

Yum China Holdings IncYUMC★★★★★

27 Aug 2025 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
44.60 USD	76.00 USD	0.59	16.38 USD Bil	Wide	Large Blend	Medium	Standard	
27 Aug 2025	1 May 2024 13:36, UTC		28 Aug 2025					4 Jun 2025 05:00, UTC

Sector	Industry
Consumer Cyclical	Restaurants

Business Description

With more than 16,000 units and almost USD 12 billion in systemwide sales in 2024, Yum China is the largest restaurant operator in China. It generates revenue through its own restaurants and franchise fees. Key concepts include KFC (11,648 units) and Pizza Hut (3,724), but the company's portfolio also includes other brands such as Little Sheep, Taco Bell, Huang Ji Huang, and Lavazza (collectively representing more than 1,000 units). Yum China is a trademark licensee of Yum Brands, paying 3% of total systemwide sales to the company it separated from in October 2016.

There are 1,500 cities in China that host a KFC but not a Pizza Hut. The Wow model enables quicker market entry, shorter payback periods, and higher profitability. Plans to expand this model through franchising further boost growth prospects.

Coming up: In the near term, despite concerns that restaurants may need to partially fund promotional subsidies on delivery platforms, Yum China believes it secures some of the best deals from these platforms due to its size and bargaining power.

Correction:

Business Strategy & Outlook Ivan Su, Senior Equity Analyst, 31 Jul 2025

The Chinese restaurant sector continues to face headwinds from the real estate downturn and a lack of significant economic stimulus, affecting consumer spending. In this environment, we recommend that investors focus on companies that possess the scale to be more aggressive on pricing, as value-oriented players typically perform better during economic downturns. A healthy balance sheet is also crucial.

Yum China is well-positioned to gain share in the fragmented USD 700 billion Chinese restaurant market. Despite the current headwinds, we remain confident in the long-term growth of the quick-service restaurant segment, driven by three secular trends: (1) the increasing number of office-based workers, (2) rising disposable incomes, and (3) shrinking family sizes.

Yum China's scale advantages translate into competitive pricing and consistent quality and service, building trust with consumers seeking reliable dining experiences. This positions the company to capture share in a market where chained restaurants represent only 20% of industry spending, compared with a 35% global average and 60% in the US.

While nascent opportunities like Lavazza and Huang Ji Huang have received fewer mentions recently, likely due to the economic slowdown, we believe they still offer compelling long-term prospects. This stems from their differentiated offerings, growth potential upon economic recovery, and ability to leverage the group's in-house supply chain to reduce food costs.

We expect the company to achieve its 2024-26 targets, which include: (1) average annual net unit growth of 1,800 restaurants, (2) double-digit EPS CAGR, and (3) USD 1.5 billion in annual shareholder returns. While acknowledging the potential for further economic slowdown and tempered restaurant market growth, management plans to gain share by: (1) expanding into lower-tier cities lacking a KFC presence; (2) broadening Pizza Hut's reach into cities with KFC but not Pizza Hut, while converting underperforming units to the lower-priced Wow format, and (3) accelerating franchisee expansion in strategic locations like highway centers, hospitals, and college campuses.

Yum China Holdings Inc YUMC ★★★★★ 27 Aug 2025 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
44.60 USD 27 Aug 2025	76.00 USD 1 May 2024 13:36, UTC	0.59	16.38 USD Bil 28 Aug 2025	Wide	Large Blend	Medium	Standard	4 Jun 2025 05:00, UTC

Competitors

	Yum China Holdings Inc YUMC	Domino's Pizza Inc DPZ	McDonald's Corp MCD	Yum Brands Inc YUM
Economic Moat	Wide	Wide	Wide	Wide
Currency	USD	USD	USD	USD
Fair Value	76.00 1 May 2024 13:36, UTC	420.00 15 Aug 2025 15:38, UTC	312.00 3 Jun 2025 16:41, UTC	144.00 19 Aug 2025 13:34, UTC
1-Star Price	102.60	567.00	390.00	180.00
5-Star Price	53.20	294.00	249.60	115.20
Assessment	Undervalued 27 Aug 2025	Fairly Valued 27 Aug 2025	Fairly Valued 27 Aug 2025	Fairly Valued 27 Aug 2025
Morningstar Rating	★★★★★ 27 Aug 2025 21:53, UTC	★★★ 27 Aug 2025 21:30, UTC	★★★★ 27 Aug 2025 21:28, UTC	★★★ 27 Aug 2025 21:31, UTC
Analyst	Ivan Su, Senior Equity Analyst	Erin Lash, Sector Director	Kristoffer Inton, Senior Equity Analyst	David Swartz, Senior Equity Analyst
Capital Allocation	Standard	Exemplary	Standard	Standard
Price/Fair Value	0.59	1.08	1.00	1.01
Price/Sales	1.48	3.28	8.59	5.20
Price/Book	2.86	—	—	—
Price/Earning	17.95	26.41	26.04	29.03
Dividend Yield	1.79%	1.44%	2.24%	1.90%
Market Cap	16.39 Bil	15.36 Bil	222.24 Bil	40.33 Bil
52-Week Range	32.85—53.99	396.06—500.55	276.53—326.32	122.13—163.30
Investment Style	Large Blend	Mid Blend	Large Blend	Mid Blend

Bulls Say Ivan Su, Senior Equity Analyst, 31 Jul 2025

- New KFC units boast pretax cash payback periods of two years, or cash-on-cash returns of approximately 50%, exceeding the economics of most regional chains. This should drive the firm's future earnings growth.
- Early signs point to a steadily improving operating environment for the Chinese restaurant industry. As a market leader, Yum China is well-positioned to be one of the primary beneficiaries of this trend.
- Wage hikes, urbanization trends, and generational shifts should continue to drive restaurant spending across China, supporting Yum China's long-term growth.

