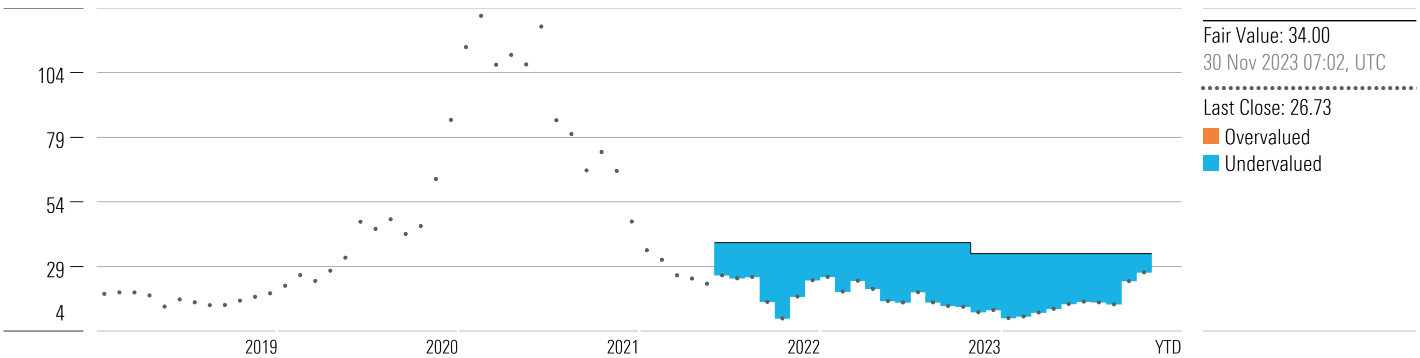
Morningstar Equity Analyst Report | Report as of 2 Oct 2024 22:41, UTC | Reporting Currency: CNY | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 1 of 21

Bilibili Inc ADR BILI ★★★ 2 Oct 2024 21:53, UTC

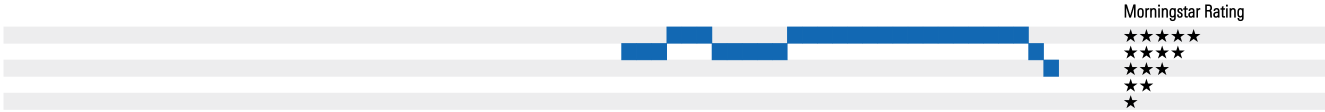
Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
26.73 USD 1 Oct 2024	34.00 USD 30 Nov 2023 07:02, UTC	0.79	12.29 USD Bil 2 Oct 2024	None	Large Growth	Very High	Standard	4 Sep 2024 05:00, UTC

Price vs. Fair Value



2019	2020	2021	2022	2023	YTD	
—	—	—	0.62	0.36	0.79	Price/Fair Value
27.62	360.37	-45.87	-48.94	-48.63	119.64	Total Return %

Morningstar Rating



Total Return % as of 01 Oct 2024. Last Close as of 01 Oct 2024. Fair Value as of 30 Nov 2023 07:02, UTC.

Contents

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

Bilibili: New Game a Win, but Advertising Holds the Key to Long-Term Success; Shares Undervalued

Analyst Note Ivan Su, Senior Equity Analyst, 23 Aug 2024

Bilibili's second-quarter earnings exceeded our expectations, and management provided upbeat guidance for the third quarter following the successful launch of its new mobile game. We lifted our near-term estimates but leave the bulk of our long-term assumptions intact, as the success of one game doesn't change our long-term outlook for Bilibili's game business. As a result, we maintain our USD 34 (HKD 266) per share fair value estimate and view shares as undervalued.

In the second quarter, revenue rose by 16% year over year. This was mainly driven by a 30% increase in advertising revenue and a turnaround in mobile game revenue, which saw 13% growth. Despite a challenging macroeconomic environment, Bilibili's above-industry growth in advertising revenue validates our thesis that the platform is increasingly capturing larger portions of advertisers' budgets. Our confidence in the company's future growth is strengthened by its continued success in achieving double-digit increases in user time spent on its video platform, even amid fierce competition from short-video platforms.

Over the medium to long term, our conviction in Bilibili's ability to enhance the monetization of its video platform is further reinforced by the demographic shift among its users, with the average age now increasing to 25 years old. This age shift implies that as the core cohort of users progresses in life, their consumption will increase, leading to more advertising opportunities for Bilibili. This trend was clearly

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Sector	Industry
Communication Services	Electronic Gaming & Multimedia

Business Description

Bilibili is a Chinese online entertainment platform that is best known for its video-sharing site that resembles YouTube. The site was founded in 2009 and started as a long-form video platform for anime, comics, and gaming, or ACG, content that appealed to Gen Z users. Since then, it has expanded its content on the platform to include a broader range of interests that have attracted Chinese users outside of the Gen Z cohort. The firm generates revenue through five main areas: advertising, games, live streaming, value-added services, and e-commerce.

evidenced in the second quarter, where video views in categories such as home furnishing, automotive, and beauty saw increases of more than 30%, underscoring Bilibili's growing appeal to advertisers in these segments.

Business Strategy & Outlook Ivan Su, Senior Equity Analyst, 14 Jun 2024

Bilibili generates revenue through five major sources: 1) advertising; 2) mobile games; 3) live streaming; 4) subscriptions; and 5) e-commerce. We believe that the advertising business (as part of its YouTube-like video sharing website) is the most important asset for the company's long-term success.

We think Bilibili's video sharing site has a superior business model compared with most other video streaming companies. The company has appropriately decided to focus most of its resources on building a platform for UGC (user-generated content) instead of investing heavily into original content or paying huge upfront content licenses. By doing so, it avoids going head-to-head against Tencent Video and iQiyi, both of whom are spending hundreds of billions on content development and licensing, and have yet to generate operating profit.

More importantly, Bilibili has created a self-maintainable UGC ecosystem that allows the firm to acquire video content at significantly lower costs than traditional streaming players such as iQiyi and Tencent Video. In 2023, Bilibili recorded just CNY 11 in content cost per MAU, less than one-fourth of iQiyi's, while delivering a comparable level of revenue per user. The fact that it has a lower cost structure demonstrates the superiority of Bilibili's platform business model.

Although Bilibili is ahead of the pack in the growing video sharing and streaming markets, it faces potential competition from behemoths such as Tencent and ByteDance. Unlike Bilibili, these firms don't rely solely on a single app to drive profitability and can potentially run at break-even, or even as loss leaders, while monetizing users via other products and services.

In addition to its core video platform, Bilibili also offers other services such as live streaming, mobile games, and e-commerce. While they offer some growth, we are less confident of their outlook than the core video product due to weak competitive positioning, low barrier to entry, and numerous existing competitors.

