Elkem ASA
Norway, Integrated Chemicals

SCOPE BBB STABLE

Key metrics

			Scope estimates	
Scope credit ratios	**2020**	**2021**	**2022E**	**2023E**
Scope-adjusted EBITDA/interest cover	11.5x	36.3x	45.9x	24.6x
Scope-adjusted debt /Scope-adjusted EBITDA	3.1x	0.5x	0.2x	1.1x
Scope-adjusted funds from operations/debt	25%	189%	507%	72%
Scope-adjusted free operating cash flow/debt	-2%	46%	210%	-17%

Rating rationale

Elkem's business risk profile, affirmed at BBB-, continues to reflect Elkem's position as an integrated player in the global silicone industry, strong cost position and good global footprint with 30 production plants worldwide. The company's cost position has provided a favourable tailwind in 2022 amid surging European power prices, as most of its European production facilities are in areas with lower-cost renewable energy sources. Lastly, we continue to deem Elkem's lower contribution of specialty-like products to sales and the higher share of cyclical end-markets sales as the main factors hampering the Elkem's business risk profile.

The financial risk profile, affirmed at BBB+, continues to be the strongest aspect of Elkem's overall assessment. The company's financial flexibility was reinforced in 2022 by record earnings and their impact on Scope-adjusted metrics. Going forward, Scope expects good but normalising metrics. This will be driven by the expectation of normalising EBITDA margins paired with high growth capex.

Regarding supplementary rating drivers, we continue to make no adjustment but highlight that financial policy and parent support remain the most important ones.

Outlook and rating-change drivers

The Stable Outlook assumes financial targets will be maintained, which should result in prudent growth ambitions and would keep Scope-adjusted debt/EBITDA in the 1-2x range in the medium term.

A positive rating action could be warranted if profitability improved and growth investments decreased, leading to positive and sustained free operating cash flow directed towards strengthening the balance sheet, exemplified by a Scope-adjusted debt/EBITDA sustained below 1.0x. In the long term, a positive rating action could also occur if overall business risks improved through a higher specialty chemicals exposure or an improved competitive position.

A negative rating action is possible if Scope-adjusted debt/EBITDA reached above 2.5x on a sustained basis due to a more aggressive growth strategy or tougher market conditions.

Rating history

Date	Rating action/monitoring review	Issuer rating & Outlook
21 December 2022	Affirmation	BBB/Stable
17 December 2021	New	BBB/Stable

[1] The credit rating(s) and outlook(s) provided in this document may not be shared with any unauthorised third party.

Ratings & Outlook

Issuer	BBB/Stable
Short-term debt	S-2
Senior unsecured debt	BBB

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Related Methodologies

Corporate Rating Methodology, July 2022

Rating Methodology: Chemical Corporates, April 2022

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Bloomberg: RESP SCOP

Positive rating drivers	Negative rating drivers
• Industry risk profile – integrated chemicals rated BBB • Strong cost position • Good global footprint • Broad application of silicone in many industries • Sound financial policy, showing willingness to issue equity to enable growth within its financial leverage targets • Healthy free operating cash flow, though expected weak/negative due to temporary high capex	• Moderate contribution of specialty-like products to sales • Cyclical end-markets, such as construction and transportation, accounting for more than 50% of sales • Relatively volatile Operating profitability (EBITDA margin) due to the strong orientation towards commodity products

Positive rating-change drivers	Negative rating-change drivers
• Scope-adjusted debt/EBITDA below 1.0x on sustained basis • Higher profitability and fewer strategic growth investments, generating positive and sustained free operating cash flow • Overall business risk factors improving by way of increased specialty chemical exposure or a general improved competitive position	• Scope-adjusted debt/EBITDA of above 2.5x on sustained basis • More aggressive growth strategy or tougher market conditions

Corporate profile

Elkem ASA is a fully integrated chemicals producer operating throughout the silicone value chain: from quartz, silicon and downstream silicone specialties, to specialty ferrosilicon alloys and carbon materials. In 2021, sales were about NOK 33bn, EBITDA was NOK 7.7bn and the Scope-adjusted EBITDA margin was 23%.

Elkem has three business divisions as of December 2022: Silicones (fully integrated silicone production); Silicon Products (silicon, ferrosilicon, foundry alloys, micro silica and related specialty products); and Carbon Solutions (electrode paste and specialty products supplied to the ferroalloy, silicon and aluminium industries). Products are sold to a wide range of industries and have various applications. In 2018, Elkem was re-listed on the Oslo Stock Exchange but remains majority-owned (52.9%) by Bluestar Elkem International Co. Ltd S.A. The latter itself is owned by the Chinese company Sinochem Holdings, a state-owned enterprise under the supervision of the SASAC[2].

