Alibaba Group Holding Ltd BABA (XNYS)

Morningstar Rating	Last Price	Fair Value Estimate	Price/Fair Value	Trailing Dividend Yield %	Forward Dividend Yield %	Market Cap (Bil)	Industry	Stewardship
★★★★	149.26 USD	240.00 USD	0.62	—	0.00	383.89	Specialty Retail	Poor
31 May 2019 22:07, UTC	31 May 2019	23 May 2018 20:07, UTC		31 May 2019	31 May 2019	31 May 2019		

Morningstar Pillars

	Analyst	Quantitative
Economic Moat	Wide	Wide
Valuation	★★★★	Undervalued
Uncertainty	High	High
Financial Health	—	Moderate

Source: Morningstar Equity Research

Quantitative Valuation

BABA

Undervalued | Fairly Valued | Overvalued

	Current	5-Yr Avg	Sector	Country
Price/Quant Fair Value	0.77	0.93	0.80	0.78
Price/Earnings	30.9	—	16.2	12.9
Forward P/E	22.8	—	12.3	11.9
Price/Cash Flow	17.9	—	10.2	10.3
Price/Free Cash Flow	17.9	—	17.7	15.5
Trailing Dividend Yield%	—	—	2.46	3.53

Source: Morningstar

Bulls Say

- Alibaba's China marketplaces boasted 636 million active buyers as of December, more than 45% of China's total population. We expect a long runway of user growth in the coming years.
- We believe Alibaba will benefit from the ongoing shift of China's digital commerce market from C2C to B2C, as Tmall can drive organic user traffic from Taobao mobile and help to better monetize transactions.
- We believe the bulk of Chinese Internet shoppers born in the 1980s and 1990s view Taobao as their first online shopping destination, implying exceptional lifetime value potential.

Bears Say

- Rapid expansion of other China digital commerce players like JD.com and Vipshop could constrain Alibaba's growth aspirations in certain product categories.
- Alibaba has invested in businesses outside China that may not enhance its ecosystem. This could divert management's attention from expanding its core marketplaces and other key business segments.
- Despite its e-commerce leadership in China, expansion into other regions beyond Southeast Asia could pose obstacles because of the established network effects of competing local marketplaces.

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Alibaba GMV/Revenue Trends Reflect Uneven China Macro Picture, but We Still See Long-Term Potential

Business Strategy and Outlook

R.J. Hottovy, CFA, Analyst, 13 February 2019

Over the past few years, Alibaba has transitioned from a traditional e-commerce company to a Big Data-centric conglomerate, with transaction data from its marketplaces, financial services, and logistics businesses allowing it to move into cloud computing, media/entertainment, and online-to-offline services. We've long thought that a strong network effect can allow e-commerce players to extend into other growth avenues, and nowhere is that more evident than Alibaba.

Alibaba's Internet services affect the vast majority of Chinese Internet users in some way, including a 70% penetration rate for the Taobao/Tmall e-commerce marketplaces. This provides Alibaba with an unparalleled source data that it can use to help merchants and other consumer brands develop personalized mobile marketing and content strategies to expand their target audiences, increase click-through rates and physical store transactions, and bolster return on investment. While Alibaba has temporarily suspended certain merchant fees against an uneven macro backdrop, Alibaba's marketplace monetization rates have generally trended upward, indicating that sellers are becoming increasingly dependent on Alibaba's marketplaces and payment solutions. Retail revenue per active user continues to outpace other China rivals, owing in part to an emphasis on higher-quality merchants.

While we view Taobao/Tmall marketplaces, Cainiao, and Alipay/Ant Financial as Alibaba's core cash flow drivers, we also believe AliCloud, globalization, digital entertainment, and Ele.me (food delivery) offer long-term potential. While AliCloud will remain in investment mode near-term, we believe accelerating revenue per user trends suggest a migration to value-added content delivery and database services that can drive segment margins higher over time. On globalization, third-party merchants are successfully reaching Lazada's users across Southeast Asia, something that should continue as the company rolls out incremental personalized mobile marketing and content opportunities. While early, we share management's views about Ele.me and digital entertainment being important user acquisition and engagement tools.

Analyst Note

R.J. Hottovy, CFA, Analyst, 15 May 2019

Heading into Alibaba's fourth-quarter update, our attention was focused on recent concerns regarding negative trade war headlines and China's overall macro environment, and how these factors would impact its full-year fiscal 2020 outlook. We've long thought that Alibaba and the network effect that underpins our wide moat rating would insulate its business model from macro headwinds, and we see China's recent retail sales deceleration as more of a consumer confidence issue than structural changes in Chinese consumers' ability to spend. Our confidence is rooted in Alibaba's China marketplaces, which offer Chinese consumers access to branded products at competitive prices, and ancillary businesses like Ele.me/Koubei and New Retail/Freshippo stores (formerly Hema) that are increasingly becoming integrated into Chinese consumer behavior.

Consensus expectations called for fiscal 2020 revenue CNY 508.9 billion, an increase of 35% compared with the reported CNY 376.8 billion (which aligned with management's guidance for CNY 375 billion-CNY 383 billion). While management's initial guidance calling for "over CNY 500 billion in revenue" in fiscal 2020 is slightly below market expectations--and likely assumes China retail GMV growth in the high-teens for the full year--we still believe our $240 fair value estimate is valid for several reasons. One, economic downturns have historically offered e-commerce marketplaces opportunities to lock in new buyers/sellers, which then engage in other higher-margin products and services as conditions stabilize (which was apparent in the continued strength of Alibaba's local consumer business segment). Two, the Chinese consumer remains relatively healthy, backed by wage growth, solid personal balance sheets, and access to consumer credit. Three, Alibaba appears to be adjusting certain cost line items for current market conditions (most notably sales and marketing) that should help offset the revenue deceleration impact on free cash flow.

