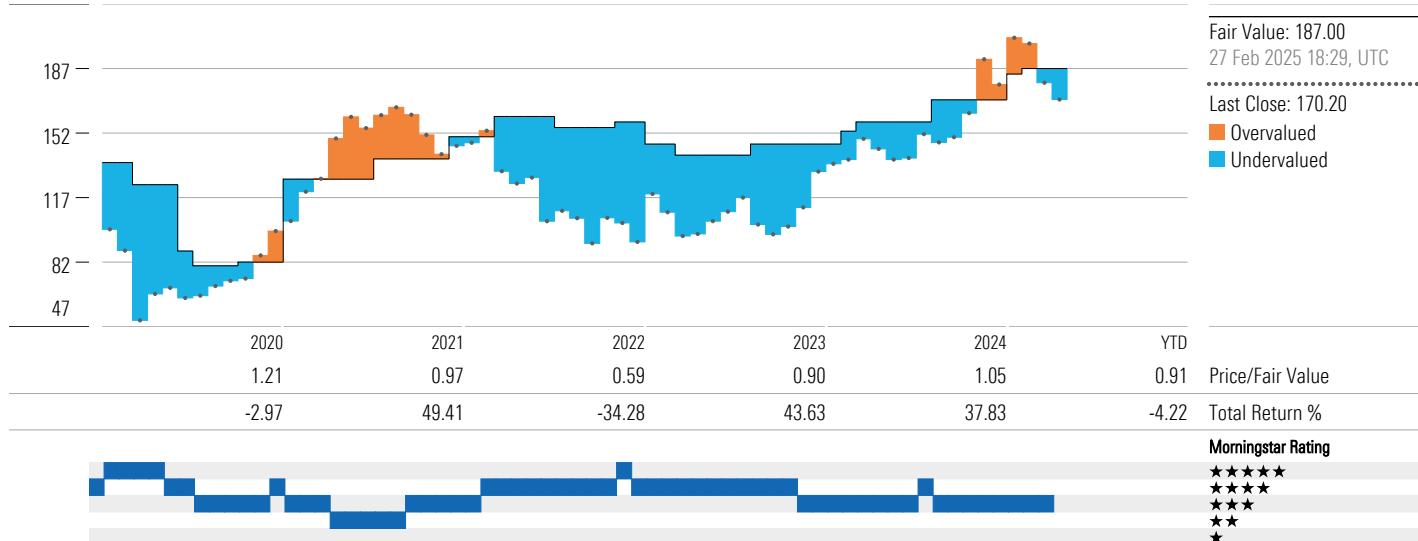


Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment¹ |
|---------------------------|--------------------------------------|-----------|------------------------------|----------------|------------------|-------------|--------------------|--|
| 170.20 USD 22 Apr 2025 | 187.00 USD 27 Feb 2025 18:29, UTC | 0.91 | 65.18 USD Bil 22 Apr 2025 | Narrow | Large Value | High | Standard |  2 Apr 2025 05:00, UTC |

Price vs. Fair Value



Total Return % as of 22 Apr 2025. Last Close as of 22 Apr 2025. Fair Value as of 27 Feb 2025 18:29, UTC.

Contents

- Analyst Note (23 Apr 2025)
- Business Description
- Business Strategy & Outlook (22 Jan 2025)
- Bulls Say / Bears Say (27 Feb 2025)
- Economic Moat (22 Jan 2025)
- Fair Value and Profit Drivers (27 Feb 2025)
- Risk and Uncertainty (22 Jan 2025)
- Capital Allocation (22 Jan 2025)
- Analyst Notes Archive
- Financials
- ESG Risk
- Appendix
- Research Methodology for Valuing Companies

Important Disclosure

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

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

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

Capital One Earnings: Good Start to 2025 as Improved Credit Costs Offset Acquisition Expenses

Analyst Note Michael Miller, CFA, Equity Analyst, 23 Apr 2025

Capital One reported solid first-quarter results despite higher acquisition and legal reserve expenses. Inclusive of \$308 million in one-time expenses, earnings per share rose to \$3.45 from \$3.13 in the year-ago period.

Why it matters: In line with our expectations, Capital One's credit results are stabilizing, allowing the firm to release \$368 million in credit reserves, providing a major tailwind to the firm's bottom-line results.

- While a reserve release is not a true source of earnings, it is a sign that Capital One is seeing improved credit trends. Though net charge-offs did increase from last year, the firm's more than 30-day delinquency rate for credit cards fell to 4.26% of total loans from 4.50%.
- Credit card receivables are charged off after 180 days in delinquency so the decrease in the delinquency rate points to improved credit results in the second half of 2025.

The bottom line: We maintain our \$187 per share fair value estimate for narrow-moat Capital One. We see the shares as modestly undervalued at the current price, though we would wait for a larger margin of safety before getting involved in the name.

- Capital One is exposed to the credit health of the US consumer. If economic conditions deteriorate due to tariff-related uncertainty, this will lead to weaker results for the firm, particularly as it is

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment ¹ |
|---------------------------|--------------------------------------|-----------|------------------------------|----------------|------------------|-------------|--------------------|---|
| 170.20 USD 22 Apr 2025 | 187.00 USD 27 Feb 2025 18:29, UTC | 0.91 | 65.18 USD Bil 22 Apr 2025 | Narrow | Large Value | High | Standard | 2 Apr 2025 05:00, UTC |

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

Business Description

Capital One is a diversified financial services holding company headquartered in McLean, Virginia. Originally a spinoff of Signet Financial's credit card division in 1994, the company is now primarily involved in credit card lending, auto loans, and commercial lending.

doubling down on the credit card space through its acquisition of Discover.

- That said, the firm is well-positioned if credit costs do increase, with a common equity Tier 1 ratio of 13.6%. Acquiring Discover will not impair Capital One's financial strength as the transaction is an all-stock deal and Discover ended 2024 with a CET 1 of 14.1%.

Coming up: After 15 months of waiting, Capital One expects to close on its purchase of Discover on May 18. We hold a favorable view of the deal for Capital One, though we are skeptical of the strategic value of Discover's payment network beyond the potential for cost synergies.

Business Strategy & Outlook Michael Miller, CFA, Equity Analyst, 22 Jan 2025

Capital One maintains a more limited branch network than its traditional banking peers, using its online and mobile channels to acquire customers and service its accounts. The focus on online bank accounts has allowed the company to establish a national presence broader than what its narrow branch network would traditionally allow. This dynamic allows Capital One to enjoy the benefits of being a large bank without the expense of operating the branch system of a large bank.

Capital One's largest driver is its credit cards, which make up around half of its total loans. The bank's remaining business mostly consists of commercial loans and auto loans through its consumer banking segment. The bank's narrow product offering focuses its assets, giving Capital One the benefit of scale in its chosen business lines. It is worth noting that the firm's acquisition of Discover, once completed, will significantly increase its exposure to the credit card industry, reducing its level of diversification.

Capital One's credit card receivable balances increased around 5% in 2024, despite the rising credit costs and lower loan growth seen industry wide, thanks to its heavy marketing spending. The bank will need to compete aggressively with other credit card issuers to maintain this growth, particularly as it expands more aggressively into luxury travel card. Capital One is doubling down on the credit card space, with the company's plans to acquire Discover set to make it the largest card issuer in the US by receivables. We are generally favorable on the acquisition, as we think Capital One is getting a fair price for the assets and there is strategic value to the deal thanks to Discover's vertically integrated ATM and payment networks.

On a less positive note, credit costs rose significantly in 2023 and 2024 as economic pressure on its cardholder base increased due to the impact of higher interest rates and as the end of student debt forbearance filters through. However, Capital One remains in a healthy financial position and there are signs that net charge-offs will plateau soon. As a result, we do not foresee material financial strain.

