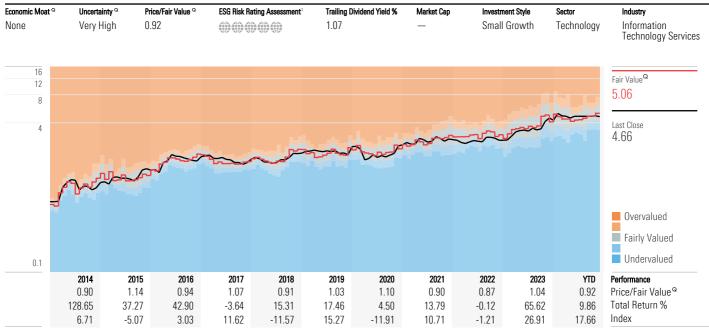
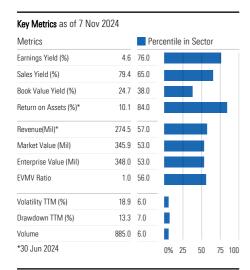
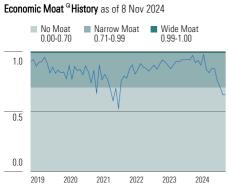
## Altia Consultores SA ALC ★★★ Q 8 Nov 2024 23:43, UTC



As of 08 Nov 2024 | Index: Morningstar Spain GR EUR. Fair Value data as of 8 Nov 2024 00:00, UTC

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.





#### **Business Description**

Altia Consultores SA is engaged in providing consultancy and ICT services in Spain. It consulting services includes study, report, strategic plan preparation, streamlining processes, security, develops computer application and outsourcing services.

### Valuation <sup>Q</sup>as of 9 Nov 2024

Morningstar maintains a 3-star quantitative star rating for Altia Consultores, derived from the firm's valuation and uncertainty scores.

The company's shares last closed at 4.66, below our quantitative fair value estimate of 5.06. These shares have traded between a 9.7% discount and 16.37% premium to their fair value estimate over the past year. In Morningstar's equity coverage universe for this methodology, the company's valuation rating lands at the 80th percentile; in the technology sector, the firm's score lies at the 74th percentile

Furthermore, Altia Consultores maintains a quantitative valuation uncertainty rating of Very High.

The company has held this star rating over the past year. The uncertainty rating for Altia Consultores has remained Very High since the previous rating of High, which was last assigned on 11/06/2024.

The key factors behind these ratings are the company's return on assets and earnings yield. The return on assets is 10.05, and its maximum earnings yield is 5.13%. The return on assets falls at the 84th percentile in the technology sector while the earnings yield is at the 76th percentile. Over the past year, the company's return on assets has been between 5.20 and 11.65; its earnings yield has ranged between 4.49% and 5.13%.

### Economic Moat <sup>Q</sup> as of 8 Nov 2024

Quantitatively, we believe Altia Consultores has a Narrow economic moat. Its moat score of 0.72 cor-

responds to the 70th percentile in the technology sector. Furthermore, this rating last differed from its previous rating of None on 11/04/2024, when the company's moat score fell from its maximum of 0.99 (score of 1 indicates greatest economic moat). The company also maintains a quantitative financial health rating of Strong. Its score sits at the 82nd percentile overall and the 85th 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 24.70%, sitting at the 38th percentile in the technology sector. The company's annualized trailing 12-month volatility is 18.86%, corresponding to the 16th percentile in the equity coverage universe and the 6th percentile in the sector.

### Fundamentals as of 8 Nov 2024

Altia Consultores reports earnings per share of 0.21. Its return on invested capital is 15.91%. The company maintains a dividend yield of 1.05%, paying out 23.38% of earnings. These values are calculated over a trailing 12-month period.

As of last market close, Altia Consultores has a price-to-earnings ratio of 21.79, falling at the 42nd percentile in its sector (where a lower percentile means a lower ratio) and ranging between 20.1 and 22.26 over the past year. The company's price-to-free cash flow ratio is 22.81, falling at the 49th percentile in its sector and ranging between 20.46 and 24.72 over the past year.

