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How to survive and prosper in today's chaotic petrochemical markets: 5 critical questions every company and investor needs to answer

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Olefins, aromatics and polymers — how chaotic conditions in feedstock and product supply and demand will impact your business and investments over the next ten years

Executive summary

Major change is under way in world markets for all petrochemicals. It is no exaggeration to say that we now face chaos on both the supply and demand side – impacting both feedstocks and products. Producers and consumers cannot afford to ignore the risks that this development creates for their business. Nor can investors afford to indulge in the wishful thinking that says central banks can quickly return growth to previous levels.

On the supply side, oil prices have tumbled over the past year, and yet inventories remain at record levels – suggesting further price weakness cannot be ruled out. In turn, this has already had a major impact on the relative values of oil and gas-based feedstock. US shale gas cracker investments no longer look to have the major levels of secure long-term advantage that were predicted when they were conceived.

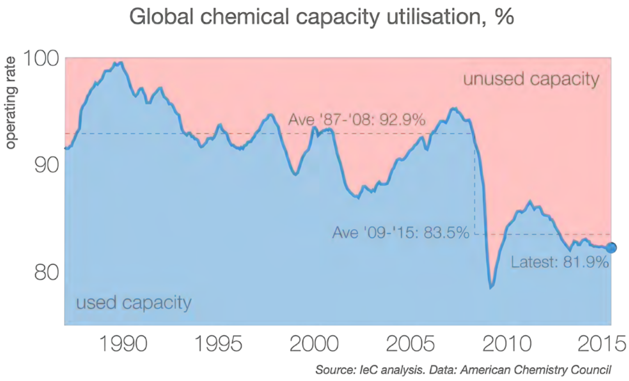
On the demand side, globally ageing populations are creating a demographic deficit in spending. Equally, there are clear signs of major secular change taking place in core end-user markets such as automotive and construction. China's New Normal policies have dramatically slowed its economic growth, even if one takes the official numbers at face value. Its announced move towards a service economy is similarly challenging previous certainties about its ability, along with other key emerging markets, to underpin high levels of demand growth for the major petrochemicals and polymers.

Additional levels of uncertainty are created by the impact of the major stimulus policies implemented by central banks post-2008. These appear to have created only a fragile recovery, but have left behind a legacy of debt which will inevitably depress future demand.

Petrochemical companies and investors in the industry have therefore come to a fork in the road. It is no longer possible to believe in the concept of a quick "return to trend" following the financial crisis.

The aim of this major study is to provide answers to the key questions that arise from this increasingly chaotic environment:

1. Can companies still plan ahead for demand by simply using a relevant multiple for each product in relation to an IMF GDP growth forecast?



2. Can they continue to assume that oil prices will inevitably return to recent highs, or are prices more likely to return to the lower levels seen before 2004?

3. Do China's policies mark a complete change of direction from its previous role as the manufacturing capital of the world?

4. Will today's globally ageing population maintain the same levels of demand for autos, housing, electronics etc as in the past?

5. Should companies focus on new growth areas for demand, in potential megatrend areas such as water, food, shelter, health, mobility and the environment?

This study is therefore of critical importance for both producers and consumers. Its analysis will be developed by a team of experts from ICIS and International eChem, who have many decades of industry experience in all the main product areas and geographies. It will thus be essential reading for CEOs, executive management, planners and investors focused on the industry.

The aim is to provide you with a road-map through today's challenges, and with a clear vision of the new opportunities now emerging for future growth and profit.

Scenario planning approach

Scenario planning approach

Why are oil prices suddenly so volatile, and what are the implications for supply of the major petrochemical feedstocks such as naphtha, LPG and ethane? We will examine this critical issue from the viewpoint of the three major scenarios:

- $100 = Continuing tension – Further central bank stimulus takes place as economic recovery stalls, and geopolitical risk rises along with the potential for supply disruptions
- $50 = Comfortable middle – Stimulus policies prove to have worked, demand recovers, revived growth prospects and project cancellations create a balanced market
- $25 = Collapsing demand – Emerging markets submerge, and developed markets slow dramatically as stimulus-created debt has to be repaid.

The aim is to highlight the major challenges and opportunities that these different oil price scenarios create for the petrochemical industry:

- What will be the consequences of the different oil price scenarios for new olefin and derivative projects – shale-driven US projects, China PDH and China coal-to-olefins?
- What next for the aromatics chain – will benzene and toluene's byproduct status create a surplus or a shortage of product?
- What is the demand outlook for derivative markets such as PTA that are already in fundamental oversupply due to over-investment?
- How can producers and consumers best position themselves to not only survive in this uncertain world, but also build profitable new businesses for the future?
- How can investors model the impact of these developments on future cash and revenue flows, and build their confidence over future investment returns?

The study in detail

Major change is under way in regional and global petrochemical markets:

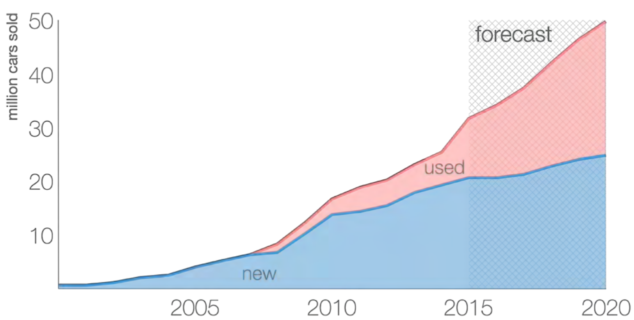
- Western economies have so far made only a fragile recovery from the financial crisis
- China's growth has slowed, and its policy of becoming self-sufficient in many key petchems and polymers is taking effect
- Energy markets have moved into a more volatile period where some worry about oversupply, and others potential shortages
- Further policymaker stimulus cannot be ruled out, which could create even more turbulence in world markets.

