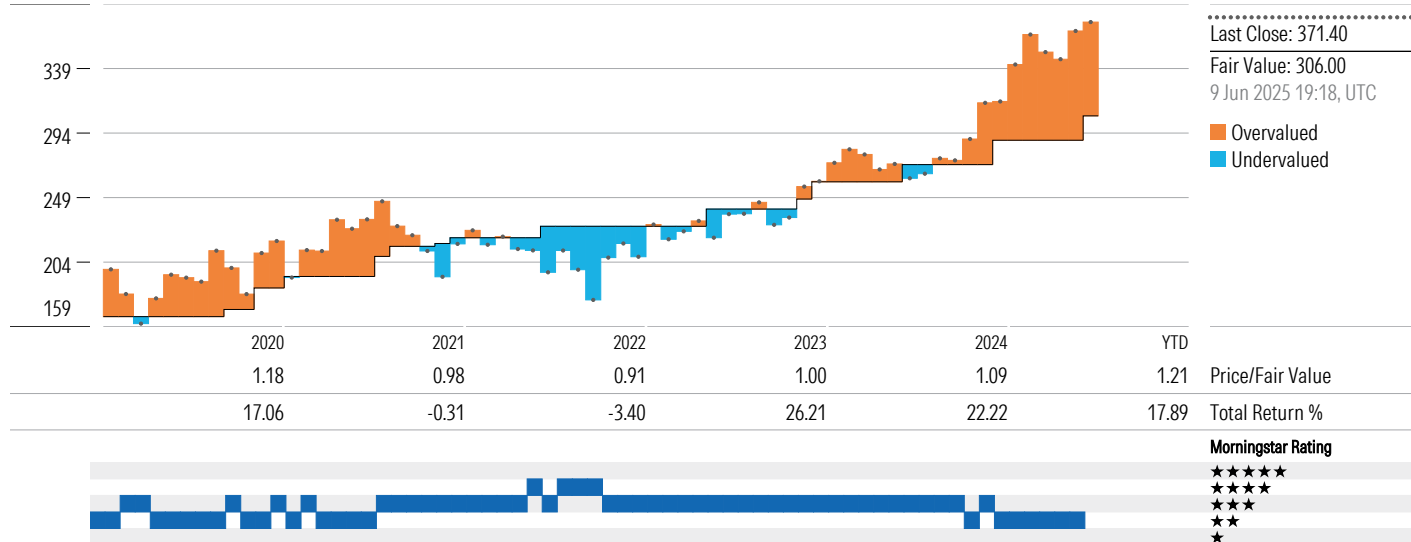


**Visa Inc Class A**  ★★ 12 Jun 2025 21:42, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment
371.40 USD	306.00 USD	1.21	676.16 USD Bil	 Wide	 Large Blend	Medium	Standard	    
12 Jun 2025	9 Jun 2025 19:18. UTC		13 Jun 2025					4 Jun 2025 05:00. UTC

### Price vs. Fair Value



Total Return % as of 12 Jun 2025. Last Close as of 12 Jun 2025. Fair Value as of 9 Jun 2025 19:18. UTC.

## Contents

Analyst Note (13 Jun 2025)

## Business Description

Business Strategy &amp; Outlook (9 Jun 2025)

Bulls Say / Bears Say (9 Jun 2025)

Economic Moat (13 Dec 2024)

Fair Value and Profit Drivers (9 Jun 2025)

## Risk and Uncertainty (13 Jun 2024)

## Capital Allocation (9 Jun 2025)

Analyst Notes Archive

## Financials

### ESG Risk

## Appendix

Research Methodology for Valuing Companies

### 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.

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

## Payments: Large Merchants Exploring Stablecoin Options

**Analyst Note** Brett Horn, CFA, Senior Equity Analyst, 13 Jun 2025

According to The Wall Street Journal, large merchants such as Walmart and Amazon are exploring options to issue stablecoins in an attempt to bypass traditional payment systems and avoid fees.

**Why it matters:** While a major shift toward stablecoins would likely affect all of our payment coverage to some extent, we see the networks Visa and Mastercard as the primary targets.

- Payments typically require the participation of both merchants and consumers, but it is consumer preference that drives shifts within the industry, in our view. Historically, cryptocurrency volumes in consumer payments have never been material in the context of the overall industry, suggesting minimal consumer interest.
- While pending stablecoin legislation could open up some new opportunities on this front, we see little incentive for consumers to switch away from traditional electronic payments, which offer relatively frictionless acceptance, proven security, and, in many cases, substantial rewards.

**The bottom line:** We will maintain our wide moat ratings and our fair value estimates of \$306 and \$500 for Visa and Mastercard, respectively. We see both stocks as modestly overvalued.

- While we are skeptical of a meaningful switch to stablecoins, we do recognize the potential for some volume to shift at the margin. We will continue to monitor the situation, as we think the ultimate impact will hinge on the details of any stablecoin offerings.

**Business Strategy & Outlook** Brett Horn, CFA, Senior Equity Analyst, 9 Jun 2025

© Morningstar 2025. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions presented herein do not constitute investment advice; are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and are not warranted to be correct, complete or accurate. The opinions expressed are as of the date written and are subject to change without notice. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, the information, data, analyses or opinions or their use. The information contained herein is the proprietary property of Morningstar and may not be reproduced, in whole or in part, or used in any manner, without the prior written consent of Morningstar. Investment research is produced and issued by subsidiaries of Morningstar, Inc. including, but not limited to, Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. To order reprints, call +1 312-696-6100. To license the research, call +1 312-696-6869. Please see important disclosures at the end of this report.

MORNINGSTAR

Visa Inc Class A V★★★

12 Jun 2025 21:42, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
371.40 USD	306.00 USD	1.21	676.16 USD Bil	Wide	Large Blend	Medium	Standard	
12 Jun 2025	9 Jun 2025 19:18, UTC		13 Jun 2025					4 Jun 2025 05:00, UTC

Sector	Industry
Financial Services	Credit Services

Business Description

Visa is the largest payment processor in the world. In fiscal 2024, it processed almost \$16 trillion in total volume. Visa operates in over 200 countries and processes transactions in over 160 currencies. Its systems are capable of processing over 65,000 transactions per second.