Bears Say Ivan Su, Senior Equity Analyst, 31 Jul 2025

- Although the zero-covid-19 policy is over, restaurants still contend with cautious consumer spending.
- While having a proven track record in capturing Chinese's appetite for Western food, the group has had

Yum China Holdings Inc

YUMC★★★★★

27 Aug 2025 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
44.60 USD 27 Aug 2025	76.00 USD 1 May 2024 13:36, UTC	0.59	16.38 USD Bil 28 Aug 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

limited success in Chinese concepts.

- If economic conditions further deteriorate, chains might increasingly compete with one another, with aggressive promotional activity likely to escalate.

Economic Moat Ivan Su, Senior Equity Analyst, 31 Jul 2025

Our wide moat rating is predicated on Yum China's intangible assets in the form of a well-known brand name, consistent menu innovations, and digital capabilities, as well as cost advantages stemming from buying scale and sourcing through its industry-leading supply chain infrastructure. Historic adjusted returns on invested capital (including goodwill) have outpaced our 8.8% cost of capital estimate, even during the years of covid-19. We expect the company's average annual adjusted ROICs will exceed its weighted average cost of capital over the next 20 years as required for our wide moat rating.

Yum China's intangible assets are based on strong brand recognition. KFC was the first to introduce the traditional quick-service restaurant model to China when it opened its first location in Tiananmen Square in 1987, a time when Western-style fast food was unknown to the country. While we believe KFC's initial success could be largely attributed to novelty, the brand later abandoned its US model (a limited menu, low prices, and an emphasis on takeout) and gradually transformed itself to become the "authentic" Chinese brand through offering abundance of flavors and an inviting ambience to local consumers. The brand has since become the largest player in China's rapidly growing fast-food industry, with roughly 5% market share, twice that of wide-moat McDonalds. According to data from Euromonitor, the company is also, by far, the largest player in the Chinese quick-service chicken restaurants (around 50% share in 2023) and full-service pizza (around 60% share) categories.

Yum China's success, particularly with its KFC brand, is inextricably linked to its consistent menu innovation. KFC China boasts a significantly larger menu than its global counterparts, supported by a dedicated 27,000-square-foot innovation center in Shanghai. This facility fuels the introduction of approximately 60 new products annually in China (mostly limited-time offers), double the rate of new product introductions elsewhere. Groundbreaking examples include the Old Beijing Chicken Roll (2000), Sichuan Style Beef Wrap (2008), Crayfish Grilled Chicken Burger (2017), and Sichuan Style Skewers (2019).

Yum China has mastered the balance between scale and operational flexibility in its product development, catering to diverse local tastes and mitigating the risk of consumer fatigue. Its two-decade track record of creating compelling menu narratives and visually appealing offerings, while staying true to its core value of convenience, reinforces our confidence in the company's ability to maintain a competitive edge for years to come.

Yum China's use of technology to cultivate brand loyalty and drive consistent traffic is another strength. Its 525 million loyalty program members (as of end-2024), who frequently order digitally, provide a

Yum China Holdings IncYUMC★★★★★

27 Aug 2025 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
44.60 USD 27 Aug 2025	76.00 USD 1 May 2024 13:36, UTC	0.59	16.38 USD Bil 28 Aug 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

wealth of consumer data. This data fuels AI-powered personalized menus based on order history and local preferences, streamlining ordering and enhancing the dining experience. The AI also promotes sides and drinks, increasing average order value, reducing labor needs, and improving order accuracy. This robust loyalty program, coupled with personalized AI-driven menus, enables Yum China to drive consistent traffic, a significant advantage, especially during industry downturns. Our research confirms the effectiveness of such programs, showing that members visit twice as often as non-members on average, with top-performing programs quadrupling visit frequency.

Beyond intangible assets, Yum China benefits from cost advantages that enable a superior combination of price and quality. Unlike other developed markets, 70% of China's restaurant industry comprises independent, "mom-and-pop" establishments. Yum China stands out as the largest restaurant group, holding a 2% market share, roughly double that of McDonald's, the second-largest player. Scale is critical in the thin-margin restaurant industry, particularly within the quick-service segment. Our research shows that restaurant-level margins can increase from approximately 10% for a stand-alone location to 21% for an established, mature operator. As the largest player, Yum China enjoys significant economies of scale, wielding considerable influence over suppliers and securing access to food and packaging materials at competitive prices. This scale enables the company to source ingredients at a unit cost that is 50% lower than the industry average, providing a substantial advantage over smaller competitors.

Furthermore, Yum China's unrivaled supply chain and distribution network in the region complements its cost-advantage moat source. While restaurant chains in North America and Europe typically rely on established food distributors like Sysco and US Foods, China lacked such reliable infrastructure when Yum China entered the market in the 1990s. Consequently, KFC developed its own distribution network, which now includes 33 logistics facilities, 6 consolidation centers, and a fleet of over 2,100 refrigerated trucks. While initially costly, this investment has been crucial to Yum China's rapid expansion, enabling lower supply chain costs and greater menu flexibility and variability.

Fair Value and Profit Drivers Ivan Su, Senior Equity Analyst, 31 Jul 2025

Our fair value estimate for Yum China is USD 76 per share. We assume a recovery of same-store sales in 2025 and the years onward. Our valuation implies 2025 price/earnings of 29 times and free cash flow yield of 3%. These multiples are slightly ahead of global industry averages but justified by Yum China's higher long-term growth potential.

For the next three years, we forecast a compounded annual growth rate of 11% in net unit openings, positioning Yum China to slightly exceed its goal of 20,000 outlets by 2026. This expansion will primarily target lower-tier cities and include some franchising, given the lower penetration of chained restaurants in these areas.

Yum China Holdings IncYUMC★★★★★

27 Aug 2025 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
44.60 USD 27 Aug 2025	76.00 USD 1 May 2024 13:36, UTC	0.59	16.38 USD Bil 28 Aug 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

Despite ongoing macroeconomic challenges, we still see opportunities for same-store sales growth driven by rising disposable income and more dining out resulting from ever-smaller family sizes. These dynamics contribute to our projection of about 1% annual growth in comparable store sales over the next several years.