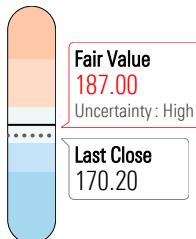
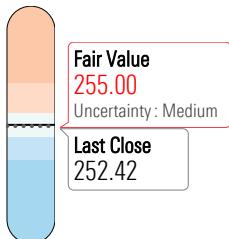
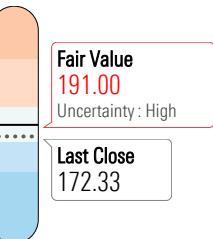
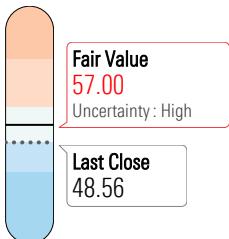
Bulls Say Michael Miller, CFA, Equity Analyst, 27 Feb 2025

- Capital One's credit card portfolio is enjoying rapid growth, providing a boost to the company's net interest margins and revenue growth.

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price 170.20 USD 22 Apr 2025 | Fair Value Estimate 187.00 USD 27 Feb 2025 18:29, UTC | Price/FVE 0.91 | Market Cap 65.18 USD Bil 22 Apr 2025 | Economic Moat™  Narrow | Equity Style Box  Large Value | Uncertainty High | Capital Allocation Standard | ESG Risk Rating Assessment¹  2 Apr 2025 05:00, UTC |
|---|---|-------------------|--|--|---|---------------------|--------------------------------|---|
|---|---|-------------------|--|--|---|---------------------|--------------------------------|---|

Competitors

| Capital One Financial Corp COF | American Express Co AXP | Discover Financial Services DFS | Synchrony Financial SYF |
|---|---|---|---|
|  |  |  |  |
| Fair Value 187.00 Uncertainty : High | Fair Value 255.00 Uncertainty : Medium | Fair Value 191.00 Uncertainty : High | Fair Value 57.00 Uncertainty : High |
| Last Close 170.20 | Last Close 252.42 | Last Close 172.33 | Last Close 48.56 |
| Economic Moat  Narrow | Currency USD | Economic Moat  Wide | Currency USD |
| Fair Value 187.00 27 Feb 2025 18:29, UTC | 255.00 24 Feb 2025 19:22, UTC | Fair Value 191.00 24 Mar 2025 19:08, UTC | 57.00 27 Feb 2025 21:37, UTC |
| 1-Star Price 289.85 | 344.25 | 296.05 | 88.35 |
| 5-Star Price 112.20 | 178.50 | 114.60 | 34.20 |
| Assessment Fairly Valued 22 Apr 2025 | Fairly Valued 22 Apr 2025 | Fairly Valued 22 Apr 2025 | Undervalued 22 Apr 2025 |
| Morningstar Rating ★★★ 22 Apr 2025 21:29, UTC | ★★★ 22 Apr 2025 21:32, UTC | ★★★ 22 Apr 2025 21:32, UTC | ★★★★ 22 Apr 2025 21:44, UTC |
| Analyst Michael Miller, Equity Analyst | Michael Miller, Equity Analyst | Michael Miller, Equity Analyst | Michael Miller, Equity Analyst |
| Capital Allocation Standard | Standard | Standard | Standard |
| Price/Fair Value 0.91 | 0.99 | 0.90 | 0.85 |
| Price/Sales 1.62 | 2.56 | 2.32 | 1.17 |
| Price/Book 1.04 | 5.45 | 2.46 | 1.19 |
| Price/Earning 13.82 | 18.20 | 9.73 | 5.52 |
| Dividend Yield 1.45% | 1.20% | 1.69% | 2.12% |
| Market Cap 65.18 Bil | 176.84 Bil | 43.36 Bil | 18.88 Bil |
| 52-Week Range 128.23—210.67 | 220.43—326.28 | 119.95—205.76 | 40.55—70.93 |
| Investment Style Large Value | Large Blend | Mid Growth | Mid Value |

- Technology investments, the transition away from legacy data centers, and its reduction in the branch count should help the company reduce costs in the coming years.
- Capital One has expanded its card product offerings as the bank leans into the commercial and luxury travel card spaces.

Bears Say Michael Miller, CFA, Equity Analyst, 27 Feb 2025

- Credit card reward spending continues to rise industrywide, and competition for credit card holders remains intense. This will likely lead to higher spending for Capital One and could threaten returns on its credit cards.
- Capital One is exposed to a significant amount of subprime lending through its credit card and auto loan segments in a period of high credit costs.
- Capital One competes with online banks for deposits. This competition pushes its interest costs up as the bank must offer competitive rates.

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment¹ |
|---------------------------|--------------------------------------|-----------|------------------------------|--|---|-------------|--------------------|--|
| 170.20 USD 22 Apr 2025 | 187.00 USD 27 Feb 2025 18:29, UTC | 0.91 | 65.18 USD Bil 22 Apr 2025 |  Narrow |  Large Value | High | Standard |  2 Apr 2025 05:00, UTC |

Economic Moat Michael Miller, CFA, Equity Analyst, 22 Jan 2025

In our view, Capital One has a Narrow Morningstar Economic Moat Rating, as we believe it has durable competitive advantages that will allow it to continue to earn returns on tangible equity that are above its cost of capital. The company's heavy investment in technology and marketing has enabled it to use online bank accounts to build an asset and deposit base that is national in scope while maintaining a limited branch network. This has given Capital One the scale necessary to compete effectively in its business lines while keeping operational costs under control. In turn, this has allowed Capital One to enjoy returns on tangible equity that have been comfortably above its cost of capital.

Banks typically create cost advantages by controlling operating expenses, building low-cost deposit bases, and utilizing effective underwriting to keep credit costs below their peers. Capital One has been particularly successful in keeping its operating structure lean. The company's efficiency ratio has averaged below 55% since 2012. This is better than peers, which as a group typically see efficiency ratios between 55% and 65%. The persistent difference in cost structure is a sign that the company has a competitive advantage through its cost management. This operating efficiency comes despite the company's heavy investments in marketing and technology, areas where the firm regularly spends more than 10% and 4% of its net revenue, respectively. Capital One makes up for its high marketing spending with low labor costs, which are typically only around 20%-25% of net revenue. While marketing spending is a key part of Capital One's strategy, the expense is not core to the company's day-to-day operations. During periods of duress, the firm can turn and has turned to this line item to reduce its cost structure further when it needs to. We are confident in Capital One's ability to continue managing noninterest costs and expect its efficiency ratio to improve over time.

In our view, Capital One's cost efficiency is driven by its large scale and small physical footprint relative to its size. Capital One's consumer lending and credit card business lines are fully national with no region making up an outsize portion of its nearly \$200 billion consumer loan book. Its commercial lending business is more focused, with roughly 50% of its roughly \$70 billion in loans concentrated in the Northeast, where the company's branch network has historically been focused. Despite its size, Capital One has fewer than 500 branches, which is down from its peak of over 700 as the firm has been shrinking its already small footprint while expanding its deposit base and assets. This is achieved through Capital One's heavy use of online deposits, which was jump-started in 2012 through its acquisition of ING Direct, now rebranded as Capital One 360. Online deposit gathering has allowed Capital One to develop and maintain a deposit base of sufficient size to finance a national lending arm while maintaining a slim service profile.

