

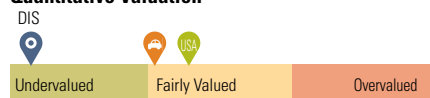
Walt Disney Co DIS (XNYS)

Morningstar Rating	Last Price	Fair Value Estimate	Price/Fair Value	Trailing Dividend Yield %	Forward Dividend Yield %	Market Cap (Bil)	Industry	Stewardship
★★★★★	91.86 USD	134.00 USD	0.69	1.54	1.55	147.63	Media - Diversified	Standard
11 Oct 2016 05:00, UTC	11 Oct 2016	04 Aug 2015 22:17, UTC		11 Oct 2016	11 Oct 2016	11 Oct 2016		

Morningstar Pillars	Analyst	Quantitative
Economic Moat	Wide	Wide
Valuation	★★★★★	Undervalued
Uncertainty	Medium	High
Financial Health	—	Strong

Source: Morningstar Equity Research

Quantitative Valuation



	Current	5-Yr Avg	Sector	Country
Price/Quant Fair Value	0.79	0.97	0.96	1.02
Price/Earnings	16.6	19.3	18.5	21.1
Forward P/E	15.2	—	14.5	15.3
Price/Cash Flow	12.1	13.8	10.2	11.9
Price/Free Cash Flow	19.6	23.0	17.2	17.7
Trailing Dividend Yield%	1.54	1.35	2.27	2.06

Source: Morningstar

Bulls Say

- ▶ The parks and resorts segment has rebounded strongly from the recession and the opening of Disneyland Shanghai should provide additional momentum.
- ▶ The addition of the Star Wars franchise broadens the demographics that the company can address. Additionally, the strong distribution and merchandising capabilities of Disney should help to speed the monetization of the Lucasfilm acquisition.
- ▶ Although making movies is a hit-or-miss business, Disney's large library of content with popular franchises and characters reduces this volatility over time.

Bears Say

- ▶ The business model for the media networks depends on the continued growth of retransmission and reverse compensation fees. Any slowdown in the growth of these fees, perhaps because the pay-television business begins to shrink, would hurt the profitability of this segment.
- ▶ Increases in the cost of popular programming such as sports events and television series could adversely affect margins at ESPN and ABC.
- ▶ Developing mass-market hit programs can be unpredictable, especially as media fragmentation continues.

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Dominant cable networks and branded franchises give Disney pricing power.

Investment Thesis

Neil Macker, CFA, Eq. Analyst, 08 September 2016

While Disney is a media conglomerate, we view the company as two distinct yet complementary businesses: media networks, which include ESPN and ABC, and Disney-branded businesses, including parks, filmed entertainment, and consumer products.

The crown jewel of Disney's media networks segment is ESPN. It dominates domestic sports television with its 24-hour programming on ESPN, ESPN2, and its growing sister networks. ESPN has exclusive rights within both NFL and college football, the premier sports programming rights in the United States. ESPN profits from the highest affiliate fees per subscriber of any cable channel, and generates revenue from advertisers interested in reaching adult males ages 18-49, a key advertising demographic that watches less scripted television than other groups. This dual income stream is a significant advantage not shared by the broadcast networks, which rely primarily on ad revenue. The Disney Channel also benefits from attractive economics, as its programming consists of internally generated hits with Disney's vast library of feature films and animated characters. We expect the unique content on ESPN and Disney Channel will provide the firm with a softer landing than its peers as viewing transfers to a over-the-top world over the next decade.

Disney's other components rely on the world-class Disney brand, sought after by children and trusted by parents. Over the past decade, Disney has demonstrated its ability to monetize its characters and franchises across multiple platforms--movies, home video, merchandising, theme parks, and even musicals. The stable of animated franchises will continue to grow as more popular movies get released by the animated studio and Pixar, which has already generated hits such as Toy Story, Cars, and most recently Frozen. Similar to the animated franchises, Disney arranged the Marvel universe to create a series of interconnected films and product tie-ins. With the acquisition of Lucasfilm, Disney appears to be positioning the Star Wars franchise in the same manner. Disney's theme parks and resorts are almost impossible to replicate, especially considering the tie-ins with its other

business lines.