Visa is a longtime, established market leader that still enjoys strong growth prospects. Despite the ongoing evolution of the payment industry, we think that a wide moat surrounds the business and that Visa's position in the global electronic payment infrastructure is essentially unassailable.

The shift toward electronic payments has driven Visa's growth historically, and we expect that to continue for the foreseeable future. Digital payments, on a global basis, surpassed cash payments just a few years ago, suggesting that this trend still has a lot of room to run. We think emerging markets will maintain long-term growth even as growth in developed markets slows. Visa's position as the leading network makes it something of a tollbooth business. The company is relatively agnostic to the smaller shifts within electronic payments, since it earns fees regardless of whether payment is credit, debit, or mobile. As a result, it is able to steadily draft off of the overall trend toward electronic payments.

Visa has not been without its ups and downs recently. Cross-border transactions, which are particularly lucrative for the networks, saw dramatic declines during the pandemic due a reduction in global travel. More recently, this turned into a material tailwind as cross-border volume bounced back. History suggests travel makes a full recovery following disruptive events, and that seems to be the case again. While there still may be some modest benefits for Visa ahead on this front, the benefit now appears to be largely realized and has tapered off.

Visa obviously has sensitivity to the volume of consumer transactions, and the United States remains its largest market. A downturn in the economy would slow growth. However, we don't see any long-term industry trends that will impede Visa's ability to maintain low double-digit growth in the coming years, and the scalability of the business should allow the company to modestly expand its already ample margins over time. For the time being, Visa appears to have settled into a stable groove, as consumer spending is holding steady, and the headwinds and tailwinds it has seen over the past several years have fallen off.

Bulls Say Brett Horn, CFA, Senior Equity Analyst, 9 Jun 2025

- Visa has commanding market share in a scalable industry.
- There is still a long growth runway for electronic payments, which surpassed cash payments on a global basis only a few years ago.
- The scalable nature of the business should allow Visa to improve its already impressive margins.

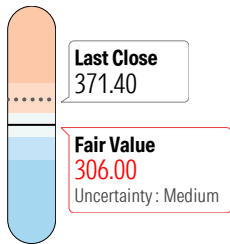
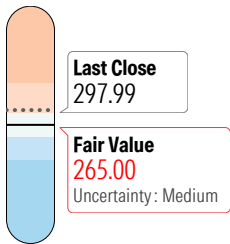
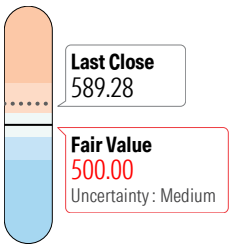
Bears Say Brett Horn, CFA, Senior Equity Analyst, 9 Jun 2025

- Visa's leading market share creates more opportunities for loss than gain.
- The oligopolistic nature of the industry makes Visa and Mastercard targets for regulators and lawsuits, and the companies have paid some large fines.
- UnionPay provides an example of how governments could favor local networks; this could shut Visa out of some emerging-market opportunities.

# Visa Inc Class A V ★★ 12 Jun 2025 21:42, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
371.40 USD 12 Jun 2025	306.00 USD 9 Jun 2025 19:18, UTC	1.21	676.16 USD Bil 13 Jun 2025	Wide	Large Blend	Medium	Standard	4 Jun 2025 05:00, UTC

## Competitors

	Visa Inc Class A V	American Express Co AXP	Mastercard Inc Class A MA
			
Economic Moat	Wide	Wide	Wide
Currency	USD	USD	USD
Fair Value	306.00 9 Jun 2025 19:18, UTC	265.00 29 May 2025 19:21, UTC	500.00 25 Feb 2025 21:11, UTC
1-Star Price	413.10	357.75	675.00
5-Star Price	214.20	185.50	350.00
Assessment	Overvalued 12 Jun 2025	Overvalued 12 Jun 2025	Overvalued 12 Jun 2025
Morningstar Rating	★★ 12 Jun 2025 21:42, UTC	★★ 12 Jun 2025 21:34, UTC	★★ 12 Jun 2025 21:40, UTC
Analyst	Brett Horn, Senior Equity Analyst	Michael Miller, Equity Analyst	Brett Horn, Senior Equity Analyst
Capital Allocation	Standard	Standard	Standard
Price/Fair Value	1.21	1.12	1.18
Price/Sales	19.72	3.14	18.69
Price/Book	19.20	6.70	80.37
Price/Earning	34.91	21.49	39.23
Dividend Yield	0.62%	0.98%	0.48%
Market Cap	711.48 Bil	208.77 Bil	535.11 Bil
52-Week Range	252.70—375.51	220.43—326.28	428.86—594.71
Investment Style	Large Blend	Large Blend	Large Growth

## Economic Moat Brett Horn, CFA, Senior Equity Analyst, 13 Dec 2024

Leading payment networks such as Visa benefit, unsurprisingly, from a network effect. The more consumers that are plugged into a payment network, the more attractive that payment network becomes for merchants, which in turn makes the network more convenient for consumers, and so on. This explains why a small number of networks have come to dominate electronic payments. At this point, Visa has reached essentially universal acceptance in most developed markets. While the network effect is the initial and primary driver of economic moats in this industry, the highly scalable nature of payment processing leads to sizable cost advantages for large payment networks, which further cements their competitive positions. For the dominant payment networks with global footprints, such as Visa, the network effect and resulting cost advantage are strong enough to lead to a wide moat, in our view.

