

Research Highlights

A weekly summary of our best ideas and developments in the companies we cover.

Morningstar Equity Research

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U.S. Asset Managers at a Crossroads

It's been a difficult year for the U.S.-based asset managers, with the 12 firms we cover down close to 20% on average since the start of 2018 compared with a nearly 8% price gain for the S&P 500 index. While valuations have become depressed across the group, they've also bifurcated between perceived haves — wide-moat-rated BlackRock and T. Rowe Price and narrow-moat-rated Eaton Vance and Cohen & Steers — which are generating above-average rates of organic growth and operating margins (and trading at 25%-plus premiums to the group on a price/earnings basis), and those viewed as have-nots — narrow-moat-rated Invesco, Affiliated Managers Group, Franklin Resources, Legg Mason, and Janus Henderson and no-moat Waddell & Reed — some of which deserve to be trading at steep discounts (of more than 25%) to the group.

We feel the industry itself is at a bit of a crossroads, with a handful of different forces — including increased regulation of asset and wealth management globally, distribution-channel disruption on the retail-advised side of the business in the U.S. and other developed markets, the ongoing shift from active to passive products, and a greater focus on relative and absolute fund investment performance and fees — having an impact on asset manager fees and expenses, which is working against the ability of these firms to generate sustainable levels of organic growth and increase profitability. Given this environment, we still recommend that long-term investors focus on BlackRock, the leading provider of exchange-traded funds, with two thirds of managed assets and half of revenue coming from passive products, as well as garnering more than 80% of its assets under management from institutional clients, and T. Rowe Price, which has the best and most consistent active investment performance in the group (and is a leader in the industry as a whole) and derives two thirds of its AUM from retirement-based products.

We recently removed Invesco from the Best Ideas list. The company's shares are down more than 35% since the start of the year and are currently trading at less than 9 times this year's and next year's earnings estimates (and at a more than 30% discount to our \$35 per share fair value estimate) with no real fundamental issues with the business (other than the fact that the firm's margins are lower than the industry average, which has been known for quite some time now). We had added Invesco to the Best Ideas list earlier in the year on our belief that the sell-off in the shares would be reversed over time once investors realized how much the share price was undervaluing the company's level of assets under management, revenue, and profitability. We considered Invesco to be the best of the bunch of have-nots, all of which are down more than 25% year to date, noting that the firm's three- and five-year aggregate investment performance should be good enough to spur 0%-2% annual organic growth

during our five-year forecast period, even with all of the negative headwinds for the industry.

During the past five years, Invesco generated an average annual organic growth rate of 1.8% with one of the lowest standard deviations (1.6%) relative to peers. That said, we've struggled of late to find a catalyst that would get investors back into the shares in a meaningful way, with organic growth expected to be weak in the near term, the firm suffering from fee compression and rising costs (both of which are in our near- and long-term forecasts in levels greater than Invesco has been forecasting), and the firm holding back on share repurchases while it pays down the more than \$850 million outstanding on its credit facility related to its purchase of Source (a European specialist exchange-traded fund provider) at the end of last year and Guggenheim's ETF operations during the second quarter of 2018. With rumors now circulating that Invesco may be purchasing OppenheimerFunds for \$5 billion (which we view as a rich price to pay for what looks to be no more than a scale-driven deal), we believe it is more prudent right now to step back from the name until we have greater clarity on the firm's near-term movements, despite the fact that it is trading at historically low multiples (not seen since the third quarter of 2011 and the third and fourth quarters of 2008) with a dividend yield of 5.2% (based on a quarterly dividend of \$0.30 per share).

We replaced Invesco on the Best Ideas list with BlackRock. While that firm is currently trading at a premium to the group of 12 U.S.-based asset managers we cover, the shares are undervalued relative to our \$580 per share fair value estimate (and are trading at a greater discount to our fair value estimate than T. Rowe Price is right now). The market tends to reward both organic growth and operating profits in the U.S.-based asset managers, which explains why BlackRock (generating a 3.3% CAGR for organic growth, with a 3.3% standard deviation, during 2008-17 with operating margins averaging 36.2% annually and reaching 38.6% during 2017) and wide-moat-rated T. Rowe Price (with a 2.6% CAGR for organic growth, with a 3.3% standard deviation, over the past 10 years and annual operating margins of 43.6% on average, with the firm closing out 2017 with margins at 44.2%) have tended to trade at premiums to the group. As a reference point, the group of 12 U.S.-based asset managers we cover had an average annual organic growth rate of 0.7% during 2008-17, with a standard deviation of 6.2% and operating margins of 27.4% on average the past 10 years).

