

General Motors Co

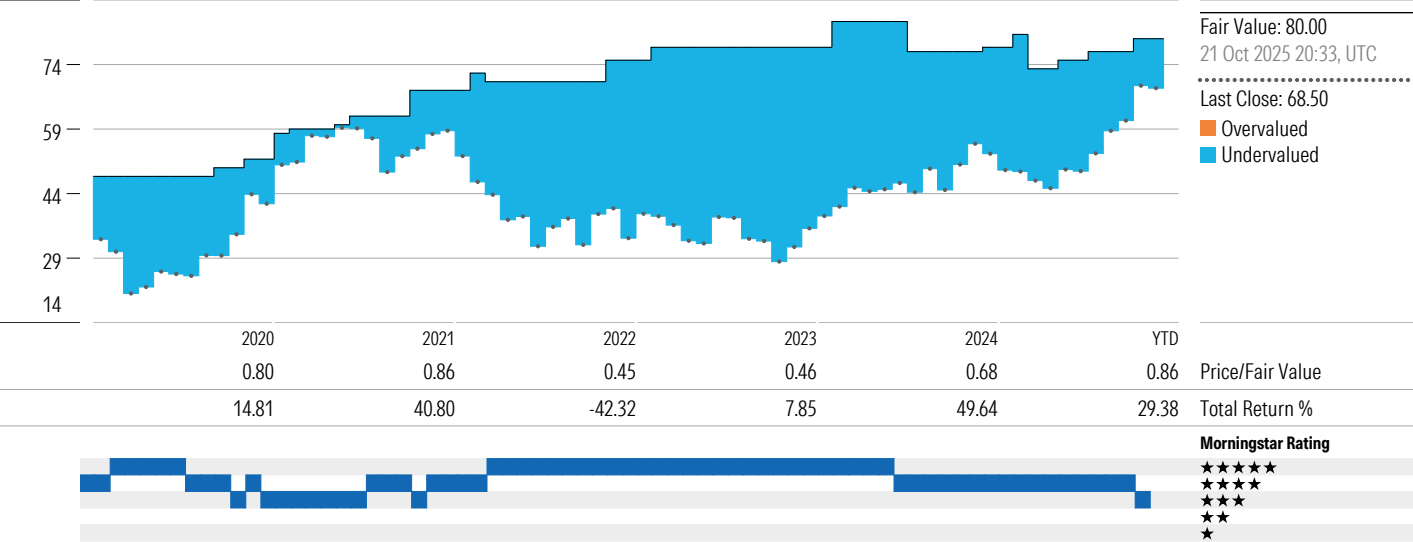
GM

★★★

19 Nov 2025 22:43, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
68.50 USD 19 Nov 2025	80.00 USD 21 Oct 2025 20:33, UTC	0.86	63.90 USD Bil 19 Nov 2025	None	Mid Value	High	Standard	 3 Sep 2025 05:00, UTC

Price vs. Fair Value



Total Return % as of 19 Nov 2025. Last Close as of 19 Nov 2025. Fair Value as of 21 Oct 2025 20:33, UTC.

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The primary analyst covering this company does not own its stock.

¹The ESG Risk Rating Assessment is a representation of Sustainalytics' ESG Risk Rating.

GM Earnings: Good Tariff News Leads to Guidance Increase

Analyst Note David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 21 Oct 2025

GM's stock rose over 16% during Oct. 21 trading after the company increased 2025 profit and EPS guidance and said 2026 profits are expected to be stronger than 2025. Third-quarter adjusted diluted EPS of \$2.80 beat the \$2.31 LSEG consensus.

Why it matters: We see the auto industry in a period of high uncertainty due to US tariffs and US consumer vehicle affordability struggles. GM's adjusted EBIT fell 18% year over year but its confidence to raise guidance and a positive outlook on 2026 is a good sign for the near term.

- Management also reduced its gross 2025 tariff hit for adjusted EBIT to a midpoint of \$4 billion from \$4.5 billion and expects about 35% of the impact to be mitigated. The lesser tariff hit is from the US on Oct. 17 expanding the imported parts available for tariff relief.
- Third-quarter tariff impact was also not as bad as management planned due to labor disruptions reducing Korean production. GM imports four vehicles into the US from there, and this production and related payables will likely be a fourth-quarter headwind versus third quarter.

The bottom line: We are raising our fair value estimate for no-moat GM to \$80 from \$77. The change is from time value of money and a lower share count to reflect us now modeling \$4.5 billion in 2025 buybacks, up from \$3 billion. Buyback spending through the third quarter totaled \$3.5 billion.

- We're glad to hear management does not sound like it is going to slow down share repurchases as we still see the stock as undervalued. Third-quarter buybacks of \$1.5 billion leave the authorization at \$2.8 billion and automotive cash and securities of \$21.8 billion leaves flexibility to buy more.

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Sector	Industry
 Consumer Cyclical	Auto Manufacturers

Business Description

General Motors Co. emerged from the bankruptcy of General Motors Corp. (old GM) in July 2009. GM has eight brands and operates under three segments: GM North America, GM International, and GM Financial. The United States now has four brands instead of eight under old GM. The company regained its US market share leadership in 2022, after losing it to Toyota due to the chip shortage in 2021. 2024 US share was 17.0%. The Cruise autonomous vehicle arm, which GM now owns outright, previously operated driverless geofenced AV robotaxi services in San Francisco and other cities, but after a 2023 accident, GM decided that it will focus on personal AVs. GM Financial became the company's captive finance arm in 2010 via the purchase of AmeriCredit.

- Further profit upside to 2025 from less tariff impact could occur if the US and South Korea implement their tariff agreement to lower US tariffs on vehicles to 15% from 25%. GM's new guidance does not factor in that tariff change, and we think it could mean nearly another \$1 billion of adjusted EBIT.

Business Strategy & Outlook David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 21 Oct 2025

We see General Motors with a competitive lineup in all segments it competes in, combined with a reduced cost base (\$2 billion cut across 2023-24), finally enabling it to have the scale to match its size. We think GM's earnings potential is excellent because the company has a healthy North American unit and a nearly mature finance arm with GM Financial. Moving hourly workers' retiree healthcare to a separate fund and closing plants drastically lowered GM North America's breakeven point to US industry sales of about 10 million-11 million vehicles, assuming 18%-19% share. We expect more scale and flexibility to come from a joint venture making electric vehicle batteries.

GM makes products that consumers are willing to pay more for than in the past. It no longer has to overproduce trying to cover high labor costs and then dump cars into rental fleets (which hurts residual values). This approach also enables US incentives as a percentage of average transaction price to almost always be far lower than industry average. GM now operates in a demand-pull model where it can produce only to meet demand and is structured to do no worse than break even at the bottom of an economic cycle when plants can be open. The result is higher profits than under old GM despite lower US share. This cost structure is at risk because we estimate GM made only 53.5% of its 2024 US-sold vehicles in the US. On June 10 GM announced a \$4 billion investment to add US capacity of Mexican-built crossovers and pickup trucks, as well as more full-size SUV capacity, which should help raise this percentage. There are no plans to move Korean production of two Buick and two Chevrolet models sold in the US or the China-made Buick Envision.

We think actions such as buying Cruise, along with GM's connectivity and data gathering via OnStar, position GM well for this new era. In December 2024, GM announced it will not fund further Cruise robotaxi efforts and in 2025 merged some Cruise people and technology with GM's Super Cruise to pursue Level 3 and Level 4 AVs for personal vehicle ownership. In early 2021, GM announced the ambition to only sell zero-emission vehicles globally by 2035.

Bulls Say David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 21 Oct 2025

- GMNA's breakeven point of about 10 million-11 million units is drastically lower than it was under old GM.
- Management is not afraid to buy back large amounts of stock as shown by two accelerated share repurchase programs across 2023-25.
- GM can charge thousands of dollars more per vehicle in light-truck segments. Higher prices with fewer incentive dollars allow GM to get more margin per vehicle, which helps mitigate a severe decline in

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Competitors

	General Motors Co GM	Ford Motor Co F	Mercedes-Benz Group AG MBG	Bayerische Motoren Werke AG BMW
Economic Moat	None	None	None	None
Currency	USD	USD	EUR	EUR
Fair Value	80.00 21 Oct 2025 20:33, UTC	16.00 11 Feb 2025 00:56, UTC	70.00 7 Aug 2025 18:31, UTC	103.00 8 Oct 2025 08:22, UTC
1-Star Price	124.00	24.80	122.50	180.25
5-Star Price	48.00	9.60	35.00	51.50
Assessment	Fairly Valued 19 Nov 2025	Undervalued 19 Nov 2025	Fairly Valued 19 Nov 2025	Fairly Valued 19 Nov 2025
Morningstar Rating	★★★ 19 Nov 2025 22:43, UTC	★★★★ 19 Nov 2025 22:32, UTC	★★★ 20 Nov 2025 01:46, UTC	★★★ 20 Nov 2025 01:46, UTC
Analyst	David Whiston, Senior Equity Analyst	David Whiston, Senior Equity Analyst	Rella Suskin, Equity Analyst	Rella Suskin, Equity Analyst
Capital Allocation	Standard	Standard	Standard	Standard
Price/Fair Value	0.86	0.81	0.81	0.83
Price/Sales	0.37	0.27	0.40	0.35
Price/Book	0.96	1.08	0.60	0.56
Price/Earning	12.71	9.63	9.05	7.02
Dividend Yield	0.79%	5.81%	7.55%	5.05%
Market Cap	63.90 Bil	51.40 Bil	54.85 Bil	51.94 Bil
52-Week Range	41.60—72.87	8.44—13.97	45.60—63.17	62.96—91.72
Investment Style	Mid Value	Mid Value	Large Value	Large Value

light-vehicle sales and falling market share.