Visa Inc Class A V★★★

12 Jun 2025 21:42, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
371.40 USD 12 Jun 2025	306.00 USD 9 Jun 2025 19:18, UTC	1.21	676.16 USD Bil 13 Jun 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

Visa traces its roots to the issuance of the first Bank of America cards in the late 1950s. As credit cards grew, partnerships between credit card issuers became necessary, and Visa as a brand was formed in 1976. In the decades since, Visa has been one of the largest beneficiaries of the shift toward electronic payments. In fiscal 2024, the company processed over \$13 trillion in purchase transactions. Visa has about 14,500 financial institution partners and over 50 million merchants accepting Visa. According to the Nilson Report, Visa holds over 50% market share (by purchase volume) in the US, Europe, Latin America, and the Middle East/Africa. Visa also processes roughly twice as many transactions as its closest competitor, Mastercard. Simply put, Visa's position in the world of electronic payments is unparalleled. We don't believe that building a new network with a comparable size and reach is realistic over any foreseeable timeline, and we view Visa's position in the current global electronic payment infrastructure as essentially unassailable.

Visa has translated its dominant competitive position into an enviable level of profitability. Operating margin (using net revenue) in fiscal 2024 was 67%, and margins have generally trended upward because of the scalability of the business. Further, given the relatively asset-light nature of the business, returns on invested capital are quite healthy, averaging 38% over the past five years and 63% if goodwill is excluded.

**Fair Value and Profit Drivers** Brett Horn, CFA, Senior Equity Analyst, 9 Jun 2025

We are increasing our fair value estimate to \$306 per share from \$289 due mainly to time value since our last update, but we have also made some modest adjustments to our assumptions. Our fair value estimate equates to 27.1 times our adjusted projected fiscal 2025 earnings.

While growth had been muted in the beginning of the pandemic, particularly due to the impact on cross-border transactions, more recent growth has been above the company's historical experience as volume bounced back. In fiscal 2024, we saw growth start to normalize back to a level in line with prepandemic growth, and we think that, barring any significant change in consumer spending, the company will maintain a stable level of growth in the near term. We think the ongoing shift toward electronic payments will allow Visa to maintain strong growth rates over the next five years. We project gross and net revenue to grow at 10% and 9% compound annual rates, respectively, over the projection period. We think that growth will be increasingly driven by international markets as emerging markets become a more meaningful engine for the business.

While margins on a gross revenue basis have stalled in recent years and had been under pressure through the pandemic, the scalability of the business and the bounceback in more lucrative cross-border transactions has aided margins more recently, although this has been partially offset by an increase in client incentives. We project operating margin (based on gross revenue) to improve modestly from 48% in fiscal 2024 to 49% by fiscal 2029. On a net revenue basis, we expect margin to

# Visa Inc Class A V ★★ 12 Jun 2025 21:42, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
371.40 USD 12 Jun 2025	306.00 USD 9 Jun 2025 19:18, UTC	1.21	676.16 USD Bil 13 Jun 2025	 Wide	 Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

improve at an average annual rate of about 70 basis points. Given the company's history of fines and one-time charges, we include ongoing one-time costs roughly in line with historical averages in our projections, but these costs are excluded from the margin levels above.

We use a 9% cost of equity.

## Risk and Uncertainty Brett Horn, CFA, Senior Equity Analyst, 13 Jun 2024

Visa's revenue is tied to the amount and volume of consumer purchases, which creates significant macroeconomic sensitivity. Both Visa and Mastercard have paid substantial fines historically related to the oligopolistic nature of the industry, and legal and regulatory risk is intrinsic to the business model, given merchants' desires to lower fees. While Visa's and Mastercard's positions in the current environment are largely set, the electronic payment industry continues to evolve in ways that could reduce the companies' volume or profitability. Some governments have shown a preference for local payment networks, which could freeze Visa out of certain markets and impede the value it drives from its global network.

We see the company's largest environmental, social, and governance risk as data security. Any company involved in processing payments has potential exposure to breaches in its systems.

## Capital Allocation Brett Horn, CFA, Senior Equity Analyst, 9 Jun 2025

Our Capital Allocation Rating for Visa is Standard. In our opinion, the company's balance sheet is sound, its capital investment decisions are fair, and its capital return strategy is appropriate.


We attribute the company's strong historical performance primarily to the wide moat that surrounds its business and favorable secular trends. That said, we think management deserves credit for avoiding any major operational mistakes and steering a fairly steady and profitable course.

Alfred Kelly had held the CEO role since 2016 but stepped down in February 2023, when Ryan McInerney took over. McInerney had been president since 2013 and came to Visa from JPMorgan. We saw the decision to go with an insider as a sign that the company would largely maintain its recent strategic course, and we think that has been the case.

In terms of M&A, management has only made one big move historically. In 2016, it acquired Visa Europe for about \$20 billion. Visa historically had been operated as a joint venture of issuer banks. When Visa reorganized in 2007, Visa Europe retained this old structure, and the acquisition brought this situation to a close. We think consolidating the global network was a smart but somewhat inevitable move, and the integration in the following years largely went smoothly, with management declaring the process effectively finished in fiscal 2018.

Like Mastercard, Visa has been very active in returning cash to shareholders, with dividends and stock buybacks over the past three years equating to 87% of free cash flow over that period. We like that

# Visa Inc Class A ★★ 12 Jun 2025 21:42, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
371.40 USD 12 Jun 2025	306.00 USD 9 Jun 2025 19:18, UTC	1.21	676.16 USD Bil 13 Jun 2025	 Wide	 Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

management is largely content to return the company's ample profits but question whether a more aggressive shift toward a higher dividend could make management's commitment to capital return more clear. Barring the Visa Europe acquisition, which was a unique situation, Visa has avoided large-scale M&A. We think this is wise, as the company's competitive position makes M&A somewhat unnecessary, and its position in the industry requires maintaining a fairly neutral stance toward other payment areas to avoid unnecessary competition with other players within its ecosystem. However, we think there will be opportunities to pursue smaller deals that make strategic sense, and we like management's stated intention to focus on acquisitions that share the same competitive dynamics as legacy operations.

