

Arista Networks Inc

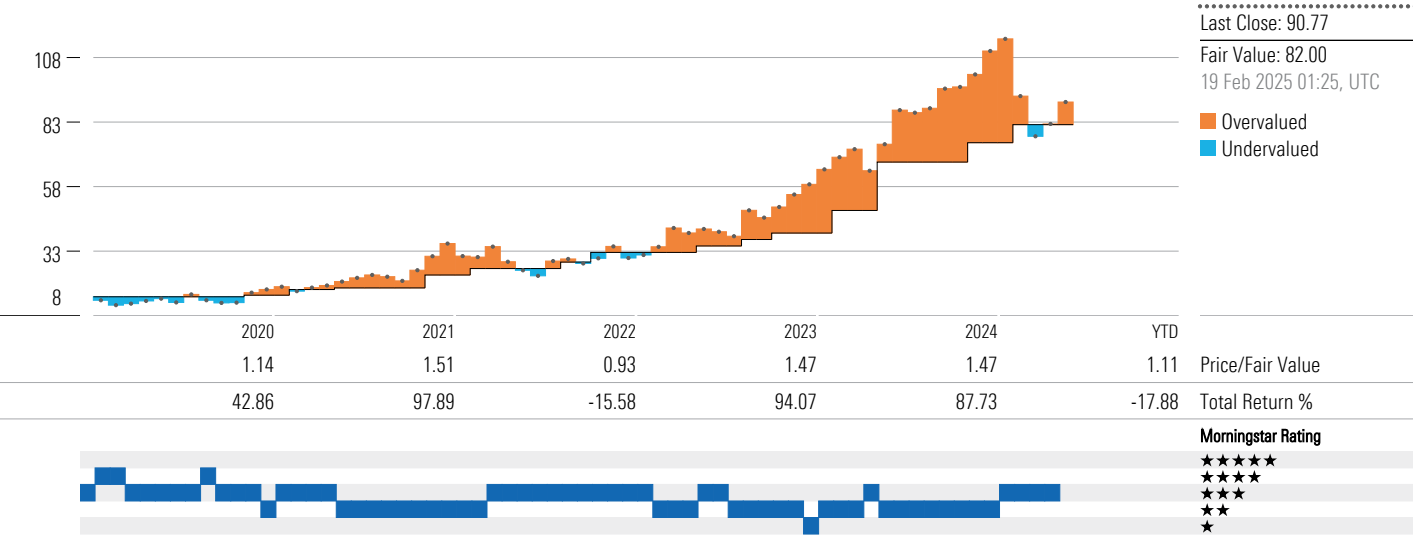
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6 May 2025 21:48, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
90.77 USD 6 May 2025	82.00 USD 19 Feb 2025 01:25, UTC	1.11	113.97 USD Bil 6 May 2025	Wide	Large Growth	High	Exemplary	 2 Apr 2025 05:00, UTC

Price vs. Fair Value



Total Return % as of 06 May 2025. Last Close as of 06 May 2025. Fair Value as of 19 Feb 2025 01:25, UTC.

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

# Arista Earnings: We Applaud Terrific Results and See Guidance as Conservative

## Analyst Note William Kerwin, CFA, Senior Equity Analyst, 7 May 2025

Arista Networks' first-quarter results beat management guidance, with revenue rising 28% year over year to \$2.0 billion and non-GAAP operating margin expanding 40 basis points year over year to 47.8%. Second-quarter guidance calls for further growth, with a midpoint of \$2.1 billion.

**Why it matters:** Results and guidance met our above-consensus expectations, and continue to show terrific momentum for Arista's high-performance networking in cloud and artificial intelligence customers. We continue to see Arista as a long-term AI winner and overall technology leader in high-speed networking.

- ▶ Arista doesn't expect a material net impact from US tariffs. Management quantified the gross margin impact as roughly 1% to 1.5%, which it plans to mitigate via supply chain actions and pricing as needed.
- ▶ Management reiterated its 2025 growth guidance of 17% and its 2025 back-end AI revenue goal of \$750 million, both of which we see as conservative. We don't expect a big tariff impact on demand, given Arista's technology leadership that will allow it to pass on higher prices to customers.

**The bottom line:** We maintain our \$82 fair value estimate for shares of wide-moat Arista, and see our long-term thesis for AI to drive excellent growth bearing out. Shares dipped 7% after-hours due to management maintaining, rather than raising guidance, and look fairly valued to us.

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Sector	Industry
Technology	Computer Hardware

Business Description

Arista Networks is a networking equipment provider that primarily sells Ethernet switches and software to data centers. Its marquee product is its extensible operating system, or EOS, that runs a single image across every single one of its devices. The firm operates as one reportable segment. It has steadily gained market share since its founding in 2004, with a focus on high-speed applications. Arista counts Microsoft and Meta Platforms as its largest customers and derives roughly three quarters of its sales from North America.

- Our growth forecast remains above Factset consensus over the next three years, predominantly driven by our expectations for robust AI networking growth. We see positive spending commentary from large customers like Meta Platforms supporting our bullish expectations.
- Arista has long been conservative in its guidance, for both the short and long term. Our forecast comes well above guidance (23% growth in 2025 versus 17% guided) and FactSet consensus estimates. We believe investors agree with our bullish forecasts, leaving shares fairly valued.

Business Strategy & Outlook William Kerwin, CFA, Senior Equity Analyst, 19 Feb 2025

We view Arista Networks as the technology leader in high-speed switching for enterprise networking. We expect Arista to maintain its top market of high-speed ports above 100 gigabits and for it to augment its share in lower speeds and campus applications where it has historically been less penetrated. In our view, Arista’s software gives it a structural and durable competitive advantage over competitors in winning new customers, both in the cloud and in the enterprise. We believe this software-led approach provides the firm with a wide economic moat.

Arista’s performance at high speeds and its software-led approach set it apart from other networking equipment providers. Its Extensible Operating System, or EOS, gives customers a highly programmable and modular solution that can scale up and down for networks of any size. Arista has foregone the proprietary hardware-plus-software lock-in approach of Cisco in favor of utilizing cutting-edge merchant silicon and focusing on software development, which allows the firm to offer top-tier performance at a competitive price point. We think its software focus has generated significant intangible assets and embeds it deeply with customers.