On the profitability front, we forecast an increase in operating margin to 13.5% by 2029, up from 10.3% in 2024. This margin expansion is largely attributed to leverage in occupancy expenses and a strategic shift toward a higher-margin franchise model. Additionally, our EPS forecast bakes in the impact of share repurchases, which reduce the number of outstanding shares, thus contributing to a projected compounded annual growth rate in EPS of 18% over the same period.

Risk and Uncertainty Ivan Su, Senior Equity Analyst, 31 Jul 2025

Our Morningstar Uncertainty Rating for Yum China is Medium.

As China's restaurant industry consolidates, we expect chains to increasingly compete with one another on price and product differentiation across multiple dayparts, with aggressive (and often irrational) promotional activity likely to escalate. In addition to rising competition, Yum China must contend with slowing GDP growth and consumer spending volatility, state-mandated wage rate increases, and uneven commodity cost, each of which could negatively impact top-line growth and profitability. Restaurants, in general, are also susceptible to negative publicity tied to food quality concerns, which can lead to declines in foot traffic.

We believe that Yum China faces less than average risk on the product side, due to the firm's sophisticated supply chain systems. But like most restaurant operators, it is prone to reputational risks resulting from limited employee benefits and low wages. The firm's continued shift to eco-friendly packaging is worth monitoring—as the transition from plastic to eco-friendly materials will result in modestly higher cost of goods sold.

Capital Allocation Ivan Su, Senior Equity Analyst, 31 Jul 2025

We assign Yum China a Standard Morningstar Capital Allocation Rating. The rating reflects our assessments of a sound balance sheet, fair investment, and appropriate shareholder distributions. We believe that future investments will be the key driver of total shareholder returns.

The firm acquired a controlling stake in 640-unit Chinese-style casual restaurant operator, Huang Ji Huang, in 2020. Adding Huang Ji Huang casual dining, where food is cooked in a simmer pot at the table and doesn't require a chef, the firm has another unit growth acceleration source over the long term. We believe Yum China will use its existing supply chain network to lift Huang Ji Huang's restaurant-level margins and leverage its food innovation expertise to craft better menu items. But because things are still in the early stages, we do not expect materially value-adding, particularly relative to the high returns currently generated by KFC. Hence, we assess investment as fair at this

Yum China Holdings IncYUMC★★★★★

27 Aug 2025 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
44.60 USD 27 Aug 2025	76.00 USD 1 May 2024 13:36, UTC	0.59	16.38 USD Bil 28 Aug 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

point. But we'd consider an Exemplary rating if investments in new restaurant concepts materially lift company-level margins over the next few years.

The company's balance sheet is sound, with minimal debt, and we expect it to remain so as the company aims to maintain a conservative balance sheet. Over the next few years, we believe the company will utilize some of its excess cash to acquire other restaurant concepts and drive shareholder returns through an accelerated unit expansion pace.

Yum China's recent announcement to increase capital returns to shareholders by 50%, aiming to return USD 1.5 billion annually from 2024 to 2026 through share buybacks, represents a significant commitment. These returns, amounting to 150% of our projected annual free cash flow, will be funded by its net cash balance sheet. But given the temporary nature of these buybacks, we will reassess our rating once the company adopts a more consistent return policy.

Analyst Notes Archive

Maintaining Outlook for China's Restaurant Sector; Yum China Remains Top Pick

Ivan Su,Senior Equity Analyst,5 Aug 2025

Macroeconomic indicators remain weak for restaurant operators in China, though conditions are no longer worsening. In response to government efforts to curb excessive competition, food delivery platforms have scaled back their promotional activities.Why it matters: Quick-service restaurants and beverage concepts have benefited from platform subsidies, which should support near-term earnings. However, since these promotions are likely temporary, they are unlikely to have a lasting impact on consumer behavior. In addition, some restaurants may need to partly fund the promotions themselves, which could offset the benefits of stronger sales. We maintain our forecasts for all restaurant operators under coverage and continue to expect mid-single-digit industry growth in the near term. For restaurant sales growth to accelerate meaningfully, we would need to see improvement in key macroeconomic drivers such as inflation, youth employment, and wage growth. The bottom line: Our fair value estimates remain unchanged for all restaurant operators under coverage. They currently trade at a 25% market-cap-weighted discount to our valuation. Our top pick in the space remains wide-moat Yum China. Yum China stands out for its strong brand portfolio, well-established franchising model, and superior supply chain capabilities, which support rapid expansion and market share gains. Most importantly, it is led by a proven management team with a solid track record of returning excess capital to shareholders. Long view: The restaurant industry in China is highly fragmented, with chain restaurants accounting for only 20% of the market versus 50%–60% in developed countries. This gap presents significant growth potential for chains to gain share through expansion.

Yum China Earnings: Solid Results, Guidance Reaffirmed Amid Tariff Uncertainty

Ivan Su,Senior Equity Analyst,2 May 2025

Yum China Holdings IncYUMC★★★★★

27 Aug 2025 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
44.60 USD 27 Aug 2025	76.00 USD 1 May 2024 13:36, UTC	0.59	16.38 USD Bil 28 Aug 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

Yum China posted 2% constant-currency revenue and 8% core operating profit year-on-year growth in the first quarter of 2025. Despite uncertainties surrounding US-China tariffs, the company reiterated its full-year guidance. Why it matters: Yum China's earnings were in line with our estimates. Management noted that performance in April is tracking as expected, with no material negative impact observed following the recent US tariff hikes on China. Same-store sales were flat in the first quarter, an improvement from the 1% decline in the previous quarter. However, management remains cautious about same-store sales trends due to macroeconomic uncertainties. Management maintained restaurant margin guidance for both its major brands, expecting stable margins for KFC and slightly improved margins for Pizza Hut in 2025. The bottom line: With solid earnings and an unchanged outlook, we keep our \$76 per share fair value estimate for wide-moat Yum China. While prolonged US tariffs could potentially dampen consumer spending at restaurants, we are pleased that Yum China's operations have remained stable year to date. We continue to view Yum China's shares as significantly undervalued, trading at a 40% discount to our valuation, 17 times 2025 earnings, and offering a 10% shareholder yield through dividends and buybacks.