Bulls Say Ivan Su, Senior Equity Analyst, 14 Jun 2024

- Bilibili's video sharing platform is in early stage of monetization with significant runway for growth
- Bilibili's strong hold on younger users provide tremendous value to advertisers seeking to target such demographic group
- The firm still has room to attract a wider base of users, potentially increasing the platform's appeal to advertisers.

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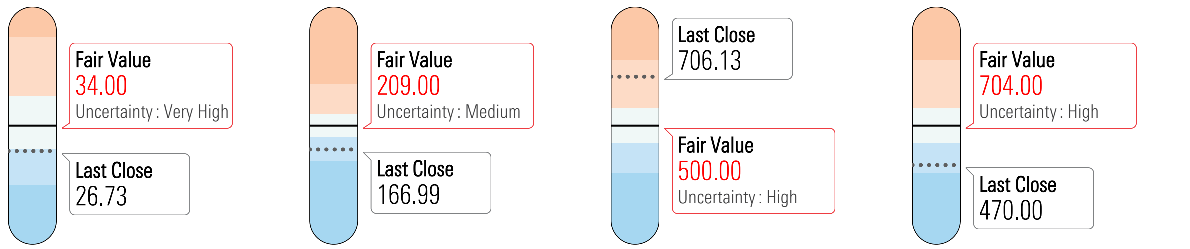
Competitors



	Bilibili Inc ADR BILI	Alphabet Inc Class A GOOGL	Netflix Inc NFLX	Tencent Holdings Ltd 00700
Economic Moat	None	Wide	Narrow	Wide
Currency	USD	USD	USD	HKD
Fair Value	34.00 30 Nov 2023 07:02, UTC	209.00 21 Aug 2024 00:06, UTC	500.00 19 Jul 2024 03:57, UTC	704.00 12 Jan 2023 03:57, UTC
1-Star Price	17.00	282.15	775.00	1,091.20
5-Star Price	59.50	146.30	300.00	422.40
Assessment	Fairly Valued 2 Oct 2024	Undervalued 2 Oct 2024	Overvalued 2 Oct 2024	Undervalued 2 Oct 2024
Morningstar Rating	★★★2 Oct 2024 21:53, UTC	★★★★2 Oct 2024 21:34, UTC	★★2 Oct 2024 21:33, UTC	★★★★2 Oct 2024 16:33, UTC
Analyst	Ivan Su, Senior Equity Analyst	Malik Ahmed Khan, Equity Analyst	Matthew Dolgin, Senior Equity Analyst	Ivan Su, Senior Equity Analyst
Capital Allocation	Standard	Exemplary	Exemplary	Exemplary
Price/Fair Value	0.79	0.79	1.42	0.67
Price/Sales	3.33	6.40	8.64	6.18
Price/Book	5.92	6.84	13.71	4.43
Price/Earning	—	23.77	44.11	19.69
Dividend Yield	0.00%	0.24%	0.00%	0.76%
Market Cap	12.29 Bil	2,041.74 Bil	305.17 Bil	4,318.89 Bil
52-Week Range	8.80—31.77	120.21—191.75	344.73—725.26	260.20—479.60
Investment Style	Large Growth	Large Blend	Large Growth	Large Growth

Bears Say Ivan Su, Senior Equity Analyst, 14 Jun 2024

- Chinese regulators have become more assertive in recent years. The government may want more control over internet businesses by curbing monetization, limiting collection of user data, or restricting acquisitions.
- Despite strong user growth, there is great uncertainty whether Bilibili’s video platform can be monetized successfully on a mass scale. Failure to do so would result in extended periods of operating losses.
- The possibility of highly competitive foreign internet service providers re-entering China over the next 10-20 years.

Economic Moat Ivan Su, Senior Equity Analyst, 14 Jun 2024

We view Bilibili as a no-moat company. The firm has yet to generate economic profit after over its more than 10 years in existence. While we foresee several potential moat sources for Bilibili, we don't have strong enough confidence that these characteristics will enable the company to generate excess returns on invested capital over the near term.

Bilibili benefits from network effects and intangible assets, but none of these guarantee excess returns on capital. As China's go-top video sharing platform, Bilibili has created a marketplace effect with three parties: users; content creators; and advertisers. Users represent the demand side of this network effect, while content producers represent the supply side. As more people watch videos on Bilibili, more content creators will upload videos to the site. This widens the array of content on the site, further benefiting existing users while attracting new ones. With more users, Bilibili attracts more advertisers to spend on the platform, incentivizing creators to upload even more videos.

Bilibili also benefits from intangible assets associated with user data over time, which helps the firm train content recommendation, increase user stickiness and time spent, and improve ad targeting. As more users watch videos on its platform, Bilibili improves its algorithms and provides all users with better future recommendations. This virtuous cycle further increases the value of its data asset, from which Bilibili could better retain its existing users while also potentially attracting more users to its service.

But despite these favorable characteristics, we do not have strong confidence that the business can deliver normalized excess returns over the next 10 years. The uncertainty lies mainly on fact that the firm has not been able to effectively monetize its users. After more than a decade of operation, Bilibili's ad load is still running at around 5%, significantly below the 20%-plus rates we see at Douyin and YouTube. The firm's management has been reluctant to raise advertising load for fear of losing users, which suggests the network effect is still weak.

Looking across the Chinese video streaming industry, we see potential for more competition to emerge. ByteDance (who owns Douyin and has more than three times the MAU of Bilibili) can make a more substantial foray into midform user-generated video, or UGV. And if that happens, Bilibili might have offer more money to retain content creators. Without being the largest platform for content creators, Bilibili will remain significantly dependent on offering fatter incentives to lure content creators, making it difficult for the firm to achieve material margin expansion.

In addition to its core video platform, Bilibili also offers live streaming, subscriptions, video games, e-commerce, and offline events. On the live-streaming side, Bilibili charges a blended take rate of about 15% every time a viewer donates to a streamer. Since the live-streaming feature is built into Bilibili's website and app, the business piggybacks off the platform network effect. That said, this business model carries tremendous regulatory uncertainty following recently announced crackdown on live streaming. Regulation is an ongoing risk to profitability that we think limits visibility into medium returns on invested capital, so we do not award the firm an economic moat at this stage.

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Gaming contributes to a sizable portion of revenue for the company, but we view it as a no-moat business. All of the firm's mobile games operate on a stand-alone basis and outside of the core Bilibili app, so there is a minimal network effect. Among dozens of its games, few have enjoyed continuous success—with most seeing their grossing fade after just one year. We estimate that the firm's monthly active gamers stand at about 20 million, minimal compared with moaty peers like Tencent and NetEase.

Bilibili also generates revenue from Premium Membership subscriptions and paid content on its video, audio, and comic platforms. Paying members get early access to some of the platform's ACG content as well as viewing privileges for some of the newer video content licensed by Bilibili from third parties. It is very difficult for platforms to differentiate when their content is licensed from a third party, so barriers to entry are low. Several larger long-video platforms, such as Tencent and iQiyi, could quickly emerge as competitors by simply licensing more ACG content.