We expect BlackRock to continue generating above-average organic growth of 3%-5% on average annually during 2018-22, with a standard deviation of 1.9%, with operating margins hovering between 39% and 40% over our five-year forecast (a period that includes a 20% decline in equity market values midway through our projection timeline). Our fair value estimate implies a price/earnings multiple of 20.6 times our 2018 earnings estimate and 18.5 times our 2019 earnings estimate. For some perspective, during the past five (10) calendar years, the company's shares have traded at an average of 20.0 (20.8) times trailing earnings.

BlackRock is at its core a passive investor. Through its iShares exchange-traded fund platform and institutional index fund offerings, the wide-moat firm sources two thirds of its managed assets (and half its annual revenue) from passive products. In an environment where investors and the advisors that serve them are expected to seek out providers of passive products, as well as active asset managers that

have greater scale, established brands, solid long-term performance, and reasonable fees, BlackRock is well-positioned. The biggest differentiators for the firm are its scale, ability to offer both passive and active products, greater focus on institutional investors, strong brands, and reasonable fees. We believe that the iShares ETF platform, as well as technology the company offers to clients that provides risk management and product/portfolio construction tools directly to end users (which makes them stickier in the long run), should allow BlackRock to generate higher and more stable levels of organic growth, operating profitability, and free cash flows than its publicly traded peers over the next five years.

Greggory Warren, CFA | greggory.warren@morningstar.com

Moat Framework Series: Consumer

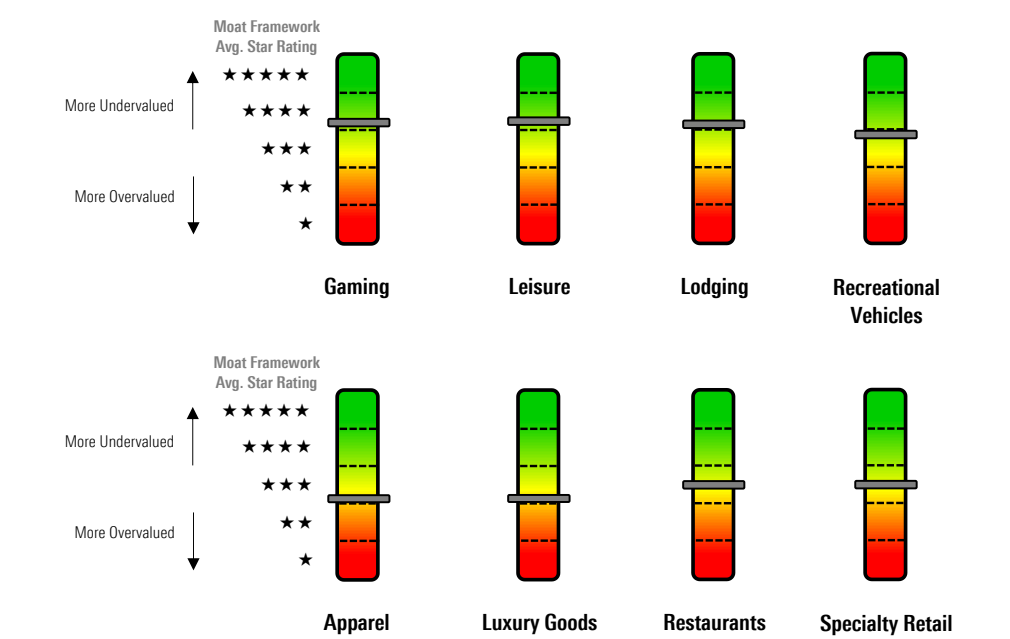
Consumer Cyclical

The Morningstar economic moat framework collection is a critical tool we employ to fine-tune our economic moat analysis across different industries. Here, we reiterate the key considerations for moat frameworks applicable to our consumer cyclical and consumer defensive coverage and provide a compelling investment idea from each industry grouping.

The gaming industry appears slightly undervalued, on average, and we see upside in MGM China. The leisure space also looks relatively attractive, with Norwegian Cruise Line being our top pick. Overall, the lodging industry is roughly fairly valued, but Wyndham Hotels is trading at an attractive valuation. The recreational vehicles industry is fairly valued, but we believe wide-moat Polaris represents a solid long-term investment.

The apparel industry appears slightly overvalued, on average, but we see significant upside in Best Idea Hanesbrands. While luxury goods companies also tend to be overvalued, Richemont is an attractive wide-moat name. Overall, the restaurants industry looks the most undervalued, and we believe McDonald's is the most appealing long opportunity. Finally, in specialty retail, Alibaba offers attractive risk-adjusted returns.

