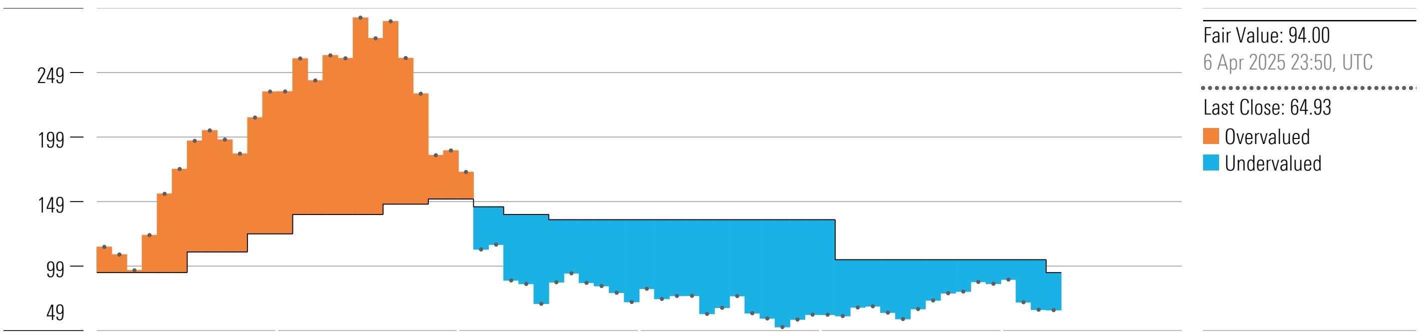
Morningstar Equity Analyst Report | Report as of 29 Apr 2025 16:06, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS

# PayPal Holdings Inc PYPL ★★★★ 28 Apr 2025 21:38, UTC

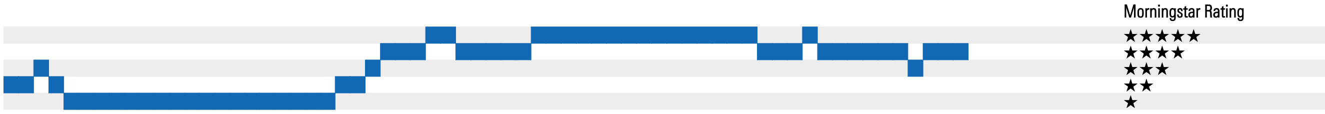
| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment[1] |
|---|---|---|---|---|---|---|---|---|
| 64.93 USD<br>28 Apr 2025 | 94.00 USD<br>6 Apr 2025 23:50, UTC | 0.69 | 64.68 USD Bil<br>29 Apr 2025 | Narrow | Large Value | High | Standard | 2 Apr 2025 05:00, UTC |

## Price vs. Fair Value




| | 2020 | 2021 | 2022 | 2023 | 2024 | YTD |
|---|---|---|---|---|---|---|
| Price/Fair Value | 1.89 | 1.25 | 0.53 | 0.45 | 0.82 | 0.69 |
| Total Return % | 116.51 | -19.48 | -62.23 | -13.77 | 38.98 | -23.93 |

Morningstar Rating




Total Return % as of 28 Apr 2025. Last Close as of 28 Apr 2025. Fair Value as of 6 Apr 2025 23:50, UTC.

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

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

## PayPal Earnings: Recent Trends Persist; Progress in Shifting to Profitable Growth

**Analyst Note** Brett Horn, CFA, Senior Equity Analyst, 29 Apr 2025

In our view, PayPal's first-quarter results contained no major surprises and largely showed a continuation of recent trends. We think the company is making progress in shifting toward profitable growth.

**Why it matters:** While reported constant-currency net revenue growth of 2% was not impressive, this was largely expected. Underlying volume growth showed the company continuing to execute on its strategy.

- PayPal-branded year-over-year volume was 4%, or 6% excluding leap day last year. The adjusted figure was in line with growth last quarter.
- Braintree volume growth declined to 2% in the quarter as management continues to cull unprofitable volume. While this is compressing near-term revenue growth, we see it as the right move from a long-term perspective. The company should start to lap the impact of this activity by the end of the year.

**The bottom line:** PayPal is tracking reasonably well, in our view, and we will maintain our $94 fair value estimate for the narrow-moat company. We continue to see the shares as undervalued from a long-term perspective, although we see potential for meaningful near-term headwinds if the economy goes into a downturn.

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| Sector | Industry |
|---|---|
| Financial Services | Credit Services |

**Business Description**

PayPal was spun off from eBay in 2015 and provides electronic payment solutions to merchants and consumers, with a focus on online transactions. The company had 434 million active accounts at the end of 2024. The company also owns Venmo, a person-to-person payment platform.

- We believe transaction margin dollar (essentially gross profit) growth is the key metric to assess the company's pivot toward profitable volume. Year-over-year growth in transaction margin dollars was 7% excluding interest income, or 8% excluding the impact of leap year last year. This represented modest acceleration from the fourth quarter on an underlying basis.
- Adjusted operating margin improved 260 basis points year over year during the quarter, building on the margin expansion the company reported in 2024. While we don't expect PayPal to maintain this rate of improvement, we think recent results highlight the scalable nature of the business.

**Business Strategy & Outlook** Brett Horn, CFA, Senior Equity Analyst, 6 Apr 2025

PayPal’s development of a network of both merchants and consumers early in the evolution of e-commerce allowed the company to build and maintain an enviable competitive position. Historically, PayPal’s growth had been driven by the ongoing shift toward electronic payments and the rise of e-commerce, which the coronavirus pandemic temporarily accelerated. However, the company ran into headwinds as the positives from the pandemic reversed and new competition arose. Management has attempted to combat the pressure on top-line growth with a greater focus on cost control and product innovation, with the ultimate goal of shifting toward more profitable growth. We see this evolution as the right move, but it will likely take some time to fully see the results. Additionally, PayPal's online focus leaves it relatively exposed to a downturn in the economy, as online purchases tend to be discretionary. If the macro picture changes for the worse, this could swamp any underlying improvements in the near term.

Longer term, we see a mix of competitive opportunities and threats that create a fairly wide range of outcomes. PayPal remains a somewhat unique player within the payments space. We think this remains its key strength, but its position on both the merchant and consumer side could be challenged over the long run. On the merchant side, new online-focused acquirers have emerged and fintech innovation also appears to be concentrated in the e-commerce space. On the consumer side, services such as Apple Pay represent competition for PayPal. Competition on both sides could chip away at PayPal’s position. On the other hand, PayPal remains a preferred partner in the online space. Its Braintree business is becoming more profitable and PayPal could build a growing presence in in-person transactions. In balance, we think the company can hold its own, but we recognize the potential to veer in either direction.

