LANXESS AG Germany, Specialty Chemicals



STABLE

Ratings & Outlook

BBE

Corporate Rating	BBB+/Stable
Short-term Rating	S-2
Senior unsecured debt	BBB+
Subordinated debt	BBB-

Analysts

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Related methodology

Rating Methodology Chemical Corporates

Corporate Rating Methodology

Corporate profile

LANXESS AG, based in Cologne, Germany, is a major producer of specialty chemicals with sales of about EUR 7,197m in 2018. Under the "New" LANXESS structure, it operates in four divisions: Advanced Intermediates, Performance Chemicals, Engineering Materials, and Specialty Additives.

In the past, LANXESS generated most revenues from the production of synthetic rubber and basic chemicals, used in industries such as automotive, tires, agricultural, consumer goods, construction, and food and beverages. However, in 2012/2013, synthetic rubber prices decreased significantly due to large investments by market participants into production expansion. The resulting overcapacity in synthetic rubber production prompted LANXESS to adjust and restructure its portfolio. The company founded ARLANXEO as a joint venture with Saudi Aramco in 2016, to which it transferred its synthetic rubber activities. Then in 2017, it acquired Chemtura and the 'Clean and Disinfect' business of Chemours (2016), two US-based companies. The two acquisitions strengthened LANXESS' position as a mid-sized producer of specialty chemicals and expanded its mix of end-markets. In August 2018, LANXESS finalised the sale to Saudi Aramco of its remaining 50% stake in ARLANXEO. The transaction was closed at December 31, 2018.

Key metrics

	Scope estimates			
Scope credit ratios	2018 ¹	2019F	2020F	2021F
EBITDA/interest cover (x)	11.1x	7.5x	8.2x	8.5x
Scope-adjusted debt (SaD)/ EBITDA	1.3x	2.3x	2.0x	1.7x
Scope-adjusted FFO/SaD	59%	34%	38%	44%
Free cash flow/SaD	17%	9%	14%	22%

Rating rationale

Scope Ratings has today affirmed its BBB+ corporate issuer ratings on Germanbased LANXESS AG. Scope Ratings also affirms the S-2 short-term rating, the BBB+ senior unsecured debt rating, and the BBB- subordinated debt rating. The Outlooks are Stable.

The rating still reflects LANXESS' strong position across various medium-sized and niche specialty chemicals markets, which are often concentrated, dominated by few players, and less competitive than commodity chemicals markets. Following the portfolio clean-up in the last couple of years, we view LANXESS's diversification to be more resilient and less concentrated in terms of sales by end-markets. However, LANXESS' credit rating is hampered by weak profitability. Despite EBITDA margin of the "New LANXESS" having increased in 2018 (13.0%) and Q1 2019 (13.9%) the company's profitability is still regarded non-investment grade in accordance with Scope's Rating Methodology for

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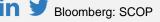
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¹ In contrast to company's reporting, we have not retroactively adjusted the ratios reflect the treatment of ARLANXEO as discontinued operations from January 01, 2018 ("New" LANXESS structure).



Chemical Corporates. In summary, this is reflected in a business risk profile rated at 'BBB+'.

In 2018, LANXESS key credit ratios were considerably strong due to the disposal of the remaining 50% stake in ARLANXEO to Saudi Aramco (see: **Scope upgrades rating of German specialty chemicals corporate LANXESS to BBB+; Outlook Stable**) and the positive outcomes of the realignment over previous years. For 2019 and 2020, we expect credit metrics to deteriorate slightly but remain firmly in line with a 'BBB+' financial risk profile, supported by our opinion of better-than-adequate liquidity. The anticipated development of financial ratios is due to by missing ARLANXEO contribution and substantial capex of the organic growth programme. Regarding the improved end-market mix, we consider the financial risk profile to be less sensitive to more challenging economic conditions. Furthermore, the company has maintained its conservative financial policy, continuing to balance shareholder and debtholder interests and committed to maintaining an investment-grade rating in the 'BBB' range.

