

Ecopetrol S.A.

Full Rating Report

Ratings

Foreign Currency

| | |
|------------------|-----|
| Long-Term IDR | BBB |
| Senior Unsecured | BBB |

Local Currency

| | |
|----------------------------|----------|
| Long-Term IDR | BBB+ |
| National Long-Term Rating | AAA(col) |
| National Short-Term Rating | F1+(col) |

IDR – Issuer Default Rating.

Rating Outlooks

| | |
|--------------------------------|--------|
| Long-Term Foreign Currency IDR | Stable |
| Long-Term Local Currency IDR | Stable |

Financial Data

Ecopetrol S.A.

| (USD Mil.) | LTM | |
|-------------------------------|---------|----------|
| | 9/30/15 | 12/31/14 |
| Revenue | 21,437 | 34,050 |
| EBITDA | 7,502 | 12,692 |
| EBITDA Margin (%) | 35.0 | 37.3 |
| Funds from Operations | 4,130 | 7,448 |
| FCF | (6,117) | (5,274) |
| Cash and Mkt. Securities | 3,013 | 3,817 |
| Total Adj. Debt | 17,127 | 15,054 |
| Total Adj. Debt/EBITDAR | 2.3 | 1.2 |
| FFO-Adjusted Leverage | 5.3 | 4.4 |
| EBITDA/Gross Interest Expense | 8.5 | 17.1 |

Related Research

[Latin American Oil & Gas Netback Profile \(Cash Costs at or Below Market Prices\) \(January 2016\)](#)

[2016 Outlook: Latin American Oil and Gas \(Lower Oil Prices for Longer\) \(November 2015\)](#)

[Ecopetrol S.A. – Ratings Navigator \(February 2015\)](#)

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Key Rating Drivers

Linkage to Sovereign: Ecopetrol S.A.'s (Ecopetrol) ratings reflect its close linkage with the Republic of Colombia (foreign and local currency Issuer Default Rating of BBB and BBB+, respectively), which owns 88.5% of the company, due to its strategic importance to the country. Ecopetrol supplies virtually all liquids fuel demand in the country, and it owns 100% of the country's refining capacity. The company has relied on the receipt of funds from the Colombian government to offset the price difference from selling fuel in the local market instead of the export market. Historically, Ecopetrol has generated 10%–15% of government revenues.

Prices Pressure Financial Profile: Ecopetrol's historically strong financial profile is currently under pressure from depressed global oil prices, and leverage could be in the 3.0x–4.0x range this year and next. Ecopetrol reported USD7.5 billion of EBITDA and approximately USD17.1 billion of debt in the LTM period ended Sept. 30, 2015, which translates to a leverage of 2.3x. EBITDA for 2016 may decrease to close to USD6 billion under Fitch price assumptions of USD45/barrel (bbl) for 2016. The company reported moderately high leverage as measured by total proven reserves/total debt of approximately USD8.1/bbl.

Improving Operating Metrics: The company's operating metrics have been improving during recent years and are considered in line with the assigned rating category. Ecopetrol's reserve life stood at approximately 8.6 years as of September 2015, which is considered low for the rating category and exposes the company to prolonged period of depressed oil prices. Ecopetrol's reserve life and leverage, as measured by total debt/proved reserves, will weaken as a result of the downturn in hydrocarbon prices, as the company reserves as of year-end 2015 could be revised downwards.

Manageable Production Growth Targets: The company's new growth strategy of reaching 870,000 barrels of oil equivalent per day (boed) by 2020, down from the previous growth target of 1.3 million boed, is expected to put less pressure on the reserve-replacement ratio (RRR) required to maintain or improve reserve life. As of Dec. 31, 2014, Ecopetrol's average RRR was 146%. The company's production averaged approximately 761,000 boed during the first nine months of 2015. During the same period, the company's lifting cost fell to USD7.3/bbl, a 35% decrease relative to 2014.

