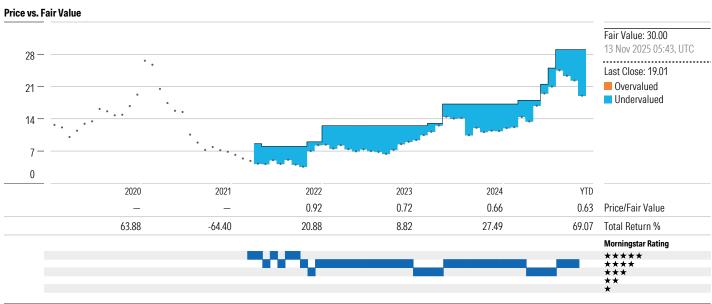
Last Price Fair Value Estimate Price/FVE **Economic Moat**™ **Equity Style Box Capital Allocation** ESG Risk Rating Assessment¹ **Market Cap @@@@** 19.01 USD 30.00 USD 29.29 USD Bil Narrow Large Blend High Standard 0.6312 Nov 2025 3 Sep 2025 05:00, UTC 12 Nov 2025 13 Nov 2025 05:43, UTC



Total Return % as of 12 Nov 2025, Last Close as of 12 Nov 2025, Fair Value as of 13 Nov 2025 05:43, UTC

Contents

Analyst Note (13 Nov 2025)

Business Description

Business Strategy & Outlook (5 May 2025)

Bulls Say / Bears Say (13 Nov 2025)

Economic Moat (5 May 2025)

Fair Value and Profit Drivers (13 Nov 2025)

Risk and Uncertainty (5 May 2025)

Capital Allocation (15 May 2025)

Analyst Notes Archive

Financials

ESG Risk

Appendix

Research Methodology for Valuing Companies

Important Disclosure

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

The primary analyst covering this company does not own its stock. $\label{eq:company}$

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

Tencent Music Earnings: Accelerating Growth, Rising Profits; Shares Undervalued Despite Soda Noise

Analyst Note Ivan Su, Senior Equity Analyst, 13 Nov 2025

Tencent Music reported another strong quarter, with revenue growth accelerating to 21% year over year in the third quarter, with by a 33% rise in recurring net profit. Management's early 2026 commentary suggests subscription growth may moderate due to a tougher comparison base.

Why it matters: Results were slightly ahead of our expectations and reinforce our view that Tencent Music can extend beyond pure streaming into broader music value-chain services to drive durable earnings growth. Despite this, shares fell 8% on competitive concerns.

- ➤ We see the sell-off as unwarranted. Investors focused on competition from ByteDance's Soda Music during the results briefing. While Soda reportedly has more than 100 million monthly active users, it remains far smaller than Tencent Music's 500 million-plus user base.
- ► Content depth is a key gap. In our test, importing a 400-track playlist from Tencent Music into Soda matched only about one-third of the tracks. With such limited catalog coverage, we see minimal risk to Tencent Music's user engagement or retention.

The bottom line: We modestly raise our forecasts and lift our fair value estimate for narrow-moat Tencent Music by 3% to USD 30. We continue to view shares as undervalued and the firm as a long-term compounder.

▶ After today's decline, Tencent Music trades at roughly 19 times 2026 earnings. We consider this



Last Price19.01 USD
12 Nov 2025

Fair Value Estimate
30.00 USD
13 Nov 2025 05:43, UTC

Price/FVE Market Cap
0.63 29.29 USD Bil
12 Nov 2025

Economic Moat™

Narrow

Equity Style Box
Large Blend

Uncertainty High Capital Allocation Standard ESG Risk Rating Assessment¹
(i) (i) (ii) (iii)
3 Sep 2025 05:00, UTC

Sector

Communication
Services

Industry
Internet Content &
Information

Business Description

Tencent Music is the largest online music streaming platform in China, established in 2016 through the merger of QQ Music, Kuwo Music, and Kugou Music.

Tencent, its largest shareholder, holds over 50% of the shares and more than 90% of the voting rights. Beyond streaming services, Tencent Music generates revenue through a diverse range of offerings, including podcasts, livestreaming, concerts, and karaoke.

valuation too low given its competitive advantages and double-digit earnings growth outlook.

Big picture: As access and technology improve, listening habits diversify. We expect Chinese users to explore more genres and niche artists, expanding their catalog and driving long-tail consumption, contrary to Soda's hits-centric strategy.

► Even if Soda closes the catalog gap, Tencent Music retains structural advantages: integration with WeChat's 1.3 billion-user ecosystem, superior audio quality, stronger in-car integrations, and an algorithmic advantage built on 500 million users, which reinforces stickiness.

Business Strategy & Outlook Ivan Su, Senior Equity Analyst, 5 May 2025

The music streaming industry in China is still in its early stages of development, and Tencent Music has established itself as the largest player in the market, with around 600 million monthly active users. While it is often compared with Spotify, Tencent Music enjoys a more favorable competitive position in China due to its unique integration within the broader Tencent ecosystem, the absence of YouTube as a competitor, a wider range of service offerings, and a stronger focus on in-house content development.

Tencent Music's subscriber/user ratio, currently at 20% versus Spotify's 40%, presents a significant revenue opportunity. By gradually placing more content behind paywalls, the company can convert free users into paying subscribers. Music subscription prices in China remain lower than global norms due to a history of rampant piracy, which reduces consumers' willingness to pay. However, with piracy largely addressed and a duopolistic market structure in place, subscription price should rise over time, providing another driver for growth.

Unlike typical streaming platforms with gross margins of about 30%, Tencent Music's gross margin is significantly higher, at 45%. This stems from a large portion of its content being produced in-house. Additionally, the fragmented structure of China's music licensing market—where only 20% is dominated by top labels—gives streaming platforms like Tencent Music stronger bargaining power in negotiations with content owners, further supporting its profitability.