Outlook

The Stable Outlook still incorporates LANXESS' conservative financial policy, and our expectation in the coming years for stronger key credit ratios and free cash flow relative to pre-2017 levels (in 2018, LANXESS key credit ratios were strong due to the disposal of the emaining 50% stake in ARLANXEO to Saudi Aramco). With a less volatile EBITDA margin thanks to improved end-market diversification, we expect Scope-adjusted debt (SaD)/EBITDA to move towards 2.0x and FFO/SaD to 40% in 2020. A higher rating may be triggered if SaD/EBITDA reduced and remained below 1.5x. A negative rating action could be warranted if large, debt-funded M&A was initiated; or SaD/EBITDA increased to above 2.5x on a sustained basis.



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Rating drivers

	Positive rating drivers	Negative rating drivers
	 Strong position in medium-sized markets with considerable barriers to entry Increased, more resilient end-market mix due to portfolio clean-up Conservative financial policy, expressed by selective M&A strategy, and commitment to maintain rating in the 'BBB' category Balanced regional setup (sales by market in 2018: EMEA, 31%; Germany, 20%; North America, 21%; Latin America, 5%; and APAC, 23%) 	 Profitability (EBITDA margin 2018: 13.0%) that is weak in the context of key competitors and our methodological thresholds for profitability and operating efficiency Highly cyclical end-markets at around 40% of sales Weaker FOCF/SaD (2019F: 9%) than other key credit ratios due to organic growth programme in 2019/2020 Mature product portfolio and weaker spending on product innovations relative to the specialty chemicals industry
ating-change drivers		
	Positive rating-change drivers	Negative rating-change drivers

	Positive rating-change drivers		Negative rating-change drivers		
•	SaD/EBITDA of less than 1.5x on a sustained basis	•	SaD/EBITDA of above than 2.5x on a sustained basis		

Large debt-financed M&A

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Financial overview²

SCOPE

	H	Scope estimates		
Scope credit ratios	2018	2019F	2020F	2021F
EBITDA/interest cover (x)	11.1x	7.5x	8.2x	8.5x
Scope-adjusted debt (SaD)/EBITDA	1.3x	2.3x	2.0x	1.7x
Scope-adjusted FFO/SaD	59%	34%	38%	44%
FOCF/SaD	17%	9%	14%	22%
Scope-adjusted EBITDA in EUR m	2018	2019F	2020F	2021F
EBITDA	1,323	925	1,020	1,065
Operating lease payments in respective year	44	44	44	44
Other items	1	0	0	0
Scope-adjusted EBITDA	1,368	969	1,064	1,109
Scope-adjusted funds from operations (FFO) in EUR m	2018	2019F	2020F	2021F
EBITDA	1,323	925	1,020	1,065
less: (net) cash interest as per cash flow statement	-62	-62	-69	-69
less: cash tax paid as per cash flow statement	-156	-156	-113	-139
less: pension interest	-54	-54	-54	-54
add: depreciation component operating leases	37	37	37	37
add: dividends received from equity-accounted entities	0	0	20	0
less: disposal gains on fixed assets included in EBITDA	1	0	0	0
less: capitalised interest	-3	-3	-3	-3
Change in provisions	0	0	0	0
Scope-adjusted funds from operations	1,086	743	792	826
Scope-adjusted debt in EUR m	2018	2019F	2020F	2021F
Reported gross financial debt	2,245	2,245	2,245	2,245
Hybrid bond	250	250	250	250
less: cash, cash equivalents	-1,318	-965	-1,066	-1,273
Cash not accessible				
add: pension adjustment	355	355	355	355
add: operating lease obligations	146	146	146	146
Other items (contingent liabilities)	158	158	158	158
Scope-adjusted debt	3,066	2,190	2,089	1,882

² In contrast to company's reporting, we have not retroactively adjusted the ratios reflect the treatment of ARLANXEO as discontinued operations from January 01, 2018 ("New" LANXESS structure).



