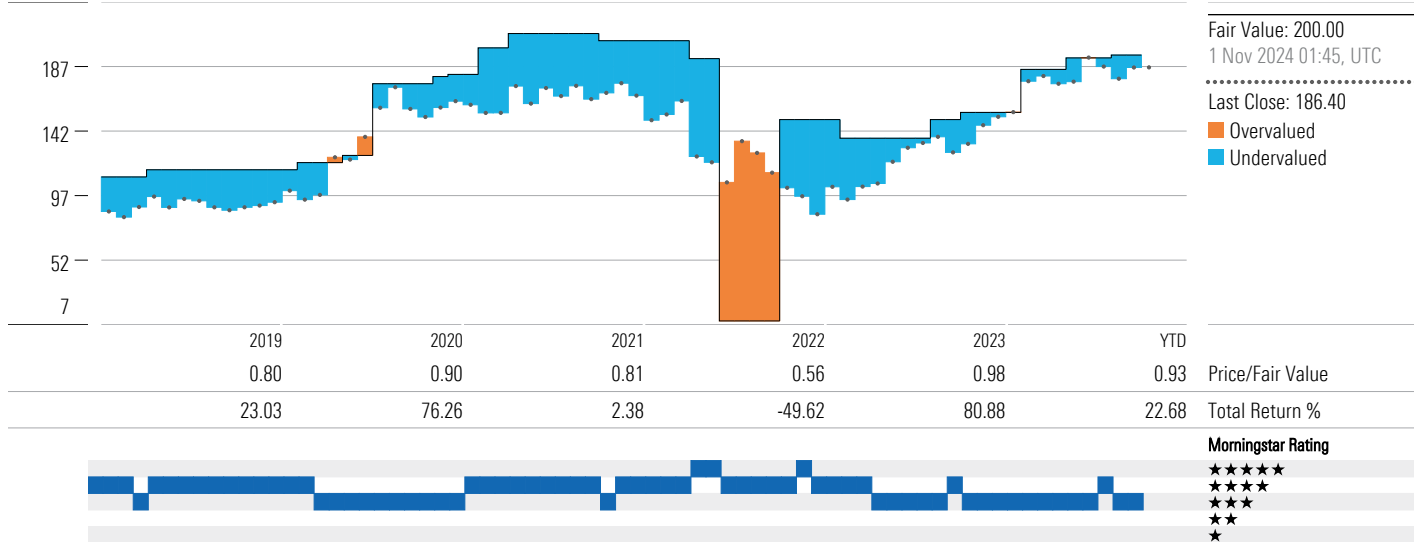


Amazon.com Inc AMZN ★★★ 1 Nov 2024 01:50, UTC

Last Price 186.40 USD 31 Oct 2024	Fair Value Estimate 200.00 USD 1 Nov 2024 01:45, UTC	Price/FVE 0.93	Market Cap 1.96 USD Tril 31 Oct 2024	Economic Moat™ Wide	Equity Style Box Large Growth	Uncertainty Medium	Capital Allocation Exemplary	ESG Risk Rating Assessment¹ 2 Oct 2024 05:00, UTC
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Price vs. Fair Value



Total Return % as of 31 Oct 2024. Last Close as of 31 Oct 2024. Fair Value as of 1 Nov 2024 01:45, UTC.

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Amazon Earnings: AWS and Margins Shine Brightest in a Quarter With Many Bright Spots

Analyst Note Dan Romanoff, CPA, Senior Equity Analyst, 1 Nov 2024

We are raising our fair value estimate for wide-moat Amazon to \$200 per share from \$195 after the company reported solid third-quarter results. The firm’s fourth-quarter outlook was generally aligned with our estimates. Changes to our model are minor but center around continued near-term profitability improvements. Overall results are pretty consistent with recent quarters. Amazon continues to gain efficiencies throughout the network, which helps lower costs and improve delivery speeds and ultimately drives increased purchases by prime members. We now see shares as fairly valued, after a strong run since early August.

Retail demand trends remain unchanged over the last 18 months, with e-commerce performing well but showing signs of consumer stress. Third-quarter revenue grew 11% year over year, as reported to \$158.9 billion, compared with the top end of guidance at \$158.5 billion. Relative to our estimates, online stores, subscription services, and AWS performed best, while third-party seller services and advertising modestly lagged. The two key segments for long-term growth, AWS and advertising, both expanded 19% year over year, as reported. Amazon’s advertising growth continues to outpace its large internet peers, while AWS’ growth accelerated sequentially for the fifth straight quarter.

Margins have been consistently stronger than anticipated over the past year or two, and we continue to believe there is room for expansion as the multihub strategy continues to unlock efficiencies. Third-

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

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

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Sector Consumer Cyclical	Industry Internet Retail
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Business Description

Amazon is the leading online retailer and marketplace for third party sellers. Retail related revenue represents approximately 75% of total, followed by Amazon Web Services' cloud computing, storage, database, and other offerings (15%), advertising services (5% to 10%), and other the remainder. International segments constitute 25% to 30% of Amazon's non-AWS sales, led by Germany, the United Kingdom, and Japan.

quarter profitability was outstanding, with operating profit at \$17.4 billion, compared with the high end of guidance at \$15.0 billion. This resulted in an operating margin of 11.0%, compared with 7.8% a year ago. Management's long-term goal is to have international operating margins equal to North American margins. International posted positive operating profits for the third straight quarter, which is a positive indicator in our view. AWS profitability was very strong.

Business Strategy & Outlook Dan Romanoff, CPA, Senior Equity Analyst, 2 Feb 2024

Amazon dominates its served markets, notably for e-commerce and cloud services. It benefits from numerous competitive advantages and has emerged as the clear e-commerce leader given its size and scale, which yield an unmatched selection of low-priced goods for consumers. The secular drift toward e-commerce continues unabated with the firm continuing to grind out market share gains despite its size. Prime ties Amazon's e-commerce efforts together and provides a steady stream of high-margin recurring revenue from customers who purchase more frequently from Amazon's properties. In return, consumers get one-day shipping on millions of items, exclusive video content, and other services, which result in a powerful virtuous circle where customers and sellers attract one another. The Kindle and other devices further bolster the ecosystem by helping attract new customers, while making the value proposition irresistible in retaining existing users.

Through Amazon Web Services, or AWS, Amazon is also a clear leader in public cloud services. Additionally, the firm's advertising business is already large and continues to scale as ads have made their way into Amazon's streaming outlets, thus offering an attractive option for marketers looking to access a vast audience with a variety of proprietary data points about those very consumers. AWS and advertising growth should continue to outpace e-commerce growth and should be the main growth drivers over the next five years. This is critical, as each of these segments drives higher margins than the corporate average, which in turn should allow both operating profit and EPS to outgrow revenue as margins continue to expand.

From a retail perspective, we expect continued innovation to help drive further share gains in a post-lockdown world. We also look for continued penetration into categories such as groceries and luxury goods that have not previously translated into the same level of success as other retail categories. We see technology advancements in AWS and a bigger push to service enterprise customers as helping to maintain the company's lead there. Overall, we see strong revenue and free cash flow growth for years to come.