China's antitrust laws in 2021 ended Tencent Music's exclusive music copyright agreements, allowing competitors like Cloud Music to access previously unavailable content. While competitors are gradually narrowing the content gap, Tencent Music's access to listening data from 600 million users and its ability to deliver highly personalized content play a critical role in reducing user churn. Over time, Tencent Music's lead in content may diminish, but the competition is unlikely to devolve into a race to the bottom.

Bulls Say Ivan Su, Senior Equity Analyst, 13 Nov 2025

► Compared with Spotify, Tencent Music has significant potential for subscriber growth, driven by its strategy of moving more music content behind a paywall.



Last Price 19.01 USD12 Nov 2025

Fair Value Estimate
30.00 USD
13 Nov 2025 05:43, UTC

Price/FVE 0.63

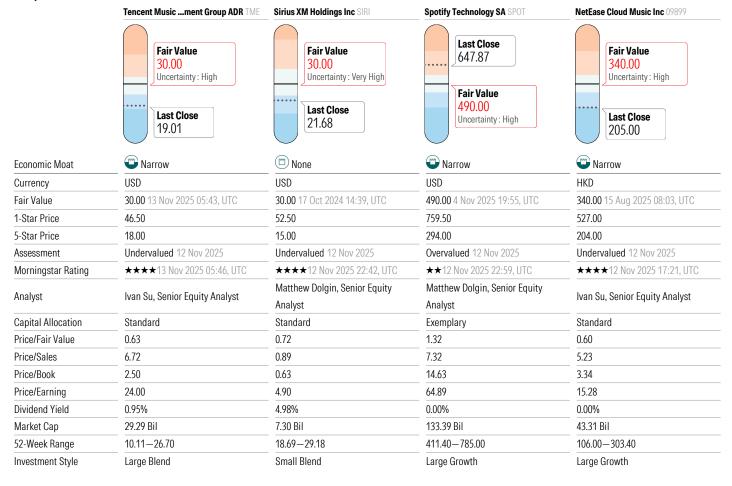
Market Cap 29.29 USD Bil 12 Nov 2025 Economic Moat™

Narrow

Equity Style Box
Large Blend

Uncertainty High Capital Allocation Standard ESG Risk Rating Assessment¹
(i) (i) (ii) (iii)
3 Sep 2025 05:00, UTC

Competitors



- ► Tencent Music leverages Tencent's extensive user network of over a billion people, enabling it to retain users more effectively while attracting new ones.
- ▶ Investing in independent artists and long-form audio could help Tencent Music better control content costs in the long run.

Bears Say Ivan Su, Senior Equity Analyst, 13 Nov 2025

- ► Tencent Music relies heavily on record labels, with no proprietary differentiation in its content.
- ► User engagement on Tencent Music's apps could decline, due to the growing popularity of short-form video platforms like Douyin.



Last Price19.01 USD
12 Nov 2025

Fair Value Estimate
30.00 USD
13 Nov 2025 05:43, UTC

Price/FVE 0.63

Market Cap 29.29 USD Bil 12 Nov 2025 Economic Moat™
Narrow

Equity Style Box
Large Blend

Uncertaint High Capital Allocation Standard ESG Risk Rating Assessment¹
(1) (1) (1) (1)
3 Sep 2025 05:00, UTC

► Existing livestreamers on Tencent Music's platforms are at risk of being poached by competitors offering lower take rates and more attractive sign-on bonuses.

Economic Moat Ivan Su, Senior Equity Analyst, 5 May 2025

We assign Tencent Music a narrow moat rating. The company is the biggest music streaming platform in China by far, and we have confidence that the company will generate excess returns on capital over the next 10 years, as it continues to benefit from intangible assets in the form of its Tencent-affiliation and possession of user data that helps curate recommendations, as well as network effect.

Tencent Music benefits from intangible assets in the form of its extensive user listening data, a result of its position as the largest streaming platform in China, with three times as many users as its closest competitor. This extensive data fuels its powerful recommendation algorithms, enabling the platform to deliver highly personalized playlists that closely align with individual listening preferences. As more users engage with and listen to music, the algorithms continuously improve, creating a self-reinforcing cycle where the platform becomes smarter and more tailored with every interaction. This not only helps Tencent Music to retain its existing users, but also attracts new subscribers to its paid services.

The effectiveness of Tencent Music's recommendation system is reflected in the growing share of recommendation-driven streams, which now account for 40% of all streams. By providing highly relevant and easy-to-discover content, the platform saves users time and effort, making them more reliant on its personalized offerings. This personalization creates a "data lock-in" effect, as the convenience and satisfaction users gain from tailored recommendations far outweigh the potential cost savings of switching to a cheaper alternative.

Another intangible asset enjoyed by Tencent Music is its role as a subsidiary of Tencent, enabling it to leverage the network effects of China's largest digital ecosystem with 1.3 billion users. Through its integration with WeChat, Tencent Music provides a seamless experience for music sharing. Unlike competing apps that redirect users out of WeChat to listen to shared tracks, Tencent Music allows users to play tracks directly within the WeChat app, offering a frictionless user experience. This ease of access, combined with other integrated features, strengthens user loyalty and positions the platform to increase subscription fees over time. Additionally, the rise of WeChat Video Accounts—a short video feature within WeChat—further amplifies Tencent Music's reach by allowing viewers to identify songs playing in videos and directly linking them to Tencent Music. This serves as a low-cost yet effective promotional tool, attracting new users and solidifying Tencent Music's position as the leading music streaming platform in China.