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Close Competitors	Currency (Mil)	Market Cap	TTM Sales	Operating Margin	TTM/PE
Amazon.com Inc AMZN	USD	873,923	241,545	6.17	74.07
JD.com Inc JD	USD	43,037	482,973	-0.17	81.30
eBay Inc EBAY	USD	31,314	10,809	20.83	13.21

Economic Moat

R.J. Hottovy, Analyst, 13 February 2019

We've assigned Alibaba a wide economic moat rating based on its strong network effect, where the value of the platform to consumers increases with a greater number of sellers, and vice versa. Despite recent macroeconomic uncertainty, we expect China and Southeast Asia's digital commerce industry to have an extended runway of growth based on consumer disposable income and consumption trends, increasing Internet and mobile adoption rates, and a highly fragmented brick-and-mortar retail industry. This is in contrast with other network-based industries, which have often reached a more mature state by the time leading players fully establish a meaningful network effect.

Alibaba's "ecosystem" is made up of several leading Chinese online retailing platforms: Taobao Marketplace, China's largest online consumer-to-consumer shopping site; Tmall, China's largest third-party business-to-consumer platform for branded goods; and Juhuasuan, China's most popular group buying marketplace by monthly active users. We estimate Alibaba’s core China retail marketplaces (Taobao and Tmall) generated gross merchandise volume of CNY 6.1 trillion ($909 billion) in calendar 2018, more than Amazon and eBay combined (where we estimate $408 billion and $95 billion, respectively) and representing a significant portion of China's CNY 7.5 trillion online shopping industry based on data from iResearch.

Because Alibaba's various online marketplaces are interconnected, we believe it compounds its network effect, which then breeds other competitive advantages. By operating China's two most popular online shopping marketplaces, Alibaba has developed a powerful brand intangible asset moat source, in our opinion. Millions of Chinese consumers consider Taobao and Tmall as their default go-to options when seeking products and services online. Based on several online shopping surveys, we believe more than two thirds of China consumers consider either Taobao or Tmall as their most frequently used online marketplace. Additionally, Taobao users with a strong appetite for branded products can shop Tmall for a better shopping experience and assurance of higher quality, whereas Tmall's shoppers looking for a wider product selection can search Taobao. In fact, we believe Taobao diverts user traffic to Tmall, thereby lowering Tmall's customer acquisition costs. We're also starting to see a number of new growth opportunities for Alibaba's China retail platform, including 88VIP Loyalty Membership program engagement, short video brand content, and retail formats like Freshippo/Hema, Intime, Sun Retail, and Tmall-branded convenience stores. Taken together, we now expect Alibaba's China retail segment to deliver 31% average annual revenue growth the next five years.

Moreover, through its cooperative logistics affiliate Cainiao (in which Alibaba increased its ownership stake to 51%, up from 47% previously, and began consolidating in its financial statements in October 2017), the company operates as a third-party platform without taking control of inventories--something that is unlikely to change, in our opinion--adding another layer of cost advantages and driving margins above those of JD.com, Vipshop, Amazon, and other competitors in the region. While the decision to consolidate Cainiao and invest more heavily in new smart warehousing and other logistics technologies will shift Alibaba away from a delivery data model (where merchants assume responsibility for order fulfillment from their warehouses via couriers backed by Cainiao data) to a more traditional fulfillment model (where Cainiao assumes responsibility for fulfillment through owned or partner warehouses) and could weigh on near-term margins, it will create fulfillment and inventory storage bundling opportunities (similar to Fulfillment by Amazon), which should drive improved monetization rates. We also believe the enhanced logistics capabilities stemming from its partnership with Suning and other retailers (which allows for greater next- and same-day delivery opportunities for consumer staples products across a greater number of cities) and other omnichannel investments (including mobile ordering and payment capabilities in more than 180,000 offline stores) strengthen this platform's network effect and make it a more compelling platform for buyers and sellers alike.

We expect globalization will be a key growth driver for Alibaba in the years to come. In particular, we view Alibaba's controlling stake in Southeast Asia e-commerce platform Lazada as a positive for its international expansion aspirations. First, we believe Lazada is additive

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to Alibaba's network effect--the primary source behind our wide moat rating--and will give Alibaba's third-party merchants access to potentially 200 million active Internet users across Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam (based on Internet Live Stats). Second, while Alibaba has had limited success with its previous e-commerce endeavors outside China, Lazada has a higher probability of success given the lack of existing players in Southeast Asia with established network effects and an underpenetrated e-commerce market (collectively representing 3% of total retail sales versus almost 14% in China). Lastly, we believe the similarities between e-commerce in China and Lazada's key operating markets--including high mobile commerce adoption rates and a fragmented traditional retail marketplace--offer revenue growth and cost synergies by combining Alibaba's mobile commerce, payments, and logistics technologies with Lazada's existing helloPay payment and Lazadaexpress logistics solutions.

Alibaba's desktop and mobile monetization rates (revenue as a percentage of GMV) have generally been on upward trends the past few quarters, which indicates that sellers are becoming increasingly dependent on Alibaba's marketplaces to reach Chinese consumers. We see the company's recent user experience investments as prudent to maintain the network effect, particularly as other local and global players look to expand their presence in China. We believe that Alibaba can increase its monetization rates over time via improved seller conversion rates from personalized search efforts, the embracing of data-enriched marketing tools by mobile sellers, and increased contribution from Tmall.

