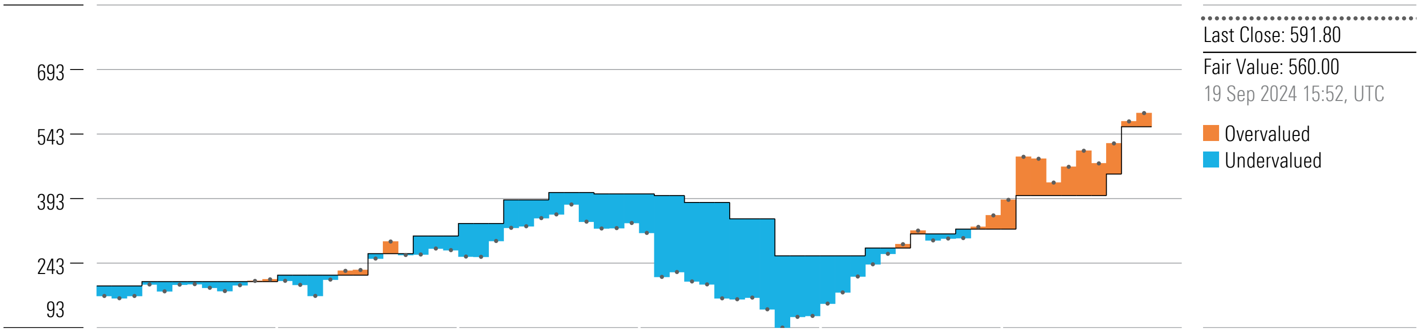
Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS

Meta Platforms Inc Class A META ★★★ 30 Oct 2024 21:54, UTC

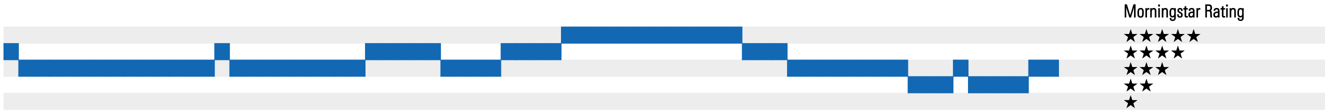
Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
591.80 USD 30 Oct 2024	560.00 USD 19 Sep 2024 15:52, UTC	1.06	1.50 USD Tril 30 Oct 2024	Wide	Large Blend	High	Standard	2 Oct 2024 05:00, UTC

Price vs. Fair Value



2019	2020	2021	2022	2023	YTD	
1.03	0.89	0.83	0.46	1.10	1.06	Price/Fair Value
56.57	33.09	23.13	-64.22	194.13	67.62	Total Return %

Morningstar Rating



Total Return % as of 30 Oct 2024. Last Close as of 30 Oct 2024. Fair Value as of 19 Sep 2024 15:52, UTC.

Contents

Important Disclosure

The conduct of Morningstar's analysts is governed by Code of Ethics/Code of Conduct Policy, Personal Security Trading Policy (or an equivalent of), and Investment Research Policy. For information regarding conflicts of interest, please visit: http://global.morningstar.com/equitydisclosures.

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

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

Meta Earnings: Powerful Advertising Engine Continues to Chug Along

Analyst Note Malik Ahmed Khan, CFA, Equity Analyst, 31 Oct 2024

Meta reported strong third-quarter financial results, with revenue growing 19% year over year to $41 billion. Profitability also improved, with operating margins expanding 300 basis points from a year ago to 43%. Capital expenditures remain elevated due to heavy artificial intelligence investment.

Why it matters: Meta's advertising juggernaut produced another solid quarter, with ad impressions and average price per ad both up year over year. Management called out its investments in generative AI, or GenAI, as also value-accretive by improving user engagement and monetization. Ad impressions and average price per ad increased 7% and 11% year over year, respectively. The firm saw broad-based strength, with ad impressions and prices growing across geographies. More than 500 million people are using Meta's chat assistant within its applications. We were encouraged to see management call out improvements in user engagement stemming from increased usage of the chat assistant.

The bottom line: We maintain our $560 fair value estimate for wide-moat Meta, and we continue to view the firm as well positioned to leverage AI to improve user engagement and user monetization. With Meta's shares trading slightly down after hours, we view them as fairly valued. While Meta's investments in GenAI have raised eyebrows, we reiterate our belief that their true value will manifest itself in Meta's core advertising product. We believe ad campaigns on Meta can derive greater value using GenAI tools, which Meta can capture via its potent monetization engine. At the same time, we

Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 2 of 23

Meta Platforms Inc Class A META ★★★ 30 Oct 2024 21:54, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
591.80 USD 30 Oct 2024	560.00 USD 19 Sep 2024 15:52, UTC	1.06	1.50 USD Tril 30 Oct 2024	Wide	Large Blend	High	Standard	2 Oct 2024 05:00, UTC

Sector	Industry
Communication Services	Internet Content & Information

Business Description

Meta is the largest social media company in the world, boasting close to 4 billion monthly active users worldwide. The firm's "Family of Apps," its core business, consists of Facebook, Instagram, Messenger, and WhatsApp. End users can leverage these applications for a variety of different purposes, from keeping in touch with friends to following celebrities and running digital businesses for free. Meta packages customer data, gleaned from its application ecosystem and sells ads to digital advertisers. While the firm has been investing heavily in its Reality Labs business, it remains a very small part of Meta's overall sales.

expect near-term margins to remain pressured as Meta's capital expenditures flow through its income statement as depreciation charges and it continues to spend heavily on AI talent.

Business Strategy & Outlook Malik Ahmed Khan, CFA, Equity Analyst, 19 Sep 2024

We view Meta as the clear leader in social media. The firm's application lineup, which includes Facebook, Instagram, WhatsApp, and Messenger, has close to 4 billion monthly active users, giving Meta unmatched scale in the sector.

The firm's strategy is dual-pronged. On the user side, Meta has leveraged its scale and social media savvy to iteratively improve its product lineup, adding attractive features such as Stories, Reels, and even new products such as Threads. Such improvements/additions not only improve user engagement, but also allow Meta to monetize these features/products by layering advertisements onto them.

On the advertising side, Meta allows advertisers of all shapes and sizes to place ads in front of engaged users. The company has benefited greatly from a general shift toward digital advertising within the broader advertising market, with social media advertising gaining substantial share, especially since the covid-19 pandemic. To bolster its advertising business, Meta has invested heavily to improve its ad-targeting algorithms, allowing it to improve its advertisers' return on ad spending and increasing its average revenue per user over time.

While the firm's core business remains advertising, Meta has shown a proclivity to expand beyond its ad-based revenue model by investing heavily in hardware, via Reality Labs, and AI, by investing in its own Llama large language model. While the firm's investments in Reality Labs have been demonstrably unprofitable, we are more optimistic about Meta's investments in AI. We believe Meta's AI investments, especially those aimed at improving the firm's ad-targeting algorithms, are value-accretive.

Beyond ad-targeting, Meta is also investing in consumer-facing AI, via its Llama chatbot, which is accessible to users across its applications. While a monetization strategy for this chatbot remains elusive in the near term, we believe the firm could drive increased user engagement/time spent by allowing its users access to a chatbot assistant within Meta's applications.

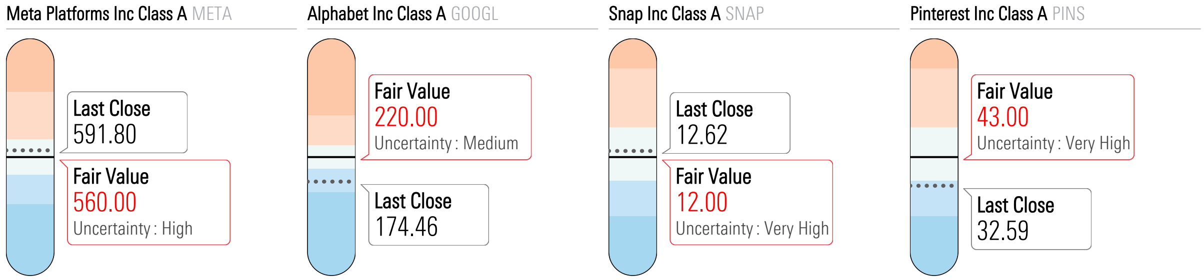
Bulls Say Malik Ahmed Khan, CFA, Equity Analyst, 19 Sep 2024

- Meta's core advertising business has benefited greatly through improved ad targeting and content recommendation algorithms as well as a secular increase in digital advertising spending.
- Meta's scale, with the majority of the world's internet-connected users accessing its applications, allows it access to high-quality user data which it can package and sell to advertisers.
- The firm has an opportunity to drive more ad inventory growth, leveraging new products such as Threads while also improving its monetization of ads on more nascent features such as Stories and Reels.

