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L'Air Liquide S.A.

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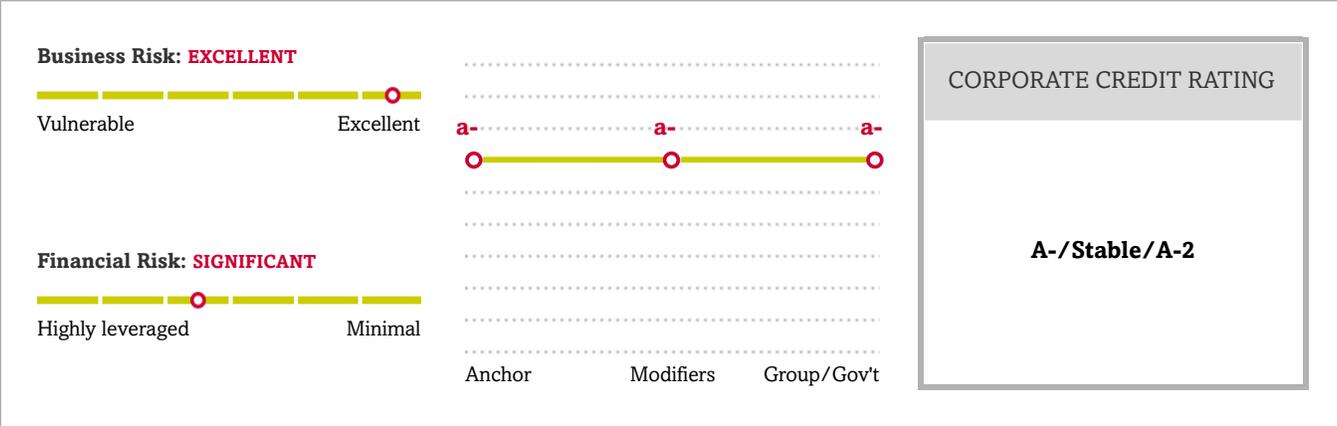
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L'Air Liquide S.A.



Rationale

Business Risk: Excellent	Financial Risk: Significant
<ul style="list-style-type: none"> Worldwide leading industrial gas company, benefitting from supportive market growth fundamentals. Strong diversification by end-market and region, improved with the acquisition of Airgas. High and stable operating margin, supported by synergies and efficiency gains Very low volatility of profitability, owing to long-term contracts, and a significant number of contracts with energy price pass-through clauses. Capital-intensive business. 	<ul style="list-style-type: none"> Strong cash flow generation. Increased debt following acquisition of Airgas, leading to lower metric headroom. Shareholder-friendly financial policy. High growth-driven capital expenditures.

Outlook: Stable

The stable outlook on France-based industrial gas supplier L'Air Liquide S.A. reflects S&P Global Ratings' expectation that the company will report overall resilient performance and positive free operating cash flow generation that should allow funds from operations (FFO) to debt to recover toward 25% by end-2017. This factors in full year contribution of Airgas including synergy realization well on track, and consequently smoothing leverage currency exposure. We also acknowledge management's commitment to maintain a rating level of at least 'A'.

Downside scenario

Although unlikely in the near term, we could lower the rating if weaker operating performance or further mergers and acquisitions kept back FFO-to-debt ratios significantly below 25% for a prolonged period.

Upside scenario

We could raise the rating, once the Airgas is successfully integrated and free operating cash flow stemming from realized synergies and overall resilient performance enable the company to deleverage, so that FFO to debt is about 30%.

Our Base-Case Scenario

Assumptions	Key Metrics				
<ul style="list-style-type: none"> A U.S. dollar to euro exchange rate of about 1.0-1.1 in 2017-2018 Total revenue growth of about 15%-16% in 2017, on a reported basis, on the back of the Airgas full year integration, followed by modest to mid-single-digit organic revenue growth in 2018-2019. Broadly stable EBITDA margin of 25%-26% as reported, supported by progressing synergies and efficiency gains. Capital expenditures (capex) of about 12.0%-12.5% of overall revenues, including growth projects in large industries segment. Bolt-on to midsized acquisitions, partly compensated by asset sales. A continuous gradual increase in dividends. 					
		2016a	2016PFe	2017e	2018e
	EBITDA (bil. €)*	4.7	5.1	5.5-5.6	6.0
FFO/Debt (%)	18.6	20.5	22.0-24.0	23.0-27.0	
<p>Note: All figures adjusted by S&P Global Ratings. *Rounded. FFO--Funds from operations. a--Actual. PFe--Pro forma estimate, including 2016 full year contribution of Airgas. e--Estimate.</p>					

Company Description

L'Air Liquide is one of the largest industrial gas suppliers worldwide. About 96% of the group's sales come from

industrial gas and services (G&S), its core business, and the remainder from engineering and construction, and global markets and technologies division. Its industrial gas products include oxygen and nitrogen produced in air-separation units, and hydrogen and carbon monoxide produced in steam methane reformers. L'Air Liquide's products are sold to metals, chemicals, oil refining, energy, glass, and electronics companies, as well as in the health care, food processing, paper, and aerospace markets. The company employs about 67,000 people and is present in about 80 countries.

