

## CREDIT OPINION

26 August 2019

Update

✓ Rate this Research

### RATINGS

#### Lanxess AG

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

Please see the [ratings section](#) 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

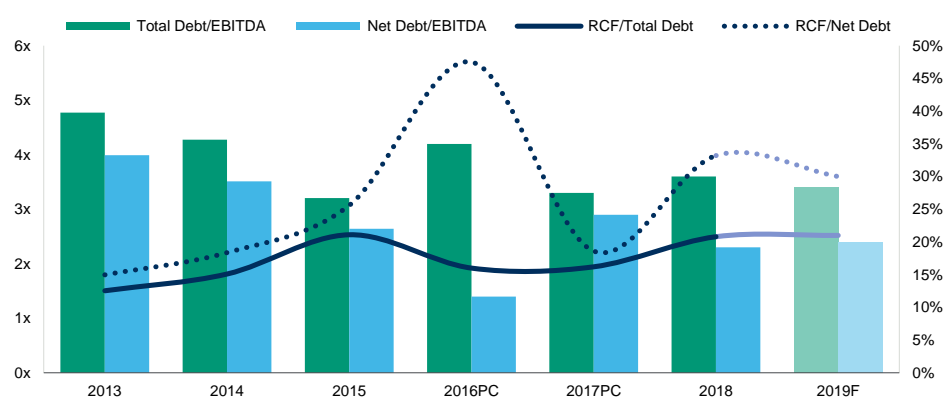
### Update to credit analysis

#### Summary

The Baa2 rating of [Lanxess AG](#) (Lanxess) takes into account its realignment towards becoming a more focused specialty chemicals company. Specialty chemical activities are less volatile and less capital intensive and should, therefore, further enhance the quality of Lanxess' earnings and cash flow. The exit in 2018 of the Arlanxeo joint venture removed the company's exposure to the synthetic rubber market and reduced its exposure to the automotive industry at a time when the auto sector showed weak demand dynamics. In August 2019, Lanxess and [Bayer AG](#) (Baa1 negative) announced that they would [sell their joint venture Currenta](#), which is expected to yield net proceeds of around €625 million for Lanxess in April 2020 when the transaction is expected to close. We expect Lanxess to use most of the proceeds for funding inorganic growth.

Exhibit 1

#### Leverage and coverage metrics



PC (proportional consolidation) Moody's estimate based on the proportional consolidation of Arlanxeo.

Sources: Moody's Investors Service, company filings

#### Credit strengths

- » Portfolio realignment to enhance the business risk profile and future quality of earnings and cash flow, with more emphasis on specialty chemicals
- » Positive free cash flow (FCF) and proceeds from Currenta and Arlanxeo divestment to help reduce leverage following the Chemtura acquisition and build capacity within the current rating category
- » Management's strong track record of executing restructuring measures and conservative financial policies

## Credit challenges

- » Still-significant automotive exposure of around 20% of sales
- » Below-average operating margins compared with investment grade-rated specialty chemical sector peers, despite a steady improvement
- » Acquisition risk, inherent to Lanxess' strategy of further strengthening its business portfolio

## Rating outlook

The stable outlook reflects our expectation that the divestment of Arlanxeo, in parallel with the successful integration of Chemtura, will allow Lanxess to position its financial metrics in line with the Baa2 rating while retaining headroom for further potential external growth activity.

## 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 rise 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
- » Heightened 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

## Key indicators

Exhibit 2

### Lanxess AG

	12/31/2014	12/31/2015	12/31/2016 PC	12/31/2017 PC	12/31/2018	LTM Q2-2019
Revenues (USD Billion)	\$10.6	\$8.8	\$7.3	\$9.1	\$8.5	\$8.2
PP&E (net) (USD Billion)	\$4.4	\$4.0	\$2.3	\$2.9	\$3.1	\$3.1
EBITDA Margin %	8.5%	10.5%	13.3%	13.5%	13.8%	13.7%
ROA - EBIT / Average Assets	3.2%	4.4%	5.0%	6.4%	5.6%	5.5%
Debt / EBITDA	4.3x	3.2x	4.2x	3.3x	3.6x	3.6x
EBITDA / Interest Expense	5.2x	7.0x	7.9x	8.2x	8.7x	9.8x
Retained Cash Flow / Debt	15.1%	21.1%	15.8%	16.2%	20.8%	20.8%
Retained Cash Flow / Net Debt	18.4%	25.6%	46.5%	22.1%	33.2%	28.1%

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.