Manageable Capex Plan: Ecopetrol plans to finance its USD39 billion capex program for 2015–2020 using primarily internal cash flow generation and, to a lesser extent, divestitures and debt issuances. Due to the historically high dividend policy, the projected capex plan and lower oil prices, FCF is expected to be under pressure in the foreseeable future. In addition, debt could continue to rise.

Rating Sensitivities

Negative Rating Action: A downgrade could occur following a downgrade of Colombia's sovereign ratings and/or Fitch's perception of weakening linkage with the sovereign.

Positive Rating Action: An upgrade could result from an upgrade of Colombia's ratings.

Financial Overview

Liquidity and Debt Structure

Ecopetrol's balance sheet is expected to be negatively impacted by lower international oil prices and by higher financing needs to fund capex. Liquidity is considered solid and is supported by the company's internal cash flow generation, cash on hand and manageable maturity schedule. As of Sept. 30, 2015, Ecopetrol's consolidated cash and marketable securities amounted to USD3.0 billion, while its short-term debt was USD1.4 billion and its consolidated financial debt amounted to USD17.1 billion.

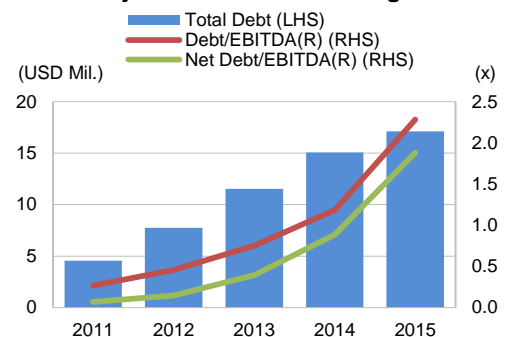
Debt Maturities and Liquidity

(USD Mil., As of Sept. 30, 2015)

| | |
|------------------------------|--------|
| 2015 | 31 |
| 2016 | 97 |
| 2017 | 165 |
| 2018 | 502 |
| 2019 | 1,601 |
| 2020 and Thereafter | 14,731 |
| CFFO | 4,696 |
| Cash | 3,013 |
| Undrawn Committed Facilities | 0 |

Source: Company reports.

Total Adjusted Debt and Leverage Ratios



Source: Company reports.

Cash Flow Analysis

Ecopetrol has reported a negative FCF over the past three years, mainly as a result of increased dividend payments. Between 2011 and 2014, the company's cash flow generation was robust and benefited from high hydrocarbon prices. Since the decrease in oil prices that began towards the end of 2014, the company has significantly reduced its dividend payments and operating costs to mitigate the decrease in revenues. Fitch estimates Ecopetrol needs to realize an average price of no less than USD23/boe in order to be able to cover its lifting costs, transportation, selling and administrative expenses, as well as interest expenses. In order for Ecopetrol to cover these costs and generate enough funds from operations to replenish reserves, the company would need its realization prices to be no less than USD38/boe or approximately USD41/bbl of crude oil given the company's current gas realization price of approximately USD23/boe.