We believe AliCloud is likely to develop into a more significant cash flow contributor over time, given its early-mover advantages in Big Data and cloud computing in China--giving it distinct advantages over AWS and Azure in China--and increased demand from corporations and other government groups looking to reduce information technology expenditures. Management has stated that it believes AliCloud can eventually be as profitable as Amazon Web Services, which posted operating margins of 28.4% in 2018. We share management's views about AliCloud's longer-term margin potential, but we caution investors from automatically assuming AliCloud will deliver the same growth and profitability trajectory as Amazon Web Services. We expect AWS-like margins will probably take at least five years due to ongoing customer acquisition efforts and technology investments, as well as potential competition from Tencent's cloud service offerings.

Fair Value & Profit Drivers

R.J. Hottovy, Analyst, 13 February 2019

Our fair value estimate is $240 per ADS incorporates management's full-year fiscal 2019 revenue outlook of CNY 375 billion-CNY 383 billion (representing 50%-53% growth year over year, versus its initial outlook for 60% growth) and potentially uneven near-term consumer spending patterns. Our model also considers margin compression expectations due to the consolidation of Cainiao and Ele.me, as well as increased technology, logistics, product development, local services, and marketing investments the next several years.

We assume a revenue CAGR of 33% for fiscal 2019-23, including almost 50% growth in fiscal 2019. We anticipate that higher spending among online shoppers, a growing user and seller base, and adoption of personalized mobile marketing services will all contribute to Alibaba's online retail revenue growth. Our five-year revenue forecast is largely a function of average annual China retail GMV growth around 29% from fiscal 2019 to fiscal 2023, monetization rates moving from 3.6% in fiscal 2018 to almost 4.6% in the next five years (aided by GMV from the B2C marketplace, a steady increase in mobile monetization rates through opportunities like merchant recommendation fees, and new fulfillment and inventory bundling services from Cainiao), and greater contribution from cloud computing (50%-plus average annual revenue growth the next five years), and digital media and entertainment (high teens). Our GMV outlook assumes 9% annual growth of Alibaba's China retail active buyer base the next five years, implying 844 million active buyers by the end of fiscal 2023, and high-teens annual average growth in average GMV per buyer over the same time frame.

We believe digital commerce and cloud competition will force Alibaba to continue investing in technology infrastructure, logistics innovations, user acquisition, and personnel. As a result, we expect some margin contraction over the medium term, with consolidated adjusted EBITDA margins remaining in the low-30s the next few years (compared with 47% in fiscal 2017 and 42% in fiscal 2018), due to technology, logistics, product development, online/offline and local services, and marketing

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investments, as well as the impact of recently acquired businesses. However, we expect margin trends to inflect over the medium term as investments wind down and Alibaba's more nascent businesses scale, bringing our fiscal 2028 adjusted EBITDA estimates back to the mid- to high-30s.

Risk & Uncertainty

R.J. Hottovy, Analyst, 13 February 2019

In our view, the most pressing risks to the Alibaba investment thesis are a sustained slowdown in Chinese consumption patterns, digital commerce competition, increased regulatory scrutiny, and the possibility that ancillary businesses diverting management's attention from its core marketplaces, each of which contributes to a wide range of potential fair value outcomes.

China's digital commerce landscape has become increasingly more competitive in recent years, with JD.com positioning itself as a credible rival through its fulfillment capability, quality assurance, and its strategic partnerships with Tencent and Walmart. Additionally, Alibaba faces competition from Vipshop and Amazon, among others. These platforms might not have Alibaba's scale in the region, but they specialize in specific products, services, or markets, which might constrain Alibaba's growth aspirations.

Alibaba is also subject to increased online and mobile payment regulation. Financial regulators in China have continuously scrutinized online and mobile payment services. Considering that more than 80% of transactions on Alibaba's China retail marketplaces are settled through Ant Financial's Alipay, any type of regulatory tightening and supervision policy could affect Alibaba's business operations. In addition, as an operator of online marketplaces, Alibaba has persistently faced the issue of counterfeit and infringing goods. Although the company has been making increasing efforts to confront the issue, there is still room for improvement.

Other downside risks include expansion into peripheral businesses, which might distract management and may not materially improve Alibaba's ecosystem. While we're optimistic about Alibaba's ability to become a preferred partner for international retailers and consumer brands looking to sell in China, the firm does not enjoy the same network effect and brand recognition in other countries, and it may face challenges directly expanding in these markets.

Stewardship

R.J. Hottovy, Analyst, 13 February 2019

In our view, Alibaba is led by a capable and ambitious management team. Founder and executive chairman Jack Ma has been the keeper of the flame since the company's founding in 1999. Under his leadership, Alibaba has become China's leading e-commerce player, accounting for the majority of transaction volume for China's online shopping industry. Over the past decade, Taobao has transformed the shopping behaviors of millions of Chinese consumers. We believe management has also done an admirable job developing and preserving Alibaba's wide economic moat by building several other leading online marketplaces and platforms such a Tmall, Juhuasuan, Alibaba.com, AliExpress, Alipay, AliCloud, Ele.me, and Koubei. Although the company faces a potentially uneven long-term economic backdrop and new sources of competition in China, we remain confident that Alibaba can sustain its wide economic moat over the long term under its existing leadership.

Ma's decision to step away from Alibaba's executive chairman role in 2019 and the company's board of directors will not affect our positive long-term bias for two reasons. First, we believe recent results demonstrate that Alibaba has a deep management bench, including current CEO Daniel Zhang (who was appointed CEO of Alibaba Group in May 2015, will assume the chairman role in 2019, and played a central role in the development of the Singles Day shopping event, building the Tmall platform from a regional to global B2C platform, and deploying several of Alibaba's "New Retail" strategies) and executive vice chairman Joe Tsai. Second, we believe Ma's involvement with the Alibaba Partnership--a 36-member group of core company managers--will allow him to stay involved with certain strategic decisions.

