S&P Global
Ratings

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Ecopetrol S.A.

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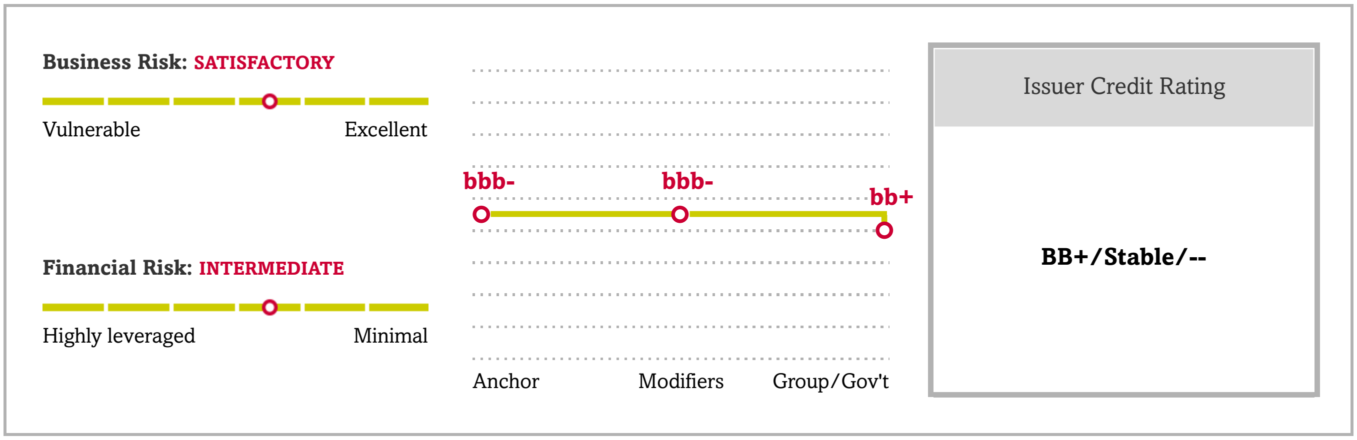
Ecopetrol S.A.



Credit Highlights

Overview

Key strengths	Key risks
Leading position in Colombia's oil and gas industry.	Geographic concentration in Colombia.
Low-cost producer.	Exposure to volatile and capital-intensive industry.
Healthy credit metrics that support its 'bbb-' stand-alone credit profile (SACP).	Global energy transition increases long-term substitution and growth risks for the oil and gas industry.
Extended debt maturity profile.	
Proven access to capital markets.	

Our ratings on Ecopetrol will continue to move in tandem with the sovereign rating. The ratings on Ecopetrol continue to reflect our opinion that there's a very high likelihood that its controlling shareholder, Colombia (foreign currency: BB+/Stable/B; local currency: BBB-/Stable/A-3), would provide timely and sufficient extraordinary support to the company in the event of financial distress. Therefore, the ratings on the company move in tandem with those on the sovereign. We cap the final rating on Ecopetrol by the 'BB+' foreign currency rating on Colombia given our expectation that the government could increase taxes or dividends if it faces fiscal or external stress, which could restrict Ecopetrol's financial flexibility. Additionally, our assessment that the company has a very strong link with the government also limits the rating.

The COVID-19 pandemic and recent social unrest took a toll on Ecopetrol's operational and financial performance, although it showed resiliency. The economic slowdown that triggered a drop in oil prices and led to a significant reduction in oil and gas demand hurt Ecopetrol's operational and financial performance. As a result, the company's revenues declined about 30% in 2020 because it had to delay some of its exploration and production (E&P) activity (resulting in less products sold), and scale back some investments due to market factors. Additionally, during the second quarter of 2021, Ecopetrol experienced some impacts on its operations that reduced crude oil and gas production. This was mainly because of protests in Colombia that generated blockades of main roads and damaged some of the company's infrastructure. Nevertheless, we expect that the company will be able to take advantage across its value chain of the more favorable economic conditions, higher oil prices, and return to public order, which will boost cash flow and sustain EBITDA growth over the next 12-18 months. Thus, we expect leverage to be below 2.0x from the 2.3x as of June 30, 2021, with EBITDA margins above 40% due to the company's cost efficiency strategies.

