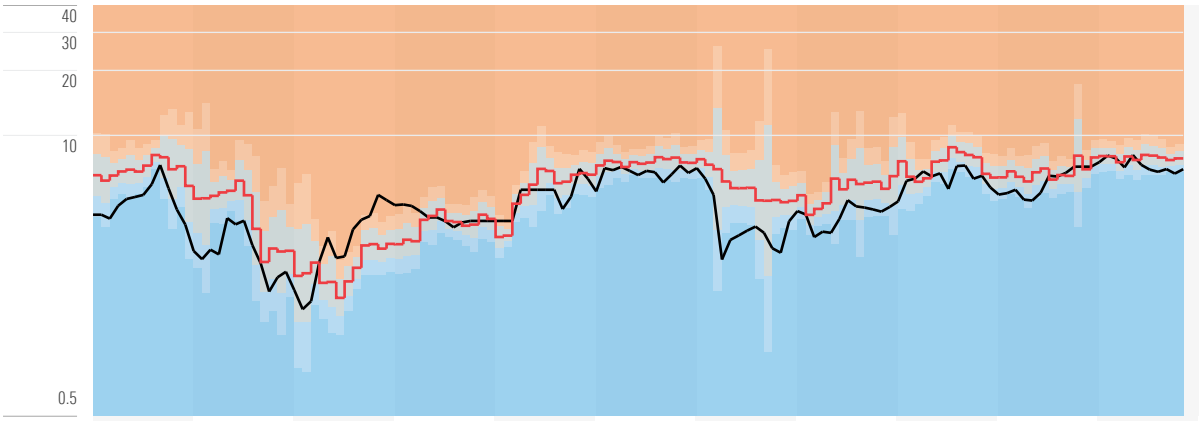
Petroleo Brasileiro SA Petrobras XPBR ★★★★ Q 10 Oct 2024 22:42, UTC

Economic Moat Q	Uncertainty Q	Price/Fair Value Q	ESG Risk Rating Assessment[1]	Trailing Dividend Yield %	Market Cap	Investment Style	Sector	Industry
None	High	0.89	2 Oct 2024 05:00, UTC	12.64	—	Large Value	Energy	Oil & Gas Integrated



Fair Value Q
7.82

Last Close
6.97

Overvalued
Fairly Valued
Undervalued

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD
Price/Fair Value Q	0.50	0.66	1.51	0.98	0.84	0.94	0.90	0.76	0.83	0.95	0.89
Total Return %	-32.53	-34.11	147.45	-15.49	38.42	30.20	-36.17	36.67	59.53	67.00	4.45
+/- Index	-4.09	-12.72	37.05	27.92	16.40	34.03	4.95	-11.87	5.06	23.11	-1.35

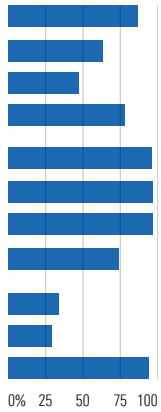
As of 10 Oct 2024 | Index: Morningstar Brazil GR BRL. Fair Value data as of 10 Oct 2024 00:00, UTC.

[1]The ESG Risk Rating Assessment is a representation of Sustainalytics' ESG Risk Rating. Lee Davidson, Chief Analytics Officer for Morningstar, Inc, oversees the methodology that supports Quantitative Fair Value Estimates and Quantitative Star Ratings. Mr. Davidson is guided by the Morningstar, Inc. Code of Ethics in carrying out his responsibilities. For information regarding Conflicts of Interests, visit http://global.morningstar.com/equitydisclosures.

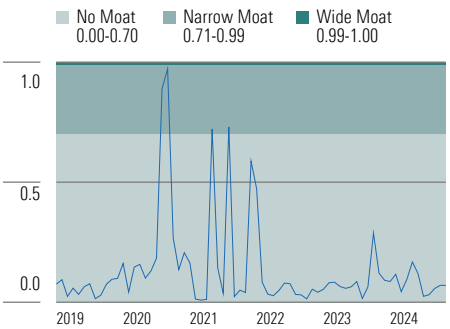
Key Metrics as of 9 Oct 2024

Metrics		Percentile in Sector
Earnings Yield (%)	16.9	87.0
Sales Yield (%)	105.3	63.0
Book Value Yield (%)	71.2	47.0
Return on Assets (%)*	8.2	78.0
Revenue(Bil)*	99.9	96.0
Market Value (Bil)	93.0	97.0
Enterprise Value (Bil)	140.4	97.0
EVMV Ratio	1.5	74.0
Volatility TTM (%)	25.5	34.0
Drawdown TTM (%)	20.6	29.0
Volume (Mil)	18.0	94.0