An additional attraction is Venmo. Efforts to monetize the platform are in still in the early stages and Venmo will likely not be a major driver anytime soon. But we believe it has the potential to create upside above our current fair value estimate.

**Bulls Say** Brett Horn, CFA, Senior Equity Analyst, 6 Apr 2025

- There is still plenty of runway for growth in electronic payments. Electronic payments only surpassed

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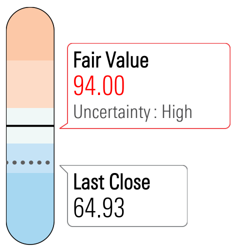
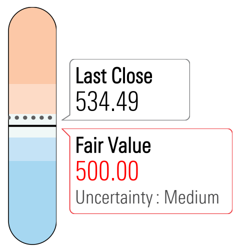
## Competitors

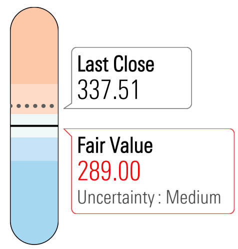
PayPal Holdings Inc PYPL



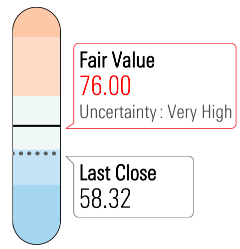

Mastercard Inc Class A MA




Visa Inc Class A V




Block Inc Class A XYZ




| | PayPal Holdings Inc PYPL | Mastercard Inc Class A MA | Visa Inc Class A V | Block Inc Class A XYZ |
|---|---|---|---|---|
| Economic Moat | Narrow | Wide | Wide | Narrow |
| Currency | USD | USD | USD | USD |
| Fair Value | 94.00 6 Apr 2025 23:50, UTC | 500.00 25 Feb 2025 21:11, UTC | 289.00 13 Dec 2024 19:08, UTC | 76.00 6 Apr 2025 23:52, UTC |
| 1-Star Price | 145.70 | 675.00 | 390.15 | 133.00 |
| 5-Star Price | 56.40 | 350.00 | 202.30 | 38.00 |
| Assessment | Undervalued 28 Apr 2025 | Fairly Valued 28 Apr 2025 | Overvalued 28 Apr 2025 | Undervalued 28 Apr 2025 |
| Morningstar Rating | ★★★★28 Apr 2025 21:38, UTC | ★★★28 Apr 2025 21:27, UTC | ★★28 Apr 2025 21:33, UTC | ★★★★28 Apr 2025 21:37, UTC |
| Analyst | Brett Horn, Senior Equity Analyst | Brett Horn, Senior Equity Analyst | Brett Horn, Senior Equity Analyst | Brett Horn, Senior Equity Analyst |
| Capital Allocation | Standard | Standard | Standard | Standard |
| Price/Fair Value | 0.69 | 1.07 | 1.17 | 0.77 |
| Price/Sales | 2.12 | 17.59 | 18.47 | 1.54 |
| Price/Book | 3.16 | 75.28 | 17.43 | 1.70 |
| Price/Earning | 14.33 | 36.61 | 32.48 | 16.81 |
| Dividend Yield | 0.00% | 0.53% | 0.66% | 0.00% |
| Market Cap | 63.46 Bil | 487.30 Bil | 651.06 Bil | 36.13 Bil |
| 52-Week Range | 55.85—93.66 | 428.86—582.23 | 252.70—366.54 | 46.42—99.26 |
| Investment Style | Large Value | Large Growth | Large Growth | Mid Growth |

cash payments on a global basis a few years ago.

- The scalable nature of the business should allow PayPal to improve its margins over time.
- PayPal's long-running experience in online payments is a unique asset that is becoming more valuable as e-commerce becomes a bigger piece of the pie.

**Bears Say** Brett Horn, CFA, Senior Equity Analyst, 6 Apr 2025

- The separation between online and point-of-sale transactions is blurring, and PayPal may increasingly come into competition with larger companies in the future.
- Alipay and WeChat provide examples of how governments could favor local players, and this could shut PayPal out of a number of emerging market opportunities.
- Opportunities to monetize Venmo could be limited.

**Economic Moat** Brett Horn, CFA, Senior Equity Analyst, 24 Feb 2025

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Payment processing of any type is highly scalable, as once a payment platform is established, there is little incremental cost to additional transactions. If viewed through the lens of the acquiring industry, PayPal has material scale with over $1.7 trillion in annual volume but falls short of the volumes handled by players such as Fiserv and Worldpay. However, the acquiring industry contains niches, and within the e-commerce space, PayPal is a clear leader, which we think places a narrow moat around PayPal's operations.

However, PayPal's branded business is not really an acquirer, its relatively unique model centers around a two-sided platform, with PayPal enjoying relationships with both merchants and consumers. We think this approach has material benefits and was instrumental in allowing PayPal to develop its current foothold in the industry. Having information on both sides of the transaction gives PayPal a meaningful edge in combating fraud, which was a very meaningful factor in the early days of the internet, and remains a key issue. With an ability to combat fraud, PayPal was in a position to become a valued partner on both sides of a payment. Further, the relative ease of using PayPal in an online transaction materially boosts conversion rates, with PayPal transactions converting at a rate of almost 90%, compared with an industry average of about 50%. This highlights the ease of checkout for consumers and the attraction for merchants. With these dynamics in place, PayPal was able to generate a network effect.

We typically think of a network effect as a very strong source of advantage, and one that often gives rise to a wide moat. In PayPal's case, though, we think the effect is much more mild, as the company is a relatively small piece of the overall electronic payment infrastructure. We think PayPal will remain a preferred partner in the online world, given the relative convenience and security of its platform, but its market position is not so strong that the company can dictate terms to other players or gobble up increasing amounts of market share. In our view, the limitations of the network effect are most apparent in the company's decision years ago to switch to neutrality in terms of payment choices (that is, to allow consumers to choose their method of funding, as opposed to being defaulted to funding options that are more advantageous for PayPal).

Outside of its legacy PayPal business, we think its Braintree operations also benefit from a narrow moat due to scale-based cost advantages. While Braintree is smaller than competitors Stripe and Adyen and volume growth is currently constrained by the shift toward more profitable business, it has grown grew quickly historically and looks to have carved out a position as a long-term leader. We think Venmo benefits from a network effect. However, moats in this area are somewhat speculative, given the lack of profitability and uncertain long-term economics.