More Signs of Recovery Emerge in China's Restaurant Industry Despite Limited Stimulus

Ivan Su,Senior Equity Analyst,17 Feb 2025

Additional signs indicate that China's restaurant industryhas been stabilizing over recent months, even in the absence of meaningful government stimulus. Why it matters: The restaurant industry struggled with lower average tickets, that is, the amount of money per transaction, through most of 2024. However, this trend has largely stabilized since the fourth quarter of 2024 and, in some cases, is even reversing, setting the stage for a sectorwide recovery. Leading operators, such as KFC and Luckin Coffee, recently raised menu prices. KFC management noted that the price hikes have not negatively affected order volumes, while McDonald's also reported signs of stabilization in the fourth quarter of 2024. The bottom line: We expect 2025 to be a better year for the restaurant industry, maintaining our fair value estimates for all four operators under coverage—wide-moat Yum China, and no-moat Haidilao, Jiumaojiu, and Xiabuxiabu. Restaurant operators are trading at depressed earnings multiples due to lingering concerns about further consumer spending cutbacks. However, we believe these fears are overblown, as pricing appears to have reached an inflection point. We anticipate revenue acceleration across the board, with Yum China remaining our top pick. Coming up: Details on tourism stimulus could be unveiled soon. Additional consumption-supportive measures may also be announced during the upcoming Two Sessions meetings in March.

Yum China Earnings: Strong Results and a Clear Path to Margin Expansion

Ivan Su,Senior Equity Analyst,7 Feb 2025

Yum China's shares jumped 9% during US trading on Feb. 9 after reporting earnings that exceeded consensus estimates. Revenue increased by 4% year over year, while core operating profit grew by 35%.

Yum China Holdings IncYUMC★★★★★

27 Aug 2025 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
44.60 USD 27 Aug 2025	76.00 USD 1 May 2024 13:36, UTC	0.59	16.38 USD Bil 28 Aug 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

Why it matters: Yum China's earnings call struck an optimistic tone. Management pointed to signs of rationalization in industrywide promotions and achieved its first price hike in two years, reflecting improved consumer sentiment. Same-store sales appear to have reached an inflection point, with Lunar New Year comps showing a slight year-over-year increase. This alleviates concerns about a prolonged downturn in comparable store sales. In our view, even modest same-store sales growth could drive operating leverage in 2025, leading to higher profitability. The bottom line: We keep our \$76 fair value estimate for wide-moat Yum China, as our long-term forecasts already anticipated above-consensus results. Despite the postearnings rally, we still view Yum China shares as significantly undervalued, currently trading at a 35% discount to our valuation. Shares are trading at 19 times 2025 earnings and offer an 8% shareholder yield. We believe the market is overlooking Yum China's ability to grow its current 1.5% market share in China's restaurant industry while benefitting from operating leverage as same-store sales recover. Between the lines: Management's guidance of 5% revenue growth and stable-to-modestly improving margins for 2025 assumes no improvement in China's macroeconomic conditions. We believe these are conservative assumptions. We expect 2025 revenue to grow by 7%, as the Chinese government's ongoing efforts to stimulate the economy and revive consumption should provide a modest tailwind. Due to the high fixed-cost structure of the restaurant industry, our revenue growth assumptions translate into a 60-basis-point year-over-year improvement in operating margin, reaching 10.9% in 2025.

China Signals Tourism Stimulus; Boosting Outlook for Travel and Consumer Discretionary Stocks

Ivan Su,Senior Equity Analyst,14 Jan 2025

Chinese travel and consumer discretionary stocks gained on Jan. 14 after China's State Council suggested issuing tourism coupons to boost spending. Why it matters: We think the suggestion is timely given that China's retail sales growth slowed to just 3% year on year in November, while inflation remains near 0%, highlighting the need for policy measures to stimulate domestic demand. However, details remain scarce, making it unclear as to which consumer categories will be covered and how significant the boost to spending might be. The bottom line: As such, we maintain the fair value estimates of our coverage for now. If substantial stimulus materializes, we expect travel-related names to benefit. We continue to see opportunities in undervalued companies as many consumer names trade at more than 20% discounts relative to our fair value estimates. Our top picks include domestic-focused companies with economic moats, such as Yum China, Topsports, and China Tourism Group Duty Free. Between the lines: Based on previous policies—such as the home appliance subsidy introduced in 2024—it took about a month from announcement until more details were revealed, suggesting that investors may soon receive more clarity as to the travel coupon initiative. For context, the CNY 40 billion home appliance subsidy since September 2024 led to incremental full-year sales growth of high-single-digit percentages for the sector, by our estimates. However, the travel industry, valued at approximately CNY 5 trillion, is significantly larger—roughly six times the size of the home appliance sector. Hence,

Yum China Holdings IncYUMC★★★★★

27 Aug 2025 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
44.60 USD 27 Aug 2025	76.00 USD 1 May 2024 13:36, UTC	0.59	16.38 USD Bil 28 Aug 2025	Wide	Large Blend	Medium	Standard	4 Jun 2025 05:00, UTC

stimulating the travel sector at scale will require substantially larger policy measures and could take longer to roll out, in our view.