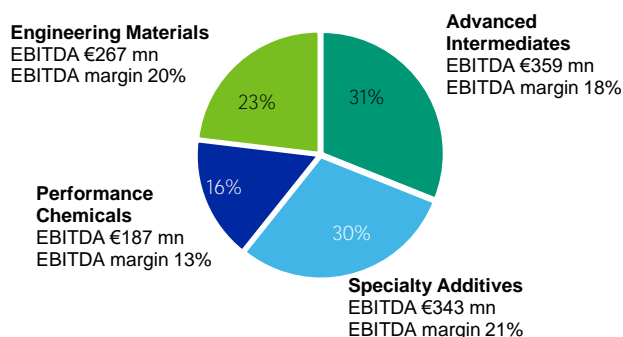
Source: Moody's Financial Metrics™

## Profile

Headquartered in Cologne, Germany, Lanxess AG (Lanxess) is a leading European chemical company, with reported sales of €7.2 billion and a company-reported EBITDA (pre-exceptionals) of €1.0 billion for the fiscal year ended 31 December 2018. In early August 2019, Lanxess had a market capitalisation of around €4.6 billion.

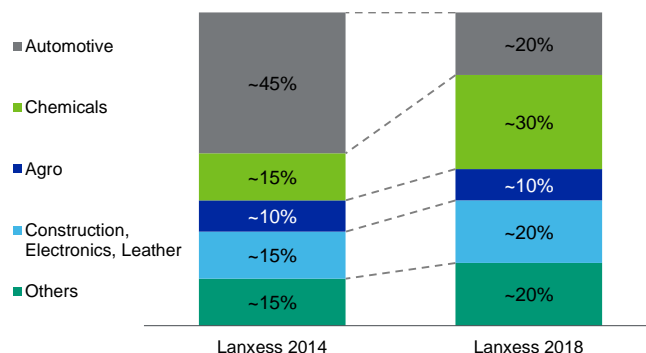
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Exhibit 3

**EBITDA pre-exceptionals and reconciliation  
2018**

Sources: Moody's Investors Service, company filings

Exhibit 4

**End-market exposure for Lanxess (2014 versus 2018)**

Sources: Moody's Investors Service, company filings

Lanxess reports four segments:

- » Advanced Intermediates — comprises businesses in the field of basic and fine chemicals. The segment includes Saltigo and a portfolio of Advanced Industrial Intermediates, into which Chemtura's organometallics business was integrated.
- » Specialty Additives — a newly created business 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 Rhein Chemie (that is, colourant and rubber additives).
- » Performance Chemicals — combines application-focused specialty chemicals used in such areas as disinfection, protection and preservation of wood, construction materials and coatings. It comprises inorganic pigments, leather chemicals, material protection products and liquid purification technologies business units.
- » Engineering Materials — a newly formed integrated engineering plastics business, which includes high-performance materials and urethane systems units.

**Detailed credit considerations****Portfolio realignment enhances Lanxess' business risk profile**

Lanxess has been pursuing a strategy to expand its specialty chemicals portfolio and enhance the resilience and quality of its earnings. In April 2017, Lanxess acquired the US-based specialty chemical company, Chemtura Corporation, for an enterprise value of around €2.4 billion (including net financial liabilities and pension obligations), which was equivalent to 9.4x its 2016 EBITDA.

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 enjoys 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.

In August 2018, Lanxess agreed to sell its remaining 50% stake in the Arlanxco joint venture to its partner. As an outcome of this transaction, Lanxess received around €1.4 billion in cash, which has been used partly to increase its pension assets by around €200 million (thereby reducing its net pension obligations) and buy back €200 million of shares in the first half of 2019. We expect the remainder to be used for external growth. While a full exit from Arlanxco has reduced the scale of Lanxess' operations, we believe that this will enhance the quality of the group's earnings and cash flow by eliminating its exposure to the synthetic rubber sector that has chronically been affected by market imbalances and feedstock cost volatility.