## Analyst Notes Archive

**Visa Earnings: Results Hold Steady, No Signs Yet of Consumer Spending Weakening** Brett Horn, CFA, Senior Equity Analyst, 29 Apr 2025

Overall, we think Visa's fiscal second quarter largely showed the company maintaining a steady path and management has not yet seen signs that consumer spending is weakening. However, we see uncertainty ahead. Why it matters: Net revenue growth grew 9% year over year, or 11% on a constant-currency basis. Constant-currency net revenue growth and volume metrics remained in line with what we've seen in recent quarters, suggesting that consumer spending remains stable for now. Constant currency year-over-year payment volume growth was 8% in the quarter, with transactions up 9%. Growth appears to have picked up modestly in the first few weeks of April. The tailwind from a bounce back in travel and cross-border volumes has been fading. Constant-currency cross-border volume excluding intra-Europe transactions, which are priced similarly to domestic transactions, grew by 13% year over year in the quarter, down from 16% in the previous quarter. We believe most of the benefit from the travel recovery has been realized, but April travel-related volume growth appears to have improved modestly. The bottom line: We will maintain our \$289 fair value estimate for the wide-moat company. We see shares as modestly overvalued. Visa remains tied to overall consumer spending, and particularly to some discretionary categories such as travel-related cross-border volume. Management stated that it has not seen any signs through April of consumer spending weakening materially. However, in our view, tariffs create significant near-term uncertainty going forward. Visa returned to modest margin improvement, with adjusted operating margins (based on net revenue) up about 120 basis points year over year. However, year-over-year client incentive growth of 15% outstripped revenue growth, highlighting how the company shares much of its scale benefits with its issuer clients.

**Visa Earnings: Market Conditions Remain Favorable** Brett Horn, CFA, Senior Equity Analyst, 31 Jan 2025

Visa had settled into a fairly steady path over recent quarters, as one-time impacts started to roll off and growth normalized. Taken on their own, Visa's fiscal first-quarter results showed the company's results

Visa Inc Class A V★★★

12 Jun 2025 21:42, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
371.40 USD 12 Jun 2025	306.00 USD 9 Jun 2025 19:18, UTC	1.21	676.16 USD Bil 13 Jun 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

holding up. We think Visa continues to enjoy favorable long-term secular growth prospects, and a stable environment highlights the strength of the wide-moat company. We will maintain our \$289 fair value estimate and see shares as modestly overvalued. Net revenue grew 10%, or 11% on a constant-currency basis, down slightly from the previous quarter. Payment volume grew by 9% constant currency and transactions were up 11%, both of which represented a slight improvement from the previous quarter. Management pointed to a strong holiday season as a driver. However, we saw Mastercard boost its growth at a faster rate in the quarter. We think Visa has done a good job of narrowing the growth differential with Mastercard over the past couple of years due to success in new channels. We hesitate to make too much of one quarter, but possibly this is coming to an end. Cross-border volumes have been a tailwind for Visa over the past couple of years, as the bounce back in travel from pandemic lows drove outsize growth. This tailwind had been fading but this quarter bucked that trend. Constant-currency cross-border volume, excluding intra-Europe transactions—which are priced similarly to domestic transactions—grew by 16% year over year in the quarter, up from 13% in the last quarter. Mastercard saw a similar sequential improvement. We believe most of the benefit from the travel recovery has been realized, but this quarter suggests there could be further upside. Management pointed to the stronger US dollar as a tailwind, and maintaining this trend may depend on the dollar holding up.

Visa Earnings: A Stable Fiscal Year Finishes on a Steady Note

Brett Horn, CFA, Senior Equity Analyst, 30 Oct 2024

We think Visa has settled into a comfortable groove this year as pandemic, political, and macro effects have dissipated. The fiscal fourth quarter was further evidence of stability in the business, in our view. In this type of environment, we think the wide-moat company can show off its ability to consistently generate good growth and strong profitability. We will maintain our \$272 fair value estimate and see shares as about fairly valued. Constant currency net revenue increased 12% year-over-year, a modest improvement from the previous quarter. Payment volume was up 8% constant currency, up slightly from last quarter, but in line with results earlier this year. Transactions were up 10%, in line with recent results. Overall, the quarter suggests consumer spending is holding steady. Cross-border volume has been the one area with a bit of a tailwind recently, with higher-than-normal growth recently as travel recovered. However, we've seen ongoing signs that this tailwind has abated, and this quarter provided further confirmation. Constant-currency cross-border volume, excluding intra-Europe transactions—priced similarly to domestic transactions—grew 13% year over year in the quarter, down slightly from 14% in the last quarter. We think cross-border volumes are basically fully normalized at this point. Excluding one-time items, operating margins (based on net revenue) were 66.1%, compared with 66.0% last year. Management had warned that expense growth would be relatively high this quarter based on the timing of some expenses. We continue to expect solid margin expansion on a net revenue basis over time, given the scalability of the business. On the positive side, year-over-year client

# Visa Inc Class A V ★★ 12 Jun 2025 21:42, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
371.40 USD 12 Jun 2025	306.00 USD 9 Jun 2025 19:18, UTC	1.21	676.16 USD Bil 13 Jun 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

incentive growth was muted in the quarter, increasing only 6%, although that appears to be due to the timing of renewals.

## Visa: Department of Justice to File Antitrust Suit Brett Horn, CFA, Senior Equity Analyst, 24 Sep 2024

On Sept. 24, Bloomberg reported that the Department of Justice is set to announce an antitrust suit against Visa. The Department of Justice started an investigation in 2021, and the suit could be filed as early as today. The suit would appear to be centered on claims of anticompetitive behavior for debit card payments. In our view, given the wide-moat company's market position, legal and regulatory risk is ever-present for Visa, and, while serious, this suit would not be the only material legal issue the company has outstanding. At this point, it is difficult to predict the exact consequence of this development, but we note that we have factored ongoing legal and regulatory costs into our valuation. We maintain our \$272 fair value estimate and see shares as about fairly valued.

