

Nexant/ChemSystems' Commentary on U.S. Energy and Chemicals

April 2009

Wall Street to look for rebound signs in 1Q09

1Q09 earnings season for the chemical industry will be one of the most anticipated in memory as investors hopefully await signs of a recovery. U.S. chemical stocks that have rebounded 50% or more off their March lows includes DuPont, Dow Chemical, Eastman Chemical, Celanese, Ashland and Rockwood Holdings. Wall Street consensus estimates are that the chemical group will show losses or steep profit declines from the strong 1Q08. The earnings fall-off will come as no surprise, but investors and analysts will be looking for any positive signs in demand, price stability and effective cost control.

Dow completes Rohm and Haas Acquisition

U.S. major Dow Chemical completed its \$19bn takeover of specialty chemicals firm Rohm and Haas, meeting the deadline called for by a settlement agreement. The acquired operations will be combined with Dow to be called Dow's Advanced Materials Division. Under the settlement, the two largest shareholders of Rohm and Haas agreed to buy \$2.5bn in preferred equity to be issued by Dow. Dow will also exercise its option to have the Haas Family Trusts buy \$500m in Dow common shares.

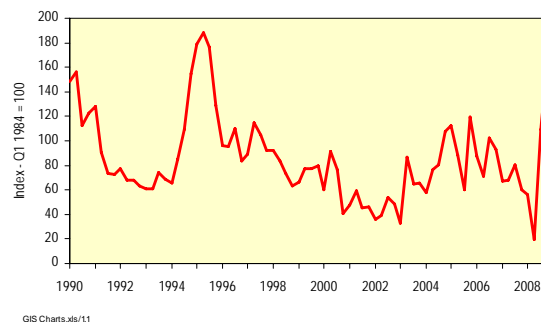
US Chems - engage Congress & Greens

The U.S. chemical sector must engage Congress and environmentalists to reform the nation's chemical control system and restore consumer confidence, an industry leader says. Cal Dooley, president of the American Chemistry Council (ACC), told a regulatory conference that popular concern about bisphenol A (BPA) and phthalates in childcare products is evidence that existing controls are not sufficient. "The message being sent out to us clearly by consumers is that we don't have a regulatory structure that is testing products adequately,"

Nexant/ChemSystems' Detailed Analysis of the U.S. Industry for the 4th Quarter 2008

Even though the market weakened in 4Q08, there was improvement in the Petrochemical industry economic performance, due mostly to strong margins in the various sectors, albeit on weak volumes. The **Petrochemical Profitability Index** tracked by Nexant (constant dollars, 1Q1984 = 100), increased from 109 in 3Q08 to 158 in 4Q08. It does not appear, however, that the weak demand allowed producers to realize the apparent margin improvement, and in fact inventory write downs were a financial issue.

U.S. PETROCHEMICAL INDUSTRY PROFITABILITY INDEX
Weighted Average Cash Margin - Constant Dollars



Nexant launches two new multi-subscriber reports: 1. *New Technology Valuations*, and 2. *Propylene Technology: The Next Generation*. (Please see our website or contact us for details.)

U.S. Market Segment Recap, 4th Quarter 2008

• **Crude Oil and Refining**

Crude oil prices continued to decrease, for a fifth consecutive month. In December, crude oil fell to \$40 per barrel which is 70 percent lower than the July highs; this decrease was due to the impact of the financial crisis, economic recession and weak demand for all commodities. Refinery margins fell in 4Q08 as cracking spreads for products declined.

• **Natural Gas and Feedstocks**

Average **natural gas** prices were significantly down in 4Q08. Natural gas prices dropped to \$6.7/MMBtu, while **ethane** saw a price drop of over 50 percent, down to 43 cents per gallon. Gas oil and light naphtha were down slightly

settling at 202 and 102 cents per gallon respectively, Other key feedstocks, including, propane and butane experienced price drops, which was close to 50 percent. Petrochemical feedstock demand has eroded and a U.S. economy in recession has taken a toll on the markets

- **Olefins and Intermediates**

The U.S Olefins market have weakened significantly during 4Q08, with falling oil prices and derivative producers experiencing weakened domestic demand. LPG prices were also hit hard but had a little support from seasonal upturn in demand from heating applications. However, both ethane and naphtha cracker margins remained strong.

- **Polymers**

LDPE prices decreased 20 cents per pound in 4Q08 due to decreasing demand. The large decrease in ethylene prices gave integrated and non-integrated leader producers showed improved margins. **LLDPE** price showed a significant decrease of about 20 cents per pound to 71 cents per pound. Larger declines in feedstock prices provided improved margins. **HDPE** markets acted similarly to those of LDPE and LLDPE and integrated leader margins increased about 12 cents per pound to about 39 cents per pound, while the non-integrated plant margins increased to 15 cents per pound.

The U.S. **polypropylene** market was unstable in 4Q08. Propylene prices dropped almost 50 percent in the quarter, while PP prices were approximately 30 percent below those in 3Q08 Despite weakening demand, lower propylene costs left producers with apparent major margin gains **Styrene** demand remained weak, and margins remained stable. Falling benzene and ethylene costs offset a decrease in product prices giving a slight change in margins. The **polystyrene** price decreased as demand subsided, following the weakening styrene feedstock price, while margins reached apparent highs, albeit on much lower demand.

Caustic prices increased, due to tightened supply caused by production cutbacks on chloralkali facilities, pressuring consumers,

such as aluminum. Overall, chloralkali prices and margins improved. **VCM** demand was weak due to lower PVC consumption, however. **PVC** prices decreased in 4Q08 as demand continued to be weak. Integrated and non integrated producers were able to achieve a positive margin albeit on lower volume.

Benzene prices decreased to \$1.61 per gallon in November, while **mixed xylenes** and **toluene** prices continued to suffer inventory reductions.

- **Other Monomers / Intermediates**

Ethylene glycol prices dropped by 22 cts/lb in 4Q08, due to weak demand, lower upstream prices and large Asian MEG projects. **Para-xylene** margins improved, but worsened for those consuming market price mixed xylenes. The U.S. **PTA** market remained in distress, as PTA prices decreased by 12 cents per pound.

Acrylonitrile demand declined, as the economic crisis and high prices hampered downstream producers. Acrylonitrile prices in 4Q08 decreased by 27 cents per pound in the first two month of the quarter. The U.S. **phenol** market was hit hard in 4Q08. Phenol prices dropped 20 cents per pound, in conjunction with record low benzene and propylene prices. Producers saw improved margins on higher acetone prices from higher feedstock costs, but demand suffered.

- **1st Quarter 2009 Summary Review**

Crude prices remained constant from January through March after declining about \$12 per barrel in 4Q08. Government measures to stimulate ailing economies and OPEC output reduction plans have brought crude oil markets into a reasonable balance. The recession continues to dominate in 1Q09, and average prices for most petrochemicals have fallen below previous quarter levels. Margins in the petrochemical value chains were hit hard for the quarter as demand was lost.

Note: (1) More detail on the various conclusions above can be obtained via subscribing to Nexant/ChemSystems' multi-client publications and single-client services. (Please see contact information below.) (2) This newsletter was last updated in April 2009.