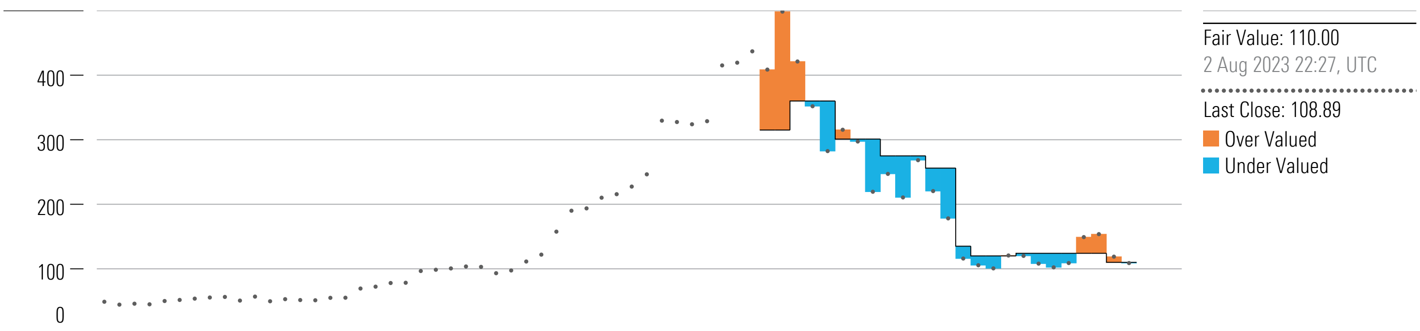
Morningstar Equity Analyst Report | Report as of 28 Sep 2023 17:24, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NEW YORK STOCK EXCHANGE, INC. Page 1 of 20

Generac Holdings Inc GNRC ★★★ 27 Sep 2023 21:20, UTC

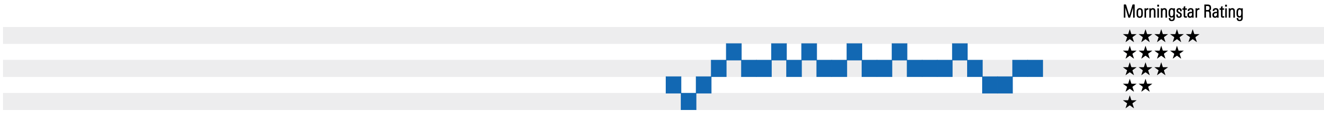
Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
108.89 USD 27 Sep 2023	110.00 USD 2 Aug 2023 22:27, UTC	0.99	6.78 USD Bil 27 Sep 2023	Narrow	Small Blend	High	Standard	6 Sep 2023 05:00, UTC

Price vs. Fair Value



2018	2019	2020	2021	2022	YTD	
—	—	—	0.98	0.84	0.99	Price/Fair Value
0.36	102.39	126.08	54.75	-71.40	8.18	Total Return %

Morningstar Rating



Total Return % as of 27 Sep 2023. Last Close as of 27 Sep 2023. Fair Value as of 2 Aug 2023 22:27, UTC.

Contents

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

Generac: Analyst Day Financial Targets Better Than Expected, but Are They Achievable?

Analyst Note Brett Castelli, Equity Analyst, 28 Sep 2023

We maintain our $110 fair value estimate for Generac after attending its analyst day in Wisconsin. We view shares as fairly valued.

The overall theme of Generac's analyst day was its continued evolution toward clean energy. Generac expects energy technology revenue to increase to 21% of sales in 2026 from 12% in 2023.

Consistent with past practice, Generac unveiled three-year financial targets that were above our expectations. The company expects 2026 revenue of $5.85 billion, above our $5.1 billion estimate. In addition, 2026 adjusted EBITDA margins of 22% (midpoint) surpassed our 19.5% estimate. The main upside surprise relative to our estimates was the company's expectation for continued growth in its home standby generator sales beyond an inventory normalization bump in 2024. In contrast, we assume a plateau of home generator sales beyond 2024 as we hesitate to underwrite a major outage event in our base estimates. As such, our revised 2026 revenue estimate ($5.2 billion) remains below the company's target. We stress home standby sales are inherently difficult to forecast and remain highly dependent on power outage activity, which represents a key upside to our estimates.

Generac remains committed to its upstart clean energy business despite recent setbacks. We view the appointment of solar veteran Norm Taffe as adding credibility to its clean energy efforts, but ultimate

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Generac Holdings Inc GNRC ★★★ 27 Sep 2023 21:20, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
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Sector
Industrials

Industry
Specialty Industrial Machinery

Business Description

Generac Power Systems designs and manufactures power generation equipment serving residential, commercial, and industrial markets. It offers standby generators, portable generators, lighting, outdoor power equipment, and a suite of clean energy products. Sales generated in the United States account for the majority of total sales.

success remains far from certain. In the near term, the company is focused on the development of its next-generation storage and solar offerings, which are expected in late 2024 and early 2025, respectively.

Business Strategy & Outlook Brett Castelli, Equity Analyst, 2 Aug 2023

Generac is in the midst of a transition to an energy technology solution company.

The company's legacy business is focused on home and commercial/industrial generators using internal combustion engine technology. Here, the company is most focused on continuing its leadership in home standby generators, leading with natural gas-fueled engines, and expanding the connectivity of its generators. We attribute its past success in home standbys to its substantial sales and marketing efforts, which have helped increase awareness for the niche category.

Increasingly, profits from its legacy generator business will be deployed into clean energy and digital capabilities. We think this strategy makes sense and aligns with our macro view for an increasingly decarbonized, decentralized, and digitized electric system. The company is rapidly expanding its residential solar and energy storage business within the United States following acquisitions in recent years.

While solar and storage represent a large and growing addressable market, success is not assured. Existing competitors serving the U.S. solar inverter market control approximately 90% of the market, which could make it difficult for a new entrant such as Generac to gain market share. In addition, recent execution hiccups within this business segment have delayed reaching management's targets.