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Business risk profile

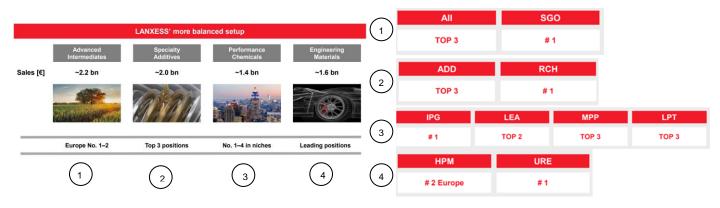
Overall cyclicality of specialty In general, the specialty chemicals industry is dominated by a wide range of differentsized companies as well as factors such as production expertise and relationships with customers in aftermarkets. All of these factors serve as de-facto high entry barriers. The assessment of low substitution risk is based on the high technical production requirements and a lack of alternative production methods. We believe specialty chemicals companies face medium sensitivity to changes in GDP, because aftermarkets require lower quantities of specialty chemicals in their product processes and prices tend to be negotiated individually.

Strong position in medium-sized markets

chemical industry is medium

The business risk profile (rated 'BBB+') stems from the company's focus on medium-sized and niche markets, which often are concentrated and dominated by few players and are less competitive. This approach LANXESS a stable position among the leading producers in each segment. For instance, the company is the global market leader for bromine (30% market share), supported by its engagement in the production of bromine intermediates and brominated flame retardants. The company's market shares for various intermediates such nitrotoluenes and benzyl products is also high at above 30%.

Figure 1: Market positioning by segments and business unit



Source: LANXESS

Focus on optimising and improving existing products

Supportive diversification due to improved end-market diversification

On the other hand, the company's ability and focus in terms of strengthening its product portfolio through innovation is weaker than the specialty chemicals industry as a whole. This exposes LANXESS slightly to a deterioration in market share, based on: 1) most of the company's products being at a relatively mature level; 2) spending for product innovation being lower than levels in the specialty chemicals industry (~1.8% of LANXESS versus ~3.0% of the specialty chemicals sector); and 3) most R&D being focused on optimising and improving existing products.

Thanks to the acquisition of US-based Chemtura and Chemours 'Clean and Disinfect' arm in 2017, German bio-tech start-up IMD Natural Solutions in 2017, Solvay's 'phosphorus additive business' in 2018, and the disposal of its synthetic rubber arm (ARLANXEO) in 2015/2018 we consider the improved mix of revenue per end-market as a positive rating factor. These transactions have had no negative impact on the company's scale, given the respective revenue contributions of the acquired and divested businesses (combined revenue of Chemtura and Chemours 'Clean and Disinfect' arm: ~EUR 3.0bnd; revenue of ARLANXEO: ~EUR 3.2bn). The substantial share of highly cyclical end-markets is, however, negative for diversification: automobiles, chemicals and construction account for up to 40% of revenue, and demand from these aftermarkets correlate strongly with global GDP development. On a positive note, the company has reduced its dependency on automobiles and tires significantly. Moreover, the company has a considerable share of



sales in agriculture, an industry driven by different factors than the general economic cycle and which is less correlated to global GDP.

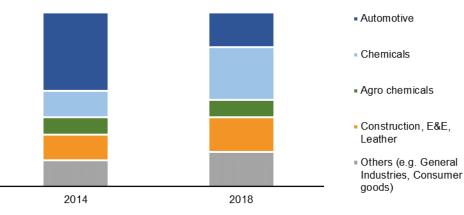


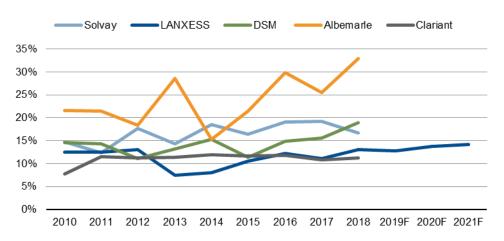
Figure 2: Sales by end-markets: "Old" vs "New" LANXESS structure