Fair Value and Profit Drivers Ivan Su, Senior Equity Analyst, 14 Jun 2024
Our fair value estimate is $34 per share. This implies a 2024 enterprise value/sales multiple of 4.2 times. We expect monthly active users, or MAUs, to grow by 3% per year, reaching 360 million by 2027. Comparatively, Kuaishou was able to grow its MAU to 483 million from 136 million in the time span of end-2017 to end-September 2020. We also project strong top-line growth at a five-year CAGR of 16%. We also expect the firm to achieve a positive operating margin of 4% by 2026, before gradually improving to around 22% by 2032.

While Bilibili is still a loss-making company, we expect the firm to achieve quarterly non-GAAP breakeven by 2024. Our fair value assumptions are based on our expectations for Bilibili achieving double-digit annual growth rate over the next five years. The majority of the incremental revenue growth will be coming from the advertising side, backed by three main drivers: (1) increasing ad loads from the current 5% toward the 20% that we see at Douyin and YouTube; (2) introducing pre-roll ads on user-generated content. (Currently, it is only available on selected professionally generated content); and (3) rising advertising take rate from the current 5% to 30%-plus charged by Douyin and YouTube. By 2027, we expect Bilibili to generate advertising revenue of about CNY 53 per MAU, almost tripled that of the 2022 level. In comparison, we estimate that Douyin generates close to CNY 200 per MAU and Kuaishou CNY 45 in 2020. YouTube generates about CNY 56 per MAU globally and about CNY 175 in the US. By 2027, roughly half of the firm's revenue will be from advertising, while the rest coming from mobile games (11%), livestreaming and value-added-services (32%), and e-commerce and others (9%).

We also anticipate operating margin to improve significantly over the next five years, flipping from negative 38% in 2022 to 4% in 2027. Most of the margin improvement comes from operating leverage achieved through incremental revenue coming from new users and also rising monetization of the video platform. Content cost ratio should continue to decline as Bilibili pivots away from its anime and comic root (which requires more third-party content) and become even more YouTube-ish. We also assume general and administration (mainly personnel), R&D, and sales and marketing are to decline as percentage of revenue as operating leverage kicks in.

Risk and Uncertainty Ivan Su, Senior Equity Analyst, 14 Jun 2024

We believe the greatest risk for Bilibili is competition, as large video platforms like Tencent and ByteDance may undertake aggressive strategies to capture Bilibili's users. We also see uncertainty around whether Bilibili can effectively monetize its users. To protect user experience, the company has been keeping advertising to a minimum. But Bilibili will have to increase ad load in the future if it wants to be profitable, but doing so could lead to a deterioration of user experience.

Like many other listed Chinese internet firms, Bilibili has adopted the variable interest entity structure, or VIE, which is specifically designed to let firms bypass Chinese legal restrictions on foreign ownership in certain sectors. Bilibili'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 Bilibili's subsidiaries, or discontinuing, restricting, or restructuring their operations.

Bilibili has a dual class voting structure so we remain watchful regarding the high concentration of voting power in the hands of management. Chairman and CEO Rui Chen has about 43% voting power, despite holding around 13% of share capital. Yi Xu, founder and president, controls another 24% of voting power. With two persons holding over 60% voting power, they have significant control over the management of the company, and may take actions that are not in the best interests of minority shareholders.

We see ESG risks around data privacy and security. Bilibili uses users' behavior data to create video recommendations. The company uses personal data to improve advertising targeting. But with China's Personal Information Protection Law in force, limitations on personal data usage could negatively affect ad targeting and placement.

Capital Allocation Ivan Su, Senior Equity Analyst, 14 Jun 2024

We assess the Capital Allocation of Bilibili as Standard. The rating reflects our assessments of a sound balance sheet and fair investment strategies historically. For Bilibili, investments remain the key to shareholder returns. To drive user growth, the firm will continue to invest in content and features. In 2021, the firm launched "story mode," a short-video (TikTok like) feature that aims to take on likes of Douyin and Kuaishou. While this feature has been well-received by users (especially those that like to watch short clips during fragmented time), it is just a challenger to an existing service offered by many

Morningstar Equity Analyst Report | Report as of 2 Oct 2024 22:41, UTC | Reporting Currency: CNY | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 7 of 21

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others, so we do not expect it have a material impact on Bilibili's competitive position.

While the company's balance sheet is healthy and free cash flow is on track to break even toward the end of 2024, we still think Bilibili might consider issuing convertible bonds to fund business expansion or even share buybacks. This strategy could follow the precedent set by Alibaba and JD.com, who have successfully issued convertible bonds at coupon rates below 1%.

Analyst Notes Archive

From Myth to Reality: What's Next After Wukong? Ivan Su, Senior Equity Analyst, 22 Aug 2024
History was made when Wukong: Black Myth became the second most popular game on Steam, yet several questions about its implications remain unanswered. Here, are some of our thoughts.

First, the majority of Wukong's sales are from China, evidenced by less than 10% of its Steam reviews being in English. This is much lower than AAA titles like Elden Ring, which has over 50% English reviews, and 37% for Resident Evil 2. In our view, this indicates that Wukong's success is driven by domestic enthusiasm, and while Chinese AAA are poised to gain more global recognition, progress is likely to be gradual.

Second, Wukong's immense popularity in China prompted questions about a shift in gaming preferences, evidenced by a 20-fold increase in searches for "PS5" on WeChat. Yet, challenges like content restrictions and minimal social buzz for foreign games limit adoption. Additionally, long work hours in China challenge the deeper engagement required by AAA games. Therefore, we don't expect Wukong's success to take away the popularity of mobile gaming.

Third, although Wukong's release was celebrated in state media, this does not signal an immediate shift in the regulatory outlook for the industry. Positive coverage from Xinhua merely reflects their viewpoint. The National Press and Publication Administration sets the regulatory framework. Given the complex interactions between government bodies, we should be cautious about extrapolating broader regulatory shifts.

Lastly, looking beyond Wukong, AAA development remains a lengthy process and not always a priority for Chinese developers, leading to a limited pipeline. However, NetEase's upcoming AAA release of Where Winds Meet could spark interest. This open-world RPG, reminiscent of Elden Ring, will be available across all platforms. If successful, the game could further elevate China's position in the global gaming scene and potentially influence more studios to expand into AAA development.

Huawei's Potential Fee Shakeup Could Be a Win for Game Developers Ivan Su, Senior Equity Analyst, 19 Jun 2024
There have long been complaints that app stores take too big a share of in-app purchases, but nothing

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has managed to shake the 30% take-rate standard over the past decade. However, Bloomberg's recent report on Huawei's talks with Tencent to establish a lower-than-industry share of 20% for in-game purchases provides hope for a reset. This move also reinforces our call for higher profitability for gaming companies over the long run. Although the Huawei HarmonyOS mobile operating system currently represents a small percentage of smartphones in China, the potential lowering of its app store fee to 20% could pressure other mobile app platforms to follow suit.