Despite management's proven execution capabilities, we have concerns regarding Alibaba's corporate governance, which is reflected in our Poor equity stewardship rating. Like many other Chinese Internet companies listed in overseas markets, Alibaba operates under a variable interest entity (VIE) structure designed to let companies bypass Chinese legal restrictions on foreign ownership in certain sectors. Alibaba's foreign investors will essentially hold shares of Alibaba's VIE domiciled in the Cayman Islands. We don't expect any legal challenges to VIE

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structures by the Chinese government in the future, and believe that Alibaba will consider a China depository receipt listing in the future. However, if the legitimacy of Alibaba's related VIE is found to violate applicable law or regulation, Chinese regulatory authorities might take action against the VIE, including revoking the business and operating licenses of Alibaba's subsidiaries or the VIE, or discontinuing, restricting, or restructuring Alibaba's operations. Since the Chinese Ministry of Commerce has the jurisdiction to regulate VIEs, we believe overseas investors would have limited legal rights.

In addition, we harbor concerns about Alibaba's partnership structure, which might jeopardize the board's independence. The partnership is led by a committee of five, including Ma and executive vice chairman Joe Tsai. The Alibaba partnership has the exclusive right to nominate up to a simple majority of the members of its board of directors. Any board candidate it nominates is presented to shareholders for voting. If the candidate is not elected by shareholders, the partnership can appoint another candidate without a vote. That candidate will serve as an interim director until the next annual general meeting, where either the same candidate or yet another nominee proposed by Alibaba partners will stand for election. Despite its minority stake, the partnership essentially controls the board and limits the influence of outside shareholders.

In 2011, the company transferred the ownership of Alipay to a new company (now called Ant Financial, which is 33% owned by Alibaba) that is controlled by Ma, without the approval of Yahoo and SoftBank (who were key shareholders at the time). Although a settlement has been reached among Yahoo, SoftBank, and Alibaba, we believe this is reflective of questionable corporate stewardship practices.

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Analyst Notes Archive

Alibaba's Long-Term Monetization Opportunities Fully Intact Despite Lingering Trade War Concerns

R.J. Hottovy, Analyst, 30 January 2019

Our positive long-term bias on Alibaba remains intact following its third-quarter update, as the company continues to put up numbers that validate the resiliency of its business model during uneven economic conditions but also the monetization opportunities from the network effect behind our wide moat rating. China skeptics are painting this quarter's 41% top-line growth as a negative--Alibaba's slowest growth quarter since 2016--but we see the trajectory as a positive because Tmall GMV continues to outpace broader China GMV trends (29% versus 24% using iResearch estimates). More important, strong results from ancillary businesses like Ele.me/Koubei, and New Retail/Freshippo stores (formerly Hema) validates user engagement trends and signals future monetization opportunities (which we've factored into our five-year revenue CAGR of almost 35%).

We continue to believe share price appreciation will be difficult until trade war headlines subside but call out four reasons the market is underestimating Alibaba's future growth. One, Alibaba's direct exposure to tariffs is limited to only a low-single-digit percentage of revenue. Two, economic downturns have historically offered e-commerce marketplaces opportunities to lock in new buyers/sellers, which then engage in other higher-margin products and services as conditions stabilize. Three, the Chinese consumer remains relatively healthy, backed by wage growth, solid personal balance sheets, and access to consumer credit. Four, we expect government VAT and personal income tax adjustments will create spending stimulus for middle-income consumers.

Our $240 fair value estimate remains unchanged. We assume that China GDP growth rates slow to the 4% range but still being driven by household consumption rates as opposed to government or export activity. However, we believe the current market price assumes only nominal economic growth, making Alibaba one of the more underappreciated e-commerce plays for longer-term investors.

Alibaba GMV/Revenue Trends Reflect Uneven China Macro Picture, but We Still See Long-Term Potential

R.J. Hottovy, Analyst, 15 May 2019

Heading into Alibaba's fourth-quarter update, our attention was focused on recent concerns regarding negative trade war headlines and China's overall macro environment, and how these factors would impact its full-year fiscal 2020 outlook. We've long thought that Alibaba and the network effect that underpins our wide moat rating would insulate its business model from macro headwinds, and we see China's recent retail sales deceleration as more of a consumer confidence issue than structural changes in Chinese consumers' ability to spend. Our confidence is rooted in Alibaba's China marketplaces, which offer Chinese consumers access to branded products at competitive prices, and ancillary businesses like Ele.me/Koubei and New Retail/Freshippo stores (formerly Hema) that are increasingly becoming integrated into Chinese consumer behavior.

Consensus expectations called for fiscal 2020 revenue CNY 508.9 billion, an increase of 35% compared with the reported CNY 376.8 billion (which aligned with management's guidance for CNY 375 billion-CNY 383 billion). While management's initial guidance calling for "over CNY 500 billion in revenue" in fiscal 2020 is slightly below market expectations--and likely assumes China retail GMV growth in the high-teens for the full year--we still believe our $240 fair value estimate is valid for several reasons. One, economic downturns have historically offered e-commerce marketplaces opportunities to lock in new buyers/sellers, which then engage in other higher-margin products and services as conditions stabilize (which was apparent in the continued strength of Alibaba's local consumer business segment). Two, the Chinese consumer remains relatively healthy, backed by wage growth, solid personal balance sheets, and access to consumer credit. Three, Alibaba appears to be adjusting certain cost line items for current market conditions (most notably sales and marketing) that should help offset the revenue deceleration impact on free cash flow.