In August 2019, Lanxess and Bayer AG stated that they would sell their stakes in a chemical site operator Currenta to funds managed by Macquarie Infrastructure and Real Assets for a total enterprise value of €3.5 billion. Lanxess' stake in the joint venture is 40%. We

expect Lanxess to use a large portion of the Currenta disposal proceeds to fund external growth opportunities in specialty chemicals, which was among the capital allocation options Lanxess cited in a presentation to investors in conjunction with the announcement. Also, in August, Lanxess announced the sale of its chrome chemicals business as it no longer fits within its strategic focus. The financial terms of the transaction were not disclosed, but based on the business' annual sales of around €100 million, we do not believe that the disposal is financially as material as those of Arlanxeo and Currenta. It does, however, underline management's commitment to rebalance the portfolio.

As a result, the focus of Lanxess' core portfolio shifted towards businesses characterised by a higher degree of vertical integration, strong technological capabilities, leading market positions, a more diversified end-market exposure and lower capital intensity.

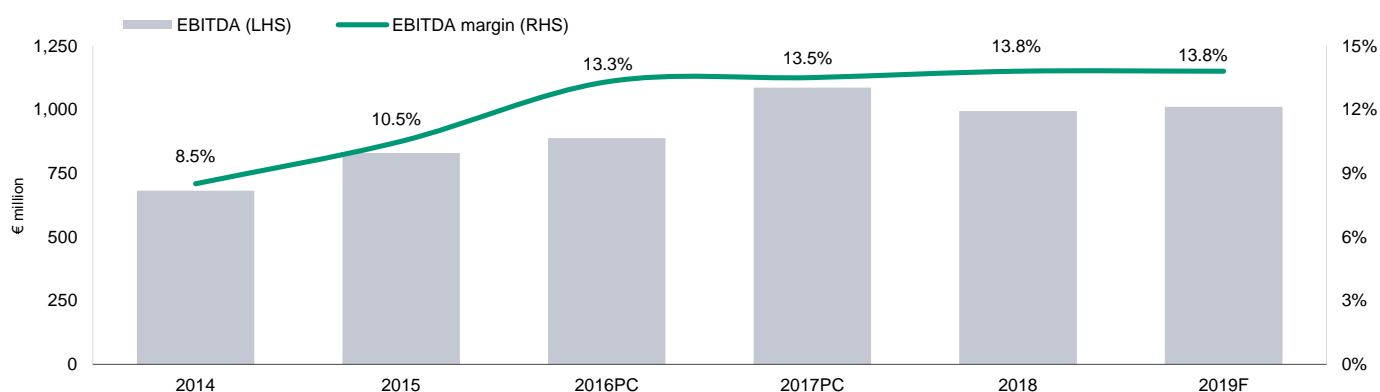
### Portfolio effects have so far offset weaker segments in a challenging macro environment

Q3 2018 already indicated a more challenging operating environment caused by the drought in Germany that led to higher logistics costs, as well as weakness in the automotive end market. The latter has continued year to date in 2019. Volumes declined by 3.5% in H1 2019, with the overall impact on sales dampened by the positive effects from a 0.2% price increase, and 2.8% currency and 0.1% portfolio effects. By division, the negative impact was the strongest for Engineering Materials, with a sales decline in H1 2019 of 5.6%. Overall, the portfolio effect of diverse activities dampened the negative impact on group sales that showed a decline of only 0.4%.

The group EBITDA, at €561 million, was almost unchanged from the previous period. Management reiterated its 2019 guidance for EBITDA pre-exceptionals of €1.0 billion-€1.05 billion. Given the relative weakness recorded in H2 2018, we believe that, on a comparative basis, H2 2019 can deliver €450 million-€500 million in EBITDA to meet the 2019 guidance. The uncertainty manifests itself in the hesitant order behaviour of customers cited by Lanxess and will persist.

Exhibit 5

#### 2014-19 EBITDA and EBITDA margin



PC Moody's estimate based on proportional consolidation of Arlanxeo.

