QUARTERLY HIGHLIGHT

MACROECONOMIC OUTLOOK

Rex Features

There could be some austere times ahead for the global petrochemical industry, as belts tighten around the world

Petrochemicals in 'Austeria' lane

While global petrochemical sector profitability is robust, we could well be on the verge of a major turning point

PAUL HODGES INTERNATIONAL ECHEM

What's next for petrochemical volumes and margins? That's the key question following a strong start to 2011. Can we expect to see a supercycle develop, as some financial analysts have begun to suggest? Or have the past two years just been a liquidity-fueled boom, that will end in tears before long?

These two contrasting viewpoints reflect continuing uncertainty about the course of the world economy. I suggested in my New Year outlook (ICIS Chemical Business, January 3), that it might be wise for chemical companies to deal with this uncertainty by adopting a "scenario approach" to their business planning.

This would help them react quickly if markets turned out better, or worse, than their main forecast. So far, markets have clearly been much stronger than most people had dared to hope. But will this last?

Four main issues now dominate the outlook for the rest of 2011:

- China and its battle with rising inflation
- Japan's disaster and its knock-on effects
- The growing move towards austerity in the developed world
- Oil prices and their impact on demand

CHINA DYNAMICS CHANGE

China, of course, has been the main driver of global chemical demand growth over the past two years. As the chart shows, its demand for polyethylene (PE) has soared 53% since 2008, providing a welcome boost for exporters suffering from slower demand in their own domestic markets.

China's PE demand reached 17.9m tonnes in 2010 – up from 11.7m tonnes in 2008. And there have also been some critical changes in how this demand has been supplied:

In 2009, demand rose by 4m tonnes. A 1m tonne rise in domestic production supplied 25% of this increase, while the Middle East supplied 23%, Northeast Asia (NEA) 20% and NAFTA 12%.

But in 2010, the position changed quite dramatically. Total demand and domestic production both rose by 2.2m tonnes. There was also a major rebalancing of China's import mix, whereby the Middle East gained 758,000 tonnes versus 2009, while NEA and NAFTA lost 344,000 tonnes and 351,000 tonnes, respectively.

China's 53% rise in PE demand is a warning sign in itself that its economy may be overheating. Inflation is also rising – far too high for comfort

China's growth story thus moved into a new era. Sinopec is already the world's fourth-largest ethylene producer. It plans to be number one by the end of the new Five-Year Plan in 2015, with total volume up from 9m tonnes today to around 13m tonnes. And, of course, it is building polymers capacity alongside ethylene.

Thus other producers, with the exception of those in the Middle East, may not see much benefit in the future from China's growth. Equally, of course, if China's economy stumbles, then this new capacity could prove a major threat. China is unlikely to cut back volumes if domestic demand disappoints.

This is not just a theoretical problem. China's 53% rise in PE demand is a warning sign in itself that its economy may be overheating. Inflation is also rising, up 5.4% in March, with food price inflation at 11.7% – far too high for comfort. The cause is China's credit boom, which was deliberately created by the government after exports collapsed in late 2008.

Bank lending was doubled to $1.4 trillion (€950bn) in 2009, and remained close to this level in 2010 at $1.2 trillion. Yet the total size of the economy last year was only $5.9 trillion. It is hard to believe that such a sudden increase in lending could have all been profitably applied to worthwhile projects.

China's recent history, therefore, highlights how reasonable people can come to opposite views about the prospects for the petrochemical market.

Those who believe that the government is firmly in control of events, can point to a likely continuation of major growth. And although this may not lead to increased volumes for other Asian and Western producers, they can argue that smart players will always find a way to profit from the China story.

Others may instead question whether China's $725bn of property investment in 2010 may be storing up problems for the future. They may worry that we have been witnessing a repeat of the US sub-prime boom of 2003–2007, only on a larger scale.

THE IMPACT OF JAPAN

The disaster at the Fukushima Daiichi nuclear plant in Japan is a major human tragedy, costing 25,000 lives, and leaving 150,000 homeless. And it will take a long time, if ever, before life goes back to normal in the affected areas.

Earthquakes are still taking place, while the lack of electricity has led to major lifestyle changes across the Tokyo region. There have been lines for torches, rather than iPads, outside the shops.

Equally, news from the auto producers has been quite discouraging. This is a critical market for chemicals. Toyota's CEO, Akio Toyoda, has warned it will be the fourth quarter, at the earliest, before normal production is resumed. He also noted that "the damage has been so widespread in this unprecedented calamity that its economic effect is being felt throughout Japan and in every industry."