Meta Platforms Inc Class A META ★★★ 30 Oct 2024 21:54, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
591.80 USD 30 Oct 2024	560.00 USD 19 Sep 2024 15:52, UTC	1.06	1.50 USD Tril 30 Oct 2024	Wide	Large Blend	High	Standard	2 Oct 2024 05:00, UTC

Competitors



	Meta Platforms Inc Class A META	Alphabet Inc Class A GOOGL	Snap Inc Class A SNAP	Pinterest Inc Class A PINS
Economic Moat	Wide	Wide	None	Narrow
Currency	USD	USD	USD	USD
Fair Value	560.00 19 Sep 2024 15:52, UTC	220.00 30 Oct 2024 02:50, UTC	12.00 21 Oct 2024 15:45, UTC	43.00 9 Feb 2024 12:44, UTC
1-Star Price	868.00	297.00	21.00	75.25
5-Star Price	336.00	154.00	6.00	21.50
Assessment	Fairly Valued 30 Oct 2024	Undervalued 30 Oct 2024	Fairly Valued 30 Oct 2024	Undervalued 30 Oct 2024
Morningstar Rating	★★★30 Oct 2024 21:54, UTC	★★★★30 Oct 2024 21:41, UTC	★★★30 Oct 2024 22:01, UTC	★★★★30 Oct 2024 21:58, UTC
Analyst	Malik Ahmed Khan, Equity Analyst	Malik Ahmed Khan, Equity Analyst	Malik Ahmed Khan, Equity Analyst	Michael Hodel, Director
Capital Allocation	Standard	Exemplary	Standard	Standard
Price/Fair Value	1.06	0.79	1.05	0.76
Price/Sales	9.94	6.42	4.03	6.60
Price/Book	9.10	6.81	9.55	6.99
Price/Earning	27.90	23.64	—	112.38
Dividend Yield	0.25%	0.23%	0.00%	0.00%
Market Cap	1,497.15 Bil	2,147.60 Bil	20.94 Bil	22.36 Bil
52-Week Range	296.86—602.95	122.69—191.75	8.29—17.90	27.00—45.19
Investment Style	Large Blend	Large Blend	Mid Growth	Mid Growth

Bears Say Malik Ahmed Khan, CFA, Equity Analyst, 19 Sep 2024

- Meta's investments in Reality Labs and generative AI stand to lose the firm billions of dollars annually, taking some of the shine off its overall business.
- The firm has a monopoly case against it in the US which could potentially force it to break up, severing some of the scale advantages it has built up over time.
- Meta has disproportionately benefited from increased ad spending by Chinese retailers including Temu and Shein. A slowdown in spending by these firms could hit Meta's growth.

Economic Moat Malik Ahmed Khan, CFA, Equity Analyst, 19 Sep 2024

We believe Meta merits a wide economic moat rating due to the firm's intangible assets and the potent network effect around its Family of Apps business. While the firm's Reality Labs segment continues to hemorrhage cash, we believe Meta's FoA business' strong competitive advantages will likely allow the

Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 4 of 23

Meta Platforms Inc Class A META ★★★ 30 Oct 2024 21:54, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
591.80 USD 30 Oct 2024	560.00 USD 19 Sep 2024 15:52, UTC	1.06	1.50 USD Tril 30 Oct 2024	Wide	Large Blend	High	Standard	2 Oct 2024 05:00, UTC

firm to generate returns in excess of its cost of capital over the next two decades.

Family of Apps

We assign a wide moat rating to Meta's Family of Apps, or FoA, business segment. We believe that the firm has built significant intangible assets, primarily via the customer data it collects and a potent network effect that has enabled Meta to be the most dominant social media platform in the world.

Meta's FoA segment includes revenue from its social media applications including Facebook, Instagram, WhatsApp, and Messenger. The firm's dominance in social media is evidenced by its four primary applications constituting four of the six most popular social media applications globally. Also, Meta's scale in the social media business is staggering. Almost 4 billion people use at least one of its applications every month. For context, according to various estimates, a little more than 5 billion people in the world have access to the internet, implying that around 75% of - people connected to the internet globally are users of Meta's applications.

The vast majority of Meta's massive user base across its application ecosystem uses its applications free of charge. Instead of paying Meta a subscription fee to use its applications, they provide Meta with an audience that it can sell advertisements to. Meta can accumulate data on users, such as demographic information, likes/dislikes, and topics of interest to feed into its advertising engine, which lets advertisers target ads placed on Meta's properties.

We view Meta's collection, storage, and subsequent monetization of this rich, high-quality data as an intangible asset that provides the firm with a meaningful competitive advantage over other social media platforms and advertising venues. This data, and the ad technology and algorithms built on top of it, provide Meta a peerless position when it comes to monetizing its large user base. Further, as Meta's data collection and ad-targeting algorithms have gotten better, the firm has also flexed its pricing power. A prime example of this pricing power, and the increasingly strong value proposition the firm offers advertisers, is the rapid growth in Meta's average ad revenue per user, which has increased to more than $40 globally at the end of 2023 from around $25 in 2018.

Further, Meta's ad-targeting and content recommendation algorithms improve as more users give it their data by using its applications. This dynamic creates a potent network effect with the value of its application ecosystem increasing as more people use it. These network effects serve to create barriers to success for new social network upstarts, who would start off subscale, as well as barriers to exit for existing users who might leave behind friends, contacts, pictures, memories, and more by completely departing to alternative applications such as Snapchat or TikTok.

Meta has leveraged its scale and large installed base to create new avenues of user engagement that directly compete with applications that stand to threaten its social media dominance. When threatened by Snapchat, Meta launched Stories, a Snapchat copycat, that allows FoA users to post short picture or video collections that disappear after 24 hours. Similarly, when threatened by TikTok and its engaging short-form video content, Meta rolled out Reels, a short-form video offering nearly identical to TikTok.

While Stories and Reels can be seen as defensive maneuvers aimed to keep users on Meta's applications, Meta has demonstrated its ability to use this copycat model as an offensive, land-grab strategy as well. When Twitter/X was undergoing substantial turmoil following Elon Musk's takeover of the platform, Meta launched Threads, a Twitter/X copycat. In all three cases, Stories, Reels, and Threads, Meta has been able to create strong, monetizable products that have hundreds of millions of users across them. We believe Meta's ability to weaponize its scale as a competitive advantage makes the economic moat around its business more durable.

Meta's scale is also important when contextualizing the firm's ongoing investments in AI. Meta's capital expenditure, mostly on data centers equipped with expensive graphics processing units, has led investors to question whether the firm's investments in AI will yield meaningful results and generate returns in excess of the firm's cost of capital. When discerning the impact of these AI investments on Meta's return on invested capital profile and its durable competitive advantage and differentiation, we see positives and negatives.

On the positive side, the firm could leverage AI to improve its ad tech business, improving advertiser ROI and encouraging more ad dollars to be spent on its platform. Investments in AI that serve this end are, in our view, explicitly value-accretive. By investing within its moat, Meta could leverage its AI infrastructure to further pull away from competition by driving a higher ad revenue per user in its highly profitable ad business. However, investments to drive better ad targeting are nothing new. Also, the firm's AI investments could be leveraged to drive more engaging content for its end users on Facebook and Instagram. Again, such investments in better user engagement are ultimately value-accretive as they increase Meta's value to advertisers who can place ads for more engaged users.

On the other hand, the firm's investments in generative AI and its push to have Llama as the chatbot of choice for its users don't inspire the same confidence in us. First, the firm lacks any meaningful monetization strategy around its chatbot. We understand that if users have a competent chatbot within their Meta application of choice they don't need to leave Meta's properties, boosting time spent on Meta's application ecosystem. However, at the same time we'd imagine it'd be significantly cheaper for Meta to have a licensing agreement with a company like OpenAI/Anthropic/Perplexity, which could provide Meta with chatbots that would have the same end user-engagement result.