Tencent Music's network effects are particularly evident in its social entertainment segment, where it



Last Price19.01 USD
12 Nov 2025

Fair Value Estimate
30.00 USD
13 Nov 2025 05:43, UTC

Price/FVE 0.63 Market Cap 29.29 USD Bil 12 Nov 2025 Economic Moat™

Narrow

Equity Style Box
Large Blend

Uncertainty High Capital Allocation Standard ESG Risk Rating Assessment¹
(1) (1) (1) (1) (2)
3 Sep 2025 05:00, UTC

creates an attractive marketplace for both viewers and livestreamers. Livestreamers are drawn to Tencent Music's platform by the opportunity to gain more fans and generate revenue through virtual gifts and sponsored advertising. As more streamers come to Tencent Music, more viewers are attracted to watch and interact with their favorite livestreamers, creating a virtuous cycle. On the music streaming side, Tencent Music's network effect is centered around its expansive content library, which is the largest in China, boasting over 260 million music and audio tracks. With around 70% market share and over 600 million monthly active users, Tencent Music has established itself as the go-to app for music, attracting both listeners and content producers. Listeners represent the demand side of this network, while content producers—such as artists, livestreamers, and labels—represent the supply side. As more listeners consume content, the platform becomes increasingly attractive to content producers, who in turn add more offerings to Tencent Music, further enriching its library and benefiting listeners with a wider array of content.

Fair Value and Profit Drivers Ivan Su, Senior Equity Analyst, 13 Nov 2025

Our fair value estimate for Tencent Music is \$30 per share. This is based on an 8.0% WACC. Our valuation also incorporates the positive value creation from the announced acquisition of Ximalaya, the online audio and podcast platform.

We forecast Tencent Music will deliver a five-year revenue CAGR of 19%, alongside a net profit CAGR of 24%. Our updated assumptions incorporate steady margin expansion driven primarily by a favorable shift in revenue mix toward higher-margin, in-house content, as well as meaningful operating leverage.

We continue to view subscription revenue from the company's music streaming segment as its central growth engine. We expect substantial subscriber growth, fueled by increased exclusive content placed behind paywalls. By 2029, we forecast that subscribers will represent 28% of monthly active users, equating to an average annual net addition of approximately 9.5 million subscribers. Additionally, we forecast the average revenue per paying user increasing from CNY 10.8 in 2024 to CNY 16.7 by 2029, reflecting a CAGR of 10%.

In contrast, after years of revenue decline, Tencent Music's social entertainment services segment now contributes roughly 20% of the company's total revenue. We anticipate this segment to stabilize at around CNY 65 billion in annual revenue, as declines in livestreaming revenue are offset by the introduction of new features.

On the profitability side, we have conviction that Tencent Music will enjoy better margins in the years to come. While a typical streaming-only platform might see a gross margin of around 30%, the company's strategy of producing content in-house—as a record label would—significantly boost its margin capabilities. We estimate that Tencent Music achieves a 75% gross margin on its in-house content. We expect increased traction for the company's in-house content as it utilizes its extensive streaming data



Last Price19.01 USD
12 Nov 2025

Fair Value Estimate 30.00 USD 13 Nov 2025 05:43, UTC

Price/FVE 0.63 Market Cap 29.29 USD Bil 12 Nov 2025 Economic Moat™
Narrow

Equity Style Box
Large Blend

Uncertain High Capital Allocation Standard ESG Risk Rating Assessment³
(i) (i) (ii) (iii)
3 Sep 2025 05:00, UTC

to analyze user preferences. This drives our forecast for 51% gross margin by 2029, up from 42% in 2024. Coupled with operating leverage on selling, general, and administrative expenses, our model calls for a net profit CAGR of 24% over the next five years.

Last, Tencent Music's investments in Spotify and Warner Music Group contribute around 6% of our fair value estimate.

Risk and Uncertainty Ivan Su, Senior Equity Analyst, 5 May 2025

Our Morningstar Uncertainty Rating for Tencent Music is High.

The biggest risk lies in Tencent Music's dependency on record labels, as the company's service lacks proprietary differentiation. Over the long term, record labels may find ways to claim a larger share of the industry's profits, potentially squeezing Tencent Music's margins. Competition is another potential concern, with Cloud Music emerging as a strong competitor, particularly among younger Chinese audiences who prefer its community-driven experience. If future generations increasingly value this sense of community, Tencent Music could cede streaming market share.

While unlikely, catastrophic risks, such as the emergence of disruptive technologies, could fundamentally change how music is consumed. Although no clear alternative to streaming has emerged, the history of music consumption—from physical products to downloads to streaming—indicates that disruption remains a possibility.

Like many other listed Chinese internet firms, Tencent Music has adopted the variable interest entity, or VIE, structure, which is specifically designed to let firms bypass Chinese legal restrictions on foreign ownership in certain sectors. Tencent Music's investors essentially hold shares of the firm's VIEs domiciled in the Cayman Islands. We don't expect repudiation of VIEs by the Chinese government, but if VIEs are found to violate laws or regulations, Chinese regulatory authorities might take action against the VIEs—including revoking the operating licenses of Tencent Music's subsidiaries, or discontinuing, restricting, or restructuring their operations.

Finally, environmental, social, and governance, or ESG, risks include data privacy concerns and regulatory uncertainty. The 2021 enactment of China's Personal Information Protection Law imposes stricter limits on data usage, which could undermine the effectiveness of its targeted advertising. This may lead to lower ad prices, reduced inventory, and a negative impact on revenue.

Capital Allocation Ivan Su, Senior Equity Analyst, 15 May 2025

Our Morningstar Capital Allocation Rating for Tencent Music is Standard. Our rating reflects Tencent Music's sound balance sheet, fair investment track record, and appropriate shareholder distribution.

Investments into content and R&D have been key to its strategy, but we expect future returns on investments to be lower than historical ones now that the government has put an end to its exclusive



Last Price 19.01 USD12 Nov 2025

Fair Value Estimate
30.00 USD
13 Nov 2025 05:43, UTC

Price/FVE 0.63 Market Cap 29.29 USD Bil 12 Nov 2025 Economic Moat™
Narrow

Equity Style Box
Large Blend

Uncertainty High Capital Allocation Standard ESG Risk Rating Assessment¹
(1) (1) (1) (1)
3 Sep 2025 05:00, UTC

licensing deals. The firm has also made investments in long-form audio (podcasts and audiobooks), but the low visibility on whether these investments will pay off will increase business and financial risks.