[2] State-owned Assets Supervision and Administration Commission of the State Council

Financial overview

				Scope estimates	
Scope credit ratios	**2019**	**2020**	**2021**	**2022E**	**2023E**
Scope-adjusted EBITDA/interest cover	12.2x	11.5x	36.3x	45.9x	24.6x
Scope-adjusted debt/EBITDA	2.1x	3.1x	0.5x	0.2x	1.1x
Scope-adjusted funds from operations/debt	34%	25%	189%	507%	72%
Scope-adjusted free operating cash flow/debt	-6%	-2%	46%	210%	-17%
Scope-adjusted EBITDA in NOK m					
EBITDA	2,626	2,491	7,742	13,325	6,952
Operating lease payments	0	0	0	0	0
Other items	0	0	0	0	0
Scope-adjusted EBITDA	**2,626**	**2,491**	**7,742**	**13,325**	**6,952**
Funds from operations in NOK m					
Scope-adjusted EBITDA	2,626	2,491	7,742	13,325	6,952
less: (net) cash interest paid	-210	-211	-208	-285	-278
less: cash tax paid per cash flow statement	-559	-192	-423	-2,448	-1,038
add: dividends from associates	0	0	0	0	0
Change in provisions and other items	4	-140	-90	0	0
Funds from operations	**1,861**	**1,948**	**7,021**	**10,592**	**5,636**
Free operating cash flow in NOK m					
Operating cash flow	1,839	2,111	4,915	8,593	5,736
less: capital expenditure (net)	-2,082	-2,189	-3,097	-4,100	-7,000
less: operating lease payments	-78	-104	-100	-100	-100
Free operating cash flow	**-321**	**-182**	**1,718**	**4,393**	**-1,364**
Net cash interest paid in NOK m					
Net cash interest per cash flow statement	210	211	208	285	278
add: Other interest[3]	5	5	5	5	5
Net cash interest paid	**215**	**216**	**213**	**290**	**283**
Scope-adjusted debt in NOK m					
Reported gross financial debt	9,602	10,481	10,381	12,409	11,409
less: cash and cash equivalents	-4,496	-3,154	-7,041	-10,697	-3,961
add: non-accessible cash	0	0	0	0	0
add: pension adjustment	237	277	277	277	277
add: operating lease obligations	0	0	0	0	0
Other items[4]	101	100	100	100	100
Scope-adjusted debt	**5,444**	**7,704**	**3,717**	**2,089**	**7,825**

[3] Interest on asset retirement obligations
[4] Asset retirement obligations

Table of Content

Environmental, social and governance (ESG) profile[5]

Environment		Social		Governance	
Resource management (e.g. raw materials consumption, carbon emissions, fuel efficiency)		Labour management		Management and supervision (supervisory boards and key person risk)	
Efficiencies (e.g. in production)		Health and safety (e.g. staff and customers)		Clarity and transparency (clarity, quality and timeliness of financial disclosures, ability to communicate)	
Product innovation (e.g. transition costs, substitution of products and services, green buildings, clean technology, renewables)		Clients and supply chain (geographical/product diversification)		Corporate structure (complexity)	
Physical risks (e.g. business/asset vulnerability, diversification)		Regulatory and reputational risks		Stakeholder management (shareholder payouts and respect for creditor interests)	

Legend
Green leaf (ESG factor: credit positive)
Red leaf (ESG factor: credit negative)
Grey leaf (ESG factor: credit neutral)

ESG profile: No adjustment

Elkem is among the world's most environmentally friendly producers of silicon-based materials as renewable energy constitutes much of its energy consumption. The company is also investing in recycling and emissions reduction, exemplified by its joint venture in advanced battery materials producer Vianode. Its ESG strategy is also clear and transparent, focusing on reducing emissions over time. Still, Elkem, like others in its sector, emits greenhouse gasses in its production, limited by technological options. In sum, we acknowledge the company's efforts and performance, but make no adjustments for ESG factors, as we do not believe it will impact Elkem's credit rating in the medium term.

The broader megatrends related to environmental, social and governance factors come with both risks and opportunities for the chemicals sector. On the one hand, a stricter focus on emissions, waste, water stress and biodiversity is expected to pose a risk going forwards. On the other hand, this opens for opportunities for those companies that are considered overachievers, or for those developing cleaner technologies to effectively deal with said risks.