Also, we see the investments that public cloud vendors are making in AI as beneficial for public cloud infrastructure providers like Amazon, Microsoft, and Alphabet. Meta, on the other hand, does not have a presence in the public cloud market and isn't planning to become a public cloud vendor either. As a result, it strikes us as odd that the company would invest billions of dollars in developing a technology that doesn't have an obvious monetization strategy behind it. In sum, while we like Meta's investments in AI as they relate to the firm's core advertising business, we remain skeptical of the long-term value added by the firm's investments in user-facing chatbots.

Reality Labs

We believe Meta's Reality Labs business merits a no moat rating. While the firm's investments in metaverse and virtual/augmented reality could lead to profitable growth in the future, the segment continues to burn capital for Meta, with the segment's operating losses exceeding $16 billion in 2023. Due to its insignificant size, as a proportion of Meta's overall business, it does not preclude us from viewing the overall firm as having a wide moat.

Fair Value and Profit Drivers Malik Ahmed Khan, CFA, Equity Analyst, 19 Sep 2024

Our fair value estimate for Meta is $560 per share, implying a 2024 adjusted price/earnings multiple of 26 times and an enterprise value/adjusted EBITDA multiple of 13 times.

We forecast Meta’s sales growing at a 12% compound annual growth rate for the next five years, spearheaded primarily by an increase in average revenue per user, with user growth also chipping in.

Drilling deeper, we believe Meta has a strong monetization opportunity ahead of it in Asia and the rest of the world. While we expect advertising sales from North America and Europe to grow steadily, we believe increasingly affluent and growing middle classes in Asia, Africa, and the Middle East will allow Meta to improve its ad monetization in those regions, lifting its overall top line.

While we expect Reality Labs sales to grow at a double-digit rate over the next five years, we believe Meta’s advertising juggernaut will remain the primary driver of its business and intrinsic value over our explicit forecast.

On the profitability side, we remain impressed by Meta’s ability to drive efficiency across its operational footprint, with the firm’s 2024 operating margins expected to be close to 40%, up from the 2022 nadir of 25%. Looking ahead, we believe that the firm’s profitability will remain at current levels over our explicit five-year forecast as increased efficiency is offset by expanding investments in areas such as AI and Reality Labs.

Risk and Uncertainty Malik Ahmed Khan, CFA, Equity Analyst, 19 Sep 2024

We assign Meta a Morningstar Uncertainty Rating of High. We believe Meta’s investments in unprofitable ventures such as generative AI and Reality Labs add a layer of uncertainty around its business, even as its large and stable advertising business continues to generate substantial cash flows in our forecast.

Meta Platforms Inc Class A META ★★★ 30 Oct 2024 21:54, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
591.80 USD 30 Oct 2024	560.00 USD 19 Sep 2024 15:52, UTC	1.06	1.50 USD Tril 30 Oct 2024	Wide	Large Blend	High	Standard	2 Oct 2024 05:00, UTC

As we look ahead, we believe Meta's considerable scale and intangible assets, such as its ad-targeting algorithms, will most likely enable the firm to maintain its dominance in the social media application space. While there are antitrust concerns around Meta's business, with US antitrust regulators pursuing a monopoly case against the firm, we view an often-hypothesized breakup of Meta's applications into separate businesses as unlikely. At the same time, there is headline risk that the firm faces as the case moves through the courts with a trial likely starting in 2025.

Beyond advertising, Meta's investments in Reality Labs and generative AI, primarily via its Llama LLM, add uncertainty to the firm's overall business. Along with losing Meta billions of dollars every year, a profitable monetization strategy for both investments remains elusive. While the firm has shown a panache of proving investors and analysts wrong with large business decisions in the past, we remain uncertain about the long-term value accretion these investments stand to provide Meta.

The firm's high dependence on user behavior data represents an environmental, social, and governance risk. If it fails to maintain adequate data privacy and security, Meta's advertising business will likely suffer. Also, the broader impact of social media on its users' mental health, especially that of teenagers, is also a pertinent ESG risk for Meta. There appears to be bipartisan support in the US for increased regulation of social media platforms that could include forcing Meta to change its content recommendation algorithms, potentially hitting the firm's advertising business.

Capital Allocation Malik Ahmed Khan, CFA, Equity Analyst, 19 Sep 2024
We assign Meta a Standard Morningstar Capital Allocation Rating based on its sound balance sheet, fair investments, and appropriate shareholder distributions.

Meta's balance sheet remains enviable, especially given that digital advertising has not been very cyclical thus far. Meta's leverage ratios remain exceptionally strong, with $47 billion in net cash and cash equivalents as of the end of 2023.

Meta's research and development investments over the past decade have largely been value-accretive as the firm has been able to drive user growth while also improving monetization across its applications. While some recent R&D investments, particularly in Reality Labs, have been more questionable, we find the firm's internal investment strategy solid. With its large amount of cash, Meta is well positioned to make additional investments primarily by building out new features and products that drive increased user engagement.

Coupled with investments within the business, previous acquisitions have strengthened the firm's network effect moat source and accelerated top-line growth, most notably including Instagram and WhatsApp. The management team—more specifically, founder and CEO Mark Zuckerberg—has demonstrated its focus on long-term returns on investments, which we view as positive.

However, at the same time we believe that combative antitrust regulators scrutinizing Meta's every move and an ongoing monopoly case against the firm make it unlikely that Meta will be able to engage in any blockbuster mergers and acquisitions in the near future.

We also applaud management's walled-garden strategy as it continues to protect the firm's most valuable asset, its user base and usage data. However, the US and other governments around the world may also impose restrictions on Meta's use of user data. Management has responded well as it continues to increase its influence in Washington, D.C.

In terms of shareholder distributions, Meta declared a dividend for the first time in the first quarter of 2024. The firm has repurchased shares consistently, spending $44.5 billion, $28 billion, and $19.8 billion in 2021, 2022, and 2023, respectively. It had $81 billion authorized for additional repurchases as of the end of 2023.

Our main knock on Meta's management is its use of a multiple share class structure that may limit the voice of minority shareholders. This has become more of an issue given how Meta is addressing data privacy and security, which has led to some shareholders wanting to reduce Zuckerberg's control of the company. Some continue to believe that Zuckerberg's control of Meta creates a conflict of interest, allowing him to pursue passion projects whether or not they have the potential to generate exceptional returns for shareholders.

Analyst Notes Archive

Meta: Firm's Scale and Prowess in Digital Advertising Is Hard to Match Malik Ahmed Khan, CFA, Equity Analyst, 19 Sep 2024

We are raising our fair value estimate for wide-moat Meta to $560 from $450 after taking a fresh look at the firm's overall business and incorporating a more optimistic outlook on the firm's investments in artificial intelligence, especially as they relate to Meta's ability to improve its ad-targeting business. While the firm's investments in AI could potentially improve its core business, we remain pessimistic on the long-term value created by Meta's investments in its Reality Labs division and are reducing our Morningstar Capital Allocation Rating to Standard from Exemplary.

We view Meta as the clear leader in social media. The firm's application lineup, which includes Facebook, Instagram, WhatsApp, and Messenger, has close to 4 billion monthly active users, giving Meta unmatched scale in the space.

The firm's strategy is two-pronged. On the user side, Meta has leveraged its scale and social media savvy to improve its product lineup, adding features such as Stories, Reels, and even new products such as Threads. Such enhancements and additions not only improve user engagement, but also allow Meta to grow revenue by layering ads onto them.

Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS

Meta Platforms Inc Class A META ★★★ 30 Oct 2024 21:54, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
591.80 USD 30 Oct 2024	560.00 USD 19 Sep 2024 15:52, UTC	1.06	1.50 USD Tril 30 Oct 2024	Wide	Large Blend	High	Standard	2 Oct 2024 05:00, UTC

On the ad side, Meta allows advertisers of all shapes and sizes to place ads in front of engaged users. The company has benefited greatly from a general shift toward digital advertising within the broader advertising market, with social media advertising gaining substantial share, especially since the covid-19 pandemic. To bolster its ad business, Meta has invested heavily in improving its ad-targeting algorithms, allowing it to improve advertisers' returns on ad spending and increasing its average revenue per user over time.

