

# L'Air Liquide S.A.

December 15, 2023

## Ratings Score Snapshot

Business risk: **Excellent**

Vulnerable ————— Excellent

Financial risk: **Intermediate**

Highly leveraged ————— Minimal

a+ — a — a

Anchor — Modifiers — Group/  
government

**A/Stable/A-1**

**Issuer credit rating**

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## Credit Highlights

### Overview

#### Key strengths

Leading global player in the industrial gases sector, with supportive market fundamentals.

Highly resilient activity and profitability, benefiting from long-term contracts with take-or-pay clauses and exposure to stable sectors, including health care.

Strong diversification by geography and end-markets.

High profitability, with EBITDA margins expected to be above 26%, and a track record of achieving efficiency targets and realizing synergies.

Supportive financial leverage management since the Airgas acquisition in 2016.

#### Key risks

Marginal variability in revenue growth linked to regional economic changes, cyclicality of some markets, and currency exposure.

Fairly high capital expenditure (capex), including for significant growth projects, especially to accelerate the energy transition.

A shareholder-friendly, but predictable, dividend policy.

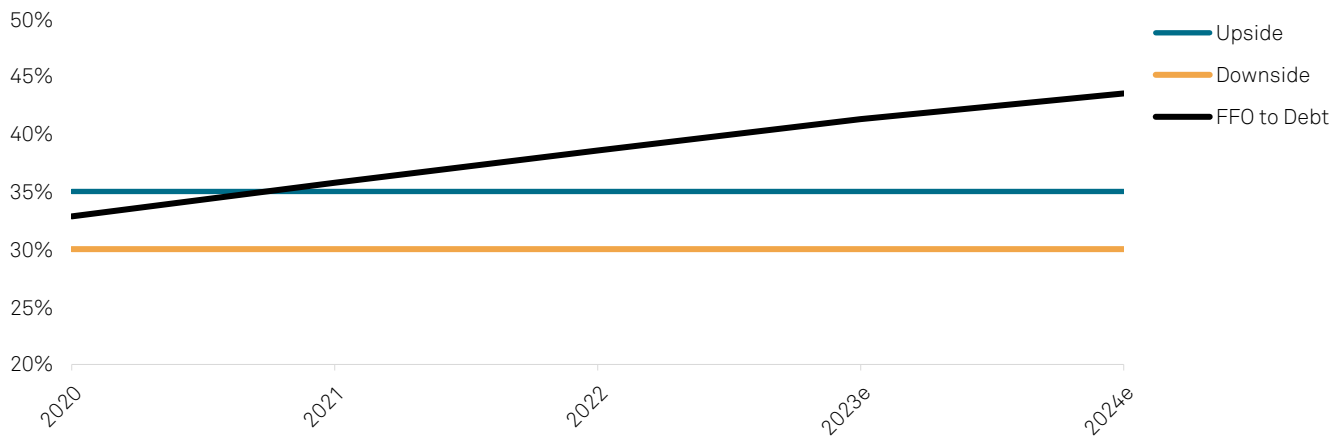
Acquisitive track record, including continued bolt-ons; although limited potential for larger acquisitions.

**L’Air Liquide’s core business remains resilient, as demonstrated by EBITDA margins above 26% and a backlog worth €4.2 billion.** The company’s revenues weakened in the first nine months of 2023, primarily driven by lower energy prices and unfavorable exchange rates. Consequently, we expect its revenues to decrease by 6.3% in 2023. However, L’Air Liquide’s market position remains strong and its core business robust. Therefore, the strength of the business combined with efficiencies (€320 million by third-quarter 2023) and dynamic pricing will increase EBITDA to €7.4 billion-€8.5 billion and move the EBITDA margin above 26% between 2023 and 2025.

**The company’s commitment to the green energy transition will lead to historically high investments, peaking in 2024.** L’Air Liquide’s capex, estimated at €3 billion-€5 billion per year during 2023-2025, will accelerate its renewable energy transition. The company is expected to make large investments in hydrogen technologies and electronics, for example by investing around €8 billion in the low-carbon hydrogen value chain by 2035. The company estimates that more than 40% of its €3.4 billion in investment opportunities (as of third-quarter 2023) is energy transition related.