[5] These evaluations are not mutually exclusive or exhaustive as ESG factors may overlap and evolve over time. We only consider ESG factors that are credit-relevant, i.e. those that have a discernible, material impact on the rated entity's cash flow and, by extension, its credit quality.

Business risk profile: BBB-

Industry risk profile: BBB

Elkem as an integrated chemicals company faces high revenue and earnings cyclicality. We therefore assess the industry risk as BBB.

Integrated business model providing flexibility

Elkem's business risk profile, affirmed at BBB-, is supported by its strong market position despite a lack of dominance in the global silicone and silicon metal markets. This market position is mainly due to: i) its integrated business model, with two quartz mines in Norway and four in Spain, securing the company's raw materials needs for the next 30 years; ii) Elkem's acquisition by China's Bluestar in 2011 which helps its local market position, in tandem with low production costs as China holds the world's largest reserves of silicon metal and; iii) its aim to maximise capacity utilisation by extracting value at different stages in the value chain. For instance, it gives the company the ability to boost sales of silicone intermediates in the case of soft demand or changing raw material prices. This is considered a competitive advantage, as in parts of the silicone industry, a strong cost position is required due to the commodity-like features of the products. Lastly, Elkem's market position is further bolstered by its stable sector, which is consolidated and has high entry barriers.

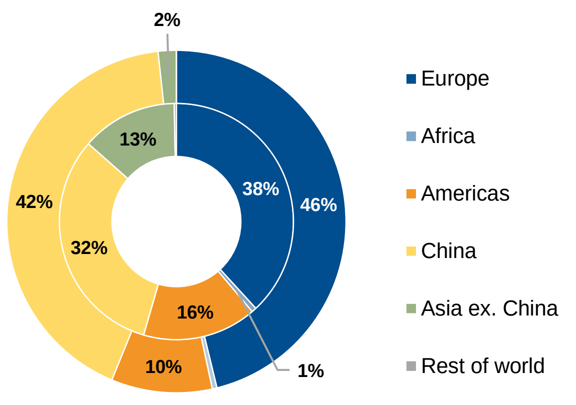
Good positions in big markets, leading positions in small or niche markets

Elkem is a global top-five silicone manufacturer and a top-three silicon metals manufacturer[6]. Elkem has the third-largest capacity in the world for silicone production. The company dominates niche markets such as electrode pastes (Carbon Solutions) used for steel (ferroalloys). Here, the company offers branded products including ELSEP, Elkem Søderberg electrode paste. Prices here are often negotiated with individual customer, and generally offer higher margins than the more commodity-like products offered by the company.

Highly self-sustained Chinese operations

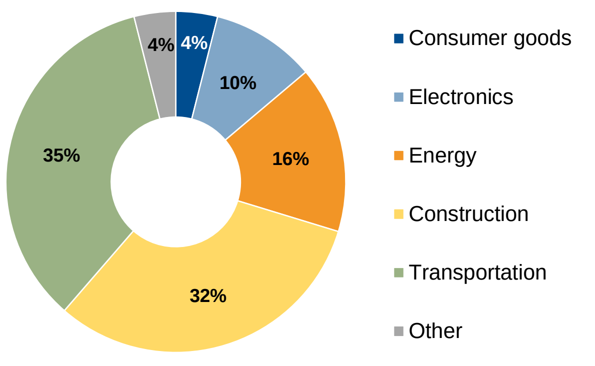
Tighter anti-dumping regulation in the US and the EU will have a limited impact on Elkem's Chinese operations, as its exports are mostly within Asia. Furthermore, Elkem's Chinese operations are highly self-sustained, with its own supply chains, financing and end-markets. Consequently, the company is less exposed to recently heightened geopolitical risk than the below geographical split would indicate.

Figure 1: Geographic overview, share of fixed assets (outer ring) and revenues (inner)



Source: Elkem, Scope

Figure 2: End-market overview



Source: Elkem, Scope

[6] Excluding China and China-based producers as presented at Elkem's Q3 2022 capital markets update

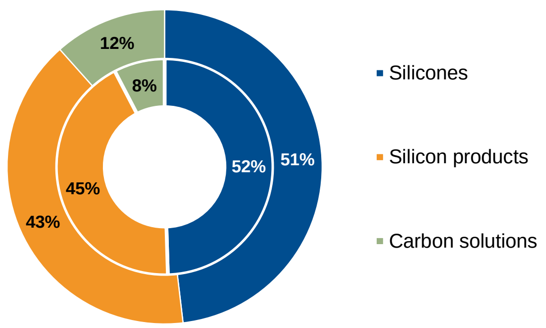
Good global footprint

Geographical diversification is satisfactory with production plants in 30 countries. Even the high concentration on China (around 32% of sales in 2021) is appropriate as the country is the world's largest market for silicones and offers low-cost production. The investment to increase capacity at the Xinghuo silicone plant in China will further strengthen sales.

