

Macy's Inc M ★★★★★

3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	None	Small Value	High	Standard	 4 Jun 2025 05:00, UTC

Sector	Industry
 Consumer Cyclical	Department Stores

Business Description

Founded in 1858 and based in New York City, Macy's operates about 450 stores under the Macy's name, nearly 60 stores under the Bloomingdale's (full-price and outlet) and Bloomie's names, and more than 170 freestanding Bluemercury specialty beauty stores. Macy's also operates e-commerce sites and licenses Bloomingdale's stores in the United Arab Emirates and Kuwait. Women's apparel, accessories, shoes, cosmetics, and fragrances constitute about 62% of Macy's sales.

firm with negligible sales growth and operating margins below 5%. We project much of this free cash flow to be returned to investors as dividends and share buybacks.

Key stats: Despite some price increases and sourcing changes to limit the impact, Macy's estimates that higher US tariffs will reduce 2025 EPS by \$0.25-\$0.40. We think there is some risk that tariffs will drive more of its customers to discount channels and reduce overall consumer spending.

Business Strategy & Outlook David Swartz, Senior Equity Analyst, 2 Jun 2025

We believe Macy's is struggling to stay relevant as consumers have many choices. The firm is in the process of closing about 150 of its lower-performing stores as part of its Bold New Chapter plan. We think this move is long overdue, as department stores have been losing market share to e-commerce and other retailers (outlets, branded stores, specialty stores, discounters) for at least 15 years. Parts of the strategy include investments in continuing stores, smaller-format stores, cost reductions, supply chain investments, and luxury expansion. The firm is also building out a media network to monetize its e-commerce traffic. Even so, due to store closures and a lack of consistent organic growth, we forecast Macy's revenue and operating margin will stay well below historical highs for the foreseeable future. We estimate its long-term operating margins at 4.5%-5% on slightly negative annual revenue growth.

Macy's strengths include more than 40 million annual customers, 30 million members in its loyalty program, and more than \$7 billion in digital sales. The firm is investing in its best-performing stores to improve returns. In addition, its upscale retail concepts, Bluemercury and Bloomingdale's, and small-format stores have higher growth prospects than the traditional Macy's stores. However, confidence in a strong turnaround is low as years of strategic plans have failed to improve overall same-store sales growth (consistently below 2% over the past 10 years) or cash generation. Indeed, Macy's free cash flow to equity was consistently above \$1 billion before 2019, but was below this level in five of the past six years.

Activist investors have targeted Macy's for its real estate holdings and potential for greater free cash flow. One investor group attempted to acquire the company in 2024. We think Macy's needs to stay open to any potential offers, given its lack of a competitive edge or clear plan to generate value from its properties.

As most of its merchandise is imported, Macy's is exposed to higher tariffs. The firm expects that tariffs will reduce its 2025 gross margin by 20-40 basis points, and economic distress might reduce sales.

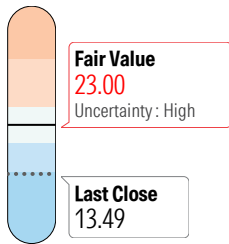
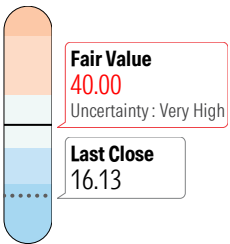
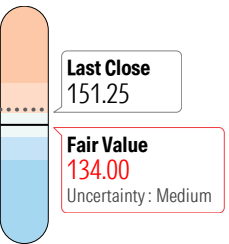
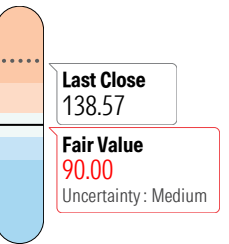
Bulls Say David Swartz, Senior Equity Analyst, 2 Jun 2025

- Macy's "First 50" stores have outperformed the rest of its fleet. The implementation of the "First 50" upgrades could improve the performance of its remaining stores as well.
- Macy's owns significant real estate that can be sold to provide liquidity, pay down debt, and finance

Macy's Inc M ★★★★★ 3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	None	Small Value	High	Standard	4 Jun 2025 05:00, UTC

Competitors

	Macy's Inc M	Kohl's Corp KSS	Ross Stores Inc ROST	TJX Companies Inc TJX
	 <p>Fair Value 23.00 Uncertainty: High</p> <p>Last Close 13.49</p>	 <p>Fair Value 40.00 Uncertainty: Very High</p> <p>Last Close 16.13</p>	 <p>Last Close 151.25</p> <p>Fair Value 134.00 Uncertainty: Medium</p>	 <p>Last Close 138.57</p> <p>Fair Value 90.00 Uncertainty: Medium</p>
Economic Moat	None	None	Wide	Wide
Currency	USD	USD	USD	USD
Fair Value	23.00 2 Jun 2025 17:32, UTC	40.00 2 Jun 2025 20:00, UTC	134.00 25 Aug 2025 14:07, UTC	90.00 25 Aug 2025 13:23, UTC
1-Star Price	35.65	70.00	180.90	121.50
5-Star Price	13.80	20.00	93.80	63.00
Assessment	Undervalued 3 Sep 2025	Undervalued 3 Sep 2025	Fairly Valued 3 Sep 2025	Overvalued 3 Sep 2025
Morningstar Rating	★★★★★ 3 Sep 2025 21:33, UTC	★★★★★ 3 Sep 2025 21:29, UTC	★★★★ 3 Sep 2025 21:33, UTC	★ 3 Sep 2025 21:35, UTC
Analyst	David Swartz, Senior Equity Analyst	David Swartz, Senior Equity Analyst	Jaime M Katz, Senior Equity Analyst	Jaime M Katz, Senior Equity Analyst
Capital Allocation	Standard	Standard	Standard	Standard
Price/Fair Value	0.59	0.40	1.12	1.55
Price/Sales	0.17	0.11	2.31	2.71
Price/Book	0.84	0.46	8.63	17.44
Price/Earning	6.78	10.35	24.01	31.56
Dividend Yield	5.28%	7.75%	1.02%	1.15%
Market Cap	4.42 Bil	1.78 Bil	49.30 Bil	155.22 Bil
52-Week Range	9.76—18.13	6.04—21.39	122.36—158.69	111.22—145.58
Investment Style	Small Value	Small Value	Mid Blend	Large Blend




new investments. Its real estate has also attracted activist investors and potential buyers in the recent past.

- With \$7 billion in annual digital sales, Macy's is one of the largest e-commerce companies in the US. It is building a media network to monetize its online traffic.

Bears Say David Swartz, Senior Equity Analyst, 2 Jun 2025

- Macy's has been closing stores and implementing turnaround plans for years, but none of its strategies has permanently improved the underlying health of the business.
- An investment group offered to buy Macy's in 2024, but no deal materialized. Apparent hostility toward potential buyers by Macy's management could be detrimental to shareholders.
- Macy's sales and profit margins have trended down for most of the past decade. We do not expect the firm's sales or profitability to approach historical highs.

Macy's Inc M★★★★★ 3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	 None	 Small Value	High	Standard	 4 Jun 2025 05:00, UTC

Economic Moat David Swartz, Senior Equity Analyst, 2 Jun 2025

We assign a no-moat rating to Macy's, as we do not believe the company has established a durable intangible asset or cost-based advantage over competitors.

