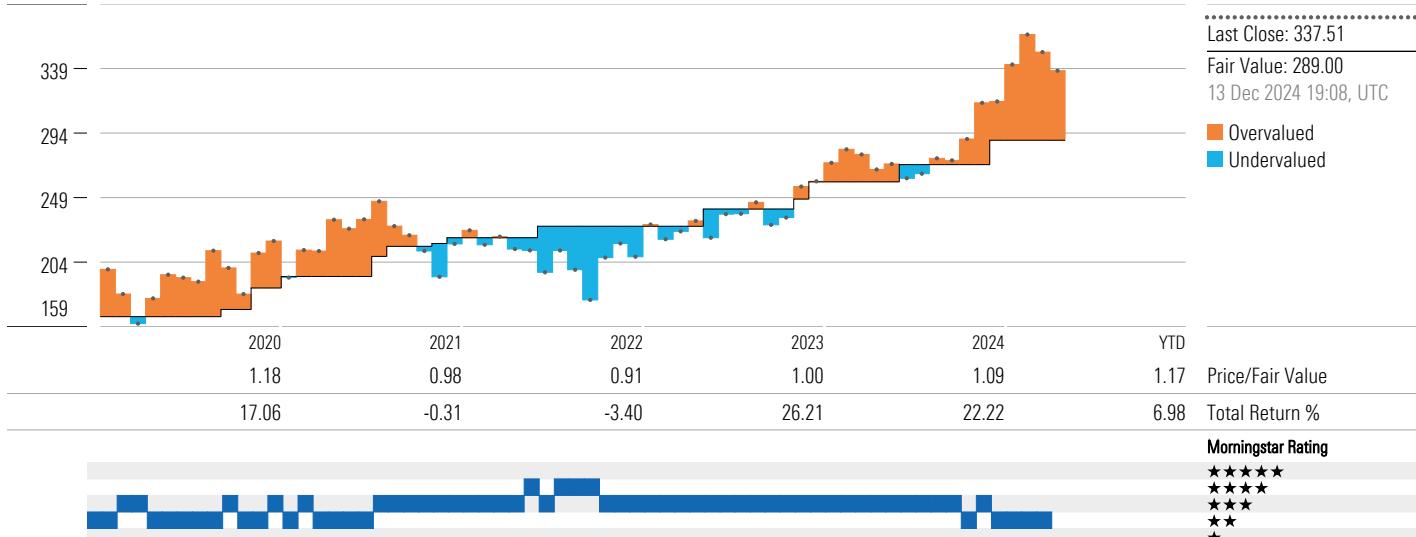


# Visa Inc Class A V ★★

29 Apr 2025 21:34, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment <sup>1</sup>
337.51 USD 28 Apr 2025	289.00 USD 13 Dec 2024 19:08, UTC	1.17	658.80 USD Bil 29 Apr 2025	Wide	Large Growth	Medium	Standard	00000000 2 Apr 2025 05:00, UTC

## Price vs. Fair Value



Total Return % as of 28 Apr 2025. Last Close as of 28 Apr 2025. Fair Value as of 13 Dec 2024 19:08, UTC.

## Contents

- Analyst Note (29 Apr 2025)
- Business Description
- Business Strategy & Outlook (13 Dec 2024)
- Bulls Say / Bears Say (13 Dec 2024)
- Economic Moat (13 Dec 2024)
- Fair Value and Profit Drivers (13 Dec 2024)
- Risk and Uncertainty (13 Jun 2024)
- Capital Allocation (13 Dec 2024)
- Analyst Notes Archive
- Financials
- ESG Risk
- Appendix
- Research Methodology for Valuing Companies

## Important Disclosure

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

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

## Visa Earnings: Results Hold Steady, No Signs Yet of Consumer Spending Weakening

**Analyst Note** 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

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Sector	Industry	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.
Financial Services	Credit Services	<p>► 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.</p>

Business Description	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.
<p>Visa is the largest payment processor in the world. In fiscal 2023, it processed almost \$15 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.</p>	<p>► 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.</p>