Bears Say David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 21 Oct 2025

- GM may have to see a US recession to prove it can do much better than old GM before the market will award the stock a higher P/E multiple. The recession came in 2020, and may again in 2026, but the P/E multiple well after the downturn is uncertain.
- Auto stocks often sell off severely because of macroeconomic concerns, even if the bottom-up story looks attractive.
- The US auto market is becoming more crowded each year. Hyundai-Kia, Tesla, and other firms such as new entrants from China and EV startups may take more share over time from existing players like GM.

Economic Moat David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 21 Oct 2025

GM does not have an economic moat, and we do not expect that to change. Vehicle manufacturing is a

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very capital-intensive business, but barriers to entry are not as high as in the past. The industry is already full of strong competition, so it is nearly impossible for one firm to gain a durable advantage. Automakers from China and India may soon enter developed markets such as the US, and South Korea's Hyundai and Kia have become formidable competitors. Plus many battery electric startups are emerging in addition to Tesla, such as Lucid, Rivian, and formidable Chinese EV makers. It may just be a matter of time before Chinese automakers open US or Mexican plants to sell vehicles in GM's home market of the US. Unlike when Toyota and Hyundai-Kia first entered the US, we expect Chinese models to immediately appeal to many American consumers. Furthermore, the auto industry is so cyclical that in bad times even the best automakers cannot avoid large declines in return on invested capital and profit. Cost-cutting helps ease the pain, but it does not restore all lost profit in bad times. Tariffs are also making management's job harder than it needs to be.

Fair Value and Profit Drivers David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 21 Oct 2025

We are raising our GM fair value estimate to \$80 per share from \$77 per share. The change is from time value of money and a lower share count to reflect us now modeling \$4.5 billion in 2025 buybacks, up from \$3 billion. Buyback spending through the third quarter totaled \$3.5 billion.

We model equity income over our five-year forecast of about \$1.3 billion, up from about \$1.2 billion in our prior model. Through third-quarter 2025, GM China has increased its profit excluding special items for four straight quarters. We will go back to modeling equity income losses each year if China's turnaround fails to materialize, which would likely reduce our fair value estimate by at least \$4-\$5 per share. We remain pessimistic about GM China's chances of much success due to significant Chinese automaker competition, so we model equity income falling by nearly 20% across our five-year forecast period.

We will continue to review our midcycle margin assumption as the company progresses through its transformative strategy announced in October 2021 and confirmed in November 2022 of targeting total company (including GM Financial) 12%-14% EBIT margin by 2030 and revenue potentially now over \$250 billion after factoring in Cruise no longer in robotaxis as announced in December 2024 (original revenue range was \$275 billion-\$315 billion). In recent years, however, management has suggested the 2030 targets are aspirational or best-case scenario figures. New asset-light businesses centered on data analytics and subscriptions for performance upgrades and autonomous features such as Super Cruise should enable margin expansion over time. Our weighted average cost of capital is about 10%. Our estimate for GM's midcycle automotive adjusted EBIT margin including equity income (mostly Chinese joint ventures) is around 4.8% to reflect a midcycle margin encompassing the wide range of possibilities for both good and bad times. We had in the past modeled this metric around 6% but we are trying to make our assumptions more conservative in light of slowing EV demand and the uncertainty around Chinese equity income and future Chinese competition.

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Our compound annual revenue growth rate, excluding GM Financial, remains about 4%. We model about 100 basis points of declining North American market share from 2020 levels through 2029 (but expansion from chip-shortage-depressed 2021 levels) because of continued strong competitive threats. This 100-basis-point forecast may prove too punitive if GM's products keep remaining desirable as they are in 2025. GMNA's 2024 share was slightly higher than our midcycle assumption. We still model the critical midcycle automotive operating margin, excluding equity income, in the last year of our explicit forecast period at nearly 5%. GM's transformation plan announced in late 2018 and its 2021 announced pivot into selling data analytics and connected services should yield billions in new free cash flow if successful. Capital expenditure is modeled at about 5%-6% of non-financial-services revenue annually. We model about \$22 billion across 2025-26, \$12 billion in 2027, \$11 billion in 2028, and \$10 billion in 2029.

GM began reestablishing its captive finance arm with the creation of GM Financial in 2010 via the acquisition of AmeriCredit. We add GM Financial to the valuation at its year-end 2024 book value of \$15.2 billion. Our diluted share count is now about 955 million (down from about 982 million) to reflect continued share repurchases in 2025.

Risk and Uncertainty David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 1 May 2025

GM's global pension was underfunded by about \$4.3 billion as of Dec. 31, 2024, and the projected benefit obligation will go up if interest rates decline. For 2025, major US plan contributions are not likely, while international plan contributions will be as much as \$120 million. US gas prices going well over \$5 a gallon is also a risk due to GM's reliance on light trucks, as are North American tariffs and the ever-looming threat of mass recalls, recessions, and inflation. In 2024, GM's North American production mix was about 63% US and 30% in Mexico; about half its highly profitable full-size pickups were made in Mexico and Canada (mostly Mexico). More vehicles made on the same platform means a recall can affect millions more vehicles than in the past.

The auto industry faces disruption from ride-hailing, car-sharing, and autonomous vehicles, or AVs, but we do not think private vehicle ownership will cease. GM is well positioned to compete in these new spaces via its own AV work with Cruise and OnStar. New entrants in the electric pickup space such as Tesla and Rivian are a risk to GM's biggest profit source, but it's too early to say these startups will take meaningful share in the pickup segment. Also, GM has its own EV pickups and GMC Hummer. The Chinese could be formidable competitors in the US market should they choose to enter it, which we think they eventually will.

A key environmental, social, and governance risk we see is increasing regulatory scrutiny of combustion vehicles, but we are not worried, as electric truck and SUVs, over \$35 billion of EV/AV spending across 2020-25, and a 2021 announcement of a goal to only sell zero-emission vehicles globally by 2035 show

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GM is serious about switching away from combustion engines. Union negotiations in spring 2028 may mean a very long strike at that time plus the resumption of pensions and retiree healthcare to all US hourly workers. GM operates in a cyclical industry, so the stock can fall hard in a downturn.

Capital Allocation David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 21 Oct 2025

We give GM a Standard Capital Allocation Rating. The company's balance sheet is in good shape, with Sept. 30 automotive liquidity at \$35.7 billion, including \$21.8 billion of cash and debt securities. At the end of September, the auto business was in a net cash position of \$5.7 billion. Auto debt maturing across 2026-27 totals about \$2 billion, mostly in 2027. We calculate the global pension obligation of \$51.7 billion was 91.6% funded at the end of 2024, and we don't expect near term contributions to be a large burden. Plans are closed to new hires, but the UAW wants to reopen the US pension plan to all its GM members as part of the 2028 contract negotiation. Since GM has plenty of credit line availability and was able to issue bonds during the pandemic, we are not worried about its balance sheet health should macroeconomic conditions worsen. GM North America's breakeven point is when US industry annualized sales are 10 million-11 million units; we think that is not likely to ever happen again following 2009's 10.4 million, which was absurdly low in historical per capita terms.

GM's capital allocation history has greatly improved since it first went public, thanks to buybacks when the stock is undervalued and a clearly articulated capital allocation plan as of March 2015. We expect good economic profit during some years of our five-year explicit forecast period and like that a three-year average return on invested capital of 20% is a key part of management's compensation package. We like that GM now is willing to exit businesses where it does not think it can be profitable long-term. Examples include exiting Russia, Australia, India, Indonesia, and Thailand, and most notably selling Opel/Vauxhall in August 2017 to exit Europe. China could be added to that list should current restructuring fail but so far results are positive there. More action came in November 2018 with the bold announcement in GMNA to stop production at various car model plants, such as for the Impala and Cruze, that had fallen out of favor as consumers move to light trucks. Old GM would never have done this. The 2018 move saved GM \$4.5 billion in net costs by the end of 2020 and a \$2 billion fixed cost-reduction program across 2023-24 reduced North American salaried headcount, engineering, and marketing costs.

