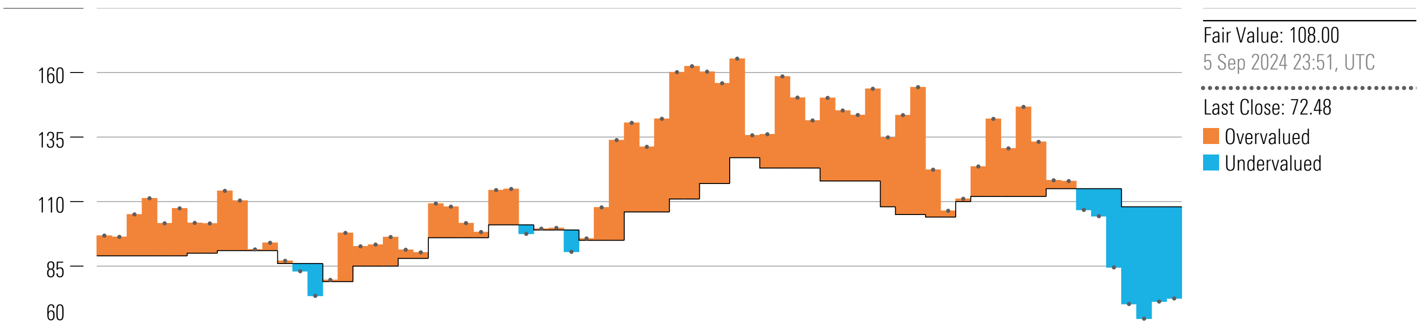
Morningstar Equity Analyst Report | Report as of 4 Dec 2024 18:51, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS

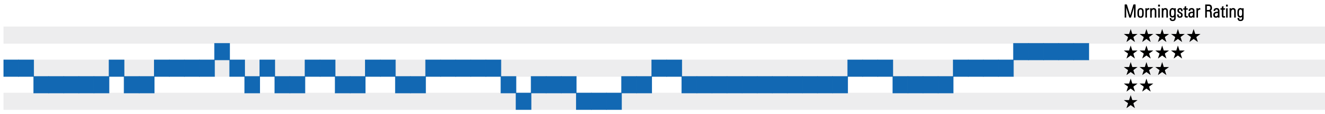
Dollar Tree Inc DLTR ★★★★ 3 Dec 2024 22:40, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
72.48 USD 3 Dec 2024	108.00 USD 5 Sep 2024 23:51, UTC	0.67	15.94 USD Bil 4 Dec 2024	None	Mid Value	High	Standard	6 Nov 2024 06:00, UTC

Price vs. Fair Value



	2019	2020	2021	2022	2023	YTD	
	1.03	1.13	1.33	1.15	1.27	0.67	Price/Fair Value
	4.13	14.88	30.06	0.65	0.43	-48.98	Total Return %



Total Return % as of 03 Dec 2024. Last Close as of 03 Dec 2024. Fair Value as of 5 Sep 2024 23:51, UTC.

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

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

Dollar Tree Earnings: Financial Marks Pressured by Weak Discretionary Demand, but Shares Look Cheap

Analyst Note Noah Rohr, Equity Analyst, 4 Dec 2024

We don't plan to materially alter our $108 per share fair value estimate on no-moat Dollar Tree after its fiscal 2024 third-quarter results landed mostly in line with our expectations. Companywide same-store sales expanded 1.8% and adjusted operating margin landed at 4.5%, up 40 basis points versus last year but still trailing the 5.5% level seen in the third quarter of fiscal 2022. Tepid demand for discretionary goods coincided with a bloated cost structure due to ongoing supply chain and technology investments and a review of the Family Dollar banner. Despite grappling with near-term uncertainty, we think shares are very undervalued.

Same-store sales expanded 1.8% at Dollar Tree's namesake banner (slightly ahead of our 1.5% forecast), as a 6% gain in consumables was weighed down by soft discretionary product sales. With more than 50% of the banner's sales tied to discretionary merchandise such as party supplies, toys, and seasonal items, we acknowledge that Dollar Tree is susceptible to cyclical swings in consumer demand. On a positive note, we think market-share wins in the consumables category—management cited more than 400 basis points of outperformance—bodes well for the store's long-term relevance with shoppers and continue to forecast 2.5%-3.0% comp growth longer term. Regarding profitability, the Dollar Tree segment saw operating margin decline 140 basis points to 10.7% amid higher depreciation and temporary labor costs stemming from multiprice product rollouts. We continue to forecast a 12% segment operating margin for the full year, but we expect a gradual return to the 13%-13.5% range

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Sector	Industry
Consumer Defensive	Discount Stores

Business Description

Dollar Tree operates discount stores across the United States and Canada, with over 8,600 shops under its namesake banner and nearly 7,800 under Family Dollar. About 47% of Dollar Tree's sales in fiscal 2023 were composed of consumables (including food, health and beauty, and cleaning products), around 45% from variety items (including toys and homewares), and over 5% from seasonal items. The Dollar Tree banner sells most of its merchandise at the $1.25 price point and positions its stores in well-populated suburban markets. Conversely, Family Dollar primarily sells consumable merchandise (80% of the banner's sales) at prices below $10. About two-thirds of Family Dollar's stores are located in urban and suburban markets, with the remaining one-third located in rural areas.

longer term as temporary labor costs dissipate.

Despite grappling with soft demand from lower-income consumers, we were encouraged to see Family Dollar post 2% same-store sales growth while eking out a slight operating profit during the quarter. Still, we consider Family Dollar to be a disadvantaged asset due to its lackluster scale and undifferentiated product assortment.

Business Strategy & Outlook Noah Rohr, Equity Analyst, 5 Sep 2024

Dollar Tree's namesake banner boasts an impressive track record of strong top-line growth and steady margins despite operating in densely populated suburban markets where plentiful shopping alternatives exist nearby. The banner's wide assortment of products priced at $1.25 has seemingly resonated with consumers due to its treasure hunt experience and price points that conform to shoppers operating on a tight budget.

However, despite typically serving as a fill-in shopping destination between consumers' trips to large discounters, Dollar Tree plans to capture greater wallet share by expanding its multi-price product assortment of $3-$5 items and growing its frozen consumables category–a merchandising strategy we believe could drive a higher average ticket but simultaneously puts Dollar Tree into more direct competition with nearby retailers. As such, we do not expect Dollar Tree's multiprice initiatives to yield outsize comparable sales growth, though we think Dollar Tree still has room to expand its physical footprint by a low- to mid-single-digit percentage, particularly after management winds down investments in the ailing Family Dollar banner.

While Family Dollar's woes were evident before Dollar Tree's acquisition of the banner in 2015, its competitive position has seemingly worsened over the past nine years. Amid lackluster scale and a predominantly urban footprint where intense pressure from nearby discounters lingers, we surmise the appeal of Family Dollar's low-priced consumable merchandise is precarious. Positively, Dollar Tree's revamped management team boasts an impressive resume as several of its current executives formerly turned Dollar General into the rural juggernaut it is today. We believe opportunities for margin expansion exist as management improves supply chain processes and alters underperforming store formats, similar to the amenable changes made at Dollar General 15 years prior. Even with imminent improvements, however, we still expect Family Dollar to deliver lackluster financial results due to the banner's undistinguished value proposition amid an intense retail environment where no switching costs exist.