Although it is the largest US traditional department store company by sales, many financial measures suggest that Macy's lacks a competitive edge. Its annual revenue declined to \$23 billion in 2024 from a peak of \$28 billion in 2014 due to consistently weak same-store sales and the closure of hundreds of stores. In fact, Macy's annual revenue is now lower than it was in 2007. As it has lacked sales momentum, its profitability has waned. Macy's operating margin (excluding real estate gains and charges) came in at an average of only 5.6% in the four years before the pandemic and remains in the midsingle digits now.

Macy's annual adjusted return on invested capital, including goodwill, has been below our 10% weighted average cost of capital estimate in eight of the past 10 years, and we forecast it will average 8% over the next decade. These subpar returns support our view that Macy's has no competitive edge.

We attribute Macy's weak financial results to the massive changes in apparel retail over the past two decades. According to the US Census Bureau, total annual retail sales of American department stores have declined by about \$100 billion since the beginning of the century (to \$131 billion in 2024 from \$232 billion in 2000). By Euromonitor's narrower definition of US department stores, total channel retail sales declined to about \$56 billion in 2024 from \$112 billion in 2008, a compound average annual sales decline of 4%. As the department store channel has faded in importance, many operators have closed stores or gone out of business entirely.

The primary cause of the weakness in the department store channel is the loss of shoppers to a multitude of competitors. Many categories, such as furniture, hardware, and consumer electronics, have been all but abandoned by department stores due to share loss to specialty and big-box stores. As such, Macy's, like many of its closest competitors, generates nearly all its sales from just a few categories, namely clothing, footwear, accessories, beauty products, and home goods. While these are sizable categories, they are also very crowded. Among others, department stores compete with stores and online channels operated by specialty clothing brands, off-price stores, mass stores, its own vendors, and e-commerce companies. The latter group, which includes wide-moat Amazon, narrow-moat PDD's Temu, Shein, and more, has become especially problematic for traditional store operators over the past dozen or so years. Although Macy's and most other department stores have their own e-commerce, their business models, including their supply chains and customer acquisition, are still geared toward operating physical stores. They have struggled to match the product selection, convenience, targeted marketing, and low prices of some digital-only operators. Between 2010 and 2024, the share of footwear and apparel sold through retail e-commerce skyrocketed to 39% from 9%,

Macy's Inc M ★★★★★

3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	None	Small Value	High	Standard	 4 Jun 2025 05:00, UTC

while department stores' share fell to just 6% from 17% (per Euromonitor).

Given the weakness of the department store channel, Macy's huge selling space is a competitive weakness rather than a strength. The more than 400 full-line Macy's stores average about 200,000 square feet. As evidenced by its lack of sales growth and anemic profitability, Macy's does not need such massive selling space anymore. Indeed, we estimate its annual sales per square foot at only about \$200, less than half as much as some competitors, such as Nordstrom, narrow-moat Ulta Beauty, wide-moat Ross Stores, and wide-moat TJX's Marmaxx segment. As such, Macy's is closing large-format stores while opening smaller ones. Specifically, between the end of 2017 and the end of 2024, the company reduced the number of its full-size department stores to 390 from 595 but opened about 20 small-format stores. Macy's intends to close another 85 or so large-format stores by the end of 2026 while opening more small stores. We regard this as a worthwhile effort to deal with a changing market, but we do not think it is enough to generate significant sales or profit growth or provide a moat.

Macy's is building an off-price business within its full-price stores to compete with discounters such as Ross and TJX. At an average of about 30,000 square feet, these operators' stores are smaller than those of Macy's but have been much more productive. While mall-based department stores have been in decline, sales at off-mall discount stores have grown at a more than 6% annual rate in the US since 2015 (per Burlington Stores investor presentation). To compete in this space, Macy's operates nearly 300 lower-priced shops known as Backstage, nearly all of which are located within its existing stores. While Macy's promotes Backstage as a major strategic initiative, we consider it mostly defensive. The company knows that it is losing customers to discounters and is desperate to bring them back. Despite its claims, we are uncertain if Backstage is additive, as overall sales numbers have been weak despite the growth of the concept. It is possible that Backstage is cannibalizing Macy's full-price sales and questionable as to whether it brings in new customers. Thus, we do not believe Backstage has improved Macy's ability to compete with discounters.

E-commerce is another of Macy's key strategic priorities. The firm has invested heavily in its digital capabilities, with an emphasis on mobile, same-day delivery in major markets, and buy online/pick up in store. It is also building a digital marketplace of brands that are not sold in its physical stores. In 2024, its digital sales were approximately \$7.1 billion, or about 30% of its total sales (per eMarketer). However, as Macy's reported negative same-store sales in seven of the past 10 years, the growth of its e-commerce has clearly not been enough to overcome sales declines in its physical stores. Thus, we do not see it as a competitive advantage, even against discount stores that have little or no e-commerce of their own.

Macy's is trying to improve its merchandising, including its private-label offerings. Company-owned brands like Alfani, I.N.C., and Hotel Collection account for about 15% of total sales and likely have better gross margins than some third-party merchandise. Macy's has reduced the design and production time

Macy's Inc M ★★★★★ 3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	None	Small Value	High	Standard	 4 Jun 2025 05:00, UTC

on some types of apparel in its private-label group to improve sales and compete with fast-fashion rivals. However, while private-label apparel may be profitable, it does not seem to drive store traffic, which is one of Macy's biggest weaknesses. Moreover, even with this private-label strategy, the firm remains dependent on brands that are widely available at other stores.

On the other end of spectrum, Macy's has ambitions to increase its luxury sales. The Macy's brand is not typically associated with luxury and designer merchandise, but its Bloomingdale's subsidiary is comparable to upscale department stores Nordstrom, Saks Fifth Avenue, and Neiman Marcus. However, like the middle-class department stores, luxury department stores are struggling to stay relevant. In just the last five years, Bloomingdale's, Neiman Marcus, and Nordstrom have all closed stores while Barneys New York shut down completely. Luxury department stores have been marginalized by direct selling of luxury items by the brand owners, as well as e-commerce channels. As a result, Macy's has begun to open some smaller Bloomingdale's locations, known as Bloomie's. Like the small-format Macy's stores, we view this effort as unlikely to change Bloomingdale's competitiveness in the foreseeable future.

Macy's is attempting to defend its beauty business with its Bluemercury subsidiary, but we think it will continue to lose share in the category. Although large department stores were once the primary retailer of prestige beauty products in the US, the industry's retail model has adapted to the channel's ongoing woes. Like its peers, Macy's beauty business has been squeezed by the introduction of many specialty brands, direct selling by key vendors, e-commerce, and the growth of cosmetics stores like Sephora (owned by wide-moat LVMH) and Ulta. Between 2008 and 2024, department stores' share of US beauty and personal care retail fell to 5.1% from 10.6%, while that of beauty specialists rose to 14.2% from 9.9% (per Euromonitor). To become more competitive, Macy's acquired beauty specialist Bluemercury's proprietary brands and 62 stores in 2015. While Bluemercury has since grown to more than 170 locations, it still has far fewer stand-alone stores than either Ulta or Sephora, and its stores are relatively small. Moreover, Ulta and Sephora have opened branded shops in Target and Kohl's stores, respectively.