Lending, particularly consumer lending, benefits significantly from scale as incremental sales growth can drive higher earnings against fixed costs. Additionally, much of Capital One's consumer lending is supported by relationships with third parties, and the attractiveness of Capital One as a partner is

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment¹ |
|---------------------------|--------------------------------------|-----------|------------------------------|--|---|-------------|--------------------|--|
| 170.20 USD 22 Apr 2025 | 187.00 USD 27 Feb 2025 18:29, UTC | 0.91 | 65.18 USD Bil 22 Apr 2025 |  Narrow |  Large Value | High | Standard |  2 Apr 2025 05:00, UTC |

enhanced by its size. The company's auto lending business (which has more than 95% of Capital One's consumer banking assets) only makes loans for cars from participating dealerships. Capital One's customers can shop for cars on its Auto Navigator website or its mobile app and get preapproved for a loan for a specific car before going to the dealership. The incentive for auto dealers to integrate their inventory with Capital One's platform and participate in its lending program is that they gain access to Capital One's client base. As Capital One is one of the largest auto lenders in the country, the incentive to be a part of its platform is considerable, given the size of its customer base.

The size and geographical breadth of Capital One's loans also diversifies them across multiple regions and FICO scores. This reduces the bank's dependence on the economic conditions of any particular region in the country and allows it to accumulate a diverse array of lending data. Consumer lending is increasingly data driven as large proprietary data sets are needed to build the kinds of credit models necessary to make fast and effective underwriting decisions. As rapid credit decisions become the norm, access to large data sets and the ability to analyze them are increasingly a requirement to compete in consumer lending. Capital One's heavy technology investments are enabled by its size and allow the company to utilize its broad lending data to support the moat around its business. Capital One's size also allows it to market itself cost-effectively. We expect the company to continue spending heavily on marketing in order to increase its brand presence and drive incremental growth. Size allows Capital One to purchase video and display ads in bulk and finance national ad campaigns.

While online deposits have allowed Capital One to increase the size and geographical breadth of its deposit base quickly, the heavy use of this funding source is not entirely without consequence. Enabled by the lack of physical infrastructure, savings accounts at online banks typically offer higher interest rates to depositors. Capital One's own online accounts operate under a hybridized model in which clients manage their accounts through online or mobile access but still have access to Capital One's small branch network. Despite the availability of its branches, Capital One still competes with online banks for deposits, which means they need to offer competitive interest rates to their depositors. This leads Capital One to have a high cost of funding from its interest-bearing deposit base relative to more traditional banks. Furthermore, less than 10% of Capital One's deposits are non-interest-bearing, well below its peers. The result of this is that despite its success in building a large deposit base, with deposits making up more than 80% of its total funding, Capital One still has a relatively high cost of funding (3.54% in 2024). That said, the interest cost disadvantage of Capital One's funding choices is outweighed by the cost efficiencies that they enable. Ultimately, Capital One does typically enjoy ROTE in the low double digits and has an efficiency ratio below its peers. These figures are important data points that point to Capital One having achieved a narrow moat through operating efficiency.

On the regulatory front, Capital One is not considered large enough to be a global systemically important bank, allowing it to avoid the heaviest regulatory requirements. However, with over \$250 billion in assets, Capital One is required to participate in the Federal Reserve's annual stress tests and is

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment¹ |
|---------------------------|--------------------------------------|-----------|------------------------------|----------------|------------------|-------------|--------------------|-----------------------------|
| 170.20 USD 22 Apr 2025 | 187.00 USD 27 Feb 2025 18:29, UTC | 0.91 | 65.18 USD Bil 22 Apr 2025 | Narrow | Large Value | High | Standard | 2 Apr 2025 05:00, UTC |

subject to the full liquidity coverage requirements. Still, Capital One is large relative to other non-GSIB firms, placing it in a strong position from a relative regulatory cost perspective.

Fair Value and Profit Drivers Michael Miller, CFA, Equity Analyst, 27 Feb 2025

We are increasing our fair value estimate for Capital One to \$187 per share from \$184. Around \$1 of the increase comes from earnings since the last update. The other \$2 is from higher noninterest income projections. Our fair value estimate translates to a 2025 price/earnings ratio of 14.5 times.

Our fair value estimate also includes modeling for the strategic value of Capital One's proposal to acquire Discover. The bulk of this value comes from cost savings, as Capital One plans to transfer \$175 billion in purchasing volume to the Discover network by 2027, which would include all of Capital One's debit card business. This will allow the bank to bolster the scale of the Discover payment network while also saving on network fees, with Capital One expecting \$1.2 billion in additional cost savings from network synergies. This strikes us as a reliable method to extract value from the deal as the combined company benefits from being vertically integrated.

Previously we had modeled a 50% chance for the deal to go through which we have increased to 100% in our latest update as the odds of a regulatory challenge have become negligible overtime.

Our fair value estimate for Capital One is sensitive to expectations for net interest margins, credit card receivable growth, and how well the company manages its noninterest expenses. Additionally, net charge-offs projections are a key driver of our fair value estimate, particularly for the bank's lucrative credit card loans.

We expect credit costs to remain modestly elevated in 2025. Our current projections assume that the firmwide net charge-off rate remain at 3.21% in 2025, before returning to 2.83% by 2027. Note that this does not include the impact of the Discover acquisition which will shift Capital One's asset mix toward credit cards, naturally leading to a higher firm wide default rate. Despite higher loan losses, we expect Capital One to be more than adequately provisioned with its current reserve for loan losses at just under 4.96% as well as a common equity Tier 1 capital ratio around 13.5% and do not foresee material financial strain on the bank.

As we had expected the double-digit credit card loan seen in 2023 was not sustainable as higher credit losses have led to tighter underwriting standards, which constricts growth in the medium term. That said, loan growth has been surprisingly resilient, and we expect credit card receivables to grow at an average rate of around 5.8% a year, from 2023 to 2028, with firmwide loans increasing at a 4 % CAGR over the same time period.

While Capital One's growth recent growth has been impressive, this growth did not come cheap as

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment¹ |
|---------------------------|--------------------------------------|-----------|------------------------------|----------------|------------------|-------------|--------------------|-----------------------------|
| 170.20 USD 22 Apr 2025 | 187.00 USD 27 Feb 2025 18:29, UTC | 0.91 | 65.18 USD Bil 22 Apr 2025 | Narrow | Large Value | High | Standard | 2 Apr 2025 05:00, UTC |

Capital One has significantly increased its marketing spending, up more than 55% in 2024 from 2021 levels. While we do expect marketing spending growth to slow down going forward, it should remain at elevated levels as the bank seeks to break into the luxury card space and restart growth in its auto lending business. All in all, we see the company's efficiency ratio ending 2028 at around 56%, roughly in line with historical levels.

Risk and Uncertainty Michael Miller, CFA, Equity Analyst, 22 Jan 2025

We assign a High Morningstar Uncertainty Rating to Capital One. The bank is exposed to the economic cycle as its profitability is affected by changes in credit quality, interest rates, and consumer spending. Capital One is more exposed to the credit cycle than most of its peers because of the large amount of subprime consumer lending it does. Around 31% of the bank's credit card receivables and 47% of its auto loans are from borrowers with a FICO score lower than 660. There is the risk that a negative economic climate could lead to higher charge-offs from weaker borrowers. The company's economic exposure is increased by its volume of auto lending. Auto lending relies on the ability to resell repossessed vehicles at a reasonable price in order to keep net charge-offs low. If the value of this collateral falls due to economic pressure, then the credit risk of Capital One's auto loans increases.

Recently, this has become more of a concern as interest rates have risen and economic pressure on consumers has increased. Credit costs rose sharply in 2023 and 2024, though recent monthly credit reports show signs of stabilization. We expect net charge-offs to remain elevated in 2025 but should begin to improve later in the year. That said, the bank's balance sheet is well capitalized, with a common equity Tier 1 ratio of 13.5% at the end of December 2024, and we see limited risk that Capital One's financial position will be materially affected in the near future, even if net charge-offs do not begin to decrease as quickly as expected.