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Alibaba Group Holding Ltd ADR BABA ★★★★Q 01 Jun 2019 02:00 UTC

Last Close	Fair Value^{Q}	Market Cap	Sector	Industry	Country of Domicile
31 May 2019	01 Jun 2019 02:00 UTC	31 May 2019			
149.26	193.22	383.9 Bil	Consumer Cyclical	Specialty Retail	CYM Cayman Islands

There is no one analyst in which a Quantitative Fair Value Estimate and Quantitative Star Rating are attributed to; however, Mr. Lee Davidson, Head of Quantitative Research for Morningstar, Inc., is responsible for overseeing the methodology that supports the quantitative fair value. As an employee of Morningstar, Inc., Mr. Davidson is guided by Morningstar, Inc.'s Code of Ethics and Personal Securities Trading Policy in carrying out his responsibilities. For information regarding Conflicts of Interests, visit http://global.morningstar.com/equitydisclosures

Company Profile

Alibaba is the world's largest online and mobile commerce company, measured by GMV (CNY 4.8 trillion/$736 billion for the fiscal year ended March 2018). It operates China's most-visited online marketplaces, including Taobao (consumer-to-consumer) and Tmall (business-to-consumer). Alibaba's China marketplaces accounted for 73% of revenue in fiscal 2018, with Taobao generating revenue through advertising and other merchant data services and Tmall deriving revenue from commissions. Additional revenue sources include digital

Quantitative Scores

		Scores		
		All	Rel Sector	Rel Country
Quantitative Moat	Wide	100	100	100
Valuation	Undervalued	69	66	64
Quantitative Uncertainty	High	74	74	73
Financial Health	Moderate	85	69	69

BABA

Source: Morningstar Equity Research

Valuation

	Current	5-Yr Avg	Sector Median	Country Median
Price/Quant Fair Value	0.77	0.93	0.80	0.78
Price/Earnings	30.9	—	16.2	12.9
Forward P/E	22.8	—	12.3	11.9
Price/Cash Flow	17.9	—	10.2	10.3
Price/Free Cash Flow	17.9	—	17.7	15.5
Trailing Dividend Yield %	—	—	2.46	3.53
Price/Book	5.4	—	1.6	1.3
Price/Sales	7.2	—	0.9	1.3

Profitability

	Current	5-Yr Avg	Sector Median	Country Median
Return on Equity %	17.1	52.4	12.2	12.6
Return on Assets %	8.5	16.6	5.4	5.6
Revenue/Employee (Mil)	3.4	2.9	0.6	1.0

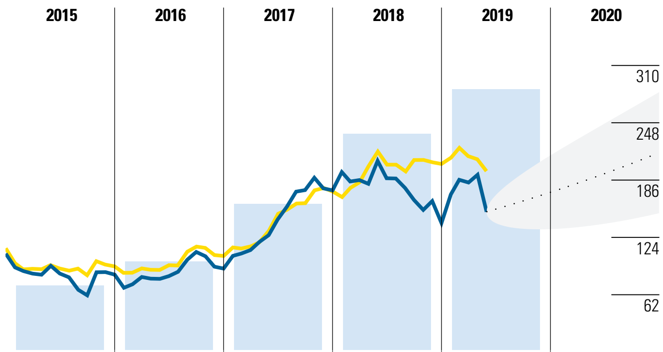
Financial Health

	Current	5-Yr Avg	Sector Median	Country Median
Distance to Default	0.7	0.7	0.6	0.6
Solvency Score	349.9	—	486.0	498.4
Assets/Equity	2.0	2.0	1.8	1.7
Long-Term Debt/Equity	0.3	0.4	0.2	0.2

Growth Per Share

	1-Year	3-Year	5-Year	10-Year
Revenue %	58.1	48.6	48.6	61.3
Operating Income %	45.1	44.5	44.1	56.1
Earnings %	44.4	36.2	47.0	65.8
Dividends %	—	—	—	—
Book Value %	29.0	34.6	—	—
Stock Total Return %	-24.6	22.1	—	—

Price vs. Quantitative Fair Value



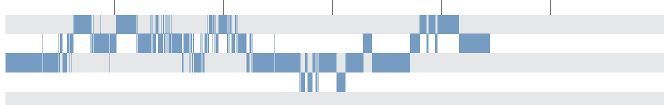
- Quantitative Fair Value Estimate
- Total Return
- Sales/Share
- Forecast Range
- Forcasted Price
- Dividend
- Split

Momentum: —
Standard Deviation: 34.45
Liquidity: High

129.77 52-Wk 211.70

2015	2016	2017	2018	2019	
-21.8	8.0	96.4	-20.5	8.9	Total Return %
-22.5	-4.4	74.9	-15.5	-2.2	+/– Market (Morningstar US Index)
—	—	—	—	—	Trailing Dividend Yield %
—	—	—	—	—	Forward Dividend Yield %
21.9	46.9	47.8	41.0	30.9	Price/Earnings
15.8	12.5	14.8	7.9	7.2	Price/Revenue