Management has largely used acquisitions to quicken its entrance into new markets in the past, and we expect the company to continue to be acquisitive.

Bulls Say Brett Castelli, Equity Analyst, 2 Aug 2023

- Generac is the undisputed leader in home standby generators, with over 70% market share.
- Generac is expanding into clean energy via acquisitions, representing a large and growing addressable market.
- Generac is well positioned to capitalize on an increasingly distributed electric grid.

Bears Say Brett Castelli, Equity Analyst, 2 Aug 2023

- Generac's home standby generator orders are highly reliant on power outage activity.
- Generac's success in the clean energy business is not guaranteed, given strong incumbents.
- Generac faces risks in integrating its numerous acquisitions into a cohesive product offering.

Economic Moat Brett Castelli, Equity Analyst, 2 Aug 2023

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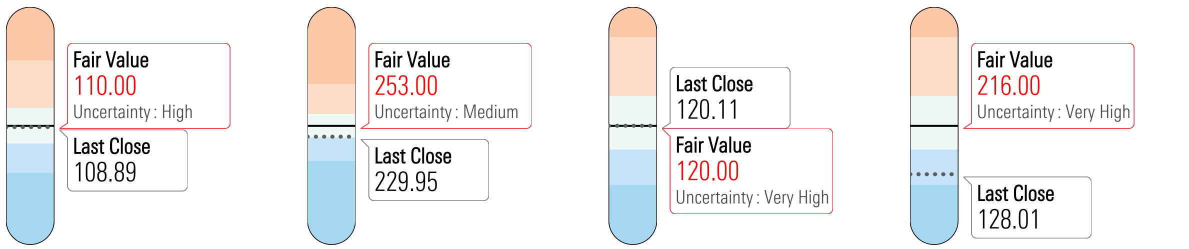
Generac Holdings Inc GNRC ★★★ 27 Sep 2023 21:20, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
108.89 USD 27 Sep 2023	110.00 USD 2 Aug 2023 22:27, UTC	0.99	6.78 USD Bil 27 Sep 2023	Narrow	Small Blend	High	Standard	6 Sep 2023 05:00, UTC

Competitors



	Generac Holdings Inc GNRC	Cummins Inc CMI	Enphase Energy Inc ENPH	SolarEdge Technologies Inc SEDG
Economic Moat	Narrow	Narrow	None	None
Currency	USD	USD	USD	USD
Fair Value	110.00 2 Aug 2023 22:27, UTC	253.00 3 Aug 2023 23:10, UTC	120.00 22 Aug 2023 14:36, UTC	216.00 22 Aug 2023 14:15, UTC
1-Star Price	170.50	341.55	210.00	378.00
5-Star Price	66.00	177.10	60.00	108.00
Assessment	Fairly Valued 27 Sep 2023	Fairly Valued 27 Sep 2023	Fairly Valued 27 Sep 2023	Under Valued 27 Sep 2023
Morningstar Rating	★★★27 Sep 2023 21:20, UTC	★★★27 Sep 2023 21:20, UTC	★★★27 Sep 2023 21:20, UTC	★★★★27 Sep 2023 21:20, UTC
Analyst	Brett Castelli, Equity Analyst	Dawit Woldemariam, Equity Analyst	Brett Castelli, Equity Analyst	Brett Castelli, Equity Analyst
Capital Allocation	Standard	Standard	Exemplary	Standard
Price/Fair Value	0.99	0.91	1.00	0.59
Price/Sales	1.72	1.02	6.24	2.06
Price/Book	2.80	3.15	16.84	2.87
Price/Earning	45.56	12.88	30.25	24.76
Dividend Yield	—	2.78%	—	—
Market Cap	6.78 Bil	32.57 Bil	16.38 Bil	7.24 Bil
52-Week Range	86.29—188.94	201.34—265.28	116.86—339.92	126.83—345.80
Investment Style	Small Core	Mid Core	Mid Growth	Mid Growth

We assign Generac a narrow moat rating underpinned by a strong brand and cost advantages within its home standby generators business.

Generac's brand is synonymous with the home standby generator category—akin to Kleenex in facial tissues. The company's market share in the category is about 75% today and has been over 70% for the last decade, a testament to its moat. In contrast to adjacent markets (residential solar equipment providers, for example), we perceive there to be higher levels of end customer brand awareness with home generators.

As the largest player in a market with limited penetration, Generac views itself as responsible to drive market growth. Through its robust advertising, Generac generates customer leads, which it in turn supplies to its dealer network. In addition, the company has its own proprietary selling system, PowerPlay, which is used by the company's largest-volume dealers. Dealers use the system for quote generation, customer presentation, and relevant follow-up. We believe Generac's ability to supply customer leads and its PowerPlay selling system create loyalty from its dealer network, making them less likely to sell a competing brand.

We believe Generac's outsize share in the home generator category results in a maintainable cost advantage over competitors. In particular, we think the company benefits from scale in buying power, economies of scope (widest range of products/distribution), and in advertising and marketing.

With market share 4 times the size of the next largest competitor, we believe Generac benefits from scale in buying power. In comparing prices, Generac is on par with or slightly below competitor offerings. We think this is the result of management's desire to increase adoption in the category rather than an inability to extract higher pricing. Despite offering prices comparable to or below peers, the company claims to have the highest margins in the industry—supporting its cost advantage over peers.

Generac's scale give it economies of scope over competitors. The company offers residential standby generators ranging in capacity from 7.5 kilowatt to 150 kilowatt, which we believe is the widest range in the industry. Offering a wide product set allows its dealer base and customers to find the product that meets each home's needs. In addition, Generac's breadth and depth of its distribution network is unmatched in the industry. The company distributes its products via an omnichannel distribution network including factory direct to dealers (majority of sales), industrial distributors, national/regional retailers, and e-commerce. This breadth of distribution ensures customers looking for a home generator are bound to find a Generac. Additionally, the depth of the company's dealer network (over 7,000) is by far the largest in the industry.