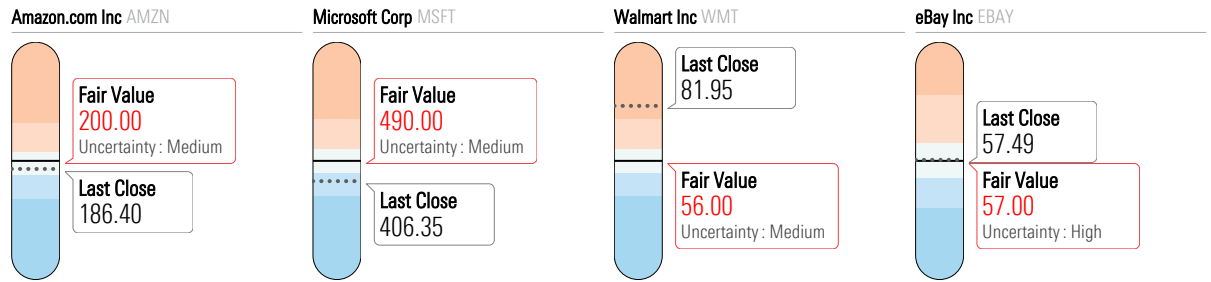
Bulls Say Dan Romanoff, CPA, Senior Equity Analyst, 1 Nov 2024

- ▶ Amazon is the clear leader in e-commerce and enjoys unrivaled scale to continue to invest in growth opportunities and drive the very best customer experience.

Amazon.com Inc **AMZN** ★★★ 1 Nov 2024 01:50, UTC

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Competitors



	Amazon.com Inc AMZN	Microsoft Corp MSFT	Walmart Inc WMT	eBay Inc EBAY
Economic Moat	Wide	Wide	Wide	Narrow
Currency	USD	USD	USD	USD
Fair Value	200.00 1 Nov 2024 01:45, UTC	490.00 31 Jul 2024 06:07, UTC	56.00 26 Aug 2024 20:46, UTC	57.00 5 Aug 2024 16:02, UTC
1-Star Price	270.00	661.50	75.60	88.35
5-Star Price	140.00	343.00	39.20	34.20
Assessment	Fairly Valued 31 Oct 2024	Undervalued 31 Oct 2024	Overvalued 31 Oct 2024	Fairly Valued 31 Oct 2024
Morningstar Rating	★★★ 1 Nov 2024 01:50, UTC	★★★★ 31 Oct 2024 21:32, UTC	★ 31 Oct 2024 21:34, UTC	★★★ 31 Oct 2024 21:34, UTC
Analyst	Dan Romanoff, Senior Equity Analyst	Dan Romanoff, Senior Equity Analyst	Noah Rohr, Equity Analyst	Sean Dunlop, Senior Equity Analyst
Capital Allocation	Exemplary	Exemplary	Standard	Standard
Price/Fair Value	0.93	0.83	1.46	1.01
Price/Sales	3.39	12.71	0.99	3.11
Price/Book	8.55	11.18	7.75	5.65
Price/Earning	45.14	35.58	42.39	19.46
Dividend Yield	0.00%	0.69%	1.00%	1.69%
Market Cap	1,956.37 Bil	3,020.42 Bil	658.73 Bil	28.12 Bil
52-Week Range	133.71 — 201.20	339.65 — 468.35	49.85 — 83.34	37.17 — 67.80
Investment Style	Large Growth	Large Blend	Large Blend	Mid Blend

- ▶ High-margin advertising and AWS are growing faster than the corporate average, which should continue to boost profitability over the next several years.
- ▶ Amazon Prime memberships help attract and retain customers who spend more with Amazon; this reinforces a powerful network effect while bringing in recurring and high-margin revenue.

Bears Say Dan Romanoff, CPA, Senior Equity Analyst, 1 Nov 2024

- ▶ Regulatory concerns are rising for large technology firms, including Amazon. Further, the firm may face increasing regulatory and compliance issues as it expands internationally.
- ▶ New investments, notably in fulfillment, delivery, and AWS, should damp free cash flow growth. Also, Amazon’s penetration into some countries might be harder than in the US due to inferior logistic networks.
- ▶ Amazon may not be as successful in penetrating new retail categories, such as luxury goods, due to consumer preferences and an improved e-commerce experience from larger retailers.

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Amazon.com Inc AMZN ★★★

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Economic Moat Dan Romanoff, CPA, Senior Equity Analyst, 1 Feb 2024

We assign a wide moat rating to Amazon based on network effects, cost advantages, intangible assets, and switching costs. Amazon has been disrupting the traditional retail industry for more than two decades while also emerging as the leading infrastructure-as-a-service provider via Amazon Web Services. This disruption has been embraced by consumers and has driven change across the entire industry as traditional retailers have invested heavily in technology in order to keep pace. Covid-19 has accelerated change, and given the company's technological prowess, massive scale, and relationship with consumers, we think Amazon has widened its lead, which we believe will result in economic returns well in excess of its cost of capital for years to come.

We believe Amazon's retail business has a wide moat stemming from network effects associated with its marketplace, where more buyers and sellers continually attract more buyers and sellers; a cost advantage tied to purchasing power, logistics, vertical integration (proprietary brands, owned delivery, and so on), and a negative cash conversion cycle; and intangible assets associated with technology and branding. We also believe AWS is a wide-moat business, thanks to high customer switching costs; a cost advantage associated with economies of scale where few competitors can keep up with Amazon's investment pace; intangible assets arising from semiconductor and facility development; and a network effect associated with a marketplace for software created to make AWS work better. We also would assign Amazon's burgeoning advertising business a narrow moat based on intangible assets from its proprietary data on hundreds of millions of users and a network effect again focusing on buyers and sellers meeting in the largest available venues. We believe that the wide moat for Amazon's entire business is greater than the sum of its parts; we prefer to analyze Amazon's moat on the whole, as the company's segments reinforce one another and returns result in an unrivaled consumer experience.

Together, we believe Amazon's retail business enjoys a wide moat supported by cost advantages, intangible assets, and network effects. We assess the moat around Amazon's retail business based on a combination of online stores, third-party seller services, subscription services, and physical stores, as we find it challenging to think about durable competitive advantages for each of these segments in isolation. Given its massive scale, Amazon has created cost advantages including buying power, economies of scope, route density, and research and development. From a total gross merchandise value perspective, with approximately \$580 billion in 2021, it finally surpassed Walmart. Similarly, Amazon is the largest online retailer and is an order of magnitude larger than Walmart and 4 times larger than Shopify, assuming we classify Shopify as a demand aggregator. Additionally, the company has become more vertically integrated over time and most recently has built out its own transportation network. Size dictates certain scales of efficiency, but we think Amazon is the definition of operational excellence.

These advantages are related and reinforce one another in a virtuous circle. Low prices and an

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unmatched selection have come to define the company in consumer's minds, giving rise to intangible assets from branding and technology (search capabilities and recommendation engine). Product searches are more likely to begin on Amazon at this point than they are Google. Amazon has become the only demand aggregator at scale in the US because of its wide selection, intelligent recommendation algorithms, low prices, and convenience, which combine into a powerful business model.