**Management is committed to maintaining credit quality corresponding to an 'A' rating.** L’Air Liquide’s financial management is considered supportive, as shown by funds from operations (FFO) to debt of above 40% in 2023-2025. While the company’s leverage ratio has sound headroom (the threshold being 30%), we have not raised the rating as we believe the company will use its earnings to distribute dividends (€1.5 billion-€2.0 billion per year) and make large capital investments and bolt-on acquisitions. Consequently, we expect the credit metrics will remain commensurate with an 'A' rating.

**L’Air Liquide Has Ample Ratings Headroom And Is Committed To Sustaining Credit Quality In Line With The 'A' Rating.**



Source: S&P Global Ratings.

Outlook

The stable outlook reflects our view of L’Air Liquide’s resilient business and prudently balanced capital spending, acquisitions, divestitures, and shareholder distributions, which should see its

credit metrics remain commensurate with our 'A' rating, including FFO to debt of at least 30% on average.

## Downside scenario

We could lower the rating if the group adopts a more aggressive or shareholder-friendly financial policy, leading to increased leverage. Specifically, we would consider a downgrade if adjusted FFO to debt falls below 30% without the prospect of a rebound.

## Upside scenario

We could consider an upgrade if adjusted FFO to debt remained sustainably above 35%, and management committed to maintaining it at this level

## Our Base-Case Scenario

### Assumptions

- Revenue decline of 6%-7% in 2023 before improving to revenue growth of about 5%-6% in 2024.
- S&P Global Ratings-adjusted EBITDA margin to remain about 26%-27% in 2023 and 2024.
- Capex of €3.7 billion-€4.5 billion in 2023 and 2024, driven by growth projects such as increasing hydrogen capacity.
- Working capital outflows of €150 million-€200 million in 2023, driven by cost inflation.
- Modestly growing dividend distributions, with a 55% payout ratio.

## Key metrics

### L'Air Liquide S.A.--Forecast summary

Period ending (Mil. EUR)	Dec-31-2019	Dec-31-2020	Dec-31-2021	Dec-31-2022	Dec-31-2023	Dec-31-2024	Dec-31-2025	Dec-31-2026
	2019a	2020a	2021a	2022a	2023e	2024f	2025f	2026f
Revenue	21,920	20,485	23,335	29,934	28,046	29,441	31,211	32,896
Gross profit	21,920	20,485	23,335	29,934	28,262	29,805	31,786	32,996
EBITDA (reported)	5,729	6,107	6,183	7,153	7,321	7,822	8,482	8,434
Plus: Operating lease adjustment (OLA) rent	--	--	--	--	--	--	--	--
Plus/(less): Other	77	(334)	63	(473)	49	49	49	49
EBITDA	5,806	5,773	6,246	6,681	7,369	7,871	8,530	8,482
Less: Cash interest paid	(310)	(327)	(274)	(319)	(418)	(406)	(409)	(406)
Less: Cash taxes paid	(734)	(747)	(809)	(910)	(1,141)	(1,238)	(1,355)	(1,458)
Plus/(less): Other	--	--	--	--	--	--	--	--
Funds from operations (FFO)	4,763	4,700	5,163	5,452	5,810	6,227	6,766	6,618
EBIT	3,651	3,611	4,048	4,231	4,805	5,171	5,630	6,026
Interest expense	494	461	376	422	434	422	425	422