There is some incremental environmental, social, and governance risk. There is inherent product governance risk to credit cards as they typically carry very high interest rates and can trap consumers in a cycle of continuously paying high interest rates as they struggle to reduce the principal. That said, Capital One's lending practices are in line with industry norms, and the ESG risk is not material enough to change our high uncertainty rating.

Capital Allocation Michael Miller, CFA, Equity Analyst, 22 Jan 2025

We give Capital One a Morningstar Capital Allocation Rating of Standard. The balance sheet remains strong, with a common equity Tier 1 capital ratio of 13.5% at the end of December 2024, well above the long-term target of 11%. The company is also conservatively provisioned, with its allowance for bad loans at around 4.96% of total receivables. This strength will likely see it through the current period of high credit losses and allow it to continue to return value to shareholders once the Discover deal is completed.

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment ¹ |
|---------------------------|--------------------------------------|-----------|------------------------------|----------------|------------------|-------------|--------------------|---|
| 170.20 USD 22 Apr 2025 | 187.00 USD 27 Feb 2025 18:29, UTC | 0.91 | 65.18 USD Bil 22 Apr 2025 | Narrow | Large Value | High | Standard | 2 Apr 2025 05:00, UTC |

Capital One has a history of making acquisitions that fit its strategic goals. The purchase of ING Direct in 2012 jump-started its direct banking efforts while adding considerable scale. This was followed by continued investments in technology, enabling the low-branch-count banking model. The company has also shown discipline when allocating its capital. It chose to fully exit its consumer real estate business in 2017 when it decided it did not have the scale to compete efficiently in a low-rate environment. Capital One's commitment to efficient capital allocation is encouraging and adds confidence that the company will continue to invest its capital intelligently. This discipline remains an important part of Capital One's ability to create value for shareholders as the company has made increasing use of acquired credit card portfolios to bolster receivable growth.

Capital One has doubled down on the credit card space, as its proposed acquisition of Discover would make it the largest card issuer in the US by receivables and third by purchasing volume. In general, we have a favorable view of the transaction, as Capital One is taking advantage of Discover's recent issues to acquire the other firm at a fair price and we do see some strategic value to the combination. While there were initially concerns that the deal would run into anti-trust issues, this has not materialized, and it appears highly likely that the deal will proceed in early 2025 as planned.

Despite its current strength and good capital investment record, we are giving the company a Standard rating as it must contend with regulatory pressure when deciding how to allocate its capital, and large credit card portfolios often attract heavy stress testing. While the company is not considered a global systemically important bank, it does have more than \$250 billion in assets and is subject to the Federal Reserve's annual stress tests along with other regulatory requirements. This additional oversight can restrict Capital One's ability to make distributions. In 2020, the bank was forced to slash its dividend 75% due to heavy provisioning as the covid-19 pandemic affected the economy. This regulatory pressure adds external restrictions on the bank's use of capital.

Analyst Notes Archive

Capital One Earnings: Solid Results Even as Acquisition Costs Weigh on Net Income Michael Miller, CFA, Equity Analyst, 22 Jan 2025

Capital One reported solid fourth-quarter results, with loan growth and net interest margin expansion driving strong revenue growth. Despite \$215 million in one-time expenses, the bank still reported a 55% increase in net income from last year to \$1.1 billion. Why it matters: Capital One has been a major beneficiary of diminished concerns surrounding credit quality and expectations for a more favorable regulatory environment, with the shares increasing more than 30% over the last six months. The bank's results helped validate at least some of this performance, with the firm releasing another \$245 million in credit reserves during the quarter. This led to an 8% decline in provisioning costs to \$2.64 billion. While credit card net charge-offs are modestly above normal levels, there are no longer signs of ongoing deterioration. The bottom line: We expect to increase our \$170 per share fair value estimate for narrow-

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment¹ |
|---------------------------|--------------------------------------|-----------|------------------------------|----------------|------------------|-------------|--------------------|-----------------------------|
| 170.20 USD 22 Apr 2025 | 187.00 USD 27 Feb 2025 18:29, UTC | 0.91 | 65.18 USD Bil 22 Apr 2025 | Narrow | Large Value | High | Standard | 2 Apr 2025 05:00, UTC |

moat Capital One by mid to high single digits as we incorporate these results and adjust our expectations for the firm's acquisition of Discover. We now fully expect the deal to go through. While there were antitrust concerns when the merger was first announced, an actual challenge never materialized. Capital One sees an opportunity in auto lending, with fourth-quarter originations rising 50% from last year to \$9.4 billion. This pace of origination is driving faster near-term auto loan growth than we had initially anticipated in our model. Coming up: Capital One expects to complete its acquisition of Discover in early 2025. While we are skeptical that Discover's network assets can become a meaningful competitor to the major card networks, even with Capital One's support, we do hold a favorable view of the purchase. Capital One is paying a fair price for the firm, and Discover's debit card and ATM networks will provide a reliable method of realizing significant cost savings by transferring some of Capital One's existing volume in-house.

Capital One Earnings: Stable Credit Losses and Net Interest Margin Expansion Drive Solid Results

Michael Miller, CFA, Equity Analyst, 24 Oct 2024

Narrow-moat-rated Capital One Financial reported decent third-quarter earnings as stable credit results allowed for a modest loan reserve release. Net revenue increased 7% from last year to \$10 billion while earnings per share decreased 1% to \$4.41. This translated to a return on tangible equity of 16.42%. As we incorporate these results, we do not plan to materially alter our \$170 fair value estimate. We see the shares as modestly undervalued currently. Revenue growth was entirely driven by net interest income, which increased 9% from last year to \$8.1 billion. Capital One benefited from both loan growth and net interest margin expansion. Its loan book only increased 2% year over year, but this is somewhat deceptive as the bank's credit card receivables, which carry higher yields, increased 7% over the same period. Capital One had been deemphasizing its auto loan and commercial banking lines in recent years, which has led to shrinking loan balances, offsetting solid credit card growth. But recently the bank has been refocusing on the auto loan market, with auto loan origination increasing 8% from last quarter and 23% from last year. This had already led to sequential quarterly growth in the auto lending business, though the bank will need to navigate challenging credit conditions as used-car prices fall. The net interest margin also jumped in the quarter, from 6.69% last year and 6.70% last quarter to 7.11%. Part of this can be explained by the end of Capital One's partnership with Walmart, which saw a portion of net interest income and credit losses being attributed to the retailer. Excluding the impact from the end of the deal, Capital One's net interest margin would have been 6.89%, still a strong result. That said, we expect falling interest rates to be a headwind for the bank's net interest margins as credit card issuers typically benefit from higher rates due to the variable-rate nature of their cards.

Opportunity in Credit Card Issuers Despite High Charge-Offs

Michael Miller, CFA, Equity Analyst, 20 Aug 2024

Net charge-offs for the credit card issuers have risen significantly so far in 2024, continuing an ongoing

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment¹ |
|---------------------------|--------------------------------------|-----------|------------------------------|----------------|------------------|-------------|--------------------|-----------------------------|
| 170.20 USD 22 Apr 2025 | 187.00 USD 27 Feb 2025 18:29, UTC | 0.91 | 65.18 USD Bil 22 Apr 2025 | Narrow | Large Value | High | Standard | 2 Apr 2025 05:00, UTC |

trend from 2023. Questions about credit conditions have become a repeated feature of conversations with management teams, and many have focused on the topic as a lens into the financial health of the United States consumer. While we do think some of the fears surrounding credit card defaults are overstated, it is true that both net charge-offs and delinquencies are now solidly above normal levels. The risk of higher credit losses is a common concern for credit card issuers, as it most distinguishes this business from other forms of lending. Credit card receivables are highly lucrative, with interest rates on credit card debt ranging from the midteens to as high as 30%, allowing firms in this part of the banking industry to enjoy net interest margins and returns on equity far above peers'. That said, we expect credit costs to plateau in the second half of 2024. However, they should remain modestly elevated in 2025 and into 2026 as the impact of tighter underwriting offsets rising unemployment. There are already signs of improvement as delinquency rates, a leading indicator for net charge-offs, have performed well industrywide in 2024. When looking at valuations on a full-cycle basis, we still see opportunity in the sector, with Capital One Financial as our preferred name, as it trades well below our fair value estimate. We still see American Express as the most competitively advantaged firm in our coverage. Still, it trades at a premium to our fair value estimate, and the high expectations implied make it less attractive to us. Meanwhile, Bread Financial and Synchrony Financial's weaker credit and lack of noninterest revenue make them more sensitive to credit losses if economic conditions deteriorate more than expected.