We believe Arista will see durably high growth from surging spending toward artificial intelligence. AI networks require the highest speeds available to train and infer upon models using many GPU clusters talking to each other. We believe Arista’s top position in high-speed switching will make it a meaningful beneficiary of AI spending. We forecast AI to become a primary driver for the firm over the next five years.

Arista is looking to expand from its high-speed cloud heritage into the larger (and in our opinion, slightly stickier) enterprise market. Arista first established itself in the most cutting-edge applications for hyperscalers, but we believe its modular software approach will prove attractive for smaller enterprises building out private clouds or on-premises data centers. Finally, we expect Arista to maintain an excellent profit profile, even with a robust research and development budget maintaining its intangible assets and its ability to exact pricing power.

Bulls Say William Kerwin, CFA, Senior Equity Analyst, 19 Feb 2025

- Arista Networks has gained a top market share position in high-speed switching, resulting, in our view, from technology leadership, and it continues to gain share.

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## Competitors

	Arista Networks Inc ANET	Cisco Systems Inc CSCO	Hewlett Packard Enterprise Co HPE	Dell Technologies - Class C DELL
Economic Moat	Wide	Wide	None	None
Currency	USD	USD	USD	USD
Fair Value	82.00 19 Feb 2025 01:25, UTC	54.00 13 Feb 2025 02:48, UTC	24.00 7 Mar 2025 05:44, UTC	121.00 27 Nov 2024 07:14, UTC
1-Star Price	127.10	72.90	37.20	187.55
5-Star Price	49.20	37.80	14.40	72.60
Assessment	Fairly Valued 6 May 2025	Fairly Valued 6 May 2025	Undervalued 6 May 2025	Undervalued 6 May 2025
Morningstar Rating	★★★ 6 May 2025 21:48, UTC	★★★ 6 May 2025 21:31, UTC	★★★★ 6 May 2025 21:44, UTC	★★★★ 6 May 2025 21:54, UTC
Analyst	William Kerwin, Senior Equity Analyst	William Kerwin, Senior Equity Analyst	Eric Compton, Director	Eric Compton, Director
Capital Allocation	Exemplary	Exemplary	Standard	Exemplary
Price/Fair Value	1.11	1.10	0.69	0.78
Price/Sales	16.53	4.41	0.73	0.71
Price/Book	11.41	5.18	0.87	—
Price/Earning	40.53	23.04	8.34	11.58
Dividend Yield	0.00%	2.71%	3.12%	1.97%
Market Cap	113.97 Bil	235.59 Bil	21.66 Bil	65.56 Bil
52-Week Range	59.43 — 396.90	44.50 — 66.50	11.97 — 24.66	66.25 — 179.70
Investment Style	Large Growth	Large Value	Mid Value	Large Value

- Arista holds best-in-class profit margins and earns robust economic profits, reflecting its strong value proposition and wide economic moat.
- Arista earns heady free cash flow, which it can use for organic investment and shareholder returns.

### Bears Say William Kerwin, CFA, Senior Equity Analyst, 19 Feb 2025

- Arista Networks has a weaker position in areas of networking outside high-speed switching and may struggle to expand into adjacent markets.
- We see higher competition for Arista within generative AI spending, with Nvidia holding a large incumbency via bundles of its proprietary networking equipment with its GPUs.
- Arista's acquisition history is small and new, and it could risk destroying shareholder value with ill-advised deals.

### Economic Moat William Kerwin, CFA, Senior Equity Analyst, 19 Oct 2022

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We assign Arista Networks a wide economic moat rating based on intangible assets in high-speed networking and customer switching costs. We view Arista’s high-speed switches and software-led approach as significantly differentiated from other networking competitors and very difficult to replicate. We expect strength in high-speed switching to generate economic profits for Arista, more likely than not, over the next 20 years.

Arista’s networking switches for high-speed applications are best of breed, in our view, resulting from a software-led approach over its networking hardware. Arista’s specialty within networking is high-speed switches, at speeds of 100 gigabits or more, that are designed for data centers. These switches create a local network to then connect to a wider network and the internet. Data traffic continues to explode, increasing the need for Arista’s gear, in our view.

We believe Arista’s high-speed switches are the preferred option of both public cloud providers and enterprises building private clouds, and it occupies roughly one third of the market for 100-gigabit ports and faster. It has gained this share steadily since its founding in 2004 and has dethroned networking colossus Cisco at high speeds. We believe Arista’s share gains are the result of fundamentally better performance at higher speeds and a software-led approach that outsources semiconductor development to merchant silicon from the likes of Broadcom and Marvell.

Arista’s extensible operating system, or EOS, sets it apart from Cisco and other networking players and represents considerable intangible assets, in our view. We see Arista’s differentiation clearly in its first-class gross profit margins — rivalled only by Cisco (with which it is neck-and-neck) in networking equipment providers.

Arista’s decentralized software is the product of nearly two decades of development — moving from system-based software initially to a newer database and data lake approach. EOS presents a unique value proposition: its decentralized and open structure makes it appealing to hyperscalers with large IT teams that want to fine-tune software for mass deployment, while its robust array of features and modular APIs makes it easy to deploy for smaller-scale enterprise data centers. For all customers, Arista’s single image and fault-containment offer the possibility of easier network upgrades and lower downtime.

This contrasts with a networking competitor like Cisco, which focuses on features but locks customers into a closed ecosystem of chips, hardware, and software, all of which generate significant switching costs at their respective customers. We don’t foresee Cisco abandoning its walled garden in favor of Arista’s open approach. An existing networking competitor would have to rebuild its software platform to rival EOS’ decentralization and single image, and likely risk an inferior product lacking over a decade of evolution and fine-tuning based on customer feedback. On the other hand, an aspirational new entrant would find it difficult to build out an equally rich feature set of code and match Arista’s

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efficiency and security, even if it were to achieve hardware parity using merchant silicon.