Energy transition will be a key focus for the company. Ecopetrol has set several targets of reaching decarbonization and reducing energy consumption, which will be important in facing the challenges of the energy transition. The company plans to achieve net zero carbon emissions by 2050 and to reduce carbon dioxide equivalent (CO2e) emissions by 25% by 2030. Ecopetrol recently announced that it has agreed to acquire 51.4% stake in Interconexion Electrica S.A. E.S.P. (ISA; not rated) that in our opinion would let the company diversify into a regulated and predictable electric transmission business, while also taking further steps toward energy transition (see "Bulletin: Closing Conditions Of Ecopetrol's Acquisition Of ISA In Line With Our Expectations," Aug. 12, 2021). We expect that the transaction will be closed during the second half of the year upon approval from the Ministry of Finance and Public Credit. We also think that Ecopetrol will allocate a higher proportion of its capital spending to ensure its competitiveness and grow its renewable energy capabilities. The company will also use technology to achieve its transition plan.

Outlook: Stable

The stable outlook on Ecopetrol mirrors that on Colombia. The ratings on the latter limit the company's credit quality, given the government's potential negative intervention. Therefore, we expect the ratings on Ecopetrol to move in tandem with the sovereign ratings in the next 12 to 18 months.

Downside scenario

We would lower the ratings if we took a similar rating action on Colombia. We could lower Ecopetrol's stand-alone credit profile (SACP) if its financial performance weakens such that we expect debt to EBITDA to rise above 2.0x, on a consistent basis. This could stem from lower crude oil prices and demand.

Upside scenario

We could upgrade Ecopetrol if we take a similar action on the sovereign rating on Colombia, all else being equal. Additionally, although unlikely in the next 12-18 months, we could upwardly revise the SACP to 'bbb' if the company's performance is well 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.

Our Base-Case Scenario

Assumptions

- Brent oil price to average $65 per barrel (bbl) for the rest of 2021 and $60/bbl for 2022. Oil prices have been rising due to vaccine rollouts and global economic re-openings. We consider a realized price of about $57/bbl to reflect the price differential between Colombian mix and Brent.
- Henry Hub natural gas price deck assumptions of $3.50 per million British thermal units (mmBtU) for the rest of 2021, $3.0/mmBtu in 2022, and $2.50/mmBtu for 2023 and beyond.
- Exchange rate at COP3,700 per $1 for 2021, COP3,750 per $1 for 2022, and COP3,800 for 2023. However, given that most of the revenues result from sales of products quoted in or with reference to U.S. dollars, we don't see a risk related to currency fluctuation.
- Production of about 692,000 barrels of oil equivalent per day (boed) in 2021 and a 3% increase in 2022 to reach 714,000 boed as a result of higher capex allocated to the E&P segment.
- Revenues increase of about 43% for 2021 mainly driven by higher oil prices and higher realized prices. During 2022, we expect revenues to slightly decline because we expect lower oil prices.
- Capital expenditures (capex) will remain at about 20% of company's revenues--COP12 trillion to COP15.0 trillion--primarily related to the E&P segment including the Rubiales, Castilla, Piedemonte, and Magdalena Medio Valley's fields, while about 20% will related to Brazil and the Permian Basin in the U.S..
- Dividend payments in line with Ecopetrol's payout ratio of about 40%-60% of its net income.
- We will include ISA's transaction figures once the transaction is closed.

Key Metrics

- EBITDA margin above 40% for 2021 and 2022;
- Adjusted net debt to EBITDAX (EBITDA plus exploration expenses) at or below 2.0x; and
- Adjusted funds from operations (FFO) to debt of around 40% in 2021 and 34% in 2022.