We don't expect a whopping 10-percentage-point increase in profit margins for Chinese developers under our coverage. Our models generally bake in a 5-percentage-point increase in margins over the next 10 years due to a combination of lower take rates and the rising popularity of cross-platform games. However, news like this paves the way for higher margins at an earlier date. While we maintain our fair value estimates for Chinese gaming companies under our coverage for now, we recognize that a shift in app store fee structures could serve as a potential driver for future revisions. We recommend closely monitoring developments in this area as a 10-percentage-point improvement in margin is very significant for gaming companies that currently generate operating margins of around 30%.

Bilibili Earnings: Management Reaffirms Breakeven Timeline Ivan Su, Senior Equity Analyst, 24 May 2024

Bilibili's first-quarter earnings were in line with our estimates, and management maintained its breakeven plan by the third quarter of this year. Overall, we maintain our USD 34 (HKD 266) fair value estimate, and continue to believe shares are undervalued.

In the first quarter of 2024, Bilibili delivered 12% revenue growth compared with the same period last year. Growth was mainly driven by a 31% increase in advertising revenue, partially offset by a 13% decline in game revenue. We are optimistic about Bilibili's ongoing success in capturing a larger share of advertising budgets. Our confidence in the company's future growth is bolstered by its ability to maintain double-digit increases in user engagement on its video platform, even amid stiff competition from short-video platforms like Douyin, Kuaishou, and Video Accounts.

Profitability showed further improvement in the quarter, with gross margin rising sequentially to 28% in the third quarter, up from 26.1% in the previous quarter. A favorable shift in revenue mix primarily drove this improvement. The adjusted net loss narrowed to CNY 440 million, a 21% reduction from the previous quarter. Additionally, the group generated positive operating cash flow once again. Management has reaffirmed its commitment to achieving an adjusted operating profit breakeven by the third quarter of this year. On a US GAAP basis, we expect Bilibili to break even in 2025.

Bilibili Earnings: Revenue Acceleration and Cost Discipline Pave Way to Imminent Breakeven Ivan Su, Senior Equity Analyst, 8 Mar 2024

Bilibili's fourth-quarter earnings were above both our and LSEG consensus estimates, thanks largely to

Morningstar Equity Analyst Report | Report as of 2 Oct 2024 22:41, UTC | Reporting Currency: CNY | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 9 of 21

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aggressive cost-cutting measures. Management's outlook for 2024 points to even deeper cost reductions than we anticipated. Concerns in the market regarding engagement metrics seem unfounded; we attribute the quarter-on-quarter volatility primarily to seasonality. We are maintaining our $34 fair value estimate for the no-moat company. This valuation is based on our confidence that Bilibili will get to a 20% operating margin in the long term, primarily through operating leverage. Trading at just around $10 now, the share are very undervalued, in our view.

Despite a narrower year-on-year net loss in 2023, Bilibili’s shares sold off after the earnings announcement over growth concerns sparked by a quarter-on-quarter decline in daily active users and average time spent. We think the decline in these metrics was due to seasonality, as evidenced by healthy growth in DAU and time spent on a two-year basis.

In the fourth quarter of 2023, Bilibili delivered 3% revenue growth compared with the year-ago period. The decline in mobile game revenue was more than offset by strong growth from the advertising segment. The challenging macroeconomic environment has weighed on advertiser demand, but we are encouraged by Bilibili’s ability to continue to capture a larger percentage of the advertiser budget via its performance-based ad offerings.

A highlight of this quarter was better-than-expected profitability. Gross margin reached 26.1%, a 110-basis-point improvement from the previous quarter and a remarkable 500-basis-point increase from the same period last year. This notable rise in profitability can be largely attributed to a favorable shift in revenue mix, better operating leverage, and ongoing cost-reduction efforts.

Bilibili Earnings: Uncertainties on the Gaming Segment Leads to Lower Valuation Ivan Su, Senior Equity Analyst, 30 Nov 2023

We lowered Bilibili’s fair value estimate by 11% to $34 as management cut revenue guidance following the removal of Pretty Derby from Chinese mobile app stores because of language translation issues. Despite rising near-term uncertainties related to the gaming segment, the firm keeps its breakeven timeline unchanged, so we see no reason to alter our long-term assumptions materially. Although shares are trading at a significant discount to our fair value estimate, we believe concerns over the timing of Pretty Derby’s return and the firm’s near-term gaming pipeline could continue to pressure share price performance. Hence, investors may be able to collect the shares at more attractive prices.

In the third quarter of 2023, Bilibili delivered flat revenue compared with the same period last year. The decline in game revenue offset strong revenue growth from the advertising segment. The challenging macroeconomic environment continues to weigh on advertising revenue growth, but we are encouraged by Bilibili’s ability to capture a larger percentage of the advertiser budget via its performance-based ad offerings. This is evidenced by the over 80% year-on-year growth in ad revenue generated from e-commerce platforms during this year’s Double 11.

Gross margin improved sequentially in the third quarter to 25% from 23.1% in the previous quarter. Adjusted net loss was CNY 878 million, a 9% reduction from the loss of CNY 963 million in the prior quarter. The group also reported positive operating cash flow in the third quarter, and management expects to continue generating positive operating cash flow in the fourth quarter of 2023.

Moving to outlook, management now expects 2023 revenue to be at the lower end of the CNY 22.5 billion to CNY 23.5 billion guidance due to the forced removal of its popular mobile game Pretty Derby from app stores. We cut our revenue estimates for 2023-25 by an average of 6% and lifted net loss estimates for the same period by an average of 8%.

Bilibili Earnings: Management Cuts Revenue Outlook, but Maintains Breakeven Timeline Ivan Su, Senior Equity Analyst, 21 Aug 2023

No-moat Bilibili's second-quarter earnings slightly exceeded our and Refinitiv's consensus expectations, but management lowered its full-year revenue guidance by 8% due to a delay in the launch of Pretty Derby. That said, with the firm keeping its breakeven timeline unchanged, we see no reason to alter our long-term assumptions. Overall, we maintain our $38.20 fair value estimate. While Bilibili's shares are undervalued, our preferred picks remain NetEase and Tencent, given their better visibility on long-term prospects.

In the second quarter, average daily time spent reached an all-time high of 94 minutes while total time spent increased by 22% year on year, underscoring the increasing stickiness of the video platform. But despite capturing an increasing share of user time spent, total revenue was sluggish, growing just 8%, as the mobile games recorded a 15% drop in sales. This was again due to the combination of a lack of new game releases and declining revenue from older titles. Management lowered full-year sales guidance by 8% following a delay in the launch of Pretty Derby, but we view it as a timing issue and expect revenue to catch up after the game launches on Aug. 30.