**L'Air Liquide S.A.--Forecast summary**

Cash flow from operations (CFO)	4,326	4,955	4,969	5,333	5,679	6,361	6,740	6,541
Capital expenditure (capex)	2,591	2,595	2,880	3,224	3,751	4,451	4,151	4,201
Free operating cash flow (FOCF)	1,735	2,359	2,089	2,109	1,929	1,911	2,589	2,340
Dividends	1,237	1,387	1,418	1,487	1,650	1,750	1,950	--
Share repurchases (reported)	179	50	40	192	--	--	--	--
Discretionary cash flow (DCF)	319	923	631	431	279	161	639	2,340
Debt (reported)	13,299	12,304	12,620	12,096	11,300	11,395	11,252	11,119
Plus: Lease liabilities debt	1,331	1,188	1,261	1,280	1,299	1,319	1,339	1,359
Plus: Pension and other postretirement debt	1,271	1,173	1,030	737	737	737	737	737
Less: Accessible cash and liquid Investments	(926)	(1,691)	(2,147)	(1,811)	(1,023)	(900)	(900)	(2,562)
Plus/(less): Other	1,402	1,335	1,675	1,839	1,762	1,762	1,762	1,762
Debt	16,377	14,307	14,439	14,141	14,076	14,314	14,190	12,415
Equity	19,324	19,005	21,999	24,572	26,260	28,129	30,136	34,390
FOCF (adjusted for lease capex)	1,585	2,208	1,916	1,961	1,663	1,645	2,324	2,075
Interest expense (reported)	421	409	328	357	369	356	359	356
Capex (reported)	2,636	2,630	2,917	3,273	3,800	4,500	4,200	4,250
Cash and short-term investments (reported)	1,026	1,791	2,247	1,911	1,123	1,000	1,000	2,662
<b>Adjusted ratios</b>								
Debt/EBITDA (x)	2.8	2.5	2.3	2.1	1.9	1.8	1.7	1.5
FFO/debt (%)	29.1	32.8	35.8	38.6	41.3	43.5	47.7	53.3
FFO cash interest coverage (x)	16.4	15.4	19.8	18.1	14.9	16.3	17.5	17.3
EBITDA interest coverage (x)	11.8	12.5	16.6	15.8	17.0	18.7	20.1	20.1
CFO/debt (%)	26.4	34.6	34.4	37.7	40.3	44.4	47.5	52.7
FOCF/debt (%)	10.6	16.5	14.5	14.9	13.7	13.3	18.2	18.8
DCF/debt (%)	1.9	6.5	4.4	3.0	2.0	1.1	4.5	18.8
Lease capex-adjusted FOCF/debt (%)	9.7	15.4	13.3	13.9	11.8	11.5	16.4	16.7
Annual revenue growth (%)	4.3	(6.5)	13.9	28.3	(6.3)	5.0	6.0	5.4
Gross margin (%)	100.0	100.0	100.0	100.0	100.8	101.2	101.8	100.3
EBITDA margin (%)	26.5	28.2	26.8	22.3	26.3	26.7	27.3	25.8
Return on capital (%)	10.4	10.5	11.6	11.3	12.2	12.5	13.0	13.2
Return on total assets (%)	8.2	8.2	8.9	8.5	9.3	9.8	10.2	10.4
EBITDA/cash interest (x)	18.7	17.7	22.8	20.9	17.6	19.4	20.9	20.9
EBIT interest coverage (x)	7.4	7.8	10.8	10.0	11.1	12.3	13.3	14.3
Debt/debt and equity (%)	45.9	42.9	39.6	36.5	34.9	33.7	32.0	26.5
Debt fixed-charge coverage (x)	11.8	12.5	16.6	15.8	6.0	12.5	14.1	15.3
Debt/debt and undepreciated equity (%)	45.9	42.9	39.6	36.5	34.9	33.7	32.0	26.5

All figures are adjusted by S&P Global Ratings, unless stated as reported. a--Actual. e--Estimate. f--Forecast. EUR--euro.

**We anticipate ongoing higher capex in our forecast years.** The group is continuing to deploy its energy transition strategy, particularly with investment decisions concerning new low-carbon green projects and renewable industrial gas production units specifically to triple its hydrogen sales as part of becoming carbon neutral by 2050. It will increase its expenditure-to-sales ratio to about 13%-15% in the next couple of years.

**We forecast that L'Air Liquide will continue to post FOCF of about €1.9 billion-€2.0 billion over 2023-2024.** We also estimate it will achieve a cash conversion of around 30%, despite

higher capex. This reflects both continued discipline in inventory management and receivables collections, with a focus on energy efficiency and emissions reduction.

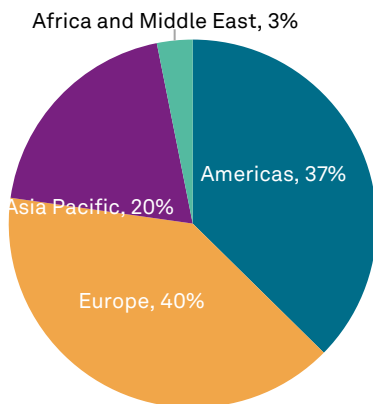
**In our view, the group's comfortable rating headroom will be supported by its prudent financial policy despite the weak macroeconomic environment and higher capex.** We see limited risk of larger acquisitions due to the concentration of players in the sector. Therefore, with steady volumes and pricing in its industrial merchant segments, along with continued solid results in its electronics segments, we anticipate S&P Global Ratings-adjusted FFO to debt leverage will remain comfortably above 35% for 2023 and 2024.

