

GREAT AMERICAN GROUP ADVISORY & VALUATION SERVICES

Chemicals/Plastics Monitor
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Introduction

Welcome to the second issue of the *Chemicals/Plastics Monitor* from Great American Group Advisory & Valuation Services (“GA”). This publication will provide you with market value and industry trends for a variety of chemicals and plastic-based products. The enclosed information represents a composite of GA’s industry expertise, well-respected industry publications, liquidation and appraisal experience, and contact with industry personnel. Due to the commodity nature of certain chemicals and plastic resins, timely reporting is necessary to understand an ever-changing marketplace. In addition, pricing trends are impacted by a number of macroeconomic indicators that should be monitored, and GA strives to contextualize these indicators in order to provide a more in-depth perspective of the market as a whole.

The *Chemicals/Plastics Monitor* relates information covering many chemicals and plastics, including industry trends, market pricing, and their relation to our valuation process. GA provides our customer base with a concise document highlighting the chemicals and plastics industry. Please feel free to utilize our contact information shown in this and all *Chemicals/Plastics Monitor* issues. GA welcomes the opportunity to make our expertise available to you in every possible way.

Trends in Recovery Values

Recovery values for chemicals and plastics increased up to five percentage points in the first quarter of 2011 as compared to the fourth quarter of 2010, driven largely by consistent or elevated demand, as well as increasing feedstock prices, which allowed prices to increase. In the valuation of chemicals and plastic resins, GA compares the selling price, market price, or acquisition price per unit of the inventory to the cost per unit. GA has presented observations regarding some of the recent trends in Net Orderly Liquidation Values (“NOLV”), but recognizes that these trends should not be generalized to all companies.

Due to lags in updating standard costs or other factors, recovery values may fluctuate significantly from deal to deal. GA recommends that the lender monitor chemicals and plastics deals quarterly, as market prices can shift dramatically based on oil and natural gas prices, as well as production and demand issues that create surpluses or shortages.

GA internally tracks recovery ranges for various chemicals and plastic resins, but we are mindful to adhere to your request for a simple reference document. Should you need any further information or wish to discuss recovery ranges for a particular segment, please feel free to contact your GA Business Development Officer.



ABOUT GREAT AMERICAN GROUP

GA is a leading provider of asset disposition solutions and valuation and appraisal services to a wide range of retail, wholesale and industrial clients, as well as lenders, capital providers, private equity investors, and professional services firms. In addition to the *Chemicals/Plastics Monitor*, GA also provides clients with industry expertise in the form of monitors for the metals, food, automotive, and building materials industries, among many others.

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EXPERIENCE

GA has worked with and appraised numerous companies within the chemicals and plastics industry. While our clients remain confidential, they include well-known and significant global, national, and regional producers and distributors of commodity and specialty chemicals, chemical intermediates, plastics, and resins for uses throughout the construction, automotive, oil and gas, food and beverage, manufacturing, and agricultural industries.

GA has appraised companies such as the following:

- A global manufacturer of chemicals and plastics, a refiner of crude oil, and a significant producer of fuel products, with annual sales of nearly \$20 billion;
- One of the largest global manufacturers and distributors of high-performance polymer resins and resin-based products, with locations throughout the world and sales exceeding \$3.5 billion annually;
- A manufacturer of plastic packaging such as containers, closures, tubes, and bottles, with annual revenue of \$3.5 billion;
- Two of the world's largest producers of integrated fibers and polymers, with annual sales of \$1.4 billion and \$3 billion; and
- One of the nation's leading specialty chemical producers, with annual revenue of over \$1.5 billion.

GA also maintains extensive appraisal experience with a variety of plastic bottle and plastic container manufacturers as well as foam and foam product manufacturers. GA has also appraised a variety of small and middle market commodity and specialty chemical manufacturers and distributors. In addition to our vast liquidation and appraisal experience, GA maintains contacts within the chemicals/plastics industry that we utilize for insight and perspective on recovery values.

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OVERVIEW

In one form or another, chemicals and plastics are used in nearly every manufacturing sector in the United States. From clothing to packaging, cleaning supplies to fertilizer, chemicals and plastics have become ubiquitous in everyday life. As technological advancements continue, the demand for lightweight, performance plastics as an alternative to other materials will continue to grow.