Bulls Say Noah Rohr, Equity Analyst, 5 Sep 2024

- The new management team brings years of experience, and its revamped capital allocation priorities, particularly surrounding the Family Dollar banner, should drive a material improvement in financial

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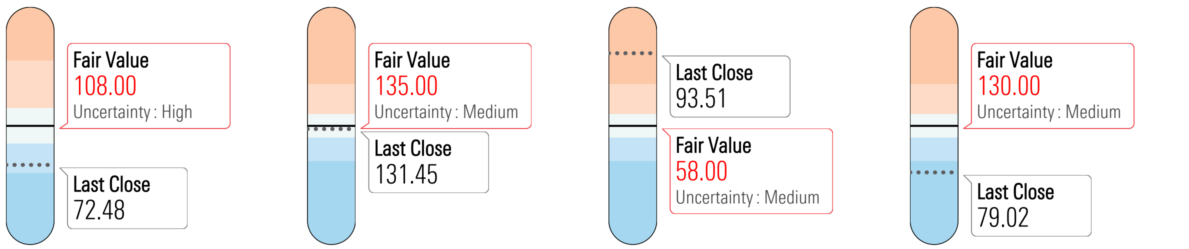
Competitors



	Dollar Tree Inc DLTR	Target Corp TGT	Walmart Inc WMT	Dollar General Corp DG
Economic Moat	None	None	Wide	Narrow
Currency	USD	USD	USD	USD
Fair Value	108.00 5 Sep 2024 23:51, UTC	135.00 25 Nov 2024 15:46, UTC	58.00 21 Nov 2024 00:44, UTC	130.00 30 Aug 2024 04:15, UTC
1-Star Price	167.40	182.25	78.30	175.50
5-Star Price	64.80	94.50	40.60	91.00
Assessment	Undervalued 3 Dec 2024	Fairly Valued 3 Dec 2024	Overvalued 3 Dec 2024	Undervalued 3 Dec 2024
Morningstar Rating	★★★★3 Dec 2024 22:40, UTC	★★★3 Dec 2024 22:44, UTC	★3 Dec 2024 22:41, UTC	★★★★★3 Dec 2024 22:52, UTC
Analyst	Noah Rohr, Equity Analyst	Noah Rohr, Equity Analyst	Noah Rohr, Equity Analyst	Noah Rohr, Equity Analyst
Capital Allocation	Standard	Exemplary	Standard	Standard
Price/Fair Value	0.67	0.97	1.61	0.61
Price/Sales	0.51	0.57	1.12	0.44
Price/Book	2.11	4.18	8.53	2.39
Price/Earning	1,224.10	13.94	38.59	12.29
Dividend Yield	0.00%	3.38%	0.87%	2.99%
Market Cap	15.58 Bil	60.23 Bil	751.66 Bil	17.38 Bil
52-Week Range	60.49—151.22	120.21—181.86	49.85—93.59	72.12—168.07
Investment Style	Mid Value	Mid Value	Large Blend	Mid Value

performance.

- Dollar Tree's multiprice assortment should allow the firm to capture greater wallet share from consumers, driving strong comparable sales growth.
- Online retail channels serve as a negligible threat to dollar stores due to their small basket size and convenient shopping destinations.

Bears Say Noah Rohr, Equity Analyst, 5 Sep 2024

- Big box retailers have increasingly looked to expand their product assortment by offering items with $1.00 price points, which could add to competitive pressure.
- With a crowded retail and dollar store landscape, there appear to be fewer opportunities to grow square footage in a lucrative fashion.
- Dollar Tree's margins will come under pressure as consumers shift their spending from high-margin general merchandise to less lucrative consumable items.

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Economic Moat Noah Rohr, Equity Analyst, 5 Sep 2024

We do not believe Dollar Tree warrants an economic moat rating. Despite boasting a combined 16,000 storefronts, we do not view the Dollar Tree and Family Dollar banners as having a defensible advantage as it pertains to its cost structure, product assortment, or store locations. Without a clear edge in these areas, we find it difficult for retailers to consistently provide a compelling value proposition to consumers amid a cutthroat retail industry that contends with the virtual absence of switching costs.

Dollar Tree operates over 8,600 namesake stores (typically ranging from around 8,000-10,000 square feet apiece), with its geographic footprint concentrated in densely populated suburban markets. The banner offers a limited product assortment of around 8,000 stock-keeping-units, or SKUs, per store across product categories such as consumables (47% of sales), variety (46% of sales), and seasonal merchandise (6% of sales). Unlike most retailers, the majority of Dollar Tree's merchandise sells for only $1.25, though the banner has rolled out a multiprice initiative in recent years designed to pick up a larger share of customers' wallets by expanding its product assortment across categories such as frozen food and discretionary items in the $3-$5 price range.

Despite offering an assortment of products at low absolute price points, Dollar Tree's products do not necessarily offer superior value per unit compared with its retail peers (such as Walmart), in our view. In order to keep the majority of its price points fixated at $1.25 (raised from $1.00 in 2021), the retailer has historically reverted to discontinuing product lines due to overbearing procurement costs and reducing the size of products sold. With that said, Dollar Tree serves as a fill-in shopping destination–evidenced by its $12 average basket size–that could benefit consumers operating on a tight budget with limited nearby shopping alternatives. However, the banner tends to serve a middle-class suburban customer–Placer.ai and Popstats estimated its captured shopper base had a median household income of about $63,000 in the second quarter of 2023–that we do not think differs materially from the target market of most competing retail chains. For reference, Placer.ai and Popstats estimates the median household income for Walmart and Target's captured customer base to be $53,000 and $69,000, respectively. We surmise Dollar Tree's middle-class customer base and suburban footprint puts the retailer in close proximity to formidable retail competition.

Furthermore, its seemingly undifferentiated product assortment of discretionary and seasonal merchandise makes it difficult for us to award Dollar Tree a brand-driven intangible asset that would consistently attract shoppers to its stores. Even while recent efforts to enhance its product assortment by straying from the long fixated $1.00 price point and offering more products in the $3-$5 price range have proven favorable thus far, we do not think Dollar Tree's merchandising shift has prompted a competitive advantage. While we acknowledge the banner's ostensible treasure hunt appeal, the retailer's product offerings still appear largely undifferentiated, in our view, and the firm likely lacks procurement scale relative to national retail chains in certain multiprice categories such as frozen food.

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Without a differentiated product assortment or a scale-driven cost advantage, we do not believe the Dollar Tree banner offers a superior value proposition relative to nearby retail competitors, making us uncertain of how customer loyalty to the banner will fare due to the industry's lack of switching costs.

Similar to Dollar Tree, we do not believe the Family Dollar banner boasts a durable edge over its competitive set. Family Dollar operates nearly 7,800 store locations under a small box format between 6,000-8,000 square feet. The banner primarily serves lower-income households earning around $50,000-$60,000 per year. Given its core customer typically has minimal leftover income to spend on discretionary goods, about 80% of Family Dollar's sales are composed of consumable items such as food, beverages, tobacco, and paper goods. With a limited SKU assortment (we estimate the banner carries around 8,000-9,000 SKUs per store), price points typically ranging between $1-$10 per item, and a small average basket size, the retailer serves as a fill-in shopping destination for low-income consumers operating on a tight budget.

However, we surmise that years of underinvestment at the store-level, poor merchandising decisions, limited investments to improve supply chain operations, and anemic store expansion have prompted a disadvantaged cost structure relative to its chief competitor, Dollar General, and culminated in a decade of poor financial results. Despite operating on near-equal footing in 2007, Family Dollar's operational performance has materially lagged behind Dollar General for the last 15 years. Today, Family Dollar's 7,800 store locations and $14 billion in annual sales ($220 in sales per square foot) are dwarfed by the 20,000 stores and $39 billion in annual sales ($264 in sales per square foot) that its primary competitor boasts.