## Company Description

L'Air Liquide is one of the largest industrial gas suppliers worldwide with a presence in 73 countries and about 67,100 employees. About 95% of its 2022 sales came from its gas and services segment (split into four business lines--large industries, industrial merchant, health care, and electronics), and the remainder from engineering and construction, and global market and technologies. Its industrial gas products include oxygen and nitrogen produced in air-separation units, and hydrogen and carbon monoxide produced in steam methane reformers. These are sold to metals, chemicals, oil refining, and electronics companies, as well as in the health care, food processing, and aerospace markets.

In the nine months to Sept. 30, 2023, the company generated revenue of about €20,791 million, about 96% of which came from its gas and services segment. L'Air Liquide generated around 39% of gas and services revenue from the Americas, 37% from Europe, 21% from Asia Pacific, and the rest from Africa and the Middle East. L'Air Liquide is publicly listed and has a diverse shareholding structure. On Nov. 7, 2023, it had a market capitalization of about €85.2 billion.

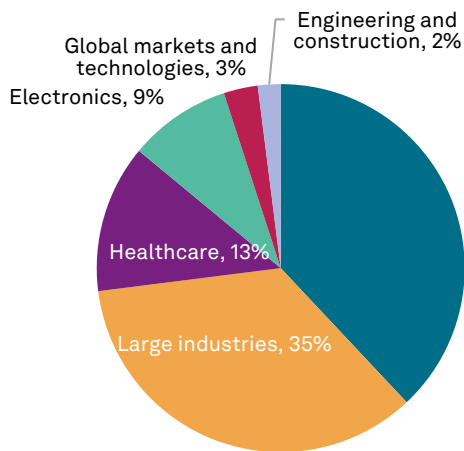
### L'air Liquide Gas And Services 2022 Revenue By Region



Source: L'air Liquide Annual Report 2022 and S&P Global Ratings.

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L'air Liquide Group 2022 Revenue By Business Line

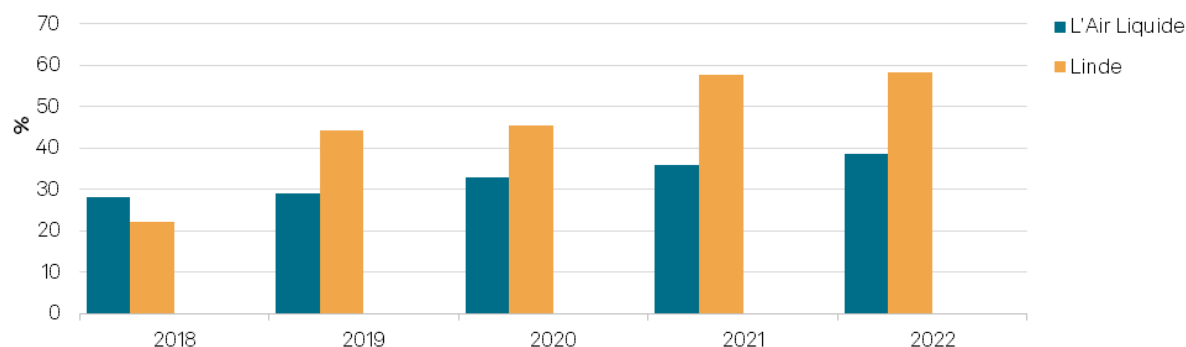


Source: L'air Liquide Annual Report 2022 and S&P Global Ratings.  
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Peer Comparison

We compare L’Air Liquide with Linde PLC and Air Products and Chemicals Inc. All three have an 'A' long-term rating. L’Air Liquide's scale is larger than Air Products and comparable with Linde. Though L’Air Liquide has lower profitability than Linde and Air Products, we view its margins as resilient and less volatile, as well as above-average compared with the wider chemicals sector.