In March, Moody's Investor Services upgraded its outlook for the chemical industry from stable to positive in North America, Europe, the Middle East, and Africa. The upgrade was based on expectations of growth in 2011. According to analyst Elena Nadtochi, "So far, in 2011 demand from emerging markets remains strong and is continuing to underpin elevated profitability and capacity utilization rates for the key chemical commodities."

Japan is the world's third largest producer of chemicals. The plastics and chemicals industries were recently impacted by the 9.0 magnitude earthquake and resultant tsunami that struck Japan on March 11, leaving an undetermined number of Japanese dead or injured, hundreds of thousands without homes, and causing untold billions of damage to the country's infrastructure. Rolling blackouts followed as the Japanese government sought to route available power to emergency relief efforts.

In terms of industry impact, many major chemical and plastic manufacturers in the areas surrounding the earthquake have either shut down or reduced production rates. Although it is still too early to see what effect the lost production will have on the global market, industry experts expect tighter supplies and the possibility of higher prices for many products.

RECENT APPRAISAL TRENDS

COMMODITY CHEMICALS

Gross recovery values for commodity chemicals have increased up to five percentage points in the first quarter of 2011 as compared to the fourth quarter of 2010, as market prices have risen faster than costs. Gains were also driven by strong demand from various downstream sectors, and particularly from automotive and plastic manufacturers.

Sales within the sector have increased significantly, due predominantly to the afore-mentioned demand from downstream manufacturers, as well as higher prices. Gross margins have also increased. Not only are commodity chemical producers able to quickly pass along increased feedstock costs, but they are also currently running their plants at high levels of efficiency, both of which positively impacted margins in early 2011.

SPECIALTY/FINE CHEMICALS

Gross recovery values for specialty/fine chemicals increased up to two percentage points in the first quarter of 2011 as compared to the fourth quarter of 2010, as demand remained relatively strong. Some manufacturers of specialty chemicals have been hindered by steadily increasing feedstock prices, as they have not been able to pass along price increases at a pace that keeps up with climbing market costs.

A majority of specialty chemical manufacturers experienced increases in sales in the early months of 2011, due primarily to increased production in downstream industries. Gains were not as strong as those exhibited by commodity manufacturers, as specialty chemical manufacturers are not able to increase prices as quickly.

In regards to gross margins, most manufacturers within the sector have experienced flat gross margins or modest gains. The specialty segment is not able to pass increased costs on to customers as quickly as commodity manufacturers, preventing rapid margin inflation. However, this trend is also true in the reverse scenario; when costs decrease rapidly, specialty manufacturers tend not to lose margin as rapidly as commodity producers.

PLASTIC RESINS

Gross recovery values for plastics and resins have increased up to five percentage points in the first quarter of 2011 as compared to the fourth quarter of 2010. Demand from downstream industrial production increased, driving up market prices. In addition, feedstock costs continued to climb. Certain plastic and resin manufacturers have experienced market compression as price increases have not been able to keep up with higher feedstock costs.

Similar to specialty chemical manufacturers, plastic and resin producers have experienced slight increases in sales in the first quarter of 2011, which can be attributed to increased demand from downstream production.



Gross margin for plastic and resin manufacturers has remained flat or decreased slightly. Similar to specialty chemical manufacturers, plastic and resin producers experience a lag period before they are able to pass increased costs on to customers. As a result, many companies are experiencing increased acquisition costs, coupled with steady selling prices, negatively impacting margins.

MONITORING POINTS

Monitoring Point	Impact
Monitor oil and natural gas prices.	As oil and natural gas are the primary feedstocks for a majority of chemicals and plastics, any shifts in pricing would impact downstream prices.
Monitor the state of the automotive and housing markets.	Chemicals and plastics are used in many industries, particularly the automotive and housing markets. As a result, any changes in these markets could significantly impact recovery values.
Monitor inventory levels.	As the majority of commodity chemicals and plastics operations run continuously, significantly high inventory levels could indicate a lack of demand, while significantly low inventory levels could indicate production issues or inventory shortages.
Monitor inventory costing.	Due to the potential for dramatic price shifts, the frequency of updates to standard costs and reserve amounts should be monitored. Changes in market prices may not be reflected in the recovery values if inventory costs are not updated.
Monitor the state of the chemicals and plastics industry in Japan.	As Japan is a major global supplier of chemicals and plastics, as well as a single-source supplier of certain products, the recent damage to its infrastructure could impact global supplies.