The company's balance sheet remains sound, with a net cash position and only modest levels of debt. Tencent Music has generated positive free cash flow (cash from operations minus capital expenditures) since its IPO in 2018, and we expect it to do so for the foreseeable future. Given the business' strong balance sheet position, we believe that Tencent Music can finance future investments acquisitions mainly through self-retained cash, aided by a moderate level of debt for large deals.

Tencent Music has made a series of investments in the past, including the acquisition of Lazy Audio for CNY 2.7 billion in 2021. Also, it expanded its global presence through acquiring a Japanese online karaoke platform in early 2022, and plans to invest in more firms with synergies to its core businesses. Given its strong financial position, we expect the firm to make more acquisitions and strategic investments, with the goal of providing more content to listeners.

We think Tencent Music's track record of shareholder distribution is appropriate. The company initiated a share repurchase program in 2020 and has consistently maintained these buybacks in subsequent years. To date, Tencent Music has repurchased over USD 500 million worth of shares at an average price of USD 11 per share. Considering that this average repurchase price falls below our fair value estimate, we view these buybacks as accretive to the company's overall valuation. Additionally, the company announced its inaugural dividend in 2024 and set the annual payout ratio at 30%, further demonstrating its commitment to returning value to shareholders.

Analyst Notes Archive

Raise Our Fair Value Estimates for Tencent Music and NetEase Cloud Music After Cut in Cost of Equity Ivan Su, Senior Equity Analyst, 28 Jul 2025

Music is playing an increasingly important role in the daily lives of Chinese consumers. Leading music streaming platforms, Tencent Music and NetEase Cloud Music, continue to demonstrate strong pricing power, high user stickiness, and growing operating leverage. Why it matters: We reduced the cost of equity for Tencent Music and NetEase Cloud Music to 7.5% from 9.0%. This effectively lowers Tencent Music's weighted average cost of capital to 8% from 9.4%, and NetEase Cloud Music's to 8.5% from 8.8%. We believe this reflects the lower revenue cyclicality of music streaming, given its low-cost and habitual nature. These attributes make it resilient to economic pressure and among the last discretionary expenses consumers are likely to cut. Additionally, both companies have shown an improved sales mix, which should help reduce revenue volatility and enhance the predictability of future cash flow. Contributions from livestreaming revenue, a more economically sensitive segment, have dropped from over 50% to 20% of their total revenue. The bottom line: We raised our fair value estimates for both narrow-moat companies—Tencent Music to \$25.00 (from \$21.50) and NetEase Cloud



Last Price19.01 USD
12 Nov 2025

Fair Value Estimate
30.00 USD
13 Nov 2025 05:43, UTC

Price/FVE 0.63 Market Cap 29.29 USD Bil 12 Nov 2025 Economic Moat™

Narrow

Equity Style Box
Large Blend

Uncertainty High Capital Allocation Standard ESG Risk Rating Assessment¹
(1) (1) (1) (1) (2)
3 Sep 2025 05:00, UTC

Music to HKD 320.00 (from HKD 300.00). Following these adjustments, we view both companies as undervalued. Our valuations imply a 2025 price/earnings multiple of 27 times for Tencent Music and 34 times for NetEase Cloud Music. We believe these multiples are justified by both firms' growing profitability and the compounding nature of their earnings. Big picture: China's music industry is shifting from commodity consumption to more personalized and emotionally driven experiences. Streaming platforms' emphasis on discovery, personalization, and digital communities positions them to capture a growing share of the music value chain.

Tencent Music: Ximalaya Deal Accelerates Podcast Expansion; Lifting Valuation by 19% to USD 21.50 Ivan Su, Senior Equity Analyst, 11 Jun 2025

Tencent Music has announced plans to acquire Ximalaya, China's largest online audio and podcast platform, which holds a 25% market share. The transaction, to be funded through cash and equity, values Ximalaya at around USD 2.7 billion, or 3.1 times 2023 revenue. Why it matters: Strategically, this deal meaningfully expands Tencent Music's presence beyond music streaming into the rapidly growing podcast segment. We view the transaction as value-accretive. Ximalaya generated revenue of CNY 6.2 billion (USD 870 million) in 2023, roughly 20% of Tencent Music's. Its operating margin was just above breakeven (around 1.5%), which is typical for businesses at this stage of scale and maturity. We anticipate significant cost synergies after the acquisition, primarily driven by reduced operating expenses. Ximalaya can leverage Tencent Music's research and development capabilities to boost efficiency and tap its 550 million user network to substantially lower customer acquisition costs. The bottom line: We raise narrow-moat Tencent Music's fair value estimate by 19% to USD 21.50 (HKD 84) following the incorporation of the Ximalaya acquisition, assuming the transaction closes by year-end 2025. Shares of Tencent Music are undervalued currently. We forecast Ximalaya's revenue grows at an 11% CAGR during 2025-29. While notably above its 2% growth in 2023, it is achievable given Tencent Music's ability to distribute podcasts across its listener base and potentially through parent Tencent's broader 1.3 billion user network. We expect Ximalaya's operating margin to improve from 1.5% in 2023 to 34% by 2029, driven mainly by a reduction in selling, general, and administrative expenses to 26% of revenue from 56%. Our midcycle margin assumption for Ximalaya is consistent with our outlook for Tencent Music. Big picture: Tencent Music's 123 million subscribers surpass Ximalaya's 15 million by over eightfold. Even modest cross-selling could drive substantial podcast revenue growth.