Source: LANXESS

Profitability is likely to further improve and to be of lower volatility

In accordance with our rating methodology for chemical corporates, we assess profitability and operating efficiency by considering the peak-to-trough EBITDA margin. Contrary to solid economic growth and strong demand for specialty chemicals products since 2010, LANXESS' profitability has been compromised by the consolidation of the ARLANXEO division and considerable one-off costs for the portfolio clean-up. Thanks to the portfolio alignments, EBITDA margin increased in 2018 (13.0%) and Q1 2019 (14.1%). This is despite headwinds from a weakening automobile industry, the ongoing restructuring of the Leather unit due to site closures, and the lower prices for chrome. Having said that, LANXESS's profitability is also still below that of several competitors.

Figure 3: Profitability (EBITDA margin): LANXESS versus selected peers



Source: LANXESS, Scope, Bloomberg

We expect stronger and less volatile profitability for upcoming years. This is based on LANXESS' 1) commitment to the communicated mid-term EBITDA margin (before exceptional costs) target of 14% to 18%; 2) more resilient and streamlined portfolio; 3) substantially lower one-off costs than in the past; 4) implementation of remaining synergies from the Chemtura acquisition (~EUR 30m until the end of 2020); and 5) continuing alignment of divisions such as for its Leather business. However, with the current negative momentum in the chemical industry, we expect EBITDA margin to be slightly weaker in the actual year.



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Key adjustments of the rating case

Financial risk profile

Key adjustments of the rating case include:

- The issued hybrid bond (ISIN: XS1405763019; EUR 500m; rated at 'BBB-', according to our Corporate Rating Methodology) is treated as 50% equity credit, reducing Scopeadjusted debt and Scope-adjusted interest expense
- · Net present value of operating lease obligations added to Scope-adjusted debt
- 80% of provisions for environmental protection costs (contingent liabilities) included in Scope-adjusted debt and 5% of contingent liabilities included in Scope-adjusted interest expense to reflect the interest proportion of these liabilities
- · Half of the company's unfunded pension provisions, given the high coverage of annual pension payments through dedicated pension assets
- Interest adjusted for the (estimated) interest component of pension provisions, operating leases and asset retirement obligations
- No netting of cash on the balance sheet, as the company does not hold restricted cash

Following the disposal of the remaining 50% stake in ARLANXEO to Saudi Aramco (see: Scope upgrades rating of German specialty chemicals corporate LANXESS to BBB+; Outlook Stable) for around EUR 1.4bn substantially increased LANXESS cash position in 2018. Credit metrics were also bolstered in 2018 as most of the disposal proceeds were invested in marketable securities (as of 31 December 2018: EUR 542m) and EUR 200m towards funding pension assets, thereby reducing overall pension obligations.

In contrast to company reporting, we have not retroactively adjusted previous years' ratios to treat ARLANXEO as discontinued operations from 1 January 2018 (the "New" LANXESS structure) in the previous publications. Moreover, the projections for 2019 and 2020 included assumptions for cash effects from the ARLANXEO transaction, thereby reducing Scope-adjusted debt for the two forecasted years.

LANXESS' financial risk profile (rated 'BBB+') at the same level than its business risk profile. We believe the "New" LANXESS structure will be better at withstanding general economic headwinds and offseting weaker demand from certain sectors. Credit metrics in the past were negatively affected by costs to realign the organisation and modify the portfolio; these costs are likely to be lower in the coming years. We expect credit metrics to be strong from 2018 onwards, though weaker than those in 2018, a year that was boosted by not only part of ARLANXEO's results but also the proceeds of its disposal. We particularly expect LANXESS to benefit from strong ongoing demand for synthetic menthols (used in many aromas and pharmaceutical products) and disinfection solutions (with the outbreak of African swine fever in China). Our rating scenario excludes any effects of a potential transaction involving LANXESS' at-equity consolidated stake in CURRENTA, which operates various production sites in Germany, as its joint venture partner, BAYER, has put its stake on sale.