We also see switching costs for Arista. We think networking equipment broadly carries switching costs for well-positioned providers. Arista’s proprietary software and hardware configurations require training and certifications, requiring weeks of class, hours of testing, and thousands of dollars in expense. Furthermore, networking setups take months to implement and years to optimize — Forrester claims that a typical business doesn’t fully utilize the value of new networking technology for two years. If a company were to switch away from Arista, it would require wholesale retraining of its workforce under a new vendor, inclusive of the time and expense to do so. Furthermore, an IT department would spend the time and expense of getting the new network off the ground and have to redesign workflows and processes to accommodate different software and optimize operations. Even cloud customers, which we typically think of as conducive to lower switching costs due to their multisourcing and disaggregated buying patterns, experience the stickiness of Arista equipment. Even if Arista isn’t installed in an entire network, the portions in which it operates become sticky, as cloud customers develop workflows for, and write software on, EOS. We also view EOS as complementary to base software like Microsoft’s SONiC or Meta’s FBOSS. Microsoft, as an example, uses EOS working on top of SONiC for portions of its network, which gives it the programmability and features of EOS while maintaining consistency with other non-Arista portions of its network.

We view the combination of Arista’s strength in networking hardware and software design with inherent switching costs to networking equipment as creating a wide economic moat to defend against competitive threats to economic returns for 20 years.

**Fair Value and Profit Drivers** William Kerwin, CFA, Senior Equity Analyst, 19 Feb 2025

Our fair value estimate for Arista Networks is \$82 per share. Our valuation implies a 2025 enterprise value to sales multiple of 12 times and a 2024 adjusted price/earnings multiple of 33 times. The greatest drivers to our valuation are growth in high-speed data center switching as well as broad-based market share gains.

We forecast 17% compound annual sales growth through 2029 for Arista. Sales into data centers are the biggest contributor to sales over our forecast, and we model a 19% compound annual growth rate. We expect Arista’s data center sales to increase faster than the market, with continued market share gains. We expect significant share gains for Arista’s campus portfolio as well, with the firm’s campus revenue increasing 16% annually through 2029 in our model and eclipsing management’s \$750 million goal in 2025. We think heightened product development and go-to-market investment will be key to Arista’s penetration of these markets.

We forecast Arista’s non-GAAP gross margin to remain in its target of 62%-64%. While in prior years the firm eclipsed the top end of this range, we believe a higher mix of large cloud customers will keep gross

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margin at this relatively lower, but very healthy range. We model Arista's non-GAAP operating margin to remain in the mid-40% range through 2029. We expect Arista to increase its expenses rapidly to pursue market share gains in enterprise and campus markets, but simply expect revenue to increase too fast for the firm to lower non-GAAP operating margin to its target of 40%. This is a good problem to have, in our view, and we don't see our forecast for high operating margins implying underinvestment by the firm.

## Risk and Uncertainty William Kerwin, CFA, Senior Equity Analyst, 14 Feb 2023

We assign Arista Networks with a High Morningstar Uncertainty Rating. Arista's sales are concentrated in the cloud networking market, which can exhibit cyclical and lumpy spending patterns from customers. This lumpiness can be exacerbated by Arista's concentration in customers like Microsoft and Meta Platforms. Softer spending patterns at these customers can cause top-line performance to suffer, as seen in 2019 and 2020 when Meta skipped an upgrade cycle.

Arista is working to expand its presence in the larger enterprise market, both in on-premises data centers and campus environments. Arista's market share in on-premises data centers trails its presence in high-speed cloud setups, and it has historically not been a participant in campus. We think its efforts to penetrate these markets creates uncertainty. Arista breached the cloud market with cutting-edge high-speed performance, but it may struggle to match the comprehensive portfolio of Cisco—inclusive of cybersecurity and collaboration software—for smaller customers and campus environments. If it is unable to successfully make inroads, its performance could suffer.

On the environmental, social, and governance, or ESG, front, we foresee little risk for Arista. We view the biggest risk as a data or security breach via its equipment that could create permanent reputational harm for the firm, but we view this risk as low.

## Capital Allocation William Kerwin, CFA, Senior Equity Analyst, 19 Feb 2025

We assign Arista Networks with an Exemplary Morningstar Capital Allocation Rating, based on our assessments of a sound balance sheet, exceptional investments, and appropriate shareholder distributions. Arista's balance sheet is strong and provides the firm with flexibility. It has no gross debt and more than \$8 billion in cash and short-term investments. We also view its newfound share repurchase program as appropriate. We expect the firm to maintain annual buybacks in excess of what it needs to offset dilution from share-based compensation now that it generates heady cash flow and can eke out operating leverage.

Arista's investments have been exceptional, in our view. The firm has focused on organic investment for most of its history, of which we approve. We view positively its strategy of using cutting-edge merchant silicon and focusing its development on software, which has led, in our opinion, to its wide economic moat. As a larger company, we think its recent small acquisitions have been prudent to expand into adjacent markets and round out its portfolio, but we continue to like that its primary investment is

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organic.

Analyst Notes Archive

Arista Earnings: AI Growth Momentum Continues to Impress, but Shares Remain Lofty

William Kerwin, CFA,Senior Equity Analyst,19 Feb 2025

Arista Networks' fourth-quarter results eclipsed all of management's guidance ranges. Revenue rose 25% year over year to \$1.93 billion. First-quarter guidance implies more than 20% year-over-year growth, with a revenue midpoint of \$1.95 billion. Why it matters: Results and guidance both were close to our above-consensus expectations. We believe Arista's strong growth over 2024 benefitted greatly from generative artificial intelligence investment, and we expect this dynamic to continue into 2025, with AI becoming a primary growth driver. Arista is enjoying strong placement in generative AI clusters. This aligns with our share-taking thesis for the firm, with its Ethernet switching portfolio winning over Nvidia's proprietary networking products due to better performance and higher interoperability. We see Arista's AI revenue targets as conservative, underrepresenting its total revenue opportunity from generative-AI investment. We expect its actual AI revenue in 2025 to be significantly above management's \$1.5 billion target. The bottom line: We raise our fair value estimate for wide-moat Arista Networks shares to \$82 from \$75 as we raise our growth forecast slightly and incorporate the time value of money after rolling our model forward for another year. In our view, shares remain overvalued. Our forecasts for Arista's revenue and profitability in 2025 come in above management's guidance, which we see as conservative. Management already raised its expectations for 2025 revenue (to 17% growth, from a midpoint of 15%) a quarter after providing initial guidance. Despite beating FactSet consensus estimates, shares fell by 5% after-hours, indicating that investors in the stock had even higher expectations. We continue to see overly rosy growth expectations priced into the stock, even compared with our above-consensus forecasts over the next three years.