PRICING TRENDS

CHEMICALS OVERVIEW

The North American chemicals sector finally escaped the effects of the recession in 2010, with many major manufacturers experiencing significant sales and revenue growth.

Experts believe the growth is largely attributable to the emergence of shale gas and gas liquids, a low-cost alternative to more expensive oil. In addition to lower energy costs, U.S. producers are extracting low-price ethane from the shale gas. As ethane is a key input for many petrochemicals, the low costs give U.S. producers a significant advantage in the global marketplace.

The trend is demonstrated by an increasing number of exports. Five years ago, the U.S. was a net importer of polyethylene, and is now a major exporter. Similarly, exports of PVC have increased seven-fold in five years. Going forward, producers need to decide whether the current advantage is strong enough to warrant increased domestic capacity, such as a potential ethylene cracker in the northeast U.S.



PRICING TRENDS - CHEMICALS

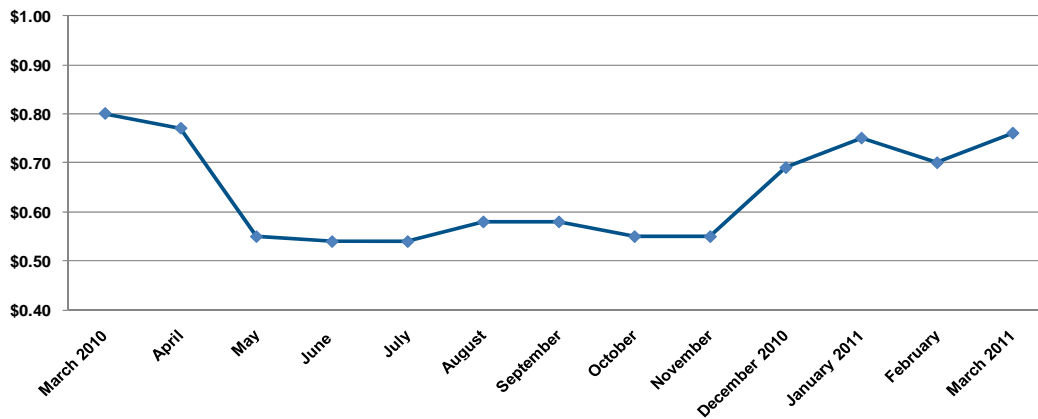
PROPYLENE

Global demand for propylene has been fairly steady, largely due to slowing growth in the downstream polypropylene sector. Polymer grade propylene prices increased significantly from November through January, then remained relatively flat through March. Besides high demand, prices were also driven up by production outages.

FOAM/MDI/TDI

In recent months, the strongest market for foam has been spray polyurethane foam applications. Demand was also positively impacted by an increase in downstream manufacturing. MDI demand was negatively impacted by weak construction recovery. Similarly, TDI demand from the bedding and furniture segments remained fairly stagnant. Industry experts predict a gradual recovery for the segment throughout 2011.

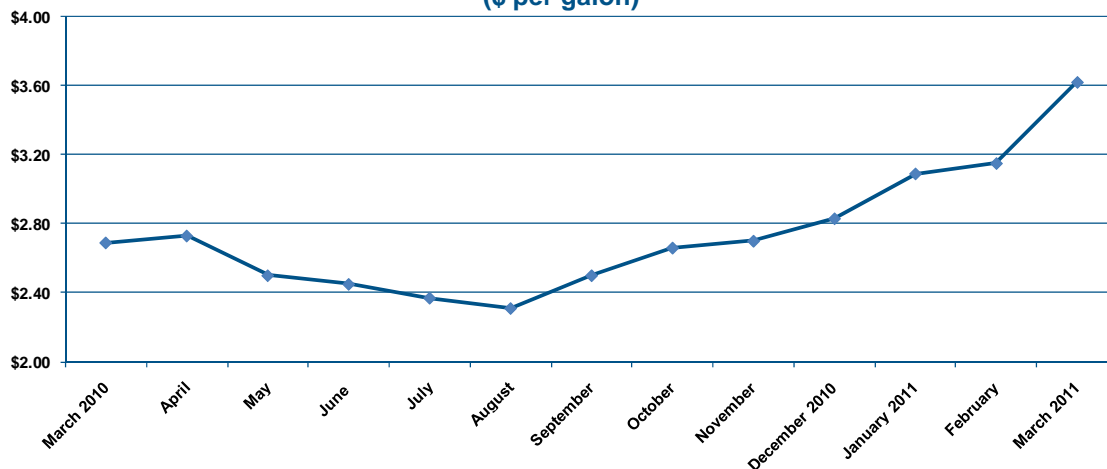
Propylene - Monthly Spot Bulk Prices
 March 2010 through 2011
 (\$ per lb)