Analyst Note

Neil Macker, CFA, Eq. Analyst, 09 August 2016

Disney posted a slightly better-than-expected third quarter of fiscal 2016 with strong studio results offsetting weak media network results. The firm also announced its widely rumored investment in BAMTech, purchasing 33% of the firm for \$1 billion. We are maintaining our wide moat rating and our fair value estimate of \$134. With the stock trading in the four-star range, it may offer an attractive entry point for investors with a longer-term investment horizon.

Revenue increased by 9% year on year to \$14.3 billion, just above our \$14.0 billion estimate. The revenue growth was led by studio entertainment with a 40% improvement. EBITDA increased 9% to \$4.7 billion as the 58% improvement at studio entertainment and the 10% improvement at parks and resorts more than offset the 7% decline in consumer products. Media networks revenue grew by 2.4% broadcasting as 5% affiliate fee growth more than offset 6% decline in TV/SVOD distribution as Disney sold fewer cable programs in the quarter. The growth in parks and resorts reflected the impact of preopening revenue from the Shanghai resort which opened on June 16. Management remains positive on the park which largely received positive reactions from both local press and social media.

Management discussed its investment in BAMTech, the spinout from MLB Advanced Media. The \$1 billion investment in the firm provides Disney with a minority stake of 33% along with the option to buy the remainder of BAMTech. BAMTech is one of the leading online live-streaming companies and currently operates the online platforms for HBO Now, the NHL, the PGA, and WatchESPN, among others. We believe the investment by Disney can be seen as an analogue to the company's previous investment in Maker Studios in that management perceived a deficiency in its understanding of a new media platform and corrected the deficit via investing in expertise and knowledge.

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Close Competitors	Currency (Mil)	Market Cap	TTM Sales	Operating Margin	TTM/PE
Time Warner Inc TWX	USD	61,115	27,903	25.31	15.77
Twenty-First Century Fox Inc FOXA	USD	45,893	27,326	21.93	17.36
CBS Corp CBS	USD	24,653	14,303	18.63	16.45
Viacom Inc VIAB	USD	14,173	13,050	24.90	6.91

Economic Moat

Neil Macker, Eq. Analyst, 08 September 2016

Disney's economic moat is wide. Its media networks segment and its collection of Disney-branded businesses have demonstrated strong pricing power through the past few years.

The ESPN network is the dominant player in U.S. sports entertainment. Its position and brand strength empower it to charge the highest subscriber fees of any cable network, which in turn generate sustainable profits. ESPN uses these profits to reinforce its position by acquiring long-term sports programming rights, including the NFL, the NBA, and college football and basketball. The ESPN brand has been extended to create sister channels (ESPN2, ESPN Classic, and SEC Network) and the pre-eminent sports news website (ESPN.com).

The media network component also includes the Disney Channel, one of two dominant cable networks for children, which allows Disney to introduce and extend its strong IP and content portfolio. ABC, one of the four major broadcast networks, offers an outlet to reach almost all 116 million households in the United States. While network viewership has declined over the past decade, it still outpaces cable ratings, and provides advertisers with one of the only remaining avenues for reaching a mass audience.

Disney has mastered the process of monetizing its world-renowned characters and franchises across multiple platforms. The company has moved beyond the historical view of a brand that children recognize, and that parents trust, by acquiring and creating new franchises and intellectual property. Recent success with the Pixar and Marvel franchises has helped to create new opportunities with adults that may have previously outgrown their attraction to the company's traditional characters. The recent acquisition of Lucasfilm added another avenue to remain engaged with children and adults. Disney uses the success of its filmed entertainment not only to drive DVD sales, but also to create new experiences at its parks and resorts,

merchandising, TV programming, and even Broadway shows. Each new franchise deepens the Disney library, which will continue to generate value over the years.

Valuation

Neil Macker, Eq. Analyst, 08 September 2016

Our fair value estimate of \$134 per share implies price/earnings of approximately 24 times our fiscal 2016 earnings per share forecast and 15 times on 2016 enterprise value/adjusted EBITDA. We expect average annual top-line growth of about 5.1% through fiscal 2020.