AI DeepSeek Coverage Summary: Maintaining Our Fair Values; Pullback Was Healthy

Eric Compton, CFA,Director,28 Jan 2025

We have consolidated our recent DeepSeek-related coverage in this note. Artificial intelligence affects companies across much of our coverage, including semiconductors, cloud infrastructure, software, utilities, and energy.Many of the firms under our coverage with an “AI premium” were already trading in 1- to 2-star territory. Our valuations were already positioned for a pullback of this nature, as we were having a hard time justifying the increases in revenue implied by these valuations. We view the current pullback as healthy, even as we remain positive on the long-term potential of AI. We have maintained our fair value estimates across the affected companies.Our thesis, after the release of DeepSeek, is that we were going to see instances of sleeker, more-efficient AI models that would not rely on massive clusters of AI GPUs and related hardware. This was the only way the ecosystem was going to

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successfully address large numbers of use cases in the long term. We believe that lower costs—making AI cheaper, therefore more economical—increase the number of use cases it is viable for, and as a result, should increase demand. This is the same path the PC revolution followed, with computing power becoming cheap enough that millions of individuals could use it at an affordable cost. The same happened with the cloud and SaaS revolution thereafter, where the incremental cost of adding users was close to zero. We believe a future where AI was both prohibitively expensive and also “taking over the world” was not likely. As such, we view the advancements made by DeepSeek as promising and healthy for the overall ecosystem. For more in-depth coverage on specific industries, please refer to our notes on Nvidia, the hyperscalers, semiconductor equipment companies, TSMC, Apple and networking, utilities, European utilities, HVAC, and industrials.

## DeepSeek R1 Model Doesn't Alter Our Valuations or Forecasts for Technology Hardware Stocks

William Kerwin, CFA, Senior Equity Analyst, 27 Jan 2025

Many technology hardware stocks under our coverage plunged in Monday trading after reports of DeepSeek's R1 generative artificial intelligence model out of China offering performance parity to top US models at a much lower training cost. The iShares Semiconductor ETF was down 8% in midday trading. Why it matters: In our view, the market selloff implies fears of weaker future generative AI infrastructure investment resulting from cheaper models. We are less pessimistic and expect strong generative AI investment to continue. We've expected generative AI models to become slimmer and more efficient. We expect US model builders to develop more efficient models, but overall hardware spending will continue to rise, particularly with a serious competitive alternative out of China. In the longer term, we foresee a commoditization of AI models that shouldn't diminish investment in hardware infrastructure. Lower-cost models should accelerate the path to financial returns for model builders, but that they will continue to invest heavily in hardware to support them. The bottom line: We maintain our fair value estimates and moat ratings for our technology hardware coverage, including Apple, Broadcom, Marvell Technology, Arista Networks, and Micron Technology. The DeepSeek news and market selloff don't alter our long-term forecasts today. We don't expect a cut to infrastructure investment in the short term and believe US and European model builders will continue to invest heavily in developing larger and higher-performing models. Demand still exceeds chip supply, and we don't expect that to change due to the DeepSeek news. We believe the selloff largely reflects more uncertainty being priced into AI-exposed stocks, which we believe to be reasonable. We believe AI investment will continue to rise rapidly, but that more bullish forecasts might have underestimated efficiency gains in new models.

## Arista Earnings: Impressive Performance Continues; We Raise Our Valuation to \$300 From \$270

William Kerwin, CFA, Senior Equity Analyst, 8 Nov 2024

We raise our fair value estimate for wide-moat Arista Networks to \$300 per share from \$270 upon

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raising our growth forecast. We'd already been expecting strong, high-teens growth from Arista over the next five years, but its success in artificial intelligence networking environments continues to impress us and we've bumped up our estimates further. Arista beat our third-quarter expectations, raised its full-year guidance, and provided an optimistic outlook for 2025. We expect results to come in above management guidance in both the fourth quarter and 2025, given a history of conservative guidance, our belief in Arista's exceptional position within high-performance networking, and our expectations for robust AI investment to continue. Despite strong results and guidance, Arista's stock fell as much as 7% after hours. We attribute the disconnect to lofty expectations priced into the stock, given the exuberance surrounding AI. These lofty expectations inform our view of Arista stock as overvalued. Our forecast calls for tremendous growth and profitability, but we fail to justify the firm's current share price with fundamentals. Third-quarter sales rose 20% year over year and 7% sequentially to \$1.81 billion, beating our above-consensus expectations. We attribute Arista's strong performance to high-speed networking deployments supporting AI clusters. We view Arista as best-of-breed for these high-speed networks, with placement in every leading hyperscale cloud provider. We expect growth to continue to be supported by high capital investment toward AI from large customers like Microsoft and Meta Platforms. Fourth-quarter guidance came in above our optimistic model, and we expect Arista to outperform guidance once again. At the midpoint of guidance, sales of \$1.875 billion imply 22% growth year over year and 4% sequentially. We also view Arista's non-GAAP operating margin outlook of 44% as conservative, given rampant revenue growth and levels above 46% throughout 2024.

**Arista Earnings: Investors Should Stay Patient After Another Tremendous Quarter** William Kerwin, CFA, Senior Equity Analyst, 31 Jul 2024

We maintain our \$270 per share fair value estimate for wide-moat Arista Networks after its strong second quarter was in line with our long-term thesis. Arista's results crushed its guidance ranges and it raised its full-year outlook closer in line with our bullish model. Strong growth and profitability in 2024 thus far adhere to our thesis for Arista to take share in high-speed networking over the next five years, particularly in artificial intelligence networks. We see the firm as best-of-breed for high-speed switching, which we expect to generate great growth as cloud providers invest in networking infrastructure to support AI clusters. We view its current valuation as challenging but believe patient long-term investors can wait for a better entry point for this blue-chip stock and its strong AI exposure. Second-quarter sales rose 16% year over year and 8% sequentially to \$1.69 billion. We see Arista's impressive growth as driven by its marquee high-speed switching portfolio. We expect continued market share gains for the firm, even in a rapidly growing market supported by AI investment. We forecast Arista to take meaningful share from Nvidia in AI networking infrastructure and to remain the top Ethernet player. Arista's profitability was also excellent and well above guidance in the quarter, with non-GAAP operating margin of 46.5%. We expect the firm to continue outperforming its conservative guidance for margins, with expenses not keeping up with rapid top-line growth. We model