Given the limited capital needs of the business, historical returns on invested capital have been dramatically higher than any reasonable estimate of the cost of capital.

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**Fair Value and Profit Drivers** Brett Horn, CFA, Senior Equity Analyst, 6 Apr 2025

We are lowering our fair value estimate for PayPal to $94 per share from $104, as we lower our near-term assumptions based on a potentially more difficult economic environment. Our fair value estimate equates to 19.9 times our projected 2025 adjusted earnings per share estimate.

Growth started slowing in 2022 as the company faced some headwinds. Near-term growth will likely remain tempered as the new management team works to reposition the company and focuses on only adding profitable business, and macroeconomic issues could create additional pressure. However, we think PayPal can generate solid growth over the long haul as it rides the secular shift toward electronic payments generally and e-commerce and mobile payments more specifically. Our projections result in a 6% revenue CAGR over the next five years, with growth picking up in the back half of our projection period.

Margins came under pressure due to the loss of the high-margin eBay relationship, but management more than offset this with sizable cost reductions over the past couple of years. With profitability now resting on a more stable base and gross profit now growing year-over-year, we think management's focus on more profitable business and the natural scalability of the business will allow for ongoing but modest margin improvement over time. We project operating margins, adjusted to exclude amortization expense and one-time items, will improve at an average annual rate of about 20 basis points over the next five years.

We use a cost of equity of 9%.

**Risk and Uncertainty** Brett Horn, CFA, Senior Equity Analyst, 24 Feb 2025

The payment processing industry is evolving, and it is possible that new competition and future disruption could significantly reduce the profitability PayPal can generate or cut the company out altogether. As the company’s revenue is directly tied to revenue at its merchant customers and online spending tends to be relatively discretionary, PayPal is sensitive to macroeconomic conditions.

PayPal's international operations present currency and execution risk. Some governments have shown a preference for local payment processors, which could freeze PayPal out of certain markets.

The ultimate economics of the Venmo business are difficult to predict.

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.

Our Morningstar Uncertainty Rating is High. However, this uncertainty is balanced, and we believe PayPal is as equally likely to materially outperform our long-term expectations as it is to underperform.

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**Capital Allocation** Brett Horn, CFA, Senior Equity Analyst, 6 Apr 2025

Our Capital Allocation Rating for PayPal 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 think management's strategic choices and its acquisitions have generally been sound. CEO Dan Schulman joined eBay in 2014 and led PayPal following its spinoff in 2015. While we don't have any major issues with Schulman's leadership, he made some significant mistakes and the company is entering a new phase. As such, we think a change in management was the right move.

Alex Chriss took over as CEO in September 2023. Chriss seems like a solid choice; he previously managed Intuit's small-business and self-employed group, which accounts for most of that company's revenue. We believed it would be difficult to veer from the company's focus on improving margins and returning capital to shareholders, and we think that has largely proved correct. But we don't think Chriss has simply stayed the course, we see his shift toward a heavier focus on only pursuing profitable growth as a good move.

We think PayPal's management historically has successfully navigated the ongoing evolution of the electronic payments space to date, and its choices have helped to build and maintain the narrow moat that surrounds the business. While PayPal has arguably simply been better placed for growth given its online focus, we think management has done a good job exploiting the opportunities in front of the company and working to minimize competitive threats.

We would point to a couple of factors to justify our favorable view. First, we think the switch to consumer funding choice was a savvy move and suggests management understands both the basis of the company's moat and its limitations. This move positioned PayPal as more of a partner to other players in the ecosystem and headed off competition that might have otherwise arisen. PayPal's agreement with Apple looks like another step along these lines.

That said, the company's growth has not been devoid of hiccups, as active account growth stalled starting in 2022. Management noted that incentive programs during the pandemic to add accounts proved to have relatively poor economics, as accounts acquired through incentives tended to churn quickly. As a result, management has shifted investment to focus on engagement with existing accounts. While this switch makes strategic sense to us, we think the situation highlights the uncertainty that accompanies PayPal's growth.

Since its spinoff, PayPal has been fairly active in terms of M&A. We like the iZettle deal, from a strategic perspective. Purchased for $2.2 billion, iZettle is a European company with a business model similar to Square. We think the addition of this company gives PayPal a solid platform to expand into card-present transactions, a move we view as timely given the increasing convergence of online and brick-and-mortar acquiring. Among PayPal's other acquisitions, we would question Xoom, which was purchased

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for $900 million in 2015. We see little strategic connection between PayPal’s core business and international money transfers. PayPal also acquired Honey for approximately $4 billion. This deal made strategic sense, in our opinion, but the price tag was difficult to justify. On the whole, we don't think PayPal's acquisitions have been value-creative. Given the greater focus on capital return, we don't expect meaningful acquisitions anytime soon.

### Analyst Notes Archive

**PayPal: New Targets Laid Out at Investor Day** Brett Horn, CFA,Senior Equity Analyst,25 Feb 2025

All in all, we see little in PayPal’s investor day to alter our view of the narrow-moat company’s prospects. Management outlined some new plans, such as unifying its platforms and improving its small merchant offerings. We think these ideas make basic sense, and it is important for companies like PayPal to consistently adjust their approach and adapt to changes in the payment landscape. But we don’t see any of the new ideas unveiled at the investor day as dramatic shifts, and at this point we believe execution of the company’s current strategy is the primary consideration. We will maintain our $104 fair value estimate and see shares as undervalued.Management did lay out some new financial targets. The company’s near-term targets are roughly in line with our expectations and management’s previous communications. But management set out long-term targets that call for transaction margin dollar growth of 10% or greater and adjusted earnings per share growth of 20% or greater. Additionally, the target of branded volume growth of 8%-10% by 2027 is a bit ahead of our expectations. We are encouraged by management’s willingness to establish such aggressive targets, and these levels are higher than those built into our model. However, we would like to see progress toward these goals before we adjust our long-term expectations.

**PayPal Earnings: Growth Slows as Management Focuses on Profitable Business** Brett Horn, CFA,Senior Equity Analyst,4 Feb 2025

Narrow-moat PayPal had previously warned that fourth-quarter growth would be a bit soft as the company transitions to a more profitable base of business, and that was indeed the case. We think weak headline results and a cautious approach to 2025 guidance sparked a negative reaction from the market. However, we think management’s strategy is sound and lays the groundwork for solid growth and modest margin expansion over time. We will maintain our $104 fair value estimate and see shares as undervalued.Net revenue grew 4% year over year on a constant currency basis, and 7% for the full year. PayPal-branded volume grew 6% year over year in the quarter, accelerating slightly sequentially. However, Braintree volume was up only 2%, a significant decline from 11% growth in the previous quarter, and 14% growth for the full year. Management continues to cull unprofitable business and expects this to impact first-quarter Braintree results, as well.While this has a negative impact on volume, it has aided transaction margin dollar (gross profit) growth, which was up 7% year over year.

