

# ***Petrochemicals: Consolidation and Recovery***

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The petrochemicals sector, often cited as an economic bellwether, has slowly recovered from the financial crisis. The latter prompted necessary consolidation and caused the delay and suspension of new projects that would have added to overcapacity. Rather than succumb to recession, industry observers believe the petrochemicals sector has weathered the storm.

The petrochemicals industry has struggled hard to recover from the slump of late 2008 and early 2009, when it saw the worst fall in demand and prices in the last ten years, if not in its history. Then, the Platts Global Petrochemical Index, a proxy measuring the collective price of petrochemicals, dropped to \$491/mt on December 5, 2008, a huge fall from the \$1,679/mt recorded on July 14 of the same year.

However, the market has seen a modest recovery over the course of 2009 and 2010. Heading into the fourth-quarter this year, the PGPI had recovered over 50% of the value lost since its death-defying plunge and there are encouraging signs that it will maintain these price levels through year's end. Despite a difficult two years that has prompted rapid consolidation, the petrochemicals industry has shown resilience.

## **Oil Price Link**

The bullish price outlook for petrochemicals is closely linked to that for crude oil. Analysts in this market, were, by fourth-quarter 2010, increasingly arguing that oil prices could reach \$85 to \$95 a barrel by end-2010. In September, Goldman Sachs argued that strong Chinese oil demand, slowing inventory builds in the US and falling levels of floating storage suggested that "world oil market conditions are far more constructive than conditions in the US oil market suggest."

Like oil, prices in the petrochemicals sector have remained stubbornly firm in comparison with a relatively modest recovery in the balance between supply and demand. One reason why is that petrochemicals were a primary beneficiary of the concerted effort by the governments of the major devel-

# 2011 global energy outlook - petrochemicals

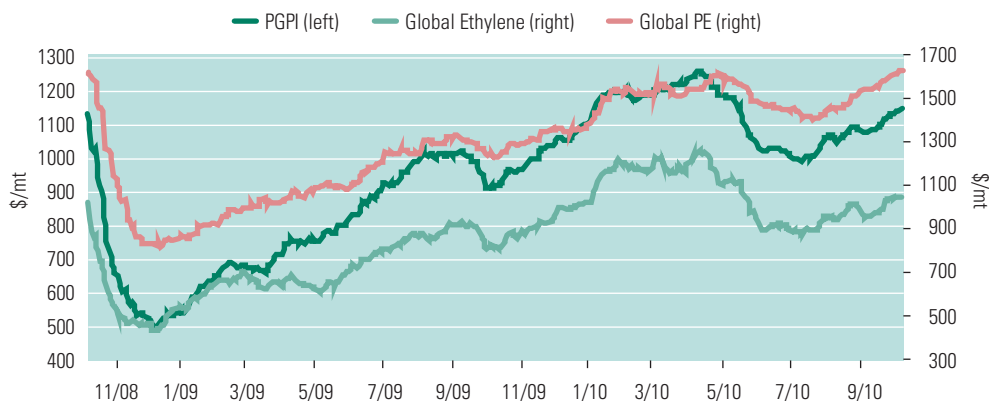
oped and developing economies in 2008 and 2009 either to offer direct bailouts to struggling companies or to pump money into the economy by other means, many of which targeted the auto sector. This was accompanied by “quantitative easing”—a highly accommodative monetary policy stance designed to inject liquidity into the financial system and eventually stimulate the real economy.

These efforts seemed to work. Consumers went shopping for big ticket consumer items like refrigerators, television sets, washing machines and cars (in China) or traded in their old cars for new ones (in the US and Europe). Both are important areas for petrochemicals demand. By the start of second-quarter 2010, many economists were declaring that the recession was officially over.

However, once these measures ran their course, the global economy started to sputter. Fears of the dreaded double dip—a second recession following quickly on the heels of the first—resurfaced. In July, the S&P 500 stock index fell to its lowest level this year as investors pulled money out of the system to park in “safe havens” like gold and oil. The index registered 1,022 July 2, down from the year-high of 1,217 points April 27. Equities markets took another dip in August.