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# Arista Networks Inc ANET ★★★ 6 May 2025 21:48, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
90.77 USD 6 May 2025	82.00 USD 19 Feb 2025 01:25, UTC	1.11	113.97 USD Bil 6 May 2025	Wide	Large Growth	High	Exemplary	 2 Apr 2025 05:00, UTC

46% non-GAAP operating margin for 2024, above guidance for 44%. Third-quarter guidance met our model, which we lightly raised as we expect Arista to beat guidance yet again. Management also raised its full-year outlook to at least 14% sales growth, which is closer to our model at 17%. We see guidance as consistently conservative at Arista. Our bullish estimate stems from our conviction in Arista's share-taking ability in high-speed data centers, both for AI and non-AI applications.

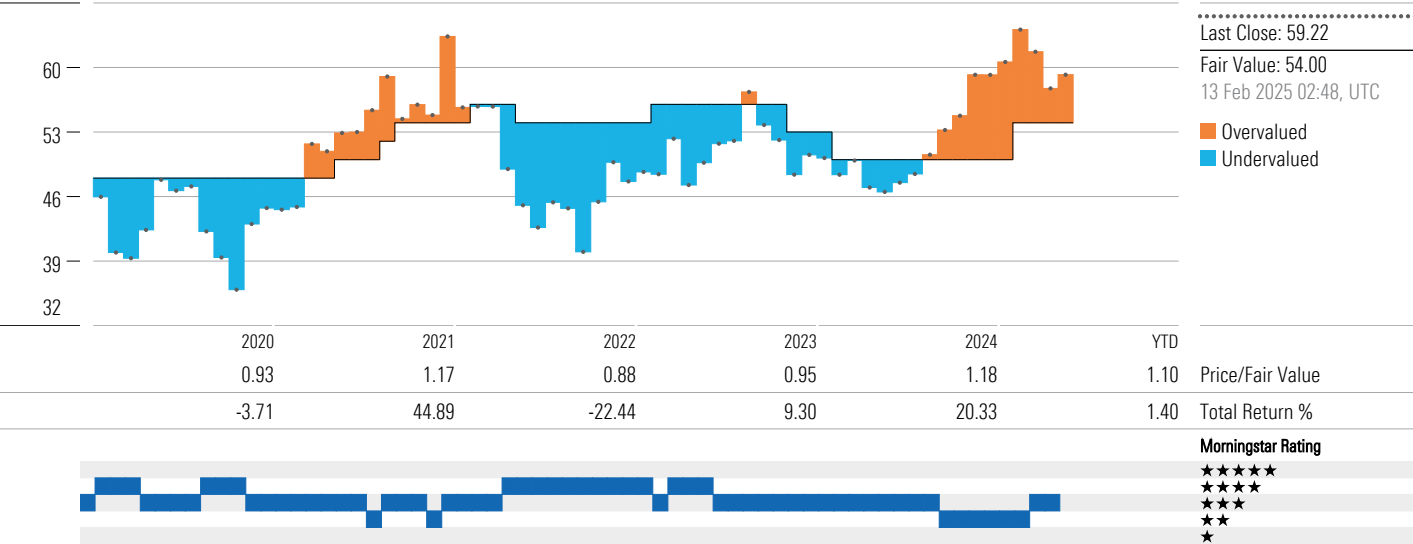
## Arista Earnings: We Raise Our Valuation to \$270 From \$195 With a Strong AI Forecast William Kerwin, CFA, Senior Equity Analyst, 8 May 2024

We raise our fair value estimate for wide-moat Arista Networks to \$270 per share from \$195 as we raise our forecast for strong and long-term growth for the firm arising from generative artificial intelligence networking. We believe Arista will significantly benefit from generative AI spending, resulting from its best-of-breed high-speed Ethernet switches. We expect Arista to drive and benefit from a transition toward Ethernet—and away from Nvidia's Infiniband technology—in generative AI networks over the next five years. We forecast generative AI spending to augment growth in high-speed data center switching and for Arista to maintain a strong market share. Our updated forecast assumes that management's long-term growth target through 2027 is conservative. We believe Arista management guides conservatively, and raising its full-year guidance for 2024 after one quarter gives credence to this view. Shares rose by more than 6% after-hours when Arista raised its full-year guidance. We see shares as fairly valued and believe the market is adequately pricing in the AI opportunity and agrees with our view on conservative guidance. First-quarter sales rose 16% year over year and 2% sequentially to \$1.57 billion, above the top end of guidance. We believe sales growth was broad-based across Arista's customer verticals, but high-speed data center networking continues to drive overall results. The non-GAAP operating margin of 47.4% was up 620 basis points year over year and benefitted from rising revenue. Second-quarter guidance was positive, as was Arista raising its full-year revenue outlook. At the midpoint, sales of \$1.635 billion in the June quarter imply 12% year-over-year growth (4% sequentially.) We expect Arista to beat the top end of guidance again. Full-year sales are now guided to increase 12%-14%, and we expect Arista to beat the top end of this range. We see high-speed data center spending, including AI, driving growth in 2024 and beyond. ■■■