Tencent Music Earnings: Shares Undervalued, With Long-Term Growth Potential Ivan Su, Senior Equity Analyst, 14 May 2025

Tencent Music reported accelerating revenue growth of 9% year over year in the first quarter of 2025, alongside a robust adjusted net profit growth of 25%. Management reaffirmed its guidance for continued revenue acceleration and expanding operating margins for the full year. Why it matters: Both revenue and profit results were in line with our expectations, so we are leaving our forecasts largely



19.01 USD 12 Nov 2025 Fair Value Estimate
30.00 USD
13 Nov 2025 05:43, UTC

Price/FVE 0.63 Market Cap 29.29 USD Bil 12 Nov 2025 Economic Moat™
Narrow

Equity Style Box
Large Blend

Uncertainty High Capital Allocation Standard ESG Risk Rating Assessment¹
(1) (1) (1) (1) (2)
3 Sep 2025 05:00, UTC

unchanged: We keep our five-year revenue compound annual growth forecast of 10%, driven by the increasing number of paying streaming users and higher subscription prices. Additionally, we expect adjusted net profit to grow at a 14% CAGR during the period, fueled by margin expansion from improved content cost leverage and a rising share of low-cost, in-house content. The bottom line: We maintain our fair value estimate of \$18 per share for narrow-moat Tencent Music. The stock appears undervalued currently, trading at a 20% discount to our valuation and at a 20 times 2025 recurring earnings multiple. Between the lines: Although Tencent Music has reported strong advertising revenue growth for multiple consecutive quarters, management attributed this primarily to the introduction of innovative ad formats. As a result, investors should not view the company's strong ad revenue as a reflection of China's broader macroeconomic conditions or the overall advertising market. Key stats: First-quarter revenue from music subscriptions grew by 17% year over year, while revenue from social entertainment services declined by 12%. Gross margin improved to 44.1%, marking an increase of 320 basis points compared with last year.

Tencent Music Earnings: Hitting the Right Notes With Strong Results and a Deeper Economic Moat Ivan Su, Senior Equity Analyst, 19 Mar 2025

Tencent Music reported strong fourth-quarter earnings, with revenue up 8% and operating profit surging 51%. Management's 2025 guidance points to accelerated growth and further margin expansion, along with plans to boost capital returns through renewed share buybacks. Why it matters: We've long argued that the market's concerns about Tencent Music's ability to grow were unjustified. The latest earnings and strong guidance serve as a testament to the music streaming platform's economic moat, which enables it to lock in listeners while implementing price increases. As revenue continues to grow, margin expansion should follow. The firm now expects to reach its medium-term gross margin target of 45% by 2025—well ahead of its previous expectation. This progress is fueled by better content cost leverage and a rising share of low-cost in-house content. The latest announcement of a new share repurchase program of up to USD 1 billion over the next two years marks a significant increase in shareholder returns, amounting to around 75% of net profit expected to be distributed to shareholders in 2025. The bottom line: We raise our fair value estimate for narrow-moat Tencent Music by 5% to USD 18. While our long-term revenue assumptions are largely unchanged, we nudge up our profitability assumptions, resulting in a 5% average increase in earnings forecasts over the next five years. We continue to view Tencent Music as undervalued, currently trading at a 20% discount to our fair value estimate and at a 21 times 2025 earnings multiple. Long view: Despite rapid growth over the years, Tencent Music's subscriber/user ratio stood at only 22% at the end of 2024, significantly lower than Spotify's 40%. Additionally, its average monthly subscription price of CNY 11 (USD 1.50) remains less than a third of global benchmarks. Bulls say: Tencent Music's growing share of recommendation-driven streams (now 40%-plus) reinforces the platform's switching cost and improves its pricing power.



Last Price19.01 USD
12 Nov 2025

Fair Value Estimate
30.00 USD
13 Nov 2025 05:43, UTC

Price/FVE 0.63 Market Cap 29.29 USD Bil 12 Nov 2025 Economic Moat™
Narrow

Equity Style Box
Large Blend

Uncertainty High Capital Allocation Standard ESG Risk Rating Assessment¹
(1) (1) (1) (1) (2)
3 Sep 2025 05:00, UTC

Chinese Music Streaming: Undervalued Leaders Well Positioned for Accelerating Growth in 2025

Ivan Su, Senior Equity Analyst, 7 Jan 2025

2024 was a strong year for the Chinese music streaming industry, with share prices for both Tencent Music and Cloud Music rising by more than 20%. This performance was fueled by increasing subscribers, higher subscription prices, and improving profitability. Why it matters: Despite ongoing economic uncertainties in China, we anticipate revenue growth acceleration for both companies in 2025, with Tencent Music projected to grow by 8% and Cloud Music by 7%. Music streaming services are low-cost forms of entertainment, and the habitual nature of these subscriptions makes them resilient to economic pressures. Consumers are unlikely to cancel such subscriptions, even in tougher times. While revenue from social entertainment services will continue to decline as consumers reduce spending on livestreaming tips, the absolute size of this revenue pool has shrunk from more than 50% to less than a third of top lines. As a result, the drag on overall growth will be limited. The bottom line: We have fine-tuned our forecasts but maintain our fair value estimates of USD 17.20 per ADR for Tencent Music and HKD 153 per share for Cloud Music. Both companies still appear undervalued, trading at about 30% discount to our fair value estimates and approximately 15 times 2025 earnings.Long view: Both firms currently have subscriber/user ratios in the 20% range, significantly lower than Spotify's 40%. Additionally, average subscription prices for Chinese music streaming services remain less than half of global benchmarks. We view this stark disparity as compelling evidence of significant room for long-term revenue growth through further subscription price increases and subscriber expansion. (Jan. 7, 2025): A previous version referred to increasing dividend payout ratios instead of increasing subscribers.