China Vows to Be Looser in Monetary Policy and ‘More Proactive’ in Its Fiscal Policy; Shares Jump

Kai Wang, CFA,Senior Equity Analyst,10 Dec 2024

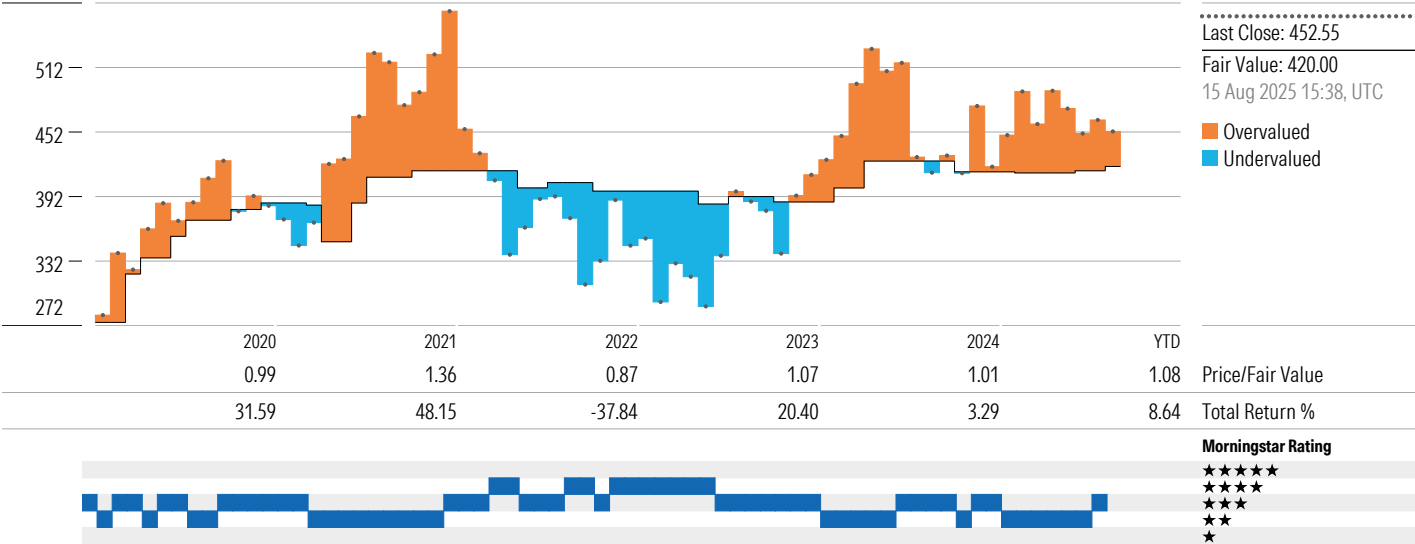
China's leaders announced greater measures to loosen monetary policy and for more proactive fiscal policy in its Politburo meeting on Dec. 9. The Hang Seng Index jumped 3% toward the end of the trading day on the announcement. Large-cap ADRs that are indicative of China's consumer confidence such as Alibaba and Pinduoduo saw their shares increase 7% and 10%, respectively. However, we are still waiting for specific policy details before assessing whether the policies will be effective in lifting consumption and ensuring economic growth doesn't slow further.We think the announcement highlights that China stocks are underweight, given there were no quantitative details on the policy yet many ADRs increased sharply in their US trading sessions. Our fair value estimates for most names in China remain unchanged without knowing the details of the policies, and without seeing signs of consumer confidence first, as macrodata remains soft.We note that Trump's potential incremental tariffs remain a risk for China and could derail a 2025 rally. Thus, we recommend investors lean toward names with lesser exposure to US exports.The announcement also comes after Consumer Price Index and Producer Price Index data was released earlier in the day, which showed an increase of 0.2% and a decline of 2.5% year on year, respectively. We believe the announcement helps to ease worries about the weak data.The 2.5% PPI decrease is the 26th straight month of declines. When combined with flat CPI data, this suggests that consumer demand is still low, and China remains in a deflationary environment. The PBOC's stimulus push this year has yet to lead to a persistent boost to consumer confidence.Despite muted consumer demand, we believe there are still undervalued companies as many names in the consumer sector still trade at 20-plus% discounts to our fair value estimates. We still favor domestic-focused companies with wide moats, such as Tencent, Yum China, and Luzhou Laojiao.