We want to see stock repurchases when the shares trade far below our fair value estimate. The buyback plans are an excellent move for shareholders, in our opinion, and we think they can be executed without sacrificing reinvestment in the business. Tariffs hitting profits or forcing major capital expenditure projects have slowed buyback plans, however, outside of contractually mandated accelerated share repurchase programs. GM announced a \$6 billion authorization in June 2024 and another \$6 billion in February 2025. On Nov. 29, 2023, GM announced a \$10 billion accelerated repurchase program (a contractual obligation in which GM gives four banks \$10 billion up front to repurchase GM stock over time) with \$6.8 billion immediately repurchased on Dec. 1, 2023, at \$31.63 per share and the remaining

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\$3.2 billion mostly repurchased in the fourth quarter of 2024 to end the program. This program retired about 244 million shares at prices mostly below our fair value estimate. A second ASR for \$2 billion, as part of the \$6 billion buyback February 2025 program ended in June 2025. We like management aggressively buying back what we consider to be very undervalued stock and reducing the diluted share count by about 33% relative to year-end 2022. Sept. 30 remaining authorization was \$2.8 billion.

We interpret management not raising the dividend in the years before the pandemic to mean that the dividend was what management thinks can be maintained throughout an economic cycle, but a complete shutdown of plants due to covid-19 proved too much, and the dividend was suspended in April 2020. GM resumed the dividend in August 2022 by announcing a quarterly payout of \$0.09 per share and increased it in early 2024 and 2025 to \$0.15 per share. We expect dividend increases over time while also repurchasing shares, tariff permitting. GM targets automotive cash and securities of \$18 billion.

We see GM able to return cash to shareholders while also investing correctly for the future in battery electric vehicles and autonomous vehicles. GM made a bold proclamation in early 2021 by saying globally it aspires to only sell zero-emission vehicles by 2035, though it will depend on consumer demand. The company is well on its way to making this transition with vehicles such as the GMC Hummer truck and SUV, Chevrolet Bolt, Cadillac Lyriq, Cadillac Optiq, the Equinox and Blazer crossovers, BEV full-size pickups, and other Cadillac crossovers.

Analyst Notes Archive

GM: Third-Quarter US Sales Strong for Combustion and Electric Vehicles David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 2 Oct 2025

GM's third-quarter US deliveries rose 7.7% year over year and 6.3% adjusting for one extra selling day in 2025's quarter. The company estimated it had its best market share since 2017, and year-to-date incentives as a percentage of average transaction price were 4.2% versus 6.5% for the industry. Why it matters: It appears that automakers have yet to push through tariff costs onto consumers, given the growth reported. Third-quarter pricing should be strong as well, with GM's incentives being below the industry and GM dealer inventory down 16%. The company also said the high-end GMC Denali trim and Cadillac V-Series performance trims are having record year-to-date sales through Sept. 30. Buick was the only brand not growing in the quarter, down 14% on the Encore GX and Envision (made in Korea and China) both being down over 35%. Electric vehicles had a record quarter for GM, up 107% to 66,501 units, or 9.4% of volume. Cadillac's several new EV models have helped, plus Chevrolet Equinox EV sales grew 157% to over 25,000 units. The expiring federal tax credit pulled forward demand, but leasing an EV remains attractive. The bottom line: We are not changing our no-moat rating or \$77 per share fair value estimate for GM. We expect 2025 US light-vehicle sales to be in the high 15 million range, but we see low 16 million as possible. GM will report third-quarter results on Oct. 21. We expect solid results

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given volume and pricing, but the company warned during second-quarter earnings of second-half costs for the next-generation full-size pickup launch and two quarters of tariffs versus one for the first half.

GM Earnings: Tariffs Take \$1.1 Billion From Second-Quarter Profit, Larger Impact in Second-Half 2025 David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 22 Jul 2025

GM's second-quarter adjusted diluted EPS of \$2.53 beat the \$2.44 LSEG consensus, but the stock fell over 7% during July 22 trading. The company maintained its 2025 guidance given May 1 but said second-half profit will be lower than of the first half. Why it matters: We think the stock falling so much on July 22 is unjustified given GM did not cut guidance and also announced it resumed open market share repurchases given more tariff policy visibility. We think it's possible the market hoped for a guidance increase on more tariff mitigation. Total company adjusted EBIT fell 31.6% year over year to \$3 billion as a \$500 million favorable mix tailwind from more light-truck share was offset by lower wholesales plus cost headwinds from tariffs, warranty, and a \$600 million electric vehicle inventory write-down. Pricing was a slight headwind for the quarter, which was disappointing given GM's light-truck demand and much lower incentives as a percent of average transaction price than the industry average. The weakness came from fleet sales, but GM still expects pricing up in 2025 from 2024. The bottom line: We maintain our no-moat rating and increase our GM fair value estimate to \$77 per share from \$75. The change is from a lower share count after increasing our 2025 buyback spending to \$3 billion from \$2.2 billion and higher equity income as GM China keeps improving. GM China equity income improved to \$71 million versus a \$104 million loss in the prior year's quarter. This is the third straight quarter of GM China profit, and management reiterated it expects full-year profitability. Coming up: Second-half 2025 adjusted EBIT should be lower than the first half's \$6.5 billion due to two quarters with tariff impact, less wholesales on summer shutdowns, spending for the next generation full-size pickup trucks, and increasing US capacity at three plants starting in early 2027.

GM: Second-Quarter US Auto Sales Outperform Industry David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 2 Jul 2025

GM's second-quarter US sales increased 7.3% year over year, with all four brands posting growth. GM's growth exceeded the industry's 3% increase, and retail sales—that is, nonfleet—rose 10% in the quarter for their highest total since 2016. Why it matters: Strong retail demand shows GM's products remain desirable by consumers and suggests a good pricing EBIT contribution when GM reports second-quarter earnings on July 22, 2025. GM not copying Ford's employee pricing for all promotions seems to be paying off. Cadillac's second-quarter deliveries increased 15.3% for the brand's best second quarter since 2007. New electric offerings in the Optiq and Vistiq helped, as did a 16% rise in the Escalade sport utility vehicle. Cadillac's retail sales increased in all 50 states, with 26 states up over 25%, all good news for pricing. Three of Buick's four models are made in Korea or China and are subject to at least 25%

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tariffs. GM has been absorbing the tariff, which will hurt profits as it disclosed in May, but the China-made Envision posted a 53% rise while the Korea-made Envista rose 13%. The bottom line: We are not changing our \$75 per share fair value estimate or no-moat rating on GM. We see a tariff impact update possible on July 22, but we don't expect major changes from the 2025 net impact to adjusted EBIT guidance given May 1 of \$2.8 billion-\$3.5 billion. With the year half over, we are increasing our 2025 US light-vehicle sales forecast to 15.7 million-15.9 million units, up from 15.4 million-15.6 million. Still, we expect US industry sales in the second half of 2025 to be worse than the first half as tariffs lead to more price increases. Beyond 2025, GM is mitigating tariff risk by announcing June 10 that it is increasing the capacity of full-size SUVs beyond its one Texas plant to Orion in Michigan in 2027. The company is also moving some Equinox and Blazer crossover production to Kansas and Tennessee from Mexico that year.

GM Earnings: Lower Guidance From Tariffs Could Have Been Far Worse David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 1 May 2025

On May 1, GM held its first-quarter earnings call after delaying it on April 29. It also lowered 2025 guidance due to the impact of US tariffs. Total company adjusted EBIT guidance is now \$10 billion-\$12.5 billion and adjusted diluted EPS guidance is \$8.25-\$10.00, down from \$11-\$12 given Jan. 28. Why it matters: We said in our April 29 note that it was unclear if GM's withdrawing 2025 guidance at that time meant no new guidance coming on May 1 or lower guidance coming. We consider it good news that GM can still issue guidance, now including tariffs, unlike many other firms. GM guides for \$4 billion-\$5 billion of tariff EBIT impact, which it thinks can be mitigated down to \$2.8 billion-\$3.5 billion. Cost measures such as working with suppliers to have more US content and assembling 50,000 more pickups annually in Indiana instead of Mexico and Canada help. Pricing is a key assumption to the new guidance. GM said May 1 that pricing is higher than it expected at the start of the year and contributed about \$900 million in incremental EBIT in the quarter. GM now sees its 2025 pricing up 0.5%-1% instead of down 1%-1.5% but due to demand rather than from tariffs. The bottom line: We are increasing our fair value estimate for no-moat GM to \$75 per share from \$73. The change is from increasing 2025 EBIT for a \$3.1 billion tariff headwind, down from a \$7.7 billion impact in our prior model. We think guidance will fall further if the US enters a recession. Management expects further tariff policy changes in 2025, which we agree is possible. GM said \$2 billion of its \$4 billion-\$5 billion tariff exposure is from the four vehicles it imports into the US from South Korea. If the two nations can work out an auto tariff deal, that could mean upside for GM. The pricing expectation change is about a \$3 billion favorable move for 2025 earnings before tariffs, though \$900 million of that came in the first quarter.