We surmise Family Dollar's weaker top line and physical footprint put it at a procurement disadvantage due to its inferior scale, and we do not think Family Dollar enjoys a material procurement benefit from its association with Dollar Tree given its merchandise overlap is minimal. In our view, the banner's lack of procurement scale and operational woes are evidenced by its deteriorating margin profile and resembles its inability to contend with competitive pricing pressures that are inherent in retail. Since being purchased by Dollar Tree in 2015, we estimate the Family Dollar banner has delivered an average adjusted EBITDA margin of nearly 7.0%, excluding corporate costs (compared with nearly 11.0% for Dollar General when including corporate expenses). While we contend that some of Family Dollar's operational issues, such as its inefficient supply chain processes, are capable of being rectified, we expect the turnaround to prove long and arduous given Dollar General's prodigious lead and intense competitive pressure from national discounters.

Furthermore, we surmise that Family Dollar's geographic footprint does not warrant a location advantage. About two-thirds of its store base is located in well populated urban and suburban markets where plentiful shopping alternatives exist, with only one-third located in smaller rural communities.

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Similar to the Dollar Tree banner, Family Dollar's low absolute price points are not indicative of a superior value proposition per unit, and we do not believe Family Dollar boasts a cost advantage over national discount chains. As such, while we think dollar stores offer a compelling value proposition due to their convenience in rural communities, we view its competitive advantage in urban and suburban markets, where larger discount chains tend to reside, as largely extinguished. Furthermore, the banner's merchandise of consumable goods is undifferentiated and the store's shopping experience tends to be suboptimal, which we believe eliminates any argument for a brand-driven intangible asset. Without clear evidence of a cost advantage over national discounters and its primary dollar store competitor, or a concentrated store network that provides convenience to rural communities, we view Family Dollar's strategic positioning as precarious.

In aggregate, we expect Dollar Tree's return on invested capital (excluding goodwill and other intangibles) to average around 11% over our 10-year explicit forecast, landing ahead of our 8.3% cost of capital estimate. We anticipate Dollar Tree's ROIC profile to remain solid, in the upper teens percentage range, but expect Family Dollar's ROICs to languish in the mid-single-digit range as the banner's turnaround contends with intensifying competitive pressure.

Fair Value and Profit Drivers Noah Rohr, Equity Analyst, 5 Sep 2024

We lowered our fair value estimate on Dollar Tree to $108 from $115 following its lackluster second quarter results and tepid outlook. Comparable store sales at the Dollar Tree banner expanded 1.3% (below our 2.5% forecast) as strong consumable sales was partially offset by continued weakness in discretionary categories. Management noted that middle- and high-income shoppers have begun to feel the effects of a tighter economic environment, prompting sluggish top line growth. We also surmise that Dollar Tree’s recent growth trajectory may be suffering amid intensifying competition from the likes of larger retailers such as wide-moat Walmart and no-moat Target. As we expected, comp sales at the Family Dollar banner came in flat (versus narrow-moat Dollar General’s 0.5% gain) as its core low-income shopper remains constrained. In light of a softer spending environment and intensifying competition, management lowered its full-year EPS guidance to $5.20-$5.60 (from $6.50-$7.00). We revised our fiscal 2024 EPS forecast accordingly, from $6.52 before the release to $5.32. We also made a slight downward adjustment to our long-term EBITDA margin forecast and we forecast companywide EBITDA margin to land around 11%-12% in the back half of our 10-year forecast as opposed to 11.5%-13% previously. The change primarily comes from a reduction to our midcycle operating margin forecast for the Family Dollar banner to 3% (from 4%) as we grow increasingly wary of the banner’s competitive standing.

With a precarious demand environment and elevated investments at the store and supply chain level occurring simultaneously, we maintain our view that financial results are likely to be choppy in the coming quarters. Nonetheless, we expect Dollar Tree’s financial results to show improvement longer

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term as the firm's operational investments gradually materialize. We surmise significant opportunities exist to cut down on costly and laborious tasks from a supply chain and product handling perspective that should clear the way for Family Dollar to achieve a 3% operating margin in the latter part of the decade. With that said, we still view Family Dollar as a disadvantaged asset due to its lackluster scale and largely urban footprint where plentiful shopping alternatives exist. Even with material improvement, we don't think the banner will achieve operating margin levels that come close to rivaling its main competitor, Dollar General (we forecast an 7.2% midcycle operating margin for Dollar General), as intense competitive pressure will likely limit its margin upside. As such, our expectation for improving margins comes almost exclusively from management's ability to successfully rectify operational woes rather than a change in our long-term perception of the banner's strategic positioning. In connection with our dire view of Family Dollar's future, we expect the banner to generate low-single-digit comparable sales growth in the back half of our 10-year explicit forecast that trails inflation.

We expect the Dollar Tree banner to deliver more favorable results over our 10-year forecast, though it is far from immune to competitive pressure. We look favorably upon Dollar Tree breaking from its long fixated $1.00 price point in 2021 (it raised prices on most items to $1.25) that allowed for a more favorable merchandise assortment in the store. However, our views regarding Dollar Tree's multiprice initiative meant to increase wallet share and average basket size are mixed. We believe Dollar Tree has long benefited from serving as a fill-in shopping destination for middle-income suburban consumers in search of cheap goods that don't come exclusively in bulk quantities. Expanding its product assortment into $3-$5 price categories likely puts Dollar Tree into more direct competition with nearby retailers. As such, we do not expect Dollar Tree's multiprice assortment to drive inordinate comparable sales growth (we forecast about 3.0% comp sales growth) or yield significant margin expansion. We forecast its segment operating margin to land between 13%-14% as competitive pressures offset supply chain improvements. However, the banner appears to have a solid runway for physical expansion. We expect Dollar Tree to grow its square footage by a low-single-digit percentage in the latter part of our 10-year forecast, contributing to our mid-single-digit top-line growth forecast for the banner.

Risk and Uncertainty Noah Rohr, Equity Analyst, 5 Sep 2024

We assign Dollar Tree a High Uncertainty Rating.

Dollar Tree operates amidst a cutthroat retail industry that is littered with competition from various channels such as convenience stores, mass merchandisers, hard discounters, and pure grocers. While the Dollar Tree banner has seemingly carved out a unique position in suburban markets, the retailer still faces competition from firms such as Walmart that offer a wider product assortment and superior value per unit. With a core middle-income consumer, a physical footprint that places the retailer in close proximity to competing outlets, and a product assortment that we surmise will look increasingly similar to mass discounters due to its multiprice rollout, consumers could shift more of their spending from

Dollar Tree to the mass discount channel if price gaps widen unfavorably.

Family Dollar also faces a host of challenges as management attempts to reverse years of lackluster growth, deteriorating margins, and underinvestment at the store level. While we think years of mismanagement has created a viable opportunity to drive operational improvements, we view Family Dollar's future as inordinately contingent upon flawless management execution. But even with improvements to the banner's laborious supply-chain process and outdated store formats, Family Dollar still faces tough competition due to its store positioning in predominantly suburban and urban markets. Furthermore, its lackluster scale from both a top-line and physical store perspective will likely impede the firm's ability to profitability compete amid promotional environments that are inherent in the fierce retail landscape.