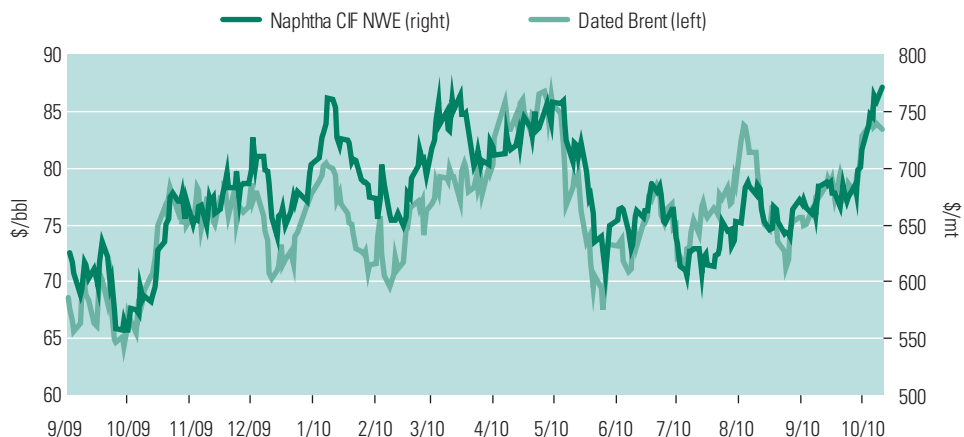
Moreover, countries like Japan, South Korea, Taiwan and Brazil have seen their currencies rising versus the US dollar. This has made their exports more expensive compared with their competitors and hence less attractive. However, China’s currency is tied to the dollar at a level which many argue

## 1. Petrochemical prices recover over 50% since 2008 crash.



Source: Platts

## 2. High crude pressures naphtha-petchems crack.



Source: Platts

undervalues it, ensuring the competitiveness of Chinese exports.

“It was the Bank of Japan which effectively poked the hornets’ nest with its unilateral intervention to stem the rise of the yen,” according to David Morrison, an analyst at Global Forex Trading. On October 7, the dollar traded at an eight-month low against the euro, at one point the euro reached \$1.4029, the highest level since January. Against the Yen, the dollar slumped to Yen 82.25, the weakest level since May 1995. Meanwhile, London gold prices closed at a record high of \$1346.50 per ounce, an indication of the metal’s safe haven status.

This concern over a drop back into recession prompted QE2—a second round of quantitative easing. However, it is by no means clear that QE2 will produce the same effect as QE1. In effect, interest rates are being kept low to encourage borrowing and keep currencies weak and exports competitive. At the same time, liquidity is still being pumped into the international financial system. The problem is that it is not finding a productive use and is being directed towards commodity investments that are seen as safe havens against the inflation that such monetary stimulus is likely to provoke. Commodity prices thus appear to be a beneficiary of government policy in two ways: first, through stimulating the real economy, and second, as a means of financial investment.

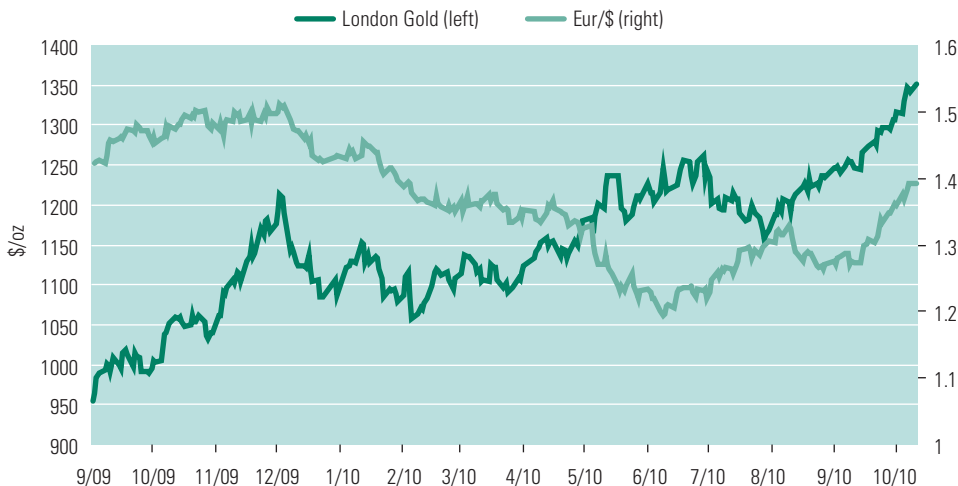
### High Feed Cost

Although expansionary economic policies have helped support petrochemical prices, the rise in crude oil prices has also fuelled a rise in the price of the petrochemical feedstock naphtha, causing concern over production margins. Throughout this year, the Platts Petrochemicals Cracker Margin index (PCM Spot) has only hit negative territory in two out of ten months. First, in January, when it fell to minus \$111/mt, and then in March, when it dropped to minus \$42/mt.

The PCM Spot is a measure of profitability for steam cracker operators using naphtha as a feedstock. The PCM currently reflects operators of typical European assets, where the critical break-even point is between \$150-200/mt. For most of the second and third quarters, steam cracker operators have had fairly good margins, in particular from June through September. This has been attributed to a resurgence in underlying demand for petrochemicals driven largely by China and not merely a replenishment of inventories.