Yum China Holdings Inc YUMC ★★★★★

27 Aug 2025 21:53, UTC

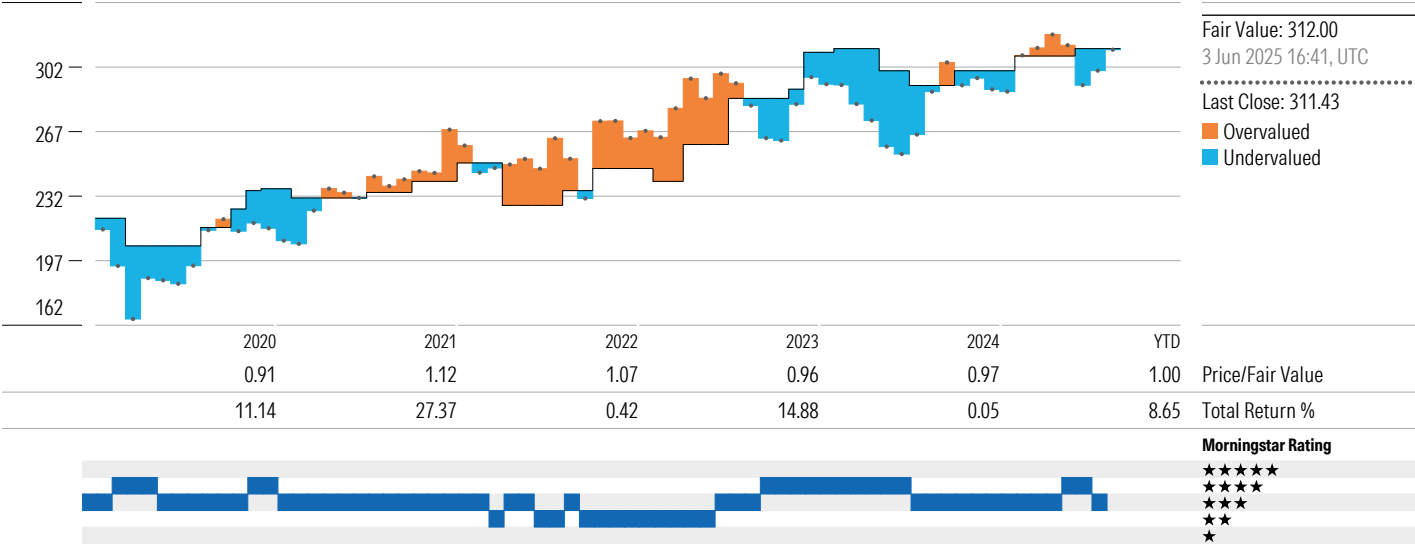
Competitors Price vs. Fair Value

Domino's Pizza Inc DPZ



Total Return % as of 27 Aug 2025. Last Close as of 27 Aug 2025. Fair Value as of 15 Aug 2025 15:38, UTC.

McDonald's Corp MCD

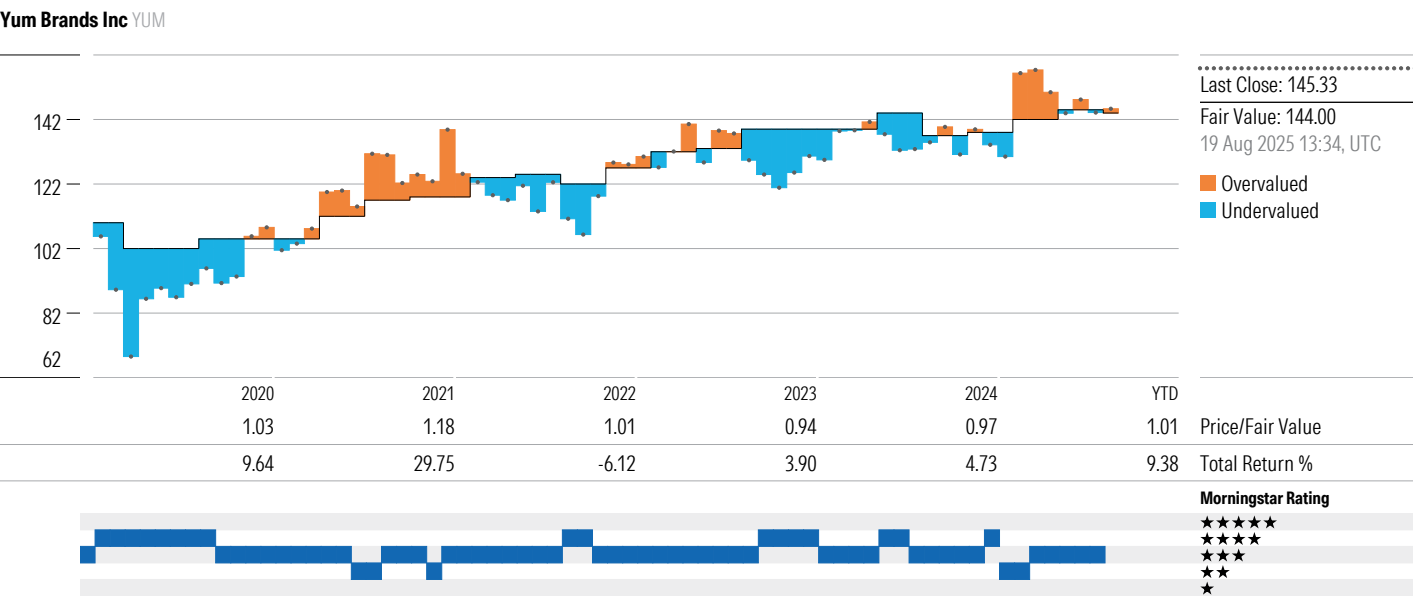


Total Return % as of 27 Aug 2025. Last Close as of 27 Aug 2025. Fair Value as of 3 Jun 2025 16:41, UTC.

Yum China Holdings IncYUMC★★★★★

27 Aug 2025 21:53, UTC

Competitors Price vs. Fair Value



Total Return % as of 27 Aug 2025. Last Close as of 27 Aug 2025. Fair Value as of 19 Aug 2025 13:34, UTC.

Yum China Holdings Inc YUMC ★★★★★ 27 Aug 2025 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
44.60 USD 27 Aug 2025	76.00 USD 1 May 2024 13:36, UTC	0.59	16.38 USD Bil 28 Aug 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

Morningstar Valuation Model Summary

Financials as of 06 Aug 2025

Fiscal Year, ends 31 Dec	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Revenue (USD Mil)	9,569	10,978	11,303	11,756	12,385	13,733	15,233	16,570
Operating Income (USD Mil)	801	1,218	1,283	1,408	1,595	1,844	2,137	2,401
EBITDA (USD Mil)	1,203	1,510	1,678	1,780	1,987	2,252	2,569	2,858
Adjusted EBITDA (USD Mil)	1,203	1,510	1,678	1,780	1,987	2,252	2,569	2,858
Net Income (USD Mil)	442	827	911	933	1,068	1,242	1,450	1,635
Adjusted Net Income (USD Mil)	446	842	911	933	1,068	1,242	1,450	1,635
Free Cash Flow To The Firm (USD Mil)	711	763	714	990	935	1,185	1,383	1,497
Weighted Average Diluted Shares Outstanding (Mil)	425	420	390	371	351	339	326	313
Earnings Per Share (Diluted) (USD)	1.04	1.97	2.34	2.52	3.04	3.67	4.45	5.22
Adjusted Earnings Per Share (Diluted) (USD)	1.05	2.00	2.34	2.52	3.04	3.67	4.45	5.22
Dividends Per Share (USD)	0.48	0.48	0.55	0.72	0.91	1.10	1.33	1.57