## Business Strategy & Outlook

Brett Horn, CFA, Senior Equity Analyst, 13 Dec 2024

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 offer 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 continue to 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 to a reduction in global travel. But 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 still 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

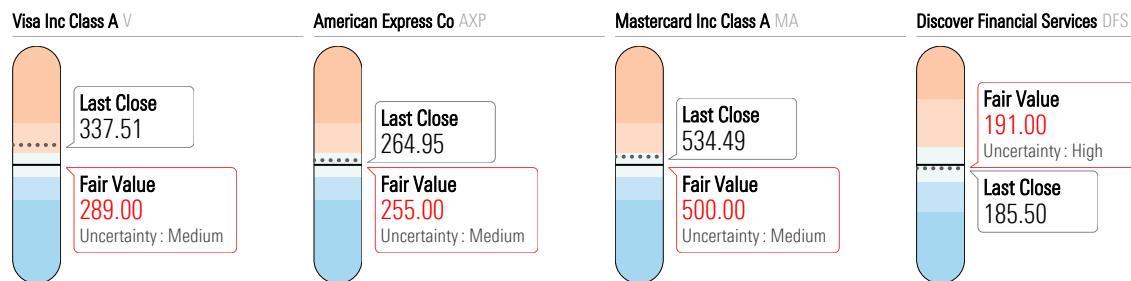
Brett Horn, CFA, Senior Equity Analyst, 13 Dec 2024

- 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

# Visa Inc Class A V ★★ 29 Apr 2025 21:34, UTC

Last Price 337.51 USD 28 Apr 2025	Fair Value Estimate 289.00 USD 13 Dec 2024 19:08, UTC	Price/FVE 1.17	Market Cap 658.80 USD Bil 29 Apr 2025	Economic Moat™ Wide	Equity Style Box Large Growth	Uncertainty Medium	Capital Allocation Standard	ESG Risk Rating Assessment¹  2 Apr 2025 05:00, UTC
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## Competitors



Economic Moat	Wide	Wide	Wide	Narrow
Currency	USD	USD	USD	USD
Fair Value	289.00 13 Dec 2024 19:08, UTC	255.00 24 Feb 2025 19:22, UTC	500.00 25 Feb 2025 21:11, UTC	191.00 24 Mar 2025 19:08, UTC
1-Star Price	390.15	344.25	675.00	296.05
5-Star Price	202.30	178.50	350.00	114.60
Assessment	Overvalued 29 Apr 2025	Fairly Valued 29 Apr 2025	Fairly Valued 29 Apr 2025	Fairly Valued 29 Apr 2025
Morningstar Rating	★★★ 29 Apr 2025 21:34, UTC	★★★ 29 Apr 2025 21:26, UTC	★★★ 29 Apr 2025 21:31, UTC	★★★ 29 Apr 2025 21:33, UTC
Analyst	Brett Horn, Senior Equity Analyst	Michael Miller, Equity Analyst	Brett Horn, Senior Equity Analyst	Michael Miller, Equity Analyst
Capital Allocation	Standard	Standard	Standard	Standard
Price/Fair Value	1.17	1.05	1.08	0.97
Price/Sales	18.47	2.79	17.59	2.59
Price/Book	17.43	5.95	75.28	2.61
Price/Earning	32.48	19.11	36.61	9.91
Dividend Yield	0.66%	1.10%	0.53%	1.51%
Market Cap	658.80 Bil	187.07 Bil	492.03 Bil	46.64 Bil
52-Week Range	252.70—366.54	220.43—326.28	428.86—582.23	119.95—205.76
Investment Style	Large Growth	Large Blend	Large Growth	Mid Growth

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, 13 Dec 2024

- 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.

### 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

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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 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, 13 Dec 2024

We are increasing our fair value estimate to \$289 per share from \$272 due mainly to time value since our last update. Our fair value estimate equates to 25.7 times 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, but 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

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29 Apr 2025 21:34, UTC

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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 improve at an average annual rate of 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, 13 Dec 2024

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 think the decision to go with an insider suggests that the company will largely maintain its recent strategic course, and we see that as the right move.

