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Lanxess AG

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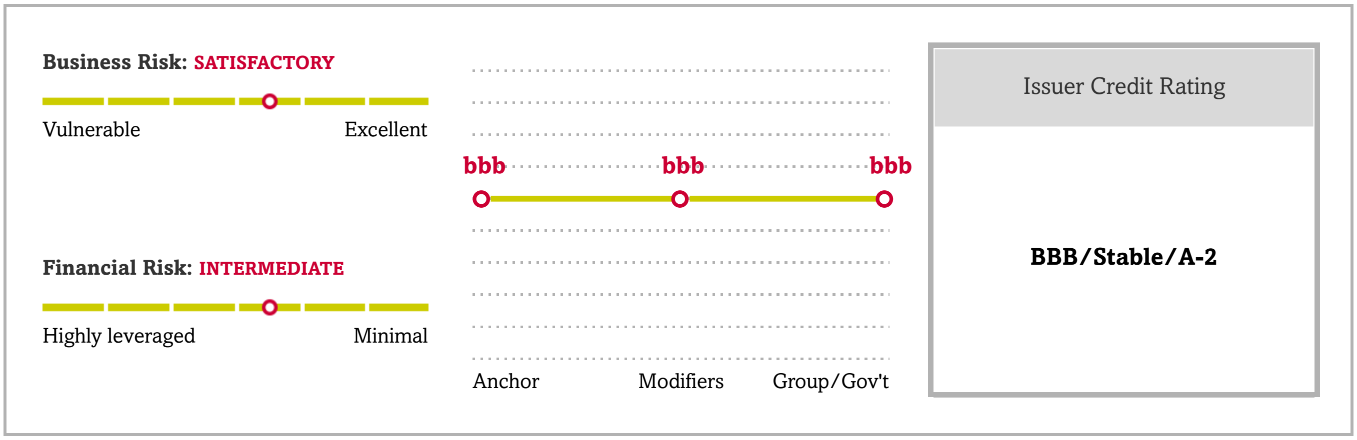
Table Of Contents

Lanxess AG



Credit Highlights

Overview

Key strengths	Key risks
Portfolio realignment that results in less volatile margins and a better risk profile during the COVID-19 pandemic than in past economic downturns.	Exposure to some cyclical end markets, such as auto and construction, though we believe that growth perspectives over next couple of years are good.
Solid market position among the top three players in the niche and midsize specialty chemicals business.	Margins that still lag the average for investment-grade specialty chemical peers.
Well-diversified exposure by geography and end-markets, with increased exposure to stable consumer protection market.	Debt-funded acquisitions related to the business portfolio realignment strategy.
Public commitment to maintaining a solid investment-grade rating.	Credit metrics' exposure to currency movements.

Portfolio realignment and asset disposal helped Lanxess AG navigate the COVID-19-related downturn in 2020. The company's funds from operations (FFO) to debt stood at 33.6% in 2020, up from 28.9% in 2019 and above our downside trigger of 30%. An improved risk profile with reduced exposure to the auto industry, deferral in some portion of capital expenditure (capex), operating expense savings, and proceeds from the sale of chemical site service provider Currenta have supported metrics during the pandemic.

The portfolio realignment is also bringing higher and more stable margins. Lanxess' risk profile has significantly improved from portfolio realignment in the past five years. As a result, EBITDA fell 16% 2020 during the pandemic. This is significantly better than the 36% reduction in the 2009 financial crisis, and the 40% reduction during the 2013 rubber downturn. In 2016, Lanxess acquired Chemours' clean-and-disinfect business, and flame retardants and lubricant additives producer Chemtura in 2017, and it exited the volatile and lower-margin synthetic rubber market following the Arlanxeo disposal in 2018. In February 2021, Lanxess signed a binding agreement to acquire Emerald Kalama Chemical, a manufacturer of specialty chemicals in the consumer and industrial applications. The company is also focusing on certain organic growth projects and manufacturing-excellence initiatives. We believe these factors should enable it to gradually build a track record of higher and less-volatile profitability over the next few years.

