MOODY'S INVESTORS SERVICE

CREDIT OPINION

18 February 2021

Update

Rate this Research

RATINGS

Lar	xess	AG

Domicile	Koeln, Germany
Long Term Rating	Baa2
Туре	LT Issuer Rating - Fgn Curr
Outlook	Stable

Please see the <u>ratings section</u> at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Lanxess AG

Update to credit analysis following affirmation of Baa2 ratings

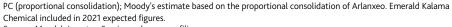
Summary

On 14 February 2021 Lanxess AG (Baa2 stable) announced that it had signed an agreement to buy ASP Emerald Holding LLC (B2 stable), also known as Emerald Kamala Chemical (EKC) for an enterprise value of €1.075 billion (around €885 million). When this transaction is expected to close in the second half of 2021, Lanxess will then benefit from a higher share of more resilient and high margin specialty chemicals. Around 75% of EKC's activities are exposed to consumer specialties - animal health, food & beverage, flavor & fragrance, home & personal care - and the remaining 25% to industrial end markets such as plasticizers for construction, adhesives and packaging solutions. With an EBITDA margin in excess of 20%, Lanxess group EBITDA will not only benefit from the contribution of EKC, but also from the exits of low margin or loss-making businesses. The acquisition of EKC will be paid by cash and cash equivalents that amounted to around €1.5 billion as of 30 September 2020. The transaction is thus gross debt neutral.

The Baa2 rating of Lanxess continues to take into account its realignment towards becoming a more specialty-chemicals-focused company. The Baa2 rating also reflects the exposure to the challenged automotive end market, about 20% of group revenue exposure, that is partially offset by the strength of Consumer Protection segment, which benefited from increased demand during the COVID pandemic. Although the rating point-in-time is weakly positioned, with an EBITDA margin of around 13.9% for the last twelve months ending September 2020 and gross leverage of 4.1x (all metrics Moody's-adjusted), we expect Lanxess to recuperate EBITDA through a recovery of growth and incremental contributions from acquisitions. Proforma the transaction we expect Moody's-adjusted debt/EBITDA of 3.7x in 2021 and 3.2x in 2022. The Baa2 rating also reflects the excess cash Lanxess is holding and the liquidity profile that pro-forma the transaction remains solid. We expect Lanxess to roll-over maturing bonds in 2021 and 2022.

Exhibit 1 Leverage and coverage metrics





Sources: Moody's Investors Service and company filings

Credit strengths

- » Portfolio realignment towards a higher share of specialty chemicals to enhance the business risk profile and future quality of earnings higher margins and lower volatility and cash flow
- » Management's strong track record of executing restructuring measures, integration of acquisitions and conservative financial policies
- » Strong liquidity, which provides financial flexibility

Credit challenges

- » Still significant automotive exposure of around 20% of sales and exposure to other cyclical end-markets
- » EBITDA margins at the lower end of global investment-grade-rated specialty chemicals sector peers, despite steady improvements
- » Acquisition risk, inherent to Lanxess' strategy of further strengthening its business portfolio

Rating outlook

The outlook is stable and factors in further improvement of Lanxess' gross leverage towards and below 3.0x. The stable outlook assumes a continued shift towards more profitable specialty chemicals through organic and inorganic growth. Given Lanxess' resilience during economic downturns, as shown in 2020, we are accepting gross leverage to be outside of the threshold for some time, which is also supported by a strong RCF/net debt figure of around 28% in 2022 with the full-year contribution of EKC.

Factors that could lead to an upgrade

- » Further strengthening in the group's business profile, demonstrated by the resilience of its operating profitability and cash flow
- » A permanent reduction in financial leverage, allowing total debt/EBITDA to drop below 2.0x and retained cash flow/net debt to increase to the high 30s in percentage terms on a sustained basis

Factors that could lead to a downgrade

- » Significant deterioration in operating profitability, the pursuit of large debt-funded M&A transactions or a significant step-up in cash returns to shareholders
- » Increased leverage and some marked weakening in financial metrics, with total debt/EBITDA remaining above 3.0x and retained cash flow/net debt falling to the low 20s in percentage terms on a sustained basis