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

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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 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: 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 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 Inc Class A V ★★ 29 Apr 2025 21:34, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment <sup>1</sup>
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## 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 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

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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

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.

## Visa Earnings: Growth Holds Steady

Brett Horn, CFA, Senior Equity Analyst, 24 Apr 2024

Visa's fiscal second quarter essentially showed the company holding steady. Following the company's ups and downs during the pandemic and the subsequent recovery, we think Visa has now settled into a more normalized groove. We believe the company's recent performance highlights the long-term secular tailwinds that will continue to drive solid growth over the long run. In our view, the combination of

# Visa Inc Class A V ★★

29 Apr 2025 21:34, UTC

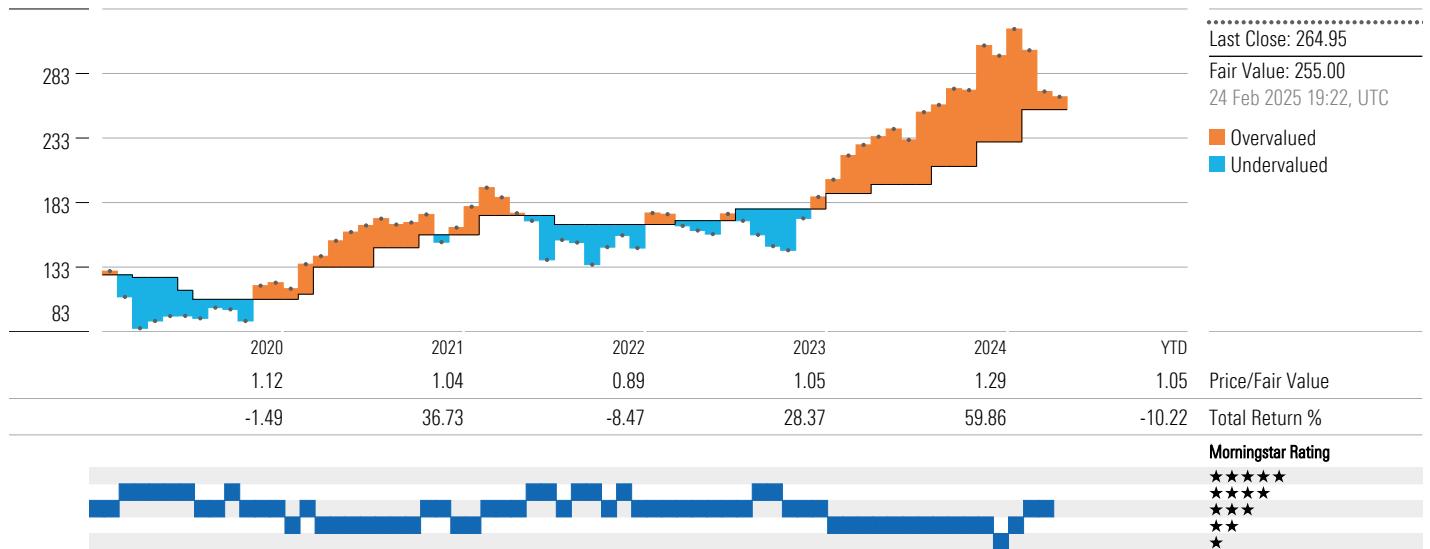
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Visa's wide moat and its long growth runway creates a very attractive backdrop. We will maintain our \$260 fair value estimate and see shares as fairly valued. Net revenue was up 10% year over year, roughly in line with the past couple of quarters. Payments volume increased 8% year over year on a constant-currency basis, almost exactly even with last quarter. Macroeconomic conditions are likely the biggest swing factor in the near term, but Visa appears to be on a very steady course for now. Cross-border volume, the most volatile area over the past few years, also signals increased stability. Constant-currency cross-border volume, excluding intra-Europe transactions—which are priced similarly to domestic transactions—grew 16% year over year in the quarter, in line with the last quarter. While growth in this area is still healthy and a bit above our long-term expectations, the recovery in cross-border volume increasingly looks to have already been realized. Adjusted operating margins (on a net revenue basis) fell slightly to 67.3% from 67.7% last year, and management maintained its guidance of low-double-digit expense growth for the full year. On the plus side, client incentives increased only 13% year over year, reducing margin pressure on a gross revenue basis, although this is likely mainly due to the timing of new deals. ■