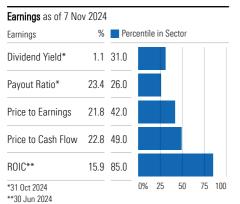
### Contact

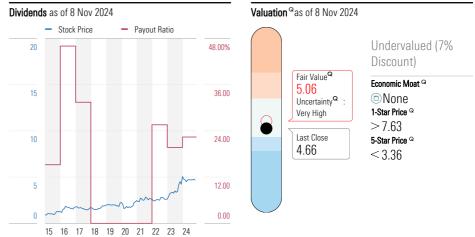
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### Altia Consultores SA ALC ★★★ Q 8 Nov 2024 23:43, UTC

Economic Moat Q	Uncertainty Q	Price/Fair Value Q	ESG Risk Rating Assessment <sup>1</sup>	Trailing Dividend Yield %	Market Cap	Investment Style	Sector	Industry
None	Very High	0.92		1.07	_	Small Growth	Technology	Information Technology Services





0.09	inancials (	Fiscal Ye	ar End 31	Dec 2019	9)								
6.14 10.18 8.01 8.03 9.07 — — — — — — 20.95 Operating Income (Mil) 11.34 15.59 12.01 12.40 13.09 — — — — — — 8.91 Operating Margin (%) 4.49 7.25 6.28 6.12 6.74 — — — — — — — 15.13 Net Income (Mil) 0.07 0.11 0.09 0.09 0.10 — — — — — — 0.22 Diluted Earnings/Share 9.04 8.26 6.10 9.08 4.54 — — — — — — — 15.09 Operating Cash Flow (Mil) 6.20 8.14 7.30 7.04 6.11 — — — — — — — — — — Capital Spending (Mil) 6.20 8.14 7.30 7.04 6.11 — — — — — — — — — — — — Free Cash Flow (Mil) 6.27 68.77 68.78 68.76 68.78 — — — — — — — — — — — — — — — — Free Cash Flow (Mil) 6.20 8.14 7.30 7.04 6.11 — — — — — — — — — — — — — — — — — —	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	06/2024	Fiscal	
11.34 15.59 12.01 12.40 13.09 — — — — — — — — 8.91 Operating Margin (%) 4.49 7.25 6.28 6.12 6.74 — — — — — — 15.13 Net Income (Mil) 0.07 0.11 0.09 0.09 0.10 — — — — — — 0.22 Diluted Earnings/Share 9.04 8.26 6.10 9.08 4.54 — — — — — 15.09 Operating Cash Flow (M 0.09 0.60 1.14 1.35 0.69 — — — — — — 15.09 Operating Cash Flow (Mil) 6.20 8.14 7.30 7.04 6.11 — — — — — — — 68.77 Avg Shares Outstand(Mil) 6.8.77 68.78 68.78 68.76 68.78 — — — — — 68.77 Avg Shares Outstand(Mil) 6.20 8.14 0.94 1.07 0.91 1.03 1.10 0.90 0.87 1.04 0.92 Price/Fair Value  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar 0.90 1.14 0.94 1.07 0.91 1.03 1.10 0.90 0.87 1.04 0.92 Price/Fair Value 1.28 1.37 1.69 1.92 1.85 2.24 1.49 1.48 1.34 1.39 1.25 Price/Sales 17.68 15.70 15.10 18.56 19.28 23.41 39.94 20.00 20.63 21.09 20.87 Price/Earnings 16.55 11.63 12.62 13.26 14.55 24.89 18.61 25.92 15.86 31.43 — Price/Cash Flow 3.57 3.84 4.21 3.47 3.52 3.68 3.78 3.62 3.15 4.33 4.05 Price/Book  1.20 14 2015 2016 2017 2018 2019 2020 2021 2022 2023 06/2024 Fiscal (%) 1.306 19.03 15.62 14.23 14.06 — — — — — 10.05 Return on Assets 23.78 30.20 21.75 18.81 18.27 — — — — — 10.05 Return on Equity 19.78 27.61 20.93 18.22 17.79 — — — — — 15.91 Rtn on Invested Capital  1.50/104 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  1.50/104 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  1.50/104 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  1.50/104 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  1.50/104 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  1.50/104 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  1.50/104 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  1.50/104 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)	54.09	65.29	66.74	64.71	69.30	_	_	_	_	_	253.89	Revenue (Mil)	
4.49	6.14	10.18	8.01	8.03	9.07	_	_	_	_	_	20.95	Operating Income (Mil)	
0.07 0.11 0.09 0.09 0.10 — — — — — 0.22 Diluted Earnings/Share  9.04 8.26 6.10 9.08 4.54 — — — — — 15.09 Operating Cash Flow (M 0.09 0.60 1.14 1.35 0.69 — — — — — — — — Capital Spending (Mil) 6.20 8.14 7.30 7.04 6.11 — — — — — — — 68.77 Avg Shares Outstand(M  Valuation as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar  0.90 1.14 0.94 1.07 0.91 1.03 1.10 0.90 0.87 1.04 0.92 Price/Fair Value 1.28 1.37 1.69 1.92 1.85 2.24 1.49 1.48 1.34 1.39 1.25 Price/Sales 17.68 15.70 15.10 18.56 19.28 23.41 39.94 20.00 20.63 21.09 20.87 Price/Earnings 16.55 11.63 12.62 13.26 14.55 24.89 18.61 25.92 15.86 31.43 — Price/Cash Flow 3.57 3.84 4.21 3.47 3.52 3.68 3.78 3.62 3.15 4.33 4.05 Price/Book  Deparating Performance (Fiscal Year End 31 Dec 2019)  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 06/2024 Fiscal (%) 13.06 19.03 15.62 14.23 14.06 — — — — — 10.05 Return on Assets 23.78 30.20 21.75 18.81 18.27 — — — — — 20.64 Return on Equity 19.78 27.61 20.93 18.22 17.79 — — — — — 15.91 Rtn on Invested Capital  Dividends as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  Dividends as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  Dividends as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  Dividends as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  Dividends as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  Dividends as of 8 Nov 2024	11.34	15.59	12.01	12.40	13.09	_	_	_	_	_	8.91	Operating Margin (%)	