Capital One Earnings: Credit Costs Are a Headwind but Credit Card Loan Growth Remains Solid

Michael Miller, CFA, Equity Analyst, 23 Jul 2024

Narrow-moat Capital One reported messy second-quarter earnings that were roughly in line with our expectations once adjusted for one-time expenses. Net revenue increased 1% from last quarter and 5% from last year to \$9.5 billion. Diluted earnings per share decreased 56% from last year to \$1.38, largely due to one-time expenses, the most significant of which was a \$826 million increase in credit reserves from the end of its loss sharing agreement with Walmart. On an adjusted basis diluted earnings per share would have been \$3.14, still down 11% from last year, mostly due to higher credit costs. As we incorporate these results, we do not intend to materially alter our \$158 fair value estimate for Capital One, and we see the shares as slightly undervalued. Capital One's net interest income increased 6% from last year to \$7.55 billion, with the firm's credit card business being the primary driver of this growth. Average credit card receivables increased 8% from last year to \$150.5 billion, while the bank's auto and commercial loans decreased 3% and 4%, respectively. Capital One has been de-emphasizing its auto loan and commercial banking lines in recent quarters, hence the shrinking loan balances. That said, auto loan originations were strong during the second quarter, rising 13% from last quarter and 18% from last year in a sign of improved prospects for the segment. That said, credit cards are still Capital One's largest source of both revenue and growth, and with the firm doubling down on the business with its ongoing attempt to acquire Discover, we do not expect this to change. We are generally favorable to the deal, as we think Capital One is paying a fair price for Discover but continue

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment¹ |
|---------------------------|--------------------------------------|-----------|------------------------------|--|---|-------------|--------------------|--|
| 170.20 USD 22 Apr 2025 | 187.00 USD 27 Feb 2025 18:29, UTC | 0.91 | 65.18 USD Bil 22 Apr 2025 |  Narrow |  Large Value | High | Standard |  2 Apr 2025 05:00, UTC |

to expect the company to have trouble winning regulatory approval given the scale the combined firms would have in the credit card lending space. That said, Discover's recent sale of its student loan business is a positive step for the completion of the acquisition.

Portfolio and Deposit Structure Leave Some Consumer Banks With Limited Exposure to Lower Rates

Michael Miller, CFA, Equity Analyst, 9 May 2024

After two years of rapid interest rate hikes, the rising rate cycle is likely over. While there is still considerable uncertainty surrounding the path that interest rates will take from here, the market is now anticipating falling interest rates in 2024, with interest rate futures projecting one to three rate cuts in 2024 and even more the following year. Like their traditional banking peers, many of the consumer finance-focused banks in our coverage did benefit from rising interest rates. However, this benefit was not uniform; there were clear winners and losers. We expect a similar phenomenon in a period of falling interest rates, with different firms holding significantly different exposure to interest rate movements. That said, there has been a universal improvement in the funding structures of the consumer banks in our coverage. The increasing acceptance and adoption of digital banks has allowed these firms to significantly increase the size and quality of their deposit bases, which will provide a long-term structural benefit to net interest income, regardless of what happens to interest rates. This shift is particularly pronounced for Ally Financial and Bread. Based on their portfolio structure and business models, we ultimately see Ally, Synchrony, and American Express as the least exposed to falling interest rates. Of the three, we prefer Ally. This preference is driven by valuation concerns—even though American Express remains the strongest firm in our coverage with a wide competitive moat around its business, we believe the market has too richly valued its shares. On the other hand, Synchrony will likely need to adapt to new late fee regulations, creating meaningful short-term uncertainty and headwinds to revenue. Finally, should inflation remain stubbornly high, we expect Capital One and Discover to see the most benefit from a high-for-longer rate environment.

Capital One Earnings: Solid Credit Card Loan Growth Supports Bottom-Line Results

Michael Miller, CFA, Equity Analyst, 26 Apr 2024

Narrow-moat-rated Capital One reported decent first-quarter earnings that were largely in line with our expectations. Net revenue increased 6% from last year to \$9.4 billion, while diluted earnings per share increased 35% to \$3.13. These results translate to a return on tangible equity of 12.7%. As we incorporate these results, we do not expect to change our \$158 per share fair value estimate. Capital One's net interest income grew 4% from last year to \$7.5 billion, with the increase being entirely due to its credit card business. Average credit card receivables grew 11% from last year to \$149.6 billion, while the bank's auto and commercial loans decreased 5% and 4%, respectively. Capital One has been de-emphasizing its auto loan and commercial banking lines in recent quarters, and we expect its credit card business to be its primary source of growth for the immediate future. Credit cards are Capital One's

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

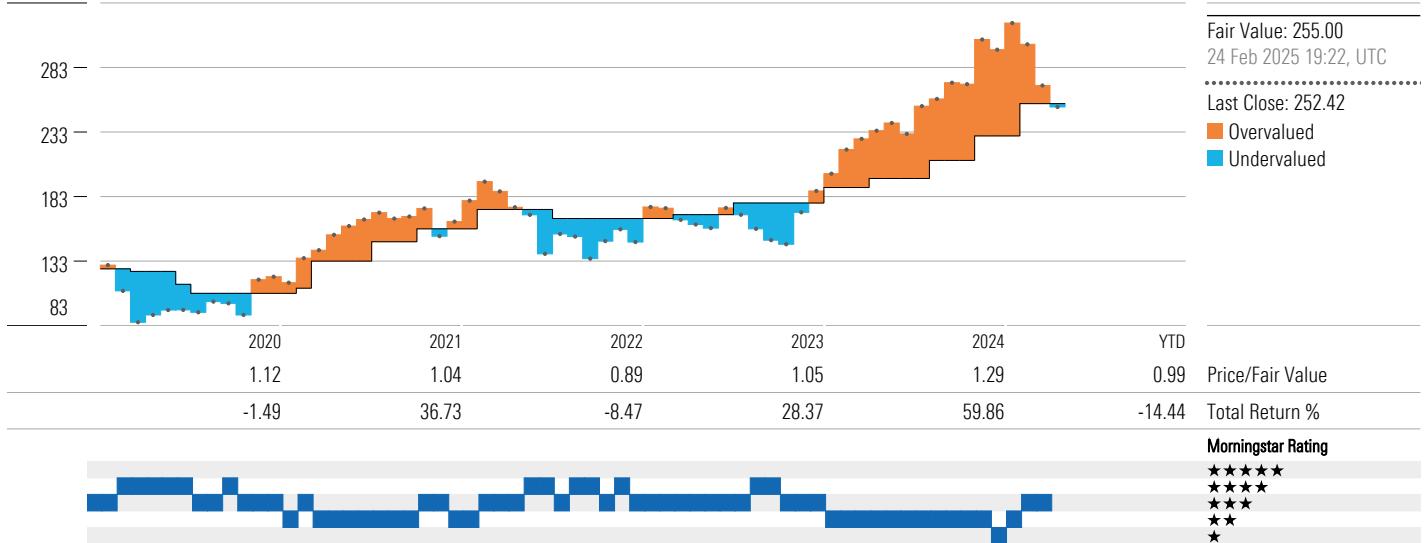
| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment¹ |
|---------------------------|--------------------------------------|-----------|------------------------------|--|---|-------------|--------------------|--|
| 170.20 USD 22 Apr 2025 | 187.00 USD 27 Feb 2025 18:29, UTC | 0.91 | 65.18 USD Bil 22 Apr 2025 |  Narrow |  Large Value | High | Standard |  2 Apr 2025 05:00, UTC |