GM Earnings: Favorable Auto Tariff Policy Change Should Reduce 2025 Tariff Damage David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 29 Apr 2025

On April 29, GM reported first-quarter adjusted diluted EPS of \$2.78, up 6.1% year over year and ahead of the \$2.74 LSEG consensus. However, a looming US auto tariff policy change caused GM to delay its

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earnings call until May 1. It also withdrew 2025 guidance. GM China returned to profitability. Why it matters: We expected GM to withdraw its guidance due to large and multiple tariffs affecting the US auto industry. GM said it's updating 2025 guidance on May 1, but it's unclear if at that time no 2025 guidance will be issued or if GM will instead lower guidance given on Jan. 28. The Wall Street Journal reported the evening of April 28 that the US on April 29 will amend auto tariffs to just be the 25% foreign auto tariff instead of stacking tariffs on top of other ones, such as 25% on steel and aluminum, so we don't fault GM for needing more time. GM China posted negative equity income for all four quarters of 2024 as Chinese automaker competition is greater than ever before. We've been skeptical of GM China's turnaround efforts working, but \$45 million of first-quarter equity income is a nice start to the turnaround effort. The bottom line: We will review our GM fair value estimate after the April 29 tariff executive order and May 1 earnings call. Given that on March 30 we made an over 50% EPS reduction to estimate the 2025 tariff impact, a modest fair value increase is possible given fewer tariffs. The 25% foreign auto tariff in effect since April 3 should remain. A 25% parts tariff starts May 3, but the policy change is likely to permit automakers a 3.75% reimbursement on a US-made vehicle's value in the first tariff year and 2.5% in the second year to let the automotive supply chain adjust. We think limiting tariffs to 25% may help German automakers more than GM and Ford, as GM and Ford were already immune from the 25% tariff on Mexican products for fentanyl and illegal immigration due to USMCA compliance.

Reciprocal Tariffs Bring No New Problems for GM and Ford David Whiston, CFA, CPA, CFE, Senior Equity Analyst, 3 Apr 2025

The US announced a universal 10% tariff rate and rates as high as 50% on dozens of other nations but exempted automobiles and automotive parts. It also extended the US-Mexico-Canada Agreement-compliant waiver for 25% tariffs on vehicles and auto parts imported from Canada and Mexico. Why it matters: The news brings some clarity on how many tariffs hit vehicles imported into the US. There are two 25% tariffs affecting US autos. The 25% tariff on Canada and Mexico, imposed ostensibly to curb illegal drugs and immigration into the US, had a USMCA waiver that was to expire April 2 but will now remain indefinitely. The waiver on the immigration tariff is important because substantially all of GM's and Ford's US-sold vehicles are USMCA-compliant. This means the firms face only one 25% US tariff, which was announced March 26 and started April 3. Some competitors face a 50% levy. USMCA compliance means GM and Ford won't face Canada's retaliatory 25% tariff, because that tariff also exempts USMCA vehicles and parts. It appears the 25% so-called chicken tax tariff and the longtime 2.5% US tariff on imported autos are not a factor, which we had feared. The bottom line: We are not changing our GM and Ford fair value estimates because we already took action on tariffs (See our March 30 note). We may make adjustments on all our US autos coverage as firms report their earnings. We don't expect any moat changes. Between the lines: We don't think any firm wins from these tariffs; some just lose less than others. Although we think both GM and Ford are undervalued, they likely will

General Motors Co

GM

★★★

19 Nov 2025 22:43, UTC

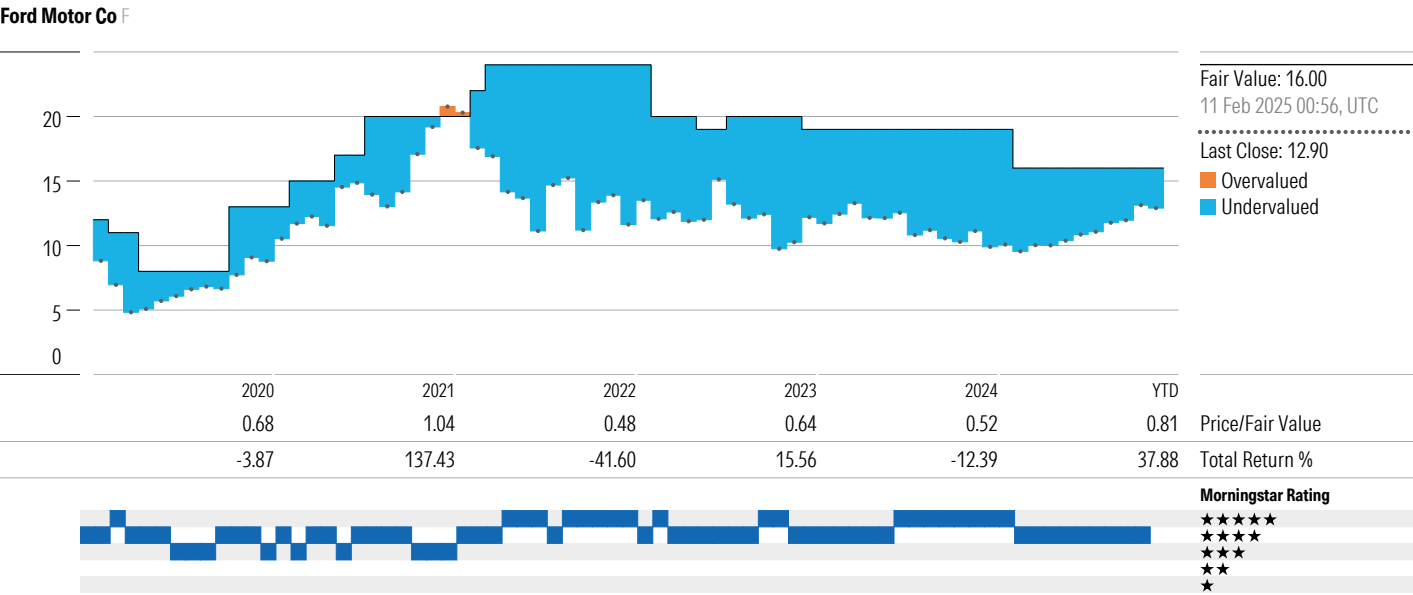
Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
68.50 USD	80.00 USD	0.86	63.90 USD Bil	 None	 Mid Value	High	Standard	
19 Nov 2025	21 Oct 2025 20:33, UTC		19 Nov 2025					3 Sep 2025 05:00, UTC

remain undervalued for a long time while investors adjust to the drastic change in global trade. The tariff impact will take time because the parts levy for the April 3 25% tariff won't start until May, while tracing mechanisms can be worked out to exclude US-manufactured content. Dealers will have nontariffed inventory on their lots into May as well, so the full impact is yet to arrive. ■■■

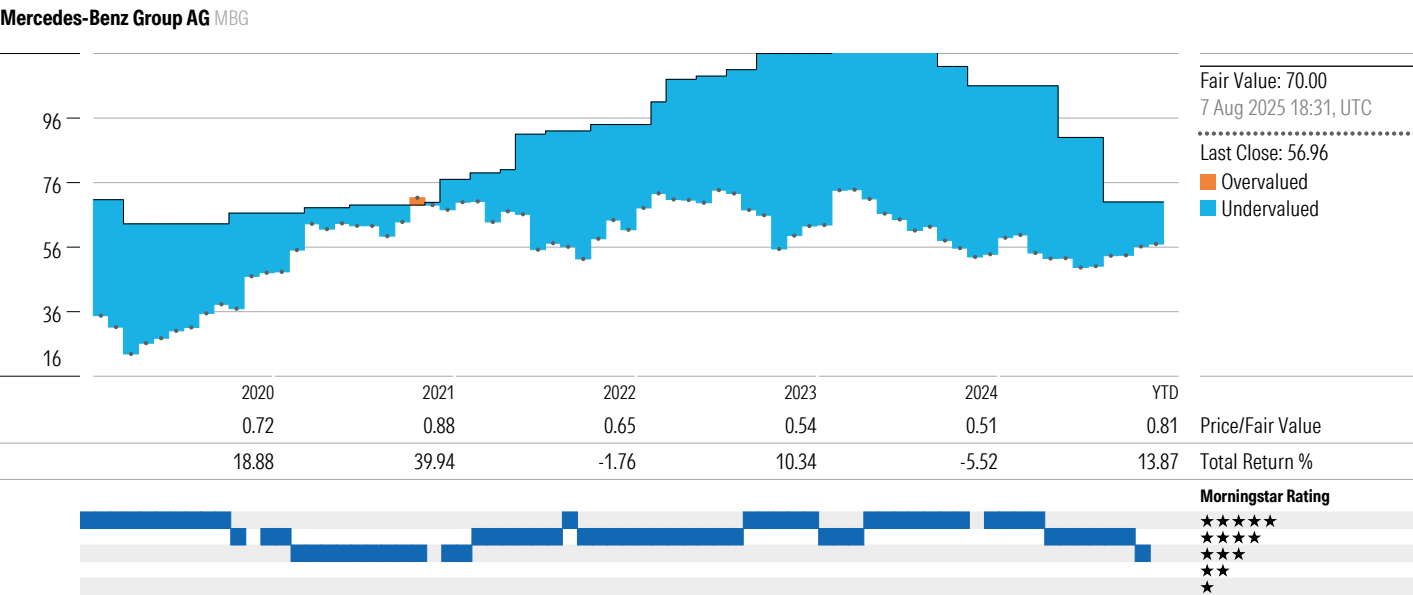
General Motors Co GM ★★★

19 Nov 2025 22:43, UTC

Competitors Price vs. Fair Value



Total Return % as of 19 Nov 2025. Last Close as of 19 Nov 2025. Fair Value as of 11 Feb 2025 00:56, UTC.