Tencent Music Earnings: Long Runway for Subscription Price Hikes; Shares Undervalued Ivan Su,Senior Equity Analyst,13 Nov 2024

Narrow-moat Tencent Music's third-quarter results were broadly in line with our expectations, and management's 2025 guidance, particularly the stable outlook for livestreaming and rising profitability, reinforces our midteens earnings per share growth forecast. We are maintaining our USD 17.20/HKD 67 fair value estimate and continue to view the shares, which currently trade more than 30% below our valuation, as undervalued. We believe the market underestimates the size of Tencent Music's long-term subscriber base and the opportunity to lift subscription prices further. This is the first quarter following the company's strategy shift toward driving growth through higher average pricing, and the results indicate that such pivot is likely to be gradual, so the market need not be concerned about a drastic slowdown in subscriber growth. Revenue from music subscriptions grew 20% year over year, driven by a 16% increase in subscribers and a 4% increase in average subscription price. Super VIP subscribers, a key driver of long-term growth in average subscription price, reached 10 million during the quarter, representing 8% of the company's total subscriber base. By incorporating additional features such as



Last Price 19.01 USD12 Nov 2025

Fair Value Estimate 30.00 USD 13 Nov 2025 05:43, UTC Price/FVE 0.63 Market Cap 29.29 USD Bil 12 Nov 2025 Economic Moat™

Narrow

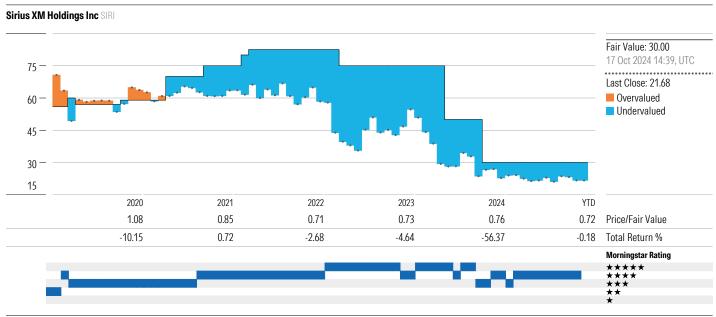
Equity Style Box
Large Blend

Uncertainty High Capital Allocation Standard ESG Risk Rating Assessment¹
(1) (1) (1) (1) (2)
3 Sep 2025 05:00, UTC

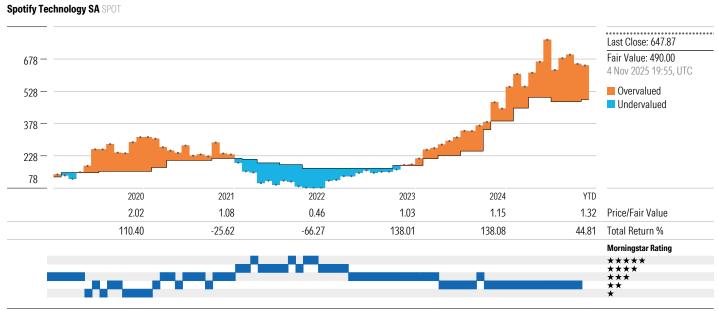
access to long-form audio and enhanced sound quality, management is on track to convert more regular VIP subscribers to the higher-priced SVIP tier. Our confidence in Tencent Music's ability to implement price increases is supported by its average subscription price of CNY 10.80 in the third quarter, which is markedly lower than Spotify's CNY 37. This significant pricing disparity provides clear evidence of substantial opportunities for revenue enhancement through strategic member tiering and thoughtful price adjustments. Total revenue for the company grew 7% year on year, partially offset by a 24% drop in social entertainment revenue.



Competitors Price vs. Fair Value



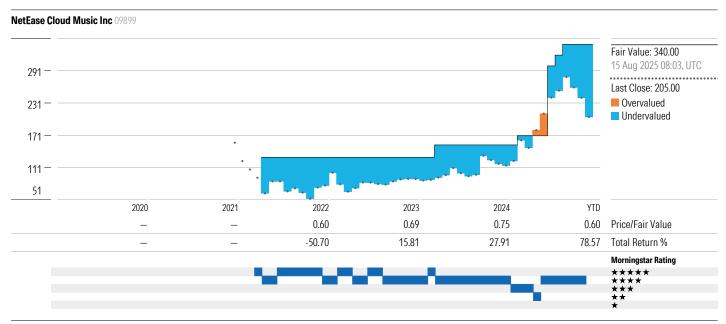
Total Return % as of 12 Nov 2025 Last Close as of 12 Nov 2025 Fair Value as of 17 Oct 2024 14:39, UTC



Total Return % as of 12 Nov 2025. Last Close as of 12 Nov 2025. Fair Value as of 4 Nov 2025 19:55, UTC.



Competitors Price vs. Fair Value



Total Return % as of 12 Nov 2025. Last Close as of 12 Nov 2025. Fair Value as of 15 Aug 2025 08:03, UTC.