## Visa Earnings: Growth Slows a Bit Brett Horn, CFA, Senior Equity Analyst, 23 Jul 2024

As Visa has moved past postpandemic tailwinds, we think growth has returned to normal levels, and we see the macro environment as the biggest swing factor in the near term. While some growth metrics slowed modestly in the fiscal third quarter, we don't think this quarter marks a significant change on this front, and we continue to see the company's path forward as relatively stable. We will maintain our \$272 fair value estimate for the wide-moat company and see shares as about fairly valued at the moment. Net revenue grew 10% year over year. Constant-currency payment volume growth for the quarter was 7.4% year over year. Payment volume growth had been in the range of 8%-9% over the past four quarters. Management attributed the slowdown partially due to some softness among lower-spending consumers. Transactions growth was 10%, in line with results over the past few quarters. Cross-border volume has been the main source of volatility over the past few years, with the crash during the pandemic giving way to abnormally high growth more recently as travel recovered. However, we've seen signs that this tailwind is tapering off, and this quarter provided further confirmation of this trend. Constant-currency cross-border volume, excluding intra-Europe transactions—which are priced similarly to domestic transactions—grew 14% year over year in the quarter, down a bit from 16% in the last quarter. While growth in this area is still healthy in an absolute sense, the recovery in cross-border volume looks to be running out of steam. Adjusted for one-time items, operating margins (on a net revenue basis) were 66.9%, compared with 67.5% last year. While expense growth has outstripped revenue growth in the last two quarters, management expects that to reverse in the fiscal fourth quarter. Client incentives grew only 11% year over year, reducing margin pressure on a gross revenue basis.

## Visa and Mastercard: Judge May Not Approve Settlement Brett Horn, CFA, Senior Equity Analyst, 14 Jun 2024

Visa Inc Class A V★★★

12 Jun 2025 21:42, UTC

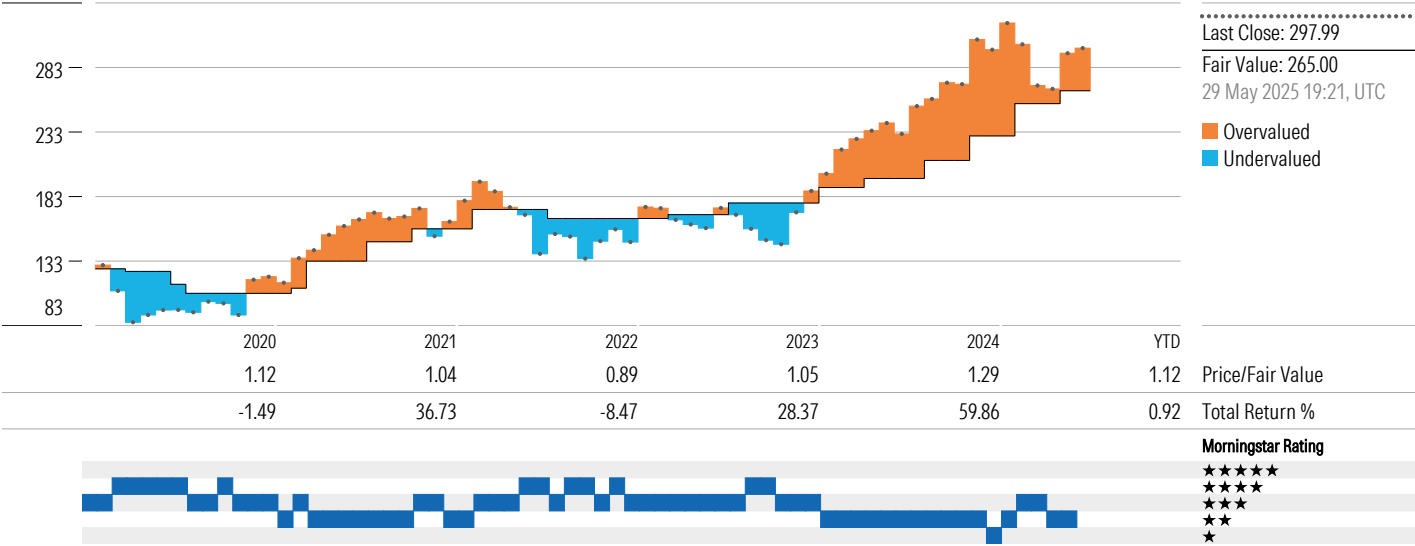
Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
371.40 USD 12 Jun 2025	306.00 USD 9 Jun 2025 19:18, UTC	1.21	676.16 USD Bil 13 Jun 2025	 Wide	 Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

In March, Visa and Mastercard announced that they had reached a settlement to a long-standing antitrust lawsuit. As part of the agreement, the networks would slightly lower credit interchange fees and cap these fees at the current level for five years. At the time, we were happy to see this lawsuit seemingly resolved. But according to The Wall Street Journal, the judge has now informed Visa and Mastercard that she deems these changes inadequate and is unlikely to approve the settlement. This would presumably force the networks to arrange a new settlement or go to trial. While this is an obvious setback and we would prefer to see this matter closed as quickly as possible, we believe Visa and Mastercard's unique competitive positions and their wide moats create ongoing legal and regulatory event risk, and this lawsuit represents just one piece of that. We will maintain our \$272 and \$451 fair value estimates for Visa and Mastercard, respectively, and see shares for both companies as about fairly valued. III

