S&P Global
Ratings

Industry Top Trends 2019

Chemicals

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Key Takeaways

- **Ratings Outlook:** The outlook for ratings in the chemicals sector is largely stable. Stable and positive rating outlooks in 2018 are a higher proportion of total outlooks than in 2017.
- **Forecasts:** We anticipate an increase in 2019 EBITDA on the back of stable margins and moderate revenue growth, resulting in a very gradual strengthening of credit metrics in North America and Europe. In Asia-Pacific, however, leverage will increase in 2019 compared to 2018 due to high levels of capital spending.
- **Assumptions:** Our key assumptions include steady global demand for chemicals products despite the potential for slower GDP growth in North America and Europe, offset by a pickup in Latin American GDP and solid GDP growth in Asia-Pacific. We assume steady demand from key end markets such as housing, automotive, and general industrial. We anticipate that global supply and demand should be generally in balance, and capacity additions should be largely absorbed. We also assume generally stable oil prices in 2019.
- **Risks:** While we view the economic environment as favorable for chemicals producers, we note that global risks have increased over 2018 alongside protectionist measures and trade tension between the U.S. and China, two key players in the global chemicals market. Should global trade ultimately suffer, resulting in a sharp economic downturn, this could hit the chemicals industry severely, particularly companies that have adopted more shareholder-friendly financial policies or engaged in large-scale mergers and acquisitions (M&A) or expansion projects.
- **Industry Trends:** These include a slowdown in M&A in 2018 from a peak in 2017. We note a substantial increase in dividend payouts instead. At slightly over 50% of operating cash flows, capital spending continues to represent the largest cash outflow on aggregate. Several petrochemical value chains have benefited from capacity shutdowns in China due to environmental issues.