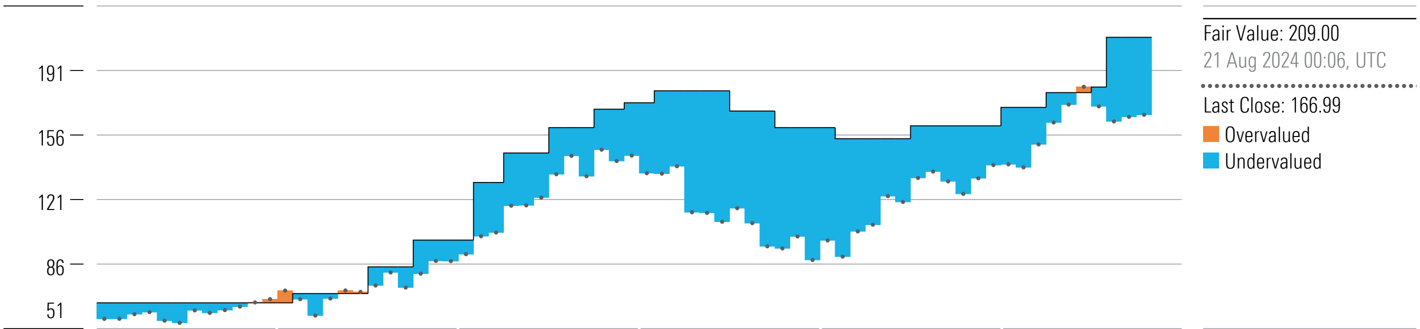
Bilibili's advertising business continues to outperform in the second quarter, with revenue up 36% year over year. Management remained upbeat on near-term sales trends, and it is confident that it can grow revenue per user in the second half of 2023. In our view, advertising will be the primary growth driver for Bilibili going into the next five years. We believe that incremental growth will be backed by three main drivers: 1) increasing ad loads from the current 5% to the 20% that we see at Douyin and YouTube; 2) introducing pre-roll ads on user-generated content; and 3) rising advertising take rate from the current 5% to 30%-plus charged by peers. By 2027, we expect the firm to generate an annual advertising revenue of CNY 52 per monthly active user, more than triple that of the 2022 level.

Morningstar Equity Analyst Report | Report as of 2 Oct 2024 22:41, UTC | Reporting Currency: CNY | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS Page 11 of 21

Bilibili Inc ADR BILI ★★★ 2 Oct 2024 21:53, UTC

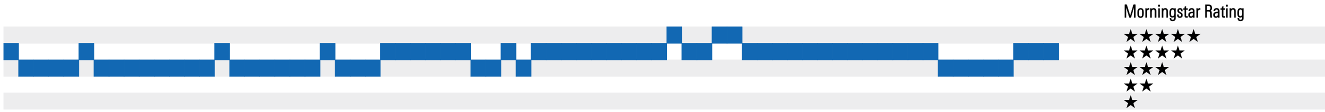
Competitors Price vs. Fair Value

Alphabet Inc Class A GOOGL



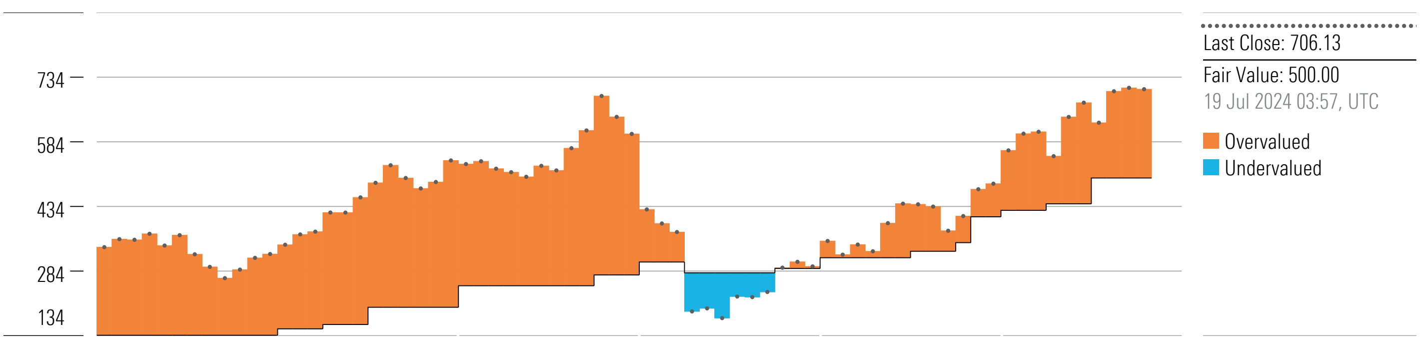
	2019	2020	2021	2022	2023	YTD
Price/Fair Value	1.03	0.89	0.83	0.55	0.87	0.79
Total Return %	28.18	30.85	65.30	-39.09	58.32	19.83

Morningstar Rating



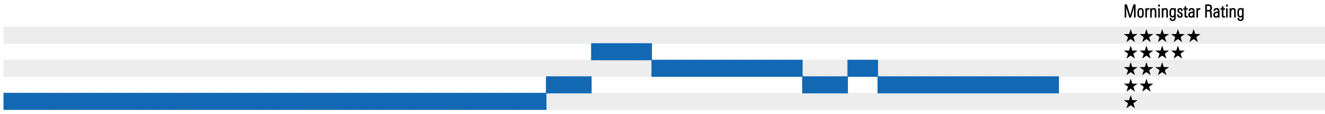
Total Return % as of 01 Oct 2024. Last Close as of 01 Oct 2024. Fair Value as of 21 Aug 2024 00:06, UTC.

Netflix Inc NFLX



	2019	2020	2021	2022	2023	YTD
Price/Fair Value	2.40	2.70	2.19	1.02	1.19	1.42
Total Return %	20.89	67.11	11.41	-51.05	65.11	45.03

Morningstar Rating



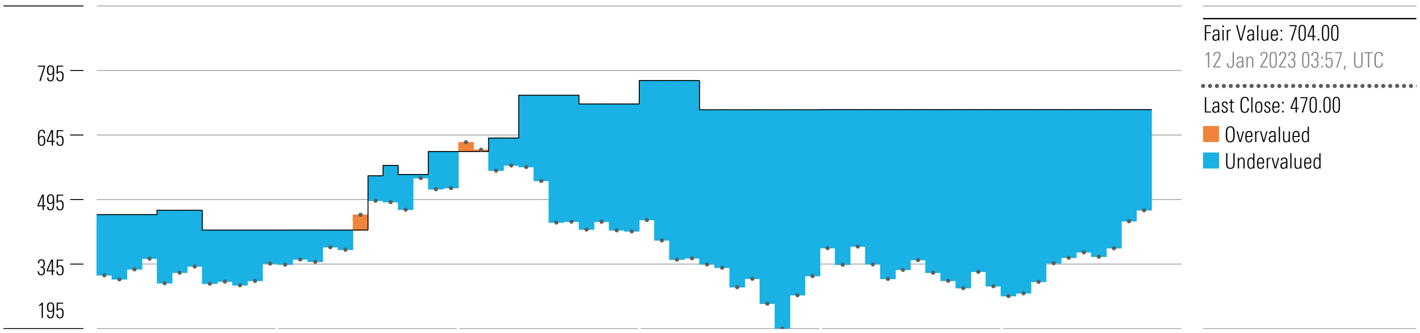
Total Return % as of 01 Oct 2024. Last Close as of 01 Oct 2024. Fair Value as of 19 Jul 2024 03:57, UTC.