Generac's scale within the industry allows it an unmatched advertising budget among peers. We believe the company's focus on advertising (and subsequent customer lead generation) is central to Generac's competitive advantage. Generac spent approximately 9% of its 2021 sales on selling and service ($320 million). We believe this amount of spending was nearly equivalent to the total home standby sales of its next largest competitor—highlighting the difficulty competitors have in matching Generac's advertising spend.

In addition to residential generators, Generac also sells portable generators and energy storage for residential applications and a broad array of commercial and industrial generator products. Given it does not enjoy the same size of market share in these markets, we do not believe it possesses a moat in these segments.

Fair Value and Profit Drivers Brett Castelli, Equity Analyst, 2 Aug 2023
Our fair value estimate for Generac is $110 per share.

In Generac’s legacy generator businesses, we view its home standby segment as its most profitable and valuable. The company has seen a sharp increase in sales in recent years due to elevated power outages. We forecast sales peaked in 2022 followed by a plateau long-term. We expect Generac’s legacy commercial and industrial business to continue its rebound from COVID-19-related weakness in

2020 and clean energy acquisitions to support continued growth in the medium term.

We believe the company's growth in clean energy will increasingly be a profit and value driver in the years to come, although clean energy was less than 10% of 2022 sales. We forecast rapid growth in this segment but don't expect it to unseat incumbents, such as Enphase or SolarEdge. We expect gross margins for this product segment to remain below its home standby generator margins.

While we do not explicitly forecast grid services revenue at this time, we think this represents a long-term opportunity for Generac. As the company provides more disclosure around the business model and potential revenue opportunities, we would look to incorporate this into our valuation.

Risk and Uncertainty Brett Castelli, Equity Analyst, 2 Aug 2023

We assign a Morningstar Uncertainty Rating of high to Generac. The company's legacy home standby business is difficult to forecast, as sales depend highly on weather-caused power outages. Additionally, the generator business faces the long-term threat of new technologies such as batteries and fuel cells replacing today's internal combustion engine technology.

Generac's nascent clean energy business also supports our high uncertainty. The company has a short track record in this segment (entered in 2019). While early results have been encouraging, we believe there are a wide range of long-term outcomes for Generac's success in this segment.

Generac faces environmental, social, and governance risks associated with the emissions of its products, which typically use natural gas or diesel, and the risk of product defects resulting in elevated warranty costs or harming the company's reputation. Given the limited utilization of a natural gas-powered residential generator, we do not expect material environmental regulations restricting sales during our forecast period. We believe the risk of restrictive environmental regulations or product defects to be low and somewhat material to our fair value estimate.

Capital Allocation Brett Castelli, Equity Analyst, 2 Aug 2023

Generac's capital allocation rating is Standard based on its balance sheet strength, investment track record, and shareholder distribution policy.

Generac possesses a sound balance sheet, but lacks significant flexibility given acquisitions and reduced business performance. We expect the company's leverage profile to decline over the coming years as its business rebounds.

We assess Generac's investment track record to be fair. Most of its investment dollars have been allocated to acquisitions as the company looked to expand beyond its legacy businesses. Since 2019, management's acquisitions have focused on clean energy-related businesses. Execution thus far has been mixed, with setbacks related to its solar and storage product offerings.

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We find Generac's approach to equity distributions to be mixed as it has evolved over time. In 2012-13, the company issued special dividends following extreme weather events that boosted sales temporarily. Capital allocation pivoted toward share repurchases in 2015-18, which proved to be a good use of shareholder capital, given the subsequent share price appreciation. Since 2019, the company has taken a more conservative approach to equity distributions, favoring inorganic and organic growth initiatives instead.

Analyst Notes Archive

Generac Earnings: Shares Drop on Reduced Guidance, Elevated Investor Expectations Brett Castelli, Equity Analyst, 2 Aug 2023

We lower our fair value estimate for narrow-moat Generac to $110 per share from $124 following the company's second-quarter results. The drivers of our reduced valuation are a reduction to our revenue expectations and lower operating margins. We view shares as fairly valued following the share price drop.

Generac updated its 2023 sales expectations to a decline of 10%-12% from a prior expectation of a 6%-10% decline. The primary driver is weakness for the company's residential products, namely home generators and clean energy. This was partially offset by continued outperformance by the company's commercial and industrial segment, but we view this as less of a long-term valuation driver. The company blamed the macroeconomic environment for lower than expected close rates for home generators in the quarter, which resulted in field inventories remaining elevated, ending at 1.2-1.3 times normal levels versus prior expectation for a return to normal levels.

We view the sharp share price reaction (down 24% on the day) as a result of the reduced guidance and increasing investor expectations in recent weeks following summer heat waves stressing power grids. Shares appear fairly valued following the reset, with high-profile power-outage events continuing to represent the biggest upside driver, in our view.

While investors remain laser focused on home generator inventories and order trends, we see prudent capital allocation as a key driver of shares over the longer term. The company faces the decision of how to allocate cash from its cash-cow home-generator business over the coming years. Thus far, the company remains committed to funneling cash to its upstart clean energy activities. We view this strategy with cautious optimism and see risk that such investments don't turn out as planned. We expect Generac's ongoing transition to an energy technology company to be a core focus of its upcoming investor day in late September.

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Generac Earnings: Shares Rise on Normalizing Home Generator Field Inventories Brett Castelli, Equity Analyst, 3 May 2023

We maintain our $124 fair value estimate for narrow-moat Generac following the company's first-quarter results. Shares rose sharply (up 15% at the time of writing) on results, which we equate to low expectations. We make only minor changes to our model and view shares as fairly valued following the jump.