Base-case projections

Margins will remain high. We expect that the company will continue to focus on achieving operating efficiencies to optimize production and lifting costs. We also expect that these efficiencies will be concentrated in profitable oil barrels rather than a specific volume target, so we only expect marginal production increases.

Leverage will improve: Although the company's key credit metrics for 2020? deviate from the 'bbb-' SACP, we forecast them to significantly improve this year. We base this on our expectations of higher oil prices which will allow the company to increase drilling and seismic activity to maintain stable production while strengthening cash flows.

Ecopetrol will continue to distribute dividends to its main shareholder. We expect the company to continue distributing dividends to its main shareholder. We consider that Ecopetrol will maintain its payout ratio of 40%-60% without affecting its financial performance.

Company Description

Ecopetrol is a vertically integrated oil company based in Bogota, Colombia. The company has presence in Colombia, Brazil, Mexico, and the U.S. 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 institutional shareholders and retail investors own the remaining 11.51%.

Peer Comparison

Ecopetrol is one of the main oil players in Latin America along with Petróleos Mexicanos (PEMEX), Petroleo Brasileiro S.A. (Petrobras), and YPF S.A. Our ratings on the four Latin American entities are linked to ratings on their respective sovereigns, given their state-owned status and our view of potential support or influence. Ecopetrol's 'bbb-' SACP is the highest among the four entities. The Colombian oil company has a stronger financial position in terms of EBITDA margins, leverage metrics, and coverage ratios such as FFO to debt and EBITDAX interest coverage compared to PEMEX and YPF, and is fairly in line with those of Petrobras.

Table 1

Ecopetrol S.A.--Peer Comparison

	Ecopetrol S.A.	**Petroleo Brasileiro S.A. - Petrobras**	**Petroleos Mexicanos**	**YPF S.A.**
	--Fiscal year ended Dec. 31, 2020--			
Ratings as of June 27, 2021	BB+/Stable/--	BB-/Stable/--	BBB+/Negative/--	CCC+/Stable/--
(Mil. $)				
Revenues	14,665.2	52,389.3	47,926.3	7,958.0
EBITDA	5,320.6	27,489.5	12,333.3	1,585.8
Funds from operations (FFO)	2,841.0	23,319.9	(4,619.9)	762.5
Cash flow from operations	2,130.9	25,714.7	(3,339.8)	1,766.4
Capital expenditure	3,246.1	5,771.8	6,966.3	1,363.0
Free operating cash flow (FOCF)	(1,115.3)	19,943.0	(10,306.1)	403.4
Discretionary cash flow (DCF)	(3,665.7)	18,661.1	(10,306.1)	396.8
Cash and short-term investments	1,480.6	12,377.7	2,009.7	993.6
Debt	16,631.1	86,033.2	171,633.1	9,638.3
Equity	15,621.8	59,914.7	(120,849.6)	8,126.9
Adjusted ratios				
EBITDA margin (%)	36.3	52.5	25.7	19.9
Return on capital (%)	7.5	10.3	4.9	(2.8)
EBITDA interest coverage (x)	5.6	4.3	0.9	2.0
FFO cash interest coverage (X)	5.1	8.7	0.3	2.1
Debt/EBITDA (x)	3.1	3.1	13.9	6.1
FFO/debt (%)	17.1	27.1	(2.7)	7.9
Cash flow from operations/debt (%)	12.8	29.9	(1.9)	18.3
FOCF/debt (%)	(6.7)	23.2	(6.0)	4.2

Table 1

Ecopetrol S.A.--Peer Comparison (cont.)				
	Ecopetrol S.A.	**Petroleo Brasileiro S.A. - Petrobras**	**Petroleos Mexicanos**	**YPF S.A.**
DCF/debt (%)	(22.0)	21.7	(6.0)	4.1

Business Risk: Satisfactory

The business risk profile reflects Ecopetrol's leading position in Colombia's oil and gas industry. The company accounted for about 66% of crude oil production in the country and about 56% of natural gas production in 2020.