Sources: Moody's Investors Service, company filings

### Gross leverage of around 3.0x pro forma assumed acquisition

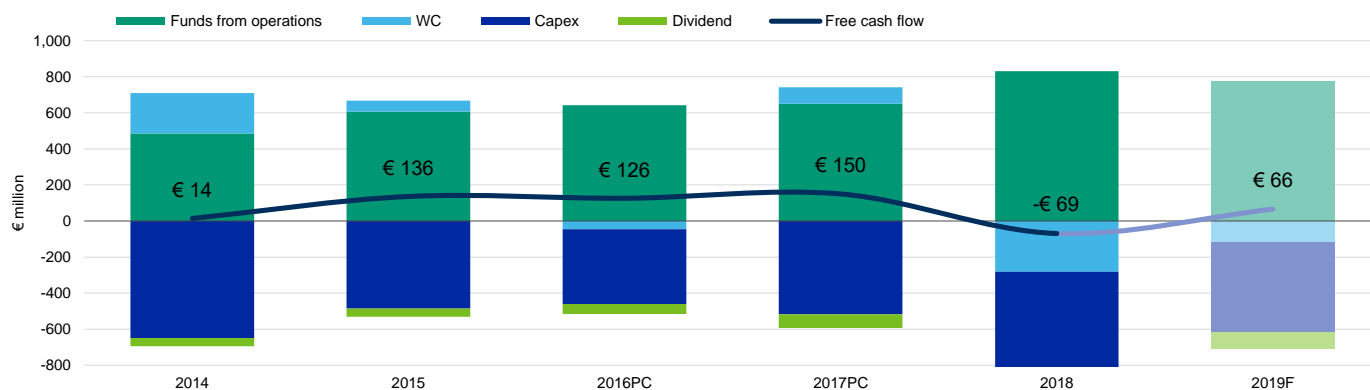
Funds from operations amounted to €827 million in the 12 months ended June 2019 and are only moderately down from the €831 million in 2018. FCF for the 12 months ended June 2019 was negative €11 million, but we expect this to turn positive in 2019 as capital spending will come down by around €50 million in H2 2019 to be in line with the guidance of €500 million for 2019. The actual dividend payments of €79 million are adjusted by €11 million to reflect the 50% equity content of the hybrid debt instruments.

On the one hand, the implementation of IFRS 16 in 2019 resulted in an increase in reported gross debt of around €130 million. On the other hand, we no longer make an adjustment for operating leases, which in 2018 amounted to an increase in adjusted gross debt of €150 million. Reported gross debt has been fairly stable at around €2.8 billion since the Chemtura funding in 2016, while Moody's-adjusted debt is €402 million lower for the same period primarily due to lower pension debt and operating lease (including the IFRS 16 implementation effect) adjustments. While gross leverage, at 3.6x as of June 2019, is still relatively high with regard to the assigned Baa2 rating, this does not take into account the high cash balance of €929 million (adjusted for short-term financial investments) that we believe will be disbursed for M&A, along with the net proceeds of around €625 million from the Currenta sales. Pro forma

an assumed M&A transaction of around €1.0 billion, in line with multiples for specialty chemicals company of around 10x, would contribute an incremental EBITDA of up to €100 million. Such an EBITDA contribution would bring gross leverage closer to our 3.0x leverage threshold.

Exhibit 6

### 2014-19 FCF development



PC Moody's estimate based on the proportional consolidation of Arlanxco.

Sources: Moody's Investors Service, company filings

### Liquidity analysis

Lanxess maintains a solid liquidity profile. The group had cash and cash equivalents of €229 million and near-cash assets (other current financial assets) of €775 million as of the end of Q2 2019.

We expect Lanxess to turn FCF positive after capital spending and dividends in the next 12-18 months. In addition, the group's liquidity continues to be supported by the full availability of a €1.25 billion committed revolving credit facility maturing in May 2023, with a one-year extension option. The terms of this facility do not contain any financial covenant.

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

### Rating methodology and scorecard factors

The principal methodology used in rating Lanxess is our Chemical Industry rating methodology (published in March 2019), which can be found on [www.moodys.com](http://www.moodys.com).