Generac's 2023 can be divided into two halves: the first half is expected to be weak as the company works through elevated levels of channel inventory for its home standby generators, while the second half should return to more normalized results. First-quarter results were particularly weak, with revenue for the company's residential products dropping 46% year on year, consistent with expectations. The most important takeaway to us from results was that field inventories continue to normalize. Days of field inventories fell to 1.4-1.5 times normal, down from 1.7 times normal in fourth-quarter 2022 and 2 times normal in third-quarter 2022. The company expects field inventories to approach normal around midyear, which should support stronger results in the second half.

Generac continues to focus on expanding its clean energy capabilities across both residential and commercial/industrial end markets. Within its residential activities, 2023 is expected to be a reset year for its solar and storage portfolio with a focus on building distribution capabilities and correcting prior reliability problems. Clean energy remains an area of interest for additional acquisitions.

Longer term, we reiterate our view that Generac's generators will face increased competition from new technologies, such as battery storage. Management's strategy to date has been to turn this threat into an opportunity via acquiring businesses in these areas. However, we view this strategy with cautious optimism and see risk that such investments don't turn out as planned.

Generac Unveils 2023 Guidance; Focus Remains on Recovery in Home Generator Orders Brett Castelli, Equity Analyst, 15 Feb 2023

We raise our Generac fair value estimate to $124 per share from $120 following the company's fourth-quarter results and 2023 guidance. The main driver of our fair value estimate increase is a higher home standby sales forecast, partially offset by higher operating expenses. We view upside as limited for shares going forward following their recent rebound.

Generac's 2023 guidance implies full-year net sales decline 6%-10% year on year and adjusted EBITDA falls approximately 17%-18%. This was slightly worse than our estimates for a 5% sales decline and 20% adjusted EBITDA margin. However, management's commentary regarding sales and margin activity during the course of the year leaves us incrementally more positive on 2024.

Even though Generac is due to report a weak first half of 2023 as home standby orders remain low due to elevated inventories, management expects the second half to show solid year-on-year growth for the company's most important product line. This leads us to raise our home standby sales forecast in 2024 by 10%, while reiterating our view that sales are likely to plateau long-term given competition from new technologies, such as home batteries.

We expect 2023 to be a reset year for the company's clean energy business. The company expects to focus on expanded distribution capabilities this year following the bankruptcy of a key customer, and product reliability setbacks. Management noted the time to scale the clean energy business and the level of investment required has surpassed their initial expectations. However, they remain committed to this business long term. We continue to take a cautious view on Generac's potential for long-term success in this market given the head start of incumbents.

Adjusting Our Rooftop Solar Coverage FVEs After Refreshing Our Long-Term Outlook Brett Castelli, Equity Analyst, 12 Feb 2023

We are adjusting fair value estimates for some of our rooftop solar coverage after refreshing our long-term industry outlook. The fair value estimate changes range from a reduction of 26% for SunPower to no change for Generac and SolarEdge. We reduce Sunrun's and Enphase's fair value estimates by 16% and 5%, respectively.

The primary driver of our fair value reduction is a more conservative installation forecast in the outer years of our modeling. We generally view rooftop solar stocks as fairly valued or slightly overvalued following these changes.

Rooftop solar installations have grown at an impressive 24% CAGR over the last four years. However, growth is poised to slow in 2023 as the impact of state policy changes—namely California's Net Energy Metering (NEM) 3.0—come into effect in April. We expect market growth of 5% in 2023 before declining to 2% in 2024 as California installations decline.

Longer-term, we expect the residential solar market to grow in the high single-digits per year as rising utility rates and falling solar costs provide tailwinds. However, we reduce the outer years of our 10-year installation forecast approximately 10%, on average, as we account for further potential state policy shifts. We expect additional states to modify net metering policies as rooftop solar penetration rates increase. Such changes should spur adoption of solar plus storage systems, which we expect to be a secular growth driver for our rooftop solar coverage.

We see the largest impacts to installers, such as SunPower and Sunrun, given both are entirely U.S.-focused. In contrast, solar inverter companies, such as SolarEdge and Enphase, benefit from international operations. This is particularly true for SolarEdge, where we maintain our fair value estimate. We are reducing Enphase's fair value estimate 5% given higher U.S. exposure. We also maintain our fair value estimate for Generac due to the relatively small contribution of clean energy to its overall business.

What Are Generac Shares Pricing In? We See Shares as Fairly Valued Brett Castelli, Equity Analyst, 12 Jan 2023

Generac shares had a forgettable 2022, ending the year down 71%, far outpacing declines seen in the broad equity indexes. While investor expectations are clearly low, we see this balanced by fundamental headwinds. We maintain our $120 fair value estimate and find shares fairly valued. Our narrow moat and negative moat trend ratings are also unchanged.

Generac's poor equity performance last year was a function of investors resetting growth expectations going forward. In an effort to understand what Generac shares are pricing in, we focus on the company's crown jewel product, home standby, or HSB, generators. We view HSB sales as the single largest variable in determining Generac's value given it accounts for nearly half of total sales and generates above company average margins. Our current forecast assumes home standby sales fall to a level of $1.4 billion in 2026—down from over $2 billion in 2022, but above the less than $1 billion prior to 2020. HSB sales have historically been event-driven and experienced a meteoric rise in recent years, following numerous high-profile power outage events. While a high-profile power outage would represent upside to our forecast, we expect sales to moderate longer term as competition from new technologies—such as battery storage—compete in the backup power market. We note our financial forecast is consistent with management's commentary for a higher baseline of HSB sales moving forward.

Our forecast results in a five-year revenue CAGR of 6.9%, but an operating income CAGR of 3.6% given a higher mix of lower margin product segments. Combined with our stage 2 growth rate (years 6-15) of 2% growth, we believe Generac shares are currently pricing in growth of low to midsingle digits. While far below recent history, we view this as realistic given the potential for 2022 to represent a sales peak for the company's HSB sales category.