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Key indicators

Lanxess AG

	12/31/2015	12/31/2016 PC	12/31/2017 PC	12/31/2018	12/31/2019	LTM Q3-2020
Revenues (USD Billion)	\$8.8	\$7.3	\$9.1	\$8.5	\$8.2	\$7.0
PP&E (net) (USD Billion)	\$4.0	\$2.3	\$2.9	\$3.1	\$3.1	\$3.1
EBITDA Margin %	10.5%	13.3%	13.5%	14.2%	14.9%	13.9%
ROA - EBIT / Average Assets	4.4%	5.0%	6.4%	4.8%	5.5%	4.5%
Debt / EBITDA	3.2x	4.2x	3.3x	3.7x	3.5x	4.1x
EBITDA / Interest Expense	7.0x	7.9x	8.2x	8.7x	9.8x	9.0x
Retained Cash Flow / Debt	21.1%	15.8%	16.2%	21.1%	17.9%	16.9%
Retained Cash Flow / Net Debt	25.6%	46.5%	22.1%	33.6%	25.7%	29.4%

PC; Moody's estimate as of 12/31/2016 and 12/31/2017 based on proportional consolidation of Arlanxeo.

All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Source: Moody's Financial MetricsTM

Profile

Headquartered in Cologne, Germany, Lanxess AG (Lanxess) is a leading European chemical company, with reported sales of €6.8 billion from continuing operations and company-reported EBITDA (pre-exceptionals) of €1.0 billion in 2019. As of 16 February 2021, Lanxess had a market capitalisation of around €5.7 billion.

Exhibit 3

Segment EBITDA pre-exceptionals and before reconciliation 2019

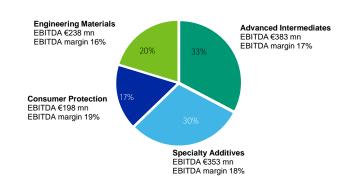
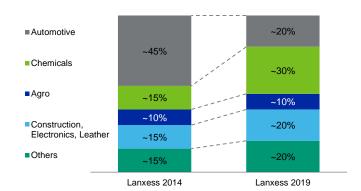


Exhibit 4 End-market exposure for Lanxess (2014 versus 2019)



Sources: Moody's Investors Service and company filings

Sources: Moody's Investors Service and company filings

Lanxess has four segments:

- » Advanced Intermediates comprises businesses in the field of high quality industrial intermediates. The segment includes inorganic pigments and a portfolio of advanced industrial intermediates.
- » Specialty Additives a segment, which pools all units that manufacture additives. In particular, it covers additives (that is, lubricant additives, plastic additives and phosphorous flame retardants, and bromine solutions) and the Rhein Chemie business (that is, colourant and rubber additives).
- » Consumer Protection combines application-focused specialty chemicals used in such areas as disinfection, protection and preservation of wood, construction materials and coatings. It comprises material protection products and liquid purification technologies business units, as well as Saltigo.
- » Engineering Materials is an integrated engineering plastics business, which includes high-performance materials and urethane system business units.

Detailed credit considerations

Portfolio realignment enhances Lanxess' business risk profile

The proposed acquisitions of EKC, the disinfection and hygiene solutions company Theseo for an enterprise value of around €70 million as well as the biocide company Intace further support the transformation towards a higher share of specialty chemicals. Since 2016, Lanxess has realigned its product portfolio towards a more specialty-chemicals-focused product portfolio, with strong market positions, differentiating technological capabilities and more diversified end-market exposure. This has been achieved through a number of disposals, most notably its remaining share in Arlanxeo and its stake in the chemical park operator Currenta and the acquisition of Chemtura in 2017. At the same time Lanxess has divested low margin and non-core businesses such as its organic leather chemical, its membrane and organometallics businesses. We expect the company to continue to invest in inorganic EBITDA growth to further complement and diversify its product portfolio.

The EKC transaction is in line with the company's strategy to transition Lanxess' revenue mix towards a higher share of specialty chemicals. Management has a track record of integrating acquisitions as demonstrated with Chemtura and acquisitions in the Material Protection Products business unit. Lanxess expects to lift synergies worth \$30 million resulting in a post-synergy EV/EBITDA multiple of around 9.0x (around 11.9x pre synergies), which is in line with transaction multiples for specialty chemicals companies. The synergy potential at around 7% to annual revenues is higher than for comparable transactions in the sector.