*30 Jun 2024



Economic Moat Q History as of 10 Oct 2024



Business Description

Petrobras is a Brazil-based integrated energy company controlled by the Brazilian government. The company focuses on exploration and production of oil and gas in Brazilian offshore fields. Production in 2023 was 2.8 million barrels of oil equivalent a day (80% oil production), and reserves stood at 10.9 billion boe (85% oil). At end-2023, Petrobras operated 10 refineries in Brazil with capacity of 1.8 million barrels a day and distributes refined products and natural gas throughout Brazil.

Valuation Q as of 10 Oct 2024

Petrobras Brasileiro achieves a 4-star quantitative star rating based on Morningstar's equity model. This reflects the company's valuation and uncertainty scores under this assessment system.

The Quantitative Fair Value estimate is 7.98, above the previous closing price of 6.90. The stock has been trading between a 23.1% discount and 6.48% premium to its quantitative fair value over the past year. The stock's current valuation rating sits at the 72nd percentile in the coverage universe and 77th percentile in the energy sector.

The quantitative uncertainty rating for Petrobras Brasileiro is High.

Our quantitative star rating last differed from the current rating on 08/09/2024; the uncertainty rating last differed on 10/01/2024. The previous ratings were 5 and Medium, respectively.

The main drivers of the company's valuation and uncertainty are its earnings yield and volume. The earnings yield of 16.94% falls at the 94th percentile in the equity universe and the 87th percentile in its sector. The trailing 12-month average volume (primary share) of 17,958,065 shares corresponds to the 95th percentile overall and the 94th percentile in the industry.

Economic Moat Q as of 10 Oct 2024

Quantitatively, we do not believe Petrobras Brasileiro has an economic moat. Its moat score of 0.02 corresponds to the 7th percentile in the energy sector. Furthermore, this rating has not changed over the past year, while the company's moat score fell from its maximum of 0.6 in this period (score of 1 indicates greatest economic moat).

The company also maintains a quantitative financial health rating of Moderate. Its score sits at the 40th percentile overall and the 47th percentile in the sector.

Examining the company's financials and market statistics, we find these ratings are principally driven by its book value yield and annualized trailing 12-month volatility. The book value yield is 71.21%, sitting at the 47th percentile in the energy sector. The company's annualized trailing 12-month volatility is 25.47%, corresponding to the 33rd percentile in the equity coverage universe and the 34th percentile in the sector.

Fundamentals as of 10 Oct 2024

Petrobras Brasileiro reports earnings per share of 1.24. Its return on invested capital is 14.5%. The company maintains a dividend yield of 13.24%, paying out 102.86% of earnings. These values are calculated over a trailing 12-month period.

As of last market close, Petrobras Brasileiro has a price-to-earnings ratio of 6.1, falling at the 24th percentile in its sector (where a lower percentile means a lower ratio) and ranging between 3.18 and 6.4 over the past year. The company's price-to-free cash flow ratio is 3.36, falling at the 14th percentile in its sector and ranging between 2.83 and 3.83 over the past year.

Contact

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Petroleo Brasileiro SA Petrobras XPBR ★★★★ Q 10 Oct 2024 22:42, UTC

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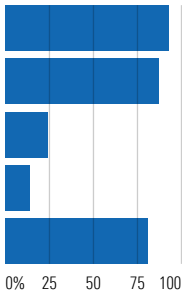
None	High	0.89	2 Oct 2024 05:00, UTC	12.64	—	Large Value	Energy	Oil & Gas Integrated