Total Return % as of 19 Nov 2025. Last Close as of 19 Nov 2025. Fair Value as of 7 Aug 2025 18:31, UTC.

General Motors Co

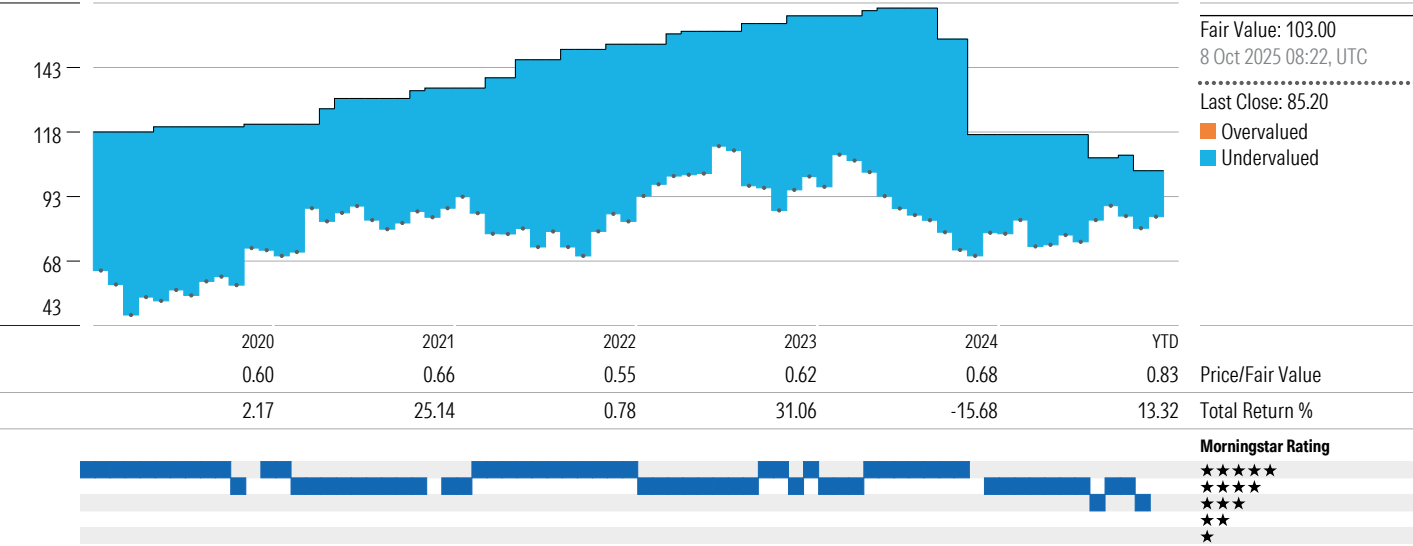
GM

★★★

19 Nov 2025 22:43, UTC

Competitors Price vs. Fair Value

Bayerische Motoren Werke AG



Total Return % as of 19 Nov 2025. Last Close as of 19 Nov 2025. Fair Value as of 8 Oct 2025 08:22, UTC.

General Motors Co 19 Nov 2025 22:43, UTC

Last Price 68.50 USD 19 Nov 2025	Fair Value Estimate 80.00 USD 21 Oct 2025 20:33, UTC	Price/FVE 0.86	Market Cap 63.90 USD Bil 19 Nov 2025	Economic Moat™  None	Equity Style Box  Mid Value	Uncertainty High	Capital Allocation Standard	ESG Risk Rating Assessment¹  3 Sep 2025 05:00, UTC
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Morningstar Valuation Model Summary

Financials as of 21 Oct 2025

Fiscal Year, ends 31 Dec	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Revenue (USD Mil)	143,970	157,658	171,606	172,319	181,667	186,801	199,936	209,279
Operating Income (USD Mil)	9,434	8,452	12,411	9,405	10,615	2,680	7,308	9,868
EBITDA (USD Mil)	14,355	13,531	18,167	13,557	17,564	9,838	15,006	17,949
Adjusted EBITDA (USD Mil)	15,823	15,396	20,648	16,470	18,064	10,338	15,506	18,449
Net Income (USD Mil)	8,916	10,021	7,192	4,955	7,473	1,418	4,903	6,836
Adjusted Net Income (USD Mil)	11,034	10,511	11,966	9,347	9,741	3,912	7,397	9,330
Free Cash Flow To The Firm (USD Mil)	12,587	8,006	15,482	4,668	3,866	-16	2,882	6,363
Weighted Average Diluted Shares Outstanding (Mil)	1,454	1,369	1,129	955	937	921	906	893
Earnings Per Share (Diluted) (USD)	6.13	7.32	6.37	5.19	7.98	1.54	5.41	7.66
Adjusted Earnings Per Share (Diluted) (USD)	7.59	7.68	10.60	9.79	10.40	4.25	8.16	10.45
Dividends Per Share (USD)	0.18	0.36	0.48	0.57	0.68	0.82	0.99	1.18

Margins & Returns as of 21 Oct 2025

	3 Year Avg	Actual			Forecast					5 Year Avg
		2022	2023	2024	2025	2026	2027	2028	2029	
Operating Margin %	5.2	6.6	5.4	7.2	5.5	5.8	1.4	3.7	4.7	3.7
EBITDA Margin %	—	10.0	8.6	10.6	7.9	9.7	5.3	7.5	8.6	—
Adjusted EBITDA Margin %	—	11.0	9.8	12.0	9.6	9.9	5.5	7.8	8.8	8.3
Net Margin %	5.6	6.2	6.4	4.2	2.9	4.1	0.8	2.5	3.3	2.7
Adjusted Net Margin %	7.1	7.7	6.7	7.0	5.4	5.4	2.1	3.7	4.5	4.2
Free Cash Flow To The Firm Margin %	7.6	8.7	5.1	9.0	2.7	2.1	0.0	1.4	3.0	1.9

Growth & Ratios as of 21 Oct 2025

	3 Year CAGR	Actual			Forecast					5 Year CAGR
		2022	2023	2024	2025	2026	2027	2028	2029	
Revenue Growth %	14.7	26.8	9.5	8.9	0.4	5.4	2.8	7.0	4.7	4.1
Operating Income Growth %	20.5	32.8	-10.4	46.8	-24.2	12.9	-74.8	172.7	35.0	-4.5
EBITDA Growth %	15.1	16.6	-5.7	34.3	-25.4	29.6	-44.0	52.5	19.6	6.5
Adjusted EBITDA Growth %	16.6	21.6	-2.7	34.1	-20.2	9.7	-42.8	50.0	19.0	-2.2
Earnings Per Share Growth %	-1.7	-8.4	19.4	-13.0	-18.6	53.7	-80.7	251.3	41.5	3.7
Adjusted Earnings Per Share Growth %	-1.7	7.3	1.2	38.1	-7.7	6.2	-59.1	92.1	28.0	3.7

Valuation as of 21 Oct 2025

	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Price/Earning	4.4	4.7	5.0	7.0	6.6	16.1	8.4	6.6
Price/Sales	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3
Price/Book	0.9	1.0	1.2	1.3	1.2	1.2	1.1	1.0
Price/Cash Flow	—	—	—	—	—	—	—	—
EV/EBITDA	8.2	8.7	7.2	10.1	9.2	16.1	10.8	9.0
EV/EBIT	13.8	15.8	12.0	17.7	15.7	62.2	22.8	16.9
Dividend Yield %	0.5	1.0	0.9	0.8	1.0	1.2	1.5	1.7
Dividend Payout %	2.4	4.7	4.5	5.8	6.6	19.3	12.1	11.3
Free Cash Flow Yield %	—	—	—	—	—	—	—	—

Operating Performance / Profitability as of 21 Oct 2025

Fiscal Year, ends 31 Dec	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
ROA %	6.2	6.9	5.0	3.4	4.9	0.9	3.0	4.0
ROE %	15.7	19.1	14.4	9.9	13.4	2.6	8.4	10.8
ROIC %	12.3	11.0	16.0	12.1	13.0	3.2	8.0	10.3

General Motors Co ★★★

19 Nov 2025 22:43, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
68.50 USD 19 Nov 2025	80.00 USD 21 Oct 2025 20:33, UTC	0.86	63.90 USD Bil 19 Nov 2025	 None	 Mid Value	High	Standard	 3 Sep 2025 05:00, UTC

Financial Leverage (Reporting Currency)	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Fiscal Year, ends 31 Dec								
Debt/Capital %	70.8	71.4	69.1	17.4	16.3	16.1	16.7	14.9
Assets/Equity	2.5	2.8	2.9	2.9	2.7	2.8	2.8	2.7
Net Debt/EBITDA	5.9	7.1	5.7	0.0	-0.1	0.1	0.1	-0.2
Total Debt/EBITDA	7.3	8.0	6.3	1.0	0.9	1.7	1.3	1.0
EBITDA/ Net Interest Expense	-8.1	-4.6	-113.5	22.0	24.1	13.8	20.7	24.6