TOLUENE

According to industry sources, demand for toluene has not been particularly strong in recent months. As toluene pricing is partially related to benzene production, the price of toluene has increased significantly from August 2010 through March 2011, driven by increased benzene costs.

Toluene - Monthly Spot Bulk Prices
 March 2010 through 2011
 (\$ per gallon)

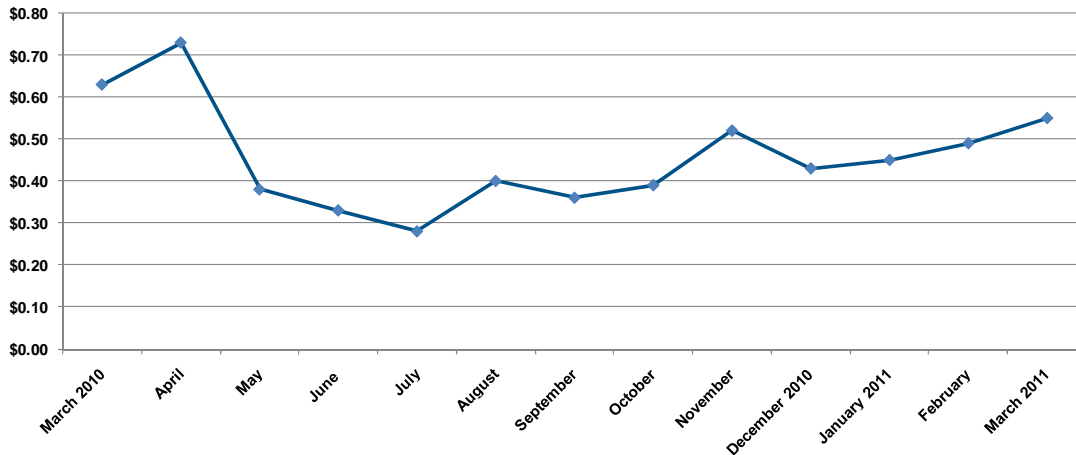


PRICING TRENDS - CHEMICALS

ETHYLENE

Ethylene is the world's largest-volume petrochemical. Due to the aforementioned low costs of ethane production, a result of the emergence of shale gas, manufacturers are increasingly producing ethane-based ethylene. Industry experts estimate that 63% of ethylene production in 2010 was ethane-based, as compared to 46% in 2005. Ethylene prices increased moderately from December through March. The price increase can be attributed to manufacturing outages and expectations of tighter supplies in coming months.

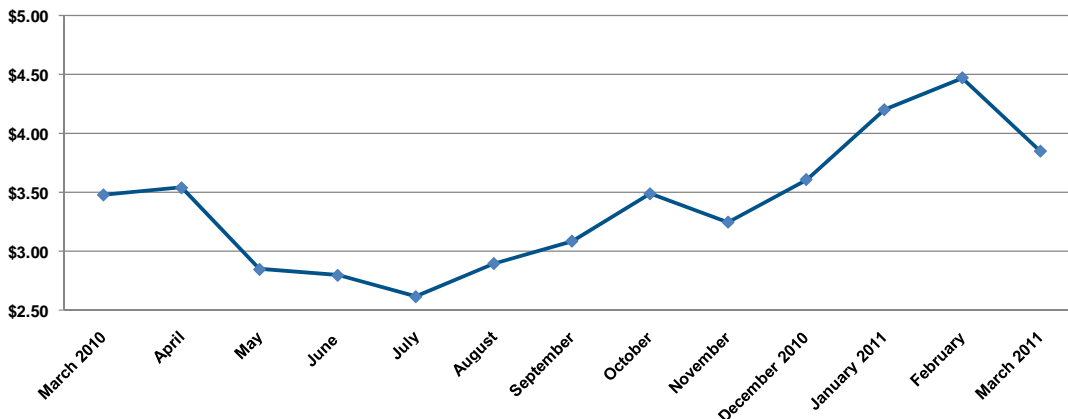
Ethylene - Monthly Spot Bulk Prices
March 2010 through 2011
 (\$ per lb delivered)