Beyond intangibles, we do not believe any other moat sources can be applied to Macy's. The company has no production cost advantage, as it sources its apparel from many of the same manufacturers as other fashion retailers. We do not believe it has the power to negotiate lower prices from producers. Macy's does not have efficient scale, either, as its distribution system is like that of competitors. There is no network effect in the apparel retailing business, and switching costs are nonexistent. While the Macy's brand is widely known in the US, we do not believe it contributes to an economic moat and believe it stands to be challenged by the intense competitive landscape.

Fair Value and Profit Drivers David Swartz, Senior Equity Analyst, 2 Jun 2025

We are lowering our per-share fair value estimate to \$23 from \$24 after Macy's reported its first-quarter

Macy's Inc M ★★★★★ 3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	None	Small Value	High	Standard	 4 Jun 2025 05:00, UTC

results and reduced 2025 guidance. Macy's (owned) first-quarter comparable sales fell 2%, and its adjusted earnings per share were \$0.16 (down from \$0.27). Thus, Macy's outperformed our forecast for a 5% same-store sales decline and \$0.15 in EPS. However, the firm lowered its full-year guidance ranges for full-year adjusted EBITDA to 7.4%-7.9% from 8.4%-8.6% and for adjusted EPS to \$1.60-\$2.00 from \$2.05-\$2.25. Given this change, we have lowered our 2025 adjusted EPS estimate to \$1.85 from \$2.16. Our fair value estimate implies a 2025 P/E of 12 times and enterprise value/EBITDA of 5 times.

The reduced 2025 outlook is attributable to tariffs, costly investments in stores, and markdowns across retail. We think store upgrades are necessary and worthwhile. As for tariffs, we think Macy's lacks the pricing or negotiating power to offset them completely but can mitigate them.

On a brighter note, Macy's continues to post better comparable sales trends at its "First 50" stores and at its Bloomingdale's and Bluemercury subsidiaries. More consistency in terms of profitable growth in these segments is core to the Bold New Chapter strategy.

Macy's received interest from potential buyers in the first half of 2024, but no deal materialized. Soon after, a different activist group called for changes, including greater share repurchases and the creation of a separate entity to monetize real estate. We think Macy's board should seriously consider buyout offers that are at or above our \$23 per share fair value estimate.

In the long term, we are not confident that Macy's growth plans, such as the shift to smaller-format stores and luxury, will overcome weakness in mall-based retail. While the firm has a large customer base of more than 40 million and about three fourths of its sales come from loyalty members, evidence suggests many Macy's customers shop the stores infrequently. We do not think the firm can gain market share as online and offline competition will intensify despite some store closures by rivals. In the long run, we forecast yearly comparable sales growth of just 0.5% on owned retail.

We anticipate Macy's selling, general, and administrative expenses as a percentage of revenue in the next decade to remain high at around 36%-37% as we believe the firm will have to spend heavily on marketing, e-commerce, and other initiatives to stay competitive. We forecast its long-term operating and adjusted EBITDA margins around 4.5%-5% and 8.5%-9%, respectively.

We expect Macy's total gross margin to stabilize at nearly 41%, in line with prepandemic levels. Excluding credit card and marketplace operations, we forecast gross margins at 38.5% in the long term. Macy's may maintain its recent solid gross margins if it increases sales of its luxury offerings, private-label, and exclusive brands. The company also plans for \$235 million in run-rate annual cost savings by 2026 from its supply chain investments under its strategic plan.

Risk and Uncertainty David Swartz, Senior Equity Analyst, 2 Jun 2025

Our Morningstar Uncertainty Rating on Macy's is High. Macy's has been struggling for many years due

Macy's Inc M ★★★★★ 3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	None	Small Value	High	Standard	4 Jun 2025 05:00, UTC

to pressures on traditional US department stores. For example, its annual free cash flow to equity has declined from nearly \$2 billion in 2014 to an average of less than \$1 billion over the past five years. Further, the firm has reported negative same-store sales in seven of the past 10 years. Meanwhile, competition from traditional retailers (Kohl's, Walmart), e-commerce (Amazon), fast fashion (Shein), and discounters (Ross, T.J. Maxx) remains fierce. While Macy's is investing in its Bold New Chapter plan to stay relevant, previous strategic plans have failed to bring in new customers or encourage existing customers to spend more.

Like other apparel and home goods retailers, Macy's is affected by economic conditions and the business cycle. Recently, inflation and tariffs have negatively affected consumer spending on apparel and other products by low- and middle-income shoppers.

Macy's has about \$2.8 billion in long-term debt. While this is an improvement over historical levels, it could still pose a risk to the viability of the business if results worsen because of a recession.

As most of its merchandise is imported and as it has no operations outside of the US, Macy's is exposed to higher tariffs on US imports. About 20% of its merchandise is imported from China, which has been threatened with very high tariffs. These tariffs are likely to increase the cost of goods sold and, possibly, depress demand through higher prices. Moreover, the ongoing trade war could lead to a recession in the US and lower consumer spending.

We do not think Macy's faces material environmental, social, and governance risks. However, it does face exposure to controversies related to the treatment of laborers in the global supply chain for apparel.

Capital Allocation David Swartz, Senior Equity Analyst, 2 Jun 2025

We assign a Standard Morningstar Capital Allocation Rating to Macy's. The company has been beset by turmoil, including many executive changes. Longtime employee Jeff Gennette assumed the CEO role after Terry Lundgren retired in 2017. In early 2024, Gennette retired and was replaced by Tony Spring, the former CEO of Bloomingdale's. Spring has made many changes in key positions since becoming CEO. For example, former Capri executive Tom Edwards replaced Adrian Mitchell as Macy's chief financial officer and chief operating officer in June 2025.

Spring announced a new strategy, A Bold New Chapter, in February 2024. As part of this plan, Macy's intends to close about 150 underperforming stores and monetize about \$600 million-\$750 million in assets. It also intends to invest in small-format stores, its supply chain, and most attractive concepts Bloomingdale's and Bluemercury. While these are worthwhile efforts, Macy's previous strategies have had limited positive effect.

Macy's has long operated with significant debt, but we do not foresee any distress. The firm has \$2.8 billion in total debt, but this is down from \$4.9 billion at the end of 2020 as it has paid down and

Macy's Inc M ★★★★★

3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	None	Small Value	High	Standard	 4 Jun 2025 05:00, UTC

replaced debt as its results have improved. Most of its remaining debt matures after 2027. As debt matures and is retired, we forecast it will be reduced to \$1 billion within 10 years.

We think Macy's has a fair record of returning cash to shareholders in stable times. Macy's paused buybacks and dividends during the pandemic but has since resumed share repurchases and reinstated its quarterly dividend (now at \$0.1824 per share). Macy's stock repurchases totaled \$1.9 billion in 2014, \$2 billion in 2015, and \$316 million in 2016 until it halted repurchases in 2016 to use cash for debt reduction instead. The firm repaid about \$3.5 billion in debt over 2016-19, which brought it below its target debt/adjusted EBITDA of 2.5-2.8 times. In 2021, it resumed repurchases, buying back \$500 million in shares at an average price of \$24.40. Then, in 2022, it repurchased an additional \$600 million in shares at an average price of \$24.98. Macy's paused buybacks in 2023 and 2024 to shore up its balance sheet and fund investments, but they have resumed in 2025. We forecast Macy's will generate an average of about \$835 million per year in free cash flow to the firm over the next decade and use it for debt reduction, dividends, and stock buybacks.

