture and the Chukyo Industrial Zone in Mie Prefecture. The Chiba Plant, in particular, has two ethylene plants and functions as an ethylene center which serves as the core of the industrial complex. By being connected with an adjacent petrochemical manufacturer via a pipeline, the Chiba Plant makes good use of its two ethylene plants in operation.

Moving forward, we will endeavor to create synergies between the Oil Refining Business and the Petrochemical Business through better sharing of raw materials and fuels (material diversification at ethylene plants), effective use of utilities (such as electric power and water used in plants), and rationalization of equipment, with the aim of further enhancing our competitiveness.

We will also strive to enhance our competitive edge in basic products and expand the highly-functional product business, which is less prone to the market environment.

FY2018 Results

Ordinary income decreased by ¥15.1 billion from the previous year to ¥15.3 billion mainly due to the downturn in market conditions and a decrease in sales volume caused by regular maintenance at Maruzen Petrochemical.

FY2019 Forecasts

In FY2019, ordinary income is expected to increase by ¥2.7 billion from the previous year to ¥18.0 billion due to an increase in production volume at Maruzen Petrochemical, supported by the elimination of the impact of regular maintenance in FY2018.

The Cosmo Energy Group established Hyundai Cosmo Petrochemical (HCP), a joint venture with Hyundai Oilbank (HDO), in November 2009. HCP is a world-leading para-xylene manufacturer, possessing one of the world's largest para-xylene manufacturing facilities with annual capacity of 1.18 million tons. Para-xylene makes purified terephthalic acid, which is used for polyester, a material for clothes, PET

bottles, and other end products. Going forward, even if domestic demand for gasoline declines, we will be able to shift production from gasoline to mixed-xylene and thereby enhance the competitiveness of our refineries. We will endeavor to grow the business by capturing changes in the global market and using our network in Japan and overseas.

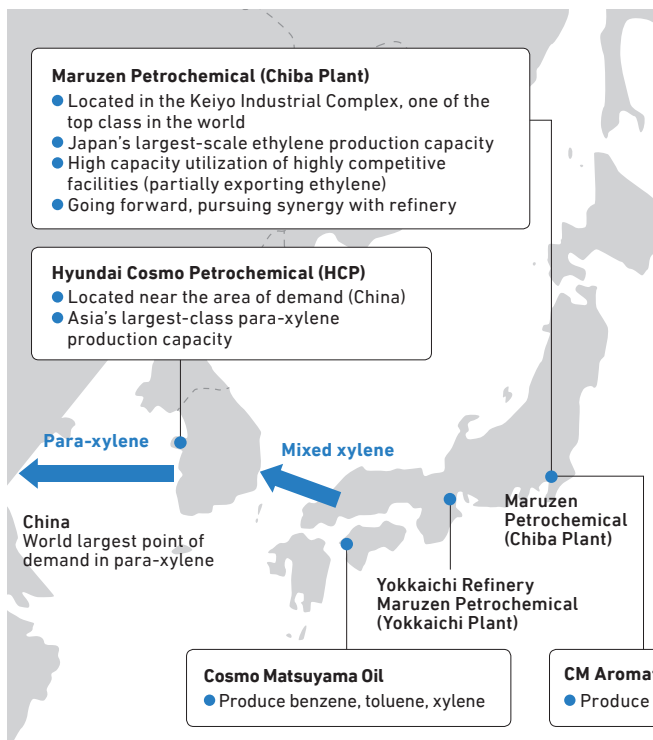


HCP's para-xylene manufacturing facilities



Maruzen Petrochemical's Chiba Plant

Production Structure



Cosmo Energy Group's Production Capacity

Product	Company Production	Capacity (tons/year, exc. impact of regular maintenance)
Olefin	Ethylene	Maruzen Petrochemical
		1,290,000*
Aromatics	Para-xylene	Hyundai Cosmo Petrochemical
		1,180,000
	Benzene	Maruzen Petrochemical
		Hyundai Cosmo Petrochemical
		250,000
	Cosmo Matsuyama Oil	
	90,000	
	Subtotal	735,000
Mixed xylene	Cosmo Oil (Yokkaichi Refinery)	300,000
		CM Aromatics
		270,000
		Cosmo Matsuyama Oil
	48,000	
	Subtotal	618,000
	Aromatics total	2,533,000

* Includes production capacity of Keiyo Ethylene (55% owned, consolidated subsidiary of Maruzen Petrochemical)