Morningstar Equity Analyst Report | Report as of 2 Oct 2024 22:41, UTC | Reporting Currency: CNY | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS

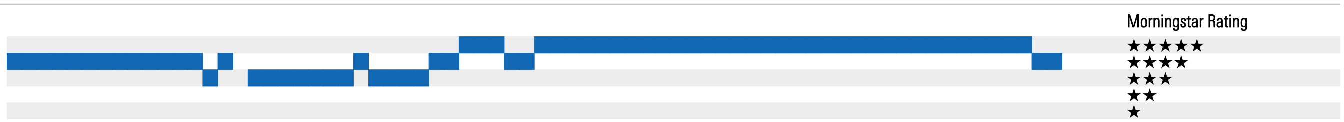
Bilibili Inc ADR BILI ★★★ 2 Oct 2024 21:53, UTC

Competitors Price vs. Fair Value

Tencent Holdings Ltd 00700



	2019	2020	2021	2022	2023	YTD
Price/Fair Value	0.82	0.86	0.59	0.45	0.42	0.67
Total Return %	19.94	51.01	-19.01	-29.99	-7.43	61.24



Total Return % as of 02 Oct 2024. Last Close as of 02 Oct 2024. Fair Value as of 12 Jan 2023 03:57, UTC.

Bilibili Inc ADR BILI ★★★ 2 Oct 2024 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
26.73 USD 1 Oct 2024	34.00 USD 30 Nov 2023 07:02, UTC	0.79	12.29 USD Bil 2 Oct 2024	None	Large Growth	Very High	Standard	4 Sep 2024 05:00, UTC

Morningstar Historical Summary

Financials as of 30 Jun 2024

Fiscal Year, ends 31 Dec	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD	TTM
Revenue (CNY K)	—	130,996	523,310	2,468,449	4,128,931	6,777,922	11,998,976	19,383,684	21,899,167	22,527,987	11,791,744	23,945,921
Revenue Growth %	—	—	299	371	67.3	64.2	77.0	61.5	13.0	2.9	13.7	7.3
EBITDA (CNY K)	—	-326,657	-733,199	129,529	103,412	-53,051	-1,074,225	-3,954,283	-3,586,513	-1,668,395	-40,316	-1,177,413
EBITDA Margin %	—	-249	-140	5.3	2.5	-0.8	-9.0	-20.4	-16.4	-7.4	-0.3	-4.9
Operating Income (CNY K)	—	-368,883	-894,717	-224,272	-728,973	-1,495,175	-3,140,963	-6,429,074	-8,357,944	-5,064,187	-1,403,731	-3,815,574
Operating Margin %	—	-281	-171	-9.1	-17.7	-22.1	-26.2	-33.2	-38.2	-22.5	-11.9	-15.9
Net Income (CNY K)	—	-371,576	-910,066	-183,750	-551,720	-1,288,973	-3,011,704	-6,789,228	-7,497,013	-4,822,321	-1,357,245	-4,005,173
Net Margin %	—	-434	-226	-23.2	-14.9	-19.0	-25.1	-35.0	-34.2	-21.4	-11.5	-16.7
Diluted Shares Outstanding (K)	—	237,084	345,816	69,939	233,048	323,162	345,816	379,898	394,864	413,210	415,781	415,094
Diluted Earnings Per Share (CNY)	—	-2.40	-3.43	-8.17	-2.64	-3.99	-8.71	-17.87	-18.99	-11.67	-3.26	-9.65
Dividends Per Share (CNY)	—	—	—	—	—	—	—	—	—	—	—	—

Valuation as of 30 Sep 2024

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Recent Qtr	TTM
Price/Sales	—	—	—	—	8.4	7.0	18.7	6.3	3.1	1.6	2.8	2.8
Price/Earnings	—	—	—	—	-94.3	-38.8	-74.6	-19.9	-7.1	-7.0	-17.0	-17.0
Price/Cash Flow	—	—	—	—	67.1	56.2	416.7	-68.0	-24.4	-14.4	20.6	20.6
Dividend Yield %	—	—	—	—	—	—	—	—	—	—	—	—
Price/Book	—	—	—	—	6.4	5.7	24.0	4.9	3.6	2.3	5.0	5.0
EV/EBITDA	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0

Operating Performance / Profitability as of 30 Jun 2024

Fiscal Year, ends 31 Dec	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD	TTM
ROA %	—	-49.2	-71.3	-20.3	-8.8	-9.9	-15.3	-17.9	-16.0	-12.9	-4.2	-12.1
ROE %	—	—	—	—	-24.6	-18.4	-41.1	-46.3	-40.6	-32.6	-9.7	-26.6
ROIC %	—	—	—	—	-26.7	-13.1	-22.4	-23.5	-21.0	-19.3	-7.6	-19.8
Asset Turnover	—	0.1	0.3	0.9	0.6	0.5	0.6	0.5	0.5	0.6	0.4	0.7

Financial Leverage

Fiscal Year, ends 31 Dec	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Recent Qtr	TTM
Debt/Capital %	—	—	—	—	—	32.6	52.3	45.0	36.3	0.0	0.0	—
Equity/Assets %	—	—	—	—	66.3	45.5	31.8	41.7	36.4	43.4	43.4	—
Total Debt/EBITDA	—	—	—	—	0.0	-66.2	-8.0	-4.9	-4.3	-4.6	-125.2	—
EBITDA/Interest Expense	Infinite	—	—	—	—	-1.1	-9.9	-25.4	-14.3	-10.1	-0.8	-10.7