Full-Cycle Costs and Required Revenues

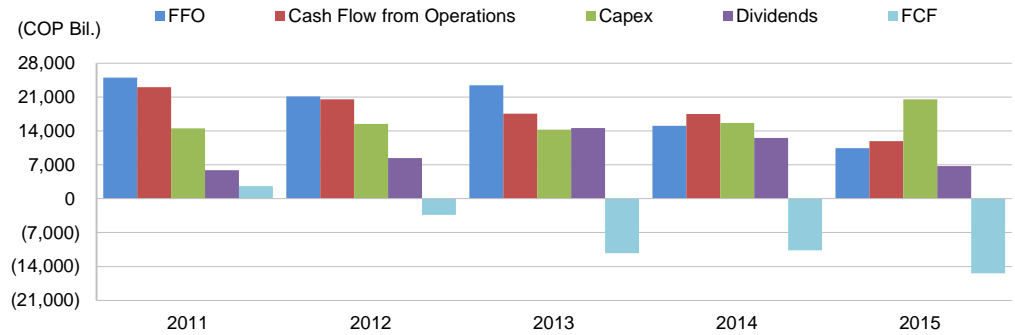
| Date | Ecopetrol | |
|---------------------------------------|-----------|---------|
| | 2014 | 9/30/15 |
| FC Rating | BBB | BBB |
| Outlook | Stable | Stable |
| Total Production (boe/day) | 755,000 | 761,000 |
| Lifting Costs | 11.3 | 7.3 |
| Transportation and Others | 5.1 | 5.1 |
| SG&A | 8.4 | 6.7 |
| Interest Costs | 2.7 | 3.2 |
| Total Periodic Cost (Half-Cycle) | 27.5 | 22.3 |
| Average Three-Year FD&A | 13.0 | 13.0 |
| 15% Return on Invested Capital | 2.0 | 2.0 |
| Full-Cycle Costs | 42.4 | 37.3 |
| Gas Price | 23.7 | 23.7 |
| Gas Production (% of Total) | 20.0 | 20.0 |
| Implied Oil Price (USD/bbl) | 47.1 | 40.7 |
| Taxes, Royalties and Other Duties | 4.7 | 1.5 |
| Implied After-Tax Oil Price (USD/bbl) | 51.8 | 42.1 |
| Realized Price (USD/bbl) | 93.5 | 55.5 |

Boe – Barrel of oil equivalent. Bbl – Barrel.
 FD&A – Finding, development and acquisition cost.
 FC – Foreign Currency.
 Source: Company reports, Fitch Ratings.

Related Criteria

Corporate Rating Methodology — Including Short-Term Ratings and Parent and Subsidiary Linkage (August 2015)

Cash Flow Performance

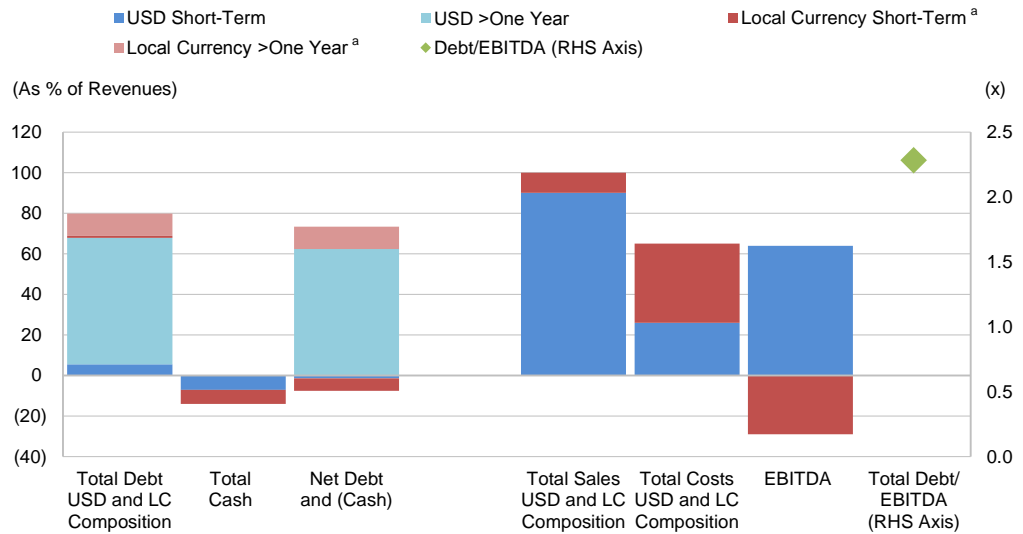


Source: Company reports.

Ecopetrol's FCF is expected to remain negative over the near term as a result of low hydrocarbon prices and capex. The company has significantly reduced its capex plan to USD39 billion between 2015 and 2020 to cope with the lower oil prices. Further reductions to capex are possible but have yet to be announced, and the company will likely reduce its capex plan to match the prevailing oil prices. Capex for 2015 is estimated to amount to approximately USD7.2 billion and approximately USD4.8 billion in 2016.