Ratings trends and outlook

Global Chemicals

Chart 1

Ratings distribution

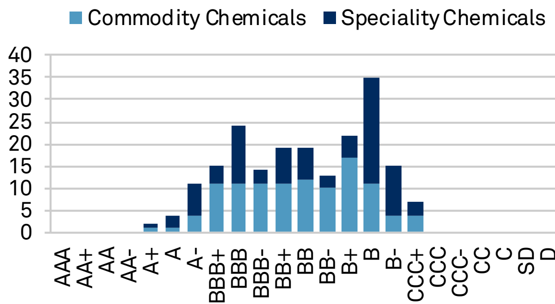


Chart 2

Ratings distribution by region

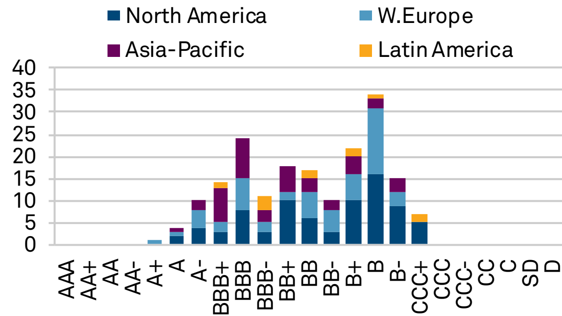


Chart 3

Ratings outlooks

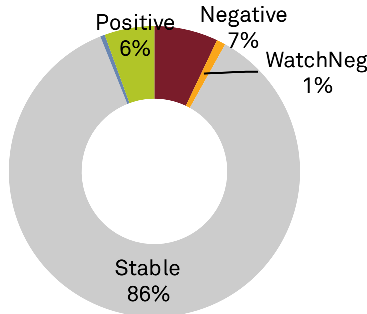


Chart 4

Ratings outlooks by region

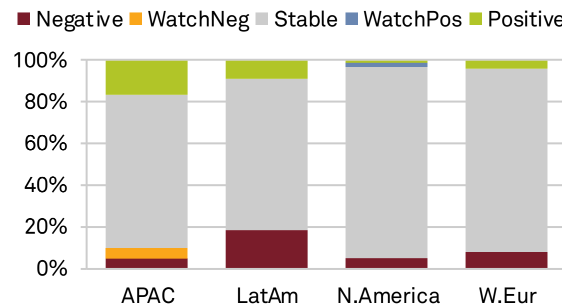


Chart 5

Ratings outlook net bias

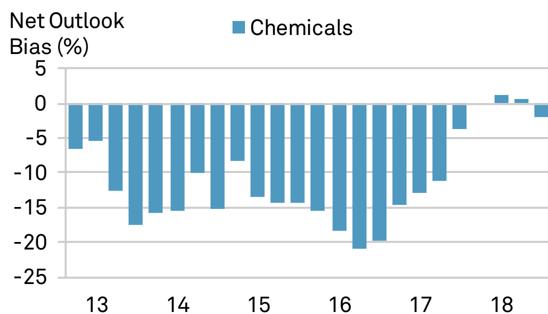
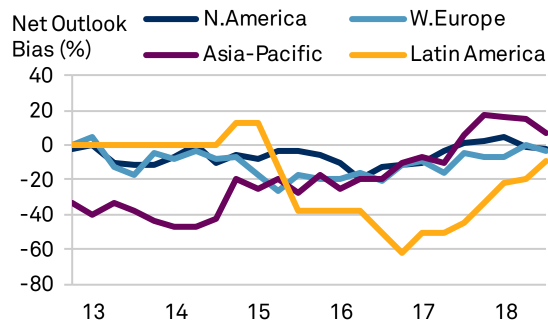


Chart 6

Ratings net outlook bias by region



Source: S&P Global Ratings. Ratings data measured quarterly with last shown quarter ending September 30, 2018

The chemical sector's rating outlook swung into positive territory briefly in 2018, after years of negative bias. Prices for especially volatile commodity chemicals, including titanium dioxide, and fertilizers were stable to improving in 2018. Some commodity chemicals prices have benefitted from the closure of capacity in China as part of the government's focus on environmental issues. Agricultural markets in general in 2018 have been in better shape relative to 2017, especially in Latin America. However, in the second half of 2018, the outlook bias turned negative again, albeit only slightly. Overall, on Sept. 30, 2018, negative outlooks very slightly outnumbered positive outlooks. The

most dramatic movements in net bias in 2018 have been in Asia-Pacific and Latin America, where improving economic conditions have been a contributory factor.

A large majority (86%) of chemical companies' rating outlooks across the globe are stable. Negative outlooks are the second-largest category, though only by a small margin over positive outlooks. The number of stable outlooks is higher than at the same time last year. Despite a meaningful improvement in net bias in Latin America, the proportion of negative outlooks to total outlooks in this region remained the highest among the four regions in 2018. Nonetheless, this proportion declined to less than 20% from about 40% in 2017. The reduction was mainly driven by our expectation of improving cash flow generation at companies in Latin America. Europe and North America have the largest shares of stable outlooks, reflecting the relative stability of credit quality in these regions. Asia-Pacific has the highest proportion of positive outlooks to total outlooks, supported by higher economic growth rates.

Industry forecasts

Global Chemicals

Chart 7

Revenue growth (local currency)

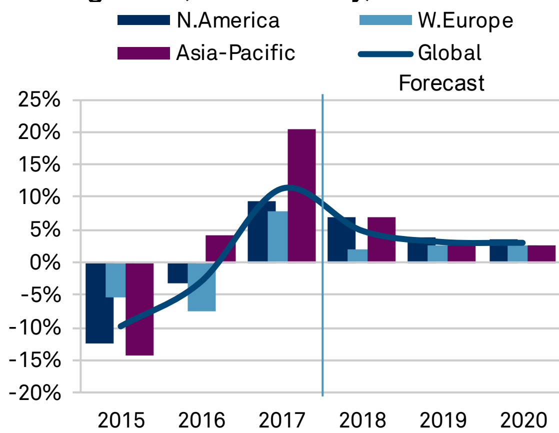


Chart 8

EBITDA margin (adjusted)

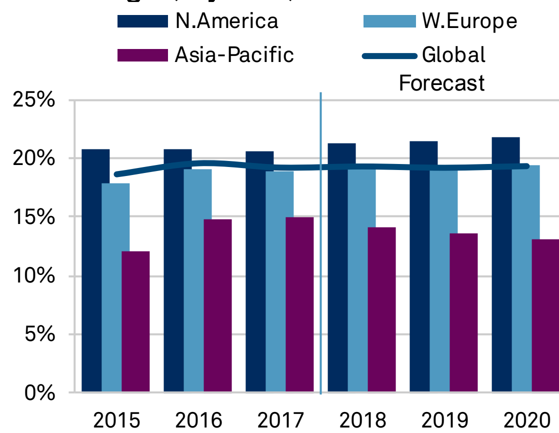


Chart 9

Debt / EBITDA (median, adjusted)