We believe Dollar Tree carries some environmental, social, and governance risks, particularly at the Family Dollar banner, as it relates to working conditions and employee safety concerns in higher-crime areas. However, we believe financial repercussions to this point have been minimal.

Capital Allocation Noah Rohr, Equity Analyst, 5 Sep 2024

We assign Dollar Tree a Standard Capital Allocation Rating based on the firm's satisfactory balance sheet, appropriate shareholder distributions, and a revamped capital investment outlook that we expect to yield positive results.

The firm maintains a strong balance sheet, with its net debt/adjusted EBITDA averaging 1.3 turns since 2016. Long-term debt maturities appear adequately spread out (70% of outstanding debt comes due in 2028 or later) and carries fixed interest rates of 4.2% or less, a level we view as favorable. With ample liquidity, evidenced by its $1.5 billion in an untapped revolving credit facility and $570 million of cash on hand, coupled with a long track record of generating positive cash from operations, we believe Dollar Tree is well-positioned to adequately manage its near-term debt and lease obligations. Furthermore, we view Dollar Tree's lease-adjusted leverage target of 2.5 to 3.0 times debt/EBITDAR as reasonable and do not expect the firm to perpetually overshoot its target.

Regarding capital investments, Dollar Tree's $9 billion acquisition of Family Dollar in 2015 (about 11 times EBITDA) has since yielded abysmal results. We suspect procurement synergies have proven more difficult to manifest than originally thought as the banners lack material merchandising overlap and serve different customer bases. Furthermore, Family Dollar showed signs of operational vulnerability prior to the acquisition that we suggest have compounded from continued underinvestment at the supply chain and store level. As such, the banner has suffered from several years of lackluster top-line growth, a dilapidated store environment, and deteriorating margins.

On a positive note, we look favorably upon Dollar Tree's revamped and experienced management team given several key executives once contributed to turning Dollar General into the rural juggernaut it is today. Since taking over the helm in January 2023, Rick Dreiling (Dollar General's CEO from 2008-2015) has laid out a three-year investment plan with an emphasis toward improving laborious supply-chain processes (such as through the rollout of rotacarts and automatic lift gates on trailers), replacing slow turning merchandise, leveraging technology, and investing in store remodels to improve the shopping experience. Dreiling has also invested in employee wages since taking the CEO role and lowered selling prices to make Family Dollar's merchandise more price-competitive with that of fellow retailers. While we still view Family Dollar as disadvantaged due to its lackluster scale and mostly unattractive store footprint, we believe management's investment priorities are a step in the right direction, and we expect subsequent financial performance to show moderate improvement.

Management's recent capital allocation priorities are not restricted to Family Dollar, however. The Dollar Tree banner has also suffered from years of underinvestment and stagnant merchandising. As such, management noted that Dollar Tree would be on the receiving end of similar supply-chain investments to that of Family Dollar while continuing to remodel stores and expand its multiprice product assortment. Across both banners, we expect management to allocate around $6 billion to capital expenditures from 2024-26, a significant increase in the pace of investment from the cumulative $6.2 billion spent on capital expenditures from 2016-22. We estimate about 75% of its cumulative expenditures will be allocated to store remodels, supply chain, and technology—investments that we look favorably upon as Dollar Tree rectifies several years of underinvestment—with the remaining 25% allocated to new store expansion as the firm attempts to build out its store density. We estimate the firm's expected level of investment implies roughly $120,000 in average capital expenditures per store annually over the next three years, a significant increase from our estimate of $70,000 per store annually over the prior seven years.

Shareholder distributions have been minimal since the acquisition of Family Dollar, with cash mostly being allocated to pay down debt. Nonetheless, Dollar Tree started repurchasing shares again in 2019 and has since repurchased $2.7 billion in stock over the past five years (about 25% of the firm's cumulative cash from operations). Over the next few years, we expect most of Dollar Tree's cash flow from operations to be allocated toward operational improvements, though we expect the firm to continue making modest shareholder distributions in the form of repurchases.

Analyst Notes Archive

Dollar Tree: Dreiling's Departure Comes at a Tumultuous Time, but No Reason to Change Our Outlook Noah Rohr, Equity Analyst, 5 Nov 2024

On Nov. 4, no-moat Dollar Tree announced that CEO Rick Dreiling has stepped down due to health concerns. The firm appointed Michael Creedon (former COO) interim CEO while the board searches for a permanent replacement. The retailer also reiterated its fiscal 2024 third-quarter guidance (earnings

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expected to be released in early December) for low-single-digit comparable sales growth and adjusted earnings per share of $1.05 to $1.15, which aligns with our forecast. Shares surged by a mid-single-digit percentage as we surmise the reaffirmed financial outlook helped assuage investor concerns amid a tumultuous demand environment. In light of the news, we don't plan to alter our $108 fair value estimate or our Standard Capital Allocation Rating, and we continue to view shares as significantly undervalued.

Shares of Dollar Tree currently stand about 50% lower than when Dreiling took the helm in January 2023, as a softer spending environment in 2024 collided with the former CEO's turnaround strategy. But while financial performance has suffered—we model a 10% annual decline in fiscal 2024 adjusted earnings per share to $5.32—we don't take issue with Dreiling's investment priorities during his brief tenure, which consisted of modernizing the retailer's technology platforms, updating its supply chain, and undertaking store renovations. We also look fondly upon his decision to shutter nearly 1,000 unprofitable Family Dollar stores and for initiating a review of strategic alternatives for the disadvantaged banner, which Creedon will presumably oversee.

We don't take issue with Creedon serving as interim CEO, given that he already enjoys two years in the C-suite, having worked alongside Dreiling. We also look favorably upon the expansive retail experience offered by the remainder of Dollar Tree's leadership team and the continued involvement of Paul Hilal as vice chair of the board, who previously helped revamp Dollar Tree's board and management team in 2022.

Dollar Tree Earnings: After Cratering Amid Soft Consumer Spending, Tepid Outlook, Shares a Bargain

Noah Rohr, Equity Analyst, 4 Sep 2024

We plan to lower our $115 fair value estimate on no-moat Dollar Tree by a mid- to high-single-digit percentage following its underwhelming second-quarter earnings release and lackluster outlook. The firm cited a softer spending environment as the primary culprit for its full-year EPS revision, which now sits at $5.20-$5.60 (from $6.50-$7.00). Our planned fair value cut does not rival the 20% decline in the stock price as we still think management is taking necessary steps to improve the firm's long-term margin trajectory by partaking in store renovations, refining its distribution processes, and closing underperforming Family Dollar stores. As such, we think shares look very undervalued.

Comparable sales at the Dollar Tree banner expanded 1.3% (versus our 2.5% estimate) as traffic gains were partially offset by a modest decline in average ticket. Unsurprisingly, discretionary product sales suffered a 2% decline while the namesake banner gained market share in consumables, with the category recording a 4.7% gain on top of a 13% increase from the prior year. We are encouraged by the strong customer adoption associated with Dollar Tree's multiprice products, though we maintain a cautious stance regarding the durability of consumable share gains as we surmise its merchandise assortment puts it into more direct competition with the mass retail channel. Regarding profitability, the

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Dollar Tree Inc DLTR ★★★★ 3 Dec 2024 22:40, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
72.48 USD 3 Dec 2024	108.00 USD 5 Sep 2024 23:51, UTC	0.67	15.94 USD Bil 4 Dec 2024	None	Mid Value	High	Standard	6 Nov 2024 06:00, UTC

banner's segment operating margin declined about 40 basis points to 9.9% as improvements in freight costs were more than offset by headwinds related to sales mix and higher labor costs.