Morningstar Analyst Historical/Forecast Summary as of 23 Aug 2024

Financials

			Estimates		
Fiscal Year, ends 31 Dec 2023	2022	2023	2024	2025	2026
Revenue (CNY Mil)	21,899	22,528	26,513	30,688	35,309
Revenue Growth %	13.0	2.9	17.7	15.7	15.1
EBITDA (CNY Mil)	-4,097	-1,968	1,310	1,898	3,544
EBITDA Margin %	-18.7	-8.7	4.9	6.2	10.0
Operating Income (CNY Mil)	-8,358	-5,064	-1,587	-129	1,639
Operating Margin %	-38.2	-22.5	-6.0	-0.4	4.6
Net Income (CNY Mil)	-6,692	-3,425	-189	1,603	3,217
Net Margin %	-30.6	-15.2	-0.7	5.2	9.1
Diluted Shares Outstanding (Mil)	395	413	417	419	420
Diluted Earnings Per Share(CNY)	-16.95	-8.29	-0.45	3.83	7.65
Dividends Per Share(CNY)	0.00	0.00	0.00	0.00	0.00

Forward Valuation

			Estimates		
	2022	2023	2024	2025	2026
Price/Sales	3.0	1.6	3.3	2.9	2.5
Price/Earnings	-9.7	-10.4	-462.4	54.3	27.2
Price/Cash Flow	—	—	—	—	—
Dividend Yield %	—	—	—	—	—
Price/Book	4.3	2.5	6.8	6.6	5.9
EV/EBITDA	-14.4	-14.3	60.6	41.8	22.4

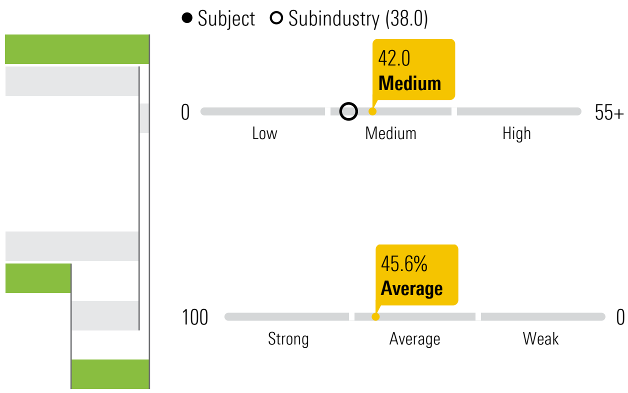
Morningstar Equity Analyst Report | Report as of 2 Oct 2024 22:41, UTC | Reporting Currency: CNY | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS   Page 14 of 21

Bilibili Inc ADR BILI ★★★ 2 Oct 2024 21:53, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
26.73 USD 1 Oct 2024	34.00 USD 30 Nov 2023 07:02, UTC	0.79	12.29 USD Bil 2 Oct 2024	None	Large Growth	Very High	Standard	4 Sep 2024 05:00, UTC

ESG Risk Rating Breakdown

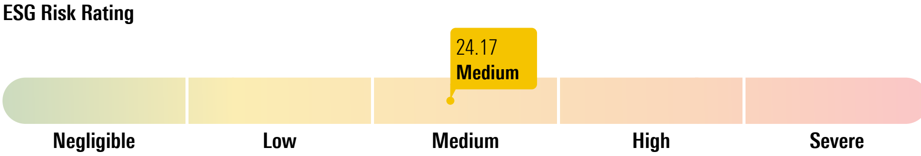
Exposure	
Company Exposure[1]	42.0
– Manageable Risk	39.0
Unmanageable Risk[2]	**3.0**
Management	
Manageable Risk	39.0
– Managed Risk[3]	17.8
Management Gap[4]	**21.2**
Overall Unmanaged Risk	**24.2**



- Exposure represents a company's vulnerability to ESG risks driven by their business model
- Exposure is assessed at the Subindustry level and then specified at the company level
- Scoring ranges from 0-55+ with categories of low, medium, and high-risk exposure

- Management measures a company's ability to manage ESG risks through its commitments and actions
- Management assesses a company's efficiency on ESG programs, practices, and policies
- Management score ranges from 0-100% showing how much manageable risk a company is managing

ESG Risk Rating



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

1. A company's Exposure to material ESG issues 2. Unmanageable Risk refers to risks that are inherent to a particular business model that cannot be managed by programs or initiatives 3. Managed Risk = Manageable Risk multiplied by a Management score of 45.6% 4. Management Gap assesses risks that are not managed, but are considered manageable 5. ESG Risk Rating Assessment = Overall Unmanaged Risk = Management Gap plus Unmanageable Risk

ESG Risk Rating Assessment[5]

ESG Risk Rating is of Sep 04, 2024. Highest Controversy Level is as of Sep 08, 2024. Sustainalytics Subindustry: Internet Software and Services. 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 Sep 2024

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

Company Name	Exposure		Management		ESG Risk Rating	
Bilibili Inc	42.0 | Medium	0 – 55+	45.6 | Average	100 – 0	24.2 | Medium	0 – 40+
Baidu Inc	39.0 | Medium	0 – 55+	57.4 | Strong	100 – 0	18.2 | Low	0 – 40+
Alphabet Inc	40.5 | Medium	0 – 55+	44.1 | Average	100 – 0	23.9 | Medium	0 – 40+
Netflix Inc	23.5 | Low	0 – 55+	35.9 | Average	100 – 0	15.5 | Low	0 – 40+
Tencent Holdings Ltd	37.2 | Medium	0 – 55+	54.2 | Strong	100 – 0	18.4 | Low	0 – 40+

Morningstar Equity Analyst Report | Report as of 2 Oct 2024 22:41, UTC | Reporting Currency: CNY | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS   Page 15 of 21

Appendix
Historical Morningstar Rating

Bilibili Inc ADR BILI 2 Oct 2024 21:53, UTC

Dec 2024	Nov 2024	Oct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	Apr 2024	Mar 2024	Feb 2024	Jan 2024
—	—	★★★	★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Dec 2023	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023
★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★	★★★★	★★★★
Dec 2022	Nov 2022	Oct 2022	Sep 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022
★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★	★★★★	—	—	—	—	—
Dec 2021	Nov 2021	Oct 2021	Sep 2021	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
—	—	—	—	—	—	—	—	—	—	—	—
Dec 2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020	Feb 2020	Jan 2020
—	—	—	—	—	—	—	—	—	—	—	—
Dec 2019	Nov 2019	Oct 2019	Sep 2019	Aug 2019	Jul 2019	Jun 2019	May 2019	Apr 2019	Mar 2019	Feb 2019	Jan 2019
—	—	—	—	—	—	—	—	—	—	—	—