# Arista Networks Inc ANET ★★★ 6 May 2025 21:48, UTC

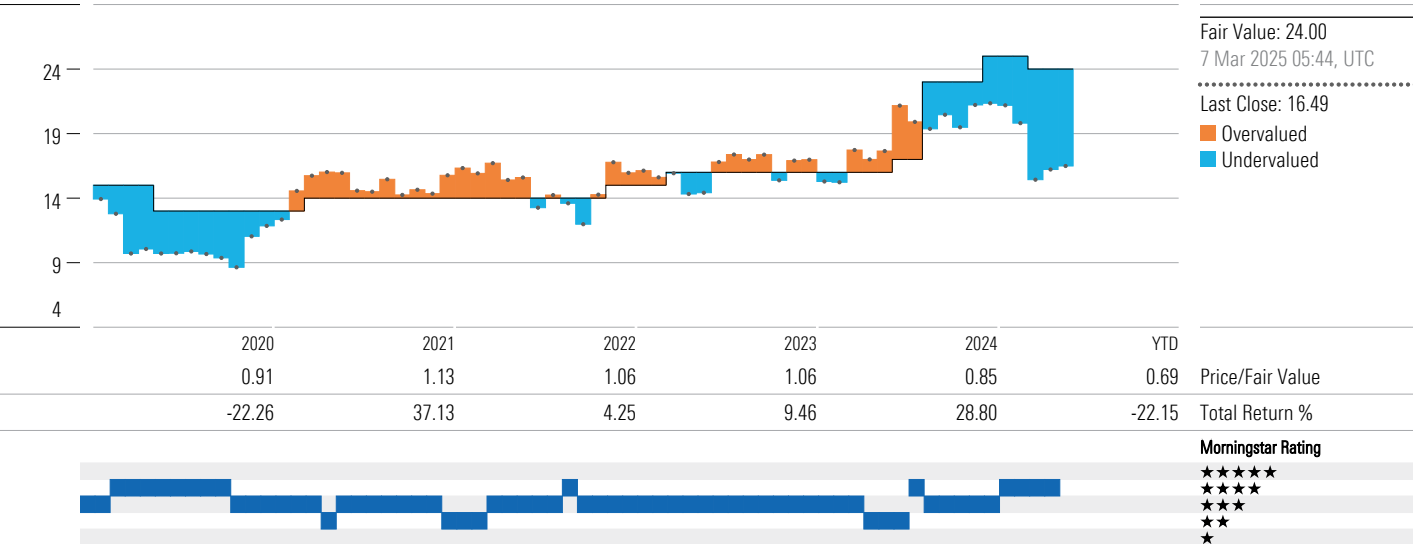
## Competitors Price vs. Fair Value

### Cisco Systems Inc CSCO



Total Return % as of 06 May 2025. Last Close as of 06 May 2025. Fair Value as of 13 Feb 2025 02:48, UTC.

### Hewlett Packard Enterprise Co HPE



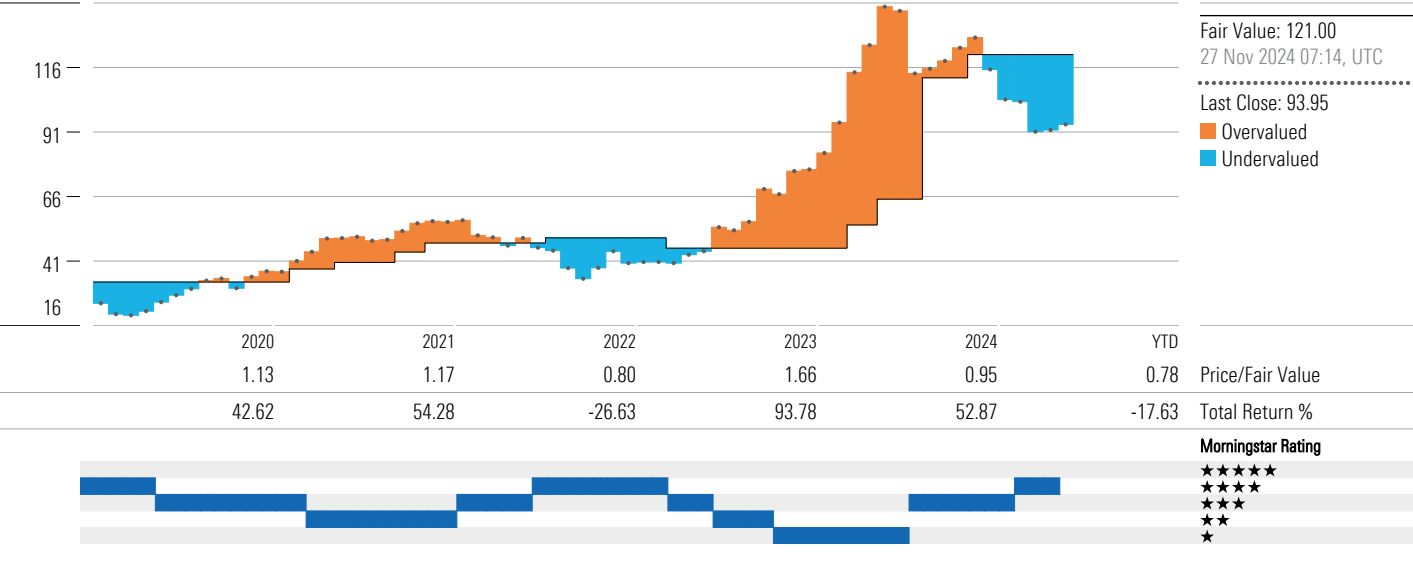
Total Return % as of 06 May 2025. Last Close as of 06 May 2025. Fair Value as of 7 Mar 2025 05:44, UTC.

Arista Networks IncANET★★★

6 May 2025 21:48, UTC

Competitors Price vs. Fair Value

Dell Technologies Inc Ordinary Shares - Class CDELL



Total Return % as of 06 May 2025. Last Close as of 06 May 2025. Fair Value as of 27 Nov 2024 07:14, UTC.