Comp sales at Family Dollar were flat (lagging narrow-moat Dollar General's 0.5% gain) as spending capacity from its core low-income shopper remains weak. Management continues to undergo its strategic review of the banner, but given that we believe Family Dollar lacks scale and desirable real estate, we surmise buyer interest is minimal. However, we look favorably upon the shuttering of unprofitable stores.

Dollar Tree Earnings: Weak Discretionary Spending Beginning to Weigh on Comp Growth Noah Rohr, Equity Analyst, 5 Jun 2024

No-moat Dollar Tree's fiscal 2024 first-quarter results were uninspiring, and we plan to slightly reduce our full-year comparable sales growth and margin forecast because of the tighter spending environment. However, we don't expect our $115 per share fair value estimate to be significantly affected.

Comp sales for the Dollar Tree chain increased 1.7% (versus our estimate for a mid-single-digit gain) as a 2.8% increase in traffic was partially offset by a decline in average ticket. Similar to other retailers under our coverage, management noted that a 3% drop in discretionary comp sales contributed to the company's weaker-than-expected results and represented the first annual decline in discretionary sales since early 2020. Positively, consumable comps increased 7%, with management attributing the success of its multiprice assortment to its market share wins in the category. We maintain that a growing multiprice product assortment puts Dollar Tree into more direct competition with other discount retailers, and thus caution investors from expecting pronounced consumable growth to continue longer term. Regarding profitability, segment operating margin declined 110 basis points to 12.5% (below our 13.5% forecast) amid sales deleverage and added labor associated with the multiprice rollout.

Comp sales at the Family Dollar banner came in flat (below narrow-moat Dollar Genera's 2.4% gain) as softness in discretionary categories was offset by a modest increase in consumable sales. Segment-adjusted operating margin, while still abysmal at 1.5%, improved 30 basis points amid easing freight costs. Management entertained the idea of selling Family Dollar, and with little merchandise overlap and unclear real estate synergies between it and Dollar Tree, we think separating the names makes sense. However, we view Family Dollar as a disadvantaged asset because of its unappealing real estate and lackluster scale, making us doubt that much buyer interest exists.

Dollar Tree Earnings: Dollar Tree Banner Remains Strong as Store Closures Imminent at Family Dollar Noah Rohr, Equity Analyst, 13 Mar 2024

No-moat Dollar Tree's fiscal 2023 fourth-quarter results landed mostly in line with our

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expectations—revenue expanded nearly 12% to $8.6 billion and adjusted operating margin improved 70 basis points to 8.7%—led by strong performance at the firm's namesake banner. However, the stock suffered a precipitous 14% decline as its Family Dollar segment grappled with reduced spending capacity from its core low-income consumer. Upon Rick Dreiling's ascension to CEO last year, management has stressed the need for operational improvement and store rationalization at the floundering banner, which seemingly culminated in plans to close 970 underperforming Family Dollar stores (about 12% of the banner's store base), with 600 of these closures planned for the first half of fiscal 2024. The firm incurred a nearly $600 million noncash charge from the strategic review and added a $2 billion write-down of goodwill and intangible assets associated with Family Dollar.

While we were not anticipating management to shutter stores at this magnitude, we look favorably upon the decision. We maintain our contention that Family Dollar is a disadvantaged asset operating amid a competitive retail landscape, and we don't think continued reinvestment in the banner would yield economic value creation. Overall, we do not plan to alter our $112 fair value estimate materially, and we note that the recent selloff moves shares of Dollar Tree closer to fairly valued territory.

Comparable sales expanded 6.3% at Dollar Tree's namesake banner, which we view as particularly impressive given the segment lapped an 8.7% comp last year. Notably, foot traffic increased by a robust 7% as its assortment of cheap consumable items (consumable sales, comprising about 45% of segment sales, increased 11%) and multiprice product rollout attracted budget-conscious consumers to its banner. Contrarily, comparable sales at Family Dollar suffered a 1% decline, with management citing a 5% headwind from reduced SNAP benefits.

Dollar Tree Earnings: Margins Pressured by Turnaround Strategy and Weaker Discretionary Spending Noah Rohr, Equity Analyst, 29 Nov 2023

No-moat Dollar Tree posted third-quarter results that modestly trailed our expectations as inflationary pressure and reduced fiscal stimulus weighed on discretionary spending for low-income consumers. Amid an uncertain demand backdrop and the firm's commitment to aggressively investing in operational improvements, we maintain our view that financial performance will likely be choppy in the near term. As such, we do not plan to alter our $110 fair value estimate materially.

Dollar Tree and Family Dollar delivered comparable store sales growth of 5.4% and 2.0%, respectively, with both banners benefitting from increases in foot traffic. As we anticipated, consumers' appetite for discretionary items continued to abate, particularly at the Family Dollar banner, which saw a 12.5% decline in comparable store discretionary sales. However, the higher frequency consumables category remained resilient, with an 11% lift in Dollar Tree's and 6% rise in Family Dollar's comparable store consumable sales, resulting in market share gains. We expect the demand environment for higher margin discretionary items to remain soft through fiscal 2024.

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Unsurprisingly, operating margin deteriorated 140 basis points to 4.1% during the quarter due to unfavorable sales mix and elevated investments designed to accelerate the retailer's turnaround. Segment margin for the Dollar Tree banner compressed 120 basis points to 12.1% as cost leverage from robust sales growth was more than offset by wage investments and higher product and distribution costs. Meanwhile, Family Dollar posted an operating loss, partly driven by wage investments, unfavorable sales mix, and elevated shrink. Longer term, we still forecast the retailer to post an adjusted operating margin of over 8.5%, which is around 300 basis points over our fiscal 2023 forecast, as operational improvements, particularly at Family Dollar in the form of more efficient supply chain processes and optimal merchandising, gradually materialize.

Dollar Tree: Financial Results Should Improve Amid Strategic Reset but Turnaround Will Take Time

Noah Rohr, Equity Analyst, 30 Oct 2023

We raise our fair value estimate for no-moat Dollar Tree to $110 per share, from $104, primarily due to a slight uptick in our free cash flow conversion expectations, partially offset by a modest pullback in our top-line outlook for the Family Dollar banner. Still, we view shares as fairly valued.

While the Dollar Tree banner continues to post solid results, the firm’s 2015 acquisition of Family Dollar has proven burdensome. Family Dollar’s lackluster scale and undifferentiated product assortment have been acutely apparent over the past eight years, with issues being compounded by underinvestment in supply-chain processes and stores. As such, the banner boasts a precarious value proposition.

Positively, Dollar Tree’s recently revamped management team boasts an impressive track record as several key executives contributed to Dollar General’s strategic turnaround and meteoric rise in the 2010s. Aspiring to revive the ailing Family Dollar banner, management laid out an aggressive investment plan to rectify laborious supply-chain processes, update store formats, and alter its merchandising strategy. While we expect operational improvements to yield ameliorated margin performance, we believe the banner will remain disadvantaged and deliver lackluster growth as it contends with competitive angst.

Meanwhile, the Dollar Tree banner’s $1.25 price points and treasure hunt experience have seemingly resonated with consumers with same-store sales growth averaging 3.3% over the past decade. We do not foresee impediments to the banner’s low-single-digit growth trajectory, though we surmise the expansion of its multiprice product assortment may prompt more competitive pressure, weighing on margins. Furthermore, we expect management to prioritize the expansion of Dollar Tree’s footprint over its ailing counterpart, particularly in the latter part of the decade. We forecast Dollar Tree to operate around 11,000 namesake stores by the end of our 10-year forecast, up from 8,177 today.