We have lowered our average annual sales growth from the media networks to 3.9% (5.0% for affiliate fees and 3.3% for advertising), as the loss of subscribers at ESPN and other pay TV channels will be slightly offset by per sub affiliate fee increases domestically and international growth. We also expect new bundles to provide a boost to the segment. We project 7.0% average annual sales growth during the next five years for parks and resorts. The investments that required heavy capital expenditures over the past few years are bearing fruit now including the launch of Shanghai Disneyland in fiscal 2016. We forecast operating margins for the segment to reach 20% by fiscal 2020.

We have modeled 4.4% average annual growth for the filmed entertainment segment due to the addition of the Star Wars movies and the growth in television, subscription VOD, and other distribution outlets. We estimate 6.0% annual growth for consumer products, which should benefit from continued global growth of key Disney brands, which now include Star Wars. We believe the interactive segment will continue to generate slightly positive operating income during the next five years, albeit a very small piece of the overall Disney pie. We project Disney's overall operating margin will improve to 24.8% in fiscal 2020 from 24.0% in fiscal 2016. We think this profit expansion is achievable, as the highest-margin segment, cable networks, will grow at a faster rate than the overall firm.

Risk

Neil Macker, Eq. Analyst, 08 September 2016

Disney's results could suffer if the company cannot adapt to the changing media landscape. Basic pay-television service rates have continued to increase, which could cause consumers to cancel their subscriptions or reduce their level of service. ESPN garners the highest affiliate

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fees of any basic cable channel and a decrease in pay-TV penetration would slow down revenue growth. The cost of sports rights may continue to skyrocket, putting pressure on margins. The company's ad-supported broadcast networks, along with the theme parks and consumer products, will suffer if the economy weakens. Making movies is a hit-or-miss business, which could result in big swings in profitability for the filmed entertainment segment.

Management

Neil Macker, Eq. Analyst, 08 September 2016

While we place Disney's stewardship of shareholder capital as Standard, we believe that the current management team is in the upper end of the tier of its direct peers. Chairman and CEO Bob Iger began his tenure as CEO in October 2005 and chairman in March 2012 and is currently scheduled to serve until June 2018. The recent resignation of Tom Staggs, formerly viewed as the successor to Iger, has thrown the previous orderly succession plan out the window. We believe that the board will look outside the company for the firm's next CEO. Current board member and Facebook CFO Sheryl Sandberg has been rumored to be a potential candidate along with CBS CEO Les Moonves. If the board cannot find a suitable candidate, Disney could renew Iger's contract for another couple years given his relative youth.

While the loss of former CFO Jay Rasulo last year was expected, the company drew on its deep executive bench to promote Christine McCarthy to CFO. McCarthy has a long tenure with the firm and significant experience in the finance function at Disney as the firm's treasurer.

Under Iger, Disney has embraced new technology and also reinvigorated its commitment to high-quality content. He understood the importance of animation to the company early in his tenure, purchasing Pixar, the computer animation studio, in 2006, and then resurrecting Disney's own studio. Iger also purchased two major content creators (Marvel and Lucasfilm) that expanded the demographics served by the company. Beyond Pixar, the company has made significant investment in new technology/distribution including buying Club Penguin (an MMO for children), Maker Studios (a network of YouTube channels), and its recent investment in BAMTech (a leader in online live-streaming). We believe Iger will remain on the lookout for M&A opportunities, specifically within new digital media.

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★★★★★
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05:00, UTC

Last Price
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11 Oct 2016

Fair Value Estimate
134.00 USD
04 Aug 2015
22:17, UTC

Price/Fair Value
0.69

Trailing Dividend Yield %
1.54
11 Oct 2016

Forward Dividend Yield %
1.55
11 Oct 2016

Market Cap (Bil)
147.63
11 Oct 2016

Industry
Media - Diversified

Stewardship
Standard

Analyst Notes Archive

Mixed Second Quarter For Disney Despite Strong Studio Performance; Exiting Console Video Games

Neil Macker, Eq. Analyst, 11 May 2016

Disney reported a mixed second-quarter fiscal 2016, as revenue and EPS were in line with our expectations but below consensus. We are maintaining our wide moat rating and our fair value estimate of \$134. With the stock trading in the four-star range, it may offer an attractive entry point for investors with a longer-term investment horizon.