We also believe Amazon's retail business benefits from network effects. The sheer number of consumers shopping on Amazon makes it attractive to third party sellers, while the marketplace expands the selection available to shoppers and makes Amazon a more attractive online destination for consumers. In fact, 50%-55% of total goods sold by Amazon are through its third-party marketplace. At the heart of third-party seller services is the commission Amazon collects from the independent seller. However, these services also include Fulfillment by Amazon, distribution facility storage, shipping, payment processing, and other related items.

To improve the consumer experience and more tightly tie users to Amazon, the company has moved increasingly into content. Consumers can now have Prime Video, Music Unlimited, Kindle Unlimited, Prime Gaming, and other similar subscription services. The company even produces original content for Prime Video to help reinforce the notion that consumers can get anything they need from Amazon. We view the Kindle, Echo, Fire, and other Amazon original devices as interesting on their own merits, but think the underlying point is to once again draw in more consumers to Amazon's retail properties and engage those customers that are already within the ecosystem. Amazon's hardware helps to enable Amazon's services. The Kindle, for example, dovetails perfectly with Kindle Unlimited, which for a \$9.99 monthly subscription, allows users to read from a selection of more than one million book titles. The company even offers a direct-to-Kindle book publishing service.

The common thread that weaves throughout Amazon's retail business is Amazon Prime, which for \$139 per year allows users unlimited free shipping on millions of stock-keeping units, including same-day or one-day shipping on many items, access to Prime Video and Prime Music, and a variety of other benefits. We view Prime subscriptions and the differentiated user experience they offer as critical to attracting and retaining customers. Prime memberships generate high cash flow that can be reinvested in further improving the user experience on the technology, content, and delivery fronts. Prime customers are very sticky and tend to purchase from Amazon more frequently and across more retail categories. We think content combined with Prime subscriptions actually build a switching cost that consumers would need to overcome, although these switching costs might not last for decades in order to warrant it as a moat source.

Advertising is tangentially related to Amazon's retail operations in that it takes place on Amazon's own

Amazon.com Inc AMZN ★★★

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online properties. Advertising is growing rapidly and is likely the segment with the highest operating margins in Amazon's portfolio, likely in excess of 30%, which is would be directionally comparable to margins earned by Facebook when it was a similarly sized business (other was \$21 billion in revenue in 2020, compared with \$18 billion in revenue for Facebook in 2015). We believe advertising dollars flow to where the eyeballs are and where information is known about the online user, which fits in very well with Amazon's strengths. We therefore expect advertising to grow rapidly over the next several years and continue to boost the company's overall profitability.

Looking at advertising in isolation, we would likely give it a narrow moat rating based on intangible assets arising from proprietary technology (data), and network effects, although assigning a moat rating here is difficult because Amazon doesn't disclose much about this business. That said, we can see Amazon's advertising becoming a wide-moat business as it becomes more established and more details are disclosed. We think Amazon's advertising business is attractive to advertisers because there is proprietary information about the consumers and real-time data about when they are searching for a particular product, and Amazon already enjoys substantial traffic. We expect this business to continue to grow rapidly and offer an attractive alternative to platforms from social network and internet search providers.

Amazon Web Services enjoys a wide moat supported by switching costs, network effects, intangible assets, and cost advantages. Amazon was a pioneer in public cloud infrastructure as a service and platform as a service and retains a substantial lead over its closest rival, Microsoft. AWS has driven profitability for the entire company; although it represents 10%-15% of revenue, it generates 60%-65% of total operating profit dollars for Amazon. We also expect AWS to remain a key growth driver for the company over the next decade.

AWS differs from the company's e-commerce operations in that it is enterprise-facing rather than consumer-facing. Enterprise customers rely on AWS for core IT infrastructure, which represents significant switching costs in terms of the time and expense of integrating applications with core software elements, such as the database, and dedicates a user to a specific set of software development tools. Ultimately, the operational risks to changing mission-critical technology infrastructure is high, which is why core elements such as ERP systems and cloud providers are rarely changed.

Further, we believe it is cheaper initially for companies to move workloads to the cloud, as there are fewer upfront costs and a lower bar to clear for maintenance and administration. Additionally, Amazon has devoted significant R&D resources to adding advanced features to the platform. Along those lines, AWS offers scale advantages to clients in that it is cheaper and faster to set up IT infrastructure in the cloud compared with undertaking the same effort independently. Customers also benefit from the ability

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to scale up compute power for burst requirements, paying for only what they need and having it available effectively on-demand. We have seen some of the largest technology companies in the world simply fail to keep pace with Amazon's massive investments in IaaS over the years, and AWS' cost advantage over its rivals is obvious. Those firms struggle to compete in a meaningful way against AWS.

Amazon has amassed significant technology and process knowledge, which we believe is an intangible asset for the firm as a whole and also for AWS. These assets could also apply to the logistics aspect of the retail business. The company expanded its distribution network by roughly 50% in 2020 while managing through a global pandemic. Given the size of its footprint, this is a monumental achievement and speaks to the company's ability to quickly plan, construct, and expand facilities based on specific needs. The knowledge base to quickly and efficiently bring massive server farms online for AWS is similarly impressive and only comes from the experience of previously building hyperscale data centers. Additionally, the firm designs its own semiconductors, which are used to power its server arrays, and also developed proprietary robotic automation technology used in its fulfillment centers.

As with other large software companies, we see a network effect within AWS' ecosystem for third-party software, although we view this as more of secondary moat source. The large ecosystem of AWS users has benefited from the software development efforts of those same users, as they turn around and offer applications written on AWS for AWS users. Thus, users help attract other users to AWS. We see Microsoft and Salesforce in particular as the best comparable examples in software of creating network effects.

We think network effects, intangible assets, cost advantages, and switching combine to form a powerful moat for all of Amazon. We think many of these areas reinforce one another and see little difficulty in Amazon continuing to deliver returns on invested capital well in excess of its cost of capital over the long term.

Fair Value and Profit Drivers Dan Romanoff, CPA, Senior Equity Analyst, 31 Oct 2024

Our fair value estimate for Amazon is \$200 per share, which implies a 2024 enterprise value to sales multiple of 3 times and a 2% free cash flow yield.

Over the long term, we expect e-commerce to continue to take share from brick-and-mortar retailers. We further expect Amazon to gain share online. We believe that over the medium term, COVID pulled forward some demand by changing consumer behavior and better penetrating some retail categories, such as groceries, pharmacy, and luxury goods, that previously had not gained as much traction online. We think Prime subscriptions and the accompanying benefits, combined with selection, price, and convenience continue to drive the retail story. We also see international as being a longer-term opportunity within retail. We model total retail-related revenue growing at a 8% compound annual growth rate over the next five years.

Amazon.com Inc AMZN ★★★

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We believe the critical growth drivers over the medium term will be AWS and advertising. Since these segments earn materially higher margins than the rest of the business, we also expect them to drive margins higher over time. Over the next five years, we project AWS revenue growing at a 16% CAGR and advertising revenue growing at a 18% CAGR. In total, Amazon should grow at an 10% CAGR through 2028. We model GAAP operating margin expanding from 6% (actual) in 2023 to approximately 12% in 2028 as the company grows into its expanded footprint and optimizes its substantial investment in transportation.