Business Risk: Excellent

We assess the industrial gases industry as less volatile than that of specialty chemicals. Consequently, we place a strong emphasis on L'Air Liquide's earnings resilience and stable cash flow generation when analyzing its profitability and financial metrics. In particular, we view L'Air Liquide's profitability, as measured by EBITDA and the EBITDA margin, as less volatile than that of most specialty chemical companies. This is a key consideration in our assessment of the company's competitive position.

Also, as one of the leading players in the industrial gases industry worldwide, the company benefits from strong geographic and end-market diversity, and from a significant proportion of long-term contracts with energy cost pass-through clauses and minimum offtake volumes. These benefits are mainly present in L'Air Liquide's large industries segment, which represented about 26% of the company's G&S pro forma revenues for 2016 (full year Airgas excluding Welding and Aqualung) and will likely continue providing visibility for L'Air Liquide's better-than-average profitability. The company also benefits from its stable and expanding health care segment (17% of pro-forma G&S sales), where activity is supported by aging populations in developed markets and rising income in developing markets. The need for strong technological know-how and the high capital intensity of the industrial gases industry provide significant barriers to entry in this consolidated market.

We see marked growth prospects for L'Air Liquide, supported in particular by the company's focus on emerging markets, emphasis on healthcare, and increased presence in the North American market. This is notwithstanding the current temporary weakening in the industrial gases market, notably in segments related to energy (notably to U.S. shale gas), metals and mining, and some emerging markets, such as Brazil.

We view the Airgas integration as a support to the company's already excellent business risk profile, since it has improved its scale and market position; increased its exposure to the U.S. market; and will provide additional growth opportunities, notably in the U.S. packaged-gas business. Airgas' main industrial gas merchant market segment is somewhat more cyclical than the large industries and health care segments, and the U.S. merchant market currently exhibits weak growth, notably due to exposure to energy and metals industries. However, Airgas provides L'Air Liquide with a full presence across different end users (similar to its European operations) as well as flexibility (allowing for further optimization of capacity utilization at its U.S. plants). L'Air Liquide's earnings resilience and stable cash flow generation should remain intact, in our view, supported by significant synergies and cost efficiency targets.

Our Base-Case Operating Scenario

- S&P Global Ratings' economic assumptions, including world GDP growth of 3.4% in 2017, of which 1.8% in Europe and 2.2% in North America.
- An average Brent oil price of \$50 per barrel (/bbl) in 2017 and 2018, and \$55/bbl thereafter.
- Growth and cost synergies estimated at \$130 million in 2017, of which \$45 million realized in first-quarter 2017, on top of the \$45 million realized in 2016. This compares with target of \$300 million total synergies by end-2019.
- Efficiency gains targeted over €300 million in 2017, of which €67 million realized in first-quarter 2017.
- Large Industries segment to grow modestly year-on-year, supported by project ramp-ups although capturing some turnarounds in Europe over the first quarter.
- Improvement in Industrial Merchant segment EBITDA margin supported by the above mentioned efficiencies and synergies, after first-quarter positive pricing effect.
- Progressive recovery in the Engineering and Construction business.
- Contrasted market environment in the Electronics segment.

Peer comparison

Table 1

L'Air Liquide S.A. -- Peer Comparison

Industry Sector: Chemical Cos				
	L'Air Liquide S.A.	Linde AG	Praxair Inc.	Air Products and Chemicals Inc.
Rating as of June 27, 2017	A-/Stable/A-2	A+/Stable/A-1	A/Watch Pos/A-1	A/Stable/A-1
--Fiscal year ended Dec. 31, 2016--				
(Mil. €)				
Revenues	18,134.8	16,948.0	9,982.6	8,472.3
EBITDA	4,692.6	3,988.5	3,367.4	2,934.0
Funds from operations (FFO)	3,428.5	3,097.9	2,605.0	2,294.1
Net income from cont. oper.	1,832.9	1,206.0	1,421.5	1,347.9
Cash flow from operations	3,668.1	3,155.9	2,645.8	2,492.8
Capital expenditures	2,206.3	1,737.0	1,357.0	883.2
Free operating cash flow	1,461.8	1,418.9	1,288.7	1,609.6
Discretionary cash flow	442.8	653.9	477.5	968.1
Cash and short-term investments	1,523.0	1,594.0	496.6	1,353.2
Debt	18,257.1	9,491.6	9,541.0	4,534.2
Equity	17,125.0	15,480.0	5,166.6	6,462.3
Adjusted ratios				
EBITDA margin (%)	25.9	23.5	33.7	34.6
Return on capital (%)	9.5	7.4	14.8	17.3
EBITDA interest coverage (x)	8.4	10.1	13.3	15.8
FFO cash int. cov. (X)	76.2	6.7	14.6	18.1
Debt/EBITDA (x)	3.9	2.4	2.8	1.5
FFO/debt (%)	18.8	32.6	27.3	50.6
Cash flow from operations/debt (%)	20.1	33.2	27.8	55.0