Last Price 19.01 USD 12 Nov 2025

Fair Value Estimate 30.00 USD 13 Nov 2025 05:43, UTC Price/FVE 0.63

Market Cap 29.29 USD Bil 12 Nov 2025

Economic $Moat^{\mathsf{TM}}$ Narrow

Equity Style Box Large Blend Uncertainty High

Capital Allocation Standard

ESG Risk Rating Assessment¹ **0000**

3 Sep 2025 05:00, UTC

12 NOV 2025 US-45, UTC								3 33,	1 2023 03.00, 0	.0
Morningstar Valuation Model Summary										
Financials as of 13 Nov 2025		Actual			Forecast					
Fiscal Year, ends 31 Dec		2022	2023	2024	2025	2026	2027	2028	2029	
Revenue (CNY Mil)		28,339	27,752	28,401	32,743	37,422	51,728	59,052	66,657	
Operating Income (CNY Mil)		3,216	4,777	7,349	9,684	11,451	16,071	19,575	23,206	
EBITDA (CNY Mil)		4,892	6,011	8,492	13,279	12,568	17,200	20,742	24,409	
Adjusted EBITDA (CNY Mil)		4,892	6,011	8,492	13,279	12,568	17,200	20,742	24,409	
Net Income (CNY Mil)		3,677	4,920	6,644	11,162	9,843	14,018	16,894	19,792	
Adjusted Net Income (CNY Mil)		4,745	5,923	7,671	9,653	11,010	13,142	15,069	17,266	
Free Cash Flow To The Firm (CNY Mil)		3,590	3,372	6,394	-12,282	9,109	12,798	15,613	18,476	
Weighted Average Diluted Shares Outstanding (Mil)		3,233	3,168	3,131	3,194	3,160	3,127	3,094	3,060	
Earnings Per Share (Diluted) (CNY)		1.14	1.55	2.12	3.50	3.11	4.48	5.46	6.47	
Adjusted Earnings Per Share (Diluted) (CNY)		1.47	1.87	2.45	3.02	3.48	4.20	4.87	5.64	
Dividends Per Share (CNY)		0.00	0.49	0.65	1.09	1.30	1.96	2.28	2.65	
Margins & Returns as of 13 Nov 2025		Actual	0.17		Forecast	1.50	1.70	2.20	2.03	
imargins & neturns as or 15 Nov 2025	3 Year Avg	2022	2023	2024	2025	2026	2027	2028	2029	5 Year Av
Operating Margin %	19.2	11.4	17.2	25.9	29.6	30.6	31.1	33.2	34.8	33.8
EBITDA Margin %	_	17.3	21.7	29.9	40.6	33.6	33.3	35.1	36.6	-
Adjusted EBITDA Margin %		17.3	21.7	29.9	40.6	33.6	33.3	35.1	36.6	35.1
Net Margin % Adjusted Net Margin %	18.0 21.7	13.0 16.7	17.7 21.3	23.4 27.0	34.1 29.5	26.3 29.4	27.1 25.4	28.6 25.5	29.7 25.9	29.: 27.:
Free Cash Flow To The Firm Margin %	15.8	12.7	12.2	22.5	-37.5	24.3	24.7	26.4	27.7	13.
Growth & Ratios as of 13 Nov 2025		Actual			Forecast					
	3 Year CAGR	2022	2023	2024	2025	2026	2027	2028	2029	5 Year CAG
Revenue Growth %	-3.1	-9.3	-2.1	2.3	15.3	14.3	38.2	14.2	12.9	18.
Operating Income Growth %	39.3	18.4	48.5	53.8	31.8	18.3	40.3	21.8	18.6	25.
EBITDA Growth %	26.2	14.5	22.9	41.3	56.4	-5.4	36.9	20.6	17.7	25.
Adjusted EBITDA Growth % Earnings Per Share Growth %	25.8 33.1	14.5 26.3	22.9 36.5	41.3 36.7	56.4 64.7	-5.4 -10.9	36.9 43.9	20.6 21.8	17.7	23. 25.
Adjusted Earnings Per Share Growth %	33.1	19.0	27.4	31.1	23.4	15.3	20.6	15.9	15.8	25. 25.
Valuation as of 13 Nov 2025		Actual			Forecast					
		2022	2023	2024	2025	2026	2027	2028	2029	
Price/Earning		19.6	17.1	16.9	22.4	19.4	16.1	13.9	12.0	
Price/Sales		3.5	3.8	4.5	7.3	6.4	4.6	4.0	3.6	
Price/Book		1.9	1.8	1.9	2.6	2.5	2.4	2.2	2.0	
Price/Cash Flow		47.5	45.0	40.5		47.5	40.0	40.7	_	
EV/EBITDA EV/EBIT		17.5 26.7	15.0 18.8	12.5 14.4	16.6 22.8	17.5 19.3	12.8 13.7	10.6 11.3	9.0 9.5	
Dividend Yield %			1.5	1.6	1.6	1.9	2.9	3.4	3.9	
Dividend Payout %		0.0	25.9	26.4	36.2	37.3	46.8	46.8	46.9	
Free Cash Flow Yield %			_				_	_	_	
Operating Performance / Profitability as of 13 Nov 2025		Actual			Forecast					
Fiscal Year, ends 31 Dec		2022	2023	2024	2025	2026	2027	2028	2029	
ROA %		5.5	6.5	7.4	10.4	8.8	11.7	13.0	14.0	
ROE %		7.5	8.6	9.5	13.2	11.3	15.3	17.2	18.5	
ROIC %		7.3	10.0	15.8	21.3	25.6	36.9	45.6	55.2	



Last Price 19.01 USD 12 Nov 2025	Fair Value Estimate 30.00 USD 13 Nov 2025 05:43, UTC	Price/FVE 0.63	Market Ca 29.29 US 12 Nov 2025	D Bil Warrow Harge Blend				Uncertainty High	Capital Allocation Standard	##	ESG Risk Rating Assessment ¹ (1) (1) (1) (1) (2) 3 Sep 2025 05:00, UTC	
Financial Leverage	(Reporting Currency)			Actual		ı	Forecast					
Fiscal Year, ends 31 De	ec			2022	2023	2024	2025	2026	2027	2028	2029	
Debt/Capital %				29.6	28.8	23.9	1.6	1.6	1.5	1.4	1.3	
Assets/Equity				1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	
Net Debt/EBITDA				-3.0	-2.9	-2.5	-3.5	-4.0	-3.2	-3.0	-2.9	
Total Debt/EBITDA EBITDA/ Net Interest	+ Evnonoo			1.2 -8.1	1.0 -6.6	0.7 -7.7	0.4 -13.6	0.5 -11.9	0.3 -12.5	0.3 -13.6	0.2 -14.2	
Forecast Revisions	· ·			2025	-0.0			-11.7	2027	-13.0	- 14.2	
Prior data as of 13 Aug					rent	Prior 20	-	rent	Prior 2027	Curr	ont	Prior
•	Change (Trading Currenc	v)).00	28.98	Curi	— —	- FIIUI	Curr	— —	-
Revenue (CNY Mil)		,			743	32,673	37,	422	45,053	51,7	728	51,807
Operating Income (C	CNY Mil)			9,	684	9,725	11,	451	13,316	16,0)71	16,096
EBITDA (CNY Mil)				13,	279	13,286	12,	568	14,433	17,2	200	17,225
Net Income (CNY Mi	1)			9,	653	9,601	11,	010	11,544	13,1	142	12,870
Earnings Per Share ((Diluted) (CNY)				3.50	3.50	3	3.11	3.64	4	.48	4.40
Adjusted Earnings P	er Share (Diluted) (CNY)				3.02	3.01	3	3.48	3.65	4	.20	4.12
Dividends Per Share	(CNY)				1.09	1.10	,	1.30	1.37	1	.96	1.92
Key Valuation Drive	ers as of 13 Nov 2025			Discounted Ca	sh Flow Val	uation as of 1	3 Nov 2025					
Cost of Equity % Pre-Tax Cost of Debt			7.5 5.3 8.0	Present Value S	U							CNY Mil 37,372 103,228
Weighted Average C Long-Run Tax Rate 9			25.0	Present Value S Present Value S								126,980
	ong-Run Tax Rate % 25.0 Stage II EBI Growth Rate % 5.0		Total Firm Value	-							267,579	
Stage II Investment I			7.0	Total Tilli Value								201,517
Perpetuity Year			15	Cash and Equiv	/alents							37,593
Additional estimates and scer	narios available for download at http:	s://pitchbook.com/	<u>.</u> !.	Debt								5,726
		•		Other Adjustm	ents							20,028
				Equity Value								319,475
				Projected Dilut	ed Shares							3,194
				Fair Value per S	hare (USD)							30.00