Morningstar Rating^{Q}

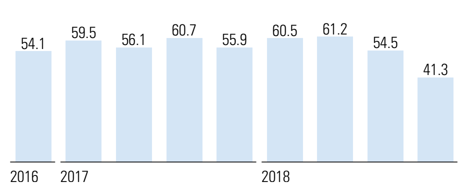


2014	2015	2016	2017	2018	TTM	Financials (Fiscal Year in Mil)
52,504	76,204	101,143	158,273	250,266	345,278	Revenue
52.1	45.1	32.7	56.5	58.1	38.0	% Change
25,216	23,637	29,958	48,055	70,363	58,095	Operating Income
122.9	-6.3	26.7	60.4	46.4	-17.4	% Change
23,315	24,261	71,460	43,675	64,093	69,642	Net Income
26,379	41,217	56,836	80,326	125,171	146,171	Operating Cash Flow
-4,776	-7,705	-10,845	-17,546	-29,836	—	Capital Spending
21,603	33,512	45,991	62,780	95,335	116,335	Free Cash Flow
41.1	44.0	45.5	39.7	38.1	33.7	% Sales
10.00	9.70	27.89	16.97	24.51	26.41	EPS
180.1	-3.0	187.5	-39.2	44.4	7.8	% Change
—	2.14	2.99	3.61	6.36	8.34	Free Cash Flow/Share
—	—	—	—	—	—	Dividends/Share
—	8.85	13.44	15.13	21.61	27.51	Book Value/Share
2,487	2,495	2,500	2,566	2,592	2,592	Shares Outstanding (Mil)
						Profitability
157.4	27.6	39.4	17.6	19.9	17.1	Return on Equity %
26.3	13.2	23.1	10.0	10.5	8.5	Return on Assets %
44.0	31.7	70.7	27.6	25.6	20.1	Net Margin %
0.60	0.42	0.33	0.36	0.41	0.42	Asset Turnover
3.8	1.8	1.7	1.8	2.0	2.0	Financial Leverage
74.5	68.7	66.0	62.4	57.2	46.8	Gross Margin %
48.0	31.0	29.6	30.4	28.1	16.8	Operating Margin %
30,711	50,603	53,467	76,835	119,525	113,241	Long-Term Debt
39,622	145,439	216,987	278,799	365,822	460,893	Total Equity
8.1	7.8	7.0	7.6	5.0	4.2	Fixed Asset Turns

Quarterly Revenue & EPS

Revenue (Bil)	Jun	Sep	Dec	Mar	Total
2018	50.2	55.1	83.0	61.9	250.3
2017	32.2	34.3	53.2	38.6	158.3
2016	20.2	22.2	34.5	24.2	101.1
2015	15.8	16.8	26.2	17.4	76.2
Earnings Per Share ()					
2018	5.65	6.78	9.20	2.88	24.51
2017	2.94	2.97	6.94	4.12	16.97
2016	11.92	8.87	4.90	2.11	27.89
2015	5.20	1.24	2.29	1.12	9.70

Revenue Growth Year On Year %



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Research Methodology for Valuing Companies

Qualitative Equity Research Overview
At the heart of our valuation system is a detailed projection of a company's future cash flows, resulting from our analysts' research. Analysts create custom industry and company assumptions to feed income statement, balance sheet, and capital investment assumptions into our globally standardized, proprietary discounted cash flow, or DCF, modeling templates. We use scenario analysis, in-depth competitive advantage analysis, and a variety of other analytical tools to augment this process. We believe this bottom-up, long-term, fundamentally based approach allows our analysts to focus on long-term business drivers, which have the greatest valuation impact, rather than short-term market noise.

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 an uncertainty-adjusted discount or premium to their intrinsic worth—or fair value estimate, in Morningstar terminology. Five-star stocks sell for the biggest risk-adjusted discount to their fair values whereas 1-star stocks trade at premiums to their intrinsic worth.

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

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

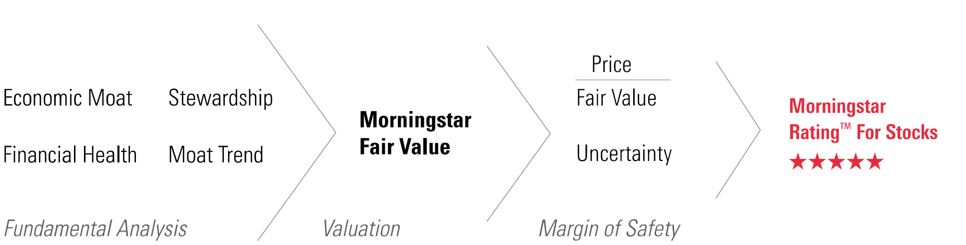
Companies with a narrow moat are those we believe are more likely than not to achieve normalized excess returns for at least the next 10 years. Wide-moat companies are those in which we have very high confidence that excess returns will remain for 10 years, with excess returns more likely than not to 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.

To assess the direction of the underlying competitive advantages, analysts perform ongoing assessments of the moat trend. A firm's moat trend is positive in cases where we think its sources of competitive advantage are growing stronger; stable where we don't anticipate changes to competitive advantages over the next several years; or negative when we see signs of deterioration.

All the moat and moat trend ratings undergo periodic review and any changes must be approved by the Morningstar Economic Moat Committee, comprised of senior members of Morningstar's equity research department.

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.

Morningstar Research Methodology for Valuing Companies



Our model is divided into three distinct stages:

Stage I: Explicit Forecast
In this stage, which can last five to 10 years, analysts make full financial statement forecasts, including items such as revenue, profit margins, tax rates, changes in working-capital accounts, and capital spending. Based on these projections, we calculate earnings before interest, after taxes, or EBI, and the net new investment, or 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, or RONIC, and the number of years until perpetuity, when excess returns cease. The investment rate and return on new invested capital decline until the perpetuity stage is reached. 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.

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Research Methodology for Valuing Companies

3. Uncertainty Around That Fair Value Estimate
Morningstar's Uncertainty Rating captures a range of likely potential intrinsic values for a company and uses it to assign the margin of safety required before investing, which in turn explicitly drives our stock star rating system. The Uncertainty Rating represents the analysts' ability to bound the estimated value of the shares in a company around the fair value estimate, based on the characteristics of the business underlying the stock, including operating and financial leverage, sales sensitivity to the overall economy, product concentration, pricing power, and other company-specific factors.

Analysts consider at least two scenarios in addition to their base case: a bull case and a bear case. Assumptions are chosen such that the analyst believes there is a 25% probability that the company will perform better than the bull case, and a 25% probability that the company will perform worse than the bear case. The distance between the bull and bear cases is an important indicator of the uncertainty underlying the fair value estimate.

Our recommended margin of safety widens as our uncertainty of the estimated value of the equity increases. The more uncertain we are about the estimated value of the equity, 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.