Revenue increased by 4% year on year to \$13.0 billion, just below our \$13.1 billion estimate. The revenue growth was led by studio entertainment with a 22% improvement. EBITDA increased 8% to \$4.0 billion, above our \$3.7 billion estimate, as the 24% improvement at studio entertainment and the 13% improvement at media networks more than offset the 8% decline at consumer products. The improvement at media networks despite flat revenue growth was due to the timing of the college football playoff games and affiliate fee growth offsetting lower ad revenue. The improvement in the parks and resorts segment was driven by improved domestic performance, and was slightly offset by increased preopening expenses for the Shanghai resort.

The company announced the end of the Disney Infinity franchise after the final playset release in June. Disney will no longer publish video games for consoles and its console video game studio, Avalanche Software, will be shut down. Management noted the first two iterations of Infinity sold well but the company did not have confidence in the long-term stability of the space. We note that Skylanders for Activision underperformed in its most recent release and that toys-to-life video game may be reaching a saturation point. Given the success of Star Wars Battlefront and other licensed games, Disney believes that licensing games will provide a better return than developing and publishing games.

Disney Slightly Beats Third-Quarter Projections; Strengthens OTT Platform Via Investment in BAMTech

Neil Macker, Eq. Analyst, 09 August 2016

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weak media network results. The firm also announced its widely rumored investment in BAMTech, purchasing 33% of the firm for \$1 billion. We are maintaining our wide moat rating and our fair value estimate of \$134. With the stock trading in the four-star range, it may offer an attractive entry point for investors with a longer-term investment horizon.

Revenue increased by 9% year on year to \$14.3 billion, just above our \$14.0 billion estimate. The revenue growth was led by studio entertainment with a 40% improvement. EBITDA increased 9% to \$4.7 billion as the 58% improvement at studio entertainment and the 10% improvement at parks and resorts more than offset the 7% decline in consumer products. Media networks revenue grew by 2.4% broadcasting as 5% affiliate fee growth more than offset 6% decline in TV/SVOD distribution as Disney sold fewer cable programs in the quarter. The growth in parks and resorts reflected the impact of preopening revenue from the Shanghai resort which opened on June 16. Management remains positive on the park which largely received positive reactions from both local press and social media.

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Walt Disney Co DIS ★★★★★^Q 11 Oct 2016 02:00 UTC

Last Close

11 Oct 2016

91.86

Fair Value^Q

11 Oct 2016 02:00 UTC

115.86

Market Cap

11 Oct 2016

148.6 Bil

Sector

Consumer Cyclical

Industry

Media - Diversified

Country of Domicile

USA United States

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

Walt Disney Co together with its subsidiaries is a diversified entertainment company with operations in five business segments: Media Networks, Parks and Resorts, Studio Entertainment, Consumer Products and Interactive.

Quantitative Scores

		Scores		
		All	Rel Sector	Rel Country
Quantitative Moat	Wide	100	100	100
Valuation	Undervalued	100	99	100
Quantitative Uncertainty	High	80	76	82
Financial Health	Strong	82	81	82

DIS



Undervalued Fairly Valued Overvalued

Source: Morningstar Equity Research

Valuation

	Current	5-Yr Avg	Sector Median	Country Median
Price/Quant Fair Value	0.79	0.97	0.96	1.02
Price/Earnings	16.6	19.3	18.5	21.1
Forward P/E	15.2	—	14.5	15.3
Price/Cash Flow	12.1	13.8	10.2	11.9
Price/Free Cash Flow	19.6	23.0	17.2	17.7
Trailing Dividend Yield %	1.54	1.35	2.27	2.06
Price/Book	3.4	2.8	1.7	2.4
Price/Sales	2.7	2.7	0.9	1.9

Profitability

	Current	5-Yr Avg	Sector Median	Country Median
Return on Equity %	20.4	15.5	11.7	11.9
Return on Assets %	10.4	8.2	5.2	4.7
Revenue/Employee (K)	302.7	265.8	499.3	302.9