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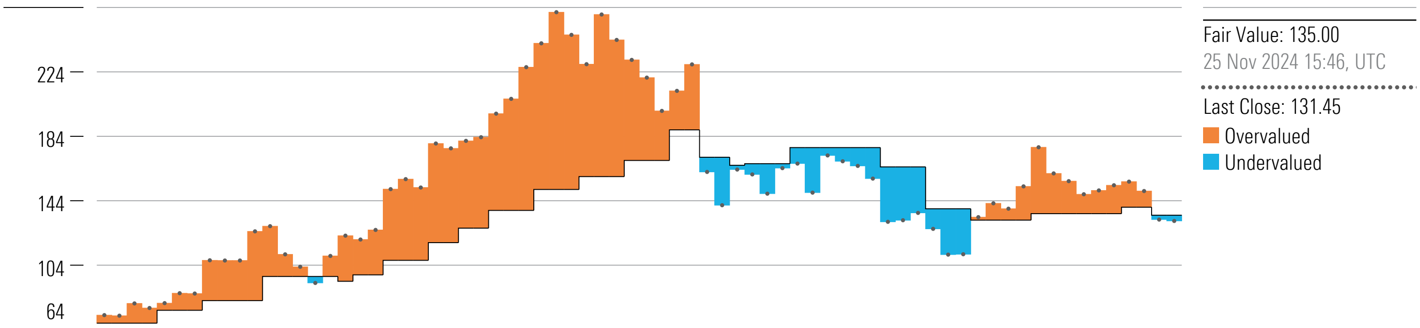
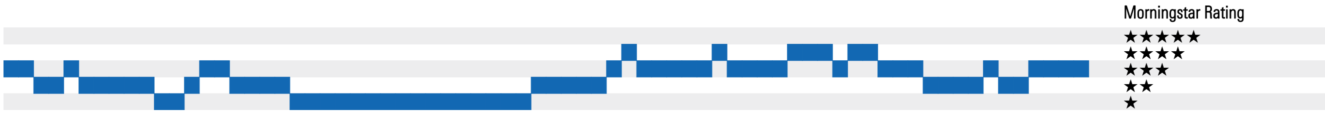
Competitors Price vs. Fair Value

Target Corp TGT

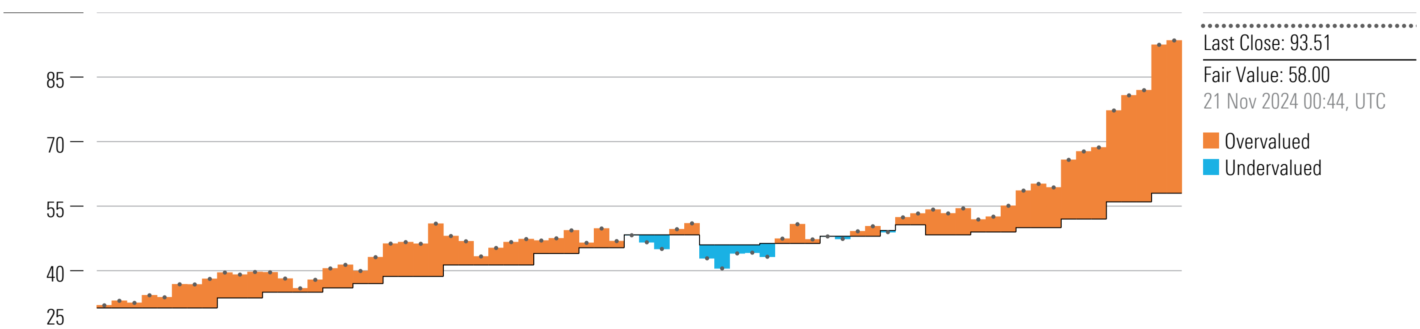


	2019	2020	2021	2022	2023	YTD
Price/Fair Value	1.32	1.50	1.37	0.84	1.08	0.97
Total Return %	97.93	39.78	32.90	-33.89	-1.52	-4.59

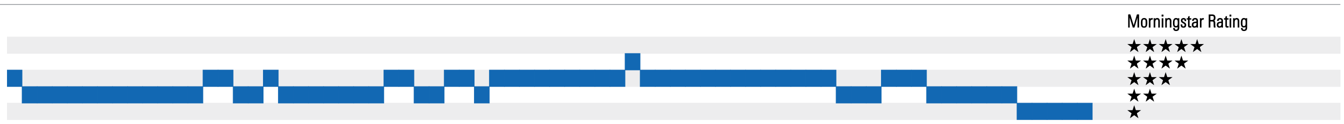


Total Return % as of 03 Dec 2024. Last Close as of 03 Dec 2024. Fair Value as of 25 Nov 2024 15:46, UTC.

Walmart Inc WMT



	2019	2020	2021	2022	2023	YTD
Price/Fair Value	1.13	1.16	1.00	1.02	1.07	1.61
Total Return %	29.86	23.12	1.90	-0.46	12.79	79.13



Total Return % as of 03 Dec 2024. Last Close as of 03 Dec 2024. Fair Value as of 21 Nov 2024 00:44, UTC.

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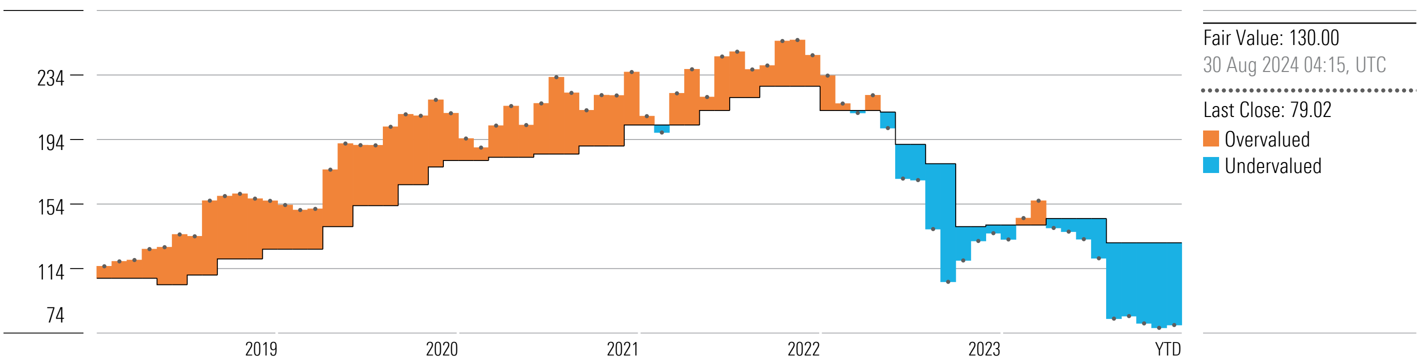
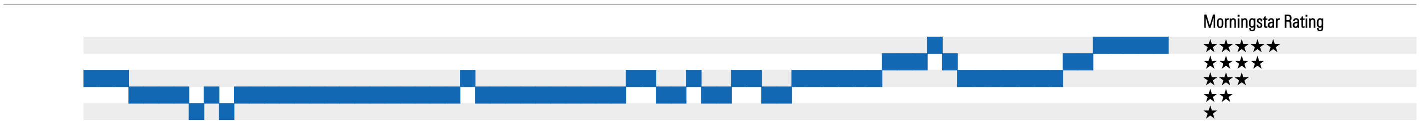
Competitors Price vs. Fair Value

Dollar General Corp DG



	2019	2020	2021	2022	2023	YTD
Price/Fair Value	1.24	1.16	1.16	1.08	0.96	0.61
Total Return %	45.48	35.72	12.91	5.53	-44.07	-40.14



Total Return % as of 03 Dec 2024. Last Close as of 03 Dec 2024. Fair Value as of 30 Aug 2024 04:15, UTC.