We forecast Meta's sales growing at a 12% compound annual growth rate for the next five years, spearheaded primarily by an increase in average revenue per user with user growth also chipping in. We believe Meta has a strong opportunity ahead in Asia and the rest of the world.

Meta Earnings: Strong Advertising Demand Drives Impressive Cash Flow Despite Ramping Investments Michael Hodel, CFA, Director, 1 Aug 2024

Meta continues to deliver solid results amid strong digital advertising demand while investing aggressively in AI-related infrastructure, technology, and products. The firm tightened its capital spending forecast to the upper end of its previous expectations and said that investment growth will be "significant" in 2025. Meta reiterated that it believes the computing capacity it is building can be used for various tasks, with the flexibility to shift wherever the best opportunities emerge, a similar view that Alphabet has shared. We aren't convinced Meta will earn strong returns on its infrastructure investment, but we expect the firm will continue to generate strong cash flow regardless of the direction AI takes. We were also pleased the firm maintained its expense forecast for the year. We are increasing our fair value estimate to $450 from $400.

Revenue increased 22% to $39.1 billion during the second quarter, beating the high end of management's forecast. User growth slowed a bit, with daily family-of-apps users expanding less than 1% sequentially for the first time in two years, reaching 3.27 billion. Ad impression growth slowed sharply to 10% year over year from 20% last quarter, but this deceleration primarily reflects a surge in impressions last year—volume growth on a two-year and three-year basis has held fairly steady over the past several quarters. Ad pricing was impressive, increasing 10% year over year. Meta indicated that ad demand was broad-based across geographies and industries, but again pointed to strong demand among retailers, especially those based in Asia, as the biggest growth driver.

The operating margin held steady with the prior quarter at 38%, up from 29% a year ago, thanks to lower restructuring costs and operating leverage against R&D, marketing, and overhead costs. While capital investment increased to $8.2 billion from $6.1 billion a year ago, free cash flow increased nearly 20% to $13.2 billion during the quarter.

Meta Earnings: Another Potential Investment Surge Overshadows Solid Growth Michael Hodel, CFA,

Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 10 of 23

Meta Platforms Inc Class A META ★★★ 30 Oct 2024 21:54, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
591.80 USD 30 Oct 2024	560.00 USD 19 Sep 2024 15:52, UTC	1.06	1.50 USD Tril 30 Oct 2024	Wide	Large Blend	High	Standard	2 Oct 2024 05:00, UTC

Director, 25 Apr 2024

Meta posted a solid first quarter, with revenue growth and management's second-quarter outlook—while modestly disappointing relative to FactSet consensus—putting the firm on a path to exceed our 2024 revenue expectations. However, the firm increased its budget for both full-year operating expenses and capital spending, with CEO Mark Zuckerberg convinced that the firm should "invest significantly more in the coming years" into artificial intelligence. Zuckerberg expects a big step up in investment before AI services generate meaningful direct revenue. After accounting for faster revenue and expense growth in our forecast, we're leaving our fair value estimate at $400 per share. With the selloff following the earnings release, we believe the shares are fairly valued.

Total revenue increased 27% to $36.5 billion during the first quarter, with growth accelerating across geographies. Meta served 3.24 billion daily users across its apps during the quarter, up 7% versus a year ago. The volume of ads delivered increased 20% year over year, indicating continued strong growth in engagement thanks to improving content recommendations, a practical benefit of recent AI investment. Meta indicated that more than 50% of the content delivered on Instagram and 30% on Facebook is now AI-recommended. Ad pricing increased 6% year over year, showing continued acceleration from the fourth quarter after nearly two years of declines as advertiser demand remains strong.

Operating expenses increased 6% compared with a year ago, with headcount increasing for the second consecutive quarter. The operating margin expanded to 38% from 25% a year ago. Meta now expects operating expenses to total $96 billion-$99 billion this year, raising the low end of the range of its prior forecast from $94 billion. Capital spending is expected in the range of $35 billion-$40 billion, up from $30 billion-$37 billion previously, and the firm again said that it plans to increase spending further in 2025.

Meta Earnings: Wide-Moat Meta Surpassed Expectations Again, but the Shares Are Overvalued Ali Mogharabi, Senior Equity Analyst, 2 Feb 2024

We are increasing our Meta fair value estimate significantly to $400 from $322, as we are more optimistic about its profit margin expansion. Meta's fourth-quarter results showed strong network effects, which attracted more users and increased engagement while allowing it to sell more ads at higher prices with lower user and advertiser acquisition costs, impressively expanding margins. We also commend Meta for instituting a dividend alongside share buybacks.

However, we think the stock remains overvalued. Meta's advertising growth may benefit in 2024 from easier comparisons and political ad spending, but we foresee a slowdown in 2025-28 as economic growth moderates. The traditional drivers of digital ad spending growth, such as online users and mobile expansion, are less influential. Innovations like artificial intelligence may improve ad effectiveness and efficiency but won't significantly accelerate spending growth in our view. While

Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 11 of 23

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
591.80 USD 30 Oct 2024	560.00 USD 19 Sep 2024 15:52, UTC	1.06	1.50 USD Tril 30 Oct 2024	Wide	Large Blend	High	Standard	2 Oct 2024 05:00, UTC

digital ad spending grew around 20% annually over the past 25 years, overall ad spending increased by just 4% yearly, staying within 1%-1.6% of gross domestic product. We think it will remain at the midpoint of this range through 2028.

We are also cautious of increased geopolitical risks, especially Meta's growing reliance on Chinese businesses, which contributed 10% of its fourth-quarter revenue. This demand could decline amid China's economic uncertainties and rising Middle East tensions, potentially affecting supply chains.

In addition, Meta and its peers continue to face pressure from regulators in the U.S. and international markets regarding data access and usage and censorship of content, all of which could affect user interaction and demand from advertisers.

Total fourth-quarter revenue of $40 billion was up 25% from last year, driven by both advertising revenue (up 24%) and reality labs (up 54%), which was helped by strong Holiday sales of Quest 2 and Quest 3. Operating margin expanded to 41% from 20% last year.

Meta Earnings: Still Impressive but the Shares Remain Fairly Valued Ali Mogharabi, Senior Equity Analyst, 26 Oct 2023

Meta continues its leadership in social media advertising, with third-quarter numbers demonstrating strength on all fronts: user growth, engagement, and monetization with a leaner operation. Reels keeps attracting more advertisers and its impact on Meta’s advertising revenue is now neutral, unlike its negative effect in the past. The impressive results also display Meta’s success in creating better data analytics, campaign planning, and measurement tools using artificial intelligence.

While we remain confident about a soft landing in the economy, we are a bit concerned that higher spending by Chinese businesses is a primary ad revenue growth driver. This adds more geopolitical risk given the questions surrounding the U.S. and China relationship, which could affect product shipments and thereby lower ad demand. However, we also think that Meta’s strong network effect will keep attracting direct-response ads, which are affected a bit less by economic instability and geopolitical issues.

Given Meta’s impressive operating efficiency in the third quarter, which the firm expects will continue into 2024, plus our expectation of low-double-digit average revenue growth during the next five years, we have slightly upped our operating margin assumption, lifting our fair value estimate to $322 from $311. The shares of wide-moat Meta remain fairly valued.

Total revenue increased 23% from last year to $34.1 billion, driven mainly by growth in advertising. With a smaller headcount, lower spending on sales and marketing, and a decline in general and administrative expenses due to lower legal costs, the non-GAAP operating margin, which excludes

Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 12 of 23

Meta Platforms Inc Class A META ★★★ 30 Oct 2024 21:54, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
591.80 USD 30 Oct 2024	560.00 USD 19 Sep 2024 15:52, UTC	1.06	1.50 USD Tril 30 Oct 2024	Wide	Large Blend	High	Standard	2 Oct 2024 05:00, UTC

restructuring charges, expanded impressively to over 41% from 22% last year.

Meta Earnings: Meta Flywheel Turn Is Accelerating, but Most of the Benefits Are Priced In Ali Mogharabi, Senior Equity Analyst, 27 Jul 2023

We have increased our fair value estimate of wide-moat Meta to $311, from $278. With the stock more than tripling its 52-week lows, we now believe it is now fairly valued, with much faster revenue growth than initially anticipated this year and higher long-term margins now priced into the shares.

