

The chemicals challenge

With many indicators pointing towards a global downturn in the economy, and paradigm shifts underway, chemicals CEOs need to build resilient business models

PAUL HODGES INTERNATIONAL ECHEM

Global recession is the obvious risk as we start 2019. Last year's hopes for a synchronised global recovery now seem just a distant memory. Instead, they have been replaced by fears of a synchronised global downturn.

Capacity utilisation in the global chemical industry is the best leading indicator that we have for the global economy. And as the chart shows, latest data from the American Chemistry Council confirms that the downtrend is now well-established. It is also clear that key areas for chemical demand and the global economy such as autos, housing and electronics moved into decline during the second half of 2018.

In addition, however, it seems likely that we are now seeing a generational change take place in demand patterns:

- From the 1980s onwards, the demand surge caused by the arrival of the baby boomers into the wealth-creating 25–54 cohort led to the rise of globalisation, as companies focused on creating new sources of supply to meet their needs

- At the same time the collapse of fertility rates after 1970 led to the emergence of two-income families for the first time, as women often chose to go back into the workforce after childbirth. In turn, this helped to create a new and highly profitable mid-market for “affordable luxury”

- Today, however, only the youngest boomers are still in this critical generation for demand

growth. Older boomers have already moved into the lower-spending, lower-earning 55+ age group, while the younger millennials prefer to focus on “experiences” and don't share their parents' love of accumulating “stuff”.

The post-financial crisis performance of the global auto market provides vital insight into these changing demand patterns. It is a key source of demand for chemical companies and the wider economy. Industry data shows auto sales have been falling in the three major markets of China, the US and Europe since the summer. As the chart (opposite) showing 2006-2018 volumes in the top 7 global markets confirms, the fall in Chinese sales is critically important:

- Chinese sales rose four-fold from 5.7m sales in 2007 to 22.1m in 2017, but slipped to 21.4m in 2018 (January-November data).

- Excluding China, sales in the other 6 markets rose just 4.5% over the same period from 39.4m to 41.2m sales

- Sales in the major Western markets of the US and Europe, along with Japan, were virtually unchanged over the period at 34m

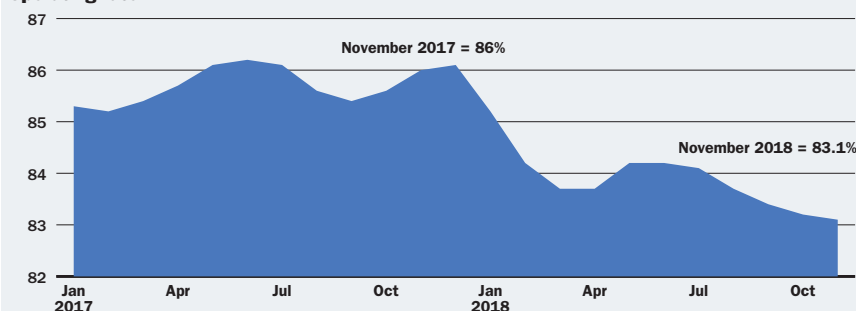
- In emerging markets, Indian sales were up 150% from a low base over the period, but Brazilian sales were flat and Russian sales fell by nearly a third

Without China, therefore, we would have been looking at a decade of virtually zero growth across the main global markets. And the same is true of other key sources of demand such as housing and electronics.

And unfortunately, China's rise to become the world's largest auto market was built on central bank stimulus spending, rather than income.

GLOBAL CHEMICAL CAPACITY UTILISATION

Operating rate %



SOURCE: American Chemistry Council data, pH report analysis

Disposable urban incomes are just \$6000 per annum, and rural incomes are less than half this level, according to official data. China's shadow banking has been "subprime on steroids".

So-called shadow banking was the real driver behind China's vast expansion of consumer spending over the past decade. It had averaged around \$20bn/month in 2008, a minor addition to official lending. But it then took off as China's leaders panicked after the 2008 financial crisis, reaching \$80bn/month in 2010 and \$140bn/month in 2013. President Xi Jinping's arrival meant it fell back to \$40bn/month by 2016, but it then doubled to \$80bn/month in 2017 ahead of the critical five-yearly Communist Party Conferences.