BENZENE

Due to a consistently tight supply since 2004, benzene prices tend to be fairly volatile; however, industry sources report that planned capacity increases should mitigate price fluctuations in the future. Since the summer of 2010, prices have been trending upward, significantly impacting a number of downstream plastics. High prices are largely due to higher crude oil costs and tight supply. Although prices decreased in March, industry sources expect benzene to continue to follow crude oil pricing.

Benzene - Monthly Spot Bulk Prices
March 2010 through 2011
 (\$ per gallon FOB)



PRICING TRENDS - PLASTIC RESINS AND POLYMERS

PLASTIC RESINS AND POLYMERS OVERVIEW

According to a report by the American Chemistry Council, U.S. plastic resin production increased 3.7% in January 2011 versus 2010, with production totaling 6.4 billion pounds. Sales and captive use for the month totaled 6.0 billion pounds of major plastic resins, which represents a 4.1% decrease from January 2010.

POLYPROPYLENE

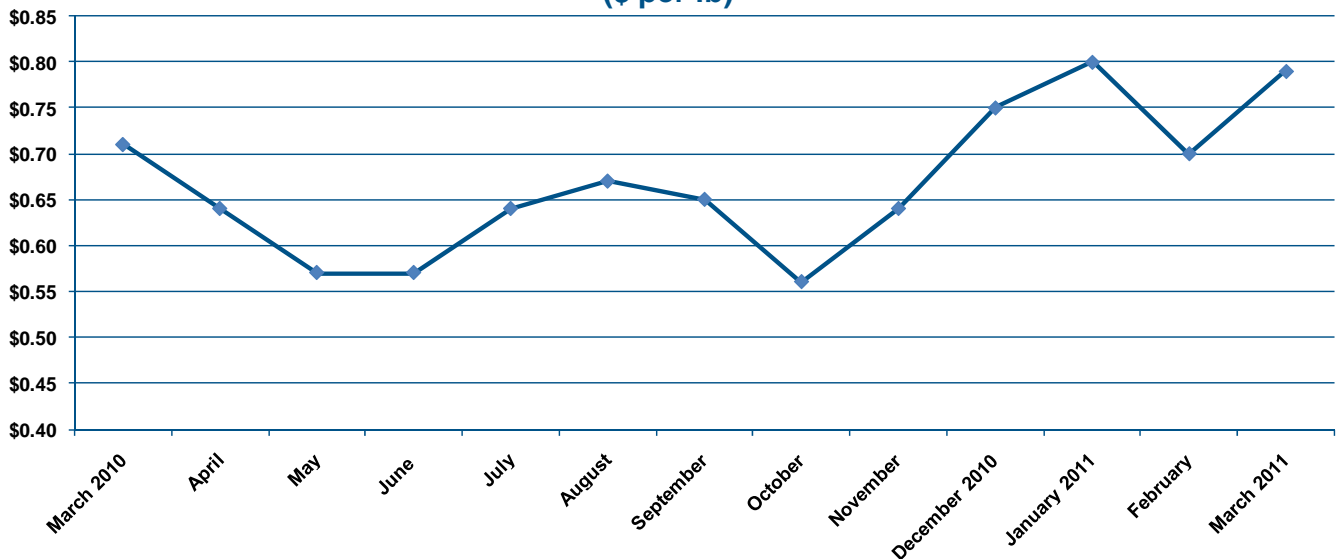
The U.S. polypropylene market has changed fairly dramatically in recent years. Historically, polypropylene was defined by growing demand, paired with low production costs. Recently, however, production costs and selling prices increased significantly. Increases were driven by the availability of inexpensive natural gas, which yields less propylene monomer than petroleum.