Our Chemical Industry rating scorecard indicates a Baa3 rating for the 12 months ended June 2019 and a Baa2 for the forecast period, in line with the assigned rating. This takes into account the receipt of the net disposal proceeds of around €625 million from the sale of Lanxess' 40% stake in Currenta.

Exhibit 7

## Rating factors

Chemical Industry Scorecard [1][2]			Moody's 12-18 Month Forward View As of 8/16/2019 [3]	
	Current LTM 6/30/2019	Score	Measure	Score
<b>Factor 1 : Scale (15%)</b>				
a) Revenue (USD Billion)	\$8.2	Baa	\$8.2 - \$9.2	Baa
b) PP&E (net) (USD Billion)	\$3.1	Baa	\$3	Baa
<b>Factor 2 : Business Profile (25%)</b>				
a) Business Profile	Baa	Baa	Baa	Baa
<b>Factor 3 : Profitability (10%)</b>				
a) EBITDA Margin	13.7%	Ba	14% - 15%	Ba
b) ROA (Return on Average Assets)	5.5%	B	6% - 8%	Ba
<b>Factor 4 : Leverage &amp; Coverage (30%)</b>				
a) Debt / EBITDA	3.6x	Ba	2.8x - 3.4x	Baa
b) RCF / Debt	20.8%	Baa	20% - 26%	Baa
c) EBITDA / Interest Expense	9.8x	Baa	11x - 13x	Baa
<b>Factor 5 : Financial Policy (20%)</b>				
a) Financial Policy	Baa	Baa	Baa	Baa
<b>Rating:</b>				
a) Indicated Outcome from Scorecard		Baa3		Baa2
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 06/30/2019.

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

Source: Moody's Financial Metrics™

## Appendix

Exhibit 8

### Peer comparison Lanxess AG

(in US millions)	Lanxess AG Baa2 Stable			Eastman Chemical Co Baa2 Stable			Arkema Baa2 Positive			Covestro AG Baa1 Stable		
	FYE	FYE	LTM	FYE	FYE	LTM	FYE	FYE	LTM	FYE	FYE	LTM
	Dec-17	Dec-18	Mar-19	Dec-17	Dec-18	Mar-19	Dec-17	Dec-18	Mar-19	Dec-17	Dec-18	Mar-19
Revenue	\$7,378	\$8,499	\$8,341	\$9,549	\$10,151	\$9,924	\$9,407	\$10,411	\$10,259	\$15,974	\$17,260	\$16,226
EBITDA	\$1,016	\$1,174	\$1,143	\$2,092	\$2,270	\$2,261	\$1,567	\$1,695	\$1,676	\$3,975	\$3,923	\$3,098
Total Debt	\$4,523	\$4,098	\$3,972	\$7,133	\$6,801	\$6,998	\$3,913	\$3,688	\$3,727	\$3,842	\$3,376	\$3,579
Cash & Cash Equiv.	\$706	\$1,531	\$1,288	\$191	\$226	\$195	\$1,727	\$1,647	\$1,707	\$1,798	\$989	\$911
EBITDA Margin	13.8%	13.8%	13.7%	21.9%	22.4%	22.8%	16.7%	16.3%	16.3%	24.9%	22.7%	19.1%
ROA - EBIT / Avg. Assets	4.8%	5.6%	5.5%	8.8%	9.5%	9.4%	9.3%	9.4%	9.2%	25.1%	22.3%	16.5%
EBITDA / Int. Exp.	7.0x	8.7x	9.2x	7.9x	8.6x	8.7x	12.5x	14.6x	14.3x	24.4x	25.5x	20.4x
Debt / EBITDA	4.2x	3.6x	3.6x	3.4x	3.0x	3.1x	2.3x	2.2x	2.3x	0.9x	0.9x	1.2x
RCF / Debt	18.6%	20.8%	21.0%	19.8%	21.5%	20.2%	27.1%	30.2%	30.5%	77.0%	71.6%	45.3%