Forecast Revisions as of 21 Oct 2025	2025		2026		2027	
	Current	Prior	Current	Prior	Current	Prior
Prior data as of 22 Jul 2025						
Fair Value Estimate Change (Trading Currency)	80.00	76.96	—	—	—	—
Revenue (USD Mil)	172,319	172,219	181,667	183,667	186,801	189,801
Operating Income (USD Mil)	9,405	8,735	10,615	9,562	2,680	3,340
EBITDA (USD Mil)	16,470	15,796	18,064	17,092	10,338	11,122
Net Income (USD Mil)	9,347	9,109	9,741	9,125	3,912	4,586
Earnings Per Share (Diluted) (USD)	5.19	5.96	7.98	7.12	1.54	2.21
Adjusted Earnings Per Share (Diluted) (USD)	9.79	9.27	10.40	9.47	4.25	4.85
Dividends Per Share (USD)	0.57	0.57	0.68	0.68	0.82	0.82

Key Valuation Drivers as of 21 Oct 2025

Cost of Equity %	11.0
Pre-Tax Cost of Debt %	6.5
Weighted Average Cost of Capital %	10.1
Long-Run Tax Rate %	24.0
Stage II EBI Growth Rate %	4.0
Stage II Investment Rate %	40.0
Perpetuity Year	10

Additional estimates and scenarios available for download at <https://pitchbook.com/>.

Discounted Cash Flow Valuation as of 21 Oct 2025

	USD Mil
Present Value Stage I	8,814
Present Value Stage II	12,404
Present Value Stage III	37,906
Total Firm Value	59,124
Cash and Equivalents	22,043
Debt	18,500
Other Adjustments	20,778
Equity Value	70,275
Projected Diluted Shares	955
Fair Value per Share (USD)	80.00

General Motors Co ★★★ 19 Nov 2025 22:43, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
68.50 USD 19 Nov 2025	80.00 USD 21 Oct 2025 20:33, UTC	0.86	63.90 USD Bil 19 Nov 2025	 None	 Mid Value	High	Standard	 3 Sep 2025 05:00, UTC

ESG Risk Rating Breakdown

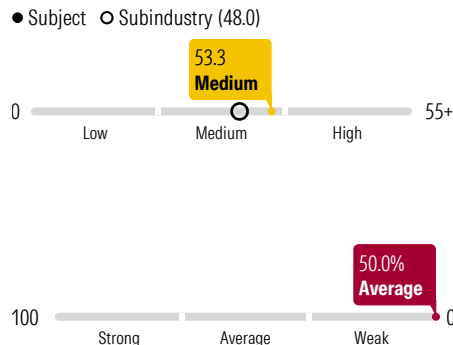
Exposure

Company Exposure¹	53.3
- Manageable Risk	51.4
Unmanageable Risk²	1.9

Management

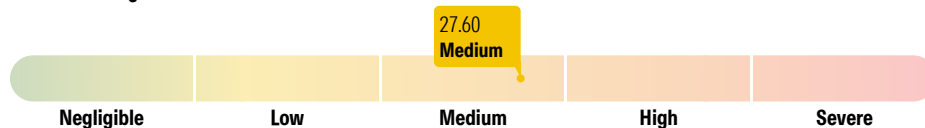
Manageable Risk	51.4
- Managed Risk³	25.7
Management Gap⁴	25.7

Overall Unmanaged Risk 27.6



- Exposure represents a company's vulnerability to ESG risks driven by their business model
- Exposure is assessed at the Subindustry level and then specified at the company level
- Scoring ranges from 0-55+ with categories of low, medium, and high-risk exposure
- Management measures a company's ability to manage ESG risks through its commitments and actions
- Management assesses a company's efficiency on ESG programs, practices, and policies
- Management score ranges from 0-100% showing how much manageable risk a company is managing

ESG Risk Rating



ESG Risk Ratings measure the degree to which a company's value is impacted by environmental, social, and governance risks, by evaluating the company's ability to manage the ESG risks it faces.

1. A company's Exposure to material ESG issues 2. Unmanageable Risk refers to risks that are inherent to a particular business model that cannot be managed by programs or initiatives 3. Managed Risk = Manageable Risk multiplied by a Management score of 50.0% 4. Management Gap assesses risks that are not managed, but are considered manageable 5. ESG Risk Rating Assessment = Overall Unmanaged Risk = Management Gap plus Unmanageable Risk

ESG Risk Rating Assessment⁵



ESG Risk Rating is of Sep 03, 2025. Highest Controversy Level is as of Nov 08, 2025. Sustainalytics Subindustry: Automobiles. Sustainalytics provides Morningstar with company ESG ratings and metrics on a monthly basis and as such, the ratings in Morningstar may not necessarily reflect current Sustainalytics' scores for the company. For the most up to date rating and more information, please visit: sustainalytics.com/esg-ratings/.

Peer Analysis 03 Sep 2025

Peers are selected from the company's Sustainalytics-defined Subindustry and are displayed based on the closest market cap values

Company Name	Exposure		Management		ESG Risk Rating
General Motors Co	53.3 Medium	0 —●— 55+	50.0 Average	100 —●— 0	27.6 Medium 0 —●— 40+
Ford Motor Co	55.2 High	0 —●— 55+	52.6 Strong	100 —●— 0	27.5 Medium 0 —●— 40+
Mercedes-Benz Group AG	47.1 Medium	0 —●— 55+	62.1 Strong	100 —●— 0	19.3 Low 0 —●— 40+
Honda Motor Co Ltd	51.1 Medium	0 —●— 55+	47.5 Average	100 —●— 0	28.0 Medium 0 —●— 40+
Bayerische Motoren Werke AG	48.8 Medium	0 —●— 55+	55.5 Strong	100 —●— 0	23.1 Medium 0 —●— 40+

Appendix

Historical Morningstar Rating

General Motors Co GM 19 Nov 2025 22:43, UTC

Dec 2025 —	Nov 2025 ★★★★	Oct 2025 ★★★★★	Sep 2025 ★★★★★	Aug 2025 ★★★★★	Jul 2025 ★★★★★	Jun 2025 ★★★★★	May 2025 ★★★★★	Apr 2025 ★★★★★	Mar 2025 ★★★★★	Feb 2025 ★★★★★	Jan 2025 ★★★★★
Dec 2024 ★★★★★	Nov 2024 ★★★★★	Oct 2024 ★★★★★	Sep 2024 ★★★★★	Aug 2024 ★★★★★	Jul 2024 ★★★★★	Jun 2024 ★★★★★	May 2024 ★★★★★	Apr 2024 ★★★★★	Mar 2024 ★★★★★	Feb 2024 ★★★★★	Jan 2024 ★★★★★
Dec 2023 ★★★★★	Nov 2023 ★★★★★	Oct 2023 ★★★★★	Sep 2023 ★★★★★	Aug 2023 ★★★★★	Jul 2023 ★★★★★	Jun 2023 ★★★★★	May 2023 ★★★★★	Apr 2023 ★★★★★	Mar 2023 ★★★★★	Feb 2023 ★★★★★	Jan 2023 ★★★★★
Dec 2022 ★★★★★	Nov 2022 ★★★★★	Oct 2022 ★★★★★	Sep 2022 ★★★★★	Aug 2022 ★★★★★	Jul 2022 ★★★★★	Jun 2022 ★★★★★	May 2022 ★★★★★	Apr 2022 ★★★★★	Mar 2022 ★★★★★	Feb 2022 ★★★★★	Jan 2022 ★★★★★
Dec 2021 ★★★★★	Nov 2021 ★★★★	Oct 2021 ★★★★★	Sep 2021 ★★★★★	Aug 2021 ★★★★★	Jul 2021 ★★★★	Jun 2021 ★★★★	May 2021 ★★★★	Apr 2021 ★★★★	Mar 2021 ★★★★	Feb 2021 ★★★★	Jan 2021 ★★★★
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Ford Motor Co F 19 Nov 2025 22:32, UTC

Dec 2025 —	Nov 2025 ★★★★	Oct 2025 ★★★★★	Sep 2025 ★★★★★	Aug 2025 ★★★★★	Jul 2025 ★★★★★	Jun 2025 ★★★★★	May 2025 ★★★★★	Apr 2025 ★★★★★	Mar 2025 ★★★★★	Feb 2025 ★★★★★	Jan 2025 ★★★★★
Dec 2024 ★★★★★	Nov 2024 ★★★★★	Oct 2024 ★★★★★	Sep 2024 ★★★★★	Aug 2024 ★★★★★	Jul 2024 ★★★★★	Jun 2024 ★★★★★	May 2024 ★★★★★	Apr 2024 ★★★★★	Mar 2024 ★★★★★	Feb 2024 ★★★★★	Jan 2024 ★★★★★
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Mercedes-Benz Group AG MBG 20 Nov 2025 01:46, UTC