Meta again displayed its strong network effect moat source as its user base across all apps increased, engagement remained healthy, and monetization improved further during the second quarter. Advertisers are gaining confidence in Meta's enhanced and artificial intelligence-powered campaign planning and measurement capabilities, and spending more. Unsurprisingly, Reels monetization keeps improving. We also applaud the firm's continuing focus on cost control and overall efficiency, which resulted in year-over-year margin expansion for the first time since second-quarter 2021. We think margin expansion likely will continue through 2027, albeit with continuing losses at its Reality Labs.

Total revenue of $32 billion is up 11% from last year and 12% on a constant-currency basis. Meta's user count increased in all regions. Engagement across Meta's family of apps increased as average monthly and average daily users jumped 6.3% and 6.6% from last year, respectively. The Facebook app also experienced higher engagement, with growth in both monthly (up 3.3%) and daily (up 4.9%) users. Advertising revenue grew 12% from last year to $31.5 billion as more impressions were sold (up 34%), more than offsetting Reels-driven lower prices (down 16%).

The increase in engagement displays immediate returns on Meta's AI investments, as content recommendations from nonfollowers and overall easier content search are keeping users on the platforms longer.

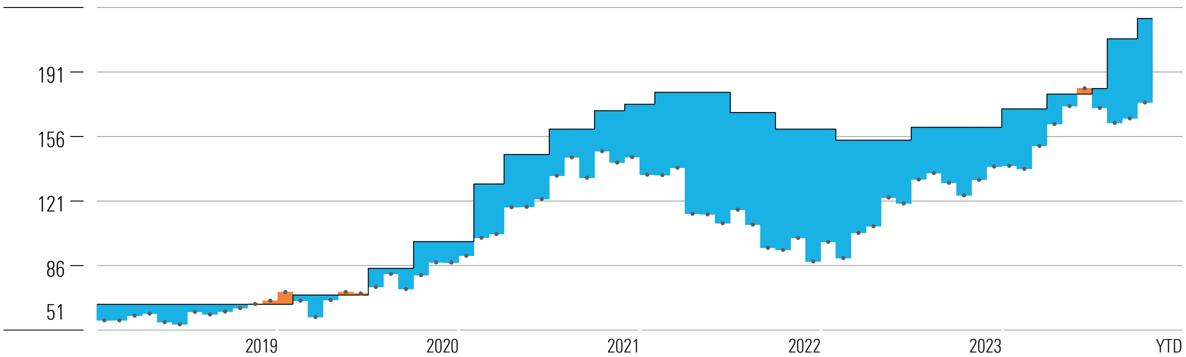
Operating margin improved 35 basis points to 29.4%. Excluding restructuring charges, operating margin was 31.8%. We expect significant operating leverage from accelerated revenue growth because of the firm's success in streamlining its operations.

Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 13 of 23

Meta Platforms Inc Class A META ★★★ 30 Oct 2024 21:54, UTC

Competitors Price vs. Fair Value

Alphabet Inc Class A GOOGL



Fair Value: 220.00
30 Oct 2024 02:50, UTC

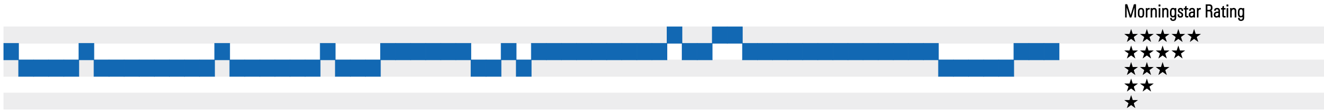
Last Close: 174.46

Overvalued

Undervalued

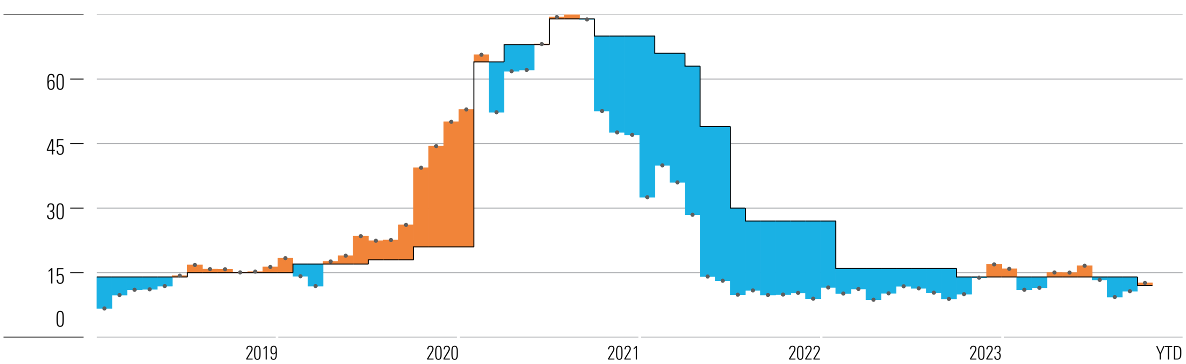
	2019	2020	2021	2022	2023	YTD
Price/Fair Value	1.03	0.89	0.83	0.55	0.87	0.79
Total Return %	28.18	30.85	65.30	-39.09	58.32	25.18

Morningstar Rating



Total Return % as of 30 Oct 2024. Last Close as of 30 Oct 2024. Fair Value as of 30 Oct 2024 02:50, UTC.

Snap Inc Class A SNAP



Last Close: 12.62

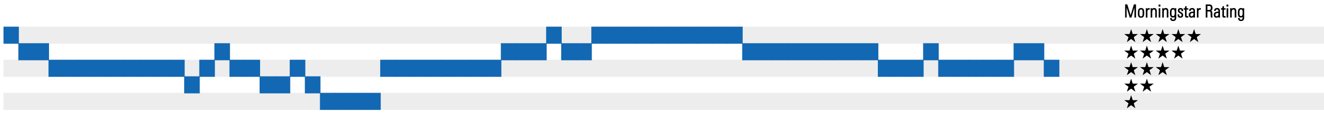
Fair Value: 12.00
21 Oct 2024 15:45, UTC

Overvalued

Undervalued

	2019	2020	2021	2022	2023	YTD
Price/Fair Value	1.09	2.38	0.67	0.33	1.21	1.05
Total Return %	196.37	206.61	-6.07	-80.97	89.16	-25.46

Morningstar Rating



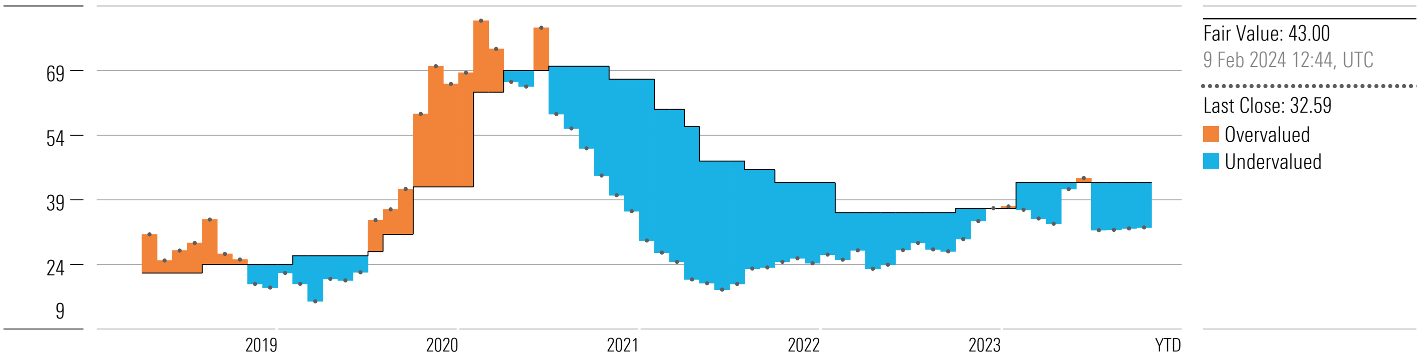
Total Return % as of 30 Oct 2024. Last Close as of 30 Oct 2024. Fair Value as of 21 Oct 2024 15:45, UTC.

Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS

Meta Platforms Inc Class A META ★★★ 30 Oct 2024 21:54, UTC

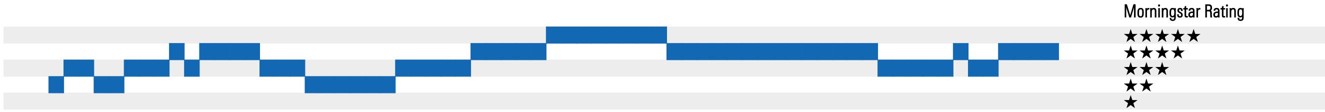
Competitors Price vs. Fair Value

Pinterest Inc Class A PINS



	2019	2020	2021	2022	2023	YTD
Price/Fair Value	0.78	1.57	0.54	0.56	1.00	0.76
Total Return %	—	253.54	-44.84	-33.20	52.55	-12.01

Morningstar Rating



Total Return % as of 30 Oct 2024. Last Close as of 30 Oct 2024. Fair Value as of 9 Feb 2024 12:44, UTC.

Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 15 of 23

Meta Platforms Inc Class A META ★★★ 30 Oct 2024 21:54, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
591.80 USD 30 Oct 2024	560.00 USD 19 Sep 2024 15:52, UTC	1.06	1.50 USD Tril 30 Oct 2024	Wide	Large Blend	High	Standard	2 Oct 2024 05:00, UTC

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)	12	18	28	41	56	71	86	118	117	135	76	150
Revenue Growth %	58.4	43.8	54.2	47.1	37.4	26.6	21.6	37.2	-1.1	15.7	24.5	24.3
EBITDA (USD Bil)	6.18	8.16	14.87	23.63	29.23	29.73	39.53	55.27	37.69	59.05	36.56	73.69
EBITDA Margin %	49.5	45.5	53.8	58.1	52.3	42.1	46.0	46.9	32.3	43.8	48.4	49.2
Operating Income (USD Bil)	4.99	6.23	12.43	20.20	24.91	23.99	32.67	46.75	28.94	46.75	28.67	58.80
Operating Margin %	40.1	34.7	45.0	49.7	44.6	33.9	38.0	39.7	24.8	34.7	38.0	39.3
Net Income (USD Bil)	2.94	3.69	10.22	15.93	22.11	18.49	29.15	39.37	23.20	39.10	25.83	51.43
Net Margin %	23.5	20.5	36.9	39.2	39.6	26.2	33.9	33.4	19.9	29.0	34.2	34.3
Diluted Shares Outstanding (Mil)	2,664	2,853	2,925	2,956	2,921	2,876	2,888	2,859	2,702	2,629	2,619	2,637
Diluted Earnings Per Share (USD)	1.10	1.29	3.49	5.39	7.57	6.43	10.09	13.77	8.59	14.87	9.86	19.55
Dividends Per Share (USD)	—	—	—	—	—	—	—	—	—	—	1.00	1.00

Valuation as of 30 Sep 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Recent Qtr	TTM
Price/Sales	18.1	18.6	13.5	14.3	7.4	8.9	10.0	8.6	2.8	7.3	10.1	10.1
Price/Earnings	73.0	105.3	44.4	34.2	19.7	32.9	31.2	24.0	11.5	31.3	29.2	29.2
Price/Cash Flow	39.7	40.3	26.5	24.3	13.1	16.9	23.3	18.1	6.1	14.1	19.2	19.2
Dividend Yield %	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Price/Book	10.2	7.2	6.2	7.2	4.7	6.2	6.6	6.9	2.5	6.3	9.2	9.2
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 %	10.1	8.2	17.8	21.3	24.3	16.0	19.9	24.2	13.2	18.8	11.2	23.5
ROE %	11.3	9.1	19.7	23.8	27.9	20.0	25.4	31.1	18.5	28.0	16.7	35.4
ROIC %	11.2	9.0	19.4	23.4	27.0	18.2	22.8	28.1	15.8	22.2	13.0	27.4
Asset Turnover	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.6	0.3	0.7

Financial Leverage

Fiscal Year, ends 31 Dec	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Recent Qtr	TTM
Debt/Capital %	0.3	0.2	—	—	—	8.6	7.0	9.3	16.7	18.9	18.7	—
Equity/Assets %	90.3	89.5	91.1	88.0	86.4	75.8	80.5	75.2	67.7	66.7	68.1	—
Total Debt/EBITDA	0.0	0.0	—	—	0.0	0.3	0.3	0.3	0.7	0.6	1.0	—
EBITDA/Interest Expense	268.5	354.9	1,486.9	3,937.5	—	—	—	2,403.5	203.7	132.4	143.3	139.3

Morningstar Analyst Historical/Forecast Summary as of 18 Sep 2024

Financials

			Estimates		
Fiscal Year, ends 31 Dec 2023	2022	2023	2024	2025	2026
Revenue (USD Mil)	116,608	134,902	162,026	183,186	203,852
Revenue Growth %	-1.1	15.7	20.1	13.1	11.3
EBITDA (USD Mil)	49,621	71,956	101,908	115,865	131,994
EBITDA Margin %	42.6	53.3	62.9	63.2	64.8
Operating Income (USD Mil)	28,944	46,751	63,907	68,237	80,012
Operating Margin %	24.8	34.7	39.4	37.3	39.3
Net Income (USD Mil)	23,198	39,098	57,434	61,073	71,270
Net Margin %	19.9	29.0	35.4	33.3	35.0
Diluted Shares Outstanding (Mil)	2,702	2,629	2,630	2,630	2,630
Diluted Earnings Per Share(USD)	8.59	14.87	21.84	23.22	27.10
Dividends Per Share(USD)	0.00	0.00	2.00	2.23	2.53

Forward Valuation

			Estimates		
	2022	2023	2024	2025	2026
Price/Sales	2.7	6.7	9.2	8.2	7.3
Price/Earnings	14.0	23.8	27.1	25.5	21.8
Price/Cash Flow	—	—	—	—	—
Dividend Yield %	—	—	0.3	0.4	0.4
Price/Book	2.6	6.1	7.6	6.0	4.8
EV/EBITDA	6.0	12.3	14.5	12.7	11.2

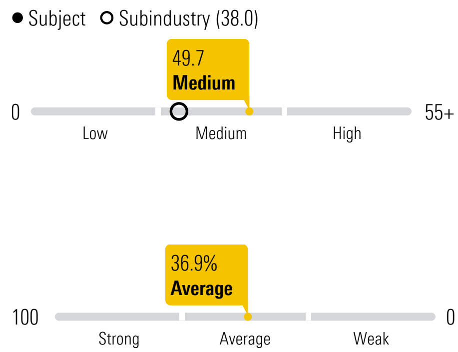
Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS

Meta Platforms Inc Class A META ★★★ 30 Oct 2024 21:54, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
591.80 USD 30 Oct 2024	560.00 USD 19 Sep 2024 15:52, UTC	1.06	1.50 USD Tril 30 Oct 2024	Wide	Large Blend	High	Standard	2 Oct 2024 05:00, UTC

ESG Risk Rating Breakdown

Exposure		
Company Exposure[1]	49.7	
– Manageable Risk	45.8	
Unmanageable Risk[2]	**3.9**	
Management		
Manageable Risk	45.8	
– Managed Risk[3]	16.9	
Management Gap[4]	**28.9**	
Overall Unmanaged Risk	**32.7**	



- 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 36.9% 4. Management Gap assesses risks that are not managed, but are considered manageable 5. ESG Risk Rating Assessment = Overall Unmanaged Risk = Management Gap plus Unmanageable Risk

ESG Risk Rating Assessment[5]

ESG Risk Rating is of Oct 02, 2024. Highest Controversy Level is as of Oct 08, 2024. Sustainalytics Subindustry: Internet Software and Services. 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	
Meta Platforms Inc	49.7 | Medium	0 – 55+	36.9 | Average	100 – 0	32.7 | High	0 – 40+
Alphabet Inc	40.5 | Medium	0 – 55+	44.1 | Average	100 – 0	23.9 | Medium	0 – 40+
Snap Inc	39.3 | Medium	0 – 55+	52.9 | Strong	100 – 0	20.0 | Medium	0 – 40+
Pinterest Inc	37.4 | Medium	0 – 55+	42.4 | Average	100 – 0	22.7 | Medium	0 – 40+
IAC Inc	38.8 | Medium	0 – 55+	36.6 | Average	100 – 0	25.6 | Medium	0 – 40+

Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS

Appendix
Historical Morningstar Rating

Meta Platforms Inc Class A META 30 Oct 2024 21:54, 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
★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★★

Alphabet Inc Class A GOOGL 30 Oct 2024 21:41, 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
★★★	★★★	★★★	★★★	★★★	★★★	★★★★	★★★	★★★	★★★	★★★	★★★★

Snap Inc Class A SNAP 30 Oct 2024 22:01, 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
★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★★	★★★★	★★★★★

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
★★★★	★★★	★★★	★★★	★★	★★	★★★	★★★	★★	—	—	—

Research Methodology for Valuing Companies

Overview

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

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

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

1. Economic Moat

The concept of an economic moat plays a vital role not only in our qualitative assessment of a firm's long-term investment potential, but also in the actual calculation of our fair value estimates. An economic moat is a structural feature that allows a firm to sustain excess profits over a long period of time. We define economic profits as returns on invested capital (or ROIC) over and above our estimate of a firm's cost of capital, or weighted average cost of capital (or WACC). Without a moat, profits are more susceptible to competition. We have identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

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

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

2. Estimated Fair Value

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

Our model is divided into three distinct stages:

Stage I: Explicit Forecast

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

Stage II: Fade

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

Stage III: Perpetuity

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

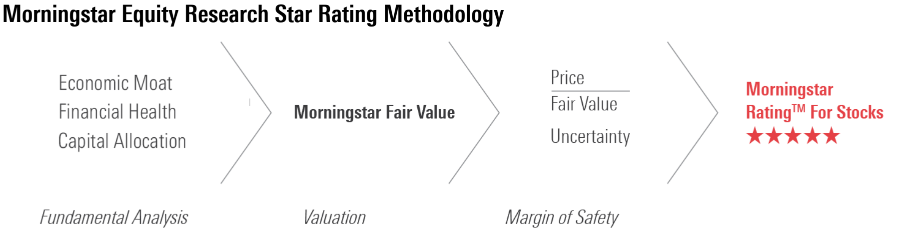
Because a dollar earned today is worth more than a dollar earned tomorrow, we discount our projections of cash flows in stages I, II, and III to arrive at a total present value of expected future cash flows. Because we are modeling free cash flow to the firm—representing cash available to provide a return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

3. Uncertainty Around That Fair Value Estimate

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

Our Uncertainty Rating is meant to take into account anything that can increase the potential dispersion of future outcomes for the intrinsic value of a company, and any-

Morningstar Equity Research Star Rating Methodology



Morningstar Equity Analyst Report | Report as of 31 Oct 2024 12:54, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 20 of 23

Research Methodology for Valuing Companies

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

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

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

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

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

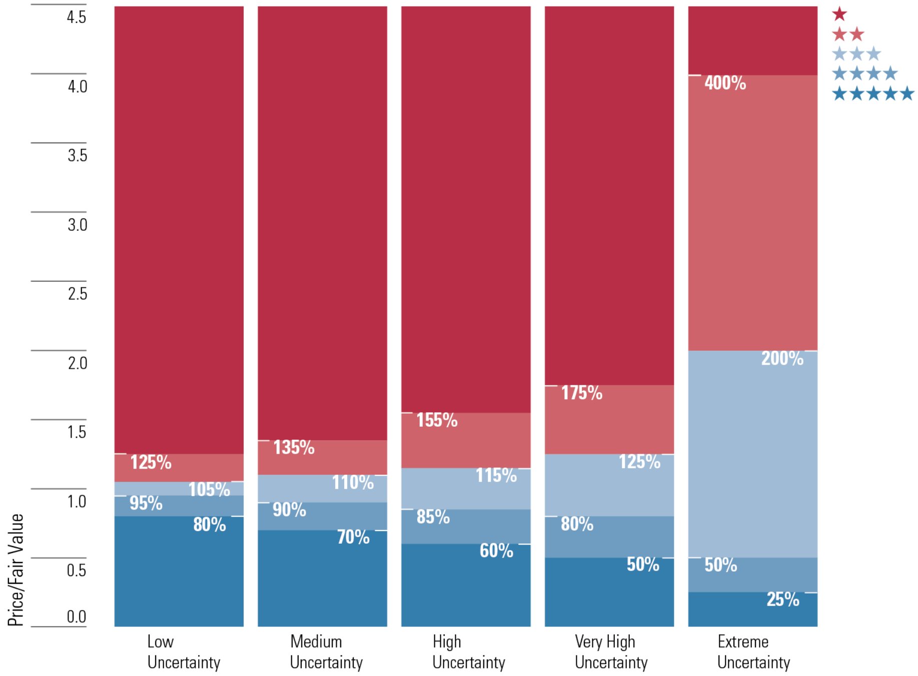
4. Market Price

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

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

Morningstar Star Rating for Stocks

Morningstar Equity Research Star Rating Methodology



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

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

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

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

The Morningstar Star Ratings for stocks are defined below:

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

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

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

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

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

Other Definitions

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

Capital Allocation Rating: Our Capital Allocation (or Stewardship) Rating represents our assessment of the quality of management's capital allocation, with particular emphasis on the firm's balance sheet, investments, and shareholder distributions. Analysts consider compan-

Research Methodology for Valuing Companies

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

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

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

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

Sustainalytics ESG Risk Rating Assessment: The ESG Risk Rating Assessment is provided by Sustainalytics; a Morningstar company.

Sustainalytics' ESG Risk Ratings measure the degree to which company's economic value at risk is driven by environment, social and governance (ESG) factors.

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

Based on their quantitative scores, companies are grouped into one of five Risk Categories (negligible, low, medium, high, severe). These risk categories are absolute, meaning that a 'high risk' assessment reflects a comparable degree of unmanaged ESG risk across all subindustries covered.

The ESG Risk Rating Assessment is a visual representation of Sustainalytics ESG Risk Categories on a 1 to 5 scale. Companies with Negligible Risk = 5 Globes, Low Risk = 4, Medium Risk = 3 Globes, High Risk = 2 Globes, Severe Risk = 1 Globe. For more information, please visit sustainalytics.com/esg-ratings/

Ratings should not be used as the sole basis in evaluating a company or security. Ratings involve unknown risks and uncertainties which may cause our expectations not to occur or to differ significantly from what was expected and should not be considered an offer or solicitation to buy or sell a security.

Risk Warning

Please note that investments in securities are subject to market and other risks and there is no assurance or guarantee that the intended investment objectives will be achieved. Past performance of a security may or may not be sustained in future and is no indication of future performance. A security investment return and an investor's principal value will fluctuate so that, when redeemed, an investor's shares may be worth more or less than their original cost. A security's current investment performance may be lower or higher than the investment performance noted within the report. Morningstar's Uncertainty Rating serves as a useful data point with respect to sensitivity analysis of the assumptions used in our determining a fair value price.

General Disclosure

Unless otherwise provided in a separate agreement, recipients accessing this report may only use it in the country in which the Morningstar distributor is based. Unless stated otherwise, the original distributor of the report is Morningstar Research Services LLC, a U.S.A. domiciled financial institution.

This Report is for informational purposes, should not be the sole piece of information used in making an investment decision, and has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient. This publication is intended to provide information to assist investors in making their own investment decisions, not to provide investment advice to any specific investor. Therefore, investments discussed herein may not be suitable for all investors; investors must exercise their own independent judgment as to the suitability of such investments and recommendations in the light of their own investment objectives, experience, taxation status and financial position. Morningstar encourages Report recipients to read all relevant issue documents (e.g., prospectus) pertaining to the security concerned, including without limitation, information relevant to its investment objectives, risks, and costs before making an investment decision and when deemed necessary, to seek the advice of a financial, legal, tax, and/or accounting professional. The information, data, analyses and opinions presented herein are not warranted to be accurate, correct, complete or timely. Unless otherwise provided in a separate agreement, neither Morningstar, Inc. or the Equity Research Group represents that the report contents meet all of the presentation and/or disclosure standards applicable in the jurisdiction the recipient is located.