Last Price Fair Value Estimate Price/FVE Market Cap **Economic Moat**[™] **Equity Style Box Capital Allocation** ESG Risk Rating Assessment¹ Uncertainty 19.01 USD 30.00 USD 29.29 USD Bil Narrow Large Blend High Standard **@@@@** 0.63 12 Nov 2025 3 Sep 2025 05:00, UTC 12 Nov 2025 13 Nov 2025 05:43, UTC

ESG Risk Rating Breakdown Exposure Subject O Subindustry (39.0) Company Exposure¹ 36.9 - Manageable Risk 34.2 Medium 0 55+ Unmanageable Risk² 2.6 Medium Low High Management Manageable Risk 342 46.1% Managed Risk³ 15.8 **Average** Management Gap⁴ 18.5 100 Strono Average **Overall Unmanaged Risk** 21.1 **ESG Risk Rating**

Exposure is assessed at the Subindustry level and then specified at the company level

risks driven by their business model

► Exposure represents a company's vulnerability to ESG

- ► 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 Assessment⁵













ESG Risk Rating is of Sep 03, 2025. Highest Controversy Level is as of - $Sustainalytics\ Subindustry: -.\ Sustainalytics\ provides\ Morningstar\ with$ 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/



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 46.1% 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

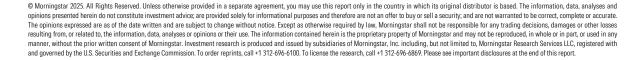
Peer Analysis 03 Sep 2025	Peers are selected f	Peers are selected from the company's Sustainalytics-defined Subindustry and are displayed based on the closest market cap values										
Company Name	Exposure		Management		ESG Risk Rating							
Tencent Music Entertainment Group	36.9 Medium	0 55+	46.1 Average	100 0	21.1 Medium	0 40+						
Sirius XM Holdings Inc	23.9 Low	0 55+	40.5 Average	100 0	14.5 Low	0 — 40+						
Spotify Technology SA	36.5 Medium	0 55+	47.7 Average	100 0	20.2 Medium	0 — 40+						
NetEase Cloud Music Inc	39.2 Medium	0 55+	34.2 Average	100 0	26.8 Medium	0 — 40+						
_	- -	0 — 55+	-1-	100 — 0	- -	0 — 40+						



Appendix

Historical Morningstar Rating

Tencent Mu	sic Entertainm	ent Group ADF	R TME 12 Nov 20	25 23:03, 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
	—	—	—	—	—	—	—	—	—	—	—
Sirius XM H	oldings Inc SIR	12 Nov 2025 2	2:42, 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
★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★	★★
Spotify Tec	hnology SA SPO	OT 12 Nov 2025	22:59, 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
★	★	★★	★★	★	★★	★	★★★	★★★	★★★	★★★	★★★





NetEase Cloud Music Inc 09899 12 Nov 2025 17:21, 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
_	_	_		_	_	_			_	_	_



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

Morningstar Equity Research Star Rating Methodology



Morningstar 2025. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions presented herein do not constitute investment advice; are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and are not warranted to be correct, complete or accurate. The opinions expressed are as of the date written and are subject to change without notice. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, the information, data, analyses or opinions or their use. The information contained herein is the proprietary property of Morningstar and may not be reproduced, in whole or in part, or used in any manner, without the prior written consent of Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. To order reprints, call +1 312-696-6100. To license the research, call +1 312-696-6869. Please see important disclosures at the end of this report.



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, companyspecific 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.

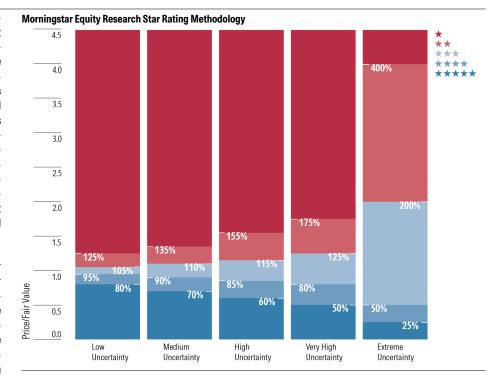
Our Uncertainty Ratings are: Low, Medium, High, Very High, and Extreme.

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

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 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

© Morningstar 2025. All Rights Reserved. Unless otherwise provided in a separate agreement, you may use this report only in the country in which its original distributor is based. The information, data, analyses and opinions presented herein do not constitute investment advice; are provided solely for informational purposes and therefore are not an offer to buy or sell a security; and are not warranted to be correct, complete or accurate. The opinions expressed are as of the date written and are subject to change without notice. Except as otherwise required by law, Morningstar shall not be responsible for any trading decisions, damages or other losses resulting from, or related to, the information, data, analyses or opinions or their use. The information contained herein is the proprietary property of Morningstar and may not be reproduced, in whole or in part, or used in any manner, without the prior written consent of Morningstar Research Services LLC, registered with and governed by the U.S. Securities and Exchange Commission. To order reprints, call +1 312-696-6100. To license the research, call +1 312-696-6869. Please see important disclosures at the end of this report.



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.morningtar.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.morning-star.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



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.