9.04 8.26 6.10 9.08 4.54 — — — — — — — — — — — — — — — — — — —	4.49	7.25	6.28	6.12	6.74	_	_	_	_	_	15.13	Net Income (Mil)	
0.09	0.07	0.11	0.09	0.09	0.10	_	_	_	_	_	0.22	Diluted Earnings/Share	
6.20 8.14 7.30 7.04 6.11 — — — — — — — — Free Cash Flow (Mil) 68.77 68.77 68.78 68.76 68.78 — — — — — — — — 68.77 Avg Shares Outstand(M  /aluation as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar  0.90 1.14 0.94 1.07 0.91 1.03 1.10 0.90 0.87 1.04 0.92 Price/Fair Value  1.28 1.37 1.69 1.92 1.85 2.24 1.49 1.48 1.34 1.39 1.25 Price/Sales  17.68 15.70 15.10 18.56 19.28 23.41 39.94 20.00 20.63 21.09 20.87 Price/Earnings  16.55 11.63 12.62 13.26 14.55 24.89 18.61 25.92 15.86 31.43 — Price/Cash Flow  3.57 3.84 4.21 3.47 3.52 3.68 3.78 3.62 3.15 4.33 4.05 Price/Book  Deparating Performance (Fiscal Year End 31 Dec 2019)  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 06/2024 Fiscal (%)  13.06 19.03 15.62 14.23 14.06 — — — — — — 10.05 Return on Assets  23.78 30.20 21.75 18.81 18.27 — — — — — 20.64 Return on Equity  19.78 27.61 20.93 18.22 17.79 — — — — — — 15.91 Rtn on Invested Capital  Dividends as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  0.01 0.02 0.04 0.03 — — — — — 0.04 0.05 0.05 Dividend Per Share  1.20 1.29 2.43 1.71 0.95 0.00 0.00 0.00 1.42 1.08 1.07 Trailing Dividend Yield	9.04	8.26	6.10	9.08	4.54	_	_	_	_	_	15.09	Operating Cash Flow (Mil)	
Malaction as of 8 Nov 2024   2014   2015   2016   2017   2018   2019   2020   2021   2022   2023   Current   Calendar	0.09	0.60	1.14	1.35	0.69	_	_	_	_	_	_	Capital Spending (Mil)	
/aluation as of 8 Nov 2024           2014         2015         2016         2017         2018         2019         2020         2021         2022         2023         Current         Calendar           0.90         1.14         0.94         1.07         0.91         1.03         1.10         0.90         0.87         1.04         0.92         Price/Fair Value α           1.28         1.37         1.69         1.92         1.85         2.24         1.49         1.48         1.34         1.39         1.25         Price/Sales           17.68         15.70         15.10         18.56         19.28         23.41         39.94         20.00         20.63         21.09         20.87         Price/Earnings           16.55         11.63         12.62         13.26         14.55         24.89         18.61         25.92         15.86         31.43         —         Price/Cash Flow           3.57         3.84         4.21         3.47         3.52         3.68         3.78         3.62         3.15         4.33         4.05         Price/Book           Department of Fiscal Year End Jaces         2018         2019         2020         2021         2022	6.20	8.14	7.30	7.04	6.11	_	_	_	_	_	_	Free Cash Flow (Mil)	
2014         2015         2016         2017         2018         2019         2020         2021         2022         2023         Current         Calendar           0.90         1.14         0.94         1.07         0.91         1.03         1.10         0.90         0.87         1.04         0.92         Price/Fair Value □           1.28         1.37         1.69         1.92         1.85         2.24         1.49         1.48         1.34         1.39         1.25         Price/Sales           17.68         15.70         15.10         18.56         19.28         23.41         39.94         20.00         20.63         21.09         20.87         Price/Earnings           16.55         11.63         12.62         13.26         14.55         24.89         18.61         25.92         15.86         31.43         —         Price/Cash Flow           3.57         3.84         4.21         3.47         3.52         3.68         3.78         3.62         3.15         4.33         4.05         Price/Book           Performance (Fiscal Year End State)         2018         2019         2020         2021         2022         2023         06/2024         Fiscal (%)	68.77	68.77	68.78	68.76	68.78	_	_	_	_	_	68.77	Avg Shares Outstand(Mil)	