Except as otherwise required by law or provided for in a separate agreement, the analyst, Morningstar, Inc. and the Equity Research Group and their officers, directors and employees shall not be responsible or liable for any trading decisions, damages or other losses resulting from, or related to, the information, data, analyses or opinions within the report.

The Report and its contents are not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject Morningstar, Inc. or its affiliates to any registration or licensing requirements in such jurisdiction.

Where this report is made available in a language other than English and in the case of inconsistencies between the English and translated versions of the report, the English version will control and supersede any ambiguities associated with any part or section of a report that has been issued in a foreign language. Neither the analyst, Morningstar, Inc., or the Equity Research Group guarantees the accuracy of the translations.

This report may be distributed in certain localities, countries and/or jurisdictions ("Territories") by independent third parties or independent intermediaries and/or distributors ("Distributors"). Such Distributors are not acting as agents or representatives of the analyst, Morningstar, Inc. or the Equity Research Group. In Territories where a Distributor distributes our report, the Distributor is solely responsible for complying with all applicable regulations, laws, rules, circulars, codes and guidelines established by local and/or regional regulatory bodies, including laws in

Research Methodology for Valuing Companies

connection with the distribution third-party research reports.

Conflicts of Interest

- No interests are held by the analyst with respect to the security subject of this investment research report.
- Morningstar, Inc. may hold a long position in the security subject of this investment research report that exceeds 0.5% of the total issued share capital of the security. To determine if such is the case, please click http://msi.morningstar.com and http://mdi.morningstar.com
- Analysts' compensation is derived from Morningstar, Inc.'s overall earnings and consists of salary, bonus and in some cases restricted stock.
- Neither Morningstar, Inc. or the Equity Research Group receives commissions for providing research nor do they charge companies to be rated.
- Morningstar's overall earnings are generated in part by the activities of the Investment Management and Research groups, and other affiliates, who provide services to product issuers.
- Morningstar employees may not pursue business and employment opportunities outside Morningstar within the investment industry (including but not limited to, working as a financial planner, an investment professional or investment professional representative, a broker-dealer or broker-dealer agent, a financial writer, reporter, or analyst) without the approval of Morningstar's Legal and if applicable, Compliance teams.
- Neither Morningstar, Inc. or the Equity Research Group is a market maker or a liquidity provider of the security noted within this report.
- Neither Morningstar, Inc. or the Equity Research Group has been a lead manager or co-lead manager over the previous 12-months of any publicly disclosed offer of financial instruments of the issuer.
- Morningstar, Inc.'s investment management group does have arrangements with financial institutions to provide portfolio management/investment advice some of which an analyst may issue investment research reports on. However, analysts do not have authority over Morningstar's investment management group's business arrangements nor allow employees from the investment management group to participate or influence the analysis or opinion prepared by them.
- Morningstar, Inc. is a publicly traded company (Ticker Symbol: MORN) and thus a financial institution the security of which is the subject of this report may own more than 5% of Morningstar, Inc.'s total outstanding shares. Please access Morningstar, Inc.'s proxy statement, "Security Ownership of Certain Beneficial Owners and Management" section https://shareholders.morningstar.com/investor-relations/financials/sec-filings/default.aspx
- Morningstar, Inc. may provide the product issuer or its related entities with services or products for a fee and on an arms' length basis including software products and licenses, research and consulting services, data services, licenses to republish our ratings and research in their promotional material, event sponsorship and website advertising.

Further information on Morningstar, Inc.'s conflict of interest policies is available from http://global.morningstar.com/equitydisclosures. Also, please note analysts are subject to the CFA Institute's Code of Ethics and Standards of Professional Conduct.

Risk Warning Please note that investments in securities are subject to market and other risks and there is no assurance or guarantee that the intended investment objectives will be achieved. Past performance of a security may or may not be sustained in future and is no indication of future performance. A security's investment return and an investor's principal value will fluctuate so that, when redeemed, an investor's shares may be worth more or less than their original cost. A security's current investment performance may be lower or higher than the investment performance noted within the report. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions.

For more information about Morningstar's methodologies, please visit global.morningstar.com/equitydisclosures

For a list of securities which the Equity Research Group currently covers and provides written analysis on please contact your local Morningstar office. In addition, for historical analysis of securities covered, including their fair value estimate, please contact your local office.

For recipients in Australia: This Report has been issued and distributed in Australia by Morningstar Australasia Pty Ltd (ABN: 95 090 665 544; ASFL: 240892). Morningstar Australasia Pty Ltd is the provider of the general advice ('the Service') and takes responsibility for the production of this report. The Service is provided through the research of investment products.

To the extent the Report contains general advice it has been prepared without reference to an investor's objectives, financial situation or needs. Investors should consider the advice in light of these matters and, if applicable, the relevant Product Disclosure Statement before making any decision to invest. Refer to our Financial Services Guide (FSG) for more information at http://www.morningstar.com.au/fsg.pdf

For recipients in New Zealand: This report has been issued and distributed by Morningstar Australasia Pty Ltd and/or Morningstar Research Ltd (together 'Morningstar'). This report has been prepared and is intended for distribution in New Zealand to wholesale clients only and has not been prepared for use by New Zealand retail clients (as those terms are defined in the Financial Markets Conduct Act 2013).The information, views and any recommendations in this material are provided for general information purposes only, and solely relate to the companies and investment opportunities specified within. Our reports do not take into account any particular investor's financial situation, objectives or appetite for risk, meaning no representation may be implied as to the suitability of any financial product mentioned for any particular investor. We recommend seeking financial advice before making any investment decision.

For recipients in Hong Kong: The Report is distributed by Morningstar Investment Management Asia Limited, which is regulated by the Hong Kong Securities and Futures Commission to provide services to professional investors only. Neither Morningstar Investment Management Asia Limited, nor its representatives, are acting or will be deemed to be acting as an investment professional to any recipients of this information unless expressly agreed to by Morningstar Investment Management Asia Limited.

For recipients in India: This investment research is issued by Morningstar Investment Adviser India Private Limited. Morningstar Investment Adviser India Private Limited is registered with SEBI as a Portfolio Manager (registration number INP000006156) and as a Research Entity (registration number INH000008686). Morningstar Investment Adviser India Private Limited has not been the subject of any disciplinary action by SEBI or any other legal/regulatory body. Morningstar Investment Adviser India Private Limited is a wholly owned subsidiary of Morningstar Investment Management LLC. In India, Morningstar Investment Adviser India Private Limited has one associate, Morningstar India Private Limited, which provides data-related services, financial data analysis, and software development. The research analyst has not served as an officer, director, or employee of the fund company within the last 12 months, nor have they or their associates engaged in market-making activity for the fund company.The ESG-related information, methodologies, tool, ratings, data and opinions contained or reflected herein are not directed to or intended for use or distribution to India-based clients or users and their distribution to Indian resident individuals or entities is not permitted, and Morningstar/Sustainalytics accepts no responsibility or liability whatsoever for the actions of third parties in this respect.

*The Conflicts of Interest disclosure above also applies to relatives and associates of Manager Research Analysts in India # The Conflicts of Interest disclosure above also applies to associates of Manager Research Analysts in India. The terms and conditions on which Morningstar In-

Research Methodology for Valuing Companies

vestment Adviser India Private Limited offers Investment Research to clients, varies from client to client, and are detailed in the respective client agreement.

For recipients in Japan: The Report is distributed by Ibbotson Associates Japan, Inc., which is regulated by Financial Services Agency, for informational purposes only. Neither Ibbotson Associates Japan, Inc., nor its representatives, are acting or will be deemed to be acting as an investment professional to any recipients of this information.

For recipients in Singapore: For Institutional Investor audiences only. The Report is distributed by Morningstar Investment Adviser Singapore Pte. Limited, which is licensed by the Monetary Authority of Singapore to provide financial advisory services in Singapore. Morningstar Investment Adviser Singapore Pte. Limited is the entity responsible for the creation and distribution of the research services described in this presentation. Investors should consult a financial adviser regarding the suitability of any investment product, taking into account their specific investment objectives, financial situation or particular needs, before making any investment decisions.

For recipients in Korea: The report is distributed by Morningstar Korea Ltd., which has filed to the Financial Services Committee, for informational purposes only. Neither Morningstar Korea Ltd. nor its representatives are acting or will be deemed to be acting as an investment advisor to any recipients of this information.