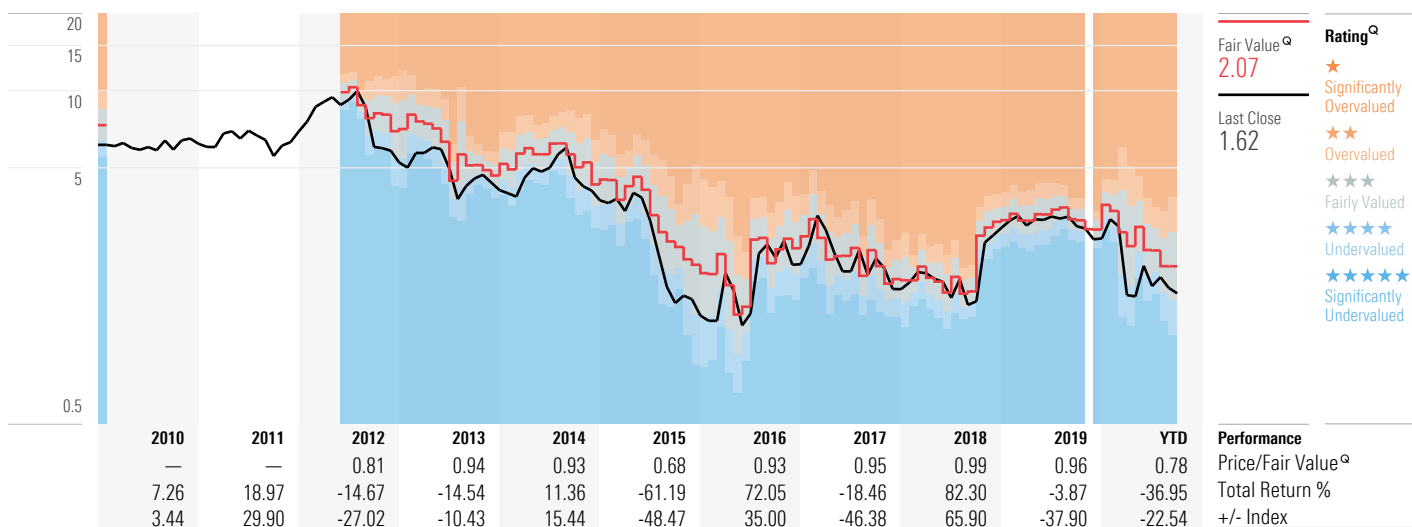


Energy Company of Minas Gerais XCMIG ★★★

25 Sep 2020, 22:28 UTC

Economic Moat ☐	Uncertainty ☐	Price/Fair Value ☐	Trailing Dividend Yield %	Market Cap	Investment Style	Sector	Industry
None	Very High	0.8	0.76	2.5291 Bil	Mid Value	Utilities	Utilities - Diversified



Total Return % as of 25 Sep 2020. Last Close as of 25 Sep 2020. Fair Value as of 25 Sep 2020, 22:28 UTC. Index: Morningstar Brazil GR BRL.

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Valuation ☐ as of 25 Sep 2020



Fair Value ☐
2.07

Uncertainty ☐:
Very High

Last Close
1.62

XCMIG is undervalued at a 22% discount.

Economic Moat ☐

None

Financial Health ☐

 Moderate

1-Star Price ☐

 > 3.82

5-Star Price ☐

 < 1.12

Financials as of 25 Sep 2020 (Fiscal Year End 31 Dec 2020)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	YTD	Fiscal
14	12	14	15	20	22	19	22	22	25	25	Revenue (Bil)
4	3	3	3	5	3	3	3	3	3	3	Operating Income (Bil)
25.53	26.01	18.17	23.77	26.07	15.99	14.81	13.33	12.78	11.47	11.47	Operating Margin (%)
2,258	2,415	4,272	3,104	3,137	2,469	335	1,001	1,700	3,127	3,127	Net Income (Mil)
1.72	1.84	3.27	2.37	2.39	1.88	0.07	0.36	1.12	2.06	2.06	Diluted Earnings/Share
3,376	3,664	2,829	3,515	3,734	3,008	1,213	580	1,008	2,036	2,036	Operating Cash Flow (Mil)
-2,645	-1,278	-1,372	-977	-920	-1,083	-1,141	-1,117	-878	-1,927	-1,927	Capital Spending (Mil)
731	2,386	1,457	2,538	2,814	1,925	72	-537	130	109	109	Free Cash Flow (Mil)
1	1	1	1	1	1	1	2	2	2	2	Avg Shares Outstand(Bil)
1.35	1.07	—	—	2.54	0.42	0.68	0.11	0.62	0.70	0.01	Dividend Per Share

Valuation as of 25 Sep 2020

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Current	Calendar
—	—	0.81	0.94	0.93	0.68	0.93	0.95	0.99	0.96	0.78	Price/Fair Value ☐
1.07	1.55	1.05	0.94	1.04	0.35	0.50	0.44	0.93	0.78	0.62	Price/Sales
11.48	8.99	6.98	4.18	4.68	2.25	10.17	23.89	32.32	10.56	7.73	Price/Earnings
4.56	6.05	4.56	4.49	4.33	2.69	3.11	2.84	—	9.09	7.77	Price/Cash Flow
1.45	1.55	1.24	1.35	1.27	0.54	0.68	0.76	1.33	1.18	1.00	Price/Book

Operating Performance as of 25 Sep 2020 (Fiscal Year End 31 Dec 2020)

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Q3	Fiscal (%)
7.27	6.81	10.94	8.79	9.68	6.51	0.81	2.38	3.33	5.7	3.36	Return on Assets
22.28	20.8	35.92	25.15	26.23	20.35	2.59	7.35	11.76	20.53	12.87	Return on Equity
13.65	12.16	18.45	13.55	15.27	12.47	6.4	6.43	8.11	12.32	7.43	Rtn on Invested Capital

Business Description

Energy Company of Minas Gerais is a Brazilian power company that generates, transmits, and distributes electricity. As one of the largest power companies in Brazil, the firm operates across the majority of Brazilian states and also operates in Chile. The company has various subsidiaries and

operates chiefly through its generation, transmission, distribution, telecom, and gas segments. The majority of the company's revenue is derived from electricity sales to consumers. Cemig generates power primarily through hydroelectric resources and secondarily through thermal and wind resources.

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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.

One-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*

Two-Star - 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)*

Three-Star – 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)*

Four-Star – 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)*

Five-Star – 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.

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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

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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.

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

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

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

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