

**Specialty Chemicals -  
The Search for Stability  
and Value in the 2016  
Global Chemical Industry**



**The global chemical industry has been through a period of dramatic change over the last decade with, amongst other shifts, a fundamental transfer in the global industry's critical mass to the rapidly growing China economy and the successful exploitation of unconventional energy sources, especially in North America.**

These shifts had a dramatic impact on both global supply and global demand and they continue to evolve. China's economic growth has slowed, and the initial abundance of shale gas which gave enormous competitive advantages to the US petrochemical industry, especially in the ethylene chain, has now transmuted into an equal abundance of shale oil, which has contributed to lower global crude oil prices and hence has levelled the playing field between the US petrochemical industry and the rest of the world, which relies to a much larger degree on crude oil-derived naphtha as a petrochemical feedstock. Collapsing oil prices and slowing demand from China have also contributed to both weakness and huge, unexpected volatility in global financial markets in early 2016.

So, in the midst of these dramatic shifts, where should the global chemical industry focus for stability and value? We are once again starting to see signs of a flight to the safety of specialty chemicals markets, not experienced on a grand scale for the last 20 years.

As costs collapse throughout the chain commodity chemicals businesses find it much more difficult to retain value. Pricing and costs are so transparent, and as most transactions are between industrial buyers and sellers, any advantage on raw materials is quickly passed on. Specialty chemicals markets however have more complex costs and market structures, so product prices are more closely related to value and technical performance. This allows much greater potential to retain the benefit of falling raw material costs. (Although in some markets we do still see countervailing power from huge buyers such as Walmart negatively impact the margin position of suppliers and specialty chemical producers). However end-consumer markets remain relatively healthy worldwide, and margins are still usually better, and almost always more stable, than in commodity chemicals. The other major attraction for commodity chemical producers is that specialty chemicals are less capital-intensive than commodities.

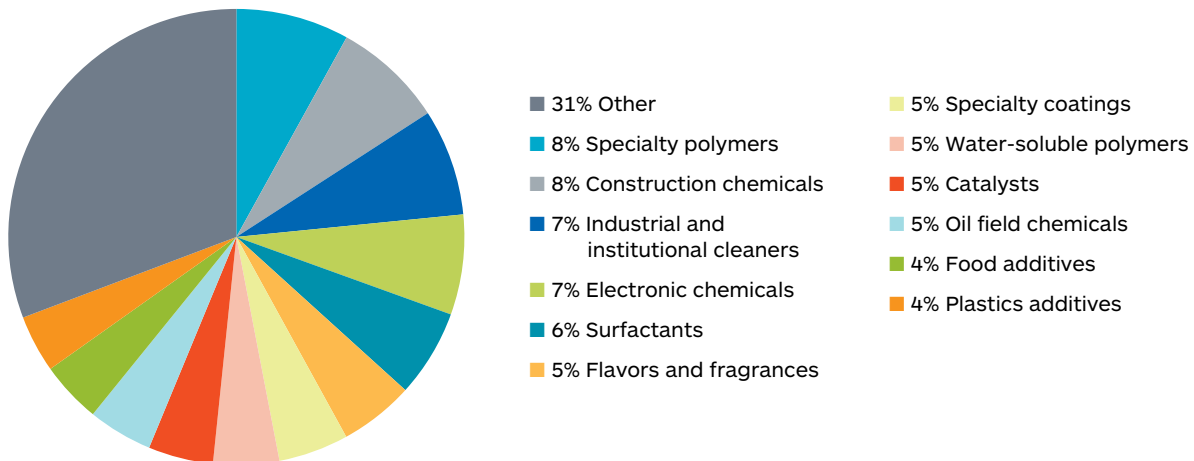


## How is this shift from commodity to specialty chemicals manifesting itself?

There has been a huge amount of mergers and acquisitions activity in the chemical industry globally in 2015 and early 2016, not just in terms of total deal volume but also with some mega transactions, as the industry tries to focus on higher value specialty businesses. The increasing influence of activist shareholders also continues to drive this transformation. In addition, even in the absence of specific deals, public announcements by major chemical companies point to the direction they are heading in:

- In Europe at the end of 2015 Solvay upgraded its advanced materials portfolio with the acquisition of US-based Cytec for US\$6.4 billion, and Platform Specialty Products Corporation made a US\$2.3 billion acquisition of UK based supplier of advanced surface treatment plating chemicals and electronics assembly materials - Alent Plc - in order to reach “another milestone on our path to building a leading, global diversified specialty chemicals company”.
- In Japan the same trend is evident: Mitsubishi Chemical is shifting focus from commodity to specialty chemicals with closure of ethylene crackers in 2015 and 2016 (Japanese ethylene production overall is down by 1.4 million tons or almost 20% from 2007 to 2015) and investment in high growth businesses such as carbon fiber and composites, LED lighting, and next generation businesses – organic photovoltaic modules and organic photo-semiconductors.
- Dow and DuPont’s recent announcement of a merger and refocusing into 3 business units is a great example of this shift in focus. Their rationale for the merger - Liveris: “This transaction is a major accelerator in Dow’s ongoing transformation, and ... significantly enhances the growth profile for both companies”. Breen: “For DuPont, this is a definitive leap forward on our path to higher growth and higher value”
- In announcing its Q4 2015 financial results Huntsman stated that “EBITDA from our cyclical businesses, which include our MTBE, ethylene, and TiO2 products, decreased approximately \$78 million compared to the prior year. This overshadowed the real strength of our portfolio which is in our downstream differentiated businesses”.
- Industrial gas companies are highly dependent on industrial output for top line growth but with lower growth rates in industrial production in some of the world’s largest economies, these companies are looking to acquisitions to accelerate growth. One example of this is Air Liquide’s US\$13.4 billion announced acquisition of Airgas, which is expected to combine complimentary product offerings and expand Air Liquide’s geographical footprint in the US.

