

Research Update:

3R Petroleum Oleo e Gas S.A. Global Scale Ratings Affirmed Following Merger With Enauta Participacoes; Outlook Positive

August 8, 2024

Rating Action Overview

- On Aug. 1, 2024, 3R Petroleum Oleo e Gas S.A. and Enauta Participacoes S.A. merged operations. The new company will have estimated daily production of roughly 85,000 barrels of oil equivalent (boe) by fourth-quarter 2024. Daily production will increase to over 100,000 boe in 2025 with the definitive production system in the Atlanta field.
- With these higher production levels, we estimate that the new company will have lower leverage in 2025, with gross debt to EBITDA near 1.5x and funds from operations (FFO) to debt of 45% (versus 3.0x and 20%, respectively, in 2024).
- We therefore removed the ratings on 3R and Enauta from CreditWatch positive. (We had placed the ratings on CreditWatch with positive implications on May 24, 2024.)
- We affirmed the 'B+' long-term issuer credit rating on 3R and the 'BB-' issue rating on its senior secured notes.
- We raised the national scale issuer credit rating and the national scale issue rating on the senior unsecured debentures to 'brAA-' from 'brA+'.
- Furthermore, we raised the national scale issuer credit rating on Enauta to 'brAA-' from 'brBBB' and raised the national scale issue rating on its senior secured debentures to 'brAA' from 'brBBB+'.
- We assigned our 'brAA-' issue rating to Enauta's new senior unsecured debentures.
- The positive outlook on the issuer credit ratings reflects our expectation of an upgrade once 3R starts operating the new FPSO (Floating Production Storage and Offloading) Atlanta and once it sees daily production approaching 100,000 boe, all while decreasing leverage.

PRIMARY CREDIT ANALYST

Fabiana Gobbi

Sao Paulo
+ 55 11 3039 9733
fabiana.gobbi
@spglobal.com

SECONDARY CONTACTS

Diego H Ocampo

Buenos Aires
+54 (11) 65736315
diego.ocampo
@spglobal.com

Victor Soriani

Sao Paulo
+55 1130399744
victor.soriani
@spglobal.com

Rating Action Rationale

3R now has higher production capacity and solid reserves. The combined company registered daily production of 67,000 boe in first-half 2024, and we expect daily production to approach 85,000 boe in the fourth quarter and 100,000 boe in first-quarter 2025. We think there will be an organic increase in production from the Potiguar and Papa-terra fields (which are being redeveloped) and, importantly, from the launch of the new FPSO Atlanta. Subsea work is already complete, and the new floater is awaiting final permits from Brazilian regulators.

3R now has solid 2P reserves (proved and probable reserves) of 734 million boe, and of that total, 514 million boe are 1P (proved) reserves. Of the 2P reserves, 46% is onshore and 54% is offshore, and 90% of it is oil.

Higher production will boost profitability. We expect gains of scale from higher production levels to result in a decrease in consolidated lifting costs, to about US\$16/boe in 2025. This should translate to a higher EBITDA margin in the exploration and production segment next year, of about 65%. Still, we forecast a consolidated EBITDA margin of about 50% since the midstream and downstream segment has inherently lower margins; we estimate 3%-4% margins in 2024-2025.

Moreover, we believe 3R will absorb synergies of operational efficiencies from offshore operations, commercial strategies, and better terms with suppliers, as well as fiscal and capital allocation.

We also expect lower leverage and an improved capital structure in coming years. In light of the benefits of higher production levels and the synergies 3R will absorb, we also expect an improved capital structure to drive lower leverage in coming years. Our forecast sees gross debt to EBITDA of 3.0x by the end of 2024 and close to 1.5x in 2025 (versus 5.0x in 2023, for 3R on a stand-alone basis).

We believe an improved capital structure, by reducing the overall cost of debt and maintaining 3R's extended debt profile, is an important result of the merger. Recently, Enauta issued R\$2.7 billion in debentures at the interest rate plus 2.5%--a notable reduction in cost from the cost of the existing debentures (interest rate plus 5%). We believe the new company will use the proceeds to pay down the costly existing debt at 3R.

Enauta is now a fully owned subsidiary of 3R. We view Enauta as a core subsidiary to 3R, an indication of its integral role to the future development of the group--notably with the higher production from the Atlanta field. For this reason, we now equalize the rating on Enauta with the rating on the parent. Of the consolidated company's first-half 2024 production, Enauta represented only about 30% because of maintenance stoppages at both the Manati and Atlanta fields.