0.90 1.14 0.94 1.07 0.91 1.03 1.10 0.90 0.87 1.04 0.92 Price/Fair Value   1.28 1.37 1.69 1.92 1.85 2.24 1.49 1.48 1.34 1.39 1.25 Price/Sales   17.68 15.70 15.10 18.56 19.28 23.41 39.94 20.00 20.63 21.09 20.87 Price/Earnings   16.55 11.63 12.62 13.26 14.55 24.89 18.61 25.92 15.86 31.43 — Price/Cash Flow   3.57 3.84 4.21 3.47 3.52 3.68 3.78 3.62 3.15 4.33 4.05 Price/Book    Details Performance (Fiscal Year End 31 Dec 2019)  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 06/2024 Fiscal (%) 13.06 19.03 15.62 14.23 14.06 — — — — — — 10.05 Return on Assets   23.78 30.20 21.75 18.81 18.27 — — — — — 20.64 Return on Equity   19.78 27.61 20.93 18.22 17.79 — — — — — 15.91 Rtn on Invested Capital    Dividends as of 8 Nov 2024   2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%) 0.01 0.02 0.04 0.03 — — — — — 0.04 0.05 0.05 Dividend Per Share   1.20 1.29 2.43 1.71 0.95 0.00 0.00 0.00 1.42 1.08 1.07 Trailing Dividend Yield	/aluation a	s of 8 No	v 2024										
1.28 1.37 1.69 1.92 1.85 2.24 1.49 1.48 1.34 1.39 1.25 Price/Sales 17.68 15.70 15.10 18.56 19.28 23.41 39.94 20.00 20.63 21.09 20.87 Price/Earnings 16.55 11.63 12.62 13.26 14.55 24.89 18.61 25.92 15.86 31.43 — Price/Cash Flow 3.57 3.84 4.21 3.47 3.52 3.68 3.78 3.62 3.15 4.33 4.05 Price/Book  Departing Performance (Fiscal Year End 31 Dec 2019)  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 06/2024 Fiscal (%)  13.06 19.03 15.62 14.23 14.06 — — — — — 10.05 Return on Assets 23.78 30.20 21.75 18.81 18.27 — — — — — 20.64 Return on Equity 19.78 27.61 20.93 18.22 17.79 — — — — — 15.91 Rtn on Invested Capital  Dividends as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  0.01 0.02 0.04 0.03 — — — — — 0.04 0.05 0.05 Dividend Per Share 1.20 1.29 2.43 1.71 0.95 0.00 0.00 0.00 1.42 1.08 1.07 Trailing Dividend Yield	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Current	Calendar	
17.68 15.70 15.10 18.56 19.28 23.41 39.94 20.00 20.63 21.09 20.87 Price/Earnings 16.55 11.63 12.62 13.26 14.55 24.89 18.61 25.92 15.86 31.43 — Price/Cash Flow 3.57 3.84 4.21 3.47 3.52 3.68 3.78 3.62 3.15 4.33 4.05 Price/Book  Description Performance (Fiscal Year End 31 Dec 2019)  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 06/2024 Fiscal (%)  13.06 19.03 15.62 14.23 14.06 — — — — — — 10.05 Return on Assets 23.78 30.20 21.75 18.81 18.27 — — — — — 20.64 Return on Equity 19.78 27.61 20.93 18.22 17.79 — — — — — 15.91 Rtn on Invested Capital  Dividends as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  0.01 0.02 0.04 0.03 — — — — — 0.04 0.05 0.05 Dividend Per Share 1.20 1.29 2.43 1.71 0.95 0.00 0.00 0.00 1.42 1.08 1.07 Trailing Dividend Yield	0.90	1.14	0.94	1.07	0.91	1.03	1.10	0.90	0.87	1.04	0.92	Price/Fair Value Q	
16.55 11.63 12.62 13.26 14.55 24.89 18.61 25.92 15.86 31.43 — Price/Cash Flow 3.57 3.84 4.21 3.47 3.52 3.68 3.78 3.62 3.15 4.33 4.05 Price/Book  Descripting Performance (Fiscal Year End 31 Dec 2019)  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 06/2024 Fiscal (%)  13.06 19.03 15.62 14.23 14.06 — — — — — — 10.05 Return on Assets 23.78 30.20 21.75 18.81 18.27 — — — — — — 20.64 Return on Equity 19.78 27.61 20.93 18.22 17.79 — — — — — — 15.91 Rtn on Invested Capital  Dividends as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  0.01 0.02 0.04 0.03 — — — — — 0.04 0.05 0.05 Dividend Per Share 1.20 1.29 2.43 1.71 0.95 0.00 0.00 0.00 1.42 1.08 1.07 Trailing Dividend Yield	1.28	1.37	1.69	1.92	1.85	2.24	1.49	1.48	1.34	1.39	1.25	Price/Sales	