Macy's has significant capital expenditure needs. Excluding spending on capitalized software, the firm used \$2 billion on capital expenditures in 2022-24. Over the next decade, we forecast its annual capital expenditures will average about \$775 million, or 3.7% of sales.

Activists have targeted Macy's for years. In 2024, an investment group offered to buy the company, but the retailer's board claimed that the financing was not secure and ended discussions. Soon after, a different activist group called for board representation and changes at Macy's. It wanted greater share repurchases and plans for Bluemercury, Bloomingdale's, and Macy's real estate. We think Macy's should seriously consider any reasonable future offers for the company or other assets, as it does not have a competitive advantage.


Analyst Notes Archive

Macy's Earnings: Signs of Progress, but Tariffs Cloud Outlook; Shares Very Undervalued David

Swartz, Senior Equity Analyst, 28 May 2025

Macy's first-quarter comparable sales on an owned basis fell 2%, as weakness at legacy stores offset a 1.3% decline at upgraded Macy's stores and growth at Bloomingdale's (3%) and Bluemercury (1.5%). Gross margin was flat at 39.2%, and adjusted EPS was \$0.16, down from \$0.27 a year ago. Why it matters: There are signs that Macy's "Bold New Chapter" strategy to increase its luxury exposure, operate more efficiently, and strengthen its namesake stores through merchandising, service, and store changes is working, but consistency in sales growth and margins remains elusive. Macy's outperformed our forecast for a 5% same-store sales decline and \$0.15 in earnings per share in the quarter. However, the firm lowered its full-year guidance for adjusted EBITDA margin to 7.4%-7.9% from 8.4%-8.6% and for adjusted EPS to \$1.60-\$2.00 from \$2.05-\$2.25. The reduced outlook is attributable to tariffs, costly

Macy's Inc M ★★★★★ 3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	None	Small Value	High	Standard	 4 Jun 2025 05:00, UTC

investments in stores, and markdowns across retail. We think store upgrades are necessary and worthwhile. As for tariffs, we think Macy's lacks the pricing or negotiating power to offset them completely but can mitigate them. The bottom line: We expect to lower our full-year estimates for 8.3% EBITDA margin and \$2.16 in EPS in response to tariffs and reduced guidance. Although our \$24 fair value estimate should decline by a mid-single-digit percentage on this change, the shares are attractive, in our view. We rate Macy's as a no-moat company due to the challenges facing US department stores, but we believe operating margin will improve from below 4% of late to more than 5% by 2027 as reforms are implemented and another 100 or so underperforming namesake stores are closed. Macy's outlook is based on current tariffs (10% generally). About 20% of its merchandise is imported from China, which faces tariffs around 30%. Macy's anticipates tariffs will reduce its 2025 gross margin by 20-40 basis points, accounting for much of its EPS guidance cut.

Macy's Earnings: Some Progress, but Holiday Season and 2025 Outlook Disappoint; Shares Undervalued David Swartz, Senior Equity Analyst, 6 Mar 2025

No-moat Macy's met the fourth-quarter sales forecast that we revised downward after its Jan. 14 holiday sales update (see our note), but this result was overshadowed by uninspiring 2025 guidance. Specifically, the firm projects adjusted earnings per share of \$2.05-\$2.25 on an owned comparable sales decline of 0.5%-2% versus our respective estimates of \$2.63 and flat. As such, we expect to lower our \$25 per share fair value estimate by a low-single-digit percentage. Even so, we see opportunity in Macy's shares and believe that positive sales trends at its "First 50," Bloomingdale's, and Bluemercury stores provide confidence in its "Bold New Chapter" strategy. Macy's matched our forecast with a 4.3% sales decline and a 35.7% gross margin in the fourth quarter. However, its \$1.80 in adjusted EPS was \$0.31 better than estimate due to higher credit card revenue and lower selling, general, and administrative expenses than expected. Macy's results continue to be dragged down by the performance of its weakest stores, 64 of which were closed by the end of January, and uneven consumer demand for apparel and home goods. Macy's posted an adjusted EBITDA margin of 8.6% in 2024, and it projected a similar margin of 8.4%-8.6% in 2025. In the long run, we anticipate the firm can lift this margin to about 9.0%-9.5% after it closes another 85 or so stores and its remaining stores benefit from the "First 50" upgrades. Moreover, the firm has made investments in its supply chain and inventory management. Even so, we forecast Macy's comparable sales growth at just 0.5%-1.0% in the long run given its poor competitive position. Despite its problems, Macy's reached its goal of debt-to-adjusted EBITDAR of 2.5 times in 2024. The firm closed the year with \$2.8 billion in debt, down from \$4.9 billion four years ago, and has limited maturities until 2029. We intend to adjust our Uncertainty Rating to High from Very High based on Macy's improved balance sheet and our quantitative model.

Macy's: Holiday Sales Disappoint, but Turnaround Plan Continues; Shares Undervalued David Swartz, Senior Equity Analyst, 14 Jan 2025

Macy's Inc M ★★★★★ 3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	 None	 Small Value	High	Standard	 4 Jun 2025 05:00, UTC

About a month after its third-quarter report, Macy's reduced its outlook for fourth-quarter sales due to weak holiday results at its lowest-performing stores, many of which are set to be closed. With comparable sales roughly flat in the fourth quarter so far, the company is likely to miss our 1.4% same-store sales growth estimate for the full period ending January. More positively, Macy's continues to post positive comparable sales trends at its "First 50" stores and at its Bloomingdale's and Bluemercury subsidiaries. More consistency in terms of profitable growth in these segments is core to the company's Bold New Chapter strategy. Macy's maintained its fourth-quarter adjusted earnings per share guidance of \$1.40-\$1.65, so we anticipate only a small reduction in our \$1.53 forecast and do not expect to make any material change to our \$25 fair value estimate. We continue to rate the shares, down about 8% in Jan. 13 trading, as undervalued. Although we view Macy's as a no-moat company due to the competitive challenges facing US department stores, we anticipate it can generate steady free cash flow and lift its operating margin to 5.5% from about 4.3% over the next two years as it implements its efficiency, merchandising, and store operations plans. Macy's disappointing sales guidance follows last week's announcement that 66 stores will be closed in the near term. Although the number of closures is in line with previous guidance, we were surprised that four small-format stores are on the list. As expanding the small-format concept is part of Macy's strategy, these closures suggest that the firm needs to step up its investment in the customer experience even in its newer stores. Ultimately, the problem is that Macy's still has too many physical locations in a marketplace crowded with both on- and off-line competitors and struggles to stand out.