Risk and Uncertainty Dan Romanoff, CPA, Senior Equity Analyst, 1 Feb 2024

We assign Amazon a Morningstar Uncertainty Rating of Medium.

Amazon must protect its leading online retailing position, which can be challenging as consumer preferences change, especially post-covid-19 (as consumers may revert to prior behaviors), and traditional retailers bolster their online presence. Maintaining an e-commerce edge has pushed the company to make investments in nontraditional areas, such as producing content for Prime Video and building out its own transportation network. Similarly, the company must also maintain an attractive value proposition for its third-party sellers. Some of these investment areas have raised investor questions in the past, and we expect management to continue to invest according to its strategy, despite periodic margin pressure from increased spending.

The company must also continue to invest in new offerings. AWS, transportation, and physical stores (both Amazon branded and Whole Foods) are three notable areas of investment. These decisions require capital allocation and management focus and may play out over a period of years rather than quarters.

Continued international expansion will likely require similar investment and management attention but will also increase exposure to different regulatory environments. Some countries have instituted or may institute protectionist policies. Even domestically over the last several years, lawmakers from both parties have increasingly focused on the amount of market power large technology companies have accrued. Antitrust, data privacy, and section 230 have been repeatedly invoked.

From an environmental, social, and governance perspective, data breaches and service outages are a concern for any type of cloud service provider. As a retailer, Amazon has personal information for hundreds of millions of consumers around the world, while AWS hosts proprietary mission-critical data for enterprises.

Capital Allocation Dan Romanoff, CPA, Senior Equity Analyst, 1 Feb 2024

We assign Amazon an Exemplary Capital Allocation Rating. The rating reflects our assessments of a sound balance sheet, exceptional investments, and appropriate shareholder distributions. We think investments back into the business are most likely to be the key driver of total shareholder returns and

Amazon.com Inc AMZN ★★★

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are therefore appropriately prioritized over other capital returns such as dividends and buybacks, which Amazon does not offer. The company regularly makes small tuck-in acquisitions, which we view as immaterial to the company's financials.

The balance sheet is sound, with a substantial net cash position. We expect the balance sheet to remain solid as the company has typically maintained a conservative position and has historically generated substantial free cash flow from AWS and advertising to fund growth throughout the business.

Management's track record of investing in areas that investors were initially skeptical of but were ultimately vindicated has been remarkable. Chairman and CEO Jeff Bezos founded the company in 1994 and led the company until he stepped down in 2021, but remains on the board of directors. He has been succeeded by Andy Jassy, former CEO of AWS. Bezos remains actively involved with the company as the executive chairman of the board, and Jassy has been at the company for 23 years—and was a driving force behind the foundation and growth of AWS. We think Jassy will carry on Bezos' focus on the customer and continue to explore areas that were ignored or not yet defined. Thus far, the results have been breathtaking. From humble beginnings, Bezos has built Amazon into one of the largest companies in the world. On the e-commerce side, the company has evolved from selling books to selling everything, including groceries, delivering purchases the same day they are ordered, and moving into retail categories that were long thought to be beyond the reach of online shopping. The stickiness of Prime members, the financial stability of subscriptions, the tech world shakeup via AWS, the Kindle—the innovation has been dramatic, and shareholders have been rewarded along the way. Ultimately, we assess investment as exceptional.

Analyst Notes Archive

Amazon Earnings: AWS Continues to Accelerate While Overall Margins Strength Persists Dan Romanoff, CPA, Senior Equity Analyst, 2 Aug 2024

We are raising our fair value estimate for wide-moat Amazon to \$195 per share from \$193 after the company reported solid second-quarter results. The company's third-quarter outlook aligned with our revenue estimate and was better than our operating income estimate. Changes to our model are modest but center around continued profitability enhancements in the near term. Amazon continues to take strides in efficiency improvements throughout the network, which helps lower costs and improve delivery speeds and ultimately drives increased purchases by prime members. After a pullback that began in early July, we see shares as increasingly attractive.

Overall demand trends remain unchanged over the last year or so, with e-commerce showing signs of consumer stress. Second-quarter revenue grew 10% year-over-year as reported, or 11% in constant currency, to \$148.0 billion, compared with the guidance mid-point of \$146.5 billion. Relative to our

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estimates, online stores and third-party seller services drove most of the miss, while all segments were slightly light. Amazon Web Services was nicely ahead of our model. The two key segments for long-term growth, AWS and advertising, increased 19% and 20% year over year, as reported, respectively. Amazon's advertising growth continues to outpace its large internet peers, while AWS' growth accelerated sequentially for the fourth straight quarter.

Margins have been consistently stronger than anticipated over the past year, and we continue to believe there is room for expansion as the multihub strategy continues to unlock efficiencies. Second-quarter profitability was impressive, with operating profit at \$14.7 billion, compared with the high end of guidance at \$14.0 billion. This resulted in an operating margin of 9.9%, compared with 5.7% a year ago. The international unit generated positive operating profits for the second straight quarter, which we think is a harbinger for longer-term expansion.

Amazon Earnings: AWS Accelerates and Margins Continue to Outperform Dan Romanoff, CPA, Senior Equity Analyst, 1 May 2024

We are raising our fair value estimate for wide-moat Amazon to \$193 per share from \$185 previously, after it reported good first-quarter results. The company's second-quarter outlook was shy of our aggressive estimates, while it noted plans to materially increase data center investments in 2024 to meet generative AI demand. Changes to our model are modest but center around continued profitability enhancements. Many positive trends from the last several quarters continued with notable improvement in AWS demand and additional cost savings arising from fulfillment and cost to serve. Strong quarterly performance has pushed the shares meaningfully higher over the last year, and as such, we see only a modest upside to our fair value for investors.

Overall demand continues to trend favorably across business units. First-quarter revenue grew 13% year-over-year as reported and 13% in constant currency and came in at \$143.3 billion, compared with the high end of guidance at \$143.5 billion. Relative to our estimates, most of the upside was derived from online stores, advertising, and Amazon Web Services while physical stores, third-party seller services, subscriptions, and other were generally in line. The two key segments, AWS and advertising, increased 17% and 24%, as reported, respectively, over the year-ago period. Amazon's advertising growth has bested its large internet peers over the last year or so, while AWS' growth accelerated both year over year and sequentially.

Margins remain a bright spot, and we continue to believe there is room for expansion. First-quarter profitability was impressive, with operating profit at a best-ever \$15.3 billion, compared with the high end of guidance at \$12.0 billion. This resulted in an operating margin of 10.7%, compared with 3.7% a year ago. Even the international business generated positive operating profits for the first time in more than two years, which bodes well for the long term.