3.57   3.84   4.21   3.47   3.52   3.68   3.78   3.62   3.15   4.33   4.05   Price/Book	17.68	15.70	15.10	18.56	19.28	23.41	39.94	20.00		21.09	20.87	•	
Departing Performance   Fiscal Year End   31 Dec   2019	16.55	11.63	12.62	13.26	14.55	24.89	18.61	25.92	15.86	31.43	_	Price/Cash Flow	
2014         2015         2016         2017         2018         2019         2020         2021         2022         2023         06/2024         Fiscal (%)           13.06         19.03         15.62         14.23         14.06         —         —         —         —         —         10.05         Return on Assets           23.78         30.20         21.75         18.81         18.27         —         —         —         —         20.64         Return on Equity           19.78         27.61         20.93         18.22         17.79         —         —         —         —         —         15.91         Rtn on Invested Capital           Dividends as of 8 Nov 2024           2014         2015         2016         2017         2018         2019         2020         2021         2022         2023         Current         Calendar (%)           0.01         0.02         0.04         0.03         —         —         —         —         0.04         0.05         0.05         Dividend Per Share           1.20         1.29         2.43         1.71         0.95         0.00         0.00         0.00         1.42         1.08         1.07	3.57	3.84	4.21	3.47	3.52	3.68	3.78	3.62	3.15	4.33	4.05	Price/Book	
13.06 19.03 15.62 14.23 14.06 — — — — — — — 10.05 Return on Assets 23.78 30.20 21.75 18.81 18.27 — — — — — 20.64 Return on Equity 19.78 27.61 20.93 18.22 17.79 — — — — — 15.91 Rtn on Invested Capital  Dividends as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  0.01 0.02 0.04 0.03 — — — — 0.04 0.05 0.05 Dividend Per Share 1.20 1.29 2.43 1.71 0.95 0.00 0.00 0.00 1.42 1.08 1.07 Trailing Dividend Yield						2019)							
23.78 30.20 21.75 18.81 18.27 — — — — — — 20.64 Return on Equity 19.78 27.61 20.93 18.22 17.79 — — — — — 15.91 Rtn on Invested Capital  Dividends as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  0.01 0.02 0.04 0.03 — — — — 0.04 0.05 0.05 Dividend Per Share 1.20 1.29 2.43 1.71 0.95 0.00 0.00 0.00 1.42 1.08 1.07 Trailing Dividend Yield	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	06/2024	Fiscal (%)	
19.78 27.61 20.93 18.22 17.79 — — — — — — 15.91 Rtn on Invested Capital  Dividends as of 8 Nov 2024  2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Current Calendar (%)  0.01 0.02 0.04 0.03 — — — — 0.04 0.05 0.05 Dividend Per Share 1.20 1.29 2.43 1.71 0.95 0.00 0.00 0.00 1.42 1.08 1.07 Trailing Dividend Yield	13.06	19.03	15.62	14.23	14.06	_	_	_	_	_	10.05	Return on Assets	
Dividends as of 8 Nov 2024     2014   2015   2016   2017   2018   2019   2020   2021   2022   2023   Current   Calendar (%)	23.78	30.20	21.75	18.81	18.27	_	_	_	_	_	20.64	Return on Equity	
2014         2015         2016         2017         2018         2019         2020         2021         2022         2023         Current         Calendar (%)           0.01         0.02         0.04         0.03         —         —         —         —         0.04         0.05         0.05         Dividend Per Share           1.20         1.29         2.43         1.71         0.95         0.00         0.00         0.00         1.42         1.08         1.07         Trailing Dividend Yield	19.78	27.61	20.93	18.22	17.79	_	_	_	_	_	15.91	Rtn on Invested Capital	
0.01     0.02     0.04     0.03     —     —     —     —     0.04     0.05     0.05     Dividend Per Share       1.20     1.29     2.43     1.71     0.95     0.00     0.00     0.00     1.42     1.08     1.07     Trailing Dividend Yield													
1.20 1.29 2.43 1.71 0.95 0.00 0.00 0.00 1.42 1.08 1.07 Trailing Dividend Yield					2018	2019	2020	2021	2022		Current	. ,	
						_							
0.00 0.00 0.03 - 0.07 0.07 0.02 0.03 - Buyback Yield	1.20	1.29				0.00					1.07	•	
	_	_	0.00	0.00	0.03	_	0.07	0.07	0.02	0.03	_	Buyback Yield	