High share of cyclical end-markets

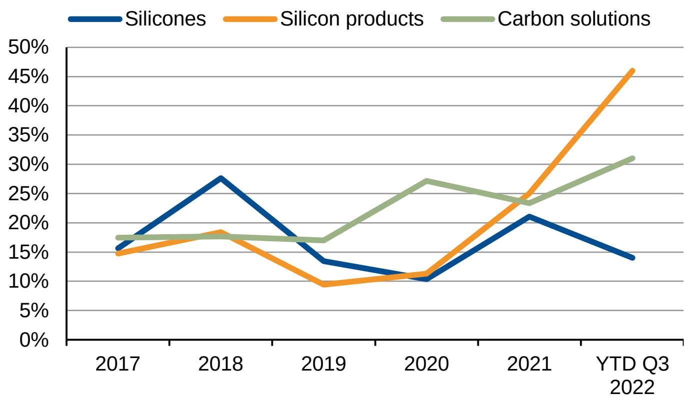
Elkem's portfolio diversification is considered sufficient for a silicone producer, but suffers from a moderate proportion of specialty-like products. This makes Elkem sensitive to a fall in commodity prices. Moreover, Elkem's portfolio is exposed to highly cyclical end-markets such as transportation and construction markets. The wide application of Elkem's products in many industries, in different quantities and at varying degrees of purity, mitigates these risks, but is ultimately insufficient to offset the industry's overall cyclicality.

Figure 3: Segment overview, 2019-2021 average share of EBITDA (outer ring) and revenues (inner)



Source: Elkem, Scope

Figure 4: Segment overview, EBITDA margins



Source: Elkem, Scope

We focus on the through-the-cycle EBITDA margin when assessing profitability and operating efficiency.

Surging European energy prices is favourable to profitability

Performance in 2021 and so far in 2022 has been above the historical average of a 15% EBITDA margin between 2013 and 2021. This can be largely attributed to favourable market conditions driven by supply shortages in 2018 and then surging European energy prices in 2021 and YTD 2022. These conditions enable the company to leverage its integrated production and favourable cost structure. The latter is driven by most of its European production facilities being in areas with lower-cost renewable energy sources, enabling Elkem to adjust production during times of low supply, at a lower than industry-average marginal cost, greatly improving profitability.

However, this is unlikely to continue beyond 2022, leading to a gradual normalisation of profitability, albeit above the historical average. Our expectation is based on Elkem's clear, capex-supported strategy, geared towards bolstering its profitability by increasing its upstream offering.

Still, we acknowledge that Elkem's historical EBITDA margins have been lower than that of major competitors within Silicones. This is mainly due to: i) the lower EBITDA contribution of specialty products; ii) the simpler production processes and weaker cost structures of products such as ferrosilicon; and iii) the generally higher costs in Norway.

Financial risk profile: BBB+

The financial risk profile, affirmed at BBB+, continues to be the strongest aspect of Elkem's overall assessment. The company's financial flexibility was reinforced in Q3 2022 by record-high earnings and their impact on Scope-adjusted metrics. Going forward, we expect normalising but good metrics. This will be driven by the expectation of normalising EBITDA margins paired with high growth capex.

Key adjustments

Key adjustments for our updated rating case include:

- Net present value of operating lease obligations added to Scope-adjusted debt (pre-2019 as Elkem implemented IFRS 16 on 1 January 2019)
- Scope-adjusted debt includes 80% of provisions for site restoration and environmental measures (contingent liabilities) and restricted deposits (collateral to bills payable)
- Scope-adjusted interest expense includes 5% of asset retirement obligations to reflect the interest proportion of these liabilities
- Interest adjusted for estimated interest component of operating leases when relevant

Expected 2022 top line and EBITDA well above historical averages

For 2022, we estimate NOK 45bn of sales and NOK 13bn of EBITDA, following the Q3 2022 figures of respectively NOK 36bn and NOK 11bn. This will be based on the lower momentum in silicones in Q4 already observed in Q3, paired with continued good performance in Silicon Products and Carbon Solutions. In sum, we expect a full-year 2022 top line growth of 36%, and an EBITDA margin of close to 30%.