Amazon.com Inc AMZN ★★★ 1 Nov 2024 01:50, UTC

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Amazon Earnings: Advertising Shines, E-Commerce Is Still Improving, and Margins Are Impressive

Dan Romanoff, CPA, Senior Equity Analyst, 2 Feb 2024

Wide-moat Amazon reported strong fourth-quarter results and offered a mixed outlook relative to our expectations, including in-line revenue and better profitability. Improvements in fulfillment and cost to serve continue to drive stronger-than-anticipated profitability in retail. Segment results were good overall, with advertising coming in the strongest relative to our model. After several quarters of strong performance on the profitability front, we are raising our operating margin outlook by 160 basis points for 2024 and similar margin expansion over the next several years. In turn, we raise our fair value estimate to \$185 from \$155. After a strong run in the shares over the last year, we see the stock as fairly valued.

We continue to see positive developments on the demand front on multiple vectors. Fourth-quarter revenue accelerated to 14% year-over-year growth as reported and 13% in constant currency, and came in at \$170.0 billion, compared with the high end of guidance at \$167.0 billion. The two key segments, Amazon Web Services, or AWS, and advertising, grew 13% and 27% as reported, respectively, over the year-ago period. Amazon's advertising growth continues to outpace that of its large internet peers, albeit off of a smaller revenue base. Relative to our model, online stores, third-party seller services, or 3P, and advertising drove the vast majority of upside—consistent with last quarter. Subscription services were ahead, AWS and other were in line, and physical stores were slightly shy of our assumptions.

Margins were good across segments and we continue to believe there is room for further improvements. Profitability was impressive, with operating profit coming in at \$13.2 billion, compared with the high end of guidance at \$12.0 billion, resulting in an operating margin of 7.8%, compared with 1.8% a year ago, and representing the best fourth quarter in at least a decade.

Amazon Earnings: E-Commerce Improves, AWS Stabilizes, and Margins Surge Dan Romanoff, CPA, Senior Equity Analyst, 27 Oct 2023

Wide-moat Amazon reported good third-quarter results and provided better-than-expected guidance for the fourth quarter. Profitability was strong and is expected to remain healthy in the near term. While e-commerce was solid and continues to rebound, Amazon Web Services optimization has stabilized, although growth fell slightly shy of our expectations. Still, commentary was encouraging about AWS improving further over the next several quarters. Continued operational improvements brought on by the move to regional hubs have resulted in better operating leverage than anticipated. We still envision healthy long-term growth driven by e-commerce proliferation, AWS, and advertising, and believe the biggest near-term issue remains the health of the consumer rather than business spending on the cloud. After increasing our profitability assumptions modestly based on results and guidance, we are increasing our fair value estimate to \$155 per share, from \$150 previously, and see shares as attractive.

Amazon.com Inc AMZN ★★★ 1 Nov 2024 01:50, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment ¹
186.40 USD 31 Oct 2024	200.00 USD 1 Nov 2024 01:45, UTC	0.93	1.96 USD Tril 31 Oct 2024	 Wide	 Large Growth	Medium	Exemplary	 2 Oct 2024 05:00, UTC

We continue to see positive developments on the demand front. Third-quarter revenue grew 13% year over year as reported and 11% in constant currency, to \$143.1 billion, compared with the high end of guidance at \$143 billion. The two key segments, AWS and advertising, grew 12% and 26% as reported, respectively, over the year-ago period. Amazon's advertising growth continues to outpace that of its large internet peers. Relative to our model, online stores, third-party seller services, or 3P, and advertising drove the vast majority of upside. AWS, physical stores, and other were each slightly shy of our expectations.

Profitability was impressive, with operating profit coming in at \$11.2 billion, compared with the high end of guidance at \$8.5 billion, resulting in an operating margin of 7.8%, compared with 2.0% a year ago. This is the second-highest margin level in at least the last five years. North America, International, and the AWS segment all saw margins expanding sequentially.

Amazon: We Doubt Amazon Is Broken Up by the FTC and Instead See a Relatively Minor Fine Dan Romanoff, CPA, Senior Equity Analyst, 27 Sep 2023

We are maintaining our fair value estimate of \$150 per share for wide-moat Amazon as the U.S. Federal Trade Commission, or FTC, was joined by 17 state attorneys general in filing a lawsuit against the company for a variety of alleged anticompetitive practices. Our initial opinion is that a settlement is the most likely outcome, with a fine being levied and possibly some minor changes in business practices, and we are highly skeptical that Amazon will be broken up. Shares still appear modestly undervalued to us.

The legal filing seeks unspecified remedies but appears to skew toward structural changes, rather than fines, and may seek to break up Amazon. We struggle to come up with a recent relevant precedent for doing so, as U.S. courts have been applying a framework that revolves around consumer welfare for more than four decades. In this case, it is difficult to see how an Amazon breakup would clearly benefit U.S. consumers. Regardless, we think this legal matter will take years to wind its way through the courts.

In the highly unlikely event of a breakup, it is possible that new investors may focus on certain parts of the business (like AWS), and the sum of the parts might be greater than the whole. However, our wide moat rating around the retail business is based on cost advantages, intangible assets, and network effects, and would clearly be threatened depending on the exact nature of a theoretical breakup.

Nonetheless, we think the most likely outcome of this legal matter is a settlement that involves Amazon paying a relatively small fine and ceasing certain business practices. The largest fine ever levied by the FTC was for \$5 billion on Facebook in 2019. A \$5 billion fine would be less than 1% of the firm's market cap. To date, we have seen various governments around the world attacking mega-cap tech companies without achieving a win that materially affects any of these businesses, so we are skeptical this action

Amazon.com Inc AMZN ★★★ 1 Nov 2024 01:50, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
186.40 USD 31 Oct 2024	200.00 USD 1 Nov 2024 01:45, UTC	0.93	1.96 USD Tril 31 Oct 2024	Wide	Large Growth	Medium	Exemplary	2 Oct 2024 05:00, UTC

against Amazon will be meaningfully different.

Amazon Earnings: AWS Stabilizing, Margins Strengthening, and E-Commerce Demand Improving

Dan Romanoff, CPA, Senior Equity Analyst, 4 Aug 2023

Wide-moat Amazon reported strong second-quarter results and provided better-than-expected guidance for the third quarter. E-commerce and advertising drove most of the upside, but Amazon Web Services revenue stabilized and came in better than feared with a more upbeat outlook. Operational improvements continue apace and propelled the firm to its strongest operating margin in the last two years. We still envision healthy long-term growth driven by e-commerce proliferation, AWS, and advertising and believe the biggest near-term issue is the health of the consumer rather than business spending on the cloud. After increasing our growth and profitability assumptions based on results and guidance, we are increasing our fair value estimate to \$150 per share from \$137 and see modest upside for the stock.