Table 1

L'Air Liquide S.A. -- Peer Comparison (cont.)				
Industry Sector: Chemical Cos				
	L'Air Liquide S.A.	Linde AG	Praxair Inc.	Air Products and Chemicals Inc.
Free operating cash flow/debt (%)	8.0	14.9	13.5	35.5
Discretionary cash flow/debt (%)	2.4	6.9	5.0	21.3

All figures are on a fully S&P Global Ratings-adjusted basis. L'Air Liquide including seven months contribution from the Airgas acquisition.

Financial Risk: Significant

Our assessment of L'Air Liquide's financial risk profile balances the company's stable and predictable cash flow with increased debt following the acquisition of Airgas. We factor in our calculated ratio of weighted average FFO to debt of about 25%. We also factor into the rating the company's commitment to maintaining a rating level of at least 'A-'.

We expect capex to remain relatively high in the next two years, reflecting notably the company's upcoming big projects in Large Industries. We also anticipate further bolt-on acquisitions, as consolidation opportunities remain, notably in U.S.-based packaged gas and in healthcare. We continue to expect steady increase in dividend payouts year-on-year, and modest share buybacks.

We do not factor in any material acquisitions for 2017-2019, as we assume management will focus on integrating Airgas, and delivering announced synergies and efficiencies. We also anticipate continued modest asset sales, translating into material cash build-up in 2017 under our base-case scenario.

Most of the company's debt is issued by the finance subsidiary of the group Air Liquide Finance and guaranteed by the holding company Air Liquide in line with company's strategy of central financing. We believe that the level of structural subordination is moderate. We also take into account improving cash flow and debt currency matching 2017 onwards with the full contribution of Airgas, after significant adverse EUR/USD exchange rate effect in 2016 on net debt.

Our Base-Case Cash Flow And Capital Structure Scenario

- Capex of about €2.4 billion-€2.5 billion in 2017 and 2018.
- Modest working capital movements in our base case.
- Strong free cash flow generation of above €1.5 billion in 2017 and 2018.
- Gradual increase in dividends, to about €1.1 billion in 2017, and marginal share buybacks.
- Continued bolt-on acquisitions of limited size, partly compensated by planned asset sales in 2017.
- Progressive deleveraging based on cash accumulation, leading to adjusted FFO to debt of about 25% in the next three years.

Financial summary

Table 2

L'Air Liquide S.A. -- Financial Summary					
Industry Sector: Chemical Cos					
	--Fiscal year ended Dec. 31, 2016--				
	2016	2015	2014	2013	2012
(Mil. €)					
Revenues	18134.8	15818.5	15358.3	15225.2	15326.3
EBITDA	4692.6	4192.0	3809.9	3751.0	3850.9
Funds from operations (FFO)	3428.5	3261.6	2848.0	2871.6	2947.5
Net income from cont. oper.	1832.9	1741.8	1665.0	1640.3	1591.1
Cash flow from operations	3668.1	2832.8	2915.2	2920.2	2832.2
Capital expenditures	2206.3	1964.8	1861.8	2111.4	1981.1
Free operating cash flow	1461.8	868.0	1053.4	808.8	851.1
Discretionary cash flow	442.8	(107.1)	168.9	(67.8)	70.5
Cash and short-term investments	1523.0	965.5	910.1	940.1	1154.2
Debt	18257.1	9598.1	8405.8	7866.1	8150.2
Equity	17125.0	12770.8	11826.9	10888.1	10423.0
Adjusted ratios					
EBITDA margin (%)	25.9	26.5	24.8	24.6	25.1
Return on capital (%)	9.5	12.0	11.9	12.2	13.4
EBITDA interest coverage (x)	8.4	11.1	10.3	10.3	9.6
FFO cash int. cov. (X)	76.2	12.2	11.7	11.8	11.1
Debt/EBITDA (x)	3.9	2.3	2.2	2.1	2.1
FFO/debt (%)	18.8	34.0	33.9	36.5	36.2
Cash flow from operations/debt (%)	20.1	29.5	34.7	37.1	34.8
Free operating cash flow/debt (%)	8.0	9.0	12.5	10.3	10.4
Discretionary cash flow/debt (%)	2.4	(1.1)	2.0	(0.9)	0.9

Liquidity: Adequate

We view L'Air Liquide's liquidity as adequate. This reflects our estimate that liquidity sources will exceed liquidity needs by more than 1.2x over the 12 months started April 1, 2017. We also factor in L'Air Liquide's high credit market standing and prudent liquidity management.