Ecopetrol's integrated business position allows it to capture opportunities along its value chain. For example, despite the negative impact of the pandemic, the company's petrochemical segment, Esenttia, had record high production and sales due to the strong demand for polypropylene products, given its end applications related to medical equipment and plastic containers for cleaning products. Additionally, Ecopetrol's refineries had stable operations although they reduced their output in 2020 due to lower consumption of refined products in Colombia, but maintain a strong integrated gross margin at $9.1/bbl.

Lower hydrocarbon prices also hurt Ecopetrol's reserves. The company's net proven reserves totaled 1,770 (MBOE) in 2020 with a reserve replacement ratio (RRR) of 48% and an average reserve life of 7.5 years, which compares unfavorably with an RRR above 100% and an average reserve life of about 10 years for investment-grade peers. However, the company continues to expand its reserve base in Colombia and outside the country.

Additionally, Ecopetrol maintains a low cost structure with a production cost of about $27.4/bbl, representing a 23% decrease compared to 2019 and in line with other peers in the region.

Financial Risk: Intermediate

We continue to view Ecopetrol's financial risk profile as intermediate based on its weighted average debt to EBITDAX of less than 2.0x and FFO to debt above 40%. As we expected, the pandemic hit Ecopetrol's financial metrics, resulting in a debt to EBITDAX of 3.1x and a FFO to debt below 20%. However, we expect that cash flows will continue to improve as oil prices rise, so we forecast the company to bring leverage down to a level commensurate with the rating. As of June 30, 2021, the company's debt to EBITDAX decreased to 2.3x, while FFO to debt rose to 33%.

Financial summary

Table 2

Ecopetrol S.A.--Financial Summary						
Industry sector: Oil and gas						
	--Fiscal year ended Dec. 31--					
	2020	**2019**	**2018**	**2017**	**2016**	**2015**
(Mil. $)						
Revenues	14,665.2	21,804.0	21,130.0	18,744.7	16,145.7	16,489.4
EBITDA	5,320.6	9,879.6	9,948.6	8,131.5	6,103.6	5,960.7

Table 2

Ecopetrol S.A.--Financial Summary (cont.)

Industry sector: Oil and gas						
	--Fiscal year ended Dec. 31--					
	2020	**2019**	**2018**	**2017**	**2016**	**2015**
Funds from operations (FFO)	2,841.0	7,492.8	6,662.7	5,357.0	3,569.2	3,836.2
Cash flow from operations	2,130.9	8,118.0	6,310.1	5,065.4	4,259.3	2,932.5
Capital expenditure	3,246.1	4,263.6	2,605.8	1,998.5	1,920.8	4,453.9
Free operating cash flow (FOCF)	(1,115.3)	3,854.4	3,704.2	3,066.9	2,338.5	(1,521.4)
Discretionary cash flow (DCF)	(3,665.7)	(375.1)	2,340.5	2,562.9	1,768.3	(3,251.8)
Cash and short-term investments	1,480.6	2,132.1	1,915.6	2,629.5	2,762.7	2,029.3
Debt	16,631.1	13,451.7	12,865.2	14,950.3	17,057.5	16,598.8
Equity	15,621.8	17,760.6	17,589.2	16,676.7	14,505.6	13,576.8
Adjusted ratios						
EBITDA margin (%)	36.3	45.3	47.1	43.4	37.8	36.1
Return on capital (%)	7.5	22.0	24.1	17.2	9.8	2.7
EBITDA interest coverage (x)	5.6	12.2	10.0	7.7	5.4	7.8
FFO cash interest coverage (X)	5.1	14.9	9.2	6.9	5.2	7.1
Debt/EBITDA (x)	3.1	1.4	1.3	1.8	2.8	2.8
FFO/debt (%)	17.1	55.7	51.8	35.8	20.9	23.1
Cash flow from operations/debt (%)	12.8	60.3	49.0	33.9	25.0	17.7
FOCF/debt (%)	(6.7)	28.7	28.8	20.5	13.7	(9.2)
DCF/debt (%)	(22.0)	(2.8)	18.2	17.1	10.4	(19.6)