California Finalizes Rollback of Rooftop Solar Incentives. What's Next? Brett Castelli, Equity Analyst, 16 Dec 2022

On Dec. 15, California regulators finalized new rules that roll back incentives for rooftop solar customers. The final ruling appears largely consistent with the proposed decision last month, and we maintain our fair value estimates for the rooftop solar equities we cover, which we view as largely fairly valued.

We expect the final ruling to result in a sharp pullback in industry growth in California but also result in cross-selling opportunities for rooftop solar companies. With regard to industry growth, we anticipate California could see rooftop solar installations drop by half in the years to come, similar to what Hawaii witnessed following its net metering revisions. Given that California represents one third of U.S. rooftop solar installations, industry growth is poised to slow beginning in the second half of 2023.

While growth will moderate in California, rooftop solar companies should see cross-selling opportunities as home storage adoption is poised to skyrocket. We expect solar and storage to become the default option for new California customers as export rates are sharply reduced.

Stepping back, we view the decision by California regulators as indicative of the next phase of rooftop solar's maturation. As states reach higher levels of penetration, we expect net metering policies to be reduced, encouraging adoption of home storage. This maturation will require continued industry cost declines to keep customer economics compelling, which could lead to a more competitive environment. As such, we do not see compelling opportunities in our rooftop solar coverage at present.

SunPower and Sunrun have the highest exposure to California in our coverage at approximately 50% and 30%, respectively. Enphase is slightly less exposed, since 25% of its revenue is tied to international markets. We view SolarEdge as the most immune from California changes, given that Europe has overtaken North America as its largest-revenue market in recent quarters.

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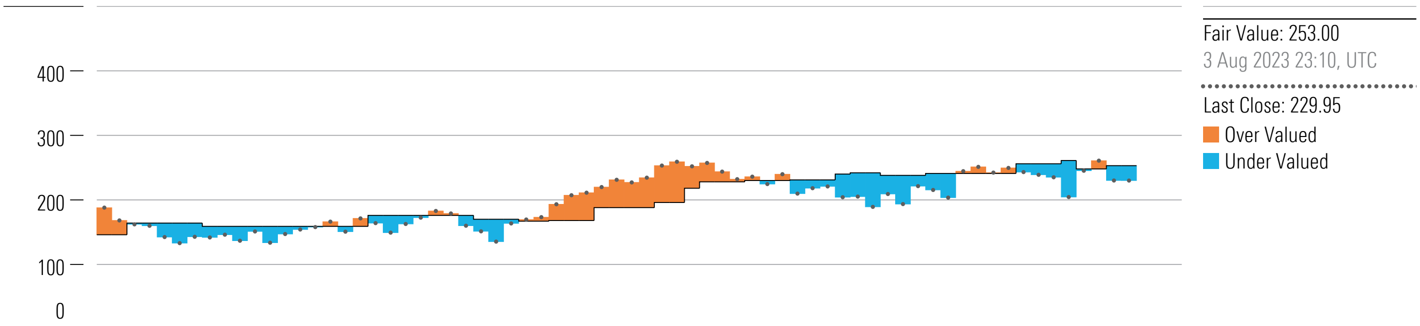
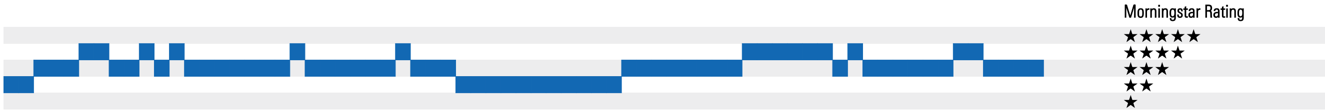
Competitors Price vs. Fair Value

Cummins Inc CMI



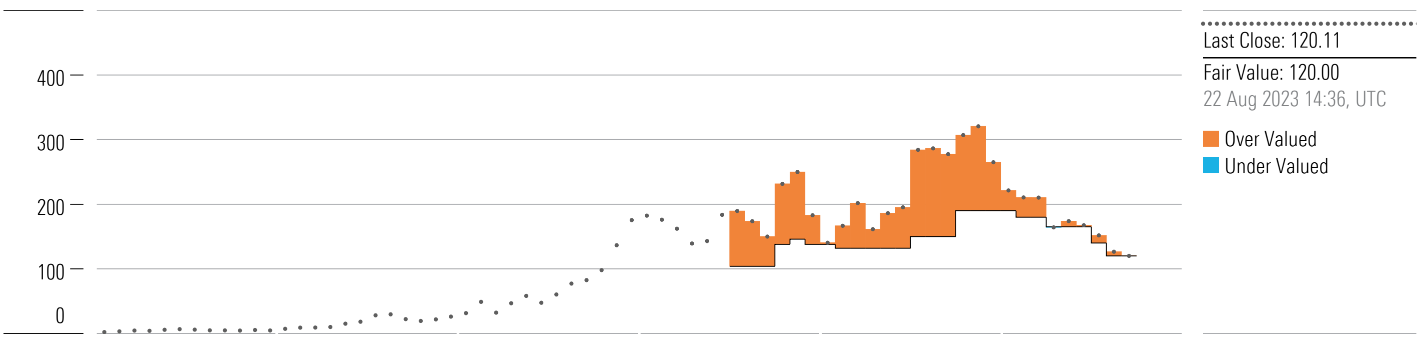
	2018	2019	2020	2021	2022	YTD	
	0.84	1.02	1.21	0.94	1.01	0.91	Price/Fair Value
	-21.83	37.58	29.85	-1.48	13.84	-3.10	Total Return %

Morningstar Rating



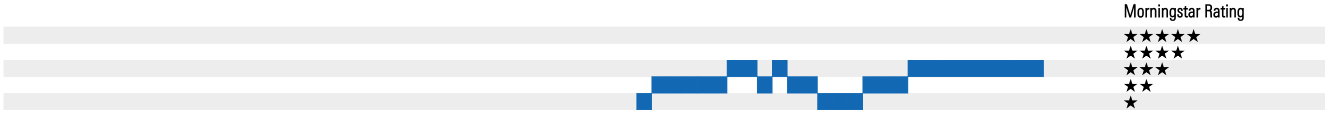
Total Return % as of 27 Sep 2023. Last Close as of 27 Sep 2023. Fair Value as of 3 Aug 2023 23:10, UTC.