## L'Air Liquide Has A Lower FFO to Debt Ratio Than Linde Due To The Latter's Stronger Profit Margins



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## L'Air Liquide S.A.--Peer Comparisons

	L'Air Liquide S.A.	Linde PLC	Air Products and Chemicals Inc.
Foreign currency issuer credit rating	A/Stable/A-1	A/Stable/A-1	A/Stable/A-1
Local currency issuer credit rating	A/Stable/A-1	A/Stable/A-1	A/Stable/A-1
Period	Annual	Annual	Annual
Period ending	2022-12-31	2022-12-31	2023-09-30
Mil.	EUR	EUR	EUR
Revenue	29,934	31,218	11,905
EBITDA	6,681	9,481	4,340
Funds from operations (FFO)	5,452	7,617	3,480
Interest	422	283	318
Cash interest paid	319	241	251
Operating cash flow (OCF)	5,333	8,478	3,006
Capital expenditure	3,224	2,911	4,262
Free operating cash flow (FOCF)	2,109	5,567	(1,256)
Discretionary cash flow (DCF)	431	(1,462)	(2,779)
Cash and short-term investments	1,911	5,086	1,842
Gross available cash	1,911	5,086	1,842
Debt	14,141	13,067	9,201
Equity	24,572	38,725	14,797
EBITDA margin (%)	22.3	30.4	36.5

**L'Air Liquide S.A.--Peer Comparisons**

Return on capital (%)	11.3	10.2	15.0
EBITDA interest coverage (x)	15.8	33.5	13.7
FFO cash interest coverage (x)	18.1	32.6	14.9
Debt/EBITDA (x)	2.1	1.4	2.1
FFO/debt (%)	38.6	58.3	37.8
OCF/debt (%)	37.7	64.9	32.7
FOCF/debt (%)	14.9	42.6	(13.6)
DCF/debt (%)	3.0	(11.2)	(30.2)

## Business Risk

We generally view the industrial gases business as more resilient than specialty chemicals. We therefore consider L'Air Liquide's earnings and cash flows to be more resilient and stable than average. We place a strong emphasis on this aspect of the business when analyzing the group's profitability and financial metrics. Consequently, we view its EBITDA and profit margins as less volatile than those of most rated peers in the chemicals sector. This is a key consideration in our assessment of the group's competitive position as excellent.

L'Air Liquide is a leading player in its market worldwide, a market we view as fairly consolidated and benefiting from significant barriers to entry in terms of capital intensity of the asset base, economies of scales, and technological know-how. The group benefits from superior end-market and geographic diversity, with a balanced footprint across all regions. The various business segments also provide diversity from partly uncorrelated end-markets. In addition, the business' most capital-intensive portion--the large industries segment, which generates a significant portion of group revenue, notably in Asia and Europe--benefits from long-term contracts, energy cost pass-through clauses, and minimum offtake volumes. Similarly, we view the health care business as bringing stability and growth prospects to the group's revenue and earnings, supported by aging populations in developed markets and rising incomes in developing economies.

Growth factors remain a key consideration in this highly consolidated market, in our view, where base business activity might show modest sensitivity to economic conditions, justifying the relatively high investment needs to develop the business. The investment opportunities portfolio remains large, as does the investment backlog, showing high market activity and dynamic bidding on small and midsize projects in a relatively competitive market.

L'Air Liquide also expects capex to increase, with capex to sales reaching about 13%-15% over the medium term. Most of the capital spending will be on eligible green projects (mainly to increase hydrogen sales by 3x and help the group become carbon neutral by 2050). We view its generally high growth and the size of its capex as potential credit risks; this is partially offset by long-term off-take contracts for these growth projects, reflecting that the company builds these plants in collaboration with customers.

We view L'Air Liquide's profitability as above average for the wider chemicals sector, which is another key strength for our assessment of the business. This is linked to typical market conventions regarding contracts and pricing mechanisms, combined with the group's strong emphasis on cost management.

L'Air Liquide has raised its targeted total cost savings under its ADVANCE program to €400 million annually. The group achieved efficiencies of €320 million in the first nine months of 2023, €378 million in 2022 (€430 million in FY2021), mainly from investing in projects such as energy efficiency in the large industries segment. We expect the group will continue to achieve its



target of €400 million in saving per year, driven by the accelerating rollout of remote operation centers for the large industries production units, new optimization tools for delivery routes in the industrial merchant segment, continuing efficiencies related to purchases, in particular at Airgas, and strong pricing policy and business portfolio management.