Macy's Earnings: Signs of Progress Despite Disappointing Near-Term Outlook; Shares Undervalued

David Swartz, Senior Equity Analyst, 11 Dec 2024

After postponing its report due to the discovery of underreported expenses (see our Nov. 25 note), no-moat Macy's released full third-quarter sales and earnings that aligned with our expectations and the preliminary release. Providing confidence in its "Bold New Chapter" plan, the company reported positive comparable sales growth in its "First 50" stores and at its Bloomingdale's and Bluemercury subsidiaries. Although Macy's shares fell by a mid-single-digit percentage on Dec. 11 as its fourth-quarter profit guidance was disappointing due to a promotional holiday environment and weather issues, the effect on our valuation from this shortfall is immaterial. Thus, we do not expect to make any material change to our \$25 per share fair value estimate, leaving shares as attractive. Macy's 2.4% comparable sales decline in the third quarter was just short of our estimate for a 2% fall. As the "First 50" stores initiative continued to outperform (1.9% same-store sales increase), overall sales results could improve as the investments are expanded to more stores next year. Further, Macy's 39.6% quarterly gross margin missed our 40.4% estimate due, in part, to the delivery expense issue. Although its 0.9% adjusted operating margin was 30 basis points above our estimate, it was boosted by greater real estate sales than anticipated. Macy's now expects to close 65 stores by the end of January 2025, up from its prior expectation of 55 stores. It makes sense for the firm to close its underperforming stores as soon as

Macy's Inc M★★★★★

3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	None	Small Value	High	Standard	4 Jun 2025 05:00, UTC

possible. Quarterly EPS of \$0.04 was above our flat estimate. For the full year, adjusting for the delivery cost change, Macy's lowered its EPS guidance to \$2.25-\$2.50 from \$2.34-\$2.69 previously, even though its guidance suggests it will return to positive same-stores sales in the fourth quarter. Thus, we expect to reduce our fourth-quarter operating margin estimate of 9.3%. In the long run, we estimate its annual operating margins at 5.4%.

Macy's: Unfortunate Delay, but Preliminary Sales Match Expectations; Shares Undervalued

David Swartz, Senior Equity Analyst, 25 Nov 2024

No-moat Macy's postponed its third-quarter earnings report to Dec. 11 from Nov. 26 after it discovered that its delivery expenses over the past three years had been underreported by a total of \$132 million-\$152 million. The firm claims that a former employee intentionally misstated these costs. Although disappointing, the problem appears to be contained and the cost discrepancies are immaterial considering that Macy's annual operating expenses exceed \$8 billion. Macy's also provided some preliminary third-quarter results. Although it reported some weakness in cold weather categories and e-commerce, its comparable sales (company-owned plus licensed) matched our estimate by falling 1.3%. Looking deeper, Macy's had a 2% same-store sales drop, but there were positive signs, including same-store sales increases of 1.9% at the "First 50" Macy's stores and above 3% at Bloomingdale's and Bluemercury. We regard these results as supportive of its "A Bold New Chapter" plan as they suggest that store improvements in the leading Macy's stores and focus on luxury are improving sales. Further, Macy's revealed that its asset sales and other revenue were \$66 million and \$161 million, respectively, in the quarter. As our estimates for these items were lower (\$19 million and \$138 million), there could be upside to our breakeven EPS forecast. Macy's will provide fourth-quarter guidance when it reports its full results. There was a brief mention in the preliminary release that November comparable sales are trending ahead of those for the third quarter. This could indicate fourth-quarter outperformance is coming, but we think it is too early in the holiday shopping period to draw conclusions. For now, we are not changing our \$25 per-share fair value estimate and rate shares as very undervalued. Correction (Nov. 25, 2024): A previous version of this stock analyst note stated that Macy's postponed its third-quarter earnings report to Dec. 11 from Nov. 25. This has been amended to Nov. 26.




Macy's Earnings: Sales Outlook Is Disappointing but There Are Positive Signs; Shares Undervalued

David Swartz, Senior Equity Analyst, 21 Aug 2024

Macy's shares fell by a low-double-digit percentage after it reported disappointing second-quarter sales and offered a dim view of demand for the rest of the year. However, profitability was better than expected, and the firm did not change its 2024 EPS outlook of \$2.55-\$2.90. Moreover, as CEO Tony Spring's three-year "Bold New Chapter" plan to boost sales in Macy's most-productive stores, operate more efficiently, and expand luxury, is on track, our medium-term projections should be largely unaffected. Thus, we do not expect to make any material change to our \$25 fair value estimate, leaving

Macy's Inc M★★★★★

3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	 None	 Small Value	High	Standard	 4 Jun 2025 05:00, UTC

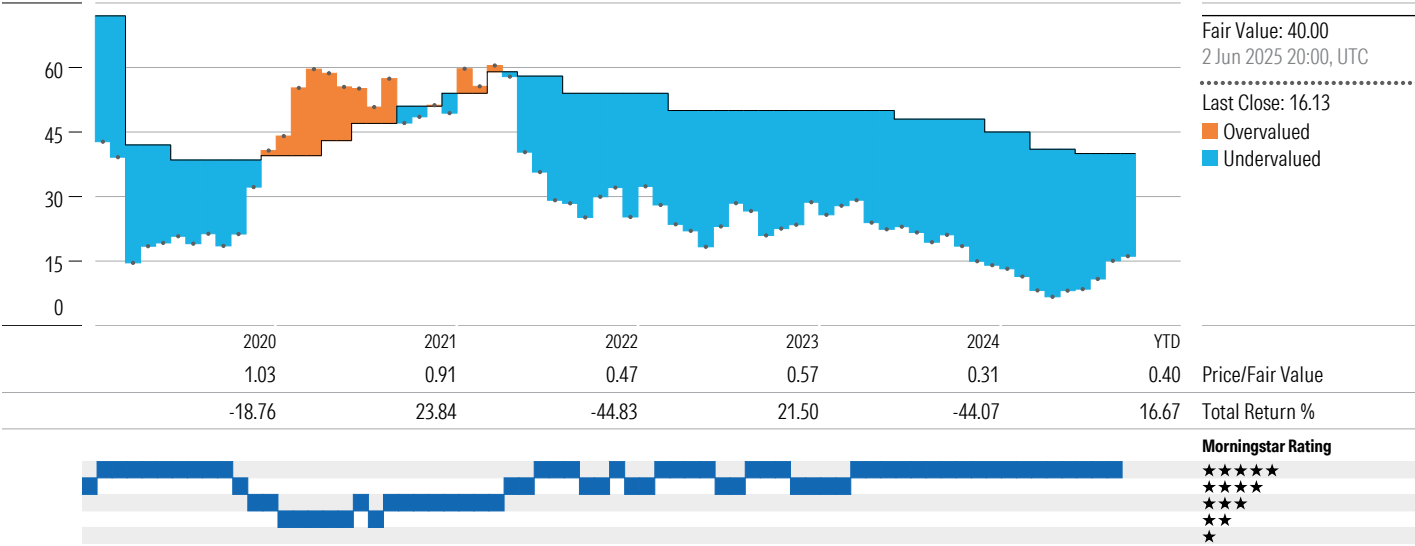
shares as attractive. While we rate Macy's as a no-moat company due to the competitive challenges facing US department stores, we anticipate steady free cash flow and believe that its problems are already reflected in its valuation.Macy's recorded a 4% drop in (owned) comparable sales in the second quarter, short of our negative 0.4% estimate. Sales weakened as the period progressed, and management indicated that this negative trend has continued. Providing some hope, Macy's reported slightly positive same-store sales at Bluemercury and in the 50 leading stores at which it has implemented its new store plans, which are to be brought to an additional 100 stores over time. However, we are realistic about Macy's challenges, forecasting same-store sales growth of just 0.5% in the long run.Despite the sales shortfall, Macy's 4.4% quarterly operating margin outpaced our 2.8% estimate. Its 40.5% gross margin was 70 basis points above our forecast on reduced discounting, and its real estate gains were above expectations. Moreover, to its credit, its selling, general, and administrative expenses were 40% of net sales (matching our estimate) as it cut costs when it recognized poor sales trends. We forecast operating margin improvement to 5.4% over the next three years on the benefits of its strategy and the closure of 150 underperforming stores. ■■■