Enphase Energy Inc ENPH



	2018	2019	2020	2021	2022	YTD	
	—	—	—	1.33	1.39	1.00	Price/Fair Value
	96.27	452.43	571.53	4.26	44.83	-54.67	Total Return %

Morningstar Rating



Total Return % as of 27 Sep 2023. Last Close as of 27 Sep 2023. Fair Value as of 22 Aug 2023 14:36, UTC.

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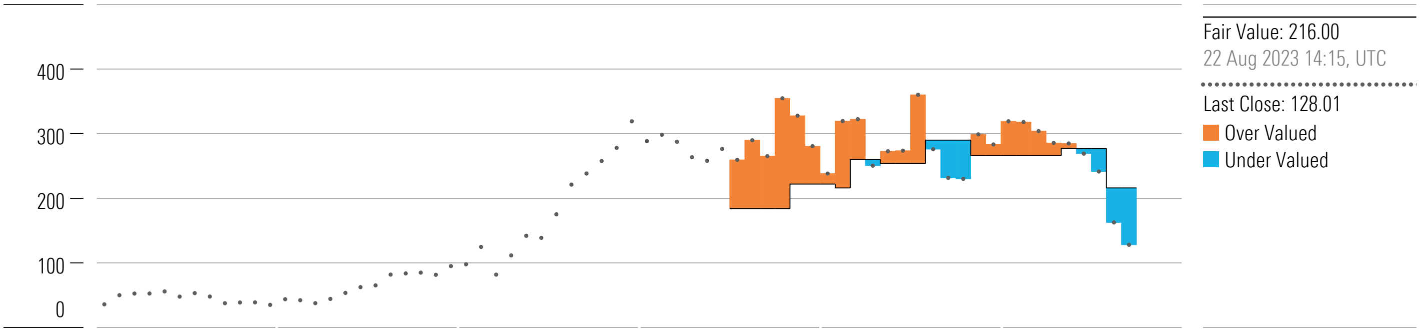
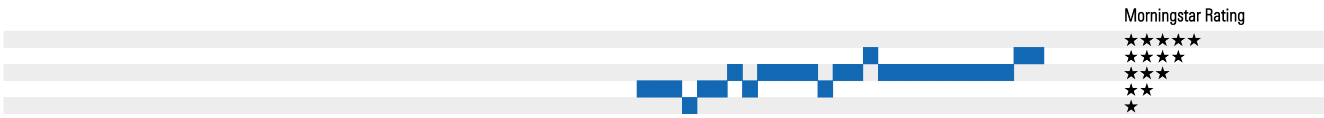
SolarEdge Technologies Inc SEDG



	2018	2019	2020	2021	2022	YTD	
	—	—	—	1.26	1.06	0.59	Price/Fair Value
	-6.52	170.91	235.60	-12.08	0.96	-54.81	Total Return %



Total Return % as of 27 Sep 2023. Last Close as of 27 Sep 2023. Fair Value as of 22 Aug 2023 14:15, UTC.

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Morningstar Historical Summary

Financials as of 30 Jun 2023

Fiscal Year, ends 31 Dec	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD	TTM
Revenue (USD Mil)	1,486	1,461	1,317	1,448	1,679	2,023	2,204	2,485	3,737	4,565	1,888	4,026
Revenue Growth %	26.3	-1.7	-9.8	9.9	16.0	20.5	8.9	12.7	50.4	22.1	-22.2	-9.3
EBITDA (USD Mil)	370	340	206	253	298	399	422	548	817	719	213	486
EBITDA Margin %	24.9	23.3	15.7	17.5	17.8	19.7	19.2	22.1	21.9	15.8	11.3	12.1
Operating Income (USD Mil)	351	288	220	203	251	357	374	481	743	568	130	327
Operating Margin %	23.7	19.8	16.7	14.0	14.9	17.7	17.0	19.3	19.9	12.4	6.9	8.1
Net Income (USD Mil)	175	175	78	96	159	220	253	349	533	350	58	138
Net Margin %	11.8	12.0	5.9	6.7	9.5	10.9	11.5	14.1	14.3	7.7	3.1	3.4
Diluted Shares Outstanding (Mil)	70	70	69	65	63	62	63	64	64	65	62	63
Diluted Earnings Per Share (USD)	2.51	2.49	1.12	1.47	2.53	3.54	4.03	5.48	8.30	5.42	0.75	2.39
Dividends Per Share (USD)	—	—	—	—	—	—	—	—	—	—	—	—

Valuation as of 31 Aug 2023

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Recent Qtr	TTM
Price/Sales	2.7	2.3	1.5	2.0	1.9	1.6	2.9	6.3	6.6	1.4	2.2	1.9
Price/Earnings	25.5	18.8	17.7	40.3	26.2	13.6	24.4	49.3	42.7	15.2	38.2	49.8
Price/Cash Flow	15.1	13.2	11.1	11.2	12.6	11.1	26.0	32.7	39.8	333.3	192.3	69.0
Dividend Yield %	—	—	—	—	—	—	—	—	—	—	—	—
Price/Book	15.1	7.2	4.0	6.2	6.5	4.4	6.7	11.6	12.6	2.7	4.0	3.1
EV/EBITDA	13.5	12.2	14.4	14.4	13.4	9.7	17.0	27.1	28.3	10.9	0.0	0.0