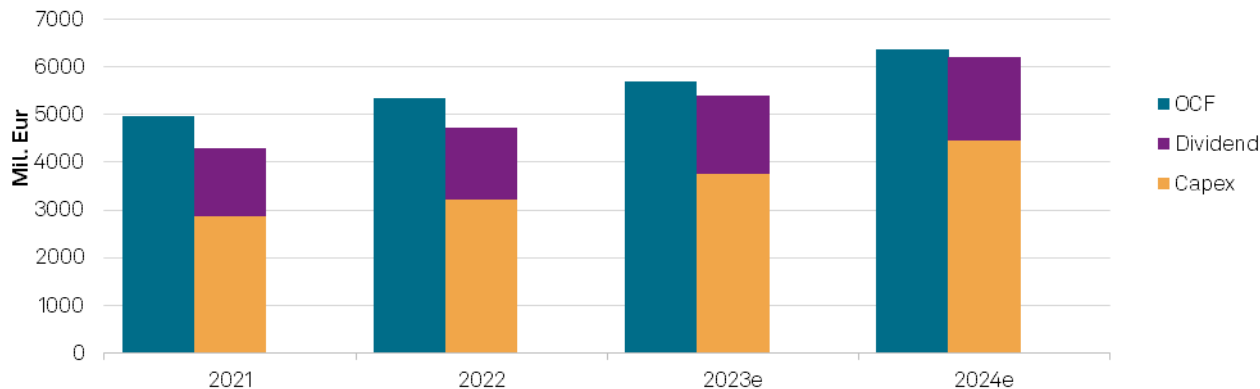
## Financial Risk

We view L’Air Liquide’s financial risk as intermediate, reflecting the stability of its earnings and cash flows. Following the Airgas acquisition in 2016, the group’s credit metrics recovered, based on solid operating performance and prudent financial policy.

We expect the company’s revenues to weaken in 2023 driven by unfavorable energy prices and exchange rates. Consequently, we expect its revenues to decrease by 6.3% in 2023. However, L’Air Liquide’s market position remains strong and its core business robust. This is supported by its global breadth of coverage; defensive revenue streams protected by long-term offtake contracts or generated in resilient end-markets; focus on increasing pricing, cost reductions, and efficiency benefits; and its high-quality backlog and take-or-pay arrangements with various customers.

Despite L’Air Liquide’s larger capex requirement of €3.0 billion-€5.0 billion and sizable dividends of about €1.5 billion-€2.0 billion per year in 2023-2024, we believe the company will continue to generate positive discretionary cash flow during the period. Moreover, with limited risk of larger mergers and acquisitions (due to the concentration in the sector) and management’s prudent financial policy regarding dividends and share buybacks, adjusted FFO to debt will remain substantially above 30%.

### L’Air Liquide Will Generate Positive Discretionary Cash Flows Despite Higher Capex



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## Debt maturities

### L’Air Liquide--Debt Maturity Profile

	Bonds and private placements	Commercial paper programs	Bank debt, overdraft and other financial debt	Put options granted to minority shareholders	Total
<b>As of Dec. 31, 2022 (Mil. €)</b>					
<b>2023</b>	<b>1206.9</b>	<b>130.6</b>	<b>665.1</b>	<b>1.3</b>	<b>2003.9</b>
<b>2024</b>	<b>1,186</b>		<b>208.8</b>	<b>46.9</b>	<b>1441.4</b>
<b>2025</b>	<b>1,099</b>		<b>182.1</b>	<b>11.1</b>	<b>1291.7</b>
<b>2026</b>	<b>1318.4</b>		<b>133.1</b>	<b>1.8</b>	<b>1453.3</b>
<b>2027</b>	<b>690.3</b>		<b>145.9</b>		<b>836.2</b>
<b>2028</b>	<b>995</b>		<b>50.3</b>		<b>1045.6</b>
<b>2029</b>	<b>563.9</b>		<b>31.3</b>		<b>595.2</b>
<b>2030</b>	<b>1,091</b>		<b>1.5</b>		<b>1092.2</b>
<b>After 2030</b>	<b>2,390</b>		<b>7.4</b>		<b>2397.4</b>