The Chemtura acquisition significantly expanded the footprint of Lanxess' growing and profitable additive business. This created the second- and third-largest competitor globally in industrial lubricant additives and flame retardants, respectively. The combined business has a strong backward integration, with long-term secured access to its bromine feedstock needs, and complementary product portfolios, giving rise to cross-selling opportunities. The deal also boosted Lanxess' presence in North America and Asia.

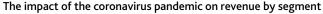
Since the Chemtura acquisition, Lanxess has disposed of a number of businesses to facilitate the shift towards a specialty-chemicalsfocused product portfolio. In August 2018, Lanxess agreed to sell its remaining 50% stake in the Arlanxeo joint venture to its partner, yielding proceeds of around \in 1.4 billion and eliminating its exposure to the synthetic rubber sector that has chronically been affected by market imbalances and feedstock cost volatility. In Q2 2020, the company closed the sale of its stake in the chemical park operator Currenta, resulting in net proceeds in excess of \in 800 million (including a \in 150 million profit participation). Furthermore, the company disposed of its leather chemicals business in two steps, with the closing of the organic leather chemicals divestment expected to happen in mid-2021. The disposal of organic leather chemicals is expected to result in an initial cash consideration of \in 80 million plus a performancerelated component of up to \in 115 million.

The company has focused on cost control to lift the margin potential of its product portfolio. Lanxess is aiming at an EBITDA margin preexceptional items of 14%-18% through the cycle. As a result of portfolio measures and its focus on cost control, the company's Moody'sadjusted EBITDA margin improved to 14.9% in 2019 from 12.7% in 2016. However, this margin level still is at the lower end of the rated global specialty chemicals peer group, but more aligned to similarly rated European peers.

Difficult demand environment in 2020, but we expect relative resilience

Following the trough in the second quarter of 2020, Lanxess recorded again sequential revenue growth in the third quarter supported by strong volume recovery of around 8.7% quarter-on-quarter. Third quarter 2020 sales were still down by 14% against the prior year. Whereas Advanced Materials and Specialty Additives almost performed in line with group results, the relative weakness in Engineering Materials was partially offset by Consumer Protection, the smallest, but most profitable segment.

Exhibit 5



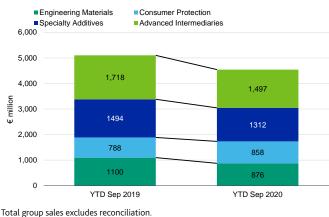
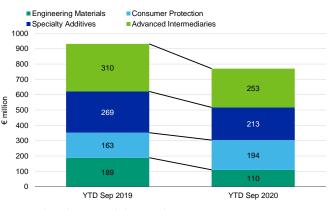


Exhibit 6

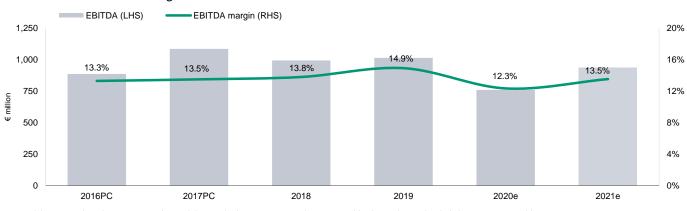




Company-adjusted EBITDA, excludes reconciliation. Sources: Moody's Investors Service and company filings

Cost-saving measures that were initiated before and during the outbreak of the coronavirus have a savings potential of around \leq 50 million in 2020. Positive benefits will be offset by higher exceptional items, that amounted to \leq 94 million in the first nine months of 2020,, due to higher restructuring (\leq 31 million) and project costs (\leq 33 million).

The company's statement that Q4 2020 was the strongest quarter in eight years bodes well for the pick-up in demand and a recovery of Lanxess metrics, in particular EBITDA margins towards the mid teens (%) levels and a de-leveraging towards levels of 3.0x. While projected 2021 gross leverage at 3.7x, and around 3.2x in 2022, is high for the assigned rating category, the company maintains excess liquidity on its balance sheet, even when taking into account outflows for announced, but not yet closed acquisitions. We project RCF/ net debt of around 23% in 2021 and 28% in 2022.



