CHEMSYSTEMS

PPE PROGRAM

Report Abstract

Quarterly Business Analysis

Quarter 3, 2010

Petrochemical Cost Price and Margin for Olefins, Polyolefins, Vinyls, Aromatics, Styrenics, Polyester Intermediates and Propylene Derivatives. Analysis for the United States, Western Europe, Middle East and Asia

September 2010

Nexant

CHEMSYSTEMS **PPE PROGRAM**

Report Abstract

Quarterly Business Analysis

Quarter 3, 2010

September 2010

Nexant

www.chemsystems.com

Griffin House, 1st Floor South, 161 Hammersmith Road, London W6 8BS, UK
Tel: +44 20 7950 1600 Fax: +44 20 7950 1550

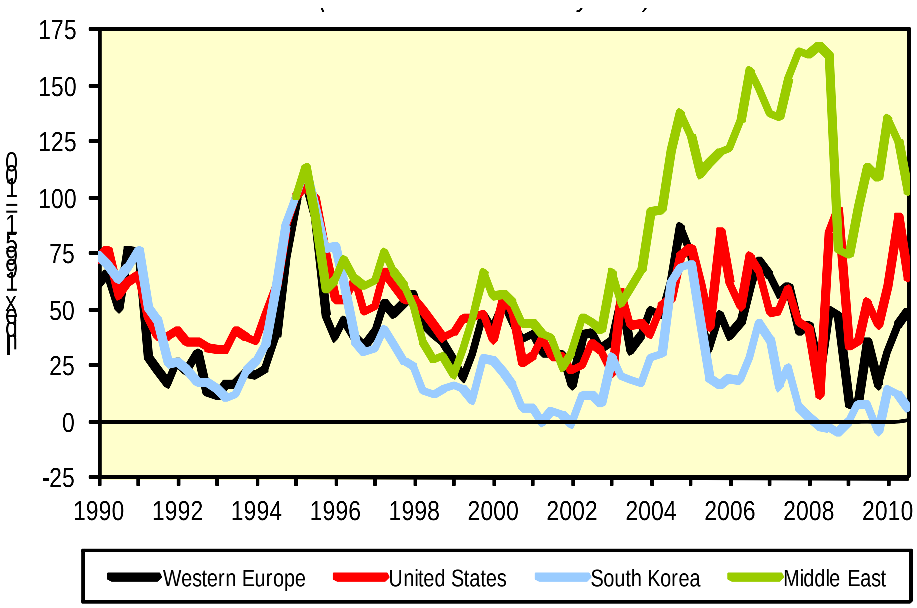
Nexant, Inc. (www.nexant.com) is a leading management consultancy to the global energy, chemical, and related industries. For over 38 years, ChemSystems has helped clients increase business value through assistance in all aspects of business strategy, including business intelligence, project feasibility and implementation, operational improvement, portfolio planning, and growth through M&A activities. Nexant has its main offices in San Francisco (California), White Plains (New York), and London (UK), and satellite offices worldwide.

Nexant's Quarterly Business Analysis reports assess the current production economics for commodity petrochemicals, putting them into context with developments in the underlying market dynamics. A review of production economics in the Middle East has recently been added to the long running analysis of economics in Western Europe, United States and Asia. The reports are published as part of ChemSystems / Petroleum and Petrochemical Economics Programme (PPE). Subscriptions to the programme are available from www.chemsystems.com. For further details or to request a sample copy, please email chemsystems@nexant.com.

WEAKER ASIAN MARKETS STIFLE RECOVERY

Growth in Asian petrochemical markets has supported the fortunes of the global petrochemical industry through turbulent times in recent years. Opportunities to export large quantities to Asia have compensated for slow domestic consumption in many Western markets. Heavy exploitation of Asian export markets has been a key factor driving the recovery in profitability in major markets after the sharp slump seen in the second half of 2008. However weaker Asian markets in the third quarter have raised fears that the recovery of the petrochemical industry could falter or even worse fall back to a trough, surrendering recent gains.

Regional Petrochemical Industry Profitability
(Cash Margin Index Q1 1995=100)



Asian petrochemical markets have been weaker than many had hoped through the third quarter. Demand for petrochemicals has been lacklustre during the beginning of the quarter as downstream consumers refrained from buying activity as prices fell sharply in the early weeks of the quarter. The need to replenish inventories ahead of the peak manufacturing period in August and September eventually improved demand. Supply for most derivatives was generally lengthy, although a major production failure at Formosa's Mailiao complex in Taiwan caused some local tightness. Imports from the Middle East were more prevalent, despite the higher netbacks available in Europe. The weak market meanwhile depressed prices in July, restricting profitability of regional producers.