Margins & Returns as of 06 Aug 2025

	Actual				Forecast					
	3 Year Avg	2022	2023	2024	2025	2026	2027	2028	2029	5 Year Avg
Operating Margin %	8.9	8.4	11.1	11.4	12.0	12.9	13.4	14.0	14.5	12.2
EBITDA Margin %	—	12.6	13.8	14.9	15.1	16.0	16.4	16.9	17.3	—
Adjusted EBITDA Margin %	—	12.6	13.8	14.9	15.1	16.0	16.4	16.9	17.3	16.3
Net Margin %	6.7	4.6	7.5	8.1	7.9	8.6	9.0	9.5	9.9	9.0
Adjusted Net Margin %	6.8	4.7	7.7	8.1	7.9	8.6	9.0	9.5	9.9	9.0
Free Cash Flow To The Firm Margin %	6.9	7.4	7.0	6.3	8.4	7.6	8.6	9.1	9.0	8.5

Growth & Ratios as of 06 Aug 2025

	Actual				Forecast					
	3 Year CAGR	2022	2023	2024	2025	2026	2027	2028	2029	5 Year CAGR
Revenue Growth %	4.7	-2.9	14.7	3.0	4.0	5.4	10.9	10.9	8.8	8.0
Operating Income Growth %	16.7	-0.9	52.0	5.4	9.8	13.3	15.6	15.9	12.3	13.4
EBITDA Growth %	0.6	-34.9	25.5	11.1	6.1	11.6	13.4	14.1	11.3	11.3
Adjusted EBITDA Growth %	-3.2	-34.9	25.5	11.1	6.1	11.6	13.4	14.1	11.3	11.2
Earnings Per Share Growth %	0.8	-54.3	89.0	18.7	7.7	20.9	20.4	21.3	17.5	17.5
Adjusted Earnings Per Share Growth %	0.8	-13.1	90.7	16.6	7.7	20.9	20.4	21.3	17.5	17.5

Valuation as of 06 Aug 2025

	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Price/Earning	52.0	21.2	20.6	17.7	14.7	12.2	10.0	8.5
Price/Sales	2.4	1.6	1.6	1.4	1.3	1.2	1.1	1.0
Price/Book	3.6	2.8	3.3	3.0	3.1	2.9	2.7	2.5
Price/Cash Flow	—	—	—	—	—	—	—	—
EV/EBITDA	17.6	11.0	10.9	9.2	8.3	7.3	6.4	5.8
EV/EBIT	26.4	13.6	14.3	11.7	10.3	8.9	7.7	6.9
Dividend Yield %	0.9	1.1	1.1	1.6	2.0	2.5	3.0	3.5
Dividend Payout %	45.7	24.0	23.5	28.6	30.0	30.0	30.0	30.0
Free Cash Flow Yield %	—	—	—	—	—	—	—	—

Operating Performance / Profitability as of 06 Aug 2025

Fiscal Year, ends 31 Dec	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
ROA %	3.7	6.9	8.4	8.3	9.6	10.6	11.6	12.4
ROE %	6.2	11.6	14.2	15.0	18.5	21.1	24.0	26.4
ROIC %	9.6	15.4	16.0	17.5	19.1	21.1	23.4	24.9

Yum China Holdings Inc YUMC ★★★★★ 27 Aug 2025 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
44.60 USD 27 Aug 2025	76.00 USD 1 May 2024 13:36, UTC	0.59	16.38 USD Bil 28 Aug 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

Financial Leverage (Reporting Currency)	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Fiscal Year, ends 31 Dec								
Debt/Capital %	9.5	12.8	11.7	0.4	0.4	0.4	0.4	0.4
Assets/Equity	1.7	1.7	1.7	1.8	1.9	2.0	2.1	2.1
Net Debt/EBITDA	-0.6	0.0	0.3	-1.7	-1.2	-1.1	-1.0	-0.9
Total Debt/EBITDA	2.0	1.7	1.4	0.1	0.1	0.1	0.0	0.0
EBITDA/ Net Interest Expense	-14.3	-8.9	-13.0	-18.2	-19.3	-20.8	-22.6	-24.0

Forecast Revisions as of 5 Aug 2025	2025		2026		2027	
Prior data as of 31 Jul 2025	Current	Prior	Current	Prior	Current	Prior
Fair Value Estimate Change (Trading Currency)	76.00	76.01	—	—	—	—
Revenue (USD Mil)	11,756	11,805	12,385	12,444	13,733	13,807
Operating Income (USD Mil)	1,408	1,408	1,595	1,604	1,844	1,872
EBITDA (USD Mil)	1,780	1,798	1,987	2,000	2,252	2,284
Net Income (USD Mil)	933	922	1,068	1,048	1,242	1,232
Earnings Per Share (Diluted) (USD)	2.52	2.50	3.04	3.01	3.67	3.66
Adjusted Earnings Per Share (Diluted) (USD)	2.52	2.50	3.04	3.01	3.67	3.66
Dividends Per Share (USD)	0.72	0.72	0.91	0.90	1.10	1.10

Key Valuation Drivers as of 06 Aug 2025

Cost of Equity %	9.0
Pre-Tax Cost of Debt %	5.3
Weighted Average Cost of Capital %	8.8
Long-Run Tax Rate %	25.0
Stage II EBI Growth Rate %	3.5
Stage II Investment Rate %	16.0
Perpetuity Year	20

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

Discounted Cash Flow Valuation as of 06 Aug 2025

	USD Mil
Present Value Stage I	8,862
Present Value Stage II	6,876
Present Value Stage III	7,627
Total Firm Value	23,365
Cash and Equivalents	2,932
Debt	127
Other Adjustments	667
Equity Value	26,837
Projected Diluted Shares	372
Fair Value per Share (USD)	76.00