# Arista Networks Inc ANET ★★★

6 May 2025 21:48, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
90.77 USD 6 May 2025	82.00 USD 19 Feb 2025 01:25, UTC	1.11	113.97 USD Bil 6 May 2025	Wide	Large Growth	High	Exemplary	 2 Apr 2025 05:00, UTC

## Morningstar Valuation Model Summary

### Financials as of 18 Feb 2025

Fiscal Year, ends 31 Dec	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Revenue (USD Mil)	4,381	5,860	7,003	8,555	10,247	12,049	13,724	15,641
Operating Income (USD Mil)	1,527	2,257	2,945	3,433	4,123	4,833	5,486	6,232
EBITDA (USD Mil)	1,590	2,328	3,007	3,504	4,212	4,943	5,619	6,398
Adjusted EBITDA (USD Mil)	1,859	2,658	3,389	3,946	4,731	5,545	6,300	7,169
Net Income (USD Mil)	1,352	2,087	2,852	3,090	3,640	4,244	4,799	5,433
Adjusted Net Income (USD Mil)	1,449	2,201	2,908	3,232	3,869	4,557	5,190	5,914
Free Cash Flow To The Firm (USD Mil)	240	1,734	3,210	2,764	3,611	3,934	4,507	5,133
Weighted Average Diluted Shares Outstanding (Mil)	1,266	1,269	1,281	1,279	1,269	1,255	1,237	1,222
Earnings Per Share (Diluted) (USD)	1.07	1.65	2.23	2.42	2.87	3.38	3.88	4.45
Adjusted Earnings Per Share (Diluted) (USD)	1.15	1.74	2.27	2.53	3.05	3.63	4.19	4.84
Dividends Per Share (USD)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Margins & Returns as of 18 Feb 2025

	3 Year Avg	Actual			Forecast					5 Year Avg
		2022	2023	2024	2025	2026	2027	2028	2029	
Operating Margin %	38.5	34.9	38.5	42.1	40.1	40.2	40.1	40.0	39.8	40.1
EBITDA Margin %	—	36.3	39.7	42.9	41.0	41.1	41.0	40.9	40.9	—
Adjusted EBITDA Margin %	—	42.4	45.4	48.4	46.1	46.2	46.0	45.9	45.8	46.0
Net Margin %	35.7	30.9	35.6	40.7	36.1	35.5	35.2	35.0	34.7	35.3
Adjusted Net Margin %	37.4	33.1	37.6	41.5	37.8	37.8	37.8	37.8	37.8	37.8
Free Cash Flow To The Firm Margin %	27.0	5.5	29.6	45.8	32.3	35.2	32.7	32.8	32.8	33.2

### Growth & Ratios as of 18 Feb 2025

	3 Year CAGR	Actual			Forecast					2029 5 Year CAGR
		2022	2023	2024	2025	2026	2027	2028	2029	
Revenue Growth %	33.4	48.6	33.8	19.5	22.2	19.8	17.6	13.9	14.0	17.4
Operating Income Growth %	47.1	65.1	47.8	30.5	16.6	20.1	17.2	13.5	13.6	16.2
EBITDA Growth %	46.2	63.0	46.4	29.2	16.6	20.2	17.4	13.7	13.9	16.4
Adjusted EBITDA Growth %	41.7	56.1	43.0	27.5	16.5	19.9	17.2	13.6	13.8	16.2
Earnings Per Share Growth %	50.1	62.3	54.0	35.3	8.5	18.7	18.0	14.6	14.7	14.8
Adjusted Earnings Per Share Growth %	50.1	59.6	51.5	30.8	11.3	20.6	19.2	15.5	15.4	14.8

### Valuation as of 18 Feb 2025

	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Price/Earning	26.4	33.8	48.7	35.9	29.8	25.0	21.7	18.8
Price/Sales	8.5	12.5	19.9	13.3	11.1	9.5	8.3	7.3
Price/Book	7.9	10.3	14.2	9.4	7.7	6.6	5.6	4.7
Price/Cash Flow	—	—	—	—	—	—	—	—
EV/EBITDA	18.4	25.9	39.8	27.8	23.2	19.8	17.4	15.3
EV/EBIT	22.4	30.5	45.8	31.9	26.6	22.7	20.0	17.6
Dividend Yield %	—	—	—	—	—	—	—	—
Dividend Payout %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Free Cash Flow Yield %	—	—	—	—	—	—	—	—

### Operating Performance / Profitability as of 18 Feb 2025

Fiscal Year, ends 31 Dec	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
ROA %	20.0	21.0	20.3	17.9	17.5	17.6	17.1	16.6
ROE %	27.7	28.9	28.5	25.0	24.5	24.6	23.8	22.9
ROIC %	43.9	45.8	52.8	57.4	59.6	60.6	58.7	57.7

# Arista Networks Inc ANET ★★★ 6 May 2025 21:48, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
90.77 USD 6 May 2025	82.00 USD 19 Feb 2025 01:25, UTC	1.11	113.97 USD Bil 6 May 2025	Wide	Large Growth	High	Exemplary	 2 Apr 2025 05:00, UTC

## Financial Leverage (Reporting Currency)

Fiscal Year, ends 31 Dec	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Debt/Capital %	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0
Assets/Equity	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Net Debt/EBITDA	-1.9	-2.2	—	-1.2	-1.4	-1.5	-1.7	-1.9
Total Debt/EBITDA	0.0	0.0	—	0.0	0.0	0.0	0.0	0.0
EBITDA/ Net Interest Expense	-34.0	-16.1	-10.6	-24.7	-29.6	-34.7	-39.4	-44.8

## Forecast Revisions as of 18 Feb 2025

Prior data as of 4 Dec 2024	2025		2026		2027	
	Current	Prior	Current	Prior	Current	Prior
Fair Value Estimate Change (Trading Currency)	82.00	75.44	—	—	—	—
Revenue (USD Mil)	8,555	7,012	10,247	8,564	12,049	10,114
Operating Income (USD Mil)	3,433	2,967	4,123	3,470	4,833	4,077
EBITDA (USD Mil)	3,946	3,408	4,731	3,983	5,545	4,677
Net Income (USD Mil)	3,232	—	3,869	—	4,557	—
Earnings Per Share (Diluted) (USD)	2.42	2.20	2.87	2.46	3.38	2.85
Adjusted Earnings Per Share (Diluted) (USD)	2.53	—	3.05	—	3.63	—
Dividends Per Share (USD)	0.00	0.00	0.00	0.00	0.00	0.00

## Key Valuation Drivers as of 18 Feb 2025

Cost of Equity %	9.0
Pre-Tax Cost of Debt %	5.5
Weighted Average Cost of Capital %	9.0
Long-Run Tax Rate %	15.0
Stage II EBI Growth Rate %	10.0
Stage II Investment Rate %	31.5
Perpetuity Year	20

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

## Discounted Cash Flow Valuation as of 18 Feb 2025

	USD Mil
Present Value Stage I	14,415
Present Value Stage II	38,156
Present Value Stage III	48,345
<b>Total Firm Value</b>	<b>100,917</b>
Cash and Equivalents	2,762
Debt	0
Other Adjustments	0
<b>Equity Value</b>	<b>103,679</b>
Projected Diluted Shares	1,275
<b>Fair Value per Share (USD)</b>	<b>82.00</b>