Reconciliation

Table 3

Reconciliation Of Ecopetrol S.A. Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. $)

	--Fiscal year ended Dec. 31, 2020--						
Ecopetrol S.A. reported amounts							
	Debt	**Shareholders' equity**	**EBITDA**	**Operating income**	**Interest expense**	**S&P Global Ratings' adjusted EBITDA**	**Cash flow from operations**
Reported	13,337.6	14,570.8	5,001.6	2,097.1	696.2	5,320.6	2,682.5
S&P Global Ratings' adjustments							
Cash taxes paid	--	--	--	--	--	(1,593.5)	--
Cash interest paid	--	--	--	--	--	(684.9)	--
Reported lease liabilities	308.1	--	--	--	--	--	--
Postretirement benefit obligations/deferred compensation	2,314.8	--	--	--	181.7	--	--
Accessible cash and liquid investments	(1,480.6)	--	--	--	--	--	--
Asset-retirement obligations	2,151.2	--	--	--	75.5	--	--
Exploration costs	--	--	201.2	--	--	(201.2)	--

Table 3

Reconciliation Of Ecopetrol S.A. Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. $) (cont.)							
Nonoperating income (expense)	--	--	--	109.7	--	--	--
Reclassification of interest and dividend cash flows	--	--	--	--	--	--	(551.6)
Noncontrolling interest/minority interest	--	1,051.1	--	--	--	--	--
EBITDA: Gain/(loss) on disposals of PP&E	--	--	77.0	77.0	--	--	--
EBITDA: Other	--	--	40.9	40.9	--	--	--
Total adjustments	3,293.5	1,051.1	319.1	227.5	257.1	(2,479.7)	(551.6)
S&P Global Ratings' adjusted amounts							
	Debt	**Equity**	**EBITDA**	**EBIT**	**Interest expense**	**Funds from operations**	**Cash flow from operations**
Adjusted	16,631.1	15,621.8	5,320.6	2,324.6	953.4	2,841.0	2,130.9

Liquidity: Adequate

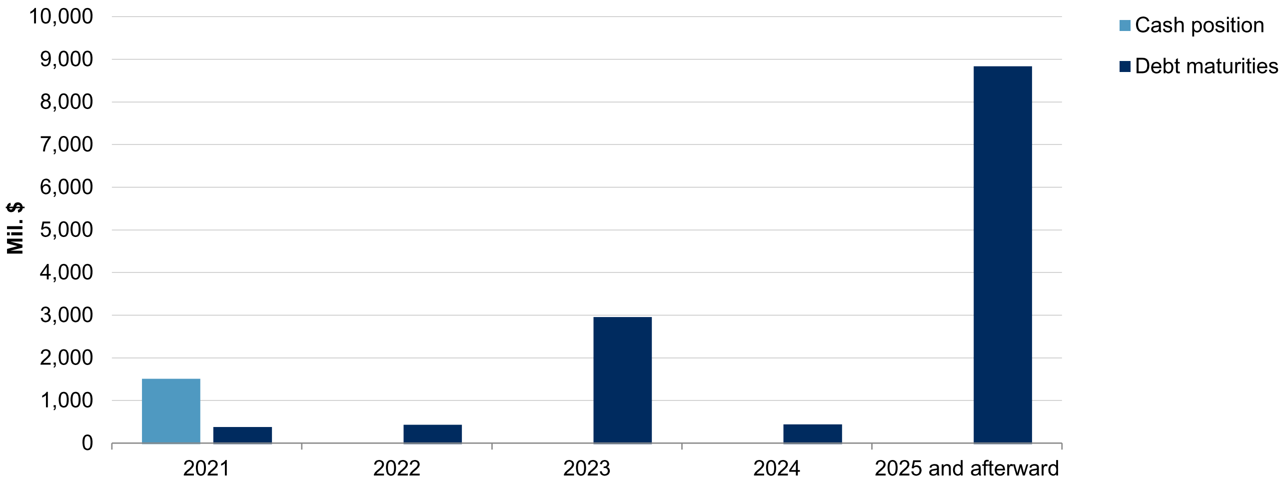
We view Ecopetrol's liquidity as adequate, given that we expect liquidity sources to exceed uses by about 1.2x over the next 12 months, and sources to exceed uses even if forecast EBITDA declines 15%. In our opinion, the company has a strong record of accessing credit facilities, illustrated by its recently signed $1.2 billion committed line with six international banks (BBVA, JP Morgan, Mizuho, Santander, Scotiabank, and SMBC) at a rate of 125 basis points over Libor. In addition, we believe Ecopetrol has a generally prudent risk management, as seen in capex adjustments and cost-reduction plans during times of low oil and gas prices.