Operating Performance / Profitability as of 30 Jun 2023

Fiscal Year, ends 31 Dec	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD	TTM
ROA %	10.3	9.5	4.3	5.3	8.2	9.9	10.0	11.8	13.2	7.0	1.1	2.6
ROE %	44.7	43.3	16.3	22.2	33.2	33.5	28.2	28.8	29.6	15.7	2.5	5.7
ROIC %	14.5	13.4	6.8	8.4	13.1	15.9	15.2	16.6	18.7	10.5	2.2	4.8
Asset Turnover	0.9	0.8	0.7	0.8	0.9	0.9	0.9	0.8	0.9	0.9	0.4	0.7

Financial Leverage

Fiscal Year, ends 31 Dec	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Recent Qtr	TTM
Debt/Capital %	78.8	68.8	69.0	71.5	62.1	53.5	48.7	42.4	36.0	42.7	43.2	—
Equity/Assets %	17.6	26.0	26.2	21.5	27.3	31.3	38.7	43.0	45.4	43.7	45.5	—
Total Debt/EBITDA	3.2	3.2	5.1	4.2	3.1	2.3	2.5	1.9	1.6	2.4	9.1	—
EBITDA/Interest Expense	6.8	7.2	4.8	5.7	7.0	9.8	10.2	16.6	24.8	13.1	4.4	5.8

Morningstar Analyst Historical/Forecast Summary as of 02 Aug 2023

Financials

Fiscal Year, ends 12-31-2022	2021	2022	Estimates 2023	2024	2025
Revenue (USD Mil)	3,737	4,565	4,127	4,571	4,850
Revenue Growth %	50.4	22.1	-9.6	10.8	6.1
EBITDA (USD Mil)	861	825	688	920	972
EBITDA Margin %	23.1	18.1	16.7	20.1	20.0
Operating Income (USD Mil)	743	633	481	710	757
Operating Margin %	19.9	13.9	11.7	15.5	15.6
Net Income (USD Mil)	619	539	405	572	602
Net Margin %	16.6	11.8	9.8	12.5	12.4
Diluted Shares Outstanding (Mil)	64	65	63	63	63
Diluted Earnings Per Share(USD)	9.63	8.33	6.43	9.07	9.56
Dividends Per Share(USD)	0.00	0.00	0.00	0.00	0.00

Forward Valuation

	2021	2022	Estimates 2023	2024	2025
Price/Sales	6.0	1.4	1.6	1.5	1.4
Price/Earnings	36.5	12.1	16.9	12.0	11.4
Price/Cash Flow	—	—	—	—	—
Dividend Yield %	—	—	—	—	—
Price/Book	10.2	2.9	2.7	2.3	2.0
EV/EBITDA	26.9	9.5	12.4	9.3	8.8

Morningstar Equity Analyst Report | Report as of 28 Sep 2023 17:24, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NEW YORK STOCK EXCHANGE, INC.

Generac Holdings Inc GNRC ★★★ 27 Sep 2023 21:20, UTC

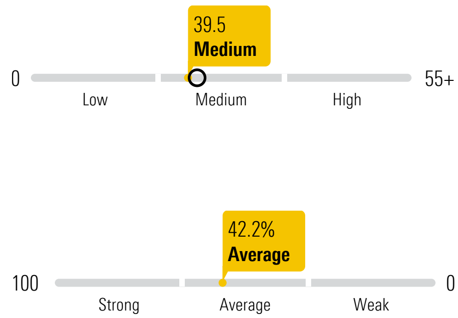
Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
108.89 USD 27 Sep 2023	110.00 USD 2 Aug 2023 22:27, UTC	0.99	6.78 USD Bil 27 Sep 2023	Narrow	Small Blend	High	Standard	6 Sep 2023 05:00, UTC

ESG Risk Rating Breakdown

Exposure	
Company Exposure[1]	39.5
– Manageable Risk	37.8
Unmanageable Risk[2]	**1.7**

Management	
Manageable Risk	37.8
– Managed Risk[3]	15.9
Management Gap[4]	**21.8**

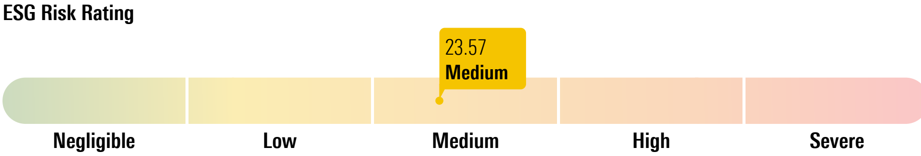
Overall Unmanaged Risk	**23.6**



- 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 42.2% 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 Assessment[5]

ESG Risk Rating is of Sep 06, 2023. Highest Controversy Level is as of Sep 08, 2023. Sustainalytics Subindustry: Electrical Equipment. 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 06 Sep 2023

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	
Generac Holdings Inc	39.5 | Medium	0 – 55+	42.2 | Average	100 – 0	23.6 | Medium	0 – 40+
Cummins Inc	45.0 | Medium	0 – 55+	59.4 | Strong	100 – 0	19.3 | Low	0 – 40+
Enphase Energy Inc	38.4 | Medium	0 – 55+	45.4 | Average	100 – 0	21.7 | Medium	0 – 40+
SolarEdge Technologies Inc	39.7 | Medium	0 – 55+	62.7 | Strong	100 – 0	15.9 | Low	0 – 40+
Carrier Global Corp	39.0 | Medium	0 – 55+	51.4 | Strong	100 – 0	20.3 | Medium	0 – 40+

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Appendix
Historical Morningstar Rating

Generac Holdings Inc GNRC 27 Sep 2023 21:20, UTC

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
—	—	—	—	—	—	—	—	—	—	—	—
Dec 2019	Nov 2019	Oct 2019	Sep 2019	Aug 2019	Jul 2019	Jun 2019	May 2019	Apr 2019	Mar 2019	Feb 2019	Jan 2019
—	—	—	—	—	—	—	—	—	—	—	—
Dec 2018	Nov 2018	Oct 2018	Sep 2018	Aug 2018	Jul 2018	Jun 2018	May 2018	Apr 2018	Mar 2018	Feb 2018	Jan 2018
—	—	—	—	—	—	—	—	—	—	—	—

