

Research Update:

Ecopetrol 'BBB-' Ratings Affirmed, Stand-Alone Credit Profile Raised To 'bbb-' From 'bb+' On Solid **Financial Performance**

June 27, 2019

Rating Action Overview

- We continue to consider a very high likelihood of extraordinary support from the Colombian government to national oil and gas company, Ecopetrol. The company continues to play a very important role for the Colombian economy and maintains its very strong link with the government.
- Ecopetrol's strong free operating cash flow generation, along with robust performance of its downstream business, has strengthened key credit metrics, resulting in EBITDA margins above 45% and debt to EBITDA below 1.5x.
- As a result, we have revised upward our assessment of Ecopetrol's stand-alone credit profile (SACP) to 'bbb-' from 'bb+' and affirmed our 'BBB-' long-term issuer credit rating and issue-level ratings.
- The stable outlook reflects our view that Ecopetrol will continue to play a very important role in the Colombian economy and maintain its very strong link to the government. We also expect Ecopetrol to maintain its solid operating performance and operating cash flows, while it's committed to deleveraging.

Rating Action Rationale

The SACP revision is based on Ecopetrol's track record of strong operating performance, thanks to the rise in production to approximately 720,000 boed in 2018, greater refinery throughput, higher oil prices last year, and solid operating efficiencies. Ecopetrol continued investing in the downstream segment during the past years, which raised its refinery throughput by about 8% to 373 mbd in 2018 from 346 mbd in 2017. This allowed the company to replace imported oil and refined products with domestic production, resulting in lower costs and higher EBITDA margins. In our view, year-to-date oil prices and our current assumptions for the rest of 2019 should maintain company's EBITDA margins above 45% and debt to EBITDA below 1.5x. In addition, given stronger cash flow generation, we believe the company has sufficient flexibility to increase its capital

PRIMARY CREDIT ANALYST

Fabiola Ortiz Mexico City (52) 55-5081-4449

fabiola.ortiz @spglobal.com

SECONDARY CONTACT

Juan Camilo Alvarez

Mexico City + 52 55 5081 4479 juan.camilo.alvarez @spglobal.com

expenditures to about COP11.8 billion and dividends to COP8.6 billion in the next two years without weakening its credit metrics.

We expect the company to expand its reserve base in Colombia and outside the country. Ecopetrol has recently signed contracts with Shell and Chevron for a 10% stake in the Saturno block in Brazil, and Pau-Brasil block in joint venture with BP Energy and CNOOC Petroleum expanding its presence in that country to five fields. It has also increased its operations in the Gulf of Mexico by winning recently four blocks through Ecopetrol Americas. As a result, we expect the company to increase its exploratory activity in order to continue improving its net proven reserves of 1.727 billion barrels of oil equivalent, its three-year average reserve replacement ratio of 83%, and its 7.2 years average proved reserve life reported at the end of 2018.

Ecopetrol has focusing on operating efficiencies as well. Optimization of costs of drilling and facilities construction, higher refineries revenue, reducing refining cash cost and dilution of heavy crude oil, among others factors, have bolstered efficiencies in 2018. Therefore, EBITDA margins increased to 47% in 2018 from 44% in 2017. We expect the company to maintain its efficiency strategy among its various business lines to maintain margins above 45% in the next couple of years.

Our rating also reflects our assessment of a very high likelihood of extraordinary support from the Colombian government to Ecopetrol in a timely manner under a financial distress scenario. We view Ecopetrol as playing a very important role in Colombia's economy, given its position as the largest company in the country. Ecopetrol has a significant presence in Colombia's oil and gas sector, acts as the main supplier of oil-derived products in the domestic market, and has a very strong link with the government, which has the controlling ownership and strategic oversight despite the company's independent management. The rating on Ecopetrol no longer benefits from one-notch of support from its SACP after we revised the latter to 'bbb-' from 'bb+'.

Outlook

The outlook on Ecopetrol reflects the stable outlook on the Republic of Colombia. We expect Ecopetrol to continue to play a very important role in the Colombian economy and to maintain its very strong links with the government. Therefore, we believe that the ratings on Ecopetrol would most likely move in tandem with those on the sovereign. On a stand-alone basis, we expect the company's debt to EBITDA to be below 1.5x for the following years.

Downside scenario

We would lower the ratings on Ecopetrol if we were to lower the sovereign ratings on Colombia. We could lower our SACP on the company in the next 12-18 months due to a sharp and pronounced oil price decline, lower production, and a deteriorating performance of the downstream segment, that would depress EBITDA, raising the company's debt leverage to above 2.0x. We could also lower our SACP if the company incurs additional debt, deviating from its deleveraging strategy, which could lead to a revision of the company's financial risk profile to a weaker category.

Upside scenario

An upgrade of Ecopetrol depends on an upgrade of Colombia. Additionally, although unlikely in the next 12-18 months, the SACP could rise to 'bbb' if the company's performance is above our expectations. Such a scenario would result from higher-than-expected production stemming from investments outside Colombia, leading to discretionary cash flow (DCF) to debt at or above 25% on a consistent basis. This would also require a conservative distribution of dividends to shareholders.

Company Description

Ecopetrol is a vertically integrated oil company based in Bogota, Colombia. The company has presence in Colombia, Peru, Brazil, Mexico, and the Gulf Coast. It's involved in all stages of the hydrocarbon chain: exploration, production, refining and marketing. The government of Colombia owns 88.49% of Ecopetrol, making it the controlling shareholder, while the remaining 11.51% is owned by institutional shareholders and retail investors.