Macy's Inc M★★★★★

3 Sep 2025 21:33, UTC

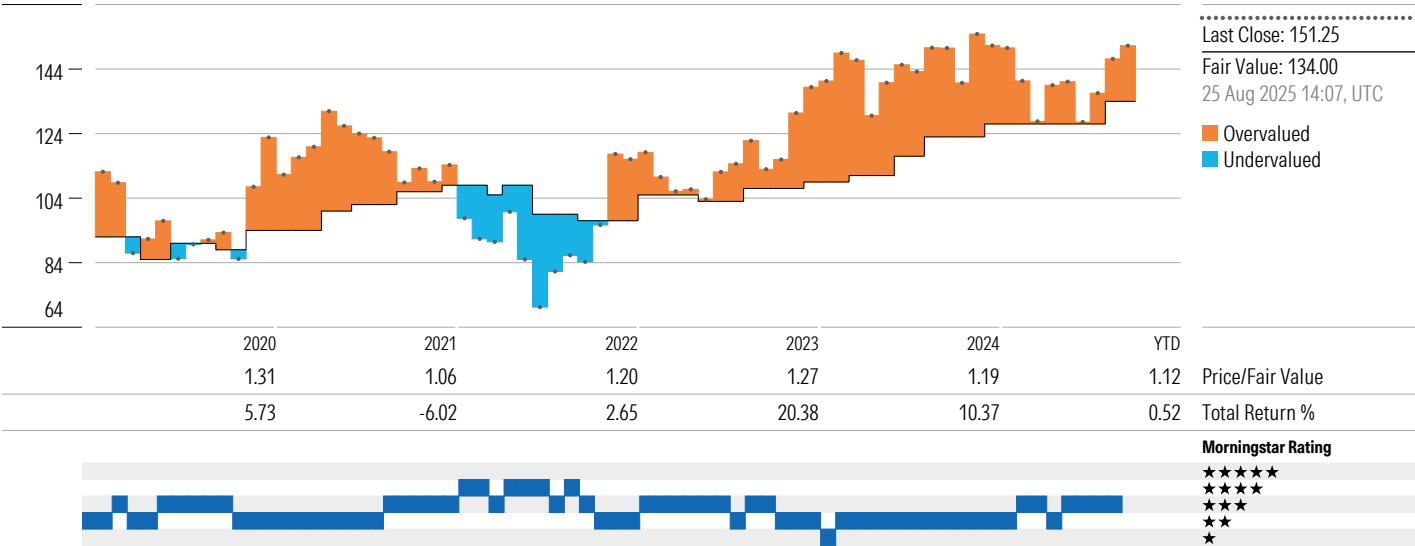
Competitors Price vs. Fair Value

Kohl's Corp KSS



Total Return % as of 02 Sep 2025. Last Close as of 02 Sep 2025. Fair Value as of 2 Jun 2025 20:00, UTC.

Ross Stores Inc ROST

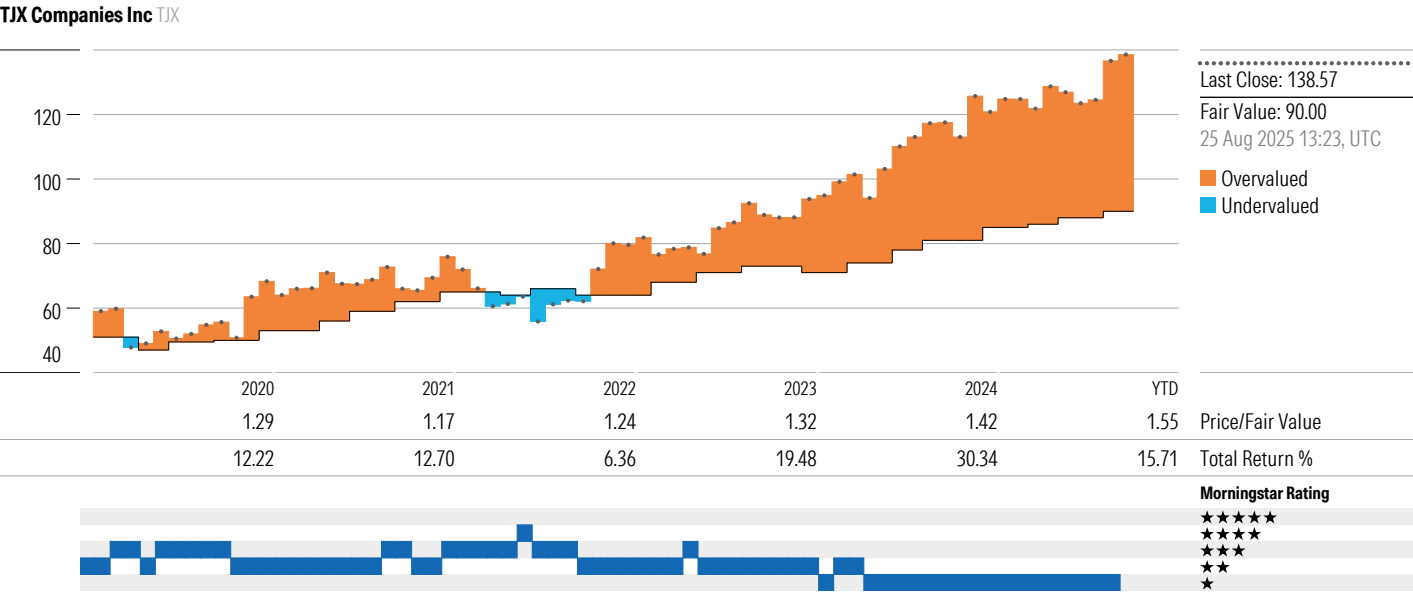


Total Return % as of 02 Sep 2025. Last Close as of 02 Sep 2025. Fair Value as of 25 Aug 2025 14:07, UTC.

Macy's Inc M★★★★★

3 Sep 2025 21:33, UTC


Competitors Price vs. Fair Value



Total Return % as of 02 Sep 2025. Last Close as of 02 Sep 2025. Fair Value as of 25 Aug 2025 13:23, UTC.