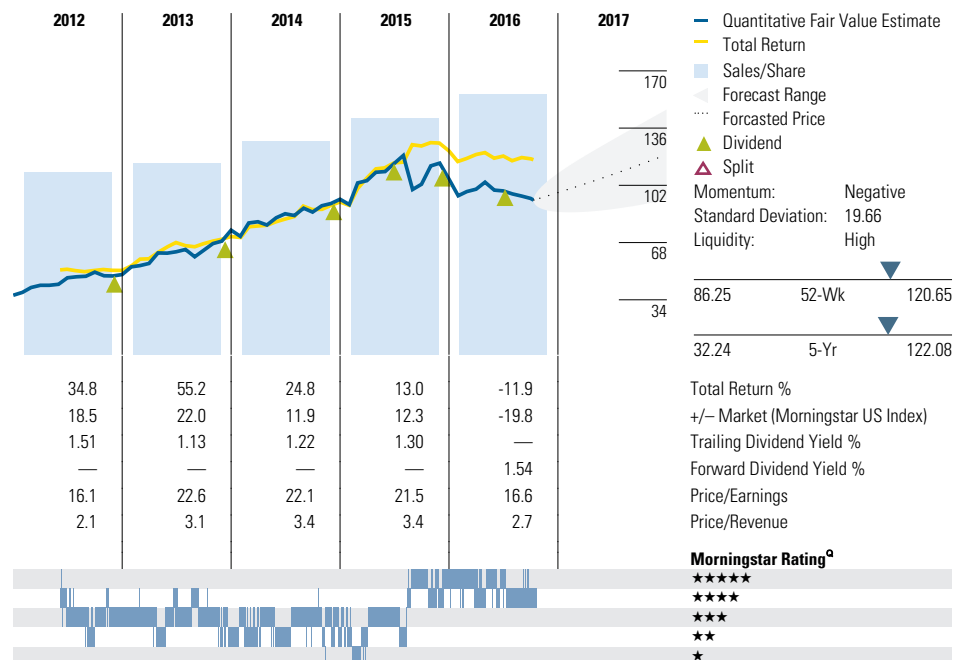
Financial Health

	Current	5-Yr Avg	Sector Median	Country Median
Distance to Default	0.7	0.8	0.6	0.5
Solvency Score	327.2	—	508.4	581.6
Assets/Equity	2.0	1.9	1.8	1.7
Long-Term Debt/Equity	0.3	0.3	0.2	0.3

Growth Per Share

	1-Year	3-Year	5-Year	10-Year
Revenue %	7.5	7.5	6.6	5.1
Operating Income %	14.6	14.3	15.4	12.4
Earnings %	15.0	16.1	19.3	14.7
Dividends %	110.5	44.5	38.9	22.4
Book Value %	5.2	8.0	7.2	7.9
Stock Total Return %	-11.6	13.2	24.4	12.2

Price vs. Quantitative Fair Value

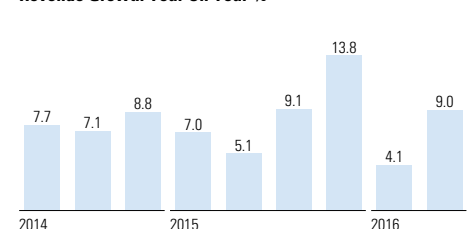


	2011	2012	2013	2014	2015	TTM	Financials (Fiscal Year in Mil)
Revenue	40,893	42,278	45,041	48,813	52,465	56,002	Revenue
% Change	7.4	3.4	6.5	8.4	7.5	6.7	% Change
Operating Income	—	—	—	11,540	13,224	14,645	Operating Income
% Change	—	—	—	—	14.6	10.7	% Change
Net Income	4,807	5,682	6,136	7,501	8,382	9,229	Net Income
Operating Cash Flow	6,994	7,966	9,452	9,780	10,909	12,714	Operating Cash Flow
Capital Spending	-3,559	-3,784	-2,796	-3,311	-4,265	-4,895	Capital Spending
Free Cash Flow	3,435	4,182	6,656	6,469	6,644	7,819	Free Cash Flow
% Sales	8.4	9.9	14.8	13.3	12.7	14.0	% Sales
EPS	2.52	3.13	3.38	4.26	4.90	5.58	EPS
% Change	24.1	24.2	8.0	26.0	15.0	13.9	% Change
Free Cash Flow/Share	1.80	2.56	3.03	3.48	3.82	4.71	Free Cash Flow/Share
Dividends/Share	0.40	0.60	0.75	0.86	1.81	1.42	Dividends/Share
Book Value/Share	20.14	22.23	24.19	26.78	27.56	27.50	Book Value/Share
Shares Outstanding (Mil)	1,800	1,700	1,700	1,653	1,607	1,607	Shares Outstanding (Mil)
Profitability	12.8	14.7	14.4	16.6	18.7	20.4	Profitability
Return on Equity %	6.8	7.7	7.9	9.1	9.7	10.4	Return on Equity %
Return on Assets %	11.8	13.4	13.6	15.4	16.0	16.5	Return on Assets %
Net Margin %	0.58	0.58	0.58	0.59	0.61	0.63	Net Margin %
Asset Turnover	1.9	1.9	1.8	1.9	2.0	2.1	Asset Turnover
Financial Leverage	19.0	21.0	21.0	45.9	45.9	46.4	Financial Leverage
Gross Margin %	—	—	—	23.6	25.2	26.2	Gross Margin %
Operating Margin %	10,922	10,697	12,776	12,676	12,773	15,129	Operating Margin %
Long-Term Debt	37,385	39,759	45,429	44,958	44,525	44,193	Long-Term Debt
Total Equity	2.2	2.1	2.1	2.1	2.2	2.2	Total Equity
Fixed Asset Turns							Fixed Asset Turns