Our Base-Case Scenario

- Average realized sale price of \$61.7 per boe during 2019. This price level ultimately depends on the weighted average between the real price as of May 2019 and our price assumption for Brent crude oil at \$60 per oil barrel (bbl) for 2019, minus \$7.5 per bbl given the recent improvement of the Vasconia oil price. However, we expect a higher spread in 2020, resulting from changes in the International Marine Organization (IMO) specifications for marine pollution stemming from crude and fuels with high sulfur content.
- Exchange rate at COP3,190 per \$1 for 2019 and COP3,200 per \$1 for 2020. However, given that most of the company's revenues are in dollars or indexed to international references prices, we don't see a risk related to currency fluctuation.
- An increase in production levels to approximately 725,000 boad in 2019. The expected increase in production will result from an increase in the company's recovery factor of existing mature fields and efficiencies in production facilities. For 2020, an output of 746,000 boed related to higher capex expected in the E&P segment.
- Continuing focus on achieving structural operating efficiencies, such as reducing the dilution costs of heavy crude, and implementing more efficient procurement and services strategies.
- A significant increase in annual capex to COP10.2 billion COP13.3 billion in the next two years, of which 85% will be for E&P, 8% for midstream, and the remaining 7% for downstream projects.
- Dividend payments of COP6.5 billion COP10.0 billion for the next two years.
- The company to pay debt as it comes due.

These assumptions result in the following credit measures for the next two years:

- EBITDA margin of more than 45%;
- Adjusted net debt to EBITDAX (EBITDA plus exploration expenses) of below 1.5x; and
- Adjusted FFO to debt of 50% in 2019 and 52% in 2020.

Liquidity

We assess Ecopetrol's liquidity as strong, which reflects our expectations that the company's sources of liquidity will exceed its uses by more than 1.5x and remain above 1x over the subsequent 12-month period. In our view, Ecopetrol's liquidity is supported by the capacity to withstand high-impact, low-probability events based on the company's sound banking relationships and satisfactory access to capital markets. Additionally, we believe the company will be able to hold committed credit lines to strengthen its liquidity, as seen in the increase of \$665 million in committed credit lines during 2018 for a total of \$1.0 billion.

Principal Liquidity Sources:

- Cash balances of about COP8.9 billion as of March 31, 2019;
- Cash FFO above COP22.6 billion for the next 12 months; and
- Undrawn committed credit lines available for COP3.15 billion.

Principal Liquidity Uses:

- Debt maturities of about COP4.0 billion as of March 31, 2019;
- Working capital outflows of COP1.5 billion for the next 12 months;
- Capex of about COP11 billion for the next 12 months; and
- Dividends of about COP9.5 billion for the next 12 months.

Covenants

The company does not have any financial covenants.

Environmental, Social, And Governance

Environmental factors are material to our credit analysis of Ecopetrol. In Colombia, oil and gas companies need to obtain an environmental license for the use of natural renewable resources (water, soil, and air), a filing of an environmental impact study, and a plan to prevent, mitigate, correct, and compensate for any activity that may be harmful to the environment. As a result, Ecopetrol has established a three-year plan to take into consideration the environmental significance of the hydrocarbon value chain, recognizing water and energy flows as the main resources used in production processes. The plan includes three action lines: comprehensive management of water resources, climate change and biodiversity, and sustainable production. We believe Ecopetrol is taking adequate implementation measures to mitigate potential environmental risks. In terms of social impact, Ecopetrol has developed several programs to to build infrastructure projects such as schools, hospitals, and toll roads, which improve the standard of living of communities where the company is operating. Ecopetrol expects to invest approximately US\$700 million in socio-environmental projects between 2019 and 2021. Moreover, the company is reinforce a health and safety management approach into its operations. We consider Ecopetrol's management and governance to be satisfactory, reflecting management's expertise with the aim of strengthen the company's corporate governance.

Issue Ratings - Subordination Risk Analysis

Capital structure

Ecopetrol's debt currently totals COP38.1 billion, consisting of several senior unsecured bonds with maturities between 2020 and 2045. The debt at the subsidiaries' level (OCENSA, ODL, and

Bicentenario) totals about COP3.1 billion.

Analytical conclusions

Unsecured debt at the subsidiaries' level represents about 16% of the company's total debt, which is well below our priority debt ratio of 50%. As a result, we rate the senior unsecured notes 'BBB-', in line with the issuer credit rating.

Ratings Score Snapshot

Issuer Credit Rating

Global scale: BBB-/Stable/--

Business risk: Satisfactory

- Country risk: Moderately high

- Industry risk: Intermediate

- Competitive position: Satisfactory

Financial risk: Intermediate

- Cash flow/Leverage: Intermediate

Anchor: bbb-

Modifiers

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

Stand-alone credit profile: bbb-

Likelihood of government support: Very high

Sovereign foreign currency rating: BBB-

Related Criteria

- 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: Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global

Corporate Issuers, Dec. 16, 2014

- Criteria | Corporates | Industrials: Key Credit Factors For The Oil And Gas Exploration And Production Industry, Dec. 12, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Group Rating Methodology, 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: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- General Criteria: Stand-Alone Credit Profiles: One Component Of A Rating, Oct. 1, 2010
- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009

Ratings List

Ratings Affirmed

Ecopetrol S.A.	
Issuer Credit Rating	BBB-/Stable/
Senior Unsecured	BBB-

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.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

Copyright © 2019 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.standardandpoors.com (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.standardandpoors.com/usratingsfees.

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