#### Corporates

# European chemicals: Credit risks set integrated, specialty corporates apart as cycle matures

Integrated chemicals (IC) companies find themselves nearly twice as leveraged in 2018 as they were 10 years ago, presenting significant credit risk for the more commoditized part of the sector as the industry cycle passes its peak, says Scope Ratings.

Slowing global economic growth and expanding capacity for some bulk chemicals threaten to put downward pressure on prices which would put IC companies under more financial strain. They have tended take on relatively more debt in recent years than their Specialty chemicals (SC) counterparts, whether it is to fund capital spending, mergers and acquisitions, and/or share buy-backs. In this context, companies exposed to bulk chemicals risk a potentially significant squeeze in profit margins and deterioration in debt ratios in the short to medium term as the cycle matures.

In contrast, the leverage of SC companies has increased more modestly, though it too is higher than it was on the eve of the Global Financial Crisis. However, as the highermargin sector tends to be less prone to cyclical ups and downs, the credit risks from a possible near-term economic downturn are less material. Many SC companies have also diversified their end-markets in the recent years.

#### A more leveraged industrial sector, but also more profitable

The global chemicals industry can be split into two subcategories: Integrated and Specialty suppliers. IC companies typically generate the majority of their revenue and earnings from manufacturing base chemicals and basic materials, such as polymers, inorganic chemicals and fertilizers. Specialty chemicals companies make products with specific properties for use in many industries, such as adhesives, natural gases, coatings and agricultural chemicals among other materials.

Leverage of IC companies, measured by Net Debt/EBITDA, has increased significantly in recent years to close to 2.0 times at the end of 2017 from 0.5 times in 2010. The change has been less abrupt for SC companies whose net debt averaged 2.0 times in 2017 compared with 1.3 times in 2008 and 1.0 times in 2010.

More reassuring for investors is that chemical companies are more profitable than they were 10 years ago. The average EBITDA margin for the sector as a whole was 18% in 2017 compared with 15% in 2008. For IC corporates, profitability has improved to 17% from 14%. For SC firms, it has improved to 18% from 15%.

#### Figure 1: IC and SC companies: Net Debt/EBITDA



Source: Scope, Bloomberg

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# Chemicals sector has enjoyed long upswing, encouraging much M&A

Better margins partly reflect buoyant demand, with the chemicals sector currently in the eighth year of growth. Revenue for IC companies grew at a compound annual average rate of 5.5% between 2010 and 2017, rising 5% for SC firms in the same period. Demand has proved particularly robust in the automotive, pharmaceutical, petrochemical and technology sectors amid generally buoyant economic conditions in the world's biggest economies, notably the US and China.

The industry landscape has also changed, undergoing heavy consolidation since the GFC with a wave of mergers and acquisitions over recent years, though a spate of mega-deals between 2015 and 2017 has given way to less dramatic though still frenetic consolidation of the industry. There were 637 deals worth USD 46.4bn last year compared with 650 deals worth USD 231.1bn in 2016, according to analysis by Deloitte. To cite a few examples, the 2015 merger between Dow Chemical and DuPont closed in 2017 while ChemChina's acquisition of Syngenta closed in 2017.

#### Industry fundamentals remain relatively healthy

The global chemicals industry is in good shape today compared with 10 years ago. While growth has been less dynamic in recent years than it was before the GFC, it suggests that the sector isn't overheating in the way it was between 2003 and 2008 when average annual growth was a staggering 9.2%, before suffering a 10% decline in 2008/2009. Since 2010, annual growth has been nearer 6%, roughly twice growth in global GDP.





This thesis is supported by data on capacity utilisation rates in the industry. Despite additions to production ability, capacity utilisation increased only to 85%, based on last year's data, which, while close to the 2008 level, remains below the 20-year average. A mix of strong demand for chemical products and supply shortages of selective base chemical product lines, for example isocyanates, resulted in higher capacity utilisation in some areas. This has led to substantial capacity expansions in some bulk chemicals, which are already online or will come online in the next years. Capacity utilisation may well have peaked, which could provide extra downward pressure on market prices, constraining revenue growth and margins for some suppliers.

# Tougher regulations on plastics are potentially another cloud on the horizon

Discussions about total or partial bans of some plastic products, particularly in the consumer goods sector amid growing political and popular concern about the volume of plastic waste spoiling the environment, represent a major potential challenge for the sector, in particular for IC companies. Initiatives are at an early stage for the moment, but the consequences could be material for the manufacturers of basic polymers. Reduced sales volumes and higher costs, if the industry has bear more of the recycling burden,

Capacity utilization below 20-year average

Bans on some plastic products could squeeze profit margins



### **European Chemicals:**

Credit risks set Integrated corporates apart from Specialty firms as cycle matures

would squeeze profit margins or require significant capital and R&D expenditure.