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Morningstar Historical Summary

Financials as of 31 Jul 2024

Fiscal Year, ends 31 Jan	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD	TTM
Revenue (USD Bil)	7.84	8.60	15.50	20.72	22.25	22.82	23.61	25.51	26.32	28.33	15.01	30.97
Revenue Growth %	6.0	9.7	80.2	33.7	7.4	2.6	3.5	8.0	3.2	7.6	2.5	5.7
EBITDA (USD Mil)	1,160	1,240	1,535	2,342	2,617	-318	1,906	2,574	2,527	3,004	1,104	-43
EBITDA Margin %	14.8	14.4	9.9	11.3	11.8	-1.4	8.1	10.1	9.6	10.6	7.4	-0.1
Operating Income (USD Mil)	970	1,040	1,050	1,705	2,018	1,788	1,575	1,888	1,811	2,236	624	103
Operating Margin %	12.4	12.1	6.8	8.2	9.1	7.8	6.7	7.4	6.9	7.9	4.2	0.3
Net Income (USD Mil)	597	599	282	896	1,714	-1,591	827	1,342	1,328	1,615	433	-1,065
Net Margin %	7.6	7.0	1.8	4.3	7.7	-7.0	3.5	5.3	5.1	5.7	2.9	-3.4
Diluted Shares Outstanding (Mil)	219	207	224	237	238	238	238	237	229	224	217	217
Diluted Earnings Per Share (USD)	2.72	2.90	1.26	3.78	7.21	-6.69	3.47	5.65	5.80	7.21	2.00	-4.81
Dividends Per Share (USD)	—	—	—	—	—	—	—	—	—	—	—	—

Valuation as of 29 Nov 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Recent Qtr	TTM
Price/Sales	1.7	1.3	0.9	1.2	0.9	1.0	1.0	1.3	1.2	1.1	0.5	0.5
Price/Earnings	24.3	62.1	22.4	25.6	12.3	-13.9	26.7	23.8	19.7	27.0	-14.6	-14.8
Price/Cash Flow	17.9	34.2	12.5	15.8	10.9	13.0	9.9	16.2	27.8	13.6	5.5	5.6
Dividend Yield %	—	—	—	—	—	—	—	—	—	—	—	—
Price/Book	9.1	4.4	3.6	4.2	2.7	3.6	3.7	4.4	3.8	3.4	2.0	2.1
EV/EBITDA	12.8	20.3	16.2	13.1	9.9	-100.4	17.9	15.8	16.3	13.7	0.0	0.0

Operating Performance / Profitability as of 31 Jul 2024

Fiscal Year, ends 31 Jan	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD	TTM
ROA %	21.6	19.1	2.9	5.7	10.7	-10.7	5.0	6.7	6.3	7.2	1.9	-4.6
ROE %	42.1	40.6	9.1	18.3	27.3	-24.8	13.9	19.8	17.7	19.6	5.9	-13.0
ROIC %	31.3	29.5	9.2	9.8	15.8	-12.0	6.8	8.8	8.5	9.4	2.6	-5.1
Asset Turnover	2.8	2.7	1.6	1.3	1.4	1.5	1.4	1.3	1.2	1.3	0.7	1.3

Financial Leverage

Fiscal Year, ends 31 Jan	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Recent Qtr	TTM
Debt/Capital %	39.3	27.7	62.2	53.4	39.9	43.4	57.6	53.2	52.6	49.8	52.1	—
Equity/Assets %	42.2	51.1	27.7	34.3	44.0	41.8	32.0	35.2	35.5	38.0	32.6	—
Total Debt/EBITDA	0.7	0.6	4.8	2.7	2.2	-13.6	5.3	3.7	3.9	3.4	9.8	—
EBITDA/Interest Expense	75.3	15.5	2.6	6.2	8.7	-0.9	11.8	17.5	14.1	24.0	20.7	-0.4

Morningstar Analyst Historical/Forecast Summary as of 04 Sep 2024

Financials

			Estimates		
Fiscal Year, ends 3 Feb 2024	2023	2024	2025	2026	2027
Revenue (USD Mil)	28,332	30,604	30,698	31,321	32,294
Revenue Growth %	7.6	8.0	0.3	2.0	3.1
EBITDA (USD Mil)	3,004	2,629	2,572	2,796	3,142
EBITDA Margin %	10.6	8.6	8.4	8.9	9.7
Operating Income (USD Mil)	2,236	1,788	1,590	1,793	2,109
Operating Margin %	7.9	5.8	5.2	5.7	6.5
Net Income (USD Mil)	1,615	1,294	1,148	1,289	1,524
Net Margin %	5.7	4.2	3.7	4.1	4.7
Diluted Shares Outstanding (Mil)	224	220	216	211	208
Diluted Earnings Per Share(USD)	7.21	5.89	5.32	6.10	7.34
Dividends Per Share(USD)	0.00	0.00	0.00	0.00	0.00

Forward Valuation

			Estimates		
	2023	2024	2025	2026	2027
Price/Sales	1.2	0.9	0.5	0.5	0.5
Price/Earnings	20.1	24.9	13.6	11.9	9.9
Price/Cash Flow	—	—	—	—	—
Dividend Yield %	—	—	—	—	—
Price/Book	3.7	4.4	2.0	1.8	1.5
EV/EBITDA	14.4	14.7	10.0	9.2	8.2

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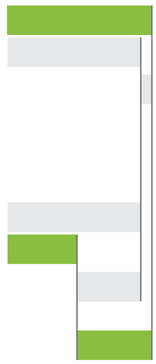
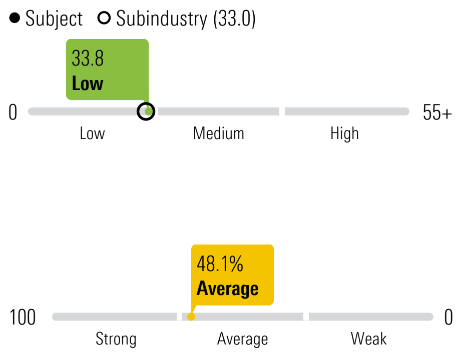
ESG Risk Rating Breakdown

Exposure	
Company Exposure[1]	33.8
– Manageable Risk	31.2
Unmanageable Risk[2]	**2.6**
Management	
Manageable Risk	31.2
– Managed Risk[3]	15.0
Management Gap[4]	**16.2**
Overall Unmanaged Risk	**18.8**





- 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 48.1% 4. Management Gap assesses risks that are not managed, but are considered manageable 5. ESG Risk Rating Assessment = Overall Unmanaged Risk = Management Gap plus Unmanageable Risk

ESG Risk Rating Assessment[5]

ESG Risk Rating is of Nov 06, 2024. Highest Controversy Level is as of Nov 08, 2024. Sustainalytics Subindustry: Department Stores. 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 06 Nov 2024