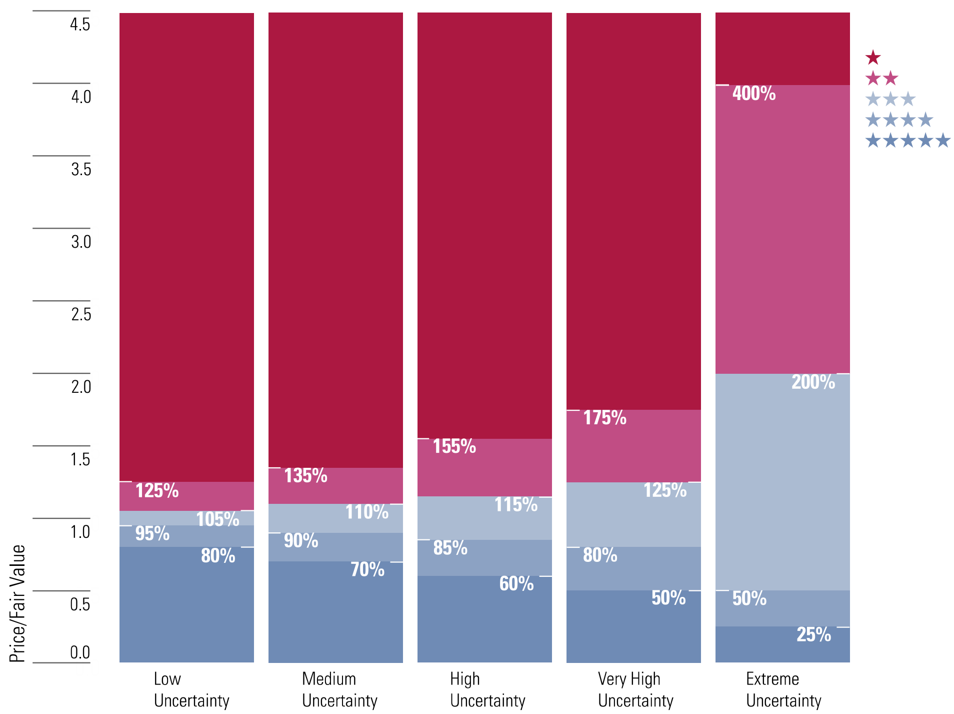
Our uncertainty ratings for our qualitative analysis are low, medium, high, very high, and extreme.

- Low–margin of safety for 5-star rating is a 20% discount and for 1-star rating is 25% premium.
- Medium–margin of safety for 5-star rating is a 30% discount and for 1-star rating is 35% premium.
- High–margin of safety for 5-star rating is a 40% discount and for 1-star rating is 55% premium.
- Very High–margin of safety for 5-star rating is a 50% discount and for 1-star rating is 75% premium.
- Extreme–margin of safety for 5-star rating is a 75% discount and for 1-star rating is 300% premium.

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

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

Morningstar Equity Research Star Rating Methodology



Morningstar Star Rating for Stocks
Once we determine the fair value estimate of a stock, we compare it with the stock's current market price on a daily basis, and the star rating is automatically re-calculated at the market close on every day the market on which the stock is listed is open.
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. 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. The market is pricing in an excessively optimistic outlook, limiting upside potential and leaving the investor exposed to Capital loss.

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Research Methodology for Valuing Companies

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.

Stewardship Rating: Represents our assessment of management's stewardship of shareholder capital, with particular emphasis on capital allocation decisions. Analysts consider companies' investment strategy and valuation, financial leverage, dividend and share buyback policies, execution, compensation, related party transactions, and accounting practices. Corporate governance practices are only considered if they've had a demonstrated impact on shareholder value. Analysts assign one of three ratings: "Exemplary," "Standard," and "Poor." Analysts judge stewardship from an equity holder's perspective. Ratings are determined on an absolute basis. Most companies will receive a Standard rating, and this is the default rating in the absence of evidence that managers have made exceptionally strong or poor capital allocation decisions.

Quantitative Valuation: Using the below terms, intended to denote the relationship between the security's Last Price and Morningstar's quantitative fair value estimate for that security.

- ► Undervalued: Last Price is below Morningstar's quantitative fair value estimate.
- ► Fairly Valued: Last Price is in line with Morningstar's quantitative fair value estimate.
- ► Overvalued: Last Price is above Morningstar's quantitative fair value estimate.

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.

Quantitative Equity Reports Overview

The quantitative report on equities consists of data, statistics and quantitative equity ratings on equity securities. Morningstar, Inc.'s quantitative equity ratings are forward looking and are generated by a statistical model that is based on Morningstar Inc.'s analyst-driven equity ratings and quantitative statistics. Given the nature of the quantitative report and the quantitative ratings, there is no one analyst in which a given report is attributed to; however, Mr. Lee Davidson, Head of Quantitative Research for Morningstar, Inc., is responsible for overseeing the methodology that supports the quantitative equity ratings used in this report. As an employee of Morningstar, Inc., Mr. Davidson is guided by Morningstar, Inc.'s Code of Ethics and Personal Securities Trading Policy in carrying out his responsibilities.

Quantitative Equity Ratings

Morningstar's quantitative equity ratings consist of:
(i) Quantitative Fair Value Estimate
(ii) Quantitative Star Rating
(iii) Quantitative Uncertainty
(iv) Quantitative Economic Moat
(v) Quantitative Financial Health
(collectively the "Quantitative Ratings").

The Quantitative Ratings are calculated daily and derived from the analyst-driven ratings of a company's peers as determined by statistical algorithms. Morningstar, Inc. ("“Morningstar," "we," "our") calculates Quantitative Ratings for companies whether it already provides analyst ratings and qualitative coverage. In some cases, the Quantitative Ratings may differ from the analyst ratings because a company's analyst-driven ratings can significantly differ from other companies in its peer group.