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Morningstar Equity Analyst Report | Report as of 29 Apr 2025 16:06, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 8 of 22

# PayPal Holdings Inc PYPL ★★★★ 28 Apr 2025 21:38, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment[1] |
|---|---|---|---|---|---|---|---|---|
| 64.93 USD<br>28 Apr 2025 | 94.00 USD<br>6 Apr 2025 23:50, UTC | 0.69 | 64.68 USD Bil<br>29 Apr 2025 | Narrow | Large Value | High | Standard | 2 Apr 2025 05:00, UTC |

We continue to be encouraged by the progress the company has made on this front and see this as the more important metric. Higher interest rates have been a tailwind for transaction margin dollars this year, due to interest on customer balances. This boosted transaction margin dollar growth by 2 percentage points in 2024, and management expects this to turn into a 1-percentage-point headwind in the first quarter. Excluding this factor, management expects transaction margin dollar growth to hold basically steady.Adjusted operating margins declined to 18.0% from 18.3% last year. However, this was due to the timing of expenses, and margins improved 120 basis points for the full year. We continue to believe PayPal can achieve modest margin expansion over time, due to the scalability of the business and the focus on profitable growth.

**PayPal Earnings: Mixed Results as Company Pivots to More Profitable Business** Brett Horn, CFA,Senior Equity Analyst,29 Oct 2024

PayPal's management has been clear that it is focused on shifting toward more profitable growth, and the third quarter provided another glimpse into how that is playing out. We see results as somewhat mixed, but overall, we are encouraged and believe that the company is laying a more solid base to improve its long-term performance. We will maintain our $104 fair value estimate for the narrow-moat company and see shares as undervalued.Net revenue increased 6% year over year on both a reported and constant currency basis, which marked a deceleration from the previous quarter, and we believe the market is keying in on this. PayPal-branded volume growth held steady at 6% year over year, but Braintree volume fell to 11% from 19% in the previous quarter, as management focused on more profitable business.The positive of this approach is showing through in transaction margin dollars (essentially gross profit), which increased 8% year over year, in line with the previous quarter. We see this as a more important metric than revenue and are encouraged by this result. Management noted that Braintree was a material contributor to transaction dollar margin growth, which we think justifies the slowdown in volume growth. Higher interest rates added 2 percentage points to this growth, and this tailwind will dissipate and may turn into a headwind going forward. However, we are encouraged by the positive trend in this metric as the company has moved through the year, and ongoing underlying improvement could combat lower short-term interest rates.Adjusted operating margins improved to 18.8% from 16.9% last year, as nontransaction expenses increased only 3%. Margin improvement over the past couple of years has hinged on large cost cuts. But with PayPal now seeing solid growth in transaction margin dollars, we think there is now room for margin improvement without further cost-cutting. We believe the scalable nature of the business should allow for margin improvement over time.

**PayPal Earnings: Focus on Profitable Growth Pays Off** Brett Horn, CFA,Senior Equity Analyst,30 Jul 2024

We think PayPal’s second quarter showed new CEO Alex Chriss making good progress in his attempts to shift the company toward a focus on profitable growth, and we believe the results support our view that

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the narrow-moat company can get back on track. We will maintain our $104 fair value estimate and see shares as materially undervalued.Net revenue increased 9% year over year on a constant currency basis, driven by 11% growth in payment volume. PayPal-branded and Braintree volumes grew 6% and 19%, respectively. Both figures represented a slight decline from the previous quarter.However, transaction margin dollars (essentially gross profit) grew 8% year over year, up materially from the 4% rate in the previous quarter, suggesting the company is successfully pivoting to more profitable volume. Management noted that Braintree is now contributing to transaction margin dollar growth. We think the Braintree business, which is increasingly the strongest engine of growth for the company, can improve margins as it grows and matures, and this quarter is a sign that this might be starting to occur.PayPal saw strong margin improvement in the quarter, with adjusted operating margins increasing to 18.5% from 16.2% last year. The company continues to improve its efficiency, with nontransaction expenses (excluding one-time items) declining 1% year over year. With transaction margin dollar results now improving as well, the near-term outlook for margins appears bright. We continue to believe PayPal can see solid margin improvement over time and see this trend as supporting that view.With the profitability picture improving, management raised its target for full-year stock repurchases to $6 billion from $5 billion. The revised target represents almost 10% of the company’s current market capitalization. We see this as a good use of capital given the current stock price.

**PayPal Earnings: PayPal-Branded Volume Picks Up** Brett Horn, CFA,Senior Equity Analyst,30 Apr 2024

Overall, we think PayPal recorded a strong start to the year. In our view, the key positive was the modest acceleration in growth for PayPal-branded volume. We believe the company’s narrow moat is driven by a scale-based cost advantage. As such, maintaining share in its most profitable business is important to maintain the company’s moat over time. We’re encouraged to see PayPal outperforming expectations now that new CEO Alex Chriss is in place and take this as a positive sign going forward, although the company still has work to do to get fully back on track. We will maintain our $104 fair value estimate and see the shares are undervalued.Total net revenue increased 10% year over year, a modest acceleration from the previous quarter. Year-over-year growth in PayPal-branded volume improved to 7% on a constant-currency basis, while growth at Braintree slowed a bit to 26%.Active account growth remains stalled. However, PayPal continues to see healthy growth in transactions per account, which grew 13% year over year, or 7% excluding Braintree. Both figures were roughly in line with the previous quarter and suggest to us that the pivot toward driving more activity from the existing base makes sense.Adjusted operating margin improved to 18.2% from 17.3% last year, with management citing expense control as the driving factor. We think management has done a good job of driving margin improvement through cost reductions recently. However, there is a limit to cost reductions; we think restoring growth in transaction margin dollars (net revenue minus transaction expense and credit losses) is necessary to restore profitability growth longer-term. On this front, the quarter was encouraging,  as transaction margin dollars grew 4% year over year. PayPal has struggled

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to make any improvement in this metric recently, with transaction margin dollars typically coming in about flat year over year in the past five quarters.