largest source of revenue, and the firm is doubling down on the business with its recent attempt to acquire Discover. Falling payment rates are acting as a short-term tailwind for credit card loan growth industrywide, but there are limits to how long this trend can run. We continue to expect Capital One's credit card loan growth to decelerate into the single digits by the end of 2024. Capital One also saw higher credit losses during the first quarter, with the bank's net charge-off rate increasing to 3.3% from 2.2% last year. Credit cards saw the steepest increase in write-offs, with the bank's credit card net charge-off rate increasing to 5.9% from 4.0% last year and 5.4% last quarter. That said, like the other card issuers that have reported first-quarter results, Capital One saw positive trends in its delinquency data. The bank's 30-day delinquency rate increased 0.58% from last year to 3.67% but fell 0.32% from last quarter. This raises the prospect that charge-offs are near their peak and will plateau in the second half of 2024. 

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

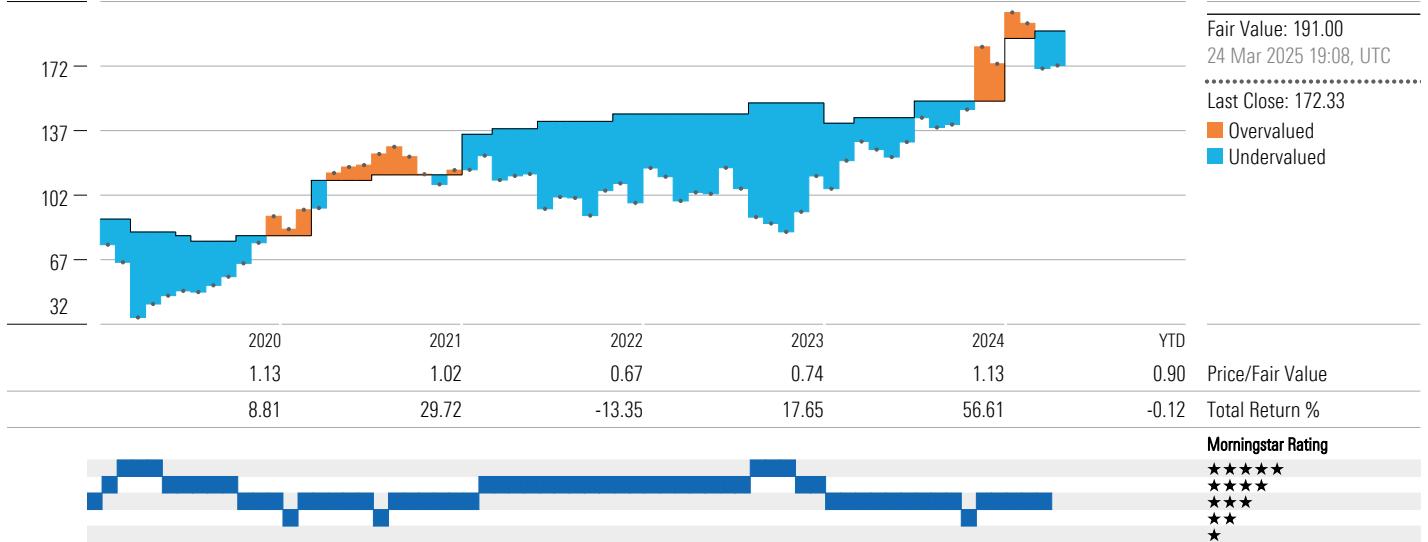
Competitors Price vs. Fair Value

American Express Co AXP



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

Discover Financial Services DFS



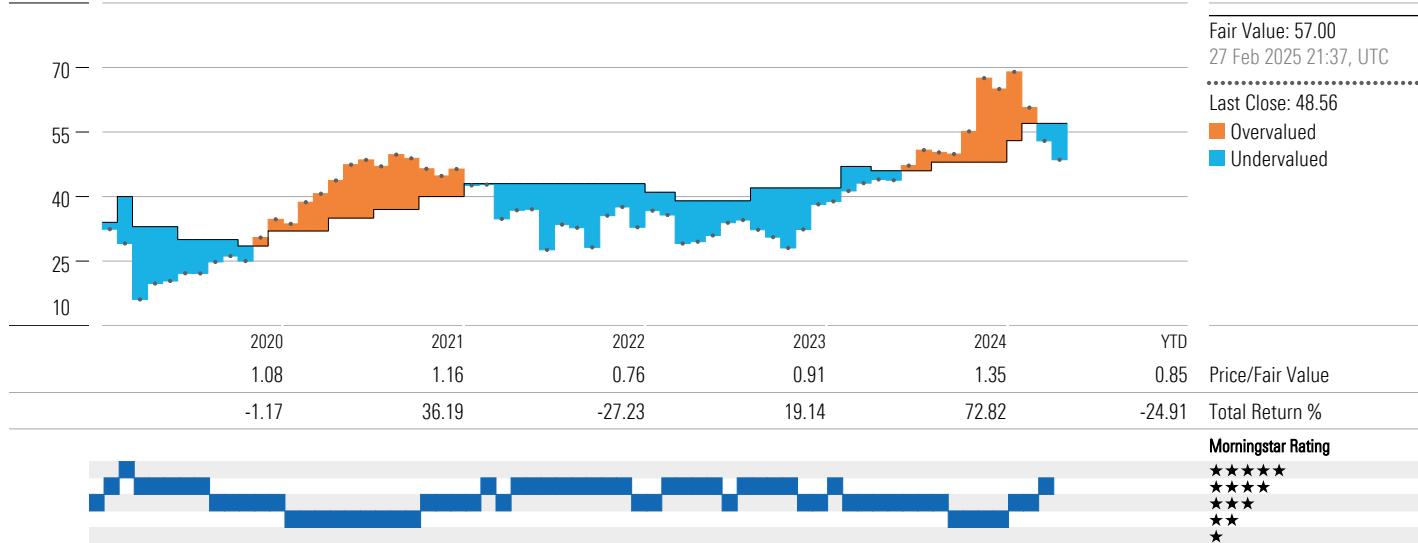
Total Return % as of 22 Apr 2025. Last Close as of 22 Apr 2025. Fair Value as of 24 Mar 2025 19:08, UTC.

Capital One Financial Corp COF ★★★

22 Apr 2025 21:29, UTC

Competitors Price vs. Fair Value

Synchrony Financial SYF



Total Return % as of 22 Apr 2025. Last Close as of 22 Apr 2025. Fair Value as of 27 Feb 2025 21:37, UTC.