> In terms of leverage, our rating case expects SaD/EBITDA of about 2.3x and FFO/SaD of up to 34% in 2019. However, this assumes a continuation of modest economic growth and the company's conservative financial policy. The calculations also include LANXESS' share-repurchase programme, announced in January 2019 with a total volume of up to EUR 200m (fully completed as of June 13, 2019). Even so, FOCF/SaD is likely to be weaker than other financial ratios, explained by capex of up to EUR 500m in 2019 and 2020 for debottlenecking and greenfield investments. For example, until 2020, LANXESS will invest EUR 500m in the modernisation and capacity expansion of its North American production facilities. The company also plans to spend EUR 200m over the next three

Past credit metrics affected by organisational realignment and portfolio modification

Financial risk profile: BBB+

years in the production network of its flame-retardant additive business (Performance Chemicals). Based on our understanding of LANXESS' strategy, higher capex for 2019/20 will be covered by a value-creating investment approach, with the first positive effects on EBITDA expected from 2021.

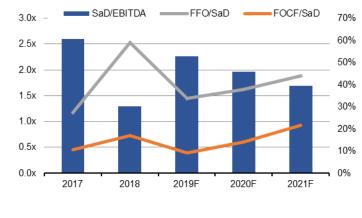
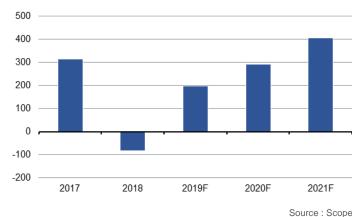


Figure 5: Free cash flow (EUR m)



Positive development of free cash flow expected

SCOPE

Figure 4: Credit metrics

Better-than-adequate liquidity management

Conservative financial policy: equal treatment of share- and debtholder interests In the context of the portfolio restructuring LANXESS cash flow generation was been weak in the past. Going forward, we anticipate a moderate increase in both free cash flow and discretionary cash flow. The latter will be supported by the conservative financial policy on dividends: payout ratio of around 17% in 2018, based on the "New" LANXESS structure. An increase in cash flow would be credit-positive as deleveraging can occur more quickly than the communicated level.

Liquidity management is better than adequate, according to our Corporate Rating Methodology. The company's internal and external coverage will continue to be strong due to its long-term structured debt maturity profile (next bond maturity in 2021) and EUR 1,250m covenant-free syndicated revolving credit facility, which expires in 2023. The expected improvement in free cash flow is also a strong support for liquidity.

Supplementary rating drivers

Source : Scope

The company continues to pursue a conservative financial policy, even with the cash balance in 2018 strengthened by EUR 1,400m of disposal proceeds for ARLANXEO. Besides the above-mentioned share buyback programme of up to EUR 200m, the company increased its pension assets by a similar amount. We therefore see no indication that LANXESS will deviate from its conservative financial policy, continuing to balance share- and debtholder interests and committed to maintaining an investment-grade rating in the 'BBB' range. We also believe the company will avoid large debt-financed M&A in the current Phase III to realign the company structure; rather we expect a focus on selective bolt-on acquisitions as a way to increase competitiveness.

Short-term rating

We have affirmed the S-2 short-term rating based on the solid liquidity situation and long-term issuer credit rating.

Outlook

The Stable Outlook still incorporates LANXESS' conservative financial policy, and our expectation in the coming years for stronger key credit metrics and free cash flow relative to pre-2017 levels (in 2018, LANXESS key credit ratios were strong due to the disposal of

S-2 short-term rating



the remaining 50% stake in ARLANXEO to Saudi Aramco). With a less volatile EBITDA margin thanks to improved end-market diversification, we expect Scope-adjusted debt (SaD)/EBITDA to move towards 2.0x and FFO/SaD to 40% in 2020. A higher rating may be triggered if SaD/EBITDA reduced and remained below 1.5x. A negative rating action could be warranted if large, debt-funded M&A was initiated; or SaD/EBITDA increased to above 2.5x on a sustained basis.



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