S&P Global Ratings believes Lanxess' management is committed to preserving its leverage metrics after the Arlanxeo and Currenta disposals. The company has made a public commitment to maintaining a solid investment-grade rating. Furthermore, management has a track record of financial discipline and balance-sheet protection. For example, in 2016, Lanxess issued a €500 million hybrid bond and suspended share buybacks to lessen the effect on debt from the

€2.4 billion acquisition of Chemtura.

Outlook: Stable

The stable outlook reflects our expectation that Lanxess will keep FFO to debt above 30% over 2021-2022, which we consider commensurate with a 'BBB' rating. Following the Emerald Kalama Chemical acquisition, the company's pro forma FFO to debt will temporarily decline to 31%-33% in 2021, from 33.6% in 2020, then recover to 33%-35% in 2022. This is still commensurate with the 'BBB' rating, but there is limited rating headroom to withstand another significant debt-funded acquisition. In our base-case scenario, we do not anticipate that Lanxess will resume its share buyback program in 2021.

Downside scenario

We might lower the rating if FFO to debt fell below 30% without the short-term prospect of a quick recovery. In our view, this may happen if the company pursued a large debt-financed acquisition, which we see as the main risk to the rating. Prolonged operating pressure associated with a significant reduction of our adjusted EBITDA margin to below 13% could also lead to a downgrade. However, we believe that, in such a scenario, the group would likely protect its credit metrics in light of its commitment to maintaining an investment-grade rating.

Upside scenario

We could consider an upgrade if Lanxess improved its credit metrics, with FFO to debt comfortably exceeding 45% and sustained free operating cash flow to debt above 25%. However, we view such a scenario as unlikely because we believe that the company would most likely use any financial flexibility it gains to increase capex, acquisitions, or shareholder returns.

Our Base-Case Scenario

Assumptions

- GDP recovery in the eurozone of 4.4% in 2021 and 4.5% in 2022, following a drop of 6.7% in 2020; overall global GDP to grow by 5.9% in 2021 and 4.3% in 2022, supported by steep recovery in China, the U.S., and India.
- Revenue growth of 11%-13% in 2021--with 12 months' contribution of Emerald Kalama--and 2%-5% thereafter, reflecting the recovery in most end-markets, particularly the automotive and construction industries. At the same time, we acknowledge the group's resilient performance in consumer protection, which benefits from the rebound of agricultural products prices. Currency movements could weigh on reported revenue.
- EBITDA margin to improve compared with 2019 due to higher operating leverage, partly offset by the time lag to pass through increased raw material costs and higher energy and freight expenses.
- Cash outflow exceeding €200 million in 2021 related to working capital.
- Capital expenditures of €450 million-€500 million in 2021, increasing to €500 million-€550 million in 2022.
- No share buyback or major acquisition following the announcement on Emerald Kalama. However, the company could pursue external growth in some business segments.