# **Appendix**

Economic Moat <sup>Q</sup> History as of 8 Nov 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	0.91	0.93	0.89	0.97	0.85	0.82	0.86	0.86	0.75	0.71	0.64	_
2023	0.93	0.91	0.89	0.86	0.89	0.92	0.91	0.93	0.93	0.94	0.93	0.97
2022	0.86	0.89	0.81	0.85	0.90	0.87	0.86	0.84	0.86	0.89	0.85	0.90
2021	0.66	0.89	0.77	0.81	0.77	0.69	0.59	0.69	0.53	0.76	0.80	0.78
2020	0.83	0.77	0.88	0.77	0.88	0.84	0.85	0.81	0.88	0.83	0.74	0.84
2019	0.92	0.93	0.88	0.91	0.92	0.95	0.90	0.82	0.87	0.82	0.85	0.82



# **Quantitative Equity Report Overview**

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</p>
  - \*\* 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.

 $\label{log-log-log-log-log-log-log-log} Log~(Quant~FVE/Price)~between~(-0.5*Quantitative~Uncertainty)~0.5*Quantitative~Uncertainty)$ 

Micro-Caps: Log (Quant FVE/Price) between (-0.75\*Quantitative Uncertainty, 0.75\*Quantitative Uncertainty)

 $\star\star\star\star$  – 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)

★★★★ — 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%

 $\bar{\text{\textbf{High}}}$  — 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%

 $\label{eq:continuous} \textbf{Extreme} - \text{the interquartile range for possible fair values is greater than } 80\%$ 

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.

 $\begin{array}{ccc} \textbf{Weak} & - \text{ assigned when Quantitative Financial Health} < 0.2 \\ \textbf{Moderate} & - \text{ assigned when Quantitative Financial Health} \text{ is between } 0.2 \\ \text{and } 0.7 \\ \end{array}$ 

**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.
- 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

Sustainalytics ESG Risk Rating Assessment: The ESG Risk Rating Assessment is provided by Sustainalytics; a Morningstar company. Sustainalytics' ESG Risk Ratings measure the degree to which company's economic value at risk is driven by environment, social and governance (ESG) factors.

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



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/esgratings/

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