Essentially, therefore, China's shadow banking expansion has been the equivalent of subprime on steroids. Its impact on China's housing and auto market has been far greater than during the US subprime period until 2008. But during 2018, lending fell back to \$20bn/month again as China's leaders worried that debt was running out of control, with a consequent major impact on demand:

- China Daily has reported that more than 60% of housing transactions in Tier 1 and 2 cities saw price drops in the normally peak buying month of October, with Beijing prices for existing homes down 20% in 2018

- The abrupt end of speculative gains in the housing market has since pressured auto sales, which fell 19% in December and saw their first annual fall since 1992

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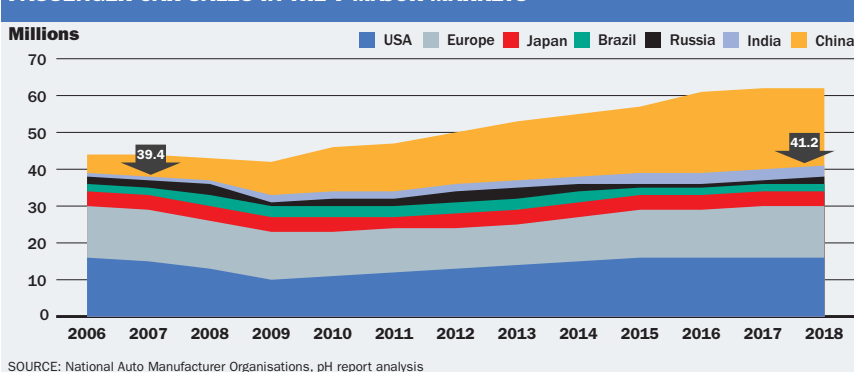
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The impact is already being felt outside China as deleveraging and the slower housing market reduce global demand for commodities. Real estate agents in prime London, New York and other areas have also seen a collapse in offshore buying from China and Hong Kong, with one telling the South China Morning Post that "basically all the Chinese investors have disappeared".

Asset bubbles need increasing amounts of cash to keep expanding. Unsurprisingly, therefore, global stock markets have recently taken fright at the removal of their stimulus support, especially as concerns rise over the impact of Brexit and protectionism on global supply chains. As we saw in 2008, the bursting of bubbles can happen relatively quickly. The difference, this time around, is that today's \$250tn of global debt is around three times higher than

PASSENGER CAR SALES IN THE 7 MAJOR MARKETS



two decades ago, before the Western central banks began their first stimulus campaigns with the subprime experiment.

Of course, policymakers may now rush to the rescue again with even more stimulus. But failing this, companies and investors need to prepare to survive and prosper during an extended downturn. After all, the key role of debt is to bring forward demand from the future, and the need to repay today's debt load will create additional headwinds for growth.

Companies in the front line of this paradigm shift include those bringing on new capacity designed to meet expected demand growth in China. In auto markets, companies such as Ford, Peugeot and Hyundai are now faced with having to close newly built Chinese capacity – Ford has capacity to build 1.6 million vehicles a year, more than twice current demand of 700,000. The new US shale gas-based polyethylene production faces similar challenges, given that China was expected to be the main market for the new output.

Environmental issues are also presenting new challenges for both industries. It seems likely that sales of cars powered by conventional combustion engines will have peaked in 2018, as the downturn in global auto sales combines with a major expansion of electric vehicle (EV) volume. This will have a major impact on chemical industry sales into the auto sector, as well as for oil demand.

PLASTICS PARADIGM SHIFT

A similar paradigm shift is underway in the plastics industry, as concern mounts over the impact of single-use packaging on the environment, as I discussed here in the summer ('Recycling moves up the agenda', ICIS Chemical Business, 15-21 June):

- Growing demand for recycled plastics means it is wishful thinking to imagine that oil demand growth, already suffering from the rise of electric vehicles, will be rescued by rising demand for virgin plastics

- Similarly, the new US polyethylene capacities will have to fight very hard for global market share, given China's slowdown and the

fact that nearly two thirds of demand is in single-use packaging

These challenges make it likely that 2019 will see the emergence of winners and losers.

Companies and investors are therefore going to have to refocus on the basics of business management again, after the sugar-highs of the stimulus period. Strong balance sheets with low levels of debt, and integrated plant operations capable of sustaining roll-through margins at market troughs, will be key success factors for supply-driven companies aiming to emerge as winners from the downturn. Companies without these supports risk becoming losers and will need to reinvent themselves with a more service-based offering, providing solutions based on affordability and sustainability.

There are exciting opportunities for non-integrated companies if their managements accept that "business as usual" is no longer a viable strategy. Demographics are destiny, and the ageing boomers are now creating an entirely new generation of the over-55s for the first time in history. Unlike their parents, they are likely to live an extra 15 – 20 years beyond pension age and so the ability to "do more with less" will be critical for them in managing their finances. Equally critical is the fact that the younger millennials prefer to support the sharing economy rather than valuing ownership for its own sake. Paying \$30,000 for a new car that will, on average, only be driven for an hour a day makes little sense in terms of both cost and environmental impact, especially when much of that time is spent in traffic jams.

The real winners over the next few years will therefore be companies who not only survive the coming economic downturn, but also reposition themselves to meet these changing demand patterns. A more service-based chemical industry is likely to emerge as a result, with sustainability and affordability replacing globalisation and affordable luxury as the key drivers for revenue and profit growth. ■

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