Key metrics

LANXESS AG--Key Metrics*

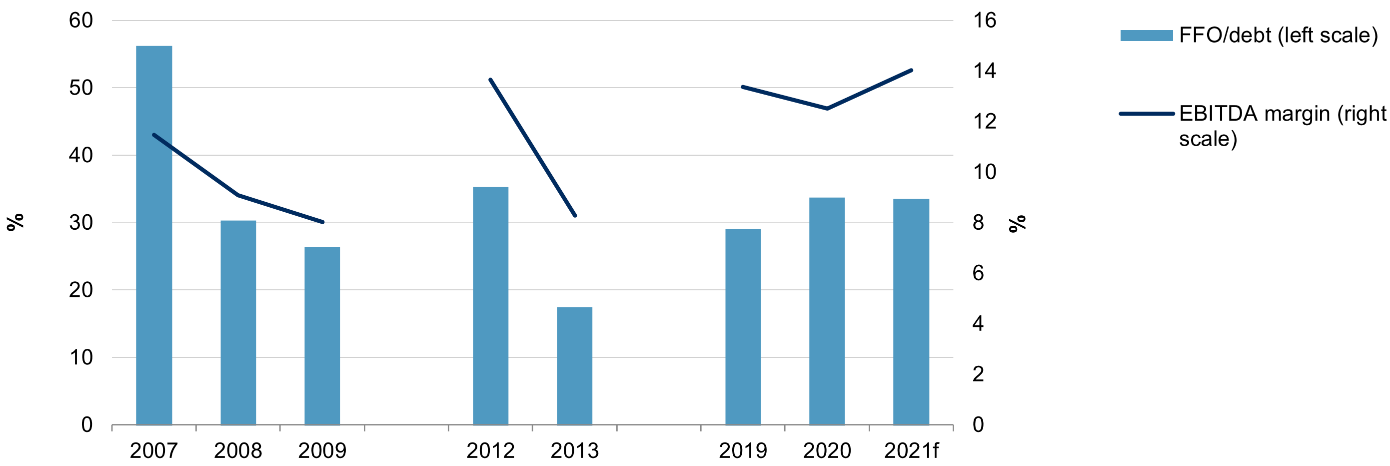
	--Fiscal year ended Dec. 31--				
	2019a	**2020e**	**2021PFf**	**2022f**	**2023f**
EBITDA (Mil. €)	910.0	764.2	920-970	1000-1050	1100-1150
EBITDA margin (%)	13.4	12.5	13.5 -14.5	14.0-15.0	14.5-15.5
Debt-to-EBITDA (x)	2.5	2.2	2.6-2.8	2.4-2.6	2.2-2.4
FFO-to-debt (%)	28.9	33.6	31-33	33-35	34-36
FOCF-to-debt (%)	4.2	13.4	0-5	5-10	5-10

*All figures adjusted by S&P Global Ratings. a--Actual. e--Estimate. f--Forecast PF--With 12 months contribution of Emerald Kamala. FFO--Funds from operations. FOCF--Free operating cash flow.

We expect EBITDA margin growth to be steady and less volatile in 2021-2022. Given the sale of volatile segments such as Arlanxeo, the business is more resilient than it was during previous downturns (see chart 1), leading to less volatility in profitability. Given our economic development forecast and positive effects from the Emerald Kamala acquisition, we expect growth in EBITDA margin to be steady in 2021-2022 and margin to be above 14% by 2022, above the average of past five years.

Chart 1

Lanxess Is Better Positioned This Downturn



FFO--Funds from operations. f--Forecast. Source: S&P Global Ratings.

Company Description

Lanxess is a German specialty chemicals company that develops and manufactures chemical intermediates, additives, specialty chemicals, and plastics. At year-end 2020, it reported €6.1 billion of revenue and had about 15,000 employees.

In 2020, Lanxess realigned its business segments following the decision to sell its leather business, and the acquisition of biocide manufacturer IPEL. The business is now aligned within the following four segments:

- Advanced intermediates, which includes advanced industrial intermediates and the inorganic pigments business unit;
- Specialty additives, which includes the additives manufacturing business, including Rhein Chemie;
- Consumer protection, a new segment that includes material-protection products, the liquid-purification technology business unit, and Saltigo; and
- Engineering materials, which offers engineering plastic compounds and hot-cast prepolymers, specialty aqueous urethane dispersions, and polyester polyols.