## L'Air Liquide S.A.--Financial Summary

Period ending	Dec-31-2017	Dec-31-2018	Dec-31-2019	Dec-31-2020	Dec-31-2021	Dec-31-2022
Reporting period	2017a	2018a	2019a	2020a	2021a	2022a
Display currency (mil.)	EUR	EUR	EUR	EUR	EUR	EUR
Revenues	20,349	21,011	21,920	20,485	23,335	29,934
EBITDA	5,213	5,427	5,806	5,773	6,246	6,681
Funds from operations (FFO)	4,029	4,464	4,763	4,700	5,163	5,452
Interest expense	595	463	494	461	376	422
Cash interest paid	626	288	310	327	274	319
Operating cash flow (OCF)	4,278	4,119	4,326	4,955	4,969	5,333
Capital expenditure	2,116	2,193	2,591	2,595	2,880	3,224
Free operating cash flow (FOCF)	2,162	1,926	1,735	2,359	2,089	2,109
Discretionary cash flow (DCF)	904	628	319	923	631	431
Cash and short-term investments	1,656	1,726	1,026	1,791	2,247	1,911
Gross available cash	1,656	1,726	1,026	1,791	2,247	1,911
Debt	16,162	15,968	16,377	14,307	14,439	14,141
Common equity	16,718	18,207	19,324	19,005	21,999	24,572
<b>Adjusted ratios</b>						
EBITDA margin (%)	25.6	25.8	26.5	28.2	26.8	22.3
Return on capital (%)	9.5	10.2	10.4	10.5	11.6	11.3
EBITDA interest coverage (x)	8.8	11.7	11.8	12.5	16.6	15.8
FFO cash interest coverage (x)	7.4	16.5	16.4	15.4	19.8	18.1
Debt/EBITDA (x)	3.1	2.9	2.8	2.5	2.3	2.1
FFO/debt (%)	24.9	28.0	29.1	32.8	35.8	38.6
OCF/debt (%)	26.5	25.8	26.4	34.6	34.4	37.7

## L'Air Liquide S.A.--Financial Summary

FOCF/debt (%)	13.4	12.1	10.6	16.5	14.5	14.9
DCF/debt (%)	5.6	3.9	1.9	6.5	4.4	3.0

## Reconciliation Of L'Air Liquide S.A. Reported Amounts With S&amp;P Global Adjusted Amounts (Mil. EUR)

Financial year	Dec-31-2022	Debt	Shareholder Equity	Revenue	EBITDA	Operating income	Interest expense	S&PGR adjusted EBITDA	Operating cash flow	Dividends	Capital expenditure
Company reported amounts		12,096	23,736	29,934	7,153	4,291	357	6,681	5,810	1,487	3,273
Cash taxes paid		-	-	-	-	-	-	(910)	-	-	-
Cash interest paid		-	-	-	-	-	-	(270)	-	-	-
Trade receivables securitizations		1,567	-	-	-	-	-	-	(172)	-	-
Lease liabilities		1,280	-	-	-	-	-	-	-	-	-
Postretirement benefit obligations/deferred compensation		737	-	-	(4)	(4)	9	-	-	-	-
Accessible cash and liquid investments		(1,811)	-	-	-	-	-	-	-	-	-
Capitalized interest		-	-	-	-	-	49	(49)	(49)	-	(49)
Share-based compensation expense		-	-	-	37	-	-	-	-	-	-
Dividends from equity investments		-	-	-	14	-	-	-	-	-	-
Asset-retirement obligations		195	-	-	-	-	7	-	-	-	-
Nonoperating income (expense)		-	-	-	-	67	-	-	-	-	-
Reclassification of interest and dividend cash flows		-	-	-	-	-	-	-	(256)	-	-
Noncontrolling/minority interest		-	836	-	-	-	-	-	-	-	-
Debt: Put options on minority stakes		77	-	-	-	-	-	-	-	-	-
EBITDA - Gain/(loss) on disposals of PP&E		-	-	-	(519)	(519)	-	-	-	-	-
D&A: Impairment charges/(reversals)		-	-	-	-	396	-	-	-	-	-
Total adjustments		2,045	836	-	(473)	(61)	65	(1,229)	(478)	-	(49)
<b>S&amp;P Global Ratings adjusted</b>		<b>Debt</b>	<b>Equity</b>	<b>Revenue</b>	<b>EBITDA</b>	<b>EBIT</b>	<b>Interest expense</b>	<b>Funds from Operations</b>	<b>Operating cash flow</b>	<b>Dividends</b>	<b>Capital expenditure</b>
		14,141	24,572	29,934	6,681	4,231	422	5,452	5,333	1,487	3,224