# Visa Inc Class A V ★★ 29 Apr 2025 21:34, UTC

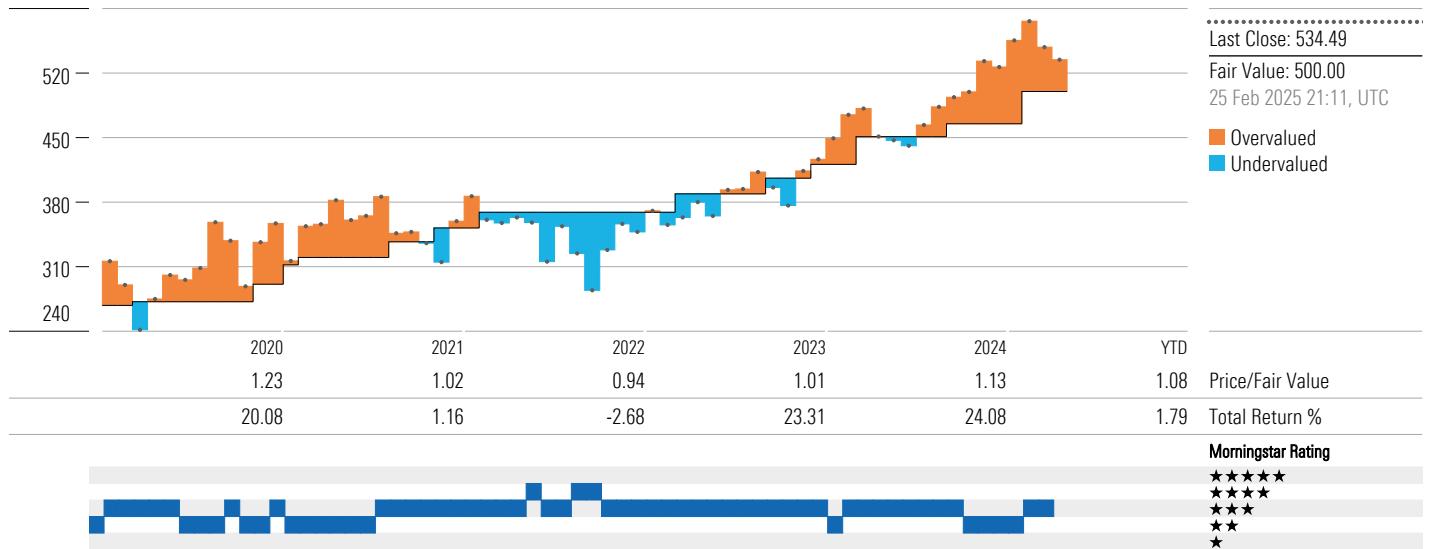
## Competitors Price vs. Fair Value

### American Express Co AXP



Total Return % as of 28 Apr 2025. Last Close as of 28 Apr 2025. Fair Value as of 24 Feb 2025 19:22, UTC.