Quarterly Revenue & EPS

	Revenue (Mil)	Dec	Mar	Jun	Sep	Total
2016	15,244.0	12,969.0	14,277.0	—	—	—
2015	13,391.0	12,461.0	13,101.0	13,512.0	52,465.0	—
2014	12,309.0	11,649.0	12,466.0	12,389.0	48,813.0	—
2013	11,341.0	10,554.0	11,578.0	11,568.0	45,041.0	—
Earnings Per Share (I)						
2016	1.73	1.30	1.59	—	—	—
2015	1.27	1.23	1.45	0.95	4.90	—
2014	1.03	1.08	1.28	0.86	4.26	—
2013	0.77	0.83	1.01	0.77	3.38	—

Revenue Growth Year On Year %



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. Moreover, we think analyzing valuation through discounted cash flows presents a better lens for viewing cyclical companies, high-growth firms, businesses with finite lives (e.g., mines), or companies expected to generate negative earnings over the next few years. That said, we don't dismiss multiples altogether but rather use them as supporting cross-checks for our DCF-based fair value estimates. We also acknowledge that DCF models offer their own challenges (including a potential proliferation of estimated inputs and the possibility that the method may miss short-term market-price movements), but we believe these negatives are mitigated by deep analysis and our long-term approach.

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

Four key components drive the Morningstar rating: (1) our assessment of the firm's economic moat, (2) our estimate of the stock's fair value, (3) our uncertainty around that fair value estimate

and (4) the current market price. This process ultimately culminates in our single-point star rating.

1. Economic Moat

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

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

To assess the sustainability of excess profits, 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.

2. Estimated Fair Value

Combining our analysts' financial forecasts with the firm's economic moat helps us assess how long returns on invested capital are likely to exceed the firm's cost of

capital. Returns of firms with a wide economic moat rating are assumed to fade to the perpetuity period over a longer period of time than the returns of narrow-moat firms, and both will fade slower than no-moat firms, increasing our estimate of their intrinsic value.

Our model is divided into three distinct stages:

Stage I: Explicit Forecast

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

Stage II: Fade

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

Stage III: Perpetuity

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

Because a dollar earned today is worth more than a dollar earned tomorrow, we discount our projections of cash flows in stages I, II, and III to arrive at a total pres-

Morningstar Research Methodology for Valuing Companies



Research Methodology for Valuing Companies

ent 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 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:** Stock's uncertainty exceeds the parameters we have set for assigning the appropriate margin of safety.

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 detail information about our methodology, please go to <http://global.morningstar.com/equitydisclosures>

Morningstar Star Rating for Stocks

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

Please note, there is no predefined distribution of stars. That is, the percentage of stocks that earn 5 stars can fluctuate daily, so the star ratings, in the aggregate, can serve as a gauge of the broader market's valuation. When there are many 5-star stocks, the stock market as

a whole is more undervalued, in our opinion, than when very few companies garner our highest rating.

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

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

The Morningstar Star Ratings for stocks are defined below:

Five Stars ★★★★★

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.