Alphabet Inc Class A GOOGL 2 Oct 2024 21:34, UTC

Dec 2024	Nov 2024	Oct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	Apr 2024	Mar 2024	Feb 2024	Jan 2024
—	—	★★★★	★★★★	★★★★	★★★	★★★	★★★	★★★	★★★	★★★★	★★★★
Dec 2023	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023
★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★★
Dec 2022	Nov 2022	Oct 2022	Sep 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022
★★★★★	★★★★	★★★★	★★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
Dec 2021	Nov 2021	Oct 2021	Sep 2021	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
★★★★	★★★	★★★★	★★★	★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★
Dec 2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020	Feb 2020	Jan 2020
★★★	★★★	★★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★★	★★★	★★★
Dec 2019	Nov 2019	Oct 2019	Sep 2019	Aug 2019	Jul 2019	Jun 2019	May 2019	Apr 2019	Mar 2019	Feb 2019	Jan 2019
★★★	★★★	★★★	★★★	★★★	★★★	★★★★	★★★	★★★	★★★	★★★	★★★★

Netflix Inc NFLX 2 Oct 2024 21:33, UTC

Dec 2024	Nov 2024	Oct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	Apr 2024	Mar 2024	Feb 2024	Jan 2024
—	—	★★	★★	★★	★★	★★	★★	★★	★★	★★	★★
Dec 2023	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023
★★	★★	★★★	★★★	★★	★★	★★	★★★	★★★	★★★	★★★	★★★
Dec 2022	Nov 2022	Oct 2022	Sep 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022
★★★	★★★	★★★	★★★	★★★	★★★★	★★★★	★★★★	★★★★	★★	★★	★★
Dec 2021	Nov 2021	Oct 2021	Sep 2021	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
★	★	★	★	★	★	★	★	★	★	★	★
Dec 2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020	Feb 2020	Jan 2020
★	★	★	★	★	★	★	★	★	★	★	★
Dec 2019	Nov 2019	Oct 2019	Sep 2019	Aug 2019	Jul 2019	Jun 2019	May 2019	Apr 2019	Mar 2019	Feb 2019	Jan 2019
★	★	★	★	★	★	★	★	★	★	★	★

Morningstar Equity Analyst Report | Report as of 2 Oct 2024 22:41, UTC | Reporting Currency: CNY | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS

Tencent Holdings Ltd 00700 2 Oct 2024 16:33, UTC

Dec 2024	Nov 2024	Oct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	Apr 2024	Mar 2024	Feb 2024	Jan 2024
—	—	★★★★	★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Dec 2023	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023
★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Dec 2022	Nov 2022	Oct 2022	Sep 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022
★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Dec 2021	Nov 2021	Oct 2021	Sep 2021	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
★★★★★	★★★★	★★★★	★★★★★	★★★★★	★★★★★	★★★★	★★★★	★★★	★★★	★★★	★★★
Dec 2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020	Feb 2020	Jan 2020
★★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	—	★★★★	★★★	★★★★
Dec 2019	Nov 2019	Oct 2019	Sep 2019	Aug 2019	Jul 2019	Jun 2019	May 2019	Apr 2019	Mar 2019	Feb 2019	Jan 2019
★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★

Research Methodology for Valuing Companies

Overview

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

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

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

1. Economic Moat

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

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

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

2. Estimated Fair Value

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

Our model is divided into three distinct stages:

Stage I: Explicit Forecast

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

Stage II: Fade

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

Stage III: Perpetuity

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

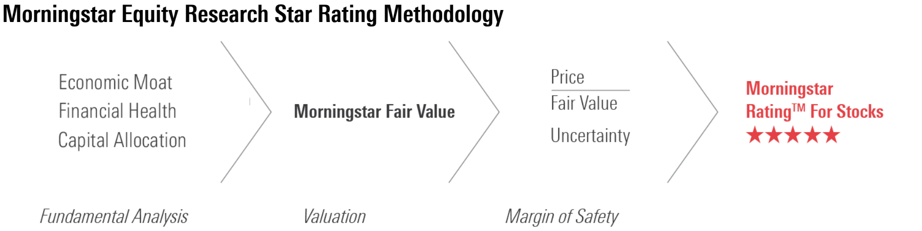
Because a dollar earned today is worth more than a dollar earned tomorrow, we discount our projections of cash flows in stages I, II, and III to arrive at a total present value of expected future cash flows. Because we are modeling free cash flow to the firm—representing cash available to provide a return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

3. Uncertainty Around That Fair Value Estimate

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

Our Uncertainty Rating is meant to take into account anything that can increase the potential dispersion of future outcomes for the intrinsic value of a company, and any-

Morningstar Equity Research Star Rating Methodology



Morningstar Equity Analyst Report | Report as of 2 Oct 2024 22:41, UTC | Reporting Currency: CNY | Trading Currency: USD | Exchange: NASDAQ - ALL MARKETS

Research Methodology for Valuing Companies

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

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

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

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

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

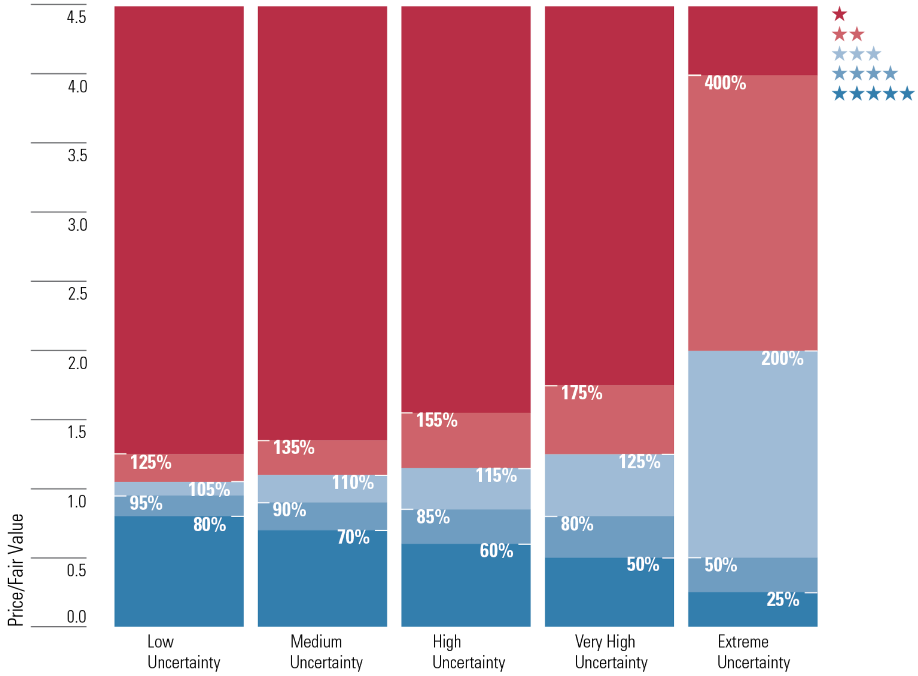
4. Market Price

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

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

Morningstar Star Rating for Stocks

Morningstar Equity Research Star Rating Methodology



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

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

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

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

The Morningstar Star Ratings for stocks are defined below:

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

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

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

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

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

Other Definitions

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

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

Research Methodology for Valuing Companies

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

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

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

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

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

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

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

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

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