# Visa Inc Class A V★★★ 12 Jun 2025 21:42, UTC

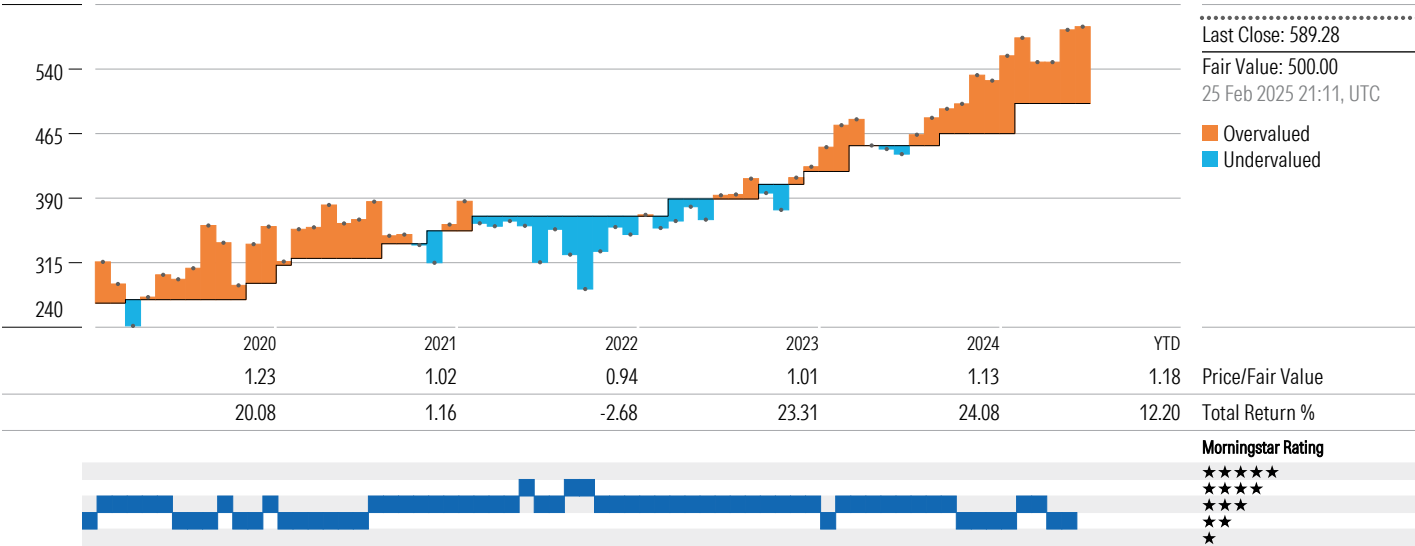
## Competitors Price vs. Fair Value

### American Express Co AXP



Total Return % as of 12 Jun 2025. Last Close as of 12 Jun 2025. Fair Value as of 29 May 2025 19:21, UTC.

### Mastercard Inc Class A MA



Total Return % as of 12 Jun 2025. Last Close as of 12 Jun 2025. Fair Value as of 25 Feb 2025 21:11, UTC.

# Visa Inc Class A V ★★ 12 Jun 2025 21:42, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
371.40 USD 12 Jun 2025	306.00 USD 9 Jun 2025 19:18, UTC	1.21	676.16 USD Bil 13 Jun 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

## Morningstar Valuation Model Summary

### Financials as of 09 Jun 2025

Fiscal Year, ends 30 Sep	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Revenue (USD Mil)	39,605	44,950	49,690	54,905	60,804	67,245	73,806	80,777
Operating Income (USD Mil)	19,681	21,927	24,057	26,866	30,088	33,427	36,670	39,911
EBITDA (USD Mil)	19,535	22,624	25,591	27,201	30,514	34,398	37,687	40,977
Adjusted EBITDA (USD Mil)	19,535	22,624	25,591	28,074	31,426	34,906	38,294	41,689
Net Income (USD Mil)	14,957	17,273	19,743	21,012	22,728	25,691	28,175	30,651
Adjusted Net Income (USD Mil)	15,673	18,034	20,124	22,152	23,458	26,498	29,061	31,620
Free Cash Flow To The Firm (USD Mil)	14,878	18,955	19,362	21,521	23,844	26,720	29,256	31,795
Weighted Average Diluted Shares Outstanding (Mil)	2,136	2,085	2,029	1,962	1,900	1,824	1,754	1,687
Earnings Per Share (Diluted) (USD)	7.00	8.28	9.73	10.71	11.96	14.08	16.07	18.16
Adjusted Earnings Per Share (Diluted) (USD)	7.34	8.65	9.92	11.29	12.35	14.52	16.57	18.74
Dividends Per Share (USD)	1.50	1.80	2.08	2.36	2.71	3.12	3.59	4.13

### Margins & Returns as of 09 Jun 2025

	3 Year Avg	Actual			Forecast					5 Year Avg
		2022	2023	2024	2025	2026	2027	2028	2029	
Operating Margin %	48.3	49.7	48.8	48.4	48.9	49.5	49.7	49.7	49.4	48.3
EBITDA Margin %	—	49.3	50.3	51.5	49.5	50.2	51.2	51.1	50.7	—
Adjusted EBITDA Margin %	—	49.3	50.3	51.5	51.1	51.7	51.9	51.9	51.6	51.6
Net Margin %	38.6	37.8	38.4	39.7	38.3	37.4	38.2	38.2	37.9	38.0
Adjusted Net Margin %	40.1	39.6	40.1	40.5	40.4	38.6	39.4	39.4	39.1	39.4
Free Cash Flow To The Firm Margin %	39.6	37.6	42.2	39.0	39.2	39.2	39.7	39.6	39.4	39.4

### Growth & Ratios as of 09 Jun 2025

	3 Year CAGR	Actual			Forecast					5 Year CAGR
		2022	2023	2024	2025	2026	2027	2028	2029	
Revenue Growth %	15.2	22.0	13.5	10.5	10.5	10.7	10.6	9.8	9.5	10.2
Operating Income Growth %	15.0	24.5	11.4	9.7	11.7	12.0	11.1	9.7	8.8	10.7
EBITDA Growth %	13.8	12.4	15.8	13.1	6.3	12.2	12.7	9.6	8.7	9.9
Adjusted EBITDA Growth %	13.8	12.4	15.8	13.1	9.7	11.9	11.1	9.7	8.9	10.3
Earnings Per Share Growth %	18.7	20.5	18.3	17.5	10.1	11.7	17.7	14.1	13.1	13.3
Adjusted Earnings Per Share Growth %	18.7	26.2	17.9	14.7	13.8	9.4	17.7	14.1	13.1	13.3