Dec 2025 —	Nov 2025 ★★★★	Oct 2025 ★★★★★	Sep 2025 ★★★★★	Aug 2025 ★★★★★	Jul 2025 ★★★★★	Jun 2025 ★★★★★	May 2025 ★★★★★	Apr 2025 ★★★★★	Mar 2025 ★★★★★	Feb 2025 ★★★★★	Jan 2025 ★★★★★
Dec 2024 —	Nov 2024 ★★★★★	Oct 2024 ★★★★★	Sep 2024 ★★★★★	Aug 2024 ★★★★★	Jul 2024 ★★★★★	Jun 2024 ★★★★★	May 2024 ★★★★★	Apr 2024 ★★★★★	Mar 2024 ★★★★★	Feb 2024 ★★★★★	Jan 2024 ★★★★★
Dec 2023 ★★★★★	Nov 2023 ★★★★★	Oct 2023 ★★★★★	Sep 2023 ★★★★★	Aug 2023 ★★★★★	Jul 2023 ★★★★★	Jun 2023 ★★★★★	May 2023 ★★★★★	Apr 2023 ★★★★★	Mar 2023 ★★★★★	Feb 2023 ★★★★★	Jan 2023 ★★★★★
Dec 2022 ★★★★★	Nov 2022 ★★★★★	Oct 2022 ★★★★★	Sep 2022 ★★★★★	Aug 2022 ★★★★★	Jul 2022 ★★★★★	Jun 2022 ★★★★★	May 2022 ★★★★★	Apr 2022 ★★★★★	Mar 2022 ★★★★★	Feb 2022 ★★★★★	Jan 2022 ★★★★★
Dec 2021 —	Nov 2021 ★★★★	Oct 2021 ★★★★	Sep 2021 ★★★★	Aug 2021 ★★★★	Jul 2021 ★★★★	Jun 2021 ★★★★	May 2021 ★★★★	Apr 2021 ★★★★	Mar 2021 ★★★★	Feb 2021 ★★★★★	Jan 2021 ★★★★★
Dec 2020 —	Nov 2020 ★★★★★	Oct 2020 ★★★★★	Sep 2020 ★★★★★	Aug 2020 ★★★★★	Jul 2020 ★★★★★	Jun 2020 ★★★★★	May 2020 ★★★★★	Apr 2020 ★★★★★	Mar 2020 ★★★★★	Feb 2020 ★★★★★	Jan 2020 ★★★★★

Bayerische Motoren Werke AG BMW 20 Nov 2025 01:46, UTC

Dec 2025 —	Nov 2025 ★★★	Oct 2025 ★★★★	Sep 2025 ★★★★	Aug 2025 ★★★	Jul 2025 ★★★★	Jun 2025 ★★★★	May 2025 ★★★★	Apr 2025 ★★★★	Mar 2025 ★★★★	Feb 2025 ★★★★	Jan 2025 ★★★★
Dec 2024 —	Nov 2024 ★★★★★	Oct 2024 ★★★★★	Sep 2024 ★★★★★	Aug 2024 ★★★★★	Jul 2024 ★★★★★	Jun 2024 ★★★★★	May 2024 ★★★★★	Apr 2024 ★★★★	Mar 2024 ★★★★	Feb 2024 ★★★★	Jan 2024 ★★★★★
Dec 2023 ★★★★	Nov 2023 ★★★★★	Oct 2023 ★★★★★	Sep 2023 ★★★★	Aug 2023 ★★★★	Jul 2023 ★★★★	Jun 2023 ★★★★	May 2023 ★★★★	Apr 2023 ★★★★	Mar 2023 ★★★★	Feb 2023 ★★★★	Jan 2023 ★★★★★
Dec 2022 ★★★★★	Nov 2022 ★★★★★	Oct 2022 ★★★★★	Sep 2022 ★★★★★	Aug 2022 ★★★★★	Jul 2022 ★★★★★	Jun 2022 ★★★★★	May 2022 ★★★★★	Apr 2022 ★★★★★	Mar 2022 ★★★★★	Feb 2022 ★★★★	Jan 2022 ★★★★
Dec 2021 —	Nov 2021 ★★★★	Oct 2021 ★★★★	Sep 2021 ★★★★	Aug 2021 ★★★★	Jul 2021 ★★★★	Jun 2021 ★★★★	May 2021 ★★★★	Apr 2021 ★★★★	Mar 2021 ★★★★	Feb 2021 ★★★★★	Jan 2021 ★★★★★
Dec 2020 —	Nov 2020 ★★★★	Oct 2020 ★★★★★	Sep 2020 ★★★★★	Aug 2020 ★★★★★	Jul 2020 ★★★★★	Jun 2020 ★★★★★	May 2020 ★★★★★	Apr 2020 ★★★★★	Mar 2020 ★★★★★	Feb 2020 ★★★★★	Jan 2020 ★★★★★

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Overview

At the heart of our valuation system is a detailed projection of a company's future cash flows, resulting from our analysts' research. Analysts create custom industry and company assumptions to feed income statement, balance sheet, and capital investment assumptions into our globally standardized, proprietary discounted cash flow, or DCF, modeling templates. We use scenario analysis, in-depth competitive advantage analysis, and a variety of other analytical tools to augment this process. Moreover, we think analyzing valuation through discounted cash flows presents a better lens for viewing cyclical companies, high-growth firms, businesses with finite lives (e.g., mines), or companies expected to generate negative earnings over the next few years. That said, we don't dismiss multiples altogether but rather use them as supporting cross-checks for our DCF-based fair value estimates. We also acknowledge that DCF models offer their own challenges (including a potential proliferation of estimated inputs and the possibility that the method may miss short-term market-price movements), but we believe these negatives are mitigated by deep analysis and our long-term approach.

Morningstar's equity research group ("we," "our") believes that a company's intrinsic worth results from the future cash flows it can generate. The Morningstar Rating for stocks identifies stocks trading at a discount or premium to their intrinsic worth—or fair value estimate, in Morningstar terminology. Five-star stocks sell for the biggest risk adjusted discount to their fair values, whereas 1-star stocks trade at premiums to their intrinsic worth.

Four key components drive the Morningstar rating: (1) our assessment of the firm's economic moat, (2) our estimate of the stock's fair value, (3) our uncertainty around that fair value estimate and (4) the current market price. This process ultimately culminates in our single-point star rating.

1. Economic Moat

The concept of an economic moat plays a vital role not only in our qualitative assessment of a firm's long-term investment potential, but also in the actual calculation of our fair value estimates. An economic moat is a structural feature that allows a firm to sustain excess profits over a

long period of time. We define economic profits as returns on invested capital (or ROIC) over and above our estimate of a firm's cost of capital, or weighted average cost of capital (or WACC). Without a moat, profits are more susceptible to competition. We have identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

Companies with a narrow moat are those we believe are more likely than not to achieve normalized excess returns for at least the next 10 years. Wide-moat companies are those in which we have very high confidence that excess returns will remain for 10 years, with excess returns more likely than not to remain for at least 20 years. The longer a firm generates economic profits, the higher its intrinsic value. We believe low-quality, no-moat companies will see their normalized returns gravitate toward the firm's cost of capital more quickly than companies with moats.

When considering a company's moat, we also assess whether there is a substantial threat of value destruction, stemming from risks related to ESG, industry disruption, financial health, or other idiosyncratic issues. In this context, a risk is considered potentially value destructive if its occurrence would eliminate a firm's economic profit on a cumulative or midcycle basis. If we deem the probability of occurrence sufficiently high, we would not characterize the company as possessing an economic moat.

2. Estimated Fair Value

Combining our analysts' financial forecasts with the firm's economic moat helps us assess how long returns on invested capital are likely to exceed the firm's cost of capital. Returns of firms with a wide economic moat rating are assumed to fade to the perpetuity period over a longer period of time than the returns of narrow-moat firms, and both will fade slower than no-moat firms, increasing our estimate of their intrinsic value.

Our model is divided into three distinct stages:

Stage I: Explicit Forecast

In this stage, which can last five to 10 years, analysts make full financial statement forecasts, including items such as revenue, profit margins, tax rates, changes in working capital accounts, and capital spending. Based on these projections, we calculate earnings before interest,

after taxes (EBI) and the net new investment (NNI) to derive our annual free cash flow forecast.

Stage II: Fade

The second stage of our model is the period it will take the company's return on new invested capital—the return on capital of the next dollar invested ("RONIC")—to decline (or rise) to its cost of capital. During the Stage II period, we use a formula to approximate cash flows in lieu of explicitly modeling the income statement, balance sheet, and cash flow statement as we do in Stage I. The length of the second stage depends on the strength of the company's economic moat. We forecast this period to last anywhere from one year (for companies with no economic moat) to 10–15 years or more (for wide-moat companies). During this period, cash flows are forecast using four assumptions: an average growth rate for EBI over the period, a normalized investment rate, average return on new invested capital (RONIC), and the number of years until perpetuity, when excess returns cease. The investment rate and return on new invested capital decline until a perpetuity value is calculated. In the case of firms that do not earn their cost of capital, we assume marginal ROICs rise to the firm's cost of capital (usually attributable to less reinvestment), and we may truncate the second stage.