Expect normalised EBITDA margins from 2023 and onwards

For 2023 and beyond, we expect the market for ferrosilicon and commodity-like silicones to normalise, after strong levels in 2021 and 2022. Additionally, we see decreasing demand from some sectors (steel, construction) in the short-to-medium term. Lastly, the cost advantages from Elkem's renewable energy sources will decrease as European energy prices normalise in the medium term. Hence, we see Elkem's profitability as slightly weaker from 2023 and onwards, despite support from the scheduled start-up of the capacity increases at Elkem's Roussillon (France) and Xinghuo (China) sites.

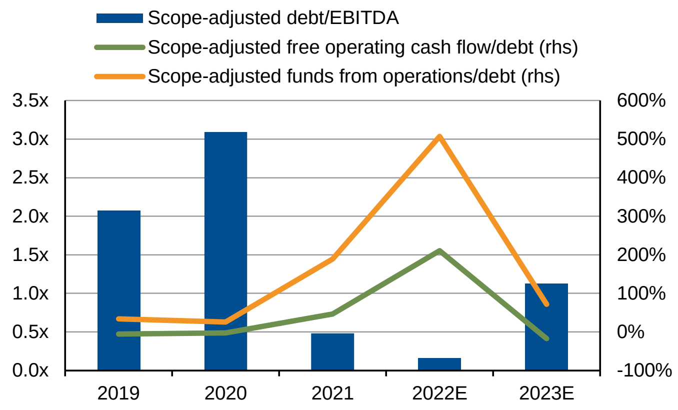
Expected high net capex in the medium-term, but discretionary to some degree

Elkem's growth strategy involves large investments in the next few years, with net capex estimated to be around 50% higher in the medium term than in 2021. This includes the ongoing NOK 3.8bn investment to expand the Xinghuo silicones plant in China, aimed at strengthening its position in the silicones market, supporting its specialisation strategy and improving the overall cost position and environmental profile. Also forecasted is ordinary maintenance capex and smaller bolt-on acquisitions. We consider the latter highly likely, as exemplified by the company's recent acquisition of Belgian refractories company KeyVest. Lastly, we note that most of the capex will be growth-related and to a degree discretionary.

Dividends expected to be maintained in the middle of the target range

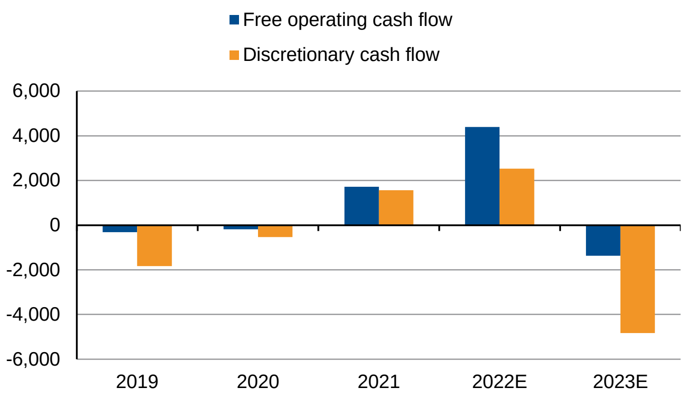
As indicated by NOK 1.9bn in dividends paid in 2022 (based on 2021 results), we also expect Elkem to pay dividends at above historical average but in the mid-range of its stated dividend policy (30%-50% of net income).

Figure 5: Key credit metrics



Source: Elkem, Scope estimates

Figure 6: Free operating and discretionary cash flow (NOK m)



Source: Elkem, Scope estimates

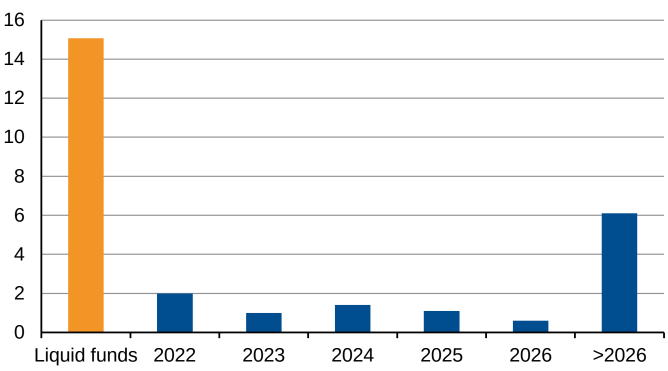
Continued good leverage metrics

Based on the above assumptions, we expect leverage to be very low at end-2022, before returning to the lower end of the 1-2x range in the medium term. The improved profitability is expected to help the company manage its higher capex without jeopardising its balance sheet.