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

Company Name	Exposure			Management			ESG Risk Rating		
Dollar Tree Inc	33.8 | Low	0	55+	48.1 | Average	100	0	18.8 | Low	0	40+
The Kroger Co	46.1 | Medium	0	55+	54.5 | Strong	100	0	22.8 | Medium	0	40+
Walmart Inc	43.4 | Medium	0	55+	55.9 | Strong	100	0	20.8 | Medium	0	40+
Dollar General Corp	33.6 | Low	0	55+	40.0 | Average	100	0	21.2 | Medium	0	40+
Target Corp	34.0 | Low	0	55+	53.9 | Strong	100	0	17.1 | Low	0	40+

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Appendix

Historical Morningstar Rating

Dollar Tree Inc DLTR 3 Dec 2024 22:40, UTC

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
★★	★★	★★★	★★★	★★	★★	★★★	★★	★★★	★★★★	★★★	★★★
Dec 2019	Nov 2019	Oct 2019	Sep 2019	Aug 2019	Jul 2019	Jun 2019	May 2019	Apr 2019	Mar 2019	Feb 2019	Jan 2019
★★★	★★★	★★	★★	★★★	★★	★★	★★	★★	★★	★★★	★★★

Target Corp TGT 3 Dec 2024 22:44, UTC

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
★	★	★	★	★	★★	★★	★★	★★	★★★	★★★	★★
Dec 2019	Nov 2019	Oct 2019	Sep 2019	Aug 2019	Jul 2019	Jun 2019	May 2019	Apr 2019	Mar 2019	Feb 2019	Jan 2019
★	★	★★	★★	★★	★★	★★	★★★	★★	★★	★★★	★★★

Walmart Inc WMT 3 Dec 2024 22:41, UTC

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
★★	★★	★★	★★	★★	★★	★★★	★★	★★	★★★	★★★	★★
Dec 2019	Nov 2019	Oct 2019	Sep 2019	Aug 2019	Jul 2019	Jun 2019	May 2019	Apr 2019	Mar 2019	Feb 2019	Jan 2019
★★	★★	★★	★★	★★	★★	★★	★★	★★	★★	★★	★★★

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Dollar General Corp DG 3 Dec 2024 22:52, UTC

Dec 2024 ★★★★★	Nov 2024 ★★★★★	Oct 2024 ★★★★★	Sep 2024 ★★★★★	Aug 2024 ★★★★★	Jul 2024 ★★★★	Jun 2024 ★★★★	May 2024 ★★★	Apr 2024 ★★★	Mar 2024 ★★★	Feb 2024 ★★★	Jan 2024 ★★★
Dec 2023 ★★★	Nov 2023 ★★★	Oct 2023 ★★★★	Sep 2023 ★★★★★	Aug 2023 ★★★★	Jul 2023 ★★★★	Jun 2023 ★★★★	May 2023 ★★★	Apr 2023 ★★★	Mar 2023 ★★★	Feb 2023 ★★★	Jan 2023 ★★★
Dec 2022 ★★★	Nov 2022 ★★	Oct 2022 ★★	Sep 2022 ★★★	Aug 2022 ★★★	Jul 2022 ★★	Jun 2022 ★★	May 2022 ★★★	Apr 2022 ★★	Mar 2022 ★★	Feb 2022 ★★★	Jan 2022 ★★★
Dec 2021 ★★	Nov 2021 ★★	Oct 2021 ★★	Sep 2021 ★★	Aug 2021 ★★	Jul 2021 ★★	Jun 2021 ★★	May 2021 ★★	Apr 2021 ★★	Mar 2021 ★★	Feb 2021 ★★★	Jan 2021 ★★
Dec 2020 ★★	Nov 2020 ★★	Oct 2020 ★★	Sep 2020 ★★	Aug 2020 ★★	Jul 2020 ★★	Jun 2020 ★★	May 2020 ★★	Apr 2020 ★★	Mar 2020 ★★	Feb 2020 ★★	Jan 2020 ★★
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Research Methodology for Valuing Companies

Overview

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

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

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

1. Economic Moat

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

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

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

2. Estimated Fair Value

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

Our model is divided into three distinct stages:

Stage I: Explicit Forecast

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

Stage II: Fade

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

Stage III: Perpetuity

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

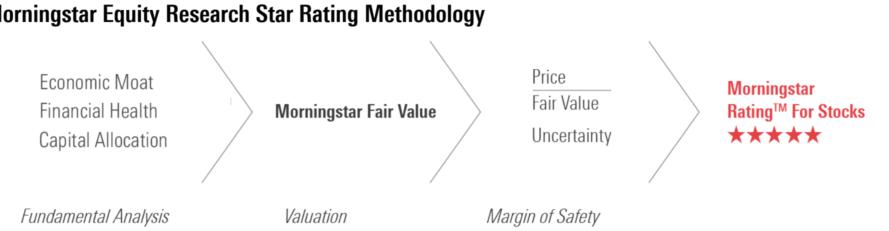
Because a dollar earned today is worth more than a dollar earned tomorrow, we discount our projections of cash flows in stages I, II, and III to arrive at a total present value of expected future cash flows. Because we are modeling free cash flow to the firm—representing cash available to provide a return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

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



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

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

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

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

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

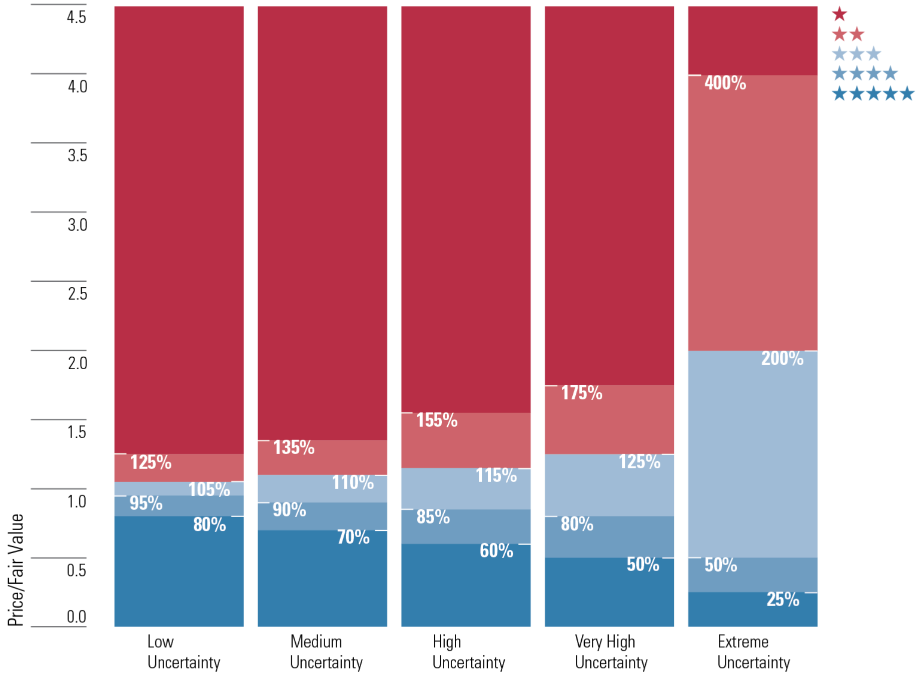
4. Market Price

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

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

Morningstar Star Rating for Stocks

Morningstar Equity Research Star Rating Methodology



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

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

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

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

The Morningstar Star Ratings for stocks are defined below:

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

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

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

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

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

Other Definitions

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

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

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

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

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

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

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

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

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

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

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.

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