#### Sector profitability has improved

Profitability of chemical companies is considerably higher than before the burst of the subprime mortgages bubble in 2008. Improved profitability in chemical industry can be explained by usage of more effective production methods especially in making base chemicals and the introduction of innovative specialty chemicals products, such as thermoplastics in the automotive sector. Corporate consolidation has also contributed to improved pricing power amid robust overall demand for much of the sector, including the likes of LANXESS (BBB+/Stable) and Linde (A+/Stable). Firms producing commodity-chemicals also benefit from lower oil and natural gas prices, which result in lower feedstock prices.



#### Figure 3: Profitability (EBITDA-margin) in the chemical sector

Source: Scope, Bloomberg

The improved profitability at SC firms has come about without any material sacrificing of R&D expenditure which might otherwise jeopardise future market positioning. Compared with the period of 2003 to 2009, the average R&D ratio has remained stable at over 2.0% of revenue between 2010 and 2017. In contrast, in the previous chemical cycle, profitability had peaked in 2005 and continuously declined through 2008, partly through increasing feedstock prices as oil prices rose and the difficulties corporates had in passing on higher costs to customers through higher prices.

#### Integrated chemicals companies have potential M&A debt headache

In general, M&A activity in a sector is an effective indicator of overheating and overconfidence. The limited number of M&A deals, in particular debt financed mega deals, in the sector before 2008 may help explain why chemical companies navigated the GFC with comparative ease. Since 2010, chemical companies have been more active in pursuing acquisition-led growth, as measured by the number of deals and cumulative value in the industry. Furthermore, the overall multiple levels are higher today, with companies changing hands at Enterprise Value/EBITDA multiples of more than 12 times since 2008 compared with nearer 8 times before the GFC. One feature of the rush of deal-making in recent years is the arrival of companies from middle-income countries as important actors in the industry's consolidation, such as ChemChina or Saud Arabia's SABIC. In addition, IC suppliers have also sought to increase their exposure to specialty chemicals which is credit positive at least from a business-risk perspective as it increases diversification while reducing the volatility of business and earnings.

Strong global demand and rising prices for chemical products

IC companies entering SC disciplines



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#### Figure 4: M&A in the chemical industry

SCOPE

Global chemical merger and acquisitions activity (2010 - 2017)



		2010	2011	2012	2013	2014	2015	2016	2017
)	Commodities	356	376	350	340	383	372	382	387
)	Intermediares and Specialty materials	145	174	171	132	159	147	185	172
)	Fertilizers and Agricultural chemicals	64	69	66	43	67	72	61	65
	Industrial Gases	9	12	14	16	15	14	13	10
	Diversified	5	15	8	6	11	7	9	3
	Total	579	646	609	537	635	612	650	637

#### Total deal volume by target sector (2010 - 2017)

Source: Deloitte

Higher M&A activity is reflected in the increased leverage in the chemicals sector. Leverage of IC companies has increased significantly to near 2.0 times at the end of 2017 from 0.5 times in 2010. A slowdown in growth or outright recession in which sales volumes and prices fell, notably if companies have continued to invest in M&A and capex, would likely see leverage climb even higher. An abrupt and sharp end of upward part of the cycle would have more negative implications, compared with 2008/2009 downturn, on leverage and credit metrics as well as credit ratings of IC corporates.

Further down the chemicals value chain, leverage in the SC sector has increased at a slower pace than for IC companies since 2010 though it has accelerated since 2015 with all the M&A activity. Thanks to strong pricing power, increase earnings and profitability (see figure 2) had a restraining effect on Net Debt/EBITDA.

Net Debt averaged 2.0 times EBITDA for specialty chemicals companies' in 2017 compared with 1.3 times in 2008. Various SC companies have used M&A to increase their diversification. In general, a broader end-market diversification lowers the downside risk for earnings, as in the case of LANXESS's acquisition of Chemtura or Evonik Industries buying Air Products' Specialty Additives business. In the 2008/2009 downturn, companies with high exposures to industries using construction, textile and electronic chemicals, plastics additives were most affected by lower activity of their end-markets. On the other hand, companies with above average exposures to less cyclical sectors like healthcare, food or those with well-diversified end markets, navigated the crisis more easily. The overall downside risk for the SC sector remains lower. Chemicals companies have sought gains in market share through acquisition, whether it's in industrial gases in the case of Linde's merger with Praxair and or agricultural chemicals in the case of Bayer's takeover of Monsanto.

Higher diversification because of broader end-market mix



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