2014-20 EBITDA and EBITDA margin

Exhibit 7

Sources: Moody's Investors Service and company filings

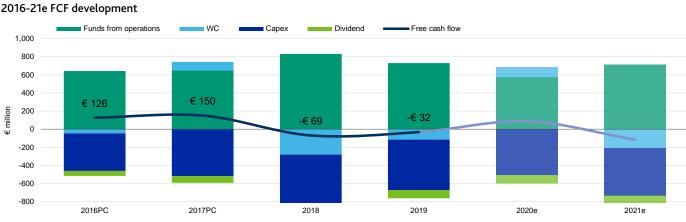
PC; Moody's estimate based on proportional consolidation of Arlanxeo in 2016 and 2017. Emerald Kalama Chemical included in 2021 projected figures. Sources: Moody's Investors Service and company filings

Improved macro outlook, incremental EBITDA from acquisitions and divestments of low-performing businesses help reduce gross leverage

EBITDA growth in 2021 and 2022 will benefit from three factors: an improved macroeconomic outlook with a resumption of more steady growth in 2021, incremental contributions from acquisitions and the divestment of low-performing businesses. Management expects that Q4 2020 was the strongest quarter in eight years with an estimated EBITDA pre exceptionals of around \notin 200 million. This implies reported EBITDA in 2020 of around \notin 862 million, compared to \notin 1.02 billion in 2019. We expect that the chemical sector will return to more normalised growth in 2021 with less volatility and more visibility putting Lanxess back on a growth path towards EBITDA growth. Exhibit 8

We expect the company to maintain a balanced approach towards its capital allocation. Proceeds from the sale of Arlanxeo were used for share buybacks of €200 million in 2019 and also to increase pension assets by the same amount. In September 2020 Lanxess topped up one of its pension schemes by €100 million. This improved the funding status of pension obligations to 60% from 56%. At the beginning of 2020, Lanxess announced a further share buyback of up to €500 million. While the company had already spent €37 million for share buybacks in H1 2020, these buybacks have been suspended in the wake of the coronavirus pandemic.

Funds from operations (FFO) in the last twelve months till 30 September 2020 of ≤ 696 million were burdened by extraordinary tax payments in connection with the divestments of Arlanxeo and Currenta of around ≤ 100 million. Capital spending in relation to revenues is likely to remain elevated due to investments into the EKC asset base once the transaction closes. EKC-related investments are expected to be higher to bring assets on par with Lanxess standards.



PC; Moody's estimate based on the proportional consolidation of Arlanxeo. Emerald Kalama Chemical included in 2021 expected figures. Sources: Moody's Investors Service and company filings

ESG considerations

With an <u>overall ESG score of 57 as assessed by V.E.</u> Lanxess ranks 11th out of 38 European chemical companies and 219th out of a global universe of 4,842.

We score the commodity and specialty chemicals industries "elevated risk - emerging" and "moderate risk", respectively, in our <u>environmental risk heat map</u>. Chemical companies face risks related to water and soil leaks during the production, storage or distribution process. Furthermore, new research findings or changes in regulations for environmental costs could also have a financial impact.

It is Lanxess' goal to become climate neutral by 2040. The company aims to halve its greenhouse gas emissions by 2030 to around 1.6 million tons of CO_2 . The implementation of technology supports the goal of reducing emissions. For instance, a facility for the decomposition of nitrous oxide initially reduces greenhouse gas by around 150,000 tons of CO_2 with an additional expansion contributing a further 300,000 tons by 2023. The use of renewable energy and offset measures will further contribute to a reduction of emissions. Lanxess has committed up to \leq 100 million investments until 2025 for climate protection projects.

Liquidity analysis

Lanxess has strong liquidity. The group had cash and cash equivalents of \leq 332 million and near-cash assets (other current financial assets) of \leq 1,175 million as of the end of Q3 2020. We expect FCF of around \leq 87 million for full year 2020 supported by high working capital inflows of around \leq 111 million and despite higher taxes related to the Currenta divestment. FCF is likely to turn negative, around \leq 116 million, in 2021 due to working capital build-up to support growth. The group's liquidity is supported by the full availability of a \leq 1.0 billion committed revolving credit facility maturing in 2024. The terms of this facility do not contain any financial covenant. Pro-forma the acquisitions of EKC and Theseo we estimate a year-end 2021 cash balance of around \leq 800 million.