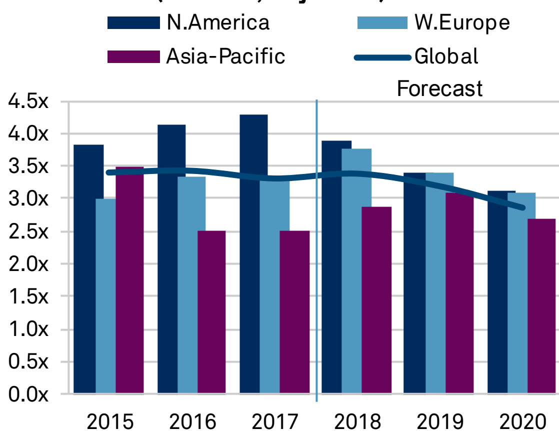
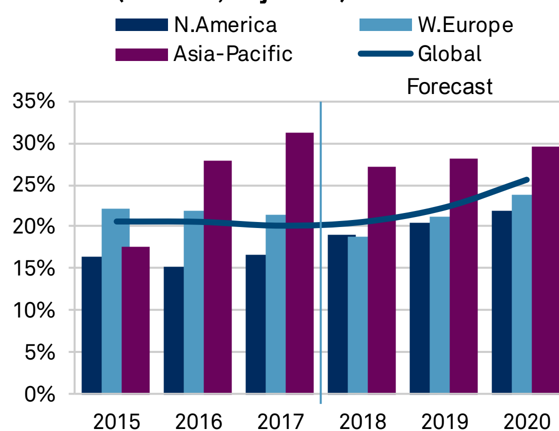


Chart 10

FFO / Debt (median, adjusted)



Source: S&P Global Ratings. Revenue growth shows local currency growth weighted by prior-year common-currency revenue-share. All other figures are converted into U.S. Dollars using historic exchange rates. Forecasts are converted at the last financial year-end spot rate. FFO--Funds from operations.

Globally, we expect that stable EBITDA margins and modestly declining rates of revenue growth will contribute to a very gradual improvement in debt leverage metrics for chemicals companies in 2019 and beyond. We foresee low-single-digit revenue growth in 2019 across all regions, mainly due to slower demand growth. We believe that the rate of revenue growth for chemicals peaked in 2017 and will increase at lower rates in future. This is consistent with our view of GDP growth and of growth in key end markets such as autos. While global EBITDA margins are steady, there are regional variations. Margins are flattish in North America and Europe, but we forecast a decline in Asia-Pacific on rising supply. Debt to EBITDA will strengthen in 2019 from a global perspective, but this primarily reflects a strengthening in North America and Europe. This is partly because we do not generally forecast large or transformative M&A due to the unpredictability of such transactions. We expect that debt to EBITDA for Asia-Pacific will increase in 2019 versus 2018, partly reflecting high levels of capital spending in this region.

Generally, our current forecasts do not factor in the potential negative impact from a potential U.S.-China trade war and the potential repercussions for global trade and economic growth.

Key assumptions

Chemicals

1. Global supply and demand are generally in balance

We anticipate that demand for chemicals products will remain steady despite the potential for slower GDP growth in North America and Europe. A pickup in Latin American GDP growth to around 2.6% in 2019 from 1.5% in 2018 offsets slight slowdowns in North American and European GDP growth, while GDP in the Asia-Pacific regions remains largely steady. Overall, we expect global GDP growth to be stable relative to 2019. We assume that demand for chemicals from key end markets such as housing, autos, general industrial, and agriculture will also be steady. On the supply side, new capacity additions for some products, including polyolefins and olefins in North America, could cause regional imbalances in supply and demand, but we expect global trade to reduce regional oversupply pressures. Additionally, we expect global growth to absorb capacity increases over time.

2. Largely stable input materials pricing

Our key assumption is for a steady oil price improvement in 2019, with no unexpected price spikes. Volatility in oil prices tends to be disruptive and hurts profitability at chemicals companies, even those that rely on alternative input materials such as natural gas or ethane. Pricing for chemicals products can be affected by oil prices even at companies that use these alternative input materials. Despite our assumption for steady oil prices, unexpected production outages for other chemical input materials could cause volatility in input prices. An increase in prices for methylene diphenyl diisocyanate in 2018 is one such example. While we believe there is always potential for unexpected production outages in a sector with a large number of products and input materials, our general assumption is that key input pricing remains stable.