### Mastercard Inc Class A MA

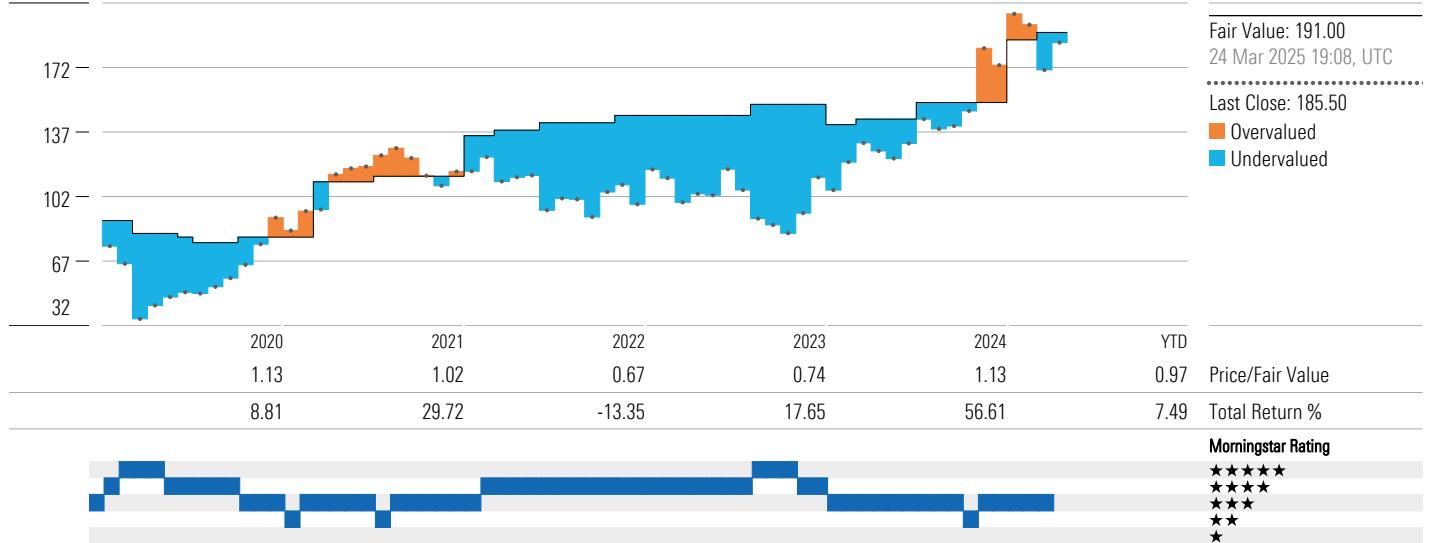


Total Return % as of 28 Apr 2025. Last Close as of 28 Apr 2025. Fair Value as of 25 Feb 2025 21:11, UTC.

# Visa Inc Class A V ★★ 29 Apr 2025 21:34, UTC

## Competitors Price vs. Fair Value

### Discover Financial Services DFS



Total Return % as of 28 Apr 2025. Last Close as of 28 Apr 2025. Fair Value as of 24 Mar 2025 19:08, UTC.

# Visa Inc Class A V ★★ 29 Apr 2025 21:34, UTC

Last Price 337.51 USD 28 Apr 2025	Fair Value Estimate 289.00 USD 13 Dec 2024 19:08, UTC	Price/FVE 1.17	Market Cap 658.80 USD Bil 29 Apr 2025	Economic Moat™ Wide	Equity Style Box Large Growth	Uncertainty Medium	Capital Allocation Standard	ESG Risk Rating Assessment¹  2 Apr 2025 05:00, UTC
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## Morningstar Valuation Model Summary

### Financials as of 13 Dec 2024

	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Fiscal Year, ends 30 Sep								
Revenue (USD Mil)	39,605	44,950	49,690	54,905	60,753	67,159	73,710	80,669
Operating Income (USD Mil)	19,681	21,927	24,057	26,811	30,003	33,317	36,364	39,576
EBITDA (USD Mil)	19,535	22,624	25,591	27,421	30,624	33,952	37,012	40,237
Adjusted EBITDA (USD Mil)	19,535	22,624	25,591	27,421	30,624	33,952	37,012	40,237
Net Income (USD Mil)	14,957	17,273	19,743	21,195	22,817	25,336	27,637	30,061
Adjusted Net Income (USD Mil)	15,673	18,034	20,124	22,106	23,790	26,411	28,816	31,352
Free Cash Flow To The Firm (USD Mil)	14,878	18,955	19,362	21,703	23,934	26,366	28,718	31,205
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	10.80	12.01	13.89	15.76	17.81
Adjusted Earnings Per Share (Diluted) (USD)	7.34	8.65	9.92	11.27	12.52	14.48	16.43	18.58
Dividends Per Share (USD)	1.50	1.80	2.08	2.36	2.71	3.12	3.59	4.13