As a result of the increased costs, other plastics, such as HDPE and polystyrene, began to compete with polypropylene. In the period from 2007 through 2010, global demand for polypropylene grew at an average rate of 3% annually, which is roughly half of the growth rate experienced from 2000 through 2007. Industry experts predict that growth will remain fairly high through 2015.

In regards to pricing, polypropylene manufacturers were able to increase prices slightly in March 2011. However, the increase in pricing had the effect of lowering demand considerably, with some experts stating that capacity would have to decrease significantly to keep supply in-line with demand. As a result, experts predict polypropylene prices to remain fairly flat in coming weeks.



Polypropylene - Monthly Spot Bulk Prices
March 2010 through 2011
(\$ per lb)



PRICING TRENDS - PLASTIC RESINS AND POLYMERS

POLYETHYLENE

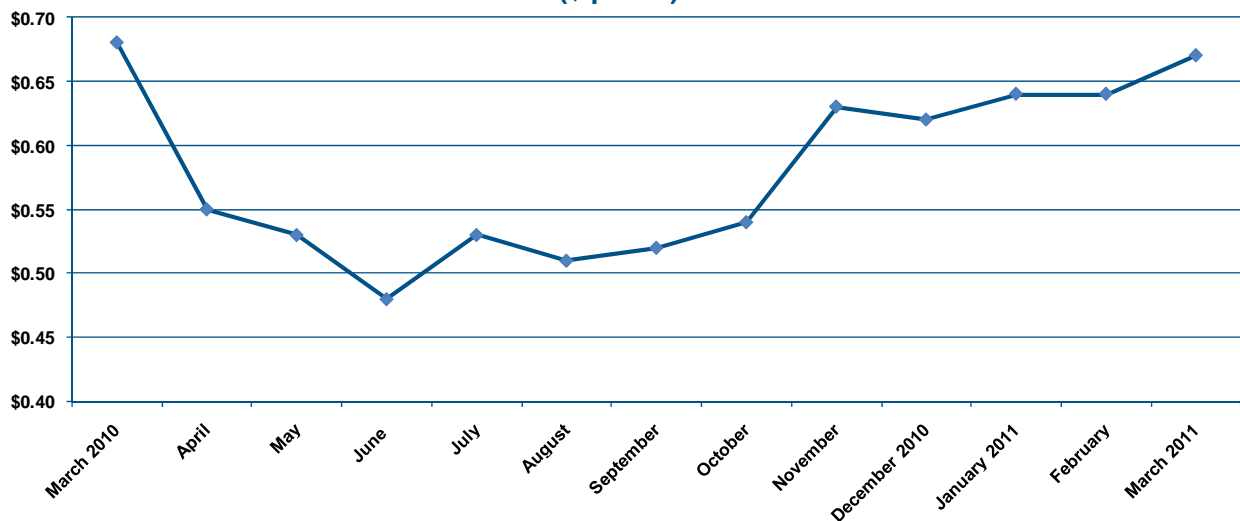
The North American polyethylene market has been positively impacted by the prevalence of low-cost shale gas, as well as delays in planned capacity expansion in the Middle East. Industry sources report that North American demand for polyethylene grew 8% in 2009 and 2010, and is expected to average around 3% annually through 2015.

Low-priced natural gas feedstocks have made North American polyethylene competitive on a global scale. In the recent past, many experts believed North America would become a net importer of polyethylene, but low production costs have allowed the region to become a major global supplier, to a point where domestic producers are considering capacity expansion.

One major capacity expansion is planned for Mexico, a joint venture between Grupo Idesa SA de CV and Braskem SA. The new plant, scheduled to open in 2015, will have annual production capacity of 1.5 billion pounds of high density polyethylene and just under 700 million pounds of low density polyethylene.

LLDPE prices have been fairly stable since November, when they peaked around historical rates. Although producers attempted to pass through more significant price hikes, steady demand and flat input costs prevented such an increase from occurring.