Principal Liquidity Sources	Principal Liquidity Uses
• Available cash and cash equivalents of COP5.02 trillion as of June 30, 2021, and • Committed credit line of about COP4.44 billion (around $1.2 million) for the next 12 months; and • FFO of COP19.8 trillion expected for the next 12 months.	• Short-term debt maturities of about COP5.32 trillion as of June 30, 2021. • Working capital cash outflows expected at around COP1.8 trillion for the next 12 months. • Capex of COP12.0 trillion for the next 12 months. • Committed dividend payments of COP4.5 trillion in the next 12 months.

Debt maturities

Chart 1

Debt Maturity Profile In U.S. Dollars
As of Dec. 31, 2020



Source: S&P Global Ratings and company filings.

Covenant Analysis

The company does not have any financial covenants.

Group Influence

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 and acts as the main supplier of oil-derived products in the domestic market.
- It has a very strong link with the government, which controls the company and has strategic oversight despite the company's independent management.

Rating Above The Sovereign

We cap the rating on Ecopetrol by the 'BB+' sovereign foreign currency rating, given that the company benefits from a very high likelihood of government support, and its SACP is one notch higher than the sovereign foreign currency rating. Additionally, given Ecopetrol's very strong link with the government, we don't consider that we could rate it above the sovereign.

Issue Ratings - Subordination Risk Analysis

Capital structure

Ecopetrol's debt as of June 30, 2021, totals COP48.87 trillion. The total debt consists of several senior unsecured bonds maturing from 2023-2045, a syndicated loan, and commercial loans. Additionally, the company has about $1.0 trillion in operating leases.

Analytical conclusions

Unsecured debt at the subsidiaries' level represents about 10% 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 'BB+', in line with the issuer credit rating.

Ratings Score Snapshot

Issuer Credit Rating

BB+/Stable/--

Business risk: Satisfactory

- **Country risk:** Moderately high
- **Industry risk:** Moderately high
- **Competitive position:** Satisfactory

Financial risk: Intermediate

- **Cash flow/leverage:** Intermediate

Anchor: bbb-

Modifiers

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

Stand-alone credit profile : bbb-

- **Group credit profile:** bb+
- **Related government rating:** BB+
- **Likelihood of government support:** Very high
- **Rating above the sovereign:** (no impact)

Related Criteria

- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- 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 | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, 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, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

Business And Financial Risk Matrix

	Financial Risk Profile					
Business 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 August 16, 2021)*

Ecopetrol S.A.	
Issuer Credit Rating	BB+/Stable/--
Senior Unsecured	BB+
Issuer Credit Ratings History	
20-May-2021	BB+/Stable/--
26-Mar-2020	BBB-/Negative/--
11-Dec-2017	BBB-/Stable/--
Related Entities	
Oleoducto Central, S.A. (OCENSA)	
Issuer Credit Rating	BB+/Stable/--
Senior Unsecured	BB+

*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.