### Margins & Returns as of 13 Dec 2024

	Actual			Forecast					
	3 Year Avg	2022	2023	2024	2025	2026	2027	2028	2029
Operating Margin %	48.3	49.7	48.8	48.4	48.8	49.4	49.6	49.3	49.1
EBITDA Margin %	50.4	49.3	50.3	51.5	49.9	50.4	50.6	50.2	49.9
Adjusted EBITDA Margin %	—	49.3	50.3	51.5	49.9	50.4	50.6	50.2	49.9
Net Margin %	38.6	37.8	38.4	39.7	38.6	37.6	37.7	37.5	37.3
Adjusted Net Margin %	40.1	39.6	40.1	40.5	40.3	39.2	39.3	39.1	38.9
Free Cash Flow To The Firm Margin %	39.6	37.6	42.2	39.0	39.5	39.4	39.3	39.0	38.7

### Growth & Ratios as of 13 Dec 2024

	Actual			Forecast					
	3 Year CAGR	2022	2023	2024	2025	2026	2027	2028	2029 5 Year CAGR
Revenue Growth %	15.2	22.0	13.5	10.5	10.5	10.7	10.5	9.8	9.4
Operating Income Growth %	15.0	24.5	11.4	9.7	11.5	11.9	11.1	9.1	8.8
EBITDA Growth %	14.5	12.4	15.8	13.1	7.1	11.7	10.9	9.0	8.7
Adjusted EBITDA Growth %	13.8	12.4	15.8	13.1	7.1	11.7	10.9	9.0	8.7
Earnings Per Share Growth %	18.7	20.5	18.3	17.5	11.0	11.2	15.7	13.5	13.0
Adjusted Earnings Per Share Growth %	18.7	26.2	17.9	14.7	13.6	11.1	15.6	13.5	12.9

### Valuation as of 13 Dec 2024

	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Price/Earning	31.3	31.8	34.4	30.3	27.3	23.6	20.8	—
Price/Sales	12.0	11.9	13.3	12.0	10.8	9.8	8.9	—
Price/Book	13.8	14.8	17.7	18.8	19.4	23.1	26.8	—
Price/Cash Flow	—	—	—	—	—	—	—	—
EV/EBITDA	24.4	23.8	26.0	24.3	21.7	19.6	18.0	—
EV/EBIT	24.3	24.6	276.8	24.8	22.2	20.0	18.3	—
Dividend Yield %	0.7	0.7	0.6	0.7	0.8	0.9	1.1	—
Dividend Payout %	20.4	20.8	21.0	21.0	21.7	21.6	21.9	22.2
Free Cash Flow Yield %	—	—	—	—	—	—	—	—

### Operating Performance / Profitability as of 13 Dec 2024

	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Fiscal Year, ends 30 Sep								
ROA %	14.9	17.5	19.1	20.9	22.9	24.4	28.0	30.9
ROE %	32.8	42.0	44.6	50.4	59.4	68.4	93.8	123.7
ROIC %	30.3	38.6	43.8	46.9	62.7	102.0	117.2	130.8