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price 170.20 USD 22 Apr 2025 | Fair Value Estimate 187.00 USD 27 Feb 2025 18:29, UTC | Price/FVE 0.91 | Market Cap 65.18 USD Bil 22 Apr 2025 | Economic Moat™  Narrow | Equity Style Box  Large Value | Uncertainty High | Capital Allocation Standard | ESG Risk Rating Assessment¹  2 Apr 2025 05:00, UTC |
|---|---|-------------------|--|--|---|---------------------|--------------------------------|---|
|---|---|-------------------|--|--|---|---------------------|--------------------------------|---|

Morningstar Valuation Model Summary

| Financials as of 27 Feb 2025 | Actual | | | Forecast | | | | |
|---|------------|--------|--------|----------|--------|--------|--------|--------|
| | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| Fiscal Year, ends 31 Dec | | | | | | | | |
| Net Interest Income (USD Mil) | 27,114 | 29,241 | 31,208 | 31,759 | 33,421 | 35,235 | 37,053 | 39,125 |
| Non Interest Income (USD Mil) | 7,145 | 7,580 | 7,939 | 8,334 | 8,618 | 9,014 | 9,428 | 9,862 |
| Total Pre-Provision Revenue (USD Mil) | 34,259 | 36,821 | 39,147 | 40,093 | 42,039 | 44,248 | 46,481 | 48,987 |
| Provision for Loan Losses (USD Mil) | 5,847 | 10,426 | 11,716 | 11,002 | 10,826 | 11,854 | 11,863 | 12,542 |
| Operating Expenses (USD Mil) | 19,163 | 20,316 | 21,486 | 22,466 | 23,641 | 24,877 | 26,177 | 27,546 |
| Operating Income (USD Mil) | 9,249 | 6,079 | 5,945 | 6,625 | 7,572 | 7,517 | 8,440 | 8,899 |
| Net Income Available to Common Stockholders (USD Mil) | 7,360 | 4,887 | 4,747 | 5,233 | 5,982 | 5,939 | 6,668 | 7,030 |
| Adjusted Net Income (USD Mil) | 7,044 | 4,582 | 4,442 | 4,928 | 5,677 | 5,634 | 6,363 | 6,725 |
| Weighted Average Diluted Shares Outstanding (Mil) | 393 | 383 | 384 | 381 | 381 | 381 | 381 | 381 |
| Earnings Per Share (Diluted) (USD) | 17.91 | 11.95 | 11.58 | 12.93 | 14.89 | 14.77 | 16.69 | 17.64 |
| Adjusted Earnings Per Share (Diluted) (USD) | 17.91 | 11.95 | 11.58 | 12.93 | 14.89 | 14.77 | 16.69 | 17.64 |
| Dividends Per Share (USD) | 2.40 | 2.40 | 2.40 | 2.40 | 2.50 | 2.60 | 2.70 | 2.81 |
| Margins & Returns as of 27 Feb 2025 | Actual | | | Forecast | | | | |
| | 3 Year Avg | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
| Net Interest Margin % | 6.8 | 6.6 | 6.8 | 6.9 | 6.8 | 6.9 | 7.0 | 7.0 |
| Efficiency Ratio % | 55.4 | 56.0 | 55.2 | 54.9 | 56.0 | 56.2 | 56.3 | 56.2 |
| Provision as % of Loans | 2.9 | 1.9 | 3.2 | 3.6 | 3.3 | 3.0 | 3.2 | 3.0 |
| Growth & Ratios as of 27 Feb 2025 | Actual | | | Forecast | | | | |
| | 3 Year Avg | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
| Net Interest Income Growth % | 8.9 | 12.2 | 7.8 | 6.7 | 1.8 | 5.2 | 5.4 | 5.2 |
| Non Interest Income Growth % | 8.2 | 14.1 | 6.1 | 4.7 | 5.0 | 3.4 | 4.6 | 4.6 |
| Total Pre-Provision Revenue Growth % | — | 12.6 | 7.5 | 6.3 | 2.4 | 4.9 | 5.3 | 5.1 |
| Operating Expenses Growth % | — | 15.7 | 6.0 | 5.8 | 4.6 | 5.2 | 5.2 | 5.2 |
| Operating Income Growth % | — | -41.6 | -34.6 | -2.2 | 12.1 | 14.3 | -0.7 | 12.3 |
| Net Income Growth % | -28.1 | -40.6 | -33.6 | -2.9 | 10.3 | 14.3 | -0.7 | 12.3 |
| Earnings Per Share Growth % | -24.5 | -33.5 | -33.3 | -3.1 | 11.6 | 15.2 | -0.8 | 12.9 |
| Valuation as of 27 Feb 2025 | Actual | | | Forecast | | | | |
| | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| Price/Earning | 5.2 | 11.0 | 15.4 | 13.2 | 11.4 | 11.5 | 10.2 | 9.6 |
| Price/Book | — | — | — | — | — | — | — | — |
| Price/Tangible Book | 1.0 | 1.2 | 1.5 | 1.4 | 1.3 | 1.3 | 1.2 | 1.1 |
| Dividend Yield % | 1.8 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 1.7 |
| Dividend Payout % | 13.3 | 19.7 | 20.6 | 18.3 | 16.5 | 17.3 | 16.0 | 15.7 |
| Operating Performance / Profitability as of 27 Feb 2025 | Actual | | | Forecast | | | | |
| | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| Fiscal Year, ends 31 Dec | | | | | | | | |
| ROA % | 1.6 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 |
| ROE % | 12.8 | 8.7 | 7.9 | 8.4 | 9.4 | 9.0 | 9.7 | 9.8 |
| Return on Tangible Equity % | 16.8 | 11.3 | 10.0 | 10.6 | 11.8 | 11.3 | 12.0 | 12.0 |

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

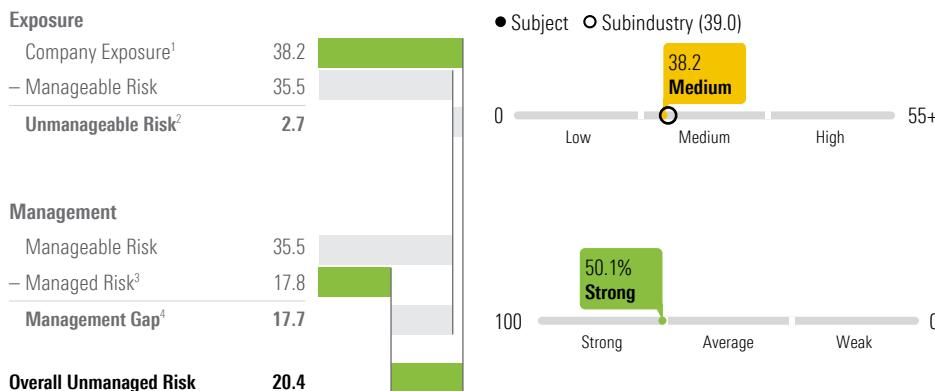
| Last Price 170.20 USD 22 Apr 2025 | Fair Value Estimate 187.00 USD 27 Feb 2025 18:29, UTC | Price/FVE 0.91 | Market Cap 65.18 USD Bil 22 Apr 2025 | Economic Moat™  Narrow | Equity Style Box  Large Value | Uncertainty High | Capital Allocation Standard | ESG Risk Rating Assessment¹  2 Apr 2025 05:00, UTC |
|---|---|-------------------|--|--|---|---------------------|--------------------------------|---|
|---|---|-------------------|--|--|---|---------------------|--------------------------------|---|