Stage III: Perpetuity

Once a company's marginal ROIC hits its cost of capital, we calculate a continuing value, using a standard perpetuity formula. At perpetuity, we assume that any growth or decline or investment in the business neither creates nor destroys value and that any new investment provides a return in line with estimated WACC.

Because a dollar earned today is worth more than a dollar earned tomorrow, we discount our projections of cash flows in stages I, II, and III to arrive at a total present value of expected future cash flows. Because we are modeling free cash flow to the firm—representing cash available to provide a return to all capital providers—we discount future cash flows using the WACC, which is a weighted average of the costs of equity, debt, and preferred stock (and any other funding sources), using expected future proportionate long-term, market-value weights.

3. Uncertainty Around That Fair Value Estimate

Morningstar's Uncertainty Rating is designed to capture the range of potential outcomes for a company's intrinsic value. This rating is used to assign the margin of safety required before investing, which in turn explicitly drives our stock star rating system. The Uncertainty Rating is aimed at identifying the confidence we should have in assigning a fair value estimate for a given stock.

Our Uncertainty Rating is meant to take into account anything that can increase the potential dispersion of future

Morningstar Equity Research Star Rating Methodology



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outcomes for the intrinsic value of a company, and anything that can affect our ability to accurately predict these outcomes. The rating begins with a suggested rating produced by a quantitative process based on the trailing 12-month standard deviation of daily stock returns. An analyst overlay is then applied, with analysts using the suggested rating, historical rating data, and their own knowledge of the company to inform them as they make the final Uncertainty Rating decision. Ultimately, the rating decision rests with the analyst. Analysts take into account many characteristics when making their final decision, including cyclical factors, operational and financial factors such as leverage, company-specific events, ESG risks, and anything else that might increase the potential dispersion of future outcomes and our ability to estimate those outcomes.

Our recommended margin of safety—the discount to fair value demanded before we'd recommend buying or selling the stock—widens as our uncertainty of the estimated value of the equity increases. The more uncertain we are about the potential dispersion of outcomes, the greater the discount we require relative to our estimate of the value of the firm before we would recommend the purchase of the shares. In addition, the Uncertainty Rating provides guidance in portfolio construction based on risk tolerance.

Our Uncertainty Ratings are: Low, Medium, High, Very High, and Extreme.

Qualitative Analysis Uncertainty Ratings	Margin of Safety	
	★★★★★ Rating	★ Rating
Low	20% Discount	25% Premium
Medium	30% Discount	35% Premium
High	40% Discount	55% Premium
Very High	50% Discount	75% Premium
Extreme	75% Discount	300% Premium

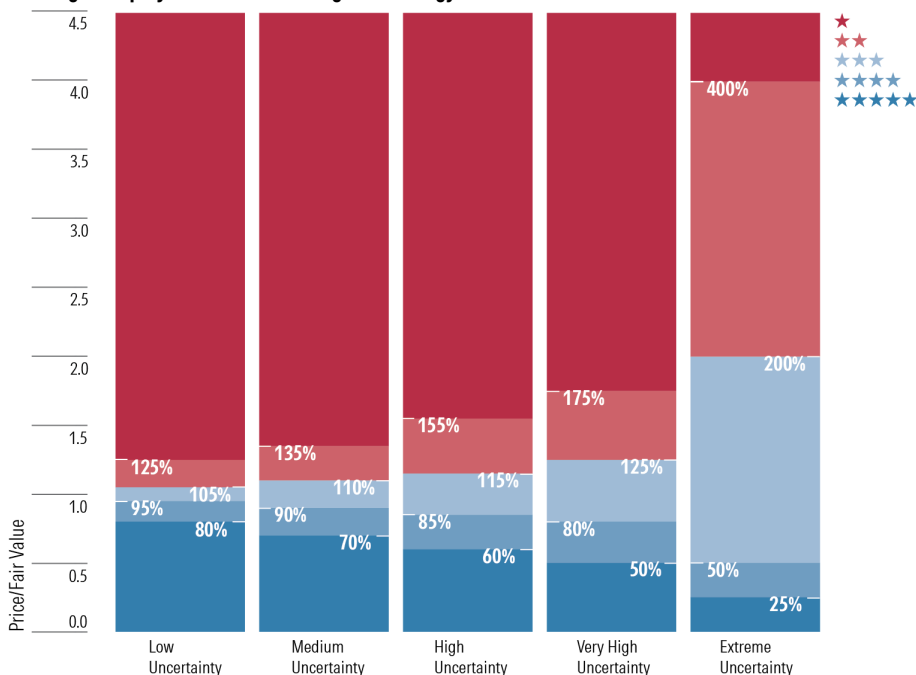
Our uncertainty rating is based on the interquartile range, or the middle 50% of potential outcomes, covering the 25th percentile–75th percentile. This means that when a stock hits 5 stars, we expect there is a 75% chance that the intrinsic value of that stock lies above the current market price. Similarly, when a stock hits 1 star, we expect there is a 75% chance that the intrinsic value of that stock lies below the current market price.

4. Market Price

The market prices used in this analysis and noted in the report come from exchange on which the stock is listed which we believe is a reliable source.

For more details about our methodology, please go to <https://shareholders.morningstar.com>

Morningstar Equity Research Star Rating Methodology



Morningstar Star Rating for Stocks

Once we determine the fair value estimate of a stock, we compare it with the stock's current market price on a daily basis, and the star rating is automatically re-calculated at the market close on every day the market on which the stock is listed is open. Our analysts keep close tabs on the companies they follow, and, based on thorough and ongoing analysis, raise or lower their fair value estimates as warranted.

Please note, there is no predefined distribution of stars. That is, the percentage of stocks that earn 5 stars can fluctuate daily, so the star ratings, in the aggregate, can serve as a gauge of the broader market's valuation. When there are many 5-star stocks, the stock market as a whole is more undervalued, in our opinion, than when very few companies garner our highest rating.

We expect that if our base-case assumptions are true the market price will converge on our fair value estimate over time generally within three years (although it is impossible to predict the exact time frame in which market prices may adjust).

Our star ratings are guideposts to a broad audience and individuals must consider their own specific investment goals, risk tolerance, tax situation, time horizon, income needs, and complete investment portfolio, among other factors.

The Morningstar Star Ratings for stocks are defined below:

★★★★★ We believe appreciation beyond a fair risk-adjusted return is highly likely over a multiyear time frame. Scenario analysis developed by our analysts indicates that the current market price represents an excessively pessimistic outlook, limiting downside risk and maximizing upside potential.

★★★★ We believe appreciation beyond a fair risk-adjusted return is likely.

★★★ Indicates our belief that investors are likely to receive a fair risk-adjusted return (approximately cost of equity).

★★ We believe investors are likely to receive a less than fair risk-adjusted return.

★ Indicates a high probability of undesirable risk-adjusted returns from the current market price over a multi-year time frame, based on our analysis. Scenario analysis by our analysts indicates that the market is pricing in an excessively optimistic outlook, limiting upside potential and leaving the investor exposed to Capital loss.

Other Definitions

Last Price: Price of the stock as of the close of the market of the last trading day before date of the report.

Capital Allocation Rating: Our Capital Allocation (or Stewardship) Rating represents our assessment of the quality of management's capital allocation, with particular emphasis on the firm's balance sheet, investments,

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and shareholder distributions. Analysts consider companies' investment strategy and valuation, balance sheet management, and dividend and share buyback policies. Corporate governance factors are only considered if they are likely to materially impact shareholder value, though either the balance sheet, investment, or shareholder distributions. Analysts assign one of three ratings: "Exemplary", "Standard", or "Poor". Analysts judge Capital Allocation from an equity holder's perspective. Ratings are determined on a forward looking and absolute basis. The Standard rating is most common as most managers will exhibit neither exceptionally strong nor poor capital allocation.

Capital Allocation (or Stewardship) analysis published prior to Dec. 9, 2020, was determined using a different process. Beyond investment strategy, financial leverage, and dividend and share buyback policies, analysts also considered execution, compensation, related party transactions, and accounting practices in the rating.

Capital Allocation Rating: Our Capital Allocation (or Stewardship) Rating represents our assessment of the quality of management's capital allocation, with particular emphasis on the firm's balance sheet, investments, and shareholder distributions. Analysts consider companies' investment strategy and valuation, balance sheet management, and dividend and share buyback policies. Corporate governance factors are only considered if they are likely to materially impact shareholder value, though either the balance sheet, investment, or shareholder distributions. Analysts assign one of three ratings: "Exemplary", "Standard", or "Poor". Analysts judge Capital Allocation from an equity holder's perspective. Ratings are determined on a forward looking and absolute basis. The Standard rating is most common as most managers will exhibit neither exceptionally strong nor poor capital allocation.

Capital Allocation (or Stewardship) analysis published prior to Dec. 9, 2020, was determined using a different process. Beyond investment strategy, financial leverage, and dividend and share buyback policies, analysts also considered execution, compensation, related party transactions, and accounting practices in the rating.

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/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.

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