Fitch FX Screener

(Ecopetrol S.A. — BBB/Stable, Sept. 30, 2015)



^aLocal currency depicted as USD equivalent.
Source: Fitch Ratings.

The FX risk screener above shows Fitch's estimates of the foreign currency (FC) and local currency (LC) split between Ecopetrol's debt, sales and operating costs. The chart illustrates relative proportions rather than specific figures, thereby acknowledging the limitations of calculating the currency splits for a given financial year.

Fitch analysts make estimates, sometimes with information from management, as to the actual FC receipts or FC-linked income relative to costs. Within the graph's debt columns, the short-term FC (usually U.S. dollar) debt is highlighted since, in a volatile currency market, this debt has to be physically repaid with FC using cash or accommodative refinancing in the bond or bank market.

As of Sept. 30, 2015, about 90% of Ecopetrol's revenue was linked to or denominated in U.S. dollars, which constitutes a natural hedge to its 85% U.S. dollar-denominated debt.

Peer and Sector Analysis

Peer Group

| Issuer | Country |
|-----------------------------|-----------|
| BBB+ | |
| Petroleos Mexicanos (Pemex) | Mexico |
| BBB | |
| Ecopetrol S.A. | Colombia |
| BB+ | |
| Petroleo Brasileiro S.A. | Brazil |
| CCC | |
| Petroleos de Venezuela S.A. | Venezuela |

Source: Fitch Ratings.

Issuer Rating History

| Date | LT IDR (FC) | Outlook/Watch |
|----------------|-------------|---------------|
| Dec. 17, 2015 | BBB | Stable |
| Oct. 5, 2015 | BBB | Stable |
| June 19, 2015 | BBB | Stable |
| Aug. 27, 2014 | BBB | Stable |
| Dec. 13, 2013 | BBB | Stable |
| Aug. 28, 2013 | BBB- | Positive |
| March 8, 2013 | BBB- | Positive |
| Aug. 30, 2012 | BBB- | Stable |
| July 10, 2012 | BBB- | Stable |
| June 23, 2011 | BBB- | Stable |
| Oct. 15, 2010 | BB+ | Positive |
| Sept. 1, 2010 | BB+ | Stable |
| Oct. 5, 2009 | BB+ | Stable |
| Nov. 10, 2008 | BB+ | Stable |
| Nov. 2, 2007 | BB+ | Stable |
| June 25, 2007 | BB+ | Stable |
| June 23, 2006 | BB | Positive |
| April 24, 2006 | BB | Stable |
| Nov. 10, 2004 | BB | Stable |
| Jan. 11, 2002 | BB | Stable |
| Mar. 17, 2000 | BB+ | RWN |
| Sept. 9, 1999 | BBB- | — |
| June 5, 1995 | BBB | — |

LT IDR – Long-term Issuer Default Rating.
 FC – Foreign currency.
 RWN – Rating Watch Negative.
 Source: Fitch Ratings.

Peer Group Analysis

| (USD Mil.) | Ecopetrol S.A. | Petroleo Brasileiro S.A. (Petrobras) | Petroleos Mexicanos (Pemex) | Petroleos de Venezuela S.A. (PDVSA) |
|---------------|-----------------------|--------------------------------------|-----------------------------|-------------------------------------|
| LTM as of | 9/30/15 | 9/30/15 | 9/30/15 | 12/31/14 |
| Long-Term IDR | BBB | BB+ | BBB+ | CCC |
| Outlook | Rating Outlook Stable | Rating Outlook Negative | Rating Outlook Stable | — |