In coming quarters, we expect Enauta to account for a higher share of production with the launch of the new FPSO Atlanta, the resumption of operations at the Manati field, and the consolidation of Parque das Conchas.

Outlook

The positive outlook reflects our view that 3R will continue to increase production levels as a result of the redevelopment plan at Potiguar, the drilling of new wells at Papa-terra, and the transition of Atlanta to the definitive production system until the end of 2024. With all of that, we expect

stronger cash flows and controlled leverage, even amid still high capital expenditures.

Upside scenario

We expect to upgrade 3R in the next six to 12 months once it completes the transition of Atlanta to the definitive production system--increasing daily production to above 100,000 boe, boosting cash flows, and decreasing leverage (with gross debt to EBITDA at 1.5x-2.0x and FFO to debt approaching 50%).

Downside scenario

We could revise our outlook to stable if 3R faces hurdles in transitioning to the new FPSO in Atlanta; this could lead to production stoppages because of the need to lengthen the life of the existing floater once again, or to technical challenges with respect to the connection of the wells. In this scenario, we would see debt to EBITDA of about 3.0x and FFO to debt of 20% for a prolonged period.

Furthermore, we could lower the ratings if production is significantly lower than what we expect because of delays or operational problems in the revitalization process, or if oil prices stay below our current expectation for a prolonged period; either could result in lower EBITDA generation.

We could also downgrade 3R if the company demonstrates a more aggressive acquisition or growth strategy, significantly increasing leverage and reducing free operating cash flow. In these scenarios, we would see gross debt to EBITDA above 3.0x, FFO to debt below 30%, and negative free operating cash flow.

Company Description

3R is a Brazilian oil and natural gas producer focused on revitalizing mature oil fields. The current portfolio, after the merger with Enauta, consists of 13 assets located in the states of Rio Grande do Norte, Ceara, Bahia, Espirito Santo, and Rio de Janeiro.

- Cluster Potiguar comprises the Macau, Areia Branca, Fazenda Belem, and Potiguar fields, as well as 35% of the Pescada field (which is operated by Petrobras)
- Cluster Reconcavo: Rio Ventura and Reconcavo
- Offshore: Peroa and Papa-Terra
- Atlanta (80% stake); Manati (45% stake, operated by Petrobras); Oliva (80% stake); and Parque das Conchas (23% stake, operated by Shell)

3R's shares have been traded on the Brazilian stock market since 2020, and the company has no controlling shareholder.

Our Base-Case Scenario

Assumptions

- Brent oil price of US\$85 in 2024 and US\$80 in 2025.

- Average daily oil production of roughly 57,800 boe in 2024 and 100,000 boe in 2025 (because of operational improvement projects in the acquired fields and because of the drilling of new wells), and daily gas production of roughly 11,200 boe in 2024 and 14,100 boe in 2025.
- Fixed discounts on the Brent price of US\$2.00-US\$12.00, depending on the oil quality of each field.
- Lifting costs of approximately US\$20/boe in 2024 and US\$16.70/boe in 2025, down from US\$25.70/boe in 2023 mainly because of operational improvements and contract renegotiations.
- EBITDA margin in the exploration and production segment of approximately 60% in 2024 and 65%-70% in 2025.
- Daily refining capacity of 35,000-40,000 boe, and crack spreads that remain high in 2024 because of high gasoline prices but will normalize in 2025, with prices closer to Brent and positive crack spreads (we expect 3R to sell oil derivatives, kerosene, and diesel).
- Midstream and downstream EBITDA margin of 3.0%-4.0% in 2024-2025.
- We exclude intercompany transactions (Macau, Areia Branca, and Potiguar oil is sold to the refinery) from consolidated revenue and costs relating to the sale of oil and other services.
- Annual capex of approximately R\$4.6 billion in 2024, mostly for revitalization processes in Potiguar, drilling at Papa-terra, and Atlanta's definitive production system (including operational improvements).
- Dividend payments of 25% of the previous year's net income.
- Debt refinancing in coming years.