Peer Comparison

Table 1

Lanxess AG--Peer Comparison

Industry sector: Chemical companies

	Lanxess AG	Arkema S.A.	Clariant AG	Evonik Industries	Solvay S.A.
Ratings as of July 20, 2021	BBB/Stable/A-2	BBB+/Stable/A-2	BBB-/Stable/A-3	BBB+/Stable/A-2	BBB/Stable/A-2
	--Fiscal year ended Dec. 31, 2020--				
(Mil. €)					
Revenue	6,104.0	7,884.0	3,566.6	12,199.0	8,965.0
EBITDA	764.2	1,163.0	486.0	1,884.0	1,716.0
Funds from operations (FFO)	565.2	1,003.0	369.2	1,723.3	1,470.5
Interest expense	74.0	80.0	63.8	107.7	186.5
Cash interest paid	68.0	79.0	66.5	77.7	148.5
Cash flow from operations	681.0	1,100.0	289.2	1,688.3	1,087.5
Capital expenditure	456.0	604.0	275.4	950.0	502.0
Free operating cash flow (FOCF)	225.0	496.0	13.9	738.3	585.5
Discretionary cash flow (DCF)	95.0	282.0	(939.7)	165.0	(425.0)
Cash and short-term investments	1,794.0	1,587.0	927.7	1,028.0	1,002.0
Debt	1,681.7	1,976.0	1,421.3	5,705.8	4,958.0
Equity	3,244.0	4,885.0	2,200.0	8,348.0	6,404.0
Adjusted ratios					
EBITDA margin (%)	12.5	14.8	13.6	15.4	19.1
Return on capital (%)	22.9	6.5	5.6	6.2	5.6
EBITDA interest coverage (x)	10.3	14.5	7.6	17.5	9.2
FFO cash interest coverage (x)	9.3	13.7	6.6	23.2	10.9
Debt/EBITDA (x)	2.2	1.7	2.9	3.0	2.9
FFO/debt (%)	33.6	50.8	26.0	30.2	29.7
Cash flow from operations/debt (%)	40.5	55.7	20.3	29.6	21.9
FOCF/debt (%)	13.4	25.1	1.0	12.9	11.8
DCF/debt (%)	5.6	14.3	(66.1)	2.9	(8.6)

Lanxess' peers include Arkema S.A., Clariant AG, Evonik Industries, and Solvay S.A..

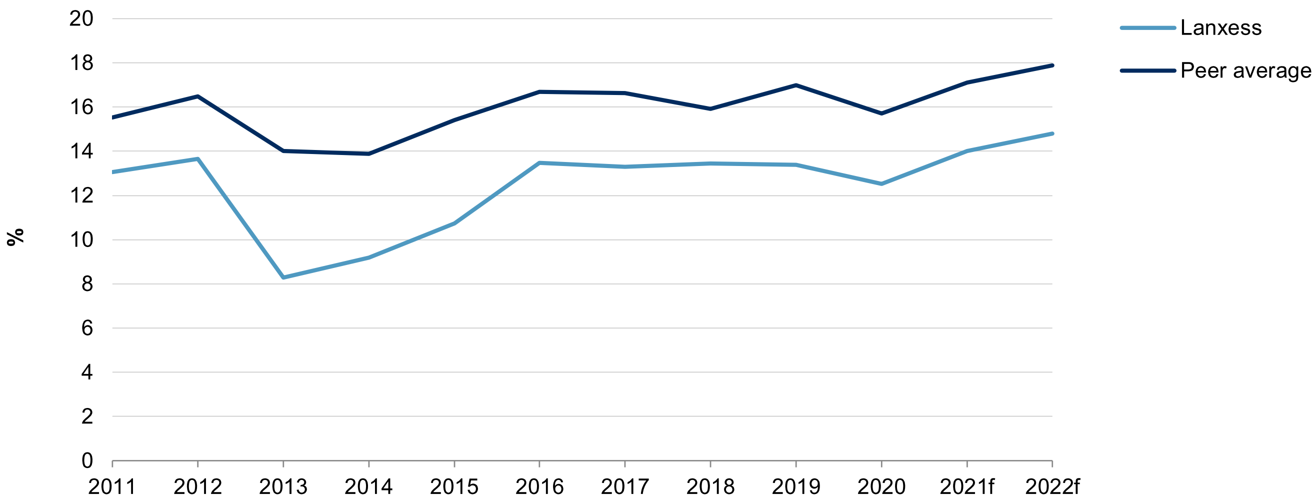
Arkema and Clariant are more comparable with Lanxess than Solvay and Evonik, which are larger and have more diverse end markets.

In our view, Lanxess has a better market position than Clariant, which displays greater geographic diversity. Lanxess has a track record of weaker profitability than both Clariant and Arkema, due to lower margins in the synthetic rubber business and significant restructuring costs. Positively, we expect the company's EBITDA margin to progressively improve, though it should remain somewhat below the peer average (see chart 2).

We expect Lanxess' FFO to debt will stand above 30% for the foreseeable future, which is better than Clariant's credit metrics, and explains the one-notch rating difference between the two companies. Similarly, Arkema's credit metrics are better than Lanxess', explaining the one-notch difference between the two.