Financial Statistics

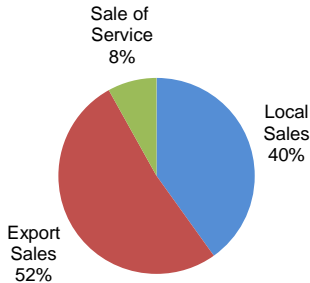
| | | | | |
|----------------------------|---------|----------|----------|----------|
| Revenue | 21,437 | 108,576 | 83,814 | 105,271 |
| YoY Revenue Growth (%) | (42.4) | (25.6) | (32.8) | (7.6) |
| EBITDA | 7,502 | 29,023 | 29,098 | 14,989 |
| EBITDA Margin (%) | 35.0 | 26.7 | 34.7 | 14.2 |
| FCF | (6,117) | (6,400) | (14,834) | (11,019) |
| Total Adjusted Debt | 17,127 | 141,374 | 107,496 | 45,736 |
| Cash and Cash Equivalents | 3,013 | 26,240 | 6,523 | 7,911 |
| Funds Flow from Operations | 4,130 | 20,995 | (1,951) | 24,957 |
| Capex | (8,138) | (25,474) | (14,728) | (24,634) |

Credit Metrics (x)

| | | | | |
|----------------------------------|-------|-----|-------|-----|
| EBITDA/Gross Interest Coverage | 8.5 | 4.3 | 5.9 | 3.7 |
| (FCF+Cash)/Debt-Service Coverage | (1.0) | 1.3 | (0.2) | 0.1 |
| Adjusted Debt/EBITDAR | 2.3 | 4.9 | 3.7 | 3.1 |
| FFO Interest Coverage | 3.6 | 4.2 | 0.5 | 1.4 |

IDR – Issuer Default Rating. YoY – Year over year.
 Source: Fitch Ratings.

Sales Breakdown
(9M15)



Source: Company reports.

Company Profile

Ecopetrol is a vertically integrated oil and gas company that operates primarily in Colombia. The company is 88.5% owned by the Colombian government, and the balance was placed on the Colombian stock exchange and registered on the New York Stock Exchange. During the first nine months of 2015, Ecopetrol's consolidated average gross crude oil production was approximately 761,000 boed and was approximately 53% light and medium crudes and natural gas, with the balance being heavy crude. Proved reserves of crude oil and natural gas, net of royalties as of year-end 2014 amounted to approximately 2.084 billion barrels.

Ecopetrol's current strategic plan for 2020 encompasses its growth and operational consolidation goals. The company's growth goals are to be vertically integrated, producing 870,000 boed by 2020; to have some of the top refineries and transportation systems in Latin America; and to be the best hydrocarbon supply option for Colombia. The company's near-term strategy is to focus on activities near existing producing projects with relatively lower levels of risk. For larger, riskier projects, Ecopetrol is looking to participate in partnerships, as is the case with Repsol S.A. and Petróleo Brasileiro S.A. (Petrobras) in the Tayrona block. Ecopetrol has participated in bidding processes in Brazil, Peru and the U.S. Gulf of Mexico. Ecopetrol, in association with other companies, was awarded several blocks in those countries.

Ecopetrol uses its crude oil production and crude purchases for the country's refineries and exports any excess not used locally. Approximately 40% of crude oil production is used in the domestic refinery market, and the balance is exported. In 2014, Colombia's crude reserves continued increasing after reversing its declining trend in 2007, although at a slower growth rate. As of 2014, Colombia's proved conventional oil reserves totalled marginally more than 2.0 billion barrels with a reserve life of approximately 7.5 years according to BP Statistical Review of World Energy.

The company owns all of Colombia's refining capacity, which totals 300,000 barrels a day (bbl/d) among four refineries. Downstream operations encompass two major domestic refineries with a combined installed capacity of 330,000 bbl/d: Barrancabermeja, with a throughput capacity of 250,000 bbl/d and Cartagena, with a capacity of 80,000 bbl/d in addition to 5,000 bbl/d from two small refineries. The latter refinery is close to completing an expansion program to modernize the plant and increase its capacity to 165,000 bbl/d at an estimated cost of USD8 billion, significantly higher than initial estimates.