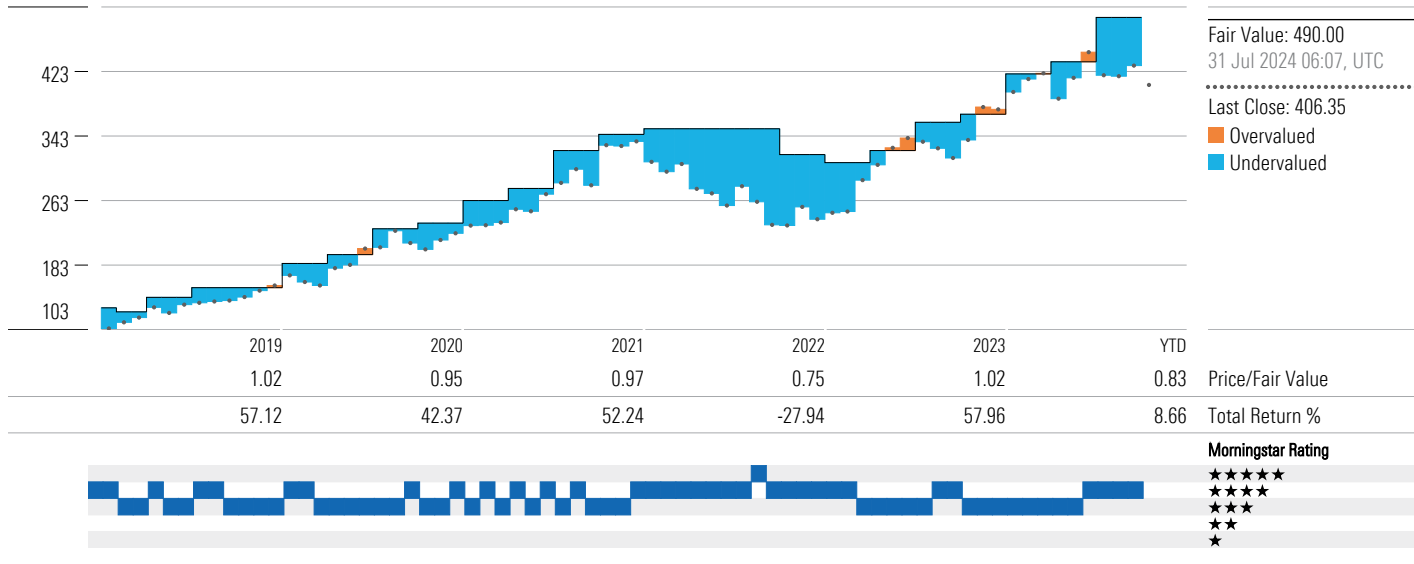
We see plenty of green shoots within segment performance. Second-quarter revenue grew 11% year over year both as reported and in constant currency, to \$134.4 billion, compared with the high end of guidance at \$133 billion. The two most critical segments, AWS and advertising, grew 12% and 22% as reported over the year-ago period. Amazon’s growth in this category continues to outpace that of its large internet peers. Relative to our model, online stores, third-party seller services, and advertising drove the vast majority of upside. Physical stores were in line while all other segments were slightly ahead. From a retail perspective (all year over year, as reported), revenue from online stores grew 4%, physical stores grew 6%, third-party seller services grew 18%, and subscription services increased 14%. Paid unit growth accelerated modestly to 9% year over year.

Operating profit came in at \$7.7 billion, compared with the high end of guidance at \$5.5 billion, resulting in an operating margin of 5.7%, compared with 2.7% a year ago. Both North American and AWS margins expanded sequentially, while international continued to narrow its losses. ■■■

Amazon.com Inc **AMZN** ★★★ 1 Nov 2024 01:50, UTC

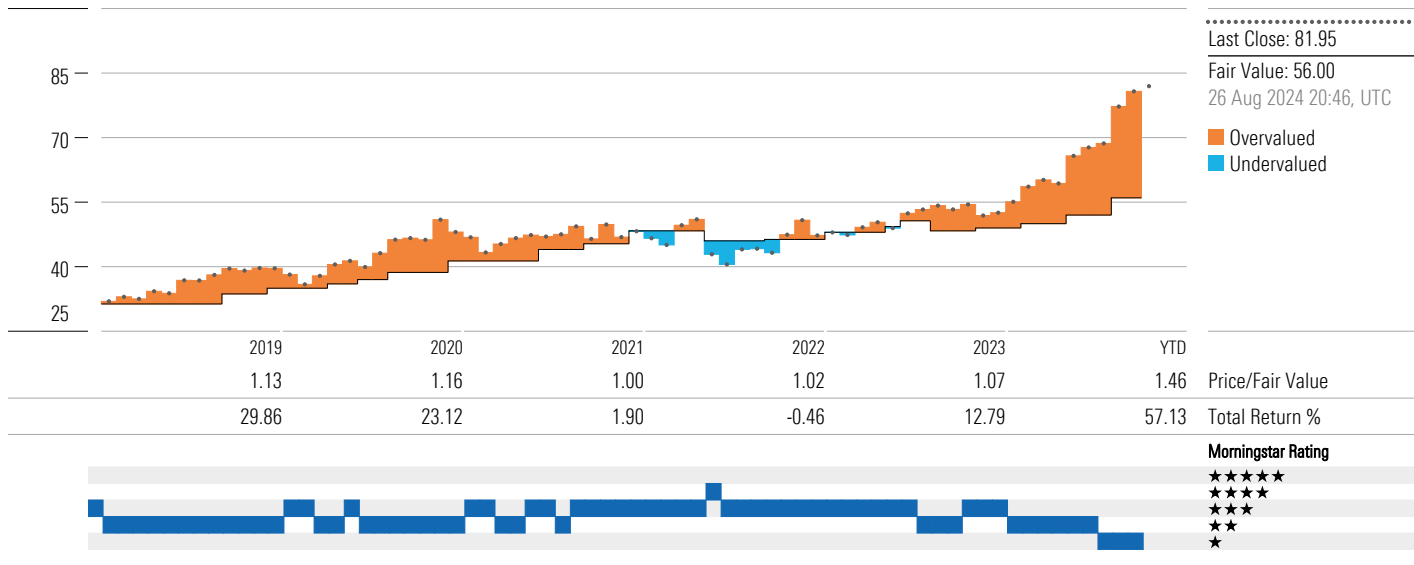
Competitors Price vs. Fair Value

Microsoft Corp **MSFT**



Total Return % as of 31 Oct 2024. Last Close as of 31 Oct 2024. Fair Value as of 31 Jul 2024 06:07, UTC.