Chart 2

Lanxess' EBITDA Margin Versus Peers



f--Forecast. Source: S&P Global Ratings.

Business Risk: Satisfactory

In our view, Lanxess benefits from its continued transformation into a midsize, well-diversified (by geography and end markets) specialty chemical company, with market positions among the top-three players in most of its core businesses. The company's exit from the volatile and lower-margin commodity synthetic rubber business, through the disposal of the remaining 50% of Arlanxeo, is a key milestone in its transformation journey. We also consider the Currenta sale in 2020 as positive for Lanxess, because it supported the company's balance sheet during the pandemic.

The 2016 acquisition of Chemours' clean-and-disinfect business and 2017 acquisition of lubricant additives and flame retardants producer Chemtura are two key steps in LANXESS' transformation. The decision to sell the leather business is also positive, because it has shown higher-than-average margin volatility.

The acquisition of Emerald Kalama announced in February 2021 reinforces Lanxess' position in the consumer protection end markets and supports margin growth. Food preservation and animal health industries should post revenue 1%-2% above GDP growth over the next few years. The acquisition also strengthens the company's presence in the U.S. market, given that almost 50% of Emerald Kalama revenue originates in the U.S., Mexico, and Canada. Furthermore, Emerald Kalama's reported EBITDA margin, at around 20%, should support Lanxess' target to improve group profitability.

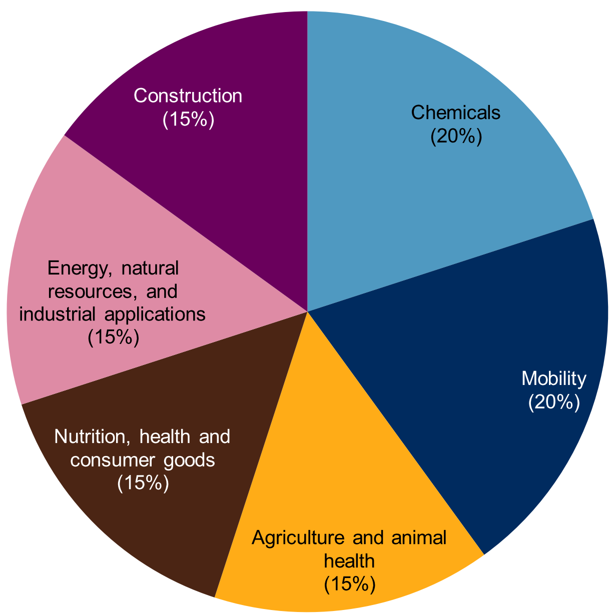
Furthermore, the company is promoting partnerships that could provide further organic growth and support margins. For example, in March 2021, Lanxess announced it will enter the field of battery chemistry by cooperating with

Guangzhou Tinci Materials Technology Co., a leading global manufacturer of lithium-ion battery materials. Starting 2022, the company will produce electrolyte formulations for lithium-ion batteries under the authorization of the Chinese company. We believe that these factors should enable it to gradually build a track record of higher and less volatile profitability in the medium term.

Lanxess has well-diversified exposure by geography and end-market (see chart 3). Like most specialty chemical companies, it has exposure to some cyclical end markets, such as the auto and construction industries, although less volatile segments such as consumer protection partially offsets this.

Chart 3

Lanxess' 2020 Group Revenue By End Market



Source: S&P Global Ratings.

Lanxess is also exposed to volatile raw-material prices such as oil-derived products. Currently high prices could result in temporary pressure on margins. However, this is partly mitigated by the company's good track record of passing through input costs to product prices.