LLDPE - Monthly Spot Bulk Prices
March 2010 through 2011
 (\$ per lb)



POLYSTYRENE

Global polystyrene prices continue to increase, driven upward primarily by the high prices of benzene and ethylene, which are the principal feedstocks of polystyrene. The increasing feedstock prices caused manufacturers to raise the price of polystyrene. Experts predict that polystyrene prices will continue to increase until crude oil finally plateaus.

POLYETHYLENE TEREPHTHALATE ("PET")

Faced with increased pressure from eco-conscious consumers, soft-drink manufacturers The Coca-Cola Company and PepsiCo, two of the world's largest PET bottle resin consumers, have announced initiatives to "go green." Both Coke and Pepsi are in the process of developing plant-based plastics to replace their traditional PET beverage bottles. Pepsi plans to introduce a 100% plant-based bottle at the beginning of 2012. Coke introduced a 30% bio-plastic bottle, PlantBottle, produced from sugarcane ethanol, in 2009. Recently, Coke partnered with Heinz, which plans to use Coke's PlantBottle technology for its entire product line, starting with 20-ounce ketchup bottles. Although bio-plastics are not expected to have an immediate impact on PET manufacturers, this new trend represents another hurdle in a struggling market.

PRICING TRENDS - PLASTIC RESINS AND POLYMERS

Although bio-plastics are plant-based rather than petroleum-based, Coke and Pepsi both state that their new bottles will be recyclable with existing PET. According to Dave Cornell, technical director of Postconsumer Plastic Recyclers, “The Coke bottle certainly is fully compatible. The ethylene glycol used to make the resin is chemically identical to that from natural gas liquids.” The same is expected of Pepsi’s bottle.

Many industry experts agree that recycled PET (“R-PET”) is a rapidly growing business. According to Darrel Collier, business manager for PET for Tecnon OrbiChem, “The move towards green products, whether bio-based or recycled plastics, is a significant and important issue, particularly for the developed world.” Coke, for example, is helping to drive the trend, with plans for 25% R-PET content in European bottles in 2011.

Despite a move toward “green” production, many industry experts believe that eco-conscious motives will rarely outweigh savings. Currently, the key factor determining future demand for R-PET is its cost as opposed to virgin PET. Few manufacturers will choose to utilize R-PET over virgin stock if the economics don’t make sense. However, as PET prices continue to increase, substitution demand for R-PET continues to grow.

POLYVINYL CHLORIDE (“PVC”)

Natural-gas based U.S. PVC has a growing advantage over the naphtha-based PVC produced in other markets, as naphtha PVC is directly tied to oil prices. While global producers are operating at roughly 70% of capacity, increased demand has U.S. producers operating closer to 90%.



The favorable pricing position has resulted in increased demand from foreign markets, with roughly one-third of U.S. PVC being exported. As a result, PVC manufacturers have not been as significantly impacted by the global recession and failing housing market as other plastics producers.

NYLON

Increasing automotive production continues to positively impact demand for nylon fiber, which is utilized throughout automotive interiors. Industry sources report that BASF is in the process of expanding its engineering plastics plant in South Korea, which will significantly increase global nylon output.



POLYCARBONATE

Polycarbonate prices increased recently, driven primarily by the increase in feedstock prices, as benzene prices have increased considerably. Flat demand prevented more significant price increases from being passed. Going forward, polycarbonate prices may continue to increase, driven by increased downstream demand from various manufacturing industries and increased benzene prices.

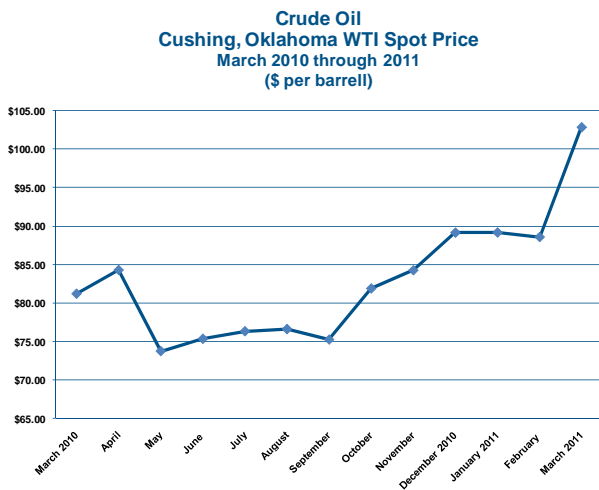
PRICING TRENDS - FEEDSTOCKS

FEEDSTOCKS OVERVIEW

A majority of chemicals and plastics are derived from petroleum or natural gas. Any fluctuations in the prices of these commodities impact the downstream chemicals and plastic sectors.