Capex to put downwards pressure on free operating cash flow

Historically, Elkem has been able to fund reinvestment capex through internally generated cash flow, with acceptable margins. However, the addition of strategic investments has led to negative free operating cash flow in recent years. This is likely to occur again once the extraordinary conditions in 2022 subside, turning free operating cash flow negative towards the end of our forecast. This makes cash flow cover the weakest element in the financial risk profile. Still, we note the discretionary nature of the strategic investments, and generally consider Elkem's cash flow as healthy.

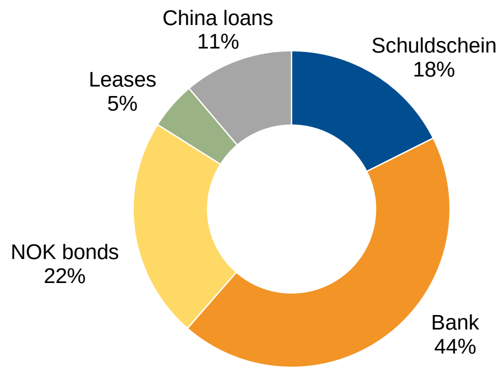
Figure 6: Q3 2022, maturity profile (NOK m)*



Source: Elkem, Scope

*Liquid funds includes cash and cash equivalents as of Q3 2022 and the company's EUR 500m RCF

Figure 7: Q3 2022, funding mix



Source: Elkem, Scope

Diversified funding structure

Elkem has a good and diversified funding mix and a long maturity profile. Elkem signed a new loan facility agreement of EUR 1,000m in Q2 2022, consisting of a EUR 500m revolving credit facility and a EUR 500m term loan maturing in five years. The revolving credit facility has two one-year extension options, which Elkem will likely use. In aggregate, this move contributed to prolonging the company's maturity profile and increasing its short-term funding capabilities. The company also has bank financing and Schuldschein loans. Elkem's Chinese entities use acceptance bills, most with a duration of below six months. These bills are documents with which the buyer formally agrees to pay for purchased goods or services at the maturity date and are normally guaranteed by a financial institution. Elkem is also recognising lease liabilities on the balance sheet, included in interest-bearing debt and measured at net present value in accordance with IFRS.

Figure 8: Liquidity

Balance in NOK m	2021	2022E	2023E
Unrestricted cash (t-1)	3,154	7,041	10,697
Open committed credit lines (t-1)	4,916	2,500	5,235
Free operating cash flow	1,718	4,393	-1,364
Short-term debt (t-1)	3,292	1,972	4,500
Coverage	**>200%**	**>200%**	**>200%**

Sources: Elkem, Scope

Liquidity: adequate

Liquidity continues to be adequate as shown in Figure 8. Both internal and external liquidity coverage continue to be more than sufficient, despite the negative free operating cash flow.

Supplementary rating drivers: +/- 0 notches

No adjustment

Regarding supplementary rating drivers, financial policy and parent support remain the most important. Our assessment has not resulted in adjustments to the standalone rating.

Sound financial policy

Elkem's financial policy remains sound. The most important leverage ratio in the analysis, net interest-bearing debt/EBITDA, is forecast to remain within 1.0x and 2.0x over the economic cycle, while the dividend payout ratio will remain within 30%-50% of group profits.

No adjustment for ownership and parent support

Although we recognise the indirect state ownership of Elkem, we have made no rating uplift for parent support, as the ChemChina/Sinochem holding company's standalone credit assessment is weaker than Elkem's. Still, we believe Bluestar would support Elkem as much as possible if really needed, and do not expect the ownership to go below 50%.

Long-term and short-term debt ratings

Short-term rating: S-2

The S-2 short-term rating still reflects the company's sufficient short-term internal and external debt coverage paired with good access to banks, as well as equity and debt markets. Currently, Elkem has five outstanding NOK bonds as well as several senior unsecured Schuldschein loans issued at fixed and floating rates.

Rating for unsecured debt: BBB

The senior unsecured rating is in line with the issuer rating, with Elkem ASA also being the bond-issuing entity.

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