| Financial Leverage (Reporting Currency) | Actual | | | Forecast | | | | |
|--|-------------|--------|------|-------------|--------|------|-------------|----------------|
| | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
| Fiscal Year, ends 31 Dec | | | | | | | | |
| Equity/Assets % | 11.6 | 12.1 | 12.4 | 12.2 | 12.0 | 12.0 | 12.0 | 12.0 |
| Forecast Revisions as of | 2025 | | | 2026 | | | 2027 | |
| Prior data as of | Current | Prior | | Current | Prior | | Current | Prior |
| Fair Value Estimate Change (Trading Currency) | 187.00 | — | | — | — | | — | — |
| Net Interest Income (USD Mil) | 31,759 | 31,290 | | 33,421 | 32,787 | | 35,235 | 34,569 |
| Total Pre-Provision Revenue (USD Mil) | 40,093 | 39,228 | | 42,039 | 40,920 | | 44,248 | 43,023 |
| Operating Income (USD Mil) | 6,625 | 7,320 | | 7,572 | 7,329 | | 7,517 | 7,803 |
| Net Income (USD Mil) | — | — | | — | — | | — | — |
| Earnings Per Share (Diluted) (USD) | 12.93 | 14.40 | | 14.89 | 14.42 | | 14.77 | 15.40 |
| Adjusted Earnings Per Share (Diluted) (USD) | 12.93 | 14.40 | | 14.89 | 14.42 | | 14.77 | 15.40 |
| Dividends Per Share (USD) | 2.40 | 2.50 | | 2.50 | 2.60 | | 2.60 | 2.70 |
| Key Valuation Drivers as of 27 Feb 2025 | | | | | | | | |
| Cost of Equity % | 9.0 | | | | | | | |
| Stage II Net Income Growth Rate % | 4.0 | | | | | | | |
| Stage II Incremental ROIC % | 10.8 | | | | | | | |
| Perpetuity Year | 15 | | | | | | | |
| Additional estimates and scenarios available for download at https://pitchbook.com/ . | | | | | | | | |
| Discounted Cash Flow Valuation as of 27 Feb 2025 | | | | | | | | |
| | | | | | | | | USD Mil |
| Present Value Stage I | | | | | | | | 0 |
| Present Value Stage II | | | | | | | | 0 |
| Present Value of the Perpetuity | | | | | | | | 0 |
| Total Common Equity Value before Adjustment | | | | | | | | 0 |
| Other Adjustments | | | | | | | | — |
| Equity Value | | | | | | | | 70,854 |
| Projected Diluted Shares | | | | | | | | 381 |
| Fair Value per Share (USD) | | | | | | | | 187.00 |

Capital One Financial Corp COF ★★★ 22 Apr 2025 21:29, UTC

| Last Price | Fair Value Estimate | Price/FVE | Market Cap | Economic Moat™ | Equity Style Box | Uncertainty | Capital Allocation | ESG Risk Rating Assessment¹ |
|---------------------------|--------------------------------------|-----------|------------------------------|----------------|------------------|-------------|--------------------|--|
| 170.20 USD 22 Apr 2025 | 187.00 USD 27 Feb 2025 18:29, UTC | 0.91 | 65.18 USD Bil 22 Apr 2025 | Narrow | Large Value | High | 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 50.1%
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: Consumer Finance. 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

| Company Name | Exposure | Management | ESG Risk Rating |
|-----------------------------|---------------|----------------|-----------------|
| Capital One Financial Corp | 38.2 Medium | 50.1 Strong | 20.4 Medium |
| American Express Co | 39.2 Medium | 56.6 Strong | 18.3 Low |
| Discover Financial Services | 38.8 Medium | 50.6 Strong | 20.6 Medium |
| Synchrony Financial | 36.8 Medium | 58.5 Strong | 16.5 Low |
| SoFi Technologies Inc | 41.2 Medium | 48.5 Average | 22.7 Medium |

Appendix

Historical Morningstar Rating

Capital One Financial Corp COF 22 Apr 2025 21:29, 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 22 Apr 2025 21:32, 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 22 Apr 2025 21:32, 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 |
| ★★★ | ★★★ | ★★★★ | ★★★★ | ★★★★ | ★★★★ | ★★★★ | ★★★★ | ★★★★ | ★★★★ | ★★★★ | ★★★★ |

Synchrony Financial SYF 22 Apr 2025 21:44, 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.

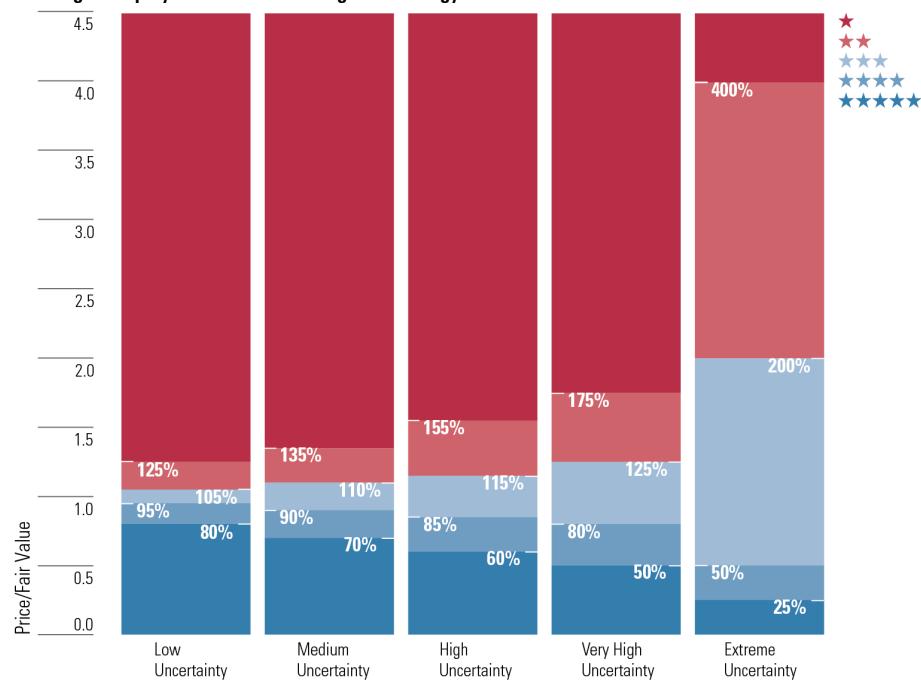
4. Market Price

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.

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

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

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

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

Sustainalytics analyzes over 1,300 data points to assess a company's exposure to and management of ESG risks. In other words, ESG Risk Ratings measures a company's unmanaged ESG Risks represented as a quantitative score. Unmanaged Risk is measured on an open-ended scale

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

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

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

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

Risk Warning

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

General Disclosure

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

This Report is for informational purposes, should not be the sole piece of information used in making an investment decision, and has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient. This publication is intended to provide information to assist investors in making their own investment decisions, not to provide investment ad-

vice to any specific investor. Therefore, investments discussed herein may not be suitable for all investors; investors must exercise their own independent judgment as to the suitability of such investments and recommendations in the light of their own investment objectives, experience, taxation status and financial position. Morningstar encourages Report recipients to read all relevant issue documents (e.g., prospectus) pertaining to the security concerned, including without limitation, information relevant to its investment objectives, risks, and costs before making an investment decision and when deemed necessary, to seek the advice of a financial, legal, tax, and/or accounting professional. The information, data, analyses and opinions presented herein are not warranted to be accurate, correct, complete or timely. Unless otherwise provided in a separate agreement, neither Morningstar, Inc. or the Equity Research Group represents that the report contents meet all of the presentation and/or disclosure standards applicable in the jurisdiction the recipient is located.

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

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

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

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

Research Methodology for Valuing Companies

connection with the distribution third-party research reports.

Conflicts of Interest

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

on an arms' length basis including software products and licenses, research and consulting services, data services, licenses to republish our ratings and research in their promotional material, event sponsorship and website advertising.

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

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

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

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

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

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

For recipients in New Zealand: This report has been issued and distributed by Morningstar Australasia Pty Ltd and/or Morningstar Research Ltd (together 'Morningstar'). This report has been prepared and is intended for

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

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

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

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

Research Methodology for Valuing Companies

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

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

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

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