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 9

### Moody's-adjusted debt breakdown Lanxess AG

€ million	2014	2015	2016	2017	2018	LTM Q2-2019
<b>As Reported Debt</b>	<b>1,854</b>	<b>1,677</b>	<b>2,789</b>	<b>2,840</b>	<b>2,720</b>	<b>2,831</b>
Pensions	744	702	1,129	958	965	965
Operating Leases	312	276	280	168	150	-
Hybrid Securities	-	-	(250)	(250)	(250)	(250)
Analyst Adjustments	-	-	-	51	-	-
<b>Moody's Adjusted Debt</b>	<b>2,910</b>	<b>2,655</b>	<b>3,948</b>	<b>3,767</b>	<b>3,585</b>	<b>3,546</b>

Source: Moody's Financial Metrics™

Exhibit 10

### Moody's-adjusted EBITDA breakdown Lanxess AG

€ million	2014	2015	2016	2017	2018	LTM Q2-2019
<b>As Reported EBITDA</b>	<b>619</b>	<b>822</b>	<b>932</b>	<b>747</b>	<b>927</b>	<b>951</b>
Pensions	11	1	1	3	4	4
Operating Leases	67	65	61	48	44	22
Interest Expense Discounting	(14)	(15)	(12)	(8)	(10)	(10)
Unusual Adjustments	-	(44)	(1)	109	29	20
Non-Standard Adjustments	(2)	-	-	-	-	-
<b>Moody's Adjusted EBITDA</b>	<b>681</b>	<b>829</b>	<b>981</b>	<b>899</b>	<b>994</b>	<b>987</b>

Source: Moody's Financial Metrics™

Exhibit 11

## Moody's-adjusted financial data

Lanxess AG

€ million	2013	2014	2015	2016PC	2017PC	2018	2019F
<b>INCOME STATEMENT</b>							
Revenues	8,300	8,006	7,902	6,644	8,042	7,197	7,330
EBITDA	687	681	829	887	1,085	994	1,010
EBIT	182	235	329	411	568	540	570
<b>BALANCE SHEET</b>							
Cash & Cash Equivalents	533	518	466	2,476	452	1,339	957
Total Debt	3,277	2,910	2,655	3,711	3,553	3,585	3,385
<b>CASH FLOW</b>							
Funds from Operations	494	485	606	642	650	831	775
Change in Working Capital items	60	224	61	(46)	92	61	(120)
Cash Flow from Operations	554	709	667	596	742	550	655
Capital Expenditures (CAPEX)	(654)	(649)	(485)	(415)	(518)	(534)	(500)
Dividends	(83)	(46)	(46)	(55)	(75)	(85)	(90)
Free Cash Flow (FCF)	(183)	14	136	126	150	(69)	66
Retained Cash Flow (RCF)	411	439	560	587	575	746	686
RCF / Debt	13%	15%	21%	16%	16%	21%	20%
RCF / Net Debt	15%	18%	26%	48%	19%	33%	28%
FCF / Debt	-5.6%	0.5%	5.1%	3.4%	4.2%	-1.9%	1.9%
<b>PROFITABILITY</b>							
EBIT Margin %	2.2%	2.9%	4.2%	6.2%	7.1%	7.5%	7.8%
EBITDA Margin %	8.3%	8.5%	10.5%	13.3%	13.5%	13.8%	13.8%
<b>INTEREST COVERAGE</b>							
EBIT / Interest Expense	1.1x	1.7x	2.8x	3.6x	4.3x	4.7x	6.3x
EBITDA / Interest Expense	4.2x	5.1x	7.0x	7.8x	8.2x	8.7x	11.1x
<b>LEVERAGE</b>							
Debt / EBITDA	4.8x	4.3x	3.2x	4.2x	3.3x	3.6x	3.4x
Net Debt / EBITDA	4.0x	3.5x	2.6x	1.4x	2.9x	2.3x	2.4x

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

## Ratings

Exhibit 12

Category	Moody's Rating
<b>LANXESS AG</b>	
Outlook	Stable
Issuer Rating	Baa2
Senior Unsecured -Dom Curr	Baa2
Pref. Stock -Dom Curr	Ba1

Source: Moody's Investors Service



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