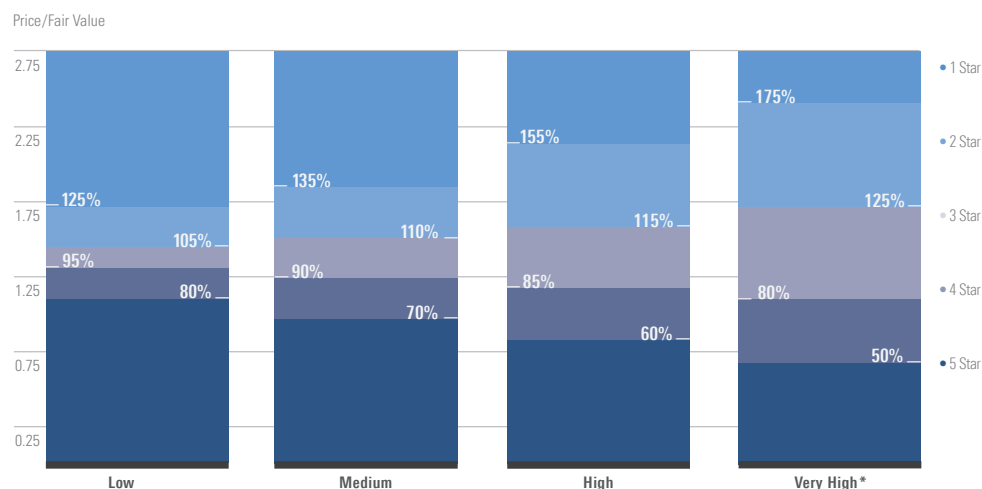
Four Stars ★★★★

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

Three Stars ★★★

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

Morningstar Research Methodology for Valuing Companies



* Occasionally a stock's uncertainty will be too high for us to estimate, in which case we label it Extreme.

Research Methodology for Valuing Companies

Two Stars ★★

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

One Star ★

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.

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, and (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 or not 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 <http://global.morningstar.com/equitydisclosures> for information about Fair Value Estimate 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 One-Star, Two-Star, Three-Star, Four-Star, and Five-Star.

- **One-Star:** the stock is overvalued with a reasonable margin of safety.
 $\text{Log}(\text{Quant FVE/Price}) < -1 * \text{Quantitative Uncertainty}$
- **Two-Star:** the stock is somewhat overvalued.
 $\text{Log}(\text{Quant FVE/Price}) \text{ between } (-1 * \text{Quantitative Uncertainty}, -0.5 * \text{Quantitative Uncertainty})$
- **Three-Star:** the stock is approximately fairly valued.
 $\text{Log}(\text{Quant FVE/Price}) \text{ between } (-0.5 * \text{Quantitative Uncertainty}, 0.5 * \text{Quantitative Uncertainty})$
- **Four-Star:** the stock is somewhat undervalued.
 $\text{Log}(\text{Quant FVE/Price}) \text{ between } (0.5 * \text{Quantitative Uncertainty}, 1 * \text{Quantitative Uncertainty})$
- **Five-Star:** the stock is undervalued with a reasonable margin of safety.
 $\text{Log}(\text{Quant FVE/Price}) > 1 * \text{Quantitative Uncertainty}$

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 rat-

Research Methodology for Valuing Companies

ing 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

Other Definitions:

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

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.
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- **Overvalued:** Last Price is above Morningstar's quantitative fair value estimate.

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

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.

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For more information about Morningstar's quantitative methodology, please visit www.corporate.morningstar.com.

Walt Disney Co DIS (XNYS)

Morningstar Rating	Last Price	Fair Value Estimate	Price/Fair Value	Trailing Dividend Yield %	Forward Dividend Yield %	Market Cap (Bil)	Industry	Stewardship
★★★★★	91.86 USD	134.00 USD	0.69	1.54	1.55	147.63	Media - Diversified	Standard
11 Oct 2016 05:00, UTC	11 Oct 2016	04 Aug 2015 22:17, UTC		11 Oct 2016	11 Oct 2016	11 Oct 2016		

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Walt Disney Co DIS (XNYS)

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Walt Disney Co DIS (XNYS)

Morningstar Rating	Last Price	Fair Value Estimate	Price/Fair Value	Trailing Dividend Yield %	Forward Dividend Yield %	Market Cap (Bil)	Industry	Stewardship
★★★★★	91.86 USD	134.00 USD	0.69	1.54	1.55	147.63	Media - Diversified	Standard
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