## Liquidity

We view L'Air Liquide's liquidity as adequate because we expect liquidity sources to exceed liquidity needs by 1.2x over the 12 months from Oct. 1, 2023. In addition, L'Air Liquide exhibits strong credit characteristics such as well-established and solid relationships with its banks, a high standing in the credit markets, and very prudent financial risk management.

Principal liquidity sources	Principal liquidity uses
<ul style="list-style-type: none"><li>• Cash and cash equivalents of about €1.4 billion as of Oct. 1, 2023.</li><li>• €3.7 billion in undrawn bank lines.</li><li>• About €5.5 billion-€6.0 billion of cash FFO.</li><li>• Working capital inflows of €50 million-€60 million</li></ul>	<ul style="list-style-type: none"><li>• Debt maturities of €2.9 billion in the 12 months from Oct. 1, 2023.</li><li>• Capex of about €4.2 billion-€4.4 billion.</li><li>• Shareholder remuneration of €1.7 billion-€1.9 billion.</li><li>• Bolt-on acquisitions of €200 million-€300 million.</li></ul>

## Environmental, Social, And Governance

Environmental and social factors are an overall neutral consideration in our credit rating analysis of L'Air Liquide. Despite industrial gas companies being highly energy-intensive, the group is aiming to begin reducing absolute emissions around 2025 and to reduce scope 1 and 2 emissions by 33% by 2035 (versus 2020 emissions). Like close peers, L'Air Liquide is well placed to benefit from the energy transition as it shifts to green hydrogen production. It has announced it will invest €8 billion in low-carbon hydrogen to triple its hydrogen-related revenue to more than €6 billion by 2035. Governance factors are a moderately positive consideration in our credit rating analysis given the group's risk management systems and execution of strategy, which are in line with best corporate practices.

## Issue Ratings--Subordination Risk Analysis

### Capital structure

As of year-end 2022, L'Air Liquide's capital structure primarily constituted total reported gross debt of €12.1 billion, with bonds and private placements of €10.5 billion, bank debt and other financial debt of €1.4 billion, and commercial paper programs of €130.6 million.

### Analytical conclusions

Most of the debt is issued by the group's finance subsidiary--Air Liquide Finance--and guaranteed by holding company L'Air Liquide S.A., in line with its strategy of central financing. We believe the level of structural subordination is marginal. We consider L'Air Liquide's funding sources well diversified and improving. Risk management policy involves maintaining local debt as the primary financing source in countries considered higher risk.

## Rating Component Scores

<b>Foreign currency issuer credit rating</b>	<b>A/Stable/A-1</b>
<b>Local currency issuer credit rating</b>	<b>A/Stable/A-1</b>
<b>Business risk</b>	<b>Excellent</b>
Country risk	Low
Industry risk	Low
Competitive position	Excellent
<b>Financial risk</b>	<b>Intermediate</b>
Cash flow/leverage	Intermediate
<b>Anchor</b>	<b>a+</b>
Diversification/portfolio effect	Neutral (no impact)
Capital structure	Neutral (no impact)
Financial policy	Neutral (no impact)
Liquidity	Adequate (no impact)
Management and governance	Strong (no impact)
Comparable rating analysis	Negative (-1 notch)
<b>Stand-alone credit profile</b>	<b>a</b>

## Related Criteria

- 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
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

## Related Research

- The Hydrogen Economy: Industrial Gas Companies Are In Pole Position, April 22, 2021

Ratings Detail (as of December 14, 2023)\*

L'Air Liquide S.A.

Issuer Credit Rating	A/Stable/A-1
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Issuer Credit Ratings History

28-Jul-2021	A/Stable/A-1
22-Jul-2019	A-/Positive/A-2
24-May-2016	A-/Stable/A-2

\*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.

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