Macy's Inc M ★★★★★

3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	None	Small Value	High	Standard	 4 Jun 2025 05:00, UTC

Morningstar Valuation Model Summary

Financials as of 01 Jun 2025

Fiscal Year, ends 31 Jan	Actual			Forecast				
	2023	2024	2025	2026	2027	2028	2029	2030
Revenue (USD Mil)	25,449	23,866	23,006	22,140	21,499	20,934	20,883	20,832
Operating Income (USD Mil)	1,641	1,267	937	697	727	971	968	966
EBITDA (USD Mil)	2,558	1,208	1,801	1,676	1,698	1,820	1,816	1,812
Adjusted EBITDA (USD Mil)	2,607	2,236	1,977	1,676	1,698	1,820	1,816	1,812
Net Income (USD Mil)	1,147	45	582	510	547	655	671	669
Adjusted Net Income (USD Mil)	1,228	913	745	518	547	655	671	669
Free Cash Flow To The Firm (USD Mil)	1,281	2,436	1,204	784	802	925	829	827
Weighted Average Diluted Shares Outstanding (Mil)	281	278	282	279	275	267	259	251
Earnings Per Share (Diluted) (USD)	4.08	0.16	2.07	1.83	1.99	2.45	2.59	2.66
Adjusted Earnings Per Share (Diluted) (USD)	4.37	3.28	2.64	1.85	1.99	2.45	2.59	2.66
Dividends Per Share (USD)	0.63	0.66	0.69	0.73	0.81	0.90	1.00	1.11

Margins & Returns as of 01 Jun 2025

	3 Year Avg	Actual			Forecast					5 Year Avg
		2023	2024	2025	2026	2027	2028	2029	2030	
Operating Margin %	4.0	6.5	5.3	4.1	3.2	3.4	4.6	4.6	4.6	4.3
EBITDA Margin %	—	10.1	5.1	7.8	7.6	7.9	8.7	8.7	8.7	—
Adjusted EBITDA Margin %	—	10.2	9.4	8.6	7.6	7.9	8.7	8.7	8.7	8.3
Net Margin %	2.4	4.5	0.2	2.5	2.3	2.5	3.1	3.2	3.2	2.9
Adjusted Net Margin %	4.0	4.8	3.8	3.2	2.3	2.5	3.1	3.2	3.2	2.9
Free Cash Flow To The Firm Margin %	6.8	5.0	10.2	5.2	3.5	3.7	4.4	4.0	4.0	3.9

Growth & Ratios as of 01 Jun 2025

	3 Year CAGR	Actual			Forecast					5 Year CAGR
		2023	2024	2025	2026	2027	2028	2029	2030	
Revenue Growth %	-3.2	0.2	-6.2	-3.6	-3.8	-2.9	-2.6	-0.2	-0.2	-2.0
Operating Income Growth %	-25.6	-27.8	-22.8	-26.1	-25.7	4.4	33.5	-0.2	-0.2	0.6
EBITDA Growth %	-8.5	-22.0	-52.8	49.2	-6.9	1.3	7.2	-0.2	-0.2	0.2
Adjusted EBITDA Growth %	-15.7	-21.1	-14.2	-11.6	-15.2	1.3	7.2	-0.2	-0.2	-1.7
Earnings Per Share Growth %	-22.9	-9.6	-96.1	1188.5	-11.7	8.8	23.6	5.6	2.8	5.2
Adjusted Earnings Per Share Growth %	-22.9	-17.1	-24.9	-19.5	-29.9	7.1	23.6	5.6	2.8	5.2

Valuation as of 01 Jun 2025


	Actual			Forecast				
	2023	2024	2025	2026	2027	2028	2029	2030
Price/Earning	4.7	5.3	5.4	8.8	8.2	6.6	6.3	6.1
Price/Sales	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Price/Book	1.4	1.2	0.9	1.0	0.9	0.8	0.8	0.8
Price/Cash Flow	—	—	—	—	—	—	—	—
EV/EBITDA	4.7	4.8	5.0	5.4	5.3	5.0	5.0	5.0
EV/EBIT	7.5	8.6	10.5	12.9	12.4	9.3	9.3	9.3
Dividend Yield %	3.1	3.8	4.8	4.5	5.0	5.5	6.1	6.8
Dividend Payout %	14.4	20.2	26.3	39.4	40.8	36.6	38.5	41.6
Free Cash Flow Yield %	—	—	—	—	—	—	—	—

Operating Performance / Profitability as of 01 Jun 2025

Fiscal Year, ends 31 Jan	Actual			Forecast				
	2023	2024	2025	2026	2027	2028	2029	2030
ROA %	6.8	0.3	3.6	3.1	3.4	4.0	4.3	4.3
ROE %	28.4	1.1	12.8	10.8	11.1	12.8	12.7	12.3
ROIC %	11.5	3.4	7.0	6.4	6.8	7.9	7.9	8.0

Macy's Inc M ★★★★★

3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	None	Small Value	High	Standard	 4 Jun 2025 05:00, UTC

Financial Leverage (Reporting Currency)

Fiscal Year, ends 31 Jan	Actual			Forecast				
	2023	2024	2025	2026	2027	2028	2029	2030
Debt/Capital %	47.1	48.2	54.4	29.0	27.3	26.3	21.0	16.8
Assets/Equity	4.2	4.0	3.6	3.4	3.3	3.2	3.0	2.8
Net Debt/EBITDA	2.0	4.2	2.7	0.7	0.5	0.3	0.2	0.2
Total Debt/EBITDA	2.6	2.7	3.0	1.7	1.6	1.5	1.1	0.9
EBITDA/ Net Interest Expense	12.3	8.7	13.5	16.4	16.5	17.7	22.7	22.7

Forecast Revisions as of 2 Jun 2025

Prior data as of 19 Mar 2025	2026		2027		2028	
	Current	Prior	Current	Prior	Current	Prior
Fair Value Estimate Change (Trading Currency)	23.00	23.98	—	—	—	—
Revenue (USD Mil)	22,140	21,974	21,499	21,419	20,934	20,853
Operating Income (USD Mil)	697	831	727	828	971	1,108
EBITDA (USD Mil)	1,676	1,818	1,698	1,802	1,820	1,960
Net Income (USD Mil)	518	605	547	607	655	743
Earnings Per Share (Diluted) (USD)	1.83	2.16	1.99	2.20	2.45	2.78
Adjusted Earnings Per Share (Diluted) (USD)	1.85	2.16	1.99	2.20	2.45	2.78
Dividends Per Share (USD)	0.73	0.73	0.81	0.81	0.90	0.90

Key Valuation Drivers as of 01 Jun 2025


Cost of Equity %	11.0
Pre-Tax Cost of Debt %	10.0
Weighted Average Cost of Capital %	10.2
Long-Run Tax Rate %	24.5
Stage II EBI Growth Rate %	0.0
Stage II Investment Rate %	-0.1
Perpetuity Year	11

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

Discounted Cash Flow Valuation as of 01 Jun 2025

	USD Mil
Present Value Stage I	4,928
Present Value Stage II	259
Present Value Stage III	2,525
Total Firm Value	7,713
Cash and Equivalents	1,306
Debt	2,779
Other Adjustments	-101
Equity Value	6,139
Projected Diluted Shares	272
Fair Value per Share (USD)	23.00

Macy's Inc M★★★★★ 3 Sep 2025 21:33, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
13.49 USD 2 Sep 2025	23.00 USD 2 Jun 2025 17:32, UTC	0.59	4.42 USD Bil 3 Sep 2025	None	Small Value	High	Standard	 4 Jun 2025 05:00, UTC