### Valuation as of 09 Jun 2025

	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Price/Earning	24.2	26.6	27.7	32.9	30.1	25.6	22.4	19.8
Price/Sales	9.5	10.6	10.7	13.0	11.7	10.6	9.6	8.8
Price/Book	10.7	12.4	14.3	20.5	21.3	25.0	28.4	30.4
Price/Cash Flow	—	—	—	—	—	—	—	—
EV/EBITDA	19.7	21.1	21.1	25.6	22.9	20.6	18.8	17.3
EV/EBIT	19.5	21.8	22.4	26.8	23.9	21.5	19.6	18.0
Dividend Yield %	0.8	0.8	0.8	0.6	0.7	0.8	1.0	1.1
Dividend Payout %	20.4	20.8	21.0	20.9	22.0	21.5	21.7	22.0
Free Cash Flow Yield %	—	—	—	—	—	—	—	—

### Operating Performance / Profitability as of 09 Jun 2025

Fiscal Year, ends 30 Sep	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
ROA %	17.5	19.1	20.9	22.7	24.4	28.3	31.3	33.5
ROE %	42.0	44.6	50.4	59.2	68.7	94.9	122.7	148.5
ROIC %	38.6	43.8	46.9	62.9	102.3	117.6	131.9	144.9

# Visa Inc Class A V ★★

12 Jun 2025 21:42, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
371.40 USD 12 Jun 2025	306.00 USD 9 Jun 2025 19:18, UTC	1.21	676.16 USD Bil 13 Jun 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

Financial Leverage (Reporting Currency)	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Fiscal Year, ends 30 Sep								
Debt/Capital %	5.7	4.1	3.8	3.4	3.4	3.5	3.5	3.6
Assets/Equity	2.4	2.3	2.4	2.6	2.8	3.3	3.9	4.4
Net Debt/EBITDA	0.2	0.0	0.2	0.1	0.2	0.3	0.4	0.4
Total Debt/EBITDA	1.1	0.9	0.8	0.8	0.7	0.7	0.7	0.6
EBITDA/ Net Interest Expense	36.3	35.1	39.9	41.5	41.0	43.4	45.4	47.0

Forecast Revisions as of 9 Jun 2025	2025		2026		2027	
Prior data as of 13 Dec 2024	Current	Prior	Current	Prior	Current	Prior
Fair Value Estimate Change (Trading Currency)	306.00	289.25	—	—	—	—
Revenue (USD Mil)	54,905	49,690	60,804	54,905	67,245	60,753
Operating Income (USD Mil)	26,866	24,057	30,088	26,811	33,427	30,003
EBITDA (USD Mil)	28,074	25,591	31,426	27,421	34,906	30,624
Net Income (USD Mil)	22,152	20,124	23,458	22,106	26,498	23,790
Earnings Per Share (Diluted) (USD)	10.71	9.73	11.96	10.80	14.08	12.01
Adjusted Earnings Per Share (Diluted) (USD)	11.29	9.92	12.35	11.27	14.52	12.52
Dividends Per Share (USD)	2.36	2.08	2.71	2.36	3.12	2.71

## Key Valuation Drivers as of 09 Jun 2025

Cost of Equity %	9.0
Pre-Tax Cost of Debt %	5.8
Weighted Average Cost of Capital %	8.6
Long-Run Tax Rate %	21.0
Stage II EBI Growth Rate %	8.0
Stage II Investment Rate %	19.0
Perpetuity Year	20

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

## Discounted Cash Flow Valuation as of 09 Jun 2025

	USD Mil
Present Value Stage I	83,096
Present Value Stage II	242,568
Present Value Stage III	242,951
<b>Total Firm Value</b>	<b>568,615</b>
Cash and Equivalents	20,809
Debt	20,836
Other Adjustments	0
<b>Equity Value</b>	<b>568,588</b>
Projected Diluted Shares	1,962
<b>Fair Value per Share (USD)</b>	<b>306.00</b>

# Visa Inc Class A ★★ 12 Jun 2025 21:42, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
371.40 USD 12 Jun 2025	306.00 USD 9 Jun 2025 19:18, UTC	1.21	676.16 USD Bil 13 Jun 2025	 Wide	 Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

## ESG Risk Rating Breakdown

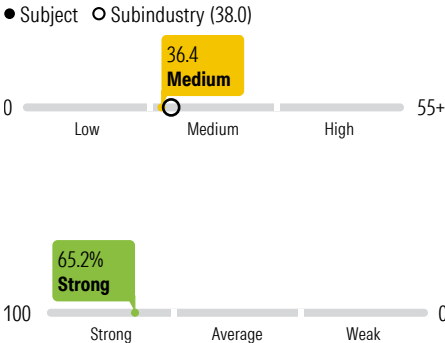
### Exposure

Company Exposure¹	36.4
- Manageable Risk	33.7
Unmanageable Risk²	2.7

### Management

Manageable Risk	33.7
- Managed Risk³	21.9
Management Gap⁴	11.7

Overall Unmanaged Risk 14.5



- ▶ 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 65.2% 4. Management Gap assesses risks that are not managed, but are considered manageable 5. ESG Risk Rating Assessment = Overall Unmanaged Risk = Management Gap plus Unmanageable Risk

## ESG Risk Rating Assessment⁵



ESG Risk Rating is of Jun 04, 2025. Highest Controversy Level is as of Jun 08, 2025. Sustainalytics Subindustry: Data Processing. 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/](https://www.sustainalytics.com/esg-ratings/).