**PayPal Earnings: Results Are Solid, but 2024 Outlook Disappoints** Brett Horn, CFA,Senior Equity Analyst,8 Feb 2024

PayPal's fourth-quarter results were solid overall, but the outlook management provided for 2024 suggests the road toward improving growth and profitability will be longer than expected. We expect to reduce our $135 per share fair value estimate by about 20% as we moderate our growth and margin assumptions. That said, we still believe the company's narrow moat and favorable secular tailwinds create an attractive long-term picture, and see the shares as undervalued.Fourth-quarter net revenue increased 9% year over year, with total payment volume up 13% on a constant-currency basis. PayPal-branded and Braintree volumes were up 5% and 29%, respectively, with both rates declining slightly from last quarter. While active accounts remain stalled, we are encouraged by the ongoing uptick in transactions per account, which grew 14% year over year, or 7% excluding Braintree.While transaction margins fell year over year, and transaction margin dollars were basically flat, they improved slightly sequentially. Adjusted operating margins improved to 23.3% from 22.9% last year due to a 9% decline in nontransaction expenses.Management's commentary implied that PayPal won't see a meaningful improvement in either growth or margins this year. PayPal recently announced its intention to reduce its staff by 9% by the end of the year. Management intends to reinvest any savings into other areas to drive growth. We agree with prioritizing long-term growth over near-term margins, but this suggests reigniting growth may be more difficult than we previously thought.Comments from management also suggest the company is not expecting any improvement in top-line growth this year. We think management may be a little conservative in this regard, as they noted they are not factoring in any improvement from expected product rollouts this year until they see a material impact. Still, this suggests it will take longer than expected for better growth to materialize.

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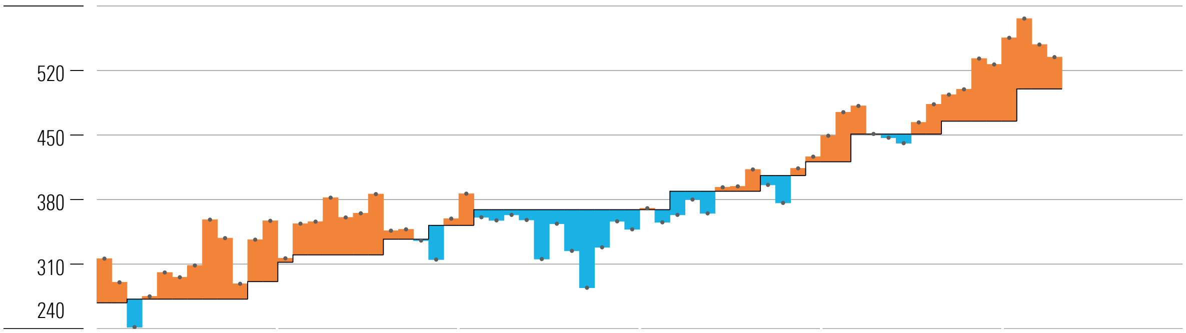
# PayPal Holdings Inc PYPL ★★★★ 28 Apr 2025 21:38, UTC

## Competitors Price vs. Fair Value

### Mastercard Inc Class A MA



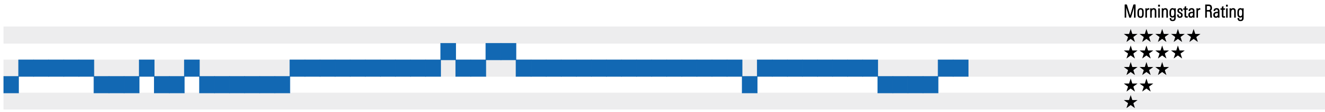

Last Close: 534.49

Fair Value: 500.00
25 Feb 2025 21:11, UTC

Overvalued
Undervalued

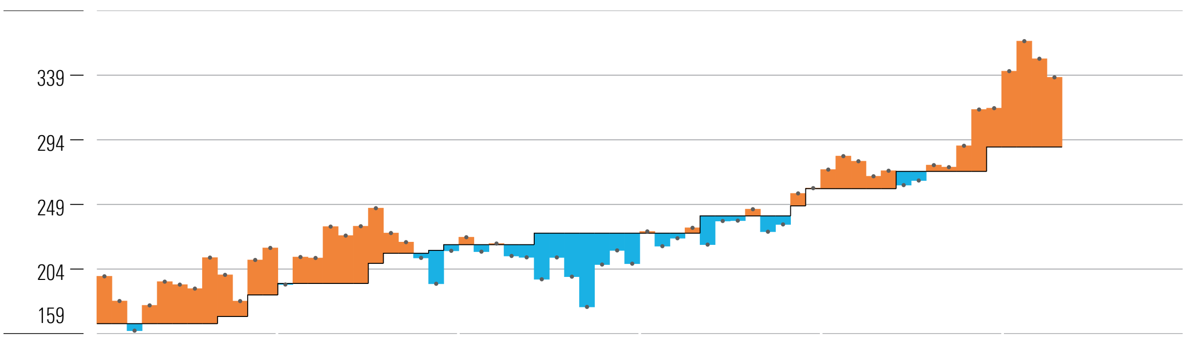
| | 2020 | 2021 | 2022 | 2023 | 2024 | YTD |
|---|---|---|---|---|---|---|
| Price/Fair Value | 1.23 | 1.02 | 0.94 | 1.01 | 1.13 | 1.07 |
| Total Return % | 20.08 | 1.16 | -2.68 | 23.31 | 24.08 | 1.79 |

Morningstar Rating




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



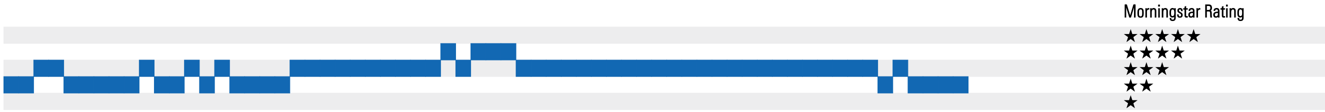

Last Close: 337.51

Fair Value: 289.00
13 Dec 2024 19:08, UTC

Overvalued
Undervalued

| | 2020 | 2021 | 2022 | 2023 | 2024 | YTD |
|---|---|---|---|---|---|---|
| Price/Fair Value | 1.18 | 0.98 | 0.91 | 1.00 | 1.09 | 1.17 |
| Total Return % | 17.06 | -0.31 | -3.40 | 26.21 | 22.22 | 6.98 |