Below, our estimates for the company's principal liquidity sources and uses for the 12 months started April 1, 2017.

Principal Liquidity Sources	Principal Liquidity Uses
<ul style="list-style-type: none"> • About €1.6 billion in cash and cash equivalents as of March 31, 2017. • Undrawn committed credit lines of around €3.1 billion, including a €1.3 billion revolving credit facility and bilateral facilities maturing beyond 12 months. • About €4 billion in FFO. 	<ul style="list-style-type: none"> • Contractual debt repayments of about €2.1 billion-€2.2 billion. • Capex of about €2.5 billion, including growth projects. • Modest working capital swings. • Bolt-on acquisitions assumed in the range of €250 million-€500 million. • Dividends assumed at about €1.1 billion.

Debt maturities

As of Dec. 31, 2016:

- 2017: €2.0 billion
- 2018: €2.4 billion

Ratings Score Snapshot

Corporate Credit Rating

A-/Stable/A-2

Business risk: Excellent

- **Country risk:** Low
- **Industry risk:** Low
- **Competitive position:** Excellent

Financial risk: Significant

- **Cash flow/Leverage:** Significant

Anchor: a-

Modifiers

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

Reconciliation

Table 3

Reconciliation Of L'Air Liquide S.A. Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. €)

--Fiscal year ended Dec. 31, 2016--

L'Air Liquide S.A. reported amounts

	Debt	Shareholders' equity	EBITDA	Operating income	Interest expense	EBITDA	Cash flow from operations	Capital expenditures
Reported	16891.1	16741.8	4646.8	3059.5	396.5	4646.8	3696.5	2258.6
S&P Global Ratings' adjustments								
Interest expense (reported)	--	--	--	--	--	(396.5)	--	--
Interest income (reported)	--	--	--	--	--	7.4	--	--
Current tax expense (reported)	--	--	--	--	--	(697.5)	--	--
Trade receivables securitizations	335.6	--	--	--	12.0	(12.0)	(189.5)	--
Operating leases	1061.1	--	240.5	63.9	63.9	176.6	176.6	--
Postretirement benefit obligations/deferred compensation	1226.6	--	(35.1)	(35.1)	25.5	(78.6)	40.9	--
Surplus cash	(1423.0)	--	--	--	--	--	--	--
Capitalized interest	--	--	--	--	52.3	(52.3)	(52.3)	(52.3)
Share-based compensation expense	--	--	32.3	--	--	32.3	--	--
Dividends received from equity investments	--	--	6.6	--	--	6.6	--	--
Asset retirement obligations	163.1	--	--	--	7.5	(5.7)	(4.0)	--
Non-operating income (expense)	--	--	--	31.6	--	--	--	--
Noncontrolling interest/minority interest	--	383.2	--	--	--	--	--	--
Debt - Foreign currency hedges	2.2	--	--	--	--	--	--	--
Debt - Fair value adjustments	0.3	--	--	--	--	--	--	--
EBITDA - Gain/(Loss) on disposals of PP&E	--	--	(270.5)	(270.5)	--	(270.5)	--	--
EBITDA - Restructuring costs	--	--	40.0	40.0	--	40.0	--	--
EBITDA - Other	--	--	32.0	32.0	--	32.0	--	--
Total adjustments	1366.0	383.2	45.8	(138.1)	161.3	(1218.3)	(28.4)	(52.3)

Table 3

Reconciliation Of L'Air Liquide S.A. Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. €) (cont.)

S&P Global Ratings' adjusted amounts								
	Debt	Equity	EBITDA	EBIT	Interest expense	Funds from operations	Cash flow from operations	Capital expenditures
Adjusted	18257.1	17125.0	4692.6	2921.4	557.8	3428.5	3668.1	2206.3

Related Criteria

- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- General Criteria: Guarantee Criteria, Oct. 21, 2016
- 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: Group Rating Methodology, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009
- Criteria - Corporates - General: 2008 Corporate Criteria: Rating Each Issue, April 15, 2008

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 7, 2017)

L'Air Liquide S.A.

Corporate Credit Rating

A-/Stable/A-2

Corporate Credit Ratings History

24-May-2016

A-/Stable/A-2

20-Nov-2015

A+/Watch Neg/A-1

10-Dec-2013

A+/Stable/A-1

Ratings Detail (As Of July 7, 2017) (cont.)

26-Nov-2013	A/Watch Pos/A-1
21-May-2013	A/Stable/A-1

*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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