PETROLEUM

According to the American Petroleum Institute (“API”), U.S. petroleum deliveries in February 2011 increased a significant 4.4% over February 2010 levels, despite increasing fuel costs. John Felmy, chief economist of the API, stated, “The boost in deliveries reflects an economy gaining strength. The Federal Reserve survey indicates an expansion in business and manufacturing. So it’s no surprise we’re seeing growth in petroleum deliveries.”



According to data from the Energy Information Administration (“EIA”), West Texas Intermediate crude oil prices remained fairly steady between December and the third week of February, hovering just below \$90 per barrel. In recent weeks, however, concerns over the conflict in Libya have driven prices upward. Prices averaged over \$100 per barrel for the first two weeks of March, before falling to \$99.79 for the week ended March 18. Going into April, prices increased once more, hovering around \$105 per barrel.

Increasing prices are not a result of constricted supplies. According to the EIA, the U.S. crude oil inventory for the week ended March 18 totaled 352.8 million barrels, an increase of 2.1 million barrels from the previous week. This inventory level is at “the upper limit of the average range for this time of year.”

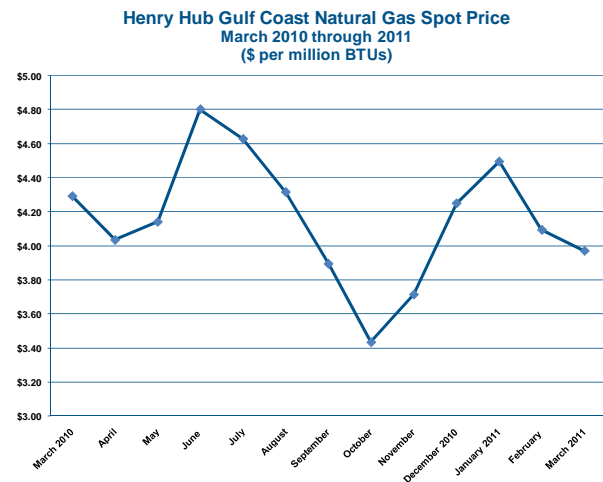
NATURAL GAS

According to estimates from the EIA, working gas in underground storage totaled 1,612 billion cubic feet (“Bcf”) as of March 18, 2011, which represents a six Bcf net decline from the previous week.

The following table illustrates working gas in underground storage in the lower 48 states (Units in Bcf):

Region	3/18/11	3/18/10	% Change
East	675	761	(11.3%)
West	222	285	(22.1%)
Producing	715	578	23.7%
Total	1,612	1,624	(0.7%)

For the week ended April 1, 2011, Henry Hub Gulf Coast natural gas spot prices increased \$0.18 from the previous week, to \$4.30 per million BTUs. On a monthly basis, natural gas hit its low in October 2010, at \$3.43 per million BTUs. Prices climbed through January 2011, when they peaked at \$4.49, before falling to \$4.09 in February and \$3.97 in March.



CHEMICALS AND PLASTICS REFERENCE SHEET

Chemicals and plastics pricing trend changes for the first quarter 2011 versus the fourth quarter 2010 are as follows:

	% Change		% Change
Commodity Chemicals		Commodity Plastic Resins	
Propylene	10%	Polypropylene	5%
Ethylene	30%	Linear Low-Density Polyethylene	10%
Toluene	30%	Low-Density Polyethylene	5%
Benzene	10%	High-Density Polyethylene	5%
Styrene	15%	Polystyrene	10%
Methanol	0%	PVC	0%
Phenol	5%	Recycled PE	15%
Butadiene	15%	Feedstocks	
Paraxylene	50%	Oil	16%
		Natural Gas	2%