# Visa Inc Class A V ★★ 29 Apr 2025 21:34, UTC

Last Price 337.51 USD 28 Apr 2025	Fair Value Estimate 289.00 USD 13 Dec 2024 19:08, UTC	Price/FVE 1.17	Market Cap 658.80 USD Bil 29 Apr 2025	Economic Moat™  Wide	Equity Style Box  Large Growth	Uncertainty Medium	Capital Allocation Standard	ESG Risk Rating Assessment¹  2 Apr 2025 05:00, UTC
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Financial Leverage (Reporting Currency)	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Fiscal Year, ends 30 Sep	5.7	4.1	3.8	3.5	3.5	3.5	3.6	3.6
Debt/Capital %	2.4	2.3	2.4	2.6	2.8	3.4	4.0	4.7
Assets/Equity	0.2	0.0	0.2	0.1	0.2	0.3	0.4	0.4
Net Debt/EBITDA	1.1	0.9	0.8	0.8	0.8	0.7	0.7	0.7
Total Debt/EBITDA	36.3	35.1	39.9	40.5	40.0	42.2	43.8	45.4
EBITDA/ Net Interest Expense								

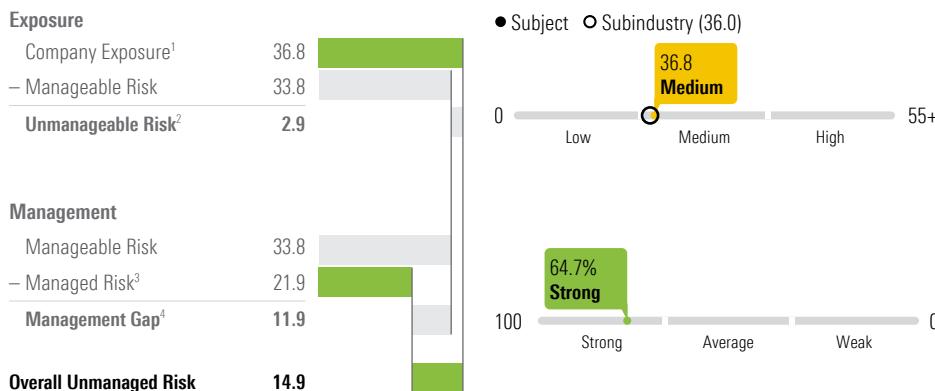
Forecast Revisions as of 13 Dec 2024	2025		2026		2027	
	Current	Prior	Current	Prior	Current	Prior
Prior data as of 13 Jun 2024	289.00	271.69	—	—	—	—
Fair Value Estimate Change (Trading Currency)						
Revenue (USD Mil)	54,905	55,595	60,753	61,650	67,159	67,850
Operating Income (USD Mil)	26,811	26,998	30,003	30,386	33,317	33,255
EBITDA (USD Mil)	27,421	27,887	30,624	31,009	33,952	33,891
Net Income (USD Mil)	22,106	22,244	23,790	24,077	26,411	26,341
Earnings Per Share (Diluted) (USD)	10.80	10.97	12.01	12.21	13.89	13.98
Adjusted Earnings Per Share (Diluted) (USD)	11.27	11.32	12.52	12.73	14.48	14.58
Dividends Per Share (USD)	2.36	2.18	2.71	2.61	3.12	3.13

Key Valuation Drivers as of 13 Dec 2024	Discounted Cash Flow Valuation as of 13 Dec 2024		USD Mil
	Present Value Stage I	Present Value Stage II	
Cost of Equity %	9.0	—	82,285
Pre-Tax Cost of Debt %	5.8	—	238,005
Weighted Average Cost of Capital %	8.6	—	238,381
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 <a href="https://pitchbook.com/">https://pitchbook.com/</a> .			
	Total Firm Value		558,672
	Cash and Equivalents		20,809
	Debt		20,836
	Other Adjustments		0
	Equity Value		558,645
	Projected Diluted Shares		1,962
	Fair Value per Share (USD)		289.00

# Visa Inc Class A V ★★ 29 Apr 2025 21:34, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
337.51 USD 28 Apr 2025	289.00 USD 13 Dec 2024 19:08, UTC	1.17	658.80 USD Bil 29 Apr 2025	Wide	Large Growth	Medium	Standard	 2 Apr 2025 05:00, UTC

## ESG Risk Rating Breakdown



- 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 64.7% 4. Management Gap assesses risks that are not managed, but are considered manageable 5. ESG Risk Rating Assessment = Overall Unmanaged Risk + Unmanageable Risk

## ESG Risk Rating Assessment²



ESG Risk Rating is of Apr 02, 2025. Highest Controversy Level is as of Apr 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://sustainalytics.com/esg-ratings/).