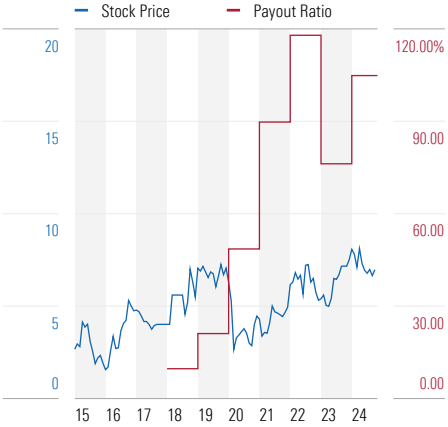
Earnings as of 9 Oct 2024

Earnings	%	Percentile in Sector
Dividend Yield*	13.2	93.0
Payout Ratio*	102.9	87.0
Price to Earnings	6.1	24.0
Price to Cash Flow	3.4	14.0
ROIC**	14.5	81.0

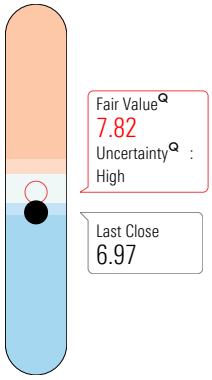


*30 Sep 2024
**30 Jun 2024

Dividends as of 10 Oct 2024



Valuation Q as of 10 Oct 2024



Undervalued (10% Discount)

Economic Moat Q
None
1-Star Price Q
>9.10
5-Star Price Q
<6.73

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Financials (Fiscal Year End 31 Dec 2024)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	06/2024	Fiscal
143.66	97.31	81.41	88.83	95.58	76.59	53.68	83.97	124.47	102.41	99.89	Revenue (Bil)
13.20	14.28	14.46	13.31	23.12	17.18	16.51	33.33	55.53	39.27	34.76	Operating Income (Bil)
9.19	14.67	17.77	14.98	24.19	22.43	30.76	39.69	44.61	38.35	38.35	Operating Margin (%)
-7.37	-8.45	-4.84	-0.09	7.17	10.15	1.14	19.88	36.62	24.88	16.15	Net Income (Bil)
-0.56	-0.65	-0.37	-0.01	0.55	0.78	0.09	1.52	2.81	1.91	1.24	Diluted Earnings/Share
26.63	25.91	26.11	27.11	26.35	25.60	28.89	37.79	49.72	43.21	41.70	Operating Cash Flow (Bil)
34.81	21.65	14.09	13.64	12.02	23.90	5.87	6.33	9.58	12.11	12.55	Capital Spending (Bil)
-7.55	0.16	6.70	8.64	10.97	3.30	17.43	29.80	44.83	32.89	31.97	Free Cash Flow (Bil)
13.04	13.04	13.04	13.04	13.04	13.04	13.04	13.04	13.04	12.94	12.91	Avg Shares Outstand(Bil)

Valuation as of 10 Oct 2024

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Current	Calendar
0.50	0.66	1.51	0.98	0.84	0.94	0.90	0.76	0.83	0.95	0.89	Price/Fair Value Q
0.37	0.27	0.84	0.67	0.90	1.28	1.09	1.04	0.63	0.99	0.98	Price/Sales
5.90	—	—	24.61	17.22	16.57	—	3.00	2.20	3.90	6.08	Price/Earnings
2.28	1.26	3.31	2.63	3.47	4.61	2.47	2.22	1.85	1.94	2.19	Price/Cash Flow
0.32	0.39	0.87	0.74	1.15	1.37	1.56	1.10	0.99	1.34	1.43	Price/Book

Operating Performance (Fiscal Year End 31 Dec 2024)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	06/2024	Fiscal (%)
-2.38	-3.19	-2.03	-0.04	3.03	4.49	0.54	10.91	20.26	12.31	8.16	Return on Assets
-5.56	-9.31	-6.81	-0.12	9.48	14.01	1.72	30.87	52.73	33.61	22.42	Return on Equity
-2.16	-2.09	-0.20	1.60	5.45	9.16	3.32	17.80	30.57	20.75	14.50	Rtn on Invested Capital

Dividends as of 10 Oct 2024

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Current	Calendar (%)
0.23	—	—	—	0.05	0.12	0.04	1.36	3.31	1.46	0.88	Dividend Per Share
6.02	0.00	0.00	0.00	3.84	5.59	0.86	23.30	58.84	18.16	12.64	Trailing Dividend Yield
—	—	—	—	—	—	—	—	—	—	1.23	Buyback Yield