Key metrics

3R Petroleum Oleo e Gas S.A.--Forecast summary

Industry sector: Oil and gas exploration and production									
(Mil. R\$)	--Fiscal year ended Dec. 31--								
	2020a	2021a	2022a	2023a	2024e	2025f	2026f	2027f	2028f
Revenue	204	728	1,722	5,620	12,077	17,491	17,991	19,072	24,508
Gross profit	136	518	1,136	2,309	6,624	11,875	13,391	14,946	20,827
EBITDA, reported	(133)	532	674	1,929	3,666	5,849	7,761	8,427	9,112
Plus/(less): Other	195	(157)	34	21	1,335	3,990	3,459	4,105	8,839
EBITDA	63	375	707	1,950	5,001	9,839	11,220	12,532	17,951
Less: Cash interest paid	(61)	(116)	(27)	(614)	(1,483)	(1,710)	(1,765)	(1,765)	(1,765)
Less: Cash taxes paid	(2)	(37)	(87)	(209)	(405)	(1,370)	(1,543)	(1,820)	(3,108)
Funds from operations (FFO)	(1)	223	594	1,126	3,113	6,759	7,912	8,947	13,078
EBIT	35	454	397	1,537	3,151	7,501	8,860	10,225	14,644
Interest expense	62	201	51	664	1,370	1,710	1,765	1,765	1,765
Cash flow from operations (CFO)	(6)	(53)	63	395	2,959	7,133	8,257	9,955	14,554
Capital expenditures	881	367	356	839	4,568	3,878	4,929	6,915	5,106

3R Petroleum Oleo e Gas S.A.--Forecast summary (cont.)

Industry sector: Oil and gas exploration and production									
(Mil. R\$)	--Fiscal year ended Dec. 31--								
	2020a	2021a	2022a	2023a	2024e	2025f	2026f	2027f	2028f
Free operating cash flow (FOCF)	(886)	(420)	(293)	(444)	(1,610)	3,255	3,329	3,040	9,448
Dividends	--	--	--	--	106	406	762	1,084	1,225
Share repurchases, reported	--	--	--	--	--	--	--	--	--
Discretionary cash flow (DCF)	(886)	(420)	(293)	(444)	(1,716)	2,848	2,567	1,956	8,224
Debt, reported	633	48	1,052	9,300	9,351	9,351	9,351	9,351	9,351
Plus: Lease liabilities debt	1	26	51	45	47	49	51	53	54
Plus/(less): Other	2,186	3,010	8,143	410	6,276	5,274	4,824	4,452	4,452
Debt	2,821	3,084	9,245	9,755	15,674	14,674	14,225	13,855	13,857
Equity	1,077	4,175	4,341	5,565	10,809	15,032	20,033	25,877	34,910
FOCF, adjusted for lease capex	(886)	(445)	(322)	(458)	(1,628)	3,237	3,311	3,022	9,431
Interest expense, reported	62	201	51	664	727	911	1,008	1,008	1,009
Capex, reported	881	367	356	839	2,691	2,539	3,443	3,249	3,109
Cash and short-term investments, reported	705	2,508	832	1,909	1,047	1,485	2,211	4,079	7,128
Adjusted ratios									
Debt/EBITDA (x)	45.1	8.2	13.1	5.0	3.1	1.5	1.3	1.1	0.8
FFO/debt (%)	(0.0)	7.2	6.4	11.5	19.9	46.1	55.6	64.6	94.4
FFO cash interest coverage (x)	1.0	2.9	23.1	2.8	3.1	5.0	5.5	6.1	8.4
EBITDA interest coverage (x)	1.0	1.9	14.0	2.9	3.7	5.8	6.4	7.1	10.2
CFO/debt (%)	(0.2)	(1.7)	0.7	4.0	18.9	48.6	58.0	71.9	105.0
FOCF/debt (%)	(31.4)	(13.6)	(3.2)	(4.6)	(10.3)	22.2	23.4	21.9	68.2
DCF/debt (%)	(31.4)	(13.6)	(3.2)	(4.6)	(10.9)	19.4	18.0	14.1	59.3
Lease capex-adjusted FOCF/debt (%)	(31.4)	(14.4)	(3.5)	(4.7)	(10.4)	22.1	23.3	21.8	68.1
Annual revenue growth (%)	530.4	256.3	136.7	226.3	114.9	44.8	2.9	6.0	28.5
Gross margin (%)	66.7	71.2	65.9	41.1	54.8	67.9	74.4	78.4	85.0
EBITDA margin (%)	30.6	51.6	41.1	34.7	41.4	56.3	62.4	65.7	73.2
Return on capital (%)	1.7	8.1	3.8	10.6	15.1	26.7	27.7	27.6	33.1
Return on total assets (%)	2.8	12.0	5.9	10.9	11.0	19.1	20.3	20.9	25.9
EBITDA/cash interest (x)	1.0	3.2	26.3	3.2	3.4	5.8	6.4	7.1	10.2
EBIT interest coverage (x)	0.6	2.3	7.9	2.3	2.3	4.4	5.0	5.8	8.3
Debt/debt and equity (%)	72.4	42.5	68.0	63.7	59.2	49.4	41.5	34.9	28.4
Debt fixed-charge coverage (x)	1.0	1.9	14.0	2.9	1.0	5.8	6.4	7.1	10.2
Debt/debt and undepreciated equity (%)	72.4	42.5	68.0	63.7	59.2	49.4	41.5	34.9	28.4