Of course, in time, rebuilding efforts will boost chemical production. But for the next few months, the disaster seems likely to create more downside than upside risk for the global economy.

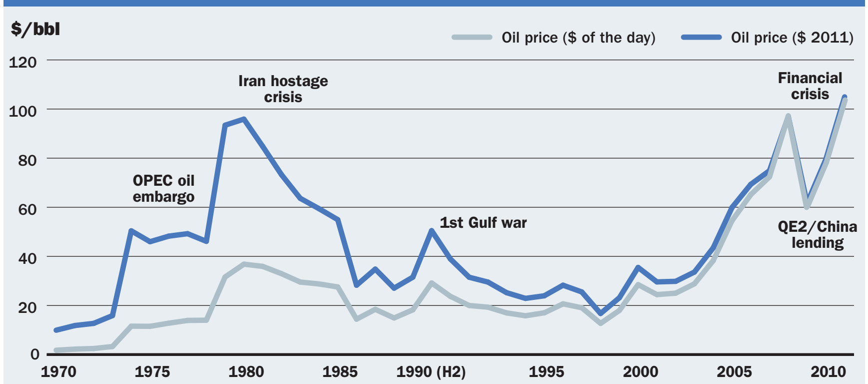
Japan's Renesas Electronics, for example, makes 40% of the microcontrollers used in the world's cars. Its factory at Naka was damaged in the disaster and will not reopen until June/July, at the earliest. As of late April, the factory still had no electricity.

This highlights another problem. The Tokyo region is responsible for 40% of Japan's economy. Latest government thinking suggests power rationing could be required over the summer, with companies forced to cut peak-hour usage by 20–25%. So could other factories, equally critical to the world's manufacturers, also end up losing output?

WELCOME TO AUSTERIA

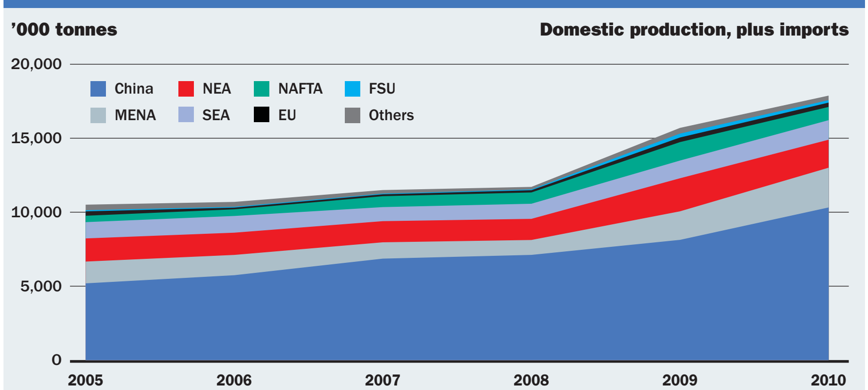
Another key issue is the impact of the stimulus programs that have been enacted around the world since the financial and economic crisis began in 2008. The US has spent some $5 trillion, and there have recently been welcome

CRUDE OIL PRICES 1970–2011



SOURCE: BP Energy Statistics, EIA

CHINA'S POLYETHYLENE DEMAND HAS SOARED BY 53% SINCE 2008



SOURCE: International eChem, Global Trade Information Services

QUARTERLY HIGHLIGHT

MACROECONOMIC OUTLOOK

MIDDLE EAST AND CHINA **PAUL HODGES** INTERNATIONAL ECHEM

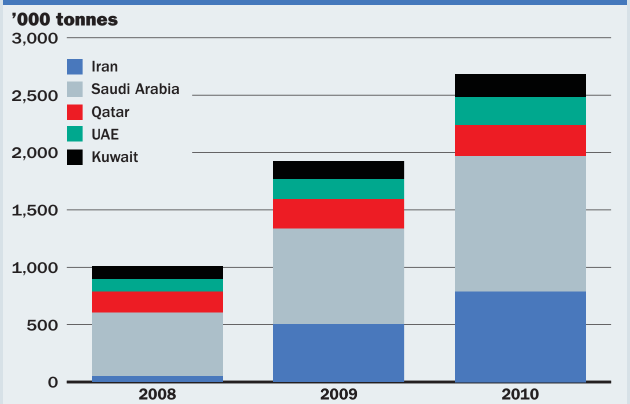
THE MIDDLE EAST AND CHINA

China and the Middle East have effectively developed a "strategic corridor" when it comes to oil and petrochemical markets.