Walmart Inc **WMT**

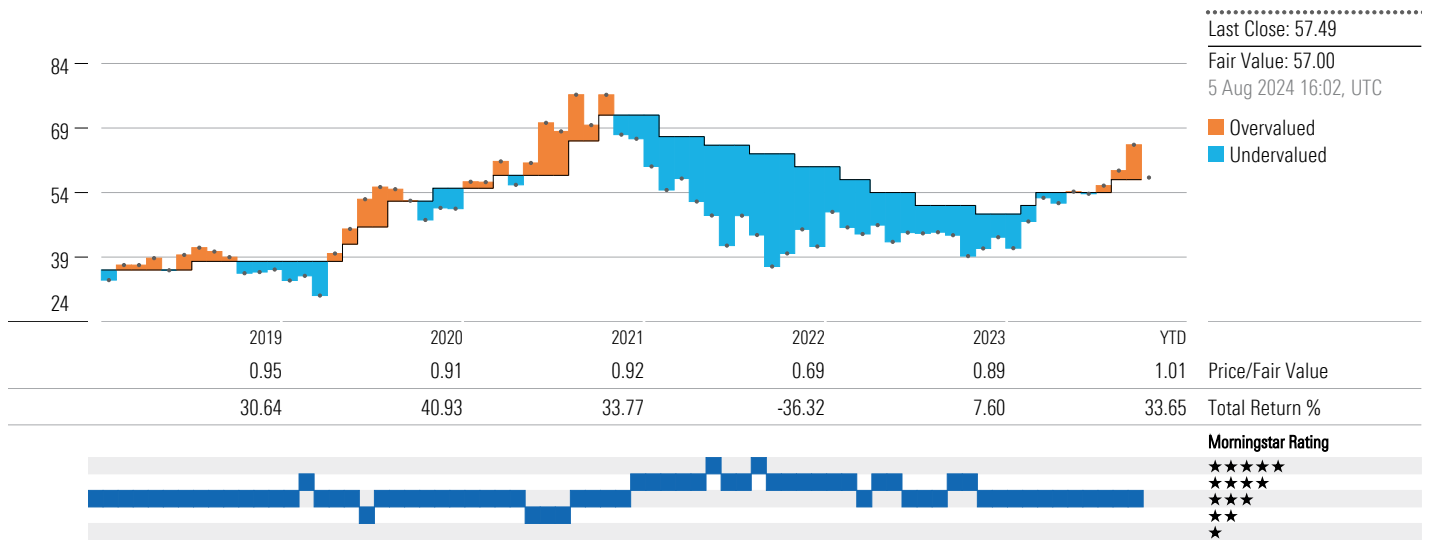


Total Return % as of 31 Oct 2024. Last Close as of 31 Oct 2024. Fair Value as of 26 Aug 2024 20:46, UTC.

Amazon.com Inc **AMZN** ★★★ 1 Nov 2024 01:50, UTC

Competitors Price vs. Fair Value

eBay Inc **EBAY**



Total Return % as of 31 Oct 2024. Last Close as of 31 Oct 2024. Fair Value as of 5 Aug 2024 16:02, UTC.

Amazon.com Inc AMZN ★★★

1 Nov 2024 01:50, UTC

Last Price 186.40 USD 31 Oct 2024	Fair Value Estimate 200.00 USD 1 Nov 2024 01:45, UTC	Price/FVE 0.93	Market Cap 1.96 USD Tril 31 Oct 2024	Economic Moat™ Wide	Equity Style Box Large Growth	Uncertainty Medium	Capital Allocation Exemplary	ESG Risk Rating Assessment¹ 2 Oct 2024 05:00, UTC
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Morningstar Historical Summary

Financials as of 30 Jun 2024

Fiscal Year, ends 31 Dec	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD	TTM
Revenue (USD Bil)	89	107	136	178	233	281	386	470	514	575	291	604
Revenue Growth %	19.5	20.3	27.1	30.8	30.9	20.5	37.6	21.7	9.4	11.8	11.3	12.3
EBITDA (USD Bil)	4.85	8.31	12.49	16.13	28.02	37.37	51.01	74.39	38.35	89.40	53.18	106.53
EBITDA Margin %	5.4	7.8	9.2	9.1	12.0	13.3	13.2	15.8	7.5	15.6	18.3	17.6
Operating Income (USD Bil)	0.18	2.23	4.19	4.11	12.42	14.54	22.90	24.88	12.25	36.85	29.98	54.38
Operating Margin %	0.2	2.1	3.1	2.3	5.3	5.2	5.9	5.3	2.4	6.4	10.3	9.0
Net Income (USD Bil)	-0.24	0.60	2.37	3.03	10.07	11.59	21.33	33.36	-2.72	30.43	23.92	44.42
Net Margin %	-0.3	0.6	1.7	1.7	4.3	4.1	5.5	7.1	-0.5	5.3	8.2	7.4
Diluted Shares Outstanding (Bil)	9.24	9.54	9.68	9.86	10.00	10.08	10.20	10.30	10.19	10.49	10.69	10.64
Diluted Earnings Per Share (USD)	-0.03	0.06	0.25	0.31	1.01	1.15	2.09	3.24	-0.27	2.90	2.24	4.19
Dividends Per Share (USD)	—	—	—	—	—	—	—	—	—	—	—	—

Valuation as of 31 Oct 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Recent Qtr	TTM
Price/Sales	1.7	3.2	2.8	3.6	3.4	3.5	4.8	3.7	1.7	2.9	3.3	3.2
Price/Earnings	-666.7	909.1	172.4	294.1	84.0	82.0	95.2	65.4	76.3	79.4	44.4	39.8
Price/Cash Flow	25.2	32.6	24.8	35.3	28.1	26.2	29.9	31.3	21.6	22.0	18.3	17.7
Dividend Yield %	—	—	—	—	—	—	—	—	—	—	—	—
Price/Book	14.0	25.6	20.1	22.9	18.8	16.3	19.8	14.1	6.3	8.6	8.3	7.5
EV/EBITDA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Operating Performance / Profitability as of 30 Jun 2024

Fiscal Year, ends 31 Dec	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD	TTM
ROA %	-0.5	1.0	3.2	2.8	6.9	6.0	7.8	9.0	-0.6	6.1	4.4	8.6
ROE %	-2.4	4.9	14.5	12.9	28.3	22.0	27.4	28.8	-1.9	17.5	10.9	21.9
ROIC %	-0.7	3.3	8.4	7.1	15.4	12.1	14.7	16.0	-0.6	9.8	6.5	12.9
Asset Turnover	1.9	1.8	1.8	1.7	1.6	1.4	1.4	1.3	1.2	1.2	0.5	1.2

Financial Leverage

Fiscal Year, ends 31 Dec	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Recent Qtr	TTM
Debt/Capital %	53.8	51.4	44.1	57.8	43.2	50.5	47.5	45.7	49.0	40.2	36.0	—
Equity/Assets %	19.7	20.7	23.1	21.1	26.8	27.6	29.1	32.9	31.6	38.2	42.6	—
Total Debt/EBITDA	2.6	1.7	1.2	2.4	1.2	1.7	1.7	1.6	3.7	1.5	2.5	—
EBITDA/Interest Expense	23.3	18.1	25.8	19.0	19.8	23.4	31.0	41.1	16.3	28.1	43.2	38.7