Cummins Inc CMI 27 Sep 2023 21:20, UTC

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
★★	★★	★★	★★	★★	★★	★★★	★★★	★★★	★★★★	★★★	★★★
Dec 2019	Nov 2019	Oct 2019	Sep 2019	Aug 2019	Jul 2019	Jun 2019	May 2019	Apr 2019	Mar 2019	Feb 2019	Jan 2019
★★★	★★★	★★★	★★★	★★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Dec 2018	Nov 2018	Oct 2018	Sep 2018	Aug 2018	Jul 2018	Jun 2018	May 2018	Apr 2018	Mar 2018	Feb 2018	Jan 2018
★★★★	★★★	★★★★	★★★	★★★	★★★★	★★★★	★★★	★★★	★★★	★★	★★

Enphase Energy Inc ENPH 27 Sep 2023 21:20, UTC

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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Dec 2019	Nov 2019	Oct 2019	Sep 2019	Aug 2019	Jul 2019	Jun 2019	May 2019	Apr 2019	Mar 2019	Feb 2019	Jan 2019
—	—	—	—	—	—	—	—	—	—	—	—
Dec 2018	Nov 2018	Oct 2018	Sep 2018	Aug 2018	Jul 2018	Jun 2018	May 2018	Apr 2018	Mar 2018	Feb 2018	Jan 2018
—	—	—	—	—	—	—	—	—	—	—	—

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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
—	—	—	—	—	—	—	—	—	—	—	—
Dec 2019	Nov 2019	Oct 2019	Sep 2019	Aug 2019	Jul 2019	Jun 2019	May 2019	Apr 2019	Mar 2019	Feb 2019	Jan 2019
—	—	—	—	—	—	—	—	—	—	—	—
Dec 2018	Nov 2018	Oct 2018	Sep 2018	Aug 2018	Jul 2018	Jun 2018	May 2018	Apr 2018	Mar 2018	Feb 2018	Jan 2018
—	—	—	—	—	—	—	—	—	—	—	—

Research Methodology for Valuing Companies

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, indepth 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 shortterm market-price movements), but we believe these negatives are mitigated by deep analysis and our longterm 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 singlepoint 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 workingcapital 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.

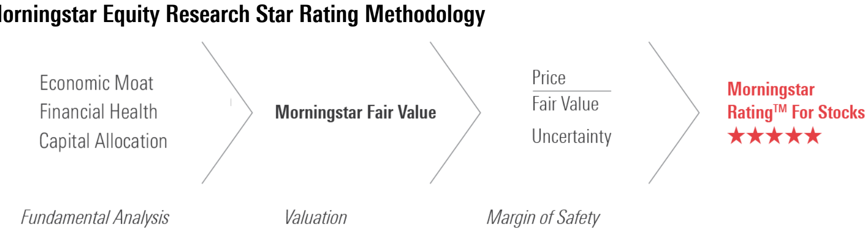
Because a dollar earned today is worth more than a dollar earned tomorrow, we discount our projections of cash flows in stages I, II, and III to arrive at a total present value of expected future cash flows. Because we are modeling free cash flow to the firm—representing cash available to provide a return 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 outcomes for the intrinsic value of a company, and any-

Morningstar Equity Research Star Rating Methodology



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Research Methodology for Valuing Companies

thing 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.

	Margin of Safety	
Qualitative Analysis Uncertainty Ratings	★★★★★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.

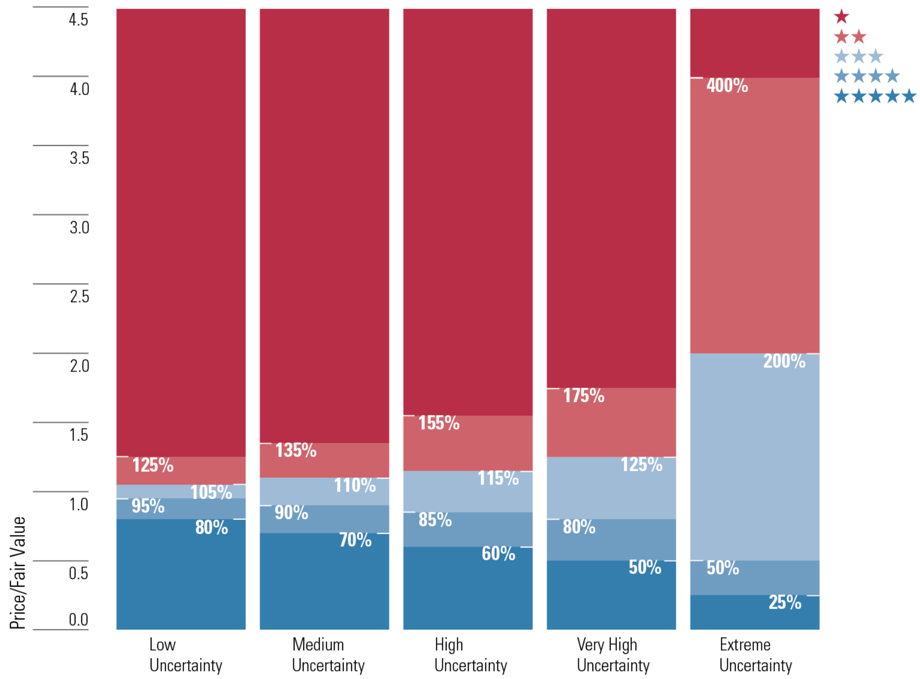
4. Market Price

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 Star Rating for Stocks

Morningstar Equity Research Star Rating Methodology



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 multiyear 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, and shareholder distributions. Analysts consider compan-

Research Methodology for Valuing Companies

ies' 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.

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

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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/

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