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Appendix

Economic Moat History as of 10 Oct 2024 (No Moat: 0.00-0.70, Narrow Moat: 0.70-0.99, Wide Moat: 0.99-1.00)

Year	January	February	March	April	May	June	July	August	September	October	November	December
2024	0.09	0.12	0.04	0.10	0.17	0.12	0.02	0.03	0.06	0.07	—	—
2023	0.05	0.08	0.08	0.07	0.06	0.06	0.09	0.02	0.06	0.29	0.12	0.09
2022	0.47	0.08	0.03	0.03	0.05	0.08	0.08	0.03	0.03	0.01	0.05	0.04
2021	0.16	0.01	0.01	0.01	0.72	0.14	0.04	0.73	0.02	0.05	0.04	0.59
2020	0.16	0.04	0.15	0.16	0.10	0.13	0.18	0.89	0.97	0.27	0.14	0.21
2019	0.08	0.09	0.02	0.06	0.03	0.06	0.08	0.01	0.03	0.08	0.10	0.10

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The quantitative report on equities consists of data, statistics and quantitative equity ratings on equity securities. Morningstar, Inc.'s quantitative equity ratings are forward looking and are generated by a statistical model that is based on Morningstar Inc.'s analyst-driven equity ratings and quantitative statistics. Given the nature of the quantitative report and the quantitative ratings, there is no one analyst in which a given report is attributed to; however, Mr. Lee Davidson, Head of Quantitative Research for Morningstar, Inc., is responsible for overseeing the methodology that supports the quantitative equity ratings used in this report. As an employee of Morningstar, Inc., Mr. Davidson is guided by Morningstar, Inc.'s Code of Ethics and Personal Securities Trading Policy in carrying out his responsibilities.

Quantitative Equity Ratings

Morningstar's quantitative equity ratings consist of: (i) Quantitative Fair Value Estimate, (ii) Quantitative Star Rating, (iii) Quantitative Uncertainty, (iv) Quantitative Economic Moat, and (v) Quantitative Financial Health (collectively the "Quantitative Ratings).

The Quantitative Ratings are calculated daily and derived from the analyst-driven ratings of a company's peers as determined by statistical algorithms. Morningstar, Inc. ("Morningstar", "we", "our") calculates Quantitative Ratings for companies whether or not it already provides analyst ratings and qualitative coverage. In some cases, the Quantitative Ratings may differ from the analyst ratings because a company's analyst-driven ratings can significantly differ from other companies in its peer group.

i. **Quantitative Fair Value Estimate:** Intended to represent Morningstar's estimate of the per share dollar amount that a company's equity is worth today. Morningstar calculates the Quantitative Fair Value Estimate using a statistical model derived from the Fair Value Estimate Morningstar's equity analysts assign to companies. Please go to http://global.morningstar.com/equitydisclosures for information about Fair Value Estimate Morningstar's equity analysts assign to companies.

ii. **Quantitative Economic Moat:** Intended to describe the strength of a firm's competitive position. It is calculated using an algorithm designed to predict the Economic Moat rating a Morningstar analyst would assign to the stock. The rating is expressed as Narrow, Wide, or None.

Narrow – assigned when the probability of a stock receiving a "Wide Moat" rating by an analyst is greater than 70% but less than 99%.

Wide – assigned when the probability of a stock receiving a "Wide Moat" rating by an analyst is greater than 99%.

None – assigned when the probability of an analyst receiving a "Wide Moat" rating by an analyst is less than 70%.

iii. **Quantitative Star Rating:** Intended to be the summary rating based on the combination of our Quantitative Fair Value Estimate, current market price, Quantitative Uncertainty Rating, and momentum. The rating is expressed as One-Star, Two-Star, Three-Star, Four-Star, and Five-Star.