ESG Risk Rating Breakdown

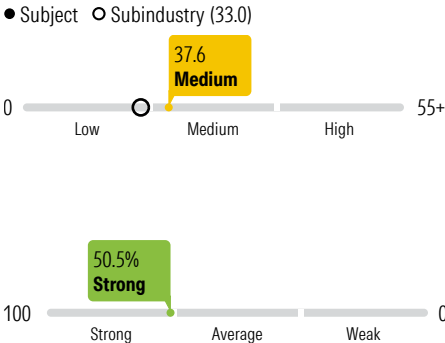
Exposure

Company Exposure¹	37.6
- Manageable Risk	34.4
Unmanageable Risk²	3.2

Management

Manageable Risk	34.4
- Managed Risk³	17.4
Management Gap⁴	17.0

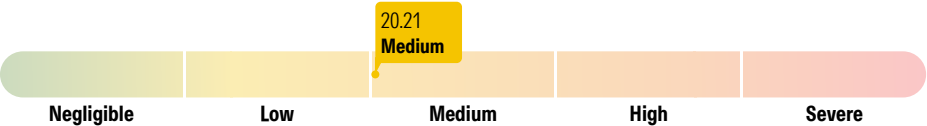
Overall Unmanaged Risk 20.2



- ▶ 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 50.5% 4. Management Gap assesses risks that are not managed, but are considered manageable 5. ESG Risk Rating Assessment = Overall Unmanaged Risk = Management Gap plus Unmanageable Risk

ESG Risk Rating Assessment⁵



ESG Risk Rating is of Jun 04, 2025. Highest Controversy Level is as of Aug 08, 2025. Sustainability Subindustry: Department Stores. Sustainability provides Morningstar with company ESG ratings and metrics on a monthly basis and as such, the ratings in Morningstar may not necessarily reflect current Sustainability scores for the company. For the most up to date rating and more information, please visit: sustainalytics.com/esg-ratings/.

Peer Analysis 04 Jun 2025

Company Name	Exposure	Management	ESG Risk Rating
Macy's Inc	37.6 Medium 0 —●— 55+	50.5 Strong 100 —●— 0	20.2 Medium 0 —●— 40+
Kohl's Corp	34.6 Low 0 —●— 55+	51.7 Strong 100 —●— 0	18.1 Low 0 —●— 40+
Ross Stores Inc	29.5 Low 0 —●— 55+	36.2 Average 100 —●— 0	20.0 Low 0 —●— 40+
Target Corp	33.8 Low 0 —●— 55+	50.0 Strong 100 —●— 0	18.2 Low 0 —●— 40+
TJX Companies Inc	30.2 Low 0 —●— 55+	47.4 Average 100 —●— 0	17.4 Low 0 —●— 40+

Appendix

Historical Morningstar Rating

Macy's Inc M 3 Sep 2025 21:33, UTC

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

Kohl's Corp KSS 3 Sep 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 ★★★★

Ross Stores Inc ROST 3 Sep 2025 21:33, UTC

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

TJX Companies Inc **TJX** 3 Sep 2025 21:35, UTC

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

Research Methodology for Valuing Companies

Overview

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

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

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

1. Economic Moat

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

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

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

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

2. Estimated Fair Value

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

Our model is divided into three distinct stages:

Stage I: Explicit Forecast

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

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

Stage II: Fade

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

Stage III: Perpetuity

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

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

3. Uncertainty Around That Fair Value Estimate

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

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

Morningstar Equity Research Star Rating Methodology



Research Methodology for Valuing Companies

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

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

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

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

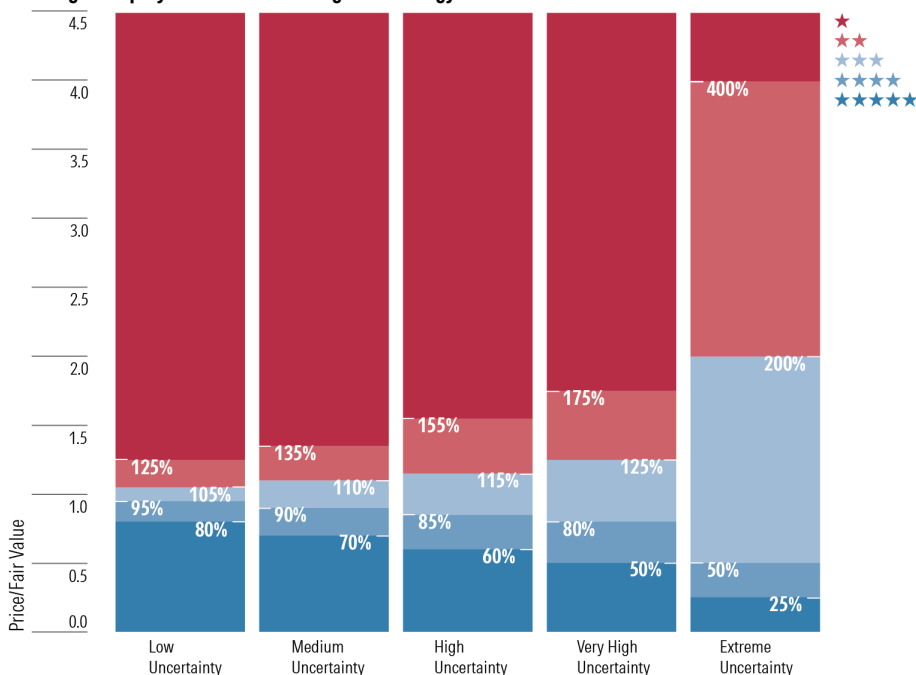
Our uncertainty rating is based on the interquartile range, or the middle 50% of potential outcomes, covering the 25th percentile–75th percentile. This means that when a stock hits 5 stars, we expect there is a 75% chance that the intrinsic value of that stock lies above the current market price. Similarly,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

4. Market Price

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

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

Morningstar Equity Research Star Rating Methodology



Morningstar Star Rating for Stocks

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

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

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

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

The Morningstar Star Ratings for stocks are defined below:

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

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

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

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

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

Other Definitions

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

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

Research Methodology for Valuing Companies

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

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

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

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

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

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

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

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

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

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

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

Risk Warning

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

General Disclosure

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

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

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

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

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

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

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

Research Methodology for Valuing Companies

by local and/or regional regulatory bodies, including laws in connection with the distribution third-party research reports.

Conflicts of Interest

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

- ▶ Morningstar, Inc. may provide the product issuer or its related entities with services or products for a fee and on an arms' length basis including software products and licenses, research and consulting services, data services, licenses to republish our ratings and research in their promotional material, event sponsorship and website advertising.

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

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

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

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

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

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

For recipients in New Zealand: This report has been is-

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

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

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

*The Conflicts of Interest disclosure above also applies to relatives and associates of Manager Research Analysts in

Research Methodology for Valuing Companies

India # The Conflicts of Interest disclosure above also applies to associates of Manager Research Analysts in India. The terms and conditions on which Morningstar Investment Adviser India Private Limited offers Investment Research to clients, varies from client to client, and are detailed in the respective client agreement.

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

For recipients in Singapore: The Report is intended for Institutional Investor audiences and is distributed by Morningstar Investment Adviser Singapore Pte. Limited, which is licensed by the Monetary Authority of Singapore to provide financial advisory services in Singapore. Morningstar Investment Adviser Singapore Pte. Limited is the entity responsible for the creation and distribution of the research services described in this Report.

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

Investors should consult a financial adviser regarding the suitability of any investment product, taking into account their specific investment objectives, financial situation or particular needs, before making any investment decision.

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

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