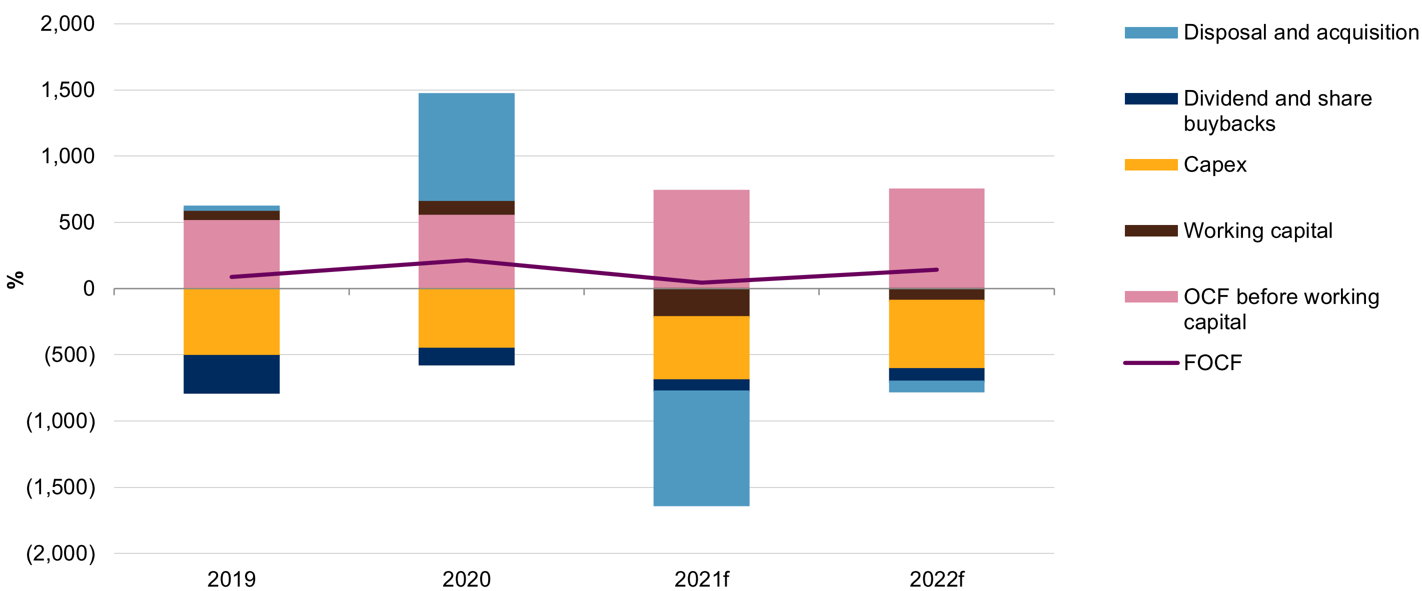
We understand Lanxess might pursue midsize acquisitions to strengthen its business position. We see this as the main risk to our ratings if the acquisitions were sizable and the company funded them through debt.

Financial Risk: Intermediate

Our assessment of Lanxess' financial risk profile reflects the company's improved credit metrics since 2018, fueled by the Arlanxeo disposal. This is supported by the company's portfolio realignment. The sale of stake in Currenta that the company finalized in the second quarter of 2020 provided a key support to credit metrics during the pandemic in 2020. Following the announcement of Emerald Kalama acquisition, we expect LANXESS' FFO to debt to temporarily decline to 31%-33% in 2021, from 33.6% in 2020, and then to recover to 33%-35% in 2022. This is still commensurate with the 'BBB' rating, but headroom to withstand a large debt-funded acquisition or persistent weak business trends is limited.

Chart 4

Lanxess' Cash Flow Evolution



f--Forecast. Capex--Capital expenditure. FOCF--Free operating cash flow. Source: S&P Global Ratings.

We believe Lanxess' top management is committed to preserving leverage metrics, including FFO to debt above 30%. The company has made a public commitment to maintain a solid investment-grade rating. Furthermore, management has shown financial discipline, including through the issuance of a €500 million hybrid bond in 2016 to protect credit metrics, and the suspension of share buybacks announced in March 2020 to manage the pandemic's effects.