Morningstar Analyst Historical/Forecast Summary as of 31 Oct 2024

Financials	Estimates					Forward Valuation	Estimates					
	2022	2023	2024	2025	2026		2022	2023	2024	2025	2026	
Fiscal Year, ends 31 Dec 2023												
Revenue (USD Mil)	513,983	574,785	636,554	703,468	777,191	Price/Sales	1.7	2.7	3.1	2.8	2.5	
Revenue Growth %	9.4	11.8	10.8	10.5	10.5	Price/Earnings	-311.1	52.4	37.0	33.1	33.6	
EBITDA (USD Mil)	53,709	93,569	122,503	161,270	160,917	Price/Cash Flow	—	—	—	—	—	
EBITDA Margin %	10.5	16.3	19.2	22.9	20.7	Dividend Yield %	—	—	—	—	—	
Operating Income (USD Mil)	12,248	36,852	65,786	76,186	74,533	Price/Book	5.9	7.9	7.8	6.4	5.4	
Operating Margin %	2.4	6.4	10.3	10.8	9.6	EV/EBITDA	17.3	17.6	16.3	12.4	12.4	
Net Income (USD Mil)	-2,722	30,425	54,072	61,020	59,986							
Net Margin %	-0.5	5.3	8.5	8.7	7.7							
Diluted Shares Outstanding (Bil)	10	10	11	11	11							
Diluted Earnings Per Share(USD)	-0.27	2.90	5.04	5.63	5.54							
Dividends Per Share(USD)	0.00	0.00	0.00	0.00	0.00							

Amazon.com Inc **AMZN** ★★★ 1 Nov 2024 01:50, UTC

Last Price 186.40 USD 31 Oct 2024	Fair Value Estimate 200.00 USD 1 Nov 2024 01:45, UTC	Price/FVE 0.93	Market Cap 1.96 USD Tril 31 Oct 2024	Economic Moat™ Wide	Equity Style Box Large Growth	Uncertainty Medium	Capital Allocation Exemplary	ESG Risk Rating Assessment¹ 2 Oct 2024 05:00, UTC
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ESG Risk Rating Breakdown

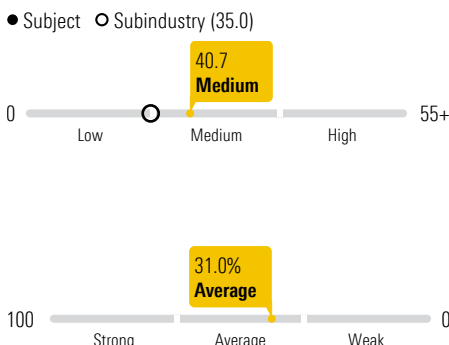
Exposure

Company Exposure ¹	40.7	
- Manageable Risk	37.5	
Unmanageable Risk²	3.1	

Management

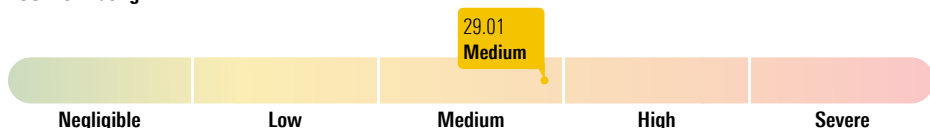
Manageable Risk	37.5	
- Managed Risk ³	11.6	
Management Gap⁴	25.9	

Overall Unmanaged Risk 29.0



- ▶ 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 31.0% 4. Management Gap assesses risks that are not managed, but are considered manageable 5. ESG Risk Rating Assessment = Overall Unmanaged Risk = Management Gap plus Unmanageable Risk

ESG Risk Rating Assessment⁵



ESG Risk Rating is of Oct 02, 2024. Highest Controversy Level is as of Oct 08, 2024. Sustainalytics Subindustry: Online and Direct Marketing Retail. 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 02 Oct 2024

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
Amazon.com Inc	40.7 Medium 0 —●— 55+	31.0 Average 100 —●— 0	29.0 Medium 0 —●— 40+
Microsoft Corp	33.8 Low 0 —●— 55+	62.2 Strong 100 —●— 0	14.2 Low 0 —●— 40+
Walmart Inc	43.6 Medium 0 —●— 55+	50.0 Average 100 —●— 0	23.3 Medium 0 —●— 40+
eBay Inc	37.1 Medium 0 —●— 55+	63.0 Strong 100 —●— 0	15.4 Low 0 —●— 40+
IAC Inc	38.8 Medium 0 —●— 55+	36.6 Average 100 —●— 0	25.6 Medium 0 —●— 40+

Appendix

Historical Morningstar Rating

Amazon.com Inc AMZN 31 Oct 2024 21:33, UTC

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

Microsoft Corp MSFT 31 Oct 2024 21:32, UTC

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

Walmart Inc WMT 31 Oct 2024 21:34, UTC

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

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eBay Inc EBAY 31 Oct 2024 21:34, UTC

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

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Overview

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

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

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

1. Economic Moat

The concept of an economic moat plays a vital role not only in our qualitative assessment of a firm's long-term investment potential, but also in the actual calculation of our fair value estimates. An economic moat is a structural feature that allows a firm to sustain excess profits over a long period of time. We define economic profits as 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 mid-cycle basis. If we deem the probability of occurrence sufficiently high, we would not characterize the company as possessing an economic moat.

2. Estimated Fair Value

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

Our model is divided into three distinct stages:

Stage I: Explicit Forecast

In this stage, which can last five to 10 years, analysts make full financial statement forecasts, including items such as revenue, profit margins, tax rates, changes in working capital accounts, and capital spending. Based on these projections, we calculate earnings before interest, after taxes (EBI) and the net new investment (NNI) to 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 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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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	★★★★★ 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.

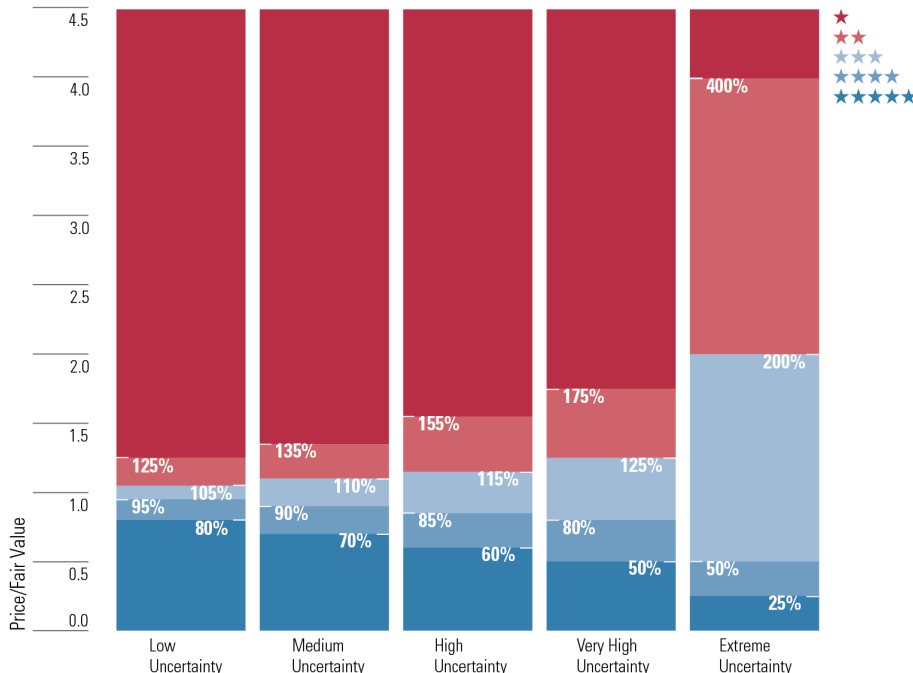
4. Market Price

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 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-

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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/

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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