Yum China Holdings Inc YUMC ★★★★★ 27 Aug 2025 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
44.60 USD 27 Aug 2025	76.00 USD 1 May 2024 13:36, UTC	0.59	16.38 USD Bil 28 Aug 2025	Wide	Large Blend	Medium	Standard	 4 Jun 2025 05:00, UTC

ESG Risk Rating Breakdown

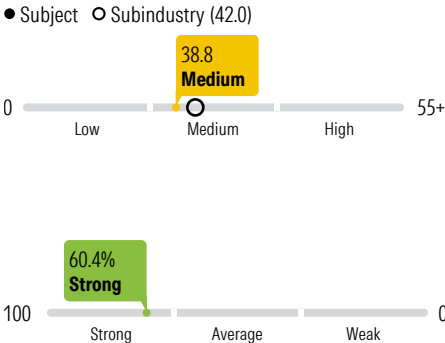
Exposure

Company Exposure¹	38.8
- Manageable Risk	36.3
Unmanageable Risk²	2.5

Management

Manageable Risk	36.3
- Managed Risk³	21.9
Management Gap⁴	14.4

Overall Unmanaged Risk 16.9



- ▶ Exposure represents a company's vulnerability to ESG risks driven by their business model
- ▶ Exposure is assessed at the Subindustry level and then specified at the company level
- ▶ Scoring ranges from 0-55+ with categories of low, medium, and high-risk exposure
- ▶ Management measures a company's ability to manage ESG risks through its commitments and actions
- ▶ Management assesses a company's efficiency on ESG programs, practices, and policies
- ▶ Management score ranges from 0-100% showing how much manageable risk a company is managing

ESG Risk Rating



ESG Risk Ratings measure the degree to which a company's value is impacted by environmental, social, and governance risks, by evaluating the company's ability to manage the ESG risks it faces.

1. A company's Exposure to material ESG issues 2. Unmanageable Risk refers to risks that are inherent to a particular business model that cannot be managed by programs or initiatives 3. Managed Risk = Manageable Risk multiplied by a Management score of 60.4% 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. Sustainalytics Subindustry: Restaurants. 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 04 Jun 2025

Company Name	Exposure	Management	ESG Risk Rating
Yum China Holdings Inc	38.8 Medium 0 —●— 55+	60.4 Strong 100 —●— 0	16.9 Low 0 —●— 40+
McDonald's Corp	43.9 Medium 0 —●— 55+	37.5 Average 100 —●— 0	28.5 Medium 0 —●— 40+
Yum Brands Inc	41.5 Medium 0 —●— 55+	54.4 Strong 100 —●— 0	20.4 Medium 0 —●— 40+
Domino's Pizza Inc	42.9 Medium 0 —●— 55+	29.5 Average 100 —●— 0	31.1 High 0 —●— 40+
The Wendy's Co	42.8 Medium 0 —●— 55+	52.3 Strong 100 —●— 0	21.8 Medium 0 —●— 40+

Appendix

Historical Morningstar Rating

Yum China Holdings Inc YUMC 27 Aug 2025 21:53, 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
★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★★★	★★★	★★★★★	★★★★★	★★★★★

Domino's Pizza Inc DPZ 27 Aug 2025 21:30, 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
★★★	★★★★	★★★★	★★	★★	★★★★	★★★★	★★	★★★★	★★★★	★★	★★★★

McDonald's Corp MCD 27 Aug 2025 21:28, 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
★★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★

Yum Brands Inc YUM 27 Aug 2025 21:31, UTC

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

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.

Margin of Safety		
Qualitative Analysis	★★★★★ 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

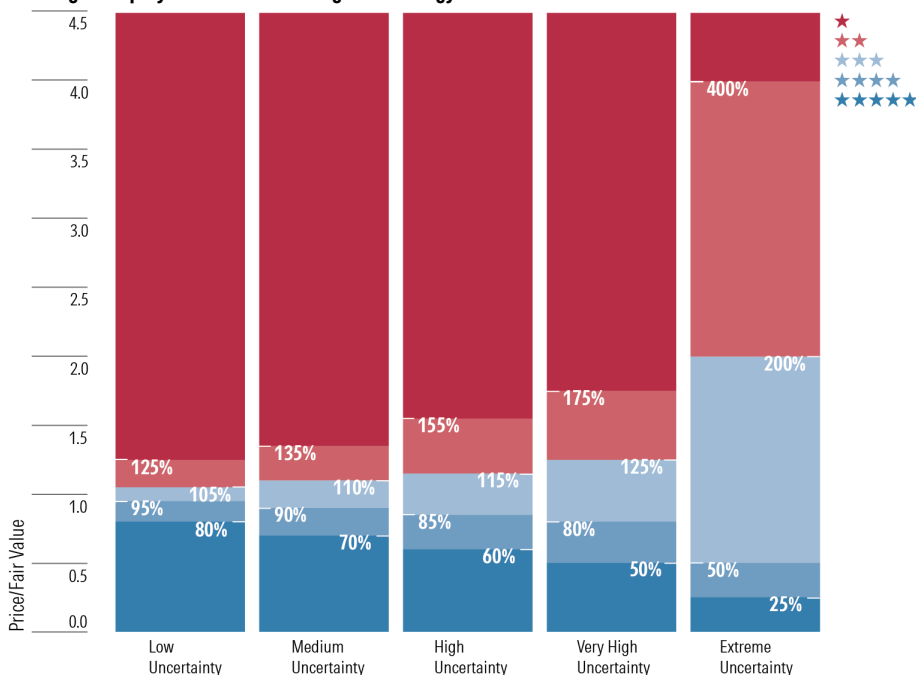
Our uncertainty rating is based on the interquartile range, or the middle 50% of potential outcomes, covering the 25th percentile–75th percentile. This means that when a stock hits 5 stars, we expect there is a 75% chance that the intrinsic value of that stock lies above the current market price. Similarly,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