Financial summary

Table 2

Lanxess AG--Financial Summary

Industry sector: Chemical companies					
	--Fiscal year ended Dec. 31--				
	2020	**2019**	**2018**	**2017**	**2016**
(Mil. €)					
Revenue	6,104.0	6,802.0	7,197.0	8,041.8	6,655.5
EBITDA	764.2	910.0	968.7	1,070.3	896.9
Funds from operations (FFO)	565.2	662.1	735.3	875.9	637.0
Interest expense	74.0	90.0	103.4	125.4	121.8
Cash interest paid	68.0	55.0	77.4	83.3	88.8
Cash flow from operations	681.0	605.0	454.5	732.2	580.5
Capital expenditure	456.0	508.0	497.0	472.0	377.5
Free operating cash flow (FOCF)	225.0	97.0	(42.5)	260.2	203.0
Discretionary cash flow (DCF)	95.0	(193.0)	(127.8)	185.0	148.5
Cash and short-term investments	1,794.0	1,160.0	1,395.0	459.2	2,480.5
Gross available cash	1,794.0	1,160.0	1,395.0	459.2	2,480.5
Debt	1,681.7	2,290.0	2,028.2	3,313.4	1,405.3
Equity	3,244.0	2,892.0	3,023.0	2,538.9	2,562.0
Adjusted ratios					
EBITDA margin (%)	12.5	13.4	13.5	13.3	13.5
Return on capital (%)	22.9	8.7	9.4	11.3	10.7
EBITDA interest coverage (x)	10.3	10.1	9.4	8.5	7.4
FFO cash interest coverage (x)	9.3	13.0	10.5	11.5	8.2
Debt/EBITDA (x)	2.2	2.5	2.1	3.1	1.6
FFO/debt (%)	33.6	28.9	36.3	26.4	45.3
Cash flow from operations/debt (%)	40.5	26.4	22.4	22.1	41.3
FOCF/debt (%)	13.4	4.2	(2.1)	7.9	14.4
DCF/debt (%)	5.6	(8.4)	(6.3)	5.6	10.6

Reconciliation

Table 3

Lanxess AG--Reconciliation Of Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. €)

	--Fiscal year ended Dec. 31, 2020--							
Lanxess AG reported amounts								
	Debt	**Shareholders' equity**	**EBITDA**	**Operating income**	**Interest expense**	**S&P Global Ratings' adjusted EBITDA**	**Cash flow from operations**	**Dividends**
Reported	2,705.0	3,001.0	757.0	253.0	66.0	764.2	594.0	82.0
S&P Global Ratings' adjustments								
Cash taxes paid	--	--	--	--	--	(131.0)	--	--
Cash interest paid	--	--	--	--	--	(79.0)	--	--
Reported lease liabilities	126.0	--	--	--	--	--	--	--

Table 3

Lanxess AG--Reconciliation Of Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. €) (cont.)

Intermediate hybrids reported as debt	(245.0)	245.0	--	--	(11.0)	11.0	11.0	11.0
Postemployment benefit obligations/deferred compensation	814.0	--	6.0	6.0	16.0	--	--	--
Accessible cash and liquid investments	(1,719.0)	--	--	--	--	--	--	--
Capitalized interest	--	--	--	--	3.0	--	--	--
Share-based compensation expense	--	--	2.2	--	--	--	--	--
Nonoperating income (expense)	--	--	--	900.0	--	--	--	--
Reclassification of interest and dividend cash flows	--	--	--	--	--	--	76.0	--
Noncontrolling interest/minority interest	--	(2.0)	--	--	--	--	--	--
Debt: Guarantees	0.7	--	--	--	--	--	--	--
EBITDA: Gain (loss) on disposals of PP&E	--	--	(1.0)	(1.0)	--	--	--	--
Total adjustments	(1,023.3)	243.0	7.2	905.0	8.0	(199.0)	87.0	11.0

S&P Global Ratings' adjusted amounts

	Debt	Equity	EBITDA	EBIT	Interest expense	Funds from operations	Cash flow from operations	Dividends paid
Adjusted	1,681.7	3,244.0	764.2	1,158.0	74.0	565.2	681.0	93.0

PP&E--Property, plant, and equipment.

Liquidity: Strong

We view Lanxess' liquidity as strong because we expect its sources of liquidity will exceed its uses by 1.9x over the next 12 months and by 1.3x over next 24 months from April 1, 2021. We factor in the company's demonstrated access to debt markets and bank financing, as well as prudent liquidity risk management, which enable it to anticipate potential setbacks and take action to ensure continued strong liquidity. Lanxess has no financial covenants.