Lanxess' debt maturity schedule is well staggered, with other maturities in 2022, 2025, 2026 and 2027, and the first call date for its hybrid notes in 2023. The next bond maturity is in 2021, relating to a €500 million bond, which we assume will be refinanced.

Methodology and scorecard

The principal methodology used in rating Lanxess is our Chemical Industry rating methodology (published in March 2019), which can be found on <u>www.moodys.com</u>.

Our Chemical Industry rating scorecard indicates a Baa3 rating for both the last 12 months that ended September 2020 and the forecast period, one notch below the assigned Baa2. The assigned rating takes into account the company's strong liquidity profile and the expectation that over time the company will gradually recover EBITDA generation and be able to use its liquidity to fund EBITDA growth. We also expect that Lanxess will be outside the gross leverage threshold of maximum 3.0x for the assigned Baa2 for longer as it continues with its transformation towards a higher share of specialty chemicals.

Exhibit 9 Rating factors Lanxess AG

Chemical Industry Scorecard [1][2]	Curre LTM 9/30		Moody's 12-18 Month Forward View As of 2/16/2021 [3]		
Factor 1 : Scale (15%)	Measure	Score	Measure	Score	
a) Revenue (USD Billion)	\$7.0	Baa	\$7 - \$8	Baa	
b) PP&E (net) (USD Billion)	\$3.1	Baa	\$3.1	Baa	
Factor 2 : Business Profile (25%)					
a) Business Profile	Baa	Baa	Baa	Baa	
Factor 3 : Profitability (10%)		·			
a) EBITDA Margin	13.9%	Ва	13% - 14.5%	Ba	
b) ROA (Return on Average Assets)	4.5%	В	4% - 6%	В	
Factor 4 : Leverage & Coverage (30%)	•	·			
a) Debt / EBITDA	4.1x	В	3.5x - 4x	Ba	
b) RCF / Debt	16.9%	Ва	15% - 20%	Ba	
c) EBITDA / Interest Expense	9.0x	Baa	10x - 13x	Baa	
Factor 5 : Financial Policy (20%)	-				
a) Financial Policy	Baa	Baa	Baa	Baa	
Rating:	-				
a) Scorecard-Indicated Outcome	-	Baa3		Baa3	
b) Actual Rating Assigned				Baa2	

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of 09/30/2020.

[3] This represents Moody's forward view, not the view of the issuer.

Source: Moody's Financial Metrics™

Ratings

Exhibit 10

Category	Moody's Rating
LANXESS AG	
Outlook	Stable
Issuer Rating	Baa2
Senior Unsecured -Dom Curr	Baa2
Pref. Stock -Dom Curr	Ba1
Source: Moody's Investors Service	

Appendix

Exhibit 11

Peer comparison

Lanxess AG

	L	anxess A	G	Eastm	an Chemi	cal Co		Arkema		C	ovestro A	G	
	Baa2 Stable			E	Baa3 Stable			Baa1 Stable			Baa2 Negative		
\$ million	2018	2019	LTM	2018	2019	LTM	2018	2019	LTM	2018	2019	LTM	
Revenue	8,059	7,615	7,165	10,151	9,273	8,695	10,411	9,782	9,132	17,260	13,895	12,124	
EBITDA	1,143	1,136	1,039	2,274	1,950	1,745	1,695	1,595	1,306	3,923	1,789	1,185	
Total Debt	4,098	4,006	4,006	6,877	6,466	6,849	3,688	4,228	3,833	3,376	3,997	5,800	
Cash & Cash Equiv.	1,531	1,208	2,085	226	204	704	1,647	1,579	1,572	989	840	2,284	
EBITDA Margin	14.2%	15%	15%	22%	21%	20%	16%	16%	14%	23%	13%	10%	
ROA - EBIT / Avg. Assets	5.5%	6.3%	5.3%	10%	8%	6.6%	9.4%	8.0%	5.4%	22%	8%	2.7%	
EBITDA / Int. Exp.	8.5x	10.4x	9.2x	8.6x	8.1x	7.3x	14.6x	16.6x	17.6x	21.8x	11.5x	7.7x	
Debt / EBITDA	3.7x	3.5x	3.8x	3.0x	3.3x	3.9x	2.2x	2.6x	2.9x	0.9x	2.2x	4.8x	
Net Debt / EBITDA	2.3x	2.5x	1.8x	2.9x	3.2x	3.5x	1.2x	1.7x	1.7x	0.6x	1.8x	2.9x	
RCF / Debt	21%	18%	21%	21%	21%	18%	30%	26%	24%	72%	28%	20%	
RCF / Net Debt	34%	26%	44%	22%	21%	21%	55%	42%	40%	101%	35%	33%	

