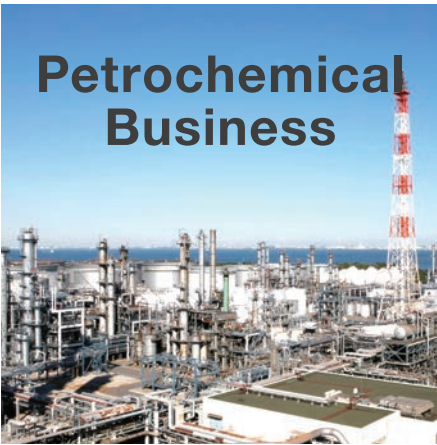
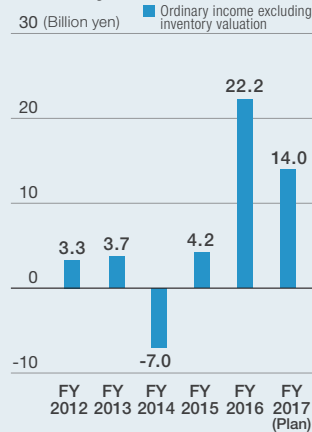


Petrochemical Business



Ordinary Income



Operating Performance

In FY2016, the Petrochemical Business segment increased ordinary income by ¥18.0 billion from the previous year to ¥22.2 billion, mainly due to the full operation of Maruzen Petrochemical excluding the period of regular maintenance and the favorable ethylene market.

In FY2017, segment ordinary income is expected to decrease by ¥8.2 billion to ¥14.0 billion, as we have adopted a conservative projection for the margin between ethylene and naphtha market. However, as Maruzen Petrochemical's plan to fully operate highly-competitive ethylene production units through the fiscal year (non-shut down maintenance year) is anticipated profit at high levels.

Strengths

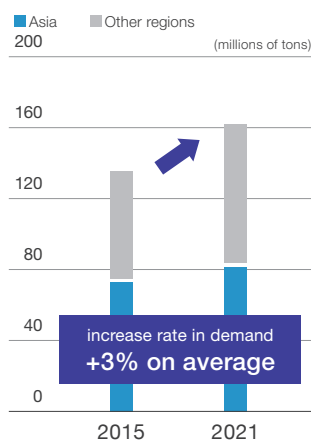
- Established production chain in Asia, a world-leading region in demand
- Cost competitiveness based on Japan's largest-scale ethylene production capacity (Maruzen Petrochemical)
- Cost competitiveness based on one of the largest-scale paraxylene production capacity in Asia (Hyundai Cosmo Petrochemical*)

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

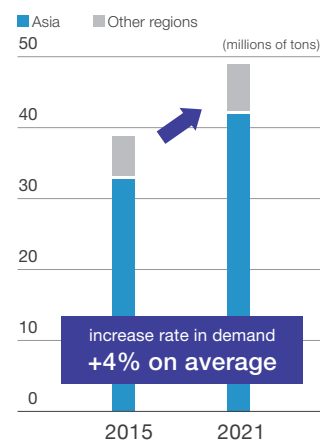
Augmenting competitiveness in a growth market

In the Cosmo Energy Group, Maruzen Petrochemical, which boasts Japan's largest-scale ethylene production capacity, and Hyundai Cosmo Petrochemical (HCP), which owns world-leading paraxylene production facilities, are highly competitive, as they are continuing to run at full capacity. Moreover, Maruzen Petrochemical is considering joint commercialization of hydrogenated polymer resins with Cosmo Energy Holdings and Arakawa Chemical Industries. At the same time, Maruzen Petrochemical is aiming to materialize synergies with the Cosmo Oil Chiba Refinery at an early stage and thereby augment the competitiveness of petrochemical complexes through integrated operation with the oil refining business.

World Ethylene Demand



World Paraxylene Demand



Cosmo Energy Group's Production Capacity

Product	Company	Production Capacity (tons/year)	
Olefin	Ethylene	Maruzen Petrochemical	1,290,000
	Paraxylene	Hyundai Cosmo Petrochemical	1,180,000
Aromatics	Benzene	Maruzen Petrochemical	600,000
		Hyundai Cosmo Petrochemical	250,000
	Mixed xylene	Cosmo Matsuyama Oil	90,000
		Subtotal	940,000
Mixed xylene	Cosmo Oil (Yokkaichi Refinery)	300,000	
	CM Aroma	270,000	
	Cosmo Matsuyama Oil	50,000	
	Subtotal	620,000	
	Aromatics total	2,740,000	

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

- Maruzen Petrochemical (Chiba Plant)**
- Located in the Keiyo Industrial Complex, one of the top class in the world
 - Japan's largest-scale ethylene production capacity
 - High capacity utilization of competitive facilities (partially exporting ethylene)
 - Going forward, pursuing synergy with refinery
- Hyundai Cosmo Petrochemical**
- Located near area of demand (China)
 - Asia's largest-scale paraxylene production capacity