Morningstar Rating




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

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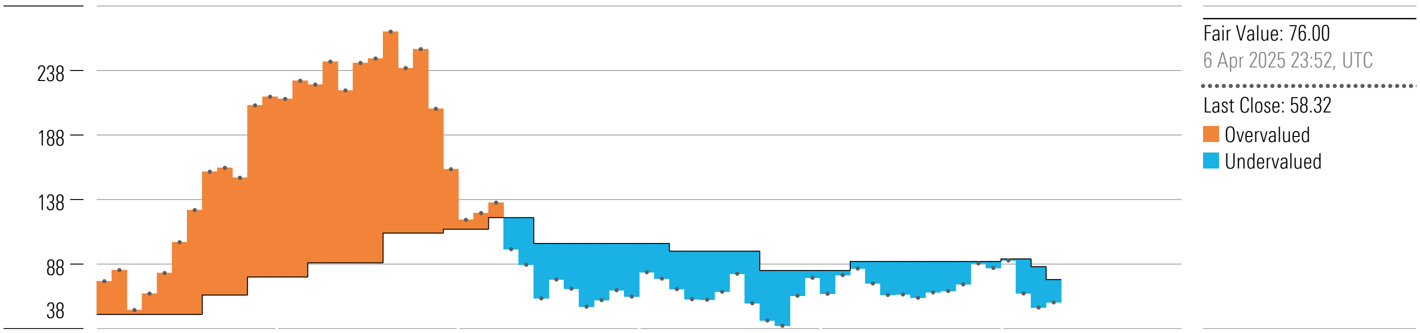
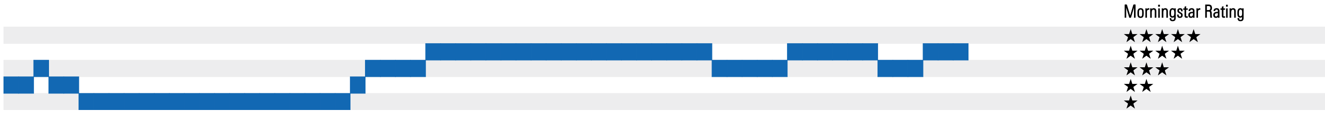
# PayPal Holdings Inc PYPL ★★★★ 28 Apr 2025 21:38, UTC

## Competitors Price vs. Fair Value

### Block Inc Class A XYZ




| | 2020 | 2021 | 2022 | 2023 | 2024 | YTD |
|---|---|---|---|---|---|---|
| Price/Fair Value | 2.79 | 1.40 | 0.60 | 0.93 | 0.94 | 0.77 |
| Total Return % | 247.89 | -25.79 | -61.09 | 23.09 | 9.88 | -31.38 |




Total Return % as of 28 Apr 2025. Last Close as of 28 Apr 2025. Fair Value as of 6 Apr 2025 23:52, UTC.

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| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment[1] |
|---|---|---|---|---|---|---|---|---|
| 64.93 USD<br>28 Apr 2025 | 94.00 USD<br>6 Apr 2025 23:50, UTC | 0.69 | 64.68 USD Bil<br>29 Apr 2025 | Narrow | Large Value | High | Standard | 2 Apr 2025 05:00, UTC |

## Morningstar Valuation Model Summary

| **Financials** as of 04 Apr 2025 | Actual | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fiscal Year,** ends 31 Dec | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** |
| Revenue (USD Mil) | 27,518 | 29,771 | 31,797 | 32,499 | 33,794 | 36,203 | 38,786 | 41,556 |
| Operating Income (USD Mil) | 4,044 | 4,944 | 5,763 | 5,850 | 5,576 | 6,335 | 6,981 | 8,207 |
| EBITDA (USD Mil) | 4,683 | 6,483 | 6,361 | 6,875 | 6,546 | 7,322 | 8,011 | 9,244 |
| Adjusted EBITDA (USD Mil) | 4,683 | 6,483 | 6,361 | 6,875 | 6,546 | 7,322 | 8,011 | 9,244 |
| Net Income (USD Mil) | 2,419 | 4,246 | 4,147 | 4,445 | 4,228 | 4,817 | 5,314 | 6,264 |
| Adjusted Net Income (USD Mil) | 3,097 | 4,388 | 4,792 | 4,664 | 4,407 | 4,975 | 5,471 | 6,397 |
| Free Cash Flow To The Firm (USD Mil) | 736 | 5,383 | 2,667 | 5,881 | 5,693 | 6,360 | 6,504 | 7,581 |
| Weighted Average Diluted Shares Outstanding (Mil) | 1,158 | 1,107 | 1,039 | 983 | 938 | 887 | 829 | 775 |
| Earnings Per Share (Diluted) (USD) | 2.09 | 3.84 | 3.99 | 4.52 | 4.51 | 5.43 | 6.41 | 8.08 |
| Adjusted Earnings Per Share (Diluted) (USD) | 2.67 | 3.96 | 4.61 | 4.74 | 4.70 | 5.61 | 6.60 | 8.26 |
| Dividends Per Share (USD) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| **Margins & Returns** as of 04 Apr 2025 | | Actual | | | Forecast | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **3 Year Avg** | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **5 Year Avg** |
| Operating Margin % | 15.7 | 14.7 | 16.6 | 18.1 | 18.0 | 16.5 | 17.5 | 18.0 | 19.8 | 18.2 |
| EBITDA Margin % | — | 17.0 | 21.8 | 20.0 | 21.2 | 19.4 | 20.2 | 20.7 | 22.2 | — |
| Adjusted EBITDA Margin % | — | 17.0 | 21.8 | 20.0 | 21.2 | 19.4 | 20.2 | 20.7 | 22.2 | 20.7 |
| Net Margin % | 12.0 | 8.8 | 14.3 | 13.0 | 13.7 | 12.5 | 13.3 | 13.7 | 15.1 | 13.7 |
| Adjusted Net Margin % | 13.7 | 11.3 | 14.7 | 15.1 | 14.4 | 13.0 | 13.7 | 14.1 | 15.4 | 14.1 |
| Free Cash Flow To The Firm Margin % | 9.7 | 2.7 | 18.1 | 8.4 | 18.1 | 16.9 | 17.6 | 16.8 | 18.2 | 17.5 |