3. No change in financial policy

We assume that chemicals companies will adjust key elements of their financial policies such as dividends and shareholder rewards to economic conditions. This is relevant because 2018 saw record-high dividend payouts and operating cash flow in the global chemicals sector. This cash flow, favorable operating conditions, and a decline in M&A spending offset the credit risk related to the dividend payout increase. We would view a

similar amount of dividend payouts in a more challenging operating environment as a reflection of a more aggressive financial policy than we currently factor in our ratings, and therefore as a credit risk. We do not assume record-high dividend payouts for the sector in 2019 if M&A picks up or operating cash flow weakens.

Key risks and opportunities

Chemicals

1. Disruptions to global trade

An escalated and protracted tariff war between the largest chemicals consumer in the world, China, and an increasingly important chemicals producer and exporter, the U.S., could hurt global chemicals prices, and potentially, demand from key end markets such as autos and general industrial. We do not factor this risk into our base-case scenario because of the uncertainty related to the still-evolving tariff situation between the two countries. However, the prospect of a tariff war underlines the general risk that disruptions to global trade could pose to the chemicals sector in view of the dependence of most chemicals producers on trade for input materials or markets. More specifically, in key commodity sectors such as petrochemicals and fertilizers, rising demand for chemicals in China, Asia-Pacific, and Brazil increasingly influences global demand and trade.

2. A sharp downturn in the global economy in 2019

Nearly a decade of demand growth, low interest rates, and generally friendly capital markets have created a climate that has spurred M&A, shareholder-friendly policies, and capacity growth. A sharp downturn in 2019 would provide companies with little time to adjust to a more challenging environment and could weaken their credit quality, especially at lower-rated speculative-grade companies, where cushions for such shocks are generally lower than at higher-rated investment-grade companies. We would expect to see liquidity tighten at companies rated in the 'B' category and below if their cash flow generation weakened or covenant headroom declined.

We expect that a downturn would shrink demand and weaken chemicals prices, which in turn would pressure EBITDA margins and raise debt leverage, especially at commodity chemicals companies, where most of the global capacity expansions have been. Subsectors, including titanium dioxide, fertilizers, methanol, olefin, and polyolefins, would be especially sensitive to sharp downturns because prices and volumes can be especially volatile. Investment-grade specialty chemicals companies tend to be more resilient, but a slowdown in key end markets such as autos, housing, industrial, and agriculture would ultimately hurt these companies too. Generally speaking, global chemicals companies have capital structures and financial policies suited to a period of growth and expansion. Companies that respond quickly to a downturn and adjust their financial policies with respect to shareholder-friendly actions, cost structure, capital spending, and M&A, may be in a better position to ride out a sharp downturn.

Industry developments

Capacity reductions in some commodity chemicals in China

Several regional, and in some cases, global markets for commodity chemicals have benefitted from a shutdown of capacity in China in 2017 and 2018, a contributory factor to either stability or improvements in the prices of products including urea, titanium dioxide, propylene oxide, and methyl tert-butyl ether. The shutdown relates to growing environmental concerns in China.

Capacity increases in olefins and polyolefins in the U.S.

On the other hand, we expect capacity additions on the U.S. Gulf Coast for olefins and polyolefins to contribute to a regional and global softening of prices and a weakening of chain margins in 2019 and 2020.

Changes in companies' capital outlay

M&A activity has slowed down in 2018 after peaking in 2017. Some large transactions announced in previous years are in the process of closing in 2018 or 2019, but 2018 has seen fewer new large transformative transactions announced. Instead, rated companies have increased their total dividend payouts in the first nine months of 2018 to about $60 billion from about $45 billion for 2017. Capital spending at chemicals companies increased in the first nine months of 2018 relative to 2017, and at over 50% of operating cash flow, remains the single largest item of cash outflow in aggregate.

This report does not constitute a rating action.