★ – the stock is overvalued with a reasonable margin of safety.
*Log (Quant FVE/Price) < -1*Quantitative Uncertainty*
*Micro-Caps: Log (Quant FVE/Price) < -1.5*Quantitative Uncertainty*

★★ - the stock is somewhat overvalued.
*Log (Quant FVE/Price) between (-1*Quantitative Uncertainty, -0.5*Quantitative Uncertainty)*
*Micro-Caps: Log (Quant FVE/Price) between (-1.5*Quantitative Uncertainty, -0.75*Quantitative Uncertainty)*

★★★ – the stock is approximately fairly valued.
*Log (Quant FVE/Price) between (-0.5*Quantitative Uncertainty, 0.5*Quantitative Uncertainty)*
*Micro-Caps: Log (Quant FVE/Price) between (-0.75*Quantitative Uncertainty, 0.75*Quantitative Uncertainty)*

★★★★ – the stock is somewhat undervalued.
*Log (Quant FVE/Price) between (0.5*Quantitative Uncertainty, 1*Quantitative Uncertainty)*
*Micro-Caps: Log (Quant FVE/Price) between (0.75*Quantitative Uncertainty, 1.5*Quantitative Uncertainty)*

★★★★★ – the stock is undervalued with a reasonable margin of safety.
*Log (Quant FVE/Price) > 1*Quantitative Uncertainty*
*Micro-Caps: Log (Quant FVE/Price) > 1.5*Quantitative Uncertainty*

After the initial calculation for the star rating, there is a final filtering step based on the momentum of the company. We rank the companies based on their 12-1 month momentum, then restrict those below the 30th percentile to a maximum of 3 stars.

iv. **Quantitative Uncertainty:** Intended to represent Morningstar's level of uncertainty about the accuracy of the Quantitative Fair Value Estimate. Generally, the lower the Quantitative Uncertainty, the narrower the potential range of outcomes for that particular company. The rating is expressed as Low, Medium, High, Very High, and Extreme.

Low – the interquartile range for possible fair values is less than 10%

Medium – the interquartile range for possible fair values is less than 15% but greater than 10%

High – the interquartile range for possible fair values is less than 35% but greater than 15%

Very High – the interquartile range for possible fair values is less than 80% but greater than 35%

Extreme – the interquartile range for possible fair values is greater than 80%

v. **Quantitative Financial Health:** Intended to reflect the probability that a firm will face financial distress in the near future. The calculation uses a predictive model designed to anticipate when a company may default on its financial obligations. The rating is expressed as Weak, Moderate, and Strong.

Weak – assigned when Quantitative Financial Health < 0.2

Moderate – assigned when Quantitative Financial Health is between 0.2 and 0.7

Strong – assigned when Quantitative Financial Health > 0.7

Other Definitions

i. **Last Close** – Price of the stock as of the close of the market of the last trading day before date of the report.

ii. **Quantitative Valuation**– Using the below terms, intended to denote the relationship between the security's **Last Price** and Morningstar's quantitative fair value estimate for that security.

Undervalued – Last Price is below Morningstar's quantitative fair value estimate.

Farily Valued – Last Price is in line with Morningstar's quantitative fair value estimate.

Farily Valued – Last Price is in line with Morningstar's quantitative fair value estimate.

Overvalued – Last Price is above Morningstar's quantitative fair value estimate.

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Sustainalytics analyzes over 1,300 data points to assess a company's exposure to and management of ESG risks. In other words, ESG Risk Ratings measures a company's unmanaged ESG Risks represented as a quantitative score. Unmanaged Risk is measured on an open-ended scale starting at zero (no risk) with lower scores representing less unmanaged risk and, for 95% of cases, the unmanaged ESG Risk score is below 50.

Based on their quantitative scores, companies are grouped into one of five Risk Categories (negligible, low, medium, high, severe). These risk categories are absolute, meaning that a 'high risk' assessment reflects a comparable degree

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of unmanaged ESG risk across all subindustries covered.

The ESG Risk Rating Assessment is a visual representation of Sustainalytics ESG Risk Categories on a 1 to 5 scale. Companies with Negligible Risk = 5 Globes, Low Risk = 4, Medium Risk = 3 Globes, High Risk = 2 Globes, Severe Risk = 1 Globe. For more information, please visit sustainalytics.com/esg-ratings/

Ratings should not be used as the sole basis in evaluating a company or security. Ratings involve unknown risks and uncertainties which may cause our expectations not to occur or to differ significantly from what was expected and should not be considered an offer or solicitation to buy or sell a security.

This Report **has not been made available** to the issuer of the security prior to publication.

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