During 2015, throughput at Ecopetrol's refineries was approximately 220,000 bbl/d, down from the historical 290,000 bbl/d, as the Cartagena refinery has not reached full operations. Ecopetrol currently supplies close to 100% of the national gasoline and diesel demand. The national fuel demand composition continues to change, with demand for gasoline increasing and that for diesel decreasing.

Reserves and Leverage

| (Mil. boe) Date | Ecopetrol | |
|----------------------------------|-----------|---------|
| | 2014 | 9/30/15 |
| FC Rating | BBB | BBB |
| Outlook | Stable | Stable |
| Proved Reserves (1P) | 2,084 | 2,084 |
| Proved, Developed Reserves (PD) | 1,618 | 1,618 |
| Reserves Life (Years) — Estimate | 7.6 | 7.5 |
| Refining Capacity | 300 | 300 |
| Total Debt (USD Mil.) | 15,054 | 17,127 |
| Total Debt to 1P (USD/boe) | 7.2 | 8.2 |
| Total Debt to PD (USD/boe) | 9.3 | 10.6 |
| EBITDA (USD Mil., LTM) | 12,692 | 7,502 |
| Total Debt to EBITDA (x) | 1.2 | 2.3 |

Boe – barrel of oil equivalent. OS – Outlook Stable.
Source: Company reports, Fitch Ratings.

Key Forecast Assumptions

- West Texas Intermediate crude prices to average approximately USD45/bbl and to slowly recover to approximately USD70/bbl in the long term
- Production to remain relatively flat or moderately grow to the company's revised target production level of 870,000 boed by 2020 from current production of 761,000 boed
- Proved reserves stand to potentially decrease in 2015 as a result of low hydrocarbon prices. Fitch expects this decrease to be marginal and not to materially affect the company's reserve life and debt/proved reserve ratio.

Ecopetrol S.A.

| (COP Mil.) | Historical | | Fitch Forecast | | |
|---------------------------------|-------------|-------------|----------------|-------------|-------------|
| | 12/31/13 | 12/31/14 | 12/31/15 | 12/31/16 | 12/31/17 |
| Summary Income Statement | | | | | |
| Gross Revenue | 70,428,714 | 68,925,338 | 50,771,452 | 49,487,830 | 59,883,262 |
| Revenue Growth (%) | 2.3 | (2.1) | (26.3) | (2.5) | 21.0 |
| Operating EBITDA | 28,707,825 | 25,691,061 | 17,164,232 | 15,884,359 | 20,828,179 |
| Operating EBITDA Margin (%) | 40.8 | 37.3 | 33.8 | 32.1 | 34.8 |
| Operating EBITDAR | 28,707,825 | 25,691,061 | 17,164,232 | 15,884,359 | 20,828,179 |
| Operating EBITDAR Margin (%) | 40.8 | 37.3 | 33.8 | 32.1 | 34.8 |
| Operating EBIT | 23,189,736 | 19,207,695 | 9,135,757 | 6,977,929 | 10,776,555 |
| Operating EBIT Margin (%) | 32.9 | 27.9 | 18.0 | 14.1 | 18.0 |
| Gross Interest Expense | (1,229,687) | (1,504,917) | (2,213,818) | (2,713,499) | (2,856,809) |
| Pretax Income | 21,882,207 | 15,420,747 | 6,921,939 | 4,264,430 | 7,919,745 |

Summary Balance Sheet

| | | | | | |
|----------------------------------------|------------|------------|------------|------------|------------|
| Readily Available Cash | 10,500,746 | 9,038,640 | 9,219,875 | 8,282,201 | 6,220,185 |
| Total Debt with Equity Credit | 22,198,551 | 35,648,977 | 52,903,757 | 55,636,187 | 58,636,187 |
| Total Adjusted Debt with Equity Credit | 22,198,551 | 35,648,977 | 52,903,757 | 55,636,187 | 58,636,187 |
| Net Debt | 11,697,805 | 26,610,337 | 43,683,882 | 47,353,986 | 52,416,002 |