China has replaced the US as the largest buyer of crude oil from Saudi Arabia. It is desperate to secure energy supplies from the Middle East, as its own oil production at 4m bbl/day is less than half its consumption. Equally, the Middle East needs to secure China's markets for its increased petrochemical production.

China's polyethylene (PE) imports tell the story well. As the chart shows, based on data from Global Trade Information Services,

MIDDLE EAST PRODUCERS DOMINATE CHINA'S PE IMPORTS



SOURCE: Global Trade Information Services

Iran has been the big winner over the past two years, followed by Saudi Arabia.

Iran's volume has risen from just 51,000 tonnes in 2008 to 789,000 tonnes in 2010. Saudi Arabia has gone from 555,000 tonnes to 1.2m tonnes, Qatar from 181,000 tonnes to 269,000 tonnes, the United Arab Emirates (UAE) from 111,000 tonnes to 245,000 tonnes, and Kuwait from 110,000 tonnes to 202,000 tonnes.

In total, these five countries saw their volume nearly triple from 1m tonnes to 2.7m tonnes. And their share of China's total import market rose from 22% to 36%. ■

» signs that unemployment may finally be falling as a result. But the process has been very slow, and there are growing worries about how all this new debt will be repaid.

Meanwhile, Europe has abandoned its stimulus programs. Countries such as Greece, Ireland and Portugal are instead cutting government spending to try to satisfy their creditors. Even if one assumes they will be able to avoid outright default, which seems increasingly unlikely, these cutbacks will reduce growth rates for years to come.

Of course, the optimists will rightly point out that Germany is the engine of the European economy, and it is still expanding. But the pessimists will respond by noting that Germany's strength has been based on its exports to China. Domestic growth has been very slow, as a result of its rapidly aging population. So if China slows, they argue, so will Germany.

US BUDGET CUTS LOOM

And then, one has to look at what is happening in the world's largest economy, the US. There are increasing signs that both Democrats and Republicans are now planning to follow the example of the UK's new coalition government, and are aiming to cut government budgets rather than expand them. This is already happening at the state level, responsible for 13% of GDP.

Obviously, one hopes that all the stimulus money spent in the past two years will now start to prove worthwhile, and that a broad-based recovery may emerge. But what if it doesn't? Are we about to see the emergence of a new mentality in the world's wealthiest countries? Instead of recovery, are we about to enter the new world of "Austeria?"

Finally, there is the question of oil prices. The optimists argue that today's high oil prices are a sign of a robust economy. But as the chart shows, there have been four previous periods in the past 40 years when oil prices,

Are we about to see the emergence of a new mentality in the world's wealthiest countries? Instead of recovery, are we about to enter the new world of "Austeria?"

like today, have been above $50/bbl in real terms (in 2011 dollars) for a sustained period: 1973–1974, 1979–1980, 1990–1991 and 2007–2008.

In every instance, we then saw a major decline in chemical demand. The reason is simple, if counter-intuitive:

- As oil prices rise, consumers cut back on discretionary spending
- This reduces demand for those products that drive chemical demand
- Yet chemical buyers have to start buying forward, to protect supplies
- The eventual oil price peak is thus followed by destocking
- Operating rates then collapse down the value chain

And in this area, I am on the side of the pessimists. I spent much of 2007–2008 warning about this issue in the ICIS Chemicals and the Economy blog. This was then recognized in the famous "The Crystal Blog" article after the crisis occurred (ICIS Chemical Business, November 10, 2008). Therefore, I fear we will suffer another slowdown once oil prices are seen to have peaked.

SUPERCYCLE CONSIDERATIONS

Where then does this leave us in terms of the potential supercycle? Recent history certainly suggests the theory has some foundation, but this may not prove as solid as one might hope.

I continue to believe that we face more uncertainty than at any previous time in my working life. Thus, I would suggest that companies should continue to develop a scenario approach.

In particular, they might find it very valuable to consider what they might do if the recent growth surge starts to slow as a result of developments in China or Japan, or because of the growing debt crisis, or as a result of today's high oil prices.

Hoping for the best is a natural human reaction. But from a corporate viewpoint, it may prove flawed as a strategy or a contingency plan. ■

Paul Hodges is chairman of the UK-based consultancy International eChem. His new eBook, jointly authored with John Richardson of ICIS, will be previewed in the May 23 issue of ICIS Chemical Business.