## Peer Analysis 02 Apr 2025

Company Name	Exposure	Management	ESG Risk Rating
Visa Inc	36.8   Medium	64.7   Strong	14.9   Low
American Express Co	39.2   Medium	56.6   Strong	18.3   Low
Mastercard Inc	38.1   Medium	68.1   Strong	14.2   Low
The Western Union Co	34.3   Low	53.3   Strong	17.4   Low
Discover Financial Services	38.8   Medium	50.6   Strong	20.6   Medium

## Appendix

### Historical Morningstar Rating

#### Visa Inc Class A V 29 Apr 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
★★	★★	★★★	★★	★★	★★	★★	★★	★★★	★★★	★★	★★

#### American Express Co AXP 29 Apr 2025 21:26, 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 29 Apr 2025 21:31, UTC

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

**Discover Financial Services DFS 29 Apr 2025 21:33, 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, 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 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 re-

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

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

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

## 2. Estimated Fair Value

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

Our model is divided into three distinct stages:

## Stage I: Explicit Forecast

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

rive our annual free cash flow forecast.

## Stage II: Fade

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

## Stage III: Perpetuity

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

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

## 3. Uncertainty Around That Fair Value Estimate

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

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

## Morningstar Equity Research Star Rating Methodology



# 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.

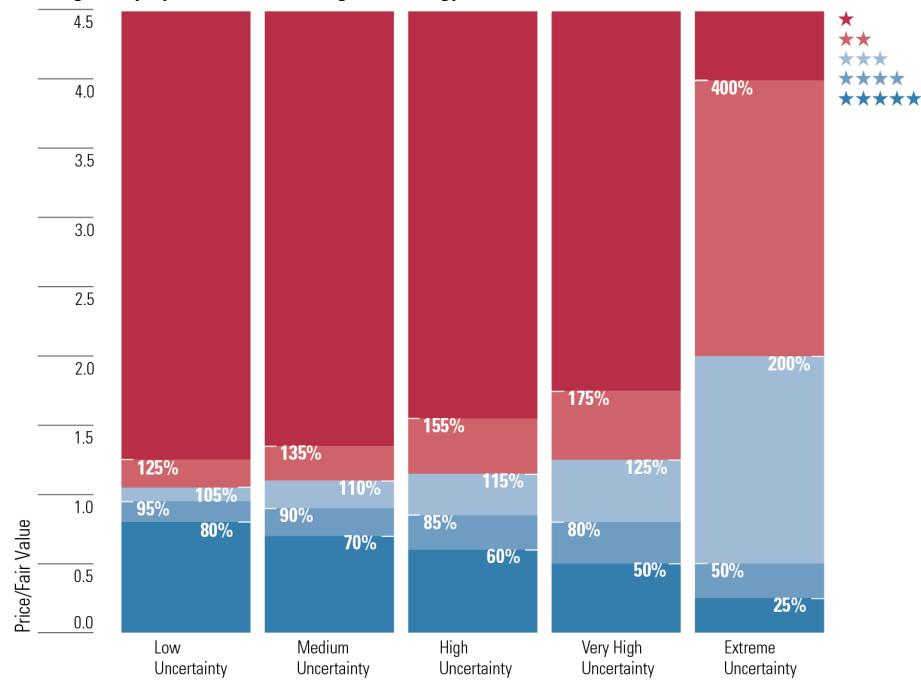
## 4. Market Price

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 ad-

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

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

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

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

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

## Other Definitions

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

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

# 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.

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starting at zero (no risk) with lower scores representing less unmanaged risk and, for 95% of cases, the unmanaged ESG Risk score is below 50.

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