While margins in Western Europe climbed towards a peak, relatively lengthy markets have provided conflicting views of the performance of the European petrochemical industry in the third quarter. Average margins of the West European petrochemical industry have improved steadily through 2010 and further gains in the third quarter lifted margins almost 15 percent above the average of the last two decades. Although margins suggest the industry has largely recovered from the sharp downturn seen in the second half of 2008, producers have struggled to restore volumes, restricting the upturn to revenue. Domestic demand for many products has been moderate, with volumes languishing behind those achieved in the first half of 2008. Meanwhile, high costs impaired competitiveness in export markets. Average operating rates remain confined below 85 percent, implying the industry remains weak from the perspective of market balance.

Average profitability of the United States petrochemical industry fell sharply in the third quarter, depressed by a frail demand side. Annual economic growth rates slipped to 1.6 percent in the second quarter, after achieving an average of almost 4.5 percent in the previous two quarters. Leading economic indicators released at the start of the third quarter raised fears of further downside to consumption. Despite fragile end use consumption in the manufacturing sector, extensive restocking provided some much needed support to demand. Average margins across the industry slumped almost 30 percent. However the advantage of access to low value ethane feedstock maintained margins above their long term average.

Profitability of petrochemical production in the Middle East fell considerably in the third quarter, depressed by lengthy Asian markets. Average netbacks on exports to Asia were considerably reduced as Asian prices found a new floor after falling sharply through the second quarter. Meanwhile exports to Western Europe offered considerably more attractive netbacks as European prices remained broadly steady, resisting the sharp falls seen in other regions. European ethylene contract prices commanded a premium of $370 per ton over South East Asian spot prices. Considerably higher margins in Europe drew a larger amount of material westwards, however ongoing production issues in the Middle East, fragile European demand and logistical constraints restricted volumes. Nexant’s Middle East petrochemicals cash margin Index fell almost 20 percent to settle at 103 (Q1 1995=100), returning the index close to its average for the last decade.

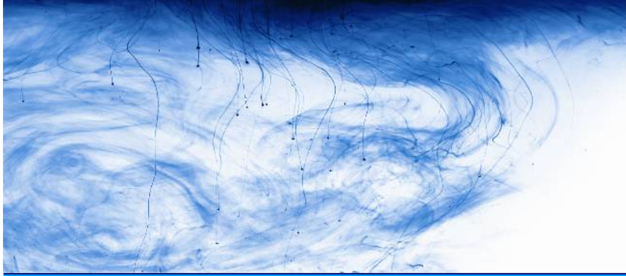
The magnitude of the feedstock cost advantage available to many producers in the Middle East and the United States eased in the third quarter as crude oil prices retreated from their April peak. Average Brent crude oil prices through July and August eased three dollars per barrel to settle at $76 per barrel. Meanwhile naphtha prices fell relative to crude oil, on lengthening markets, with European prices falling to a nine month low in July.

Ethylene markets in the United States weakened through the third quarter, with ample supplies and moderate demand. Extensive restocking provided the backbone for demand, whilst end use consumption in the manufacturing sector remained very fragile. The large discount available on spot material, and easing feedstock costs contributed to a sharp drop of 7.6 cents per pound in average contract prices from the second quarter. Ethane offered a considerable cost advantage over heavier feedstocks. Crackers in Western Europe claimed a large proportion of the margin available in the value chain. Steady contract prices resisted the sharp falls seen in other global markets. Feedstock costs eased, with average naphtha prices in July falling to a nine month low, following a modest reduction in crude oil markets. Cracker profitability improved to the highest since monthly contracts were introduced at the start of 2009, with Leader naphtha cracker cash margins approaching €500 per ton.

The economic performance of European polymer markets improved for the third consecutive quarter, lifting average margin of this sector to its highest for three years. Despite strong margins, depressed volumes continue to restrict revenue. PET, Polystyrene and PVC achieved particularly strong gains in margins. Meanwhile, polyolefin producers experienced only modest gains, with most incremental profitability taken at the cracker. Quarter three started off with weak demand for polyolefins across Asia as many plastics processors in China were forced to either temporarily shut down or reduce operating rates due to the country's restrictions on electricity usage. Buying sentiment was sluggish in the other main markets of India as well as in South East Asian markets. Demand gradually improved towards the end of the quarter as the peak manufacturing season approached. Margins fell with prices across the region.

Nexant's Quarterly Business Analysis reports assess the current production economics for commodity petrochemicals, putting them into context with developments in the underlying market dynamics. The reports are published as part of ChemSystems Petroleum and Petrochemical Economics Programme (PPE). Subscriptions to the programme are available from http://www.chemsystems.com

For further details, please email chemsystems@nexant.com



Nexant, Inc.

San Francisco
London
Tokyo
Bangkok
New York
Washington
Houston
Phoenix
Madison
Boulder
Dusseldorf
Beijing
Shanghai
Paris

www.chemsystems.com