| **Growth & Ratios** as of 04 Apr 2025 | | Actual | | | Forecast | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **3 Year CAGR** | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** | **5 Year CAGR** |
| Revenue Growth % | 7.8 | 8.5 | 8.2 | 6.8 | 2.2 | 4.0 | 7.1 | 7.1 | 7.1 | 5.5 |
| Operating Income Growth % | 10.1 | -6.5 | 22.3 | 16.6 | 1.5 | -4.7 | 13.6 | 10.2 | 17.6 | 7.3 |
| EBITDA Growth % | 7.9 | -12.7 | 38.4 | -1.9 | 8.1 | -4.8 | 11.9 | 9.4 | 15.4 | 8.0 |
| Adjusted EBITDA Growth % | 5.9 | -12.7 | 38.4 | -1.9 | 8.1 | -4.8 | 11.9 | 9.4 | 15.4 | 7.8 |
| Earnings Per Share Growth % | 4.3 | -40.6 | 83.6 | 4.1 | 13.2 | -0.3 | 20.4 | 18.1 | 26.1 | 15.2 |
| Adjusted Earnings Per Share Growth % | 4.3 | -32.1 | 48.2 | 16.4 | 2.8 | -0.9 | 19.3 | 17.7 | 25.1 | 15.2 |

| **Valuation** as of 04 Apr 2025 | Actual | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|
| | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** |
| Price/Earning | 26.7 | 15.5 | 18.5 | 13.7 | 13.8 | 11.6 | 9.8 | 7.9 |
| Price/Sales | 3.0 | 2.2 | 2.7 | 2.0 | 1.9 | 1.8 | 1.6 | 1.5 |
| Price/Book | 4.1 | 3.2 | 4.3 | 3.2 | 3.2 | 3.2 | 3.4 | 3.5 |
| Price/Cash Flow | — | — | — | — | — | — | — | — |
| EV/EBITDA | 17.3 | 10.1 | 13.0 | 9.1 | 9.6 | 8.5 | 7.8 | 6.8 |
| EV/EBIT | 20.0 | 13.2 | 14.4 | 10.7 | 11.2 | 9.9 | 9.0 | 7.6 |
| Dividend Yield % | — | — | — | — | — | — | — | — |
| Dividend Payout % | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Free Cash Flow Yield % | — | — | — | — | — | — | — | — |

| **Operating Performance / Profitability** as of 04 Apr 2025 | Actual | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fiscal Year,** ends 31 Dec | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** |
| ROA % | 3.1 | 5.2 | 5.1 | 5.3 | 4.8 | 5.3 | 5.7 | 6.4 |
| ROE % | 11.9 | 20.2 | 20.3 | 22.4 | 22.2 | 26.9 | 33.8 | 43.3 |
| ROIC % | 694.7 | 298.9 | 237.1 | 167.1 | 167.1 | 193.6 | 214.6 | 251.0 |

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# PayPal Holdings Inc PYPL ★★★★ 28 Apr 2025 21:38, UTC

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| **Financial Leverage** (Reporting Currency) | Actual | | | Forecast | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fiscal Year,** ends 31 Dec | **2022** | **2023** | **2024** | **2025** | **2026** | **2027** | **2028** | **2029** |
| Debt/Capital % | 11.4 | 12.8 | 10.4 | 9.1 | 8.8 | 8.9 | 9.2 | 9.4 |
| Assets/Equity | 3.9 | 3.9 | 4.0 | 4.3 | 4.6 | 5.1 | 6.0 | 6.8 |
| Net Debt/EBITDA | -0.1 | -0.7 | -0.1 | -0.9 | -1.0 | -0.9 | -0.7 | -0.6 |
| Total Debt/EBITDA | 2.2 | 1.5 | 1.6 | 1.4 | 1.5 | 1.4 | 1.4 | 1.2 |
| EBITDA/ Net Interest Expense | — | — | — | 17.4 | 16.6 | 17.6 | 18.4 | 20.2 |

| **Forecast Revisions** as of 6 Apr 2025 | 2025 | | 2026 | | 2027 | |
|---|---|---|---|---|---|---|
| **Prior data** as of 24 Feb 2025 | **Current** | **Prior** | **Current** | **Prior** | **Current** | **Prior** |
| Fair Value Estimate Change (Trading Currency) | 94.00 | 104.10 | — | — | — | — |
| Revenue (USD Mil) | 32,499 | 33,212 | 33,794 | 35,874 | 36,203 | 38,434 |
| Operating Income (USD Mil) | 5,850 | 6,144 | 5,576 | 6,637 | 6,335 | 7,110 |
| EBITDA (USD Mil) | 6,875 | 7,183 | 6,546 | 7,649 | 7,322 | 8,154 |
| Net Income (USD Mil) | 4,664 | 4,899 | 4,407 | 5,258 | 4,975 | 5,607 |
| Earnings Per Share (Diluted) (USD) | 4.52 | 4.76 | 4.51 | 5.41 | 5.43 | 6.13 |
| Adjusted Earnings Per Share (Diluted) (USD) | 4.74 | 4.98 | 4.70 | 5.61 | 5.61 | 6.32 |
| Dividends Per Share (USD) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| **Key Valuation Drivers** as of 04 Apr 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 % | 5.5 |
| Stage II Investment Rate % | 35.0 |
| Perpetuity Year | 15 |

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

| **Discounted Cash Flow Valuation** as of 04 Apr 2025 | **USD Mil** |
|---|---|
| Present Value Stage I | 19,931 |
| Present Value Stage II | 24,509 |
| Present Value Stage III | 40,736 |
| **Total Firm Value** | **85,177** |
| Cash and Equivalents | 15,406 |
| Debt | 9,879 |
| Other Adjustments | 0 |
| **Equity Value** | **90,704** |
| Projected Diluted Shares | 983 |
| **Fair Value per Share** (USD) | **94.00** |

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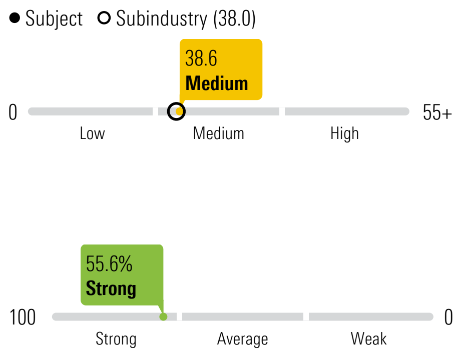
# PayPal Holdings Inc PYPL ★★★★ 28 Apr 2025 21:38, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment[1] |
|---|---|---|---|---|---|---|---|---|
| 64.93 USD<br>28 Apr 2025 | 94.00 USD<br>6 Apr 2025 23:50, UTC | 0.69 | 64.68 USD Bil<br>29 Apr 2025 | Narrow | Large Value | High | Standard | 2 Apr 2025 05:00, UTC |

## ESG Risk Rating Breakdown

| | | |
|---|---|---|
| **Exposure** | | |
| Company Exposure[1] | 38.6 | |
| – Manageable Risk | 35.4 | |
| **Unmanageable Risk**[2] | **3.2** | |
| **Management** | | |
| Manageable Risk | 35.4 | |
| – Managed Risk[3] | 19.7 | |
| **Management Gap**[4] | **15.7** | |
| **Overall Unmanaged Risk** | **18.9** | |




- 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 55.6% 4. Management Gap assesses risks that are not managed, but are considered manageable 5. ESG Risk Rating Assessment = Overall Unmanaged Risk = Management Gap plus Unmanageable Risk

## ESG Risk Rating Assessment[5]

ESG Risk Rating is of 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/.