“There is no question that Asia has been the main driver of this recovery, showing strong growth all the way through 2009 and into 2010,” according to Ineos group director Tom Crotty. Chinese demand has kept Middle Eastern petrochemical products moving east. Crotty, who is also the president

### 3. Weak dollar pushes funds into commodity sectors.



Source: Platts

of the European Petrochemical Association, said most players in Europe that are in the base chemicals markets, and indeed players in other regions, have mostly brushed aside talks of the double-dip recession. "It certainly did not feel like that," Crotty said, adding "we see strong chemical demand across all the developed economies."

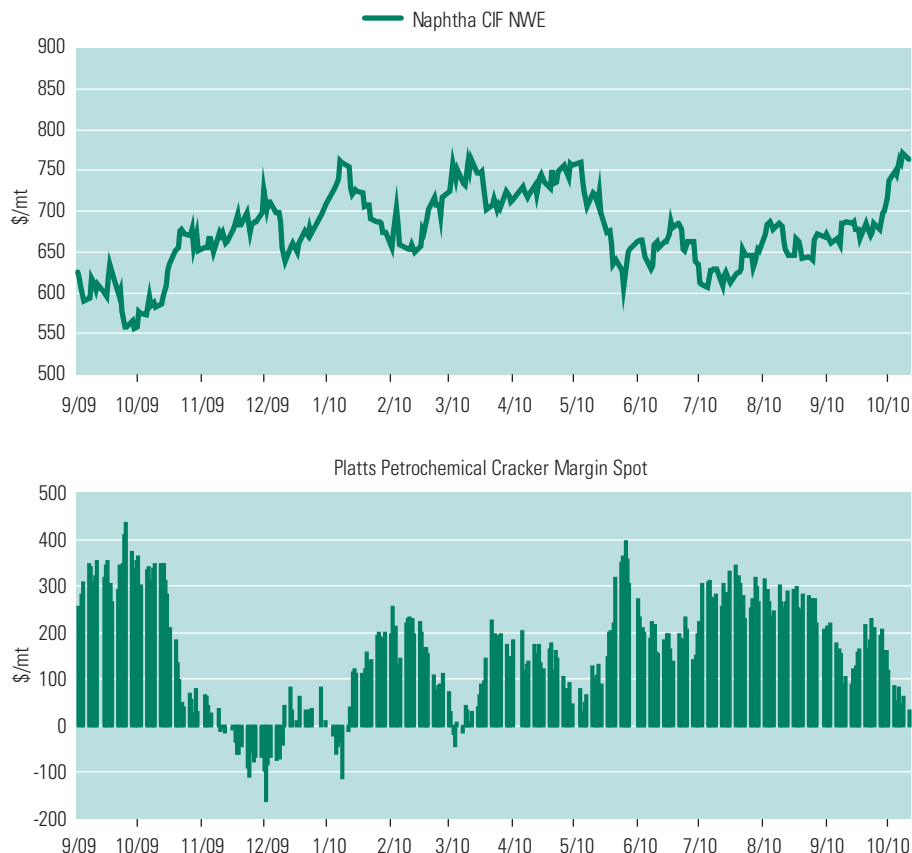
However, the recent march upwards in both crude oil and naphtha prices have begun to eat into petrochemical cracking margins. In early October, the naphtha cargo market was assessed at \$771/mt CIF Northwest Europe, the highest level in two years.

The feedstock cost increases have begun to put a squeeze on steam cracker margins as demand for downstream petrochemicals has begun to slide into its seasonal year-end lull. Although some ethylene producers have put on a brave face hoping the entire value chain would continue to consume products, others were more realistic.

"Cracker margins will be squeezed now," one producer said, as if resigned to lose more margin in the fourth quarter. Platts PCM Spot in October reached its lowest levels since May. Ethylene is the main petrochemical product that comes out of a steam cracker. It feeds into many downstream products like polyethylene and PVC, two polyolefins that serve the packaging and construction sectors.

In effect, before the credit crunch, many petrochemical analysts anticipated that the industry would go into a down-cycle in 2011-2012, owing to capacity additions in the Middle East. A recovery would then be seen in 2014-2015. The financial crisis has brought forward this down-cycle by two years. It caused companies to close uncompetitive plants and to stop or delay some new projects in the Middle East. Industry sources now anticipate that the recovery in the petrochemicals industry will come in 2011-2012, reaching the top of the cycle in 2013-2014. ■

#### 4. Steam cracker margin tightens as naphtha value spikes.



Source: Platts