Global Specialty Chemicals = \$545 billion in 2014



Source: IHS

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## What regional factors are influencing this shift?

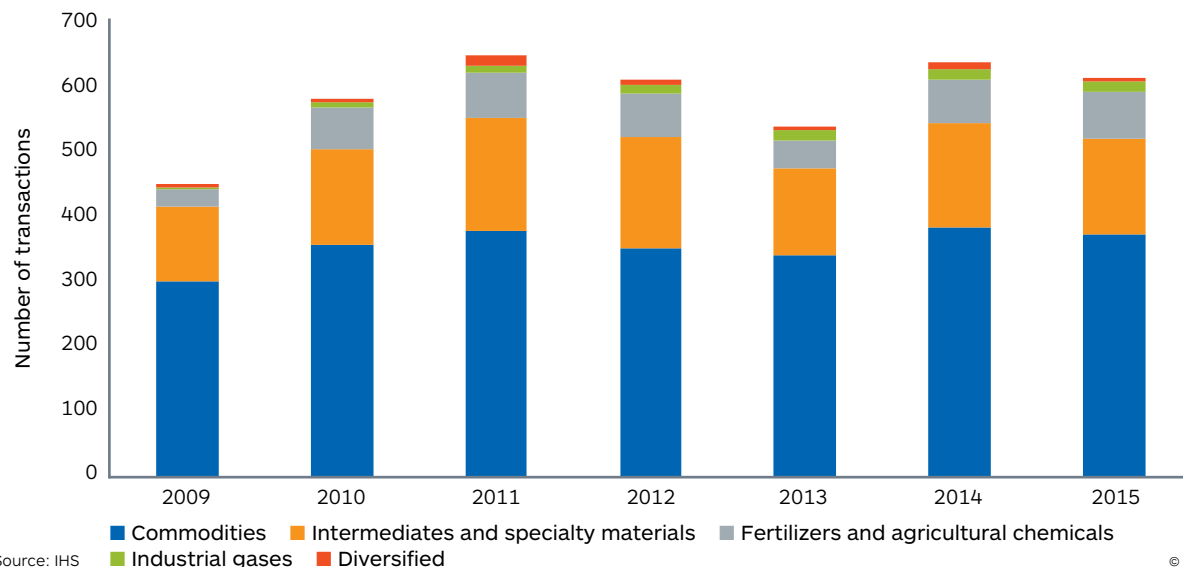
China has had a huge influence on the development of the global petrochemical industry since the start of this millennium and its influence on the development of the global specialty chemical industry is likely to be equally dramatic. In China the current drive towards specialty chemicals can be traced to 3 main factors: Firstly the slowdown in heavy industries such as construction, mining and heavy manufacturing is reducing the demand for basic chemicals and prompting a diversification in portfolios. Secondly societal factors such as demand for a more environmentally-conscious way of life have resulted in new environmental protection laws requiring increased use of specialty chemicals for water treatment; chemicals to combat hazardous air pollutants and many new industrial and institutional cleaning chemicals. Thirdly there is a highly consumer-driven shift as the rapidly growing middle classes require more consumer goods such as electronics, personal care, high-end cosmetics and food & nutrition products stimulating demand for the specialty chemicals which are used to produce them. All of these factors are encapsulated in China's recently approved 13th 5 year plan which will also shift emphasis from investment and exports to domestic consumption and innovation in many of these specialty areas.

However most Chinese chemical companies are still relatively weak in specialty chemical R&D capabilities.

They lack experience in developing specialty chemicals and have little familiarity with diversifying products and developing close technical partnerships with consumers – both of which are essential factors for success in the specialty chemical industry. In addition China still has relatively poor intellectual property protection and a shortage of some key high quality specialty chemical raw materials - this is especially an issue in sectors where chemical active ingredients (AI) have to meet strict purity criteria, such as pharma and plant protection. All of these factors are contributing to a critical need for China to partner with, or acquire, specialty chemical producers outside of China in order to obtain not only strategic resources but also to secure greater advanced technology and market access.

Facing overcapacity in commoditized segments and pressure on returns, Chinese chemical companies therefore have an urgent need to upgrade their portfolios and move towards end market customers with formulation and service capabilities. Most recently, in early 2016 ChemChina offered to buy agrochemicals giant Syngenta in a deal worth \$43 billion. If the deal goes through, it will be the biggest acquisition of an overseas company by China, and the second biggest takeover in the chemicals sector in the past year, after the Dow-DuPont mega-merger. So far most China M&A activity has been domestic, but the spotlight is moving.

Global Chemical Industry M&A Activity



# What should we expect in the future?

In the coming years, we expect that further core strengthening plays will be evident with chemical companies interested in moving downstream into those industry sectors which have stringent quality requirements, which require materials with specific high performance characteristics and which have relatively high barriers to entry. We also expect that China will play a major role in this global chemical industry shift in focus from commodity chemicals to specialty chemicals in 2016 and beyond. Until the global economy moves back into a period of greater stability, we expect that many chemical companies will increasingly focus on the stability and value that these downstream markets afford.

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