## Peer Analysis 02 Apr 2025

Peers are selected from the company's Sustainalytics-defined Subindustry and are displayed based on the closest market cap values

| Company Name | Exposure | | Management | | ESG Risk Rating | |
|---|---|---|---|---|---|---|
| **PayPal Holdings Inc** | 38.6 \| Medium | 0 — 55+ | 55.6 \| Strong | 100 — 0 | 18.9 \| Low | 0 — 40+ |
| Mastercard Inc | 38.1 \| Medium | 0 — 55+ | 68.1 \| Strong | 100 — 0 | 14.2 \| Low | 0 — 40+ |
| Visa Inc | 36.8 \| Medium | 0 — 55+ | 64.7 \| Strong | 100 — 0 | 14.9 \| Low | 0 — 40+ |
| Block Inc | 34.2 \| Low | 0 — 55+ | 42.3 \| Average | 100 — 0 | 20.7 \| Medium | 0 — 40+ |
| — | — \| — | 0 — 55+ | — \| — | 100 — 0 | — \| — | 0 — 40+ |

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# Appendix

## Historical Morningstar Rating

**PayPal Holdings Inc** PYPL 28 Apr 2025 21:38, 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 28 Apr 2025 21:27, 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 |
| ★★ | ★★ | ★★★ | ★★ | ★★ | ★★ | ★★★ | ★★★ | ★★★ | ★★★ | ★★★ | ★★ |

**Visa Inc Class A** V 28 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 |
| ★★ | ★★ | ★★★ | ★★ | ★★ | ★★ | ★★ | ★★ | ★★★ | ★★★ | ★★ | ★★ |

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**Block Inc Class A** XYZ 28 Apr 2025 21:37, 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 |
| ★ | ★ | ★ | ★ | ★ | ★ | ★ | ★★ | ★★ | ★★★ | ★★ | ★★ |

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# Research Methodology for Valuing Companies

**Overview**

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

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

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

**1. Economic Moat**

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

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

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

**2. Estimated Fair Value**

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

Our model is divided into three distinct stages:

**Stage I: Explicit Forecast**

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

**Stage II: Fade**

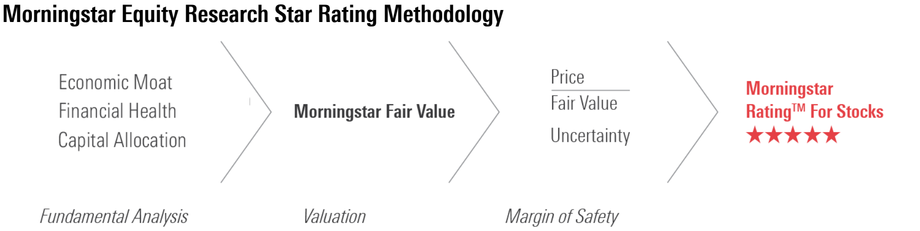
The second stage of our model is the period it will take the company's return on new invested capital—the return on capital of the next dollar invested ("RONIC")—to decline (or rise) to its cost of capital. During the Stage II period, we use a formula to approximate cash flows in lieu of explicitly modeling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

**Stage III: Perpetuity**

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

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

**Morningstar Equity Research Star Rating Methodology**




**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-

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# Research Methodology for Valuing Companies

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

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

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

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

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

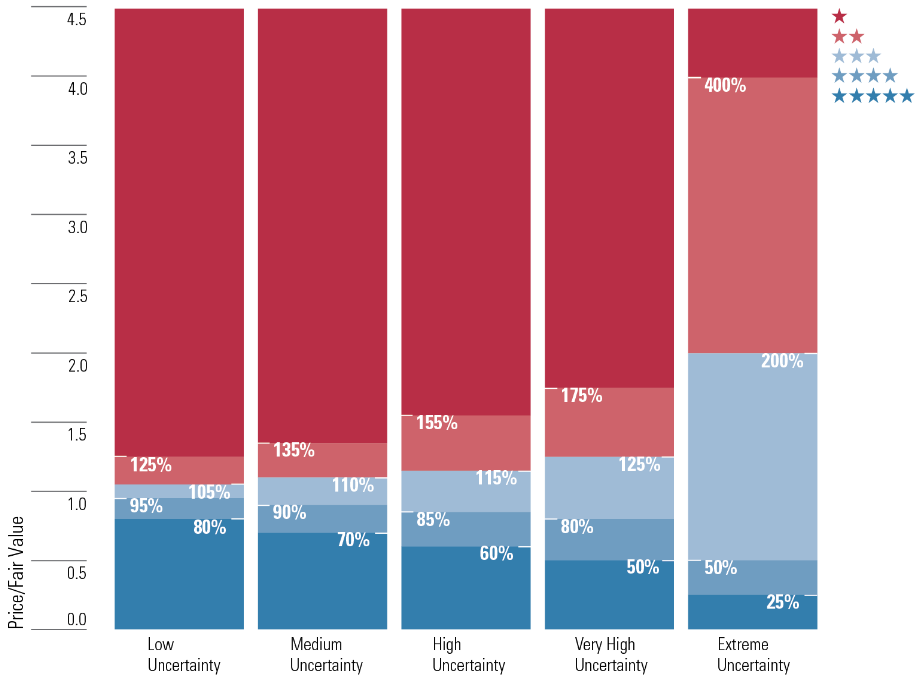
### 4. Market Price

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

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

### Morningstar Star Rating for Stocks

**Morningstar Equity Research Star Rating Methodology**




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

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

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

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

The Morningstar Star Ratings for stocks are defined below:

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

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

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

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

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

### Other Definitions

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

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

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

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

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

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

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

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

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

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

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