Principal Liquidity Sources

- €1.5 billion of cash and cash equivalent at the end of first-quarter 2021
- €1 billion of revolving credit facility maturing in 2024
- €0.7 billion-€0.8 billion of FFO available in next 12 months from 1 April 2021

Principal Liquidity Uses

- €500 million in short-term debt maturity (repaid in July 2021)
- €450 million-€500 million capital expenditure
- Around €200 million of working capital outflow in 2021 excluding seasonal swings
- About €900 million of acquisitions net of disposals

Environmental, Social, And Governance

We see Lanxess' ESG-related exposure as similar to that of the broader industry. The company's exposure to the more sensitive product areas such as seeds and pesticides represents less than 10% of revenue. As of year-end 2020, Lanxess' environmental protection provisions mainly related to soil contamination and stood at a limited €179 million. At the same time, the company is investing in research and innovation to meet present sustainability demands in key areas, such as lightweight and electric mobility solutions, protection against diseases, and membranes for water purification, which we expect to be the main factors volume growth for the next few years.

Climate protection and energy efficiency are central to the company's sustainability strategy. Even before the Paris climate agreement, Lanxess had formulated concrete environmental goals. By 2030, the company aims to reduce its carbon dioxide (Scope 1 and 2) emissions by 50% versus 2018 levels. It significantly reduced its emissions of nonmethane volatile organic compounds, largely through the disposal of Arlanxeo in 2018. Lanxess recently set new targets to become carbon neutral by 2040.

From a governance standpoint, the company is fully in line with global best practices and our assessment is neutral to the rating. Some first- and second-level management variable compensation (below the board level) depends on the extent to which some ESG targets are achieved.

Issue Ratings - Subordination Risk Analysis

Capital structure

The majority of Lanxess' interest-bearing debt comprises senior unsecured bonds. All the debt is issued by the parent company. Lanxess issued one hybrid bond in 2016 with a first call date in 2023. Cash and cash equivalents of about €1.5 billion support the group's liquidity position as of March 31, 2021.

Analytical conclusions

We continue to align our issue ratings on Lanxess' senior unsecured debt with the issuer credit rating. With no material priority obligations ranking ahead of the group's senior unsecured obligations, we rate its senior unsecured debt 'BBB', the same as the issuer credit rating. We rate the subordinate hybrid bond 'BB+', two notches below the issuer credit rating, and assign it intermediate equity content.

Lanxess' hybrid capitalization ratio stood at 9.9% at end 2020, which indicates that the company has some flexibility to issue hybrids in case of acquisitions.

Ratings Score Snapshot

Issuer Credit Rating

BBB/Stable/A-2

Business risk: Satisfactory

- **Country risk:** Low
- **Industry risk:** Intermediate
- **Competitive position:** Satisfactory

Financial risk: Intermediate

- **Cash flow/leverage:** Intermediate

Anchor: bbb

Modifiers

- **Diversification/portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Strong (no impact)
- **Management and governance:** Satisfactory (no impact)
- **Comparable rating analysis:** Neutral (no impact)

Related Criteria

- General Criteria: Hybrid Capital: Methodology And Assumptions, July 1, 2019
- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria - Corporates - General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria - Corporates - Industrials: Key Credit Factors For The Specialty Chemicals Industry, Dec. 31, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- Principles Of Credit Ratings, Feb. 16, 2011

Business And Financial Risk Matrix

Business Risk Profile	Financial Risk Profile					
	Minimal	Modest	**Intermediate**	Significant	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	bbb	bb+	bb
Satisfactory	a/a-	bbb+	**bbb/bbb-**	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

Ratings Detail (As Of July 22, 2021)*

LANXESS AG	
Issuer Credit Rating	BBB/Stable/A-2
Senior Unsecured	BBB
Subordinated	BB+
Issuer Credit Ratings History	
09-Aug-2018	BBB/Stable/A-2
31-Jul-2017	BBB-/Stable/A-3
26-Sep-2016	BBB-/Negative/A-3

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.