All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Source: Moody's Financial Metrics™

Exhibit 12 Moody's-adjusted debt breakdown Lanxess AG

Moody's Adjusted Debt	2,655	3,948	3,767	3,585	3,569	3,558
Analyst Adjustments	-	-	51	-	-	-
Hybrid Securities	-	(250)	(250)	(250)	(250)	(250)
Operating Leases	276	280	168	150	-	-
Pensions	702	1,129	958	965	1,001	1,001
As Reported Debt	1,677	2,789	2,840	2,720	2,818	2,807
€ million	2015	2016	2017	2018	2019	LTM Q3 2020

Source: Moody's Financial Metrics™

Exhibit 13 Moody's-adjusted EBITDA breakdown Lanxess AG

€ million	2015	2016	2017	2018	2019	LTM Q3 2020
As Reported EBITDA	822	932	747	927	954	1,665
Pensions	1	1	3	4	(2)	(2)
Operating Leases	65	61	48	44	-	-
Interest Expense Discounting	(15)	(12)	(8)	(10)	(11)	(11)
Unusual Adjustments	(44)	(1)	109	29	74	(785)
Non-Standard Adjustments	-	-	-	-	-	-
Moody's Adjusted EBITDA	829	981	899	994	1,015	867

Source: Moody's Financial Metrics™

Exhibit 14 Moody's-adjusted financial data

Lanxess AG

€ million	2014	2015	2016PC	2017PC	2018	2019	LTM Q3-2020
INCOME STATEMENT							
Revenues	8,006	7,902	7,699	6,530	6,824	6,802	6,237
EBITDA	681	829	981	899	968	1,015	867
EBIT	235	329	460	495	530	555	397
BALANCE SHEET							
Cash & Cash Equivalents	518	466	2,520	588	1,339	1,076	2,767
Total Debt	2,910	2,655	3,948	3,767	3,585	3,569	3,558
CASH FLOW							
Funds from Operations	485	606	720	778	840	730	696
Change in Working Capital items	224	61	(46)	117	(289)	(116)	(12)
Cash Flow from Operations	709	667	674	895	551	614	684
Capital Expenditures (CAPEX)	(649)	(485)	(488)	(438)	(519)	(556)	(479)
Dividends	(46)	(46)	(55)	(75)	(85)	(90)	(93)
Free Cash Flow (FCF)	14	136	131	381	(53)	(32)	112
Retained Cash Flow (RCF)	439	560	665	702	755	640	603
RCF / Debt	15%	21%	17%	19%	21%	18%	17%
RCF / Net Debt	18%	26%	47%	22%	34%	26%	76%
FCF / Debt	0.5%	5.1%	3.3%	10.1%	-1.5%	-0.9%	3.1%
PROFITABILITY							
EBIT Margin %	2.9%	4.2%	6.0%	7.6%	7.8%	8.2%	6.4%
EBITDA Margin %	8.5%	10.5%	12.7%	13.8%	14.2%	14.9%	13.9%
INTEREST COVERAGE							
EBIT / Interest Expense	1.7x	2.7x	3.9x	3.9x	4.7x	5.7x	4.1x
EBITDA / Interest Expense	5.1x	6.8x	8.2x	7.0x	8.5x	10.4x	9.0x
LEVERAGE							
Debt / EBITDA	4.3x	3.2x	4.0x	4.2x	3.7x	3.5x	4.1x
Net Debt / EBITDA	3.5x	2.6x	1.5x	3.5x	2.3x	2.5x	0.9x

All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations and represent Moody's forward view, not the view of the issuer, and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody's Investors Service

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