Cash, debt and returns

Global Chemicals

Chart 11

Cash flow and primary uses

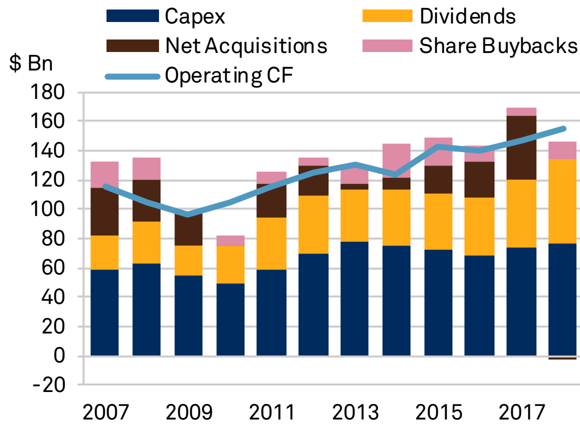


Chart 12

Return on capital employed

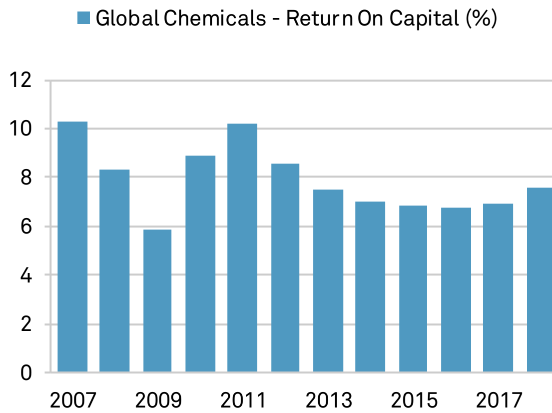


Chart 13

Fixed versus variable rate exposure

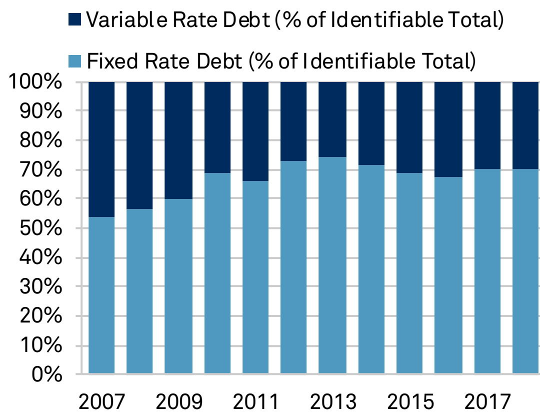


Chart 14

Long term debt term structure

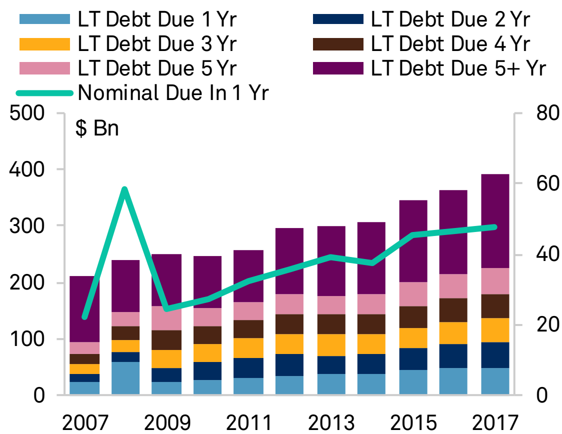


Chart 15

Cash and equivalents / Total assets

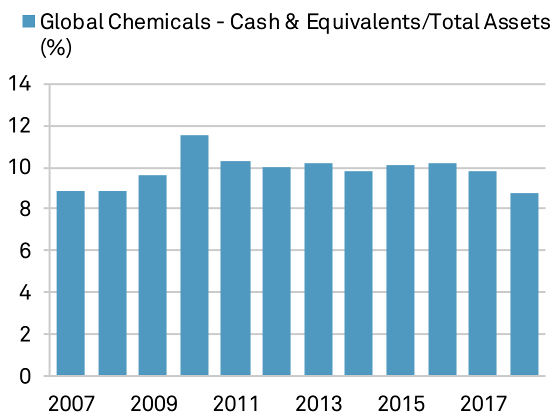
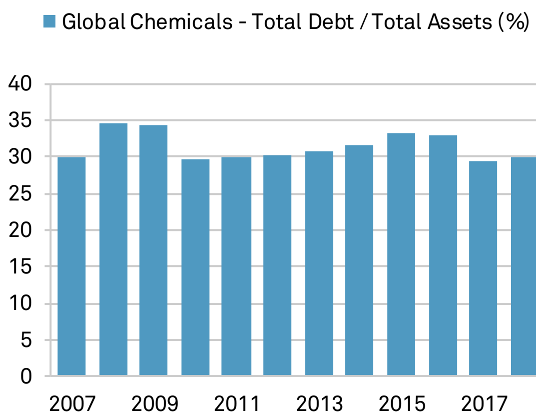


Chart 16

Total debt / Total assets



Source: S&P Global Market Intelligence, S&P Global Ratings calculations

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