## Peer Analysis 04 Jun 2025

Company Name	Exposure	Management	ESG Risk Rating
Visa Inc	36.4   Medium 0 — ● — 55+	65.2   Strong 100 — ● — 0	14.5   Low 0 — ● — 40+
American Express Co	39.6   Medium 0 — ● — 55+	56.4   Strong 100 — ● — 0	18.9   Low 0 — ● — 40+
State Street Corp	50.9   Medium 0 — ● — 55+	62.4   Strong 100 — ● — 0	21.2   Medium 0 — ● — 40+
Mastercard Inc	38.1   Medium 0 — ● — 55+	68.1   Strong 100 — ● — 0	14.2   Low 0 — ● — 40+
The Western Union Co	34.3   Low 0 — ● — 55+	53.3   Strong 100 — ● — 0	17.4   Low 0 — ● — 40+

# Appendix

## Historical Morningstar Rating

### Visa Inc Class A V 12 Jun 2025 21:42, UTC

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

### American Express Co AXP 12 Jun 2025 21:34, UTC

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

### Mastercard Inc Class A MA 12 Jun 2025 21:40, UTC

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

# Research Methodology for Valuing Companies

## Overview

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

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

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

## 1. Economic Moat

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

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

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

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

## 2. Estimated Fair Value

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

Our model is divided into three distinct stages:

### Stage I: Explicit Forecast

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

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

### Stage II: Fade

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

### Stage III: Perpetuity

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

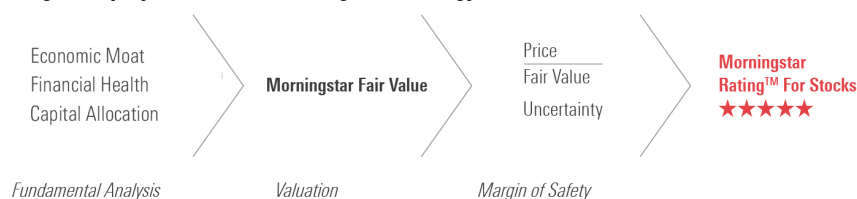
Because a dollar earned today is worth more than a dollar earned tomorrow, we discount our projections of cash flows in stages I, II, and III to arrive at a total present value of expected future cash flows. Because we are modeling free cash flow to the firm—representing cash available to provide a return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

## 3. Uncertainty Around That Fair Value Estimate

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

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

## Morningstar Equity Research Star Rating Methodology



# Research Methodology for Valuing Companies

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

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

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

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

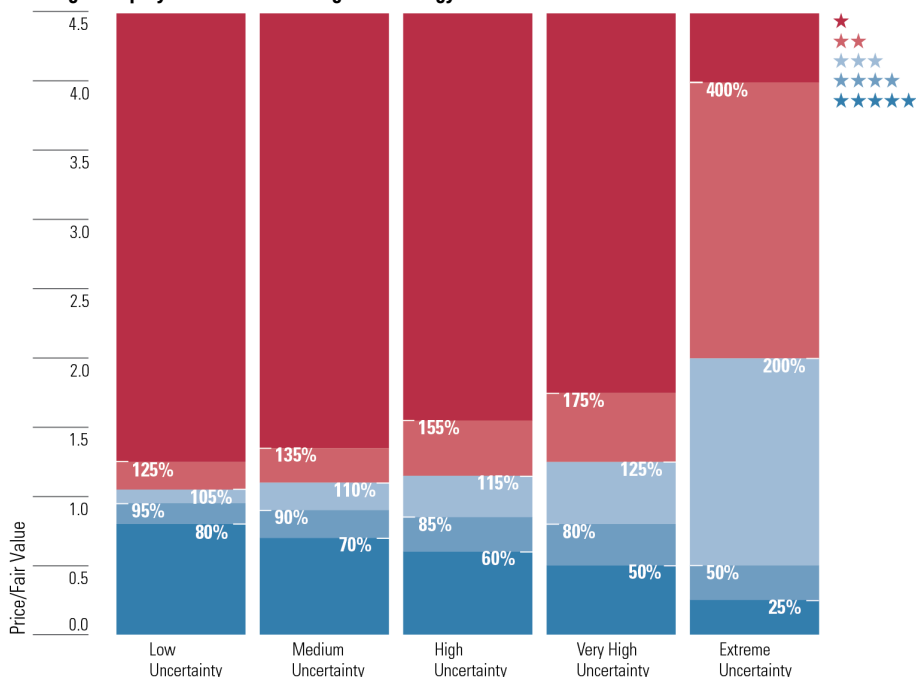
Our uncertainty rating is based on the interquartile range, or the middle 50% of potential outcomes, covering the 25th percentile–75th percentile. This means that when a stock hits 5 stars, we expect there is a 75% chance that the intrinsic value of that stock lies above the current market price. Similarly,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

## 4. Market Price

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

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

## Morningstar Equity Research Star Rating Methodology



## Morningstar Star Rating for Stocks

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

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

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

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

The Morningstar Star Ratings for stocks are defined below:

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

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

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

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

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

## Other Definitions

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

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

# Research Methodology for Valuing Companies

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

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

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

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

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

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

Sustainalytics analyzes over 1,300 data points to assess a company's exposure to and management of ESG risks. In other words, ESG Risk Ratings measures a company's unmanaged ESG Risks represented as a quantitative score.

Unmanaged Risk is measured on an open-ended scale starting at zero (no risk) with lower scores representing less unmanaged risk and, for 95% of cases, the unmanaged ESG Risk score is below 50.

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

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

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

## 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

# Research Methodology for Valuing Companies

by local and/or regional regulatory bodies, including laws in 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](http://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 is-

sued 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

# Research Methodology for Valuing Companies

India # The Conflicts of Interest disclosure above also applies to associates of Manager Research Analysts in India. The terms and conditions on which Morningstar Investment 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:** The Report is intended for Institutional Investor audiences and 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 Report.

This content is provided for informational purposes only and may be shared or redistributed by Institutional Investors to their clients or other permitted persons, subject to obtaining the appropriate licence from Morningstar. Redistribution of this content is subject to any applicable conditions or limitations, including those agreed commercially or contractually with Morningstar. The person who shares or redistributes this content shall be solely responsible for compliance with all relevant legal and regulatory obligations in the jurisdictions in which the material is made available.

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 decision.

Morningstar, Inc., and its affiliates rely on certain exemptions (Financial Advisers Regulations, Section 27(1)(e), Section 32B and 32C) to provide its investment research to recipients in Singapore.

**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.