All figures include S&P Global Ratings' adjustments unless stated as reported. a--Actual. e--Estimate. f--Forecast. R\$--Brazilian real.

Liquidity

We view 3R's liquidity as adequate. We expect the company's cash sources to be about 1.6x cash uses over the next 12 months. We also expect the company to maintain relatively high cash levels over the next few years, a smooth debt maturity profile, and good access to funding sources.

We believe 3R will continue to refinance its upcoming debt maturities through long-term credit lines and potentially decrease the cost of debt in future issuances, as with the recent debentures issued by Enauta Participações.

Principal liquidity sources

- Combined cash position of 3R Petroleum and Enauta Participações of R\$6 billion as of June 30, 2024, and
- Cash FFO of roughly R\$6 billion in the 12 months beginning June 2024.

Principal liquidity uses

- Combined short-term debt of R\$1 billion as of June 30, 2024;
- Payments for acquisitions of R\$971.6 million in the short term as of June 30, 2024;
- Working capital needs of R\$880 million in the next 12 months, considering potential peaks between quarters;
- Capex of roughly R\$4.2 billion over the next 12 months; and
- Dividends of R\$110 million in the next 12 months.

Covenants

3R is subject to restrictive financial covenants of incurrence on its debentures, syndicated loan, and senior notes. We expect the company to maintain a large cushion of over 40% on these covenants in 2024 and 2025. The covenants require:

- Net debt to EBITDA below 3.0x in 2024 and 2.5x from 2025 onward; and
- Asset coverage above 1.5x, calculated considering net proved reserves over total gross debt.

Enauta's debentures are also subject to financial covenants of incurrence. We expect it to maintain a large cushion in coming years. The covenants require:

- Net debt to EBITDA below 2.5x; and
- Asset coverage above 1.5x, calculated considering net proved reserves over total gross debt.

Environmental, Social, And Governance

Environmental factors are a negative consideration in our credit analysis of 3R because of the downside risks for profitability and product demand amid the transition to renewable energy

sources. Still, the company's focus on mature oil fields, with relatively lower production costs than exploratory players, makes it more resilient. 3R has some environmental projects related to renewable energy for its operations and the reduction of gas emissions, although they're in the early stages.

Issue Ratings--Recovery Analysis

We rate 3R's senior secured notes 'BB-'. The notes were issued by the financial vehicle, 3R Lux S.a.r.l., and were unconditionally and irrevocably guaranteed by 3R Petroleum Oleo e Gas S.A. and some of its subsidiaries.

The issue-level rating is one notch above the issuer credit rating, given its collateral package and our expectation of substantial recovery (rounded at 85% given our cap when assigning recovery ratings for entities under Brazilian jurisdiction). The collateral package includes the concession rights on Potiguar, Macau, Areia Branca, Reconcavo, and Rio Ventura, as well as equity interest in 3R Potiguar S.A., 3R RNCE S.A., 3R Bahia S.A., and 3R Offshore.

The 'brAA-' rating on 3R's senior unsecured debentures is at the same level as the long-term issuer credit rating on the company on the national scale. The '3' recovery rating on the debentures indicates our expectation of significant recovery, roughly 65%, for creditors. In addition, we assigned our 'brAA-' issue rating to Enauta's third and fourth senior unsecured debentures, with a recovery rating of '3'.