Summary Cash Flow Statement

| | | | | | |
|-----------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Operating EBITDA | 28,707,825 | 25,691,061 | 17,164,232 | 15,884,359 | 20,828,179 |
| Cash Interest | (592,644) | (817,546) | (2,213,818) | (2,713,499) | (2,856,809) |
| Implied Interest Cost (%) | 3.3 | 2.8 | 5.0 | 5.0 | 5.0 |
| Cash Tax | 0 | (2,535,744) | (3,202,731) | (1,973,121) | (3,664,409) |
| Associate Dividends Less Distributions to NCI | 0 | 0 | 0 | 0 | 0 |
| Other Items Before FFO | (4,713,212) | (7,260,343) | 0 | 0 | 0 |
| Funds Flow from Operations | 23,401,969 | 15,077,428 | 11,747,683 | 11,197,740 | 14,306,961 |
| FFO Margin (%) | 33.2 | 21.9 | 23.1 | 22.6 | 23.9 |
| Change in Working Capital | (5,879,208) | 2,427,621 | (1,027,408) | 132,156 | (92,377) |
| Cash Flow from Operations (Fitch Defined) | 17,522,761 | 17,505,049 | 10,720,275 | 11,329,896 | 14,214,585 |
| Total Non-Operating/Non-Recurring Cash Flow | — | — | — | — | — |
| Capex | (14,235,562) | (15,621,879) | — | — | — |
| Capital Intensity (Capex/Revenue) (%) | 20.2 | 22.7 | — | — | — |
| Common Dividends | (14,570,467) | (12,558,250) | — | — | — |
| Net Acquisitions and Divestitures | — | — | — | — | — |
| Capex, Dividends, Acquisitions and Other Items Before FCF | (28,806,029) | (28,180,129) | (13,095,000) | (15,000,000) | (19,276,601) |
| FCF After Acquisitions and Divestitures | (11,283,268) | (10,675,080) | (2,374,725) | (3,670,104) | (5,062,016) |
| FCF Margin (After Net Acquisitions) Margin (%) | (16.0) | (15.5) | (4.7) | (7.4) | (8.5) |
| Other Investing and Financing Cash Flow Items | 4,573,200 | 2,631,802 | (14,698,820) | 0 | 0 |
| Net Debt Proceeds | 7,492,632 | 7,153,041 | 17,254,780 | 2,732,430 | 3,000,000 |
| Net Equity Proceeds | 0 | 0 | 0 | 0 | 0 |
| Total Change in Cash | 782,564 | (890,237) | 181,235 | (937,674) | (2,062,016) |

Coverage Ratios (x)

| | | | | | |
|--------------------------------------------------|------|------|-----|-----|-----|
| FFO Interest Coverage | 16.8 | 4.6 | 6.3 | 5.1 | 6.0 |
| FFO Fixed Charge Coverage | 16.8 | 4.6 | 6.3 | 5.1 | 6.0 |
| Operating EBITDAR/Gross Interest Expense + Rents | 23.3 | 17.1 | 7.8 | 5.9 | 7.3 |
| Operating EBITDA/Gross Interest Expense | 23.3 | 17.1 | 7.8 | 5.9 | 7.3 |

Leverage Ratios (x)

| | | | | | |
|------------------------------------------------|-----|-----|-----|-----|-----|
| Total Adjusted Debt/Operating EBITDAR | 0.8 | 1.4 | 3.1 | 3.5 | 2.8 |
| Total Adjusted Net Debt/Operating EBITDAR | 0.4 | 1.0 | 2.5 | 3.0 | 2.5 |
| Total Debt with Equity Credit/Operating EBITDA | 0.8 | 1.4 | 3.1 | 3.5 | 2.8 |
| FFO-Adjusted Leverage | 1.1 | 5.1 | 3.8 | 4.0 | 3.4 |
| FFO-Adjusted Net Leverage | 0.0 | 2.0 | 3.1 | 3.4 | 3.1 |

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