Arista Networks Inc

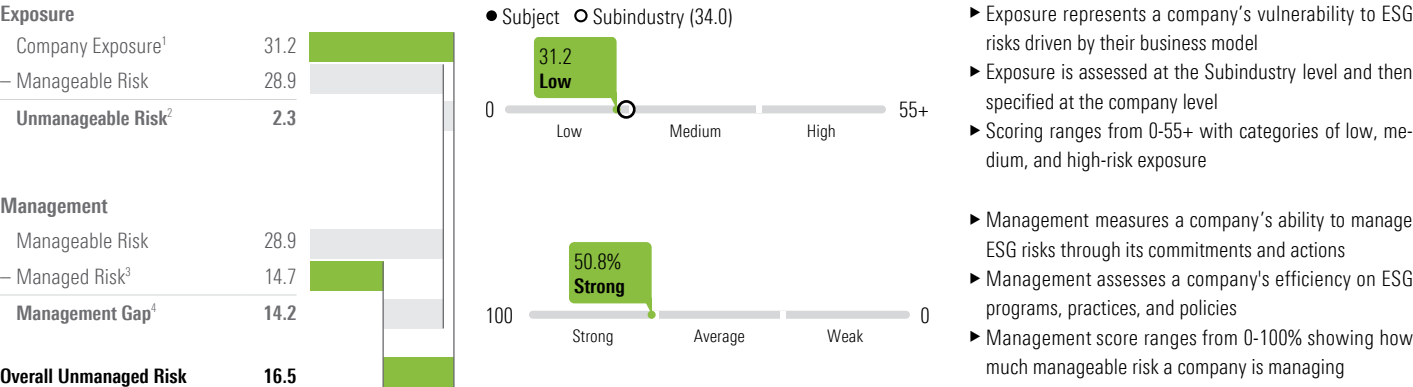
ANET

★★★

6 May 2025 21:48, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
90.77 USD	82.00 USD	1.11	113.97 USD Bil	Wide	Large Growth	High	Exemplary	
6 May 2025	19 Feb 2025 01:25, UTC		6 May 2025					2 Apr 2025 05:00, UTC

ESG Risk Rating Breakdown



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 50.8% 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



Peer Analysis 02 Apr 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	
Arista Networks Inc	31.2   Low	0 —●— 55+	50.8   Strong	100 —●— 0	16.5   Low	0 —●— 40+
Cisco Systems Inc	32.0   Low	0 —●— 55+	63.3   Strong	100 —●— 0	13.1   Low	0 —●— 40+
Fortinet Inc	33.4   Low	0 —●— 55+	56.2   Strong	100 —●— 0	16.0   Low	0 —●— 40+
Hewlett Packard Enterprise Co	34.2   Low	0 —●— 55+	70.5   Strong	100 —●— 0	11.7   Low	0 —●— 40+
Dell Technologies Inc	35.0   Low	0 —●— 55+	58.2   Strong	100 —●— 0	15.9   Low	0 —●— 40+

# Appendix

## Historical Morningstar Rating

### Arista Networks Inc ANET 6 May 2025 21:48, 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
★★★	★★★	★★★	★★★★	★★★	★★★	★★★	★★★	★★★	★★★★	★★★★	★★★

### Cisco Systems Inc CSCO 6 May 2025 21:31, 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
★★★	★★★★	★★★★	★★★★	★★★	★★★	★★★	★★★	★★★★	★★★★	★★★★	★★★

### Hewlett Packard Enterprise Co HPE 6 May 2025 21:44, 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
★★★	★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★	★★★

Dell Technologies Inc Ordinary Shares - Class C DELL 6 May 2025 21:54, 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 ★★★★

# 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, 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 re-

turns 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 (EBIT) and the net new investment (NNI) to de-

rive 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 EBIT 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



# 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	★★★★★ Rating	★ Rating
Uncertainty Ratings		
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.

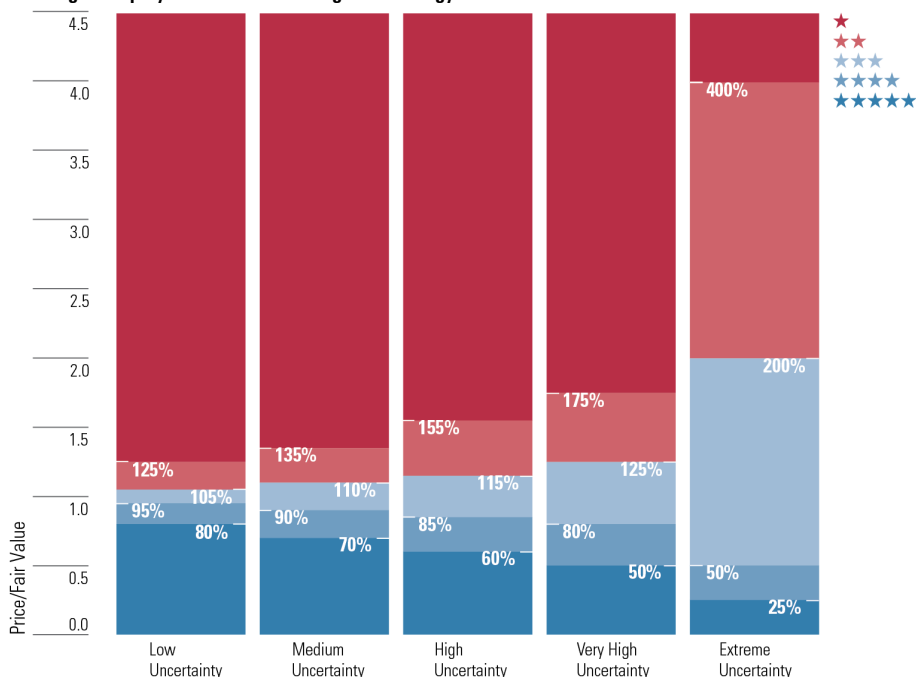
## 4. Market Price

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 ad-

justed 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 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/](https://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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