The national scale issue-level rating on Enauta's senior secured debentures was raised to 'brAA', one notch above the national scale issuer credit rating, considering our expectation of substantial recovery of 85%.

Key analytical factors

Our simulated default scenario for 3R assumes a sustained period of low commodity prices, as well as a sustained period of high capex to support the company's growth strategy. This scenario is consistent with the conditions that surrounded previous defaults in this sector, which would create incentives for a debt restructuring even before the notes mature.

We based our valuation of 3R's reserves on a company-provided proved reserves report as of December 2023, using a price deck assumption of about US\$55 per barrel for crude oil and a discount rate of 15%. In our view, Brazil is a less creditor-friendly jurisdiction than other countries such as the U.S., where we use a 10% discount rate.

Simulated default assumptions

- Simulated default year: 2028
- Jurisdiction: Brazil

Simplified waterfall

- Net enterprise value after 5% administrative costs: \$3 billion
- Senior secured debt: \$1 billion (senior secured notes and debentures)
- Recovery expectation on the secured notes: 85%

- Senior unsecured debt: \$1.35 million (debentures and other bank loans)
- Expected recovery of senior unsecured debt: 65%

All debt amounts include six months of prepetition interest.

Ratings Score Snapshot

Issuer Credit Rating	B+/Positive/--
Business risk:	Weak
Country risk	Moderately high
Industry risk	Moderately high
Competitive position	Weak
Financial risk:	Aggressive
Cash flow/leverage	Aggressive
Anchor	b+
Modifiers:	
Diversification/Portfolio effect	Neutral (no impact)
Capital structure	Neutral (no impact)
Financial policy	Neutral (no impact)
Liquidity	Adequate (no impact)
Management and governance	Neutral (no impact)
Comparable rating analysis	Neutral (no impact)
Stand-alone credit profile:	b+

Related Criteria

- Criteria | Corporates | General: Sector-Specific Corporate Methodology, April 4, 2024
- Criteria | Corporates | General: Methodology: Management And Governance Credit Factors For Corporate Entities, Jan. 7, 2024
- Criteria | Corporates | General: Corporate Methodology, Jan. 7, 2024
- General Criteria: National And Regional Scale Credit Ratings Methodology, June 8, 2023
- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Recovery Rating Criteria For Speculative-Grade Corporate Issuers, Dec. 7, 2016
- Criteria | Corporates | Recovery: Methodology: Jurisdiction Ranking Assessments, Jan. 20, 2016
- 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
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- Criteria | Corporates | Industrials: Revised Assumptions For Assigning Recovery Ratings To The Debt Of Oil And Gas Exploration And Production Companies, Sept. 14, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

Ratings List

New Rating

Enauta Participacoes S.A.

Senior Unsecured	brAA-
Recovery Rating	3(65%)

Ratings Affirmed; CreditWatch/Outlook Action

	To	From
--	----	------

3R Petroleum Oleo e Gas S.A.

Issuer Credit Rating	B+/Positive/--	B+/Watch Pos/--
----------------------	----------------	-----------------

3R Lux Sarl

Senior Secured	BB-	BB-/Watch Pos
Recovery Rating	2(85%)	

Upgraded; CreditWatch/Outlook Action

	To	From
--	----	------

3R Petroleum Oleo e Gas S.A.

Issuer Credit Rating		
Brazil National Scale	brAA-/Positive/--	brA+/Watch Pos/--

Enauta Participacoes S.A.

Issuer Credit Rating		
Brazil National Scale	brAA-/Positive/--	brBBB/Watch Pos/--

3R Petroleum Oleo e Gas S.A.

Senior Unsecured	brAA-	brA+/Watch Pos
Recovery Rating	3(65%)	

Enauta Participacoes S.A.

Senior Secured	brAA	brBBB+/Watch Pos
Recovery Rating	2(85%)	

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.spglobal.com/ratings for further information. Complete ratings information is available to RatingsDirect subscribers at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.spglobal.com/ratings.

Copyright © 2024 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. Rating-related publications may be published for a variety of reasons that are not necessarily dependent on action by rating committees, including, but not limited to, the publication of a periodic update on a credit rating and related analyses.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw or suspend such acknowledgment at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, www.spglobal.com/ratings (free of charge), and www.ratingsdirect.com (subscription), and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at www.spglobal.com/usratingsfees.

STANDARD & POOR'S, S&P and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.