Changing drivers for product supply and demand

Markets have become more volatile and uncertain, and petrochemicals growth can no longer be extrapolated by relying on GDP forecasts from the IMF. This study will examine the core beliefs that have developed during the post-2009 stimulus period, and provide an expert and independent perspective of their likely validity with respect to the future. It will focus on key issues of major interest to companies and investors, including:

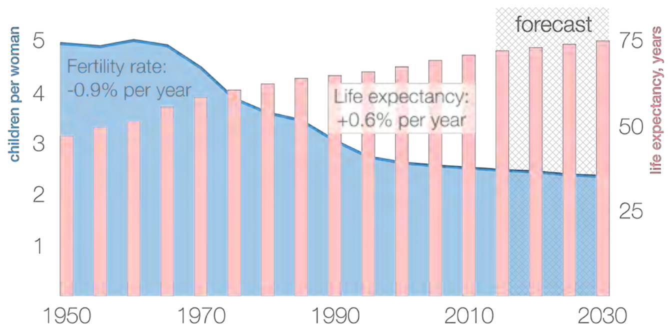
- Will oil inevitably return to trade at the $100/bbl level, or are we more likely to return to historical levels around $25/bbl – or could the recent period where prices have hovered around $50/bbl prove to be the new long-term price level?
- Has China really become middle class by Western standards, or was its sudden surge in demand post-2009 due to temporary wealth effects created by its massive stimulus programme and the associated property bubble?
- Are Western demand patterns now seeing major changes due to the ageing of the baby boomers and, if so, how can companies most easily reposition themselves to develop and supply the new products and services required to satisfy their needs?

Evolution of China's passenger car market



Source: pH report analysis. Data: China Automotive Association, Ministry of Public Security

Fertility rate and life expectancy



Source: IeC analysis. Data: UN population division

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- Will the highly-profitable middle-ground of the past continue to offer opportunities for profit and growth, or is the market now polarising between a relatively small high-end luxury market and a mass-market dominated by affordability constraints?

- What is the outlook for the new investments underway in the major markets, particularly in the US, China/Asia and the Middle East, and how can the growing risks of protectionism and currency turmoil best be mitigated?

The aim of the Study is therefore to provide you with a new and robust basis for generating sustainable profit and revenue growth in today's world.

What does this mean for the major value chains?

It is critically important to be able to translate the macro developments highlighted above into robust strategies for the major value chains:

- What would $25/bbl oil mean for the ethylene value chain, and how would it impact proposed capacity expansions in North America?

- What does the potential arrival of 'peak car' moment in the global auto market mean for the propylene and butadiene value chains?

- What do these developments mean for inter-polymer competition, and for the outlook for styrene and its key derivatives?

- Will anything change the current miserable outlook for the paraxylene/PTA value chains, and is this a wake-up call for the other value chains?

- Could the major growth taking place in the 'silver generation' of those aged 55+ create major new demand in currently unexplored areas?

We will approach these issues with an integrated methodology that focuses on both supply and demand. We will look at the current situation in energy markets, and critically examine the various arguments that have been put forward around operating cost and future security of supply.

We will also look further downstream at developments in key markets for petrochemicals and polymers – including autos, housing, electronics and polyester, and review how these are likely to be impacted by changing supply and demand patterns.

This will then enable us to provide detailed and robust conclusions on the key issue of what it will take to be a winner, and avoid being a loser in the building block products and their derivatives – ethylene, propylene, butadiene, benzene and paraxylene. This will cover critical issues including:

- Will the proposed new North American ethylene capacity benefit from cost advantage, and will there be a market for its output?

- How will the arrival of China's major investments in coal-to-chemicals impact markets?

- What is the potential impact of low-cost LPG and new PDH plants on propylene availability and pricing, and how will the arrival of on-purpose production impact cracker operations?

- What next for butadiene markets after the alarming swings from boom to bust that we have seen in recent years, and how will slowing auto demand impact demand for tyres?

- Will benzene's roller-coaster ride in terms of supply/demand and margins continue, or could we see more stability down the chain? If so, could this provide support for the key derivatives including styrene, cumene/phenol, polycarbonates, polyurethanes and nylon?

- Is there a way to rebalance the PTA market over the medium term, such that it could maintain its position versus cotton and move past the current period of profitless growth?

In addition we will look at key external influences and their impact – including the continuing use of currency devaluations to provide short-term advantage in export markets, the increasing drumroll of protectionist sentiments by politicians intent on preserving domestic jobs, and the developing risks of bankruptcy by over-leveraged companies.

Deliverables, timing and costs

The results of the study will be presented in full report format. The report will be finalised in December 2015. Each subscriber will also be entitled to a reasonable amount of follow-up consultation on issues covered in the study, including a presentation with Q&A delivered on-site or online. The study will be undertaken under ICIS's standard terms of engagement (which can be supplied upon request).

£12,000 for copies ordered before 31st October 2015
£15,000 for copies ordered after 31st October 2015

Contact us

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