Quantitative Fair Value Estimate: Intended to represent Morningstar's estimate of the per share dollar amount that a company's equity is worth today. Morningstar calculates the quantitative fair value estimate using a statistical model derived from the fair value estimate Morningstar's equity analysts assign to companies. Please go to https://shareholders.morningstar.com for information about fair value estimates Morningstar's equity analysts assign to companies.

Quantitative Economic Moat: Intended to describe the strength of a firm's competitive position. It is calculated using an algorithm designed to predict the Economic Moat rating a Morningstar analyst would assign to the stock. The rating is expressed as Narrow, Wide, or None.

- ► Narrow: assigned when the probability of a stock receiving a "Wide Moat" rating by an analyst is greater than 70% but less than 99%.
- ► Wide: assigned when the probability of a stock receiving a "Wide Moat" rating by an analyst is greater than 99%.
- ► None: assigned when the probability of an analyst receiving a "Wide Moat" rating by an analyst is less than 70%.

Quantitative Star Rating: Intended to be the summary rating based on the combination of our Quantitative Fair Value Estimate, current market price, and the Quantitative Uncertainty Rating. The rating is expressed as 1-Star, 2-Star, 3-Star, 4-Star, and 5-Star.

★: the stock is overvalued with a reasonable margin of safety.
Log (Quant FVE/Price)<–1*Quantitative Uncertainty

★★: the stock is somewhat overvalued.
Log (Quant FVE/Price) between (–1*Quantitative Uncertainty, –0.5*Quantitative Uncertainty)

★★★: the stock is approximately fairly valued.
Log (Quant FVE/Price) between (–0.5*Quantitative Uncertainty, 0.5*Quantitative Uncertainty)

★★★★: the stock is somewhat undervalued.
Log (Quant FVE/Price) between (0.5*Quantitative Uncertainty, 1*Quantitative Uncertainty)

★★★★★: the stock is undervalued with a reasonable margin of safety. Log (Quant FVE/Price) >1*Quantitative Uncertainty

Quantitative Uncertainty: Intended to represent Morningstar's level of uncertainty about the accuracy of the quantitative fair value estimate. Generally, the lower the quantitative Uncertainty, the narrower the potential range of outcomes for that particular company. The rating is expressed as Low, Medium, High, Very High, and Extreme.

- ► Low: the interquartile range for possible fair values is less than 10%.
- ► Medium: the interquartile range for possible fair values is less than 15% but greater than 10%.
- ► High: the interquartile range for possible fair values is less than 35% but greater than 15%.
- ► Very High: the interquartile range for possible fair values is less than 80% but greater than 35%.
- ► Extreme: the interquartile range for possible fair values is greater than 80%.

Quantitative Financial Health: Intended to reflect the probability that a firm will face financial distress in the near future. The calculation uses a predictive model designed to anticipate when a company may default on its financial obligations. The rating is expressed as Weak, Moderate, and Strong.

- ► Weak: assigned when Quantitative Financial Health <0.2
- ► Moderate: assigned when Quantitative Financial Health is between 0.2 and 0.7
- ► Strong: assigned when Quantitative Financial Health >0.7

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This Report has not been made available to the issuer of the security prior to publication.

Risk Warning

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The quantitative equity ratings are not statements of fact. Morningstar does not guarantee the completeness or accuracy of the assumptions or models used in determining the quantitative equity ratings. In addition, there is the risk that the price target will not be met due to such things as unforeseen changes in demand for the company's products, changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, and tax rate. For investments in foreign markets there are further risks, generally based on exchange rate changes or changes in political and social conditions.

A change in the fundamental factors underlying the quantitative equity ratings can mean that the valuation is subsequently no longer accurate.

For more information about Morningstar's quantitative methodology, please visit http://global.morningstar.com/equitydisclosures.

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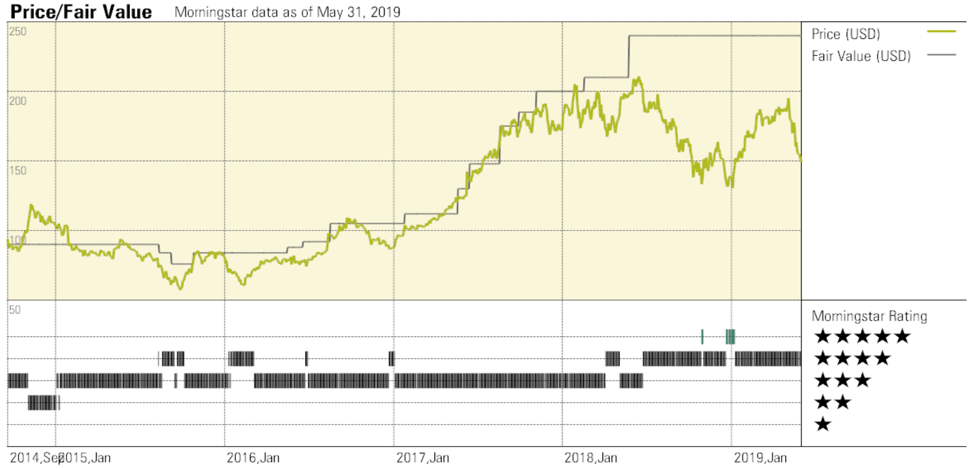
Alibaba Group Holding Ltd BABA (XNYS)

Morningstar Rating	Last Price	Fair Value Estimate	Price/Fair Value	Trailing Dividend Yield %	Forward Dividend Yield %	Market Cap (Bil)	Industry	Stewardship
★★★★	149.26 USD	240.00 USD	0.62	—	0.00	383.89	Specialty Retail	Poor
31 May 2019 22:07, UTC	31 May 2019	23 May 2018 20:07, UTC		31 May 2019	31 May 2019	31 May 2019		

Price/Fair Value Morningstar data as of May 31, 2019



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