Exhibit 1 Most Consumer Cyclical Industries at or Above Fair Value



Source: Morningstar. Data as of Oct. 11, 2018.

Exhibit 2 Consumer Cyclical Framework Valuation Dashboard

Gaming

Moat Framework Avg. Star Rating	# Companies	Avg. Star Rating	Avg. P/FVE	Company Star Rating	Highlighted Company	Star Rating	P/FVE
★★★★★ ★★★★ ★★★ ★★ ★	15	★★★★	0.91	★★★★★ ★★★★ ★★★ ★★ ★	MGM China Holdings Ltd	★★★★★	0.54
<p>Gaming operators provide consumers with casino gambling, including table games, slot machines, and other machine-based games. In addition to generating revenue from gaming, casinos often generate revenue from lodging, food and beverage, entertainment, retail, and convention and meeting services. The industry is capital intensive, with companies typically having capital expenditures between 5%-10% of sales annually on average.</p>							
<p>MGM China is one of six casino licence holders in Macau. Its MGM Macau casino, in the Macau Peninsula, has 350 gaming tables and 582 hotel rooms, while its new casino complex, MGM Cotai, which opened in February 2018, has 177 gaming tables as of February 2018 and will have over 1,300 rooms by mid-2018.</p>							

Leisure

Moat Framework Avg. Star Rating	# Companies	Avg. Star Rating	Avg. P/FVE	Company Star Rating	Highlighted Company	Star Rating	P/FVE
★★★★★ ★★★★ ★★★ ★★ ★	17	★★★★	0.92	★★★★★ ★★★★ ★★★ ★★ ★	Norwegian Cruise Line Holdings	★★★★	0.78
<p>The leisure category encompasses a diverse group of companies focused on entertainment, recreation, and tourism-related products and services, including cruise lines, motorsports, toy makers, and online travel. Business models and capital intensity vary greatly across the category, with companies generating revenue through direct products, service sales, or travel-related commissions.</p>							
<p>Norwegian Cruise Line is the world's third-largest cruise company by berths, operating 26 ships across three brands (Norwegian, Oceania, and Regent Seven Seas), offering both freestyle and luxury cruising. With eight passenger vessels on order among its brands through 2027, Norwegian is increasing capacity faster than its peers, expanding its brand globally. Norwegian sails to more than 500 global destinations.</p>							

Lodging

Moat Framework Avg. Star Rating	# Companies	Avg. Star Rating	Avg. P/FVE	Company Star Rating	Highlighted Company	Star Rating	P/FVE
★★★★★ ★★★★ ★★★ ★★ ★	8	★★★★	0.94	★★★★★ ★★★★ ★★★ ★★ ★	Wyndham Hotels & Resorts Inc	★★★★	0.73
<p>Lodging companies provide overnight lodging services to consumers and business travelers. We typically categorize lodging companies by their revenue models. Hotel franchisors generate fees from franchisees in their system, hotel managers generate fees from management services provided to hotel owners, and owned hotel operators generate revenue directly from consumers and business travelers.</p>							
<p>Wyndham Hotels & Resorts operates 792,000 rooms across 20 brands in the economy (around 70% of total rooms) and midscale (20%) segments. Super 8 is the largest brand, representing 22% of all rooms, with Days Inn (17%) and Ramada (15%) the next two largest brands. During the past several years, the company has expanded its lifestyle brands (4% of total rooms), which appeal to travelers seeking to experience the local culture of a given location. Franchised and managed relationships represent 97% and 3% of total rooms, respectively. The United States represents roughly 65% of total rooms. The company closed its La Quinta acquisition in the second quarter of 2018, adding around 90,000 rooms.</p>							

Recreational Vehicles

Moat Framework Avg. Star Rating	# Companies	Avg. Star Rating	Avg. P/FVE	Company Star Rating	Highlighted Company	Star Rating	P/FVE
★★★★★ ★★★★ ★★★ ★★ ★	4	★★★	0.95	★★★★★ ★★★★ ★★★ ★★ ★	Polaris Industries Inc	★★★★	0.81
<p>Recreational vehicle companies manufacture, distribute, and market leisure and utility products, including snowmobiles, motor homes, motorcycles, and off-road vehicles. These companies typically allocate their products to third-party dealers, which are instrumental in the products reaching the retail channel.</p>							
<p>Polaris designs and manufactures off-road vehicles, including all-terrain vehicles and side-by-side vehicles for recreational and utility purposes, snowmobiles, small vehicles, and on-road vehicles, including motorcycles and low-emission vehicles, along with the related replacement parts, garments, and accessories. The firm recently moved into the boat market with the acquisition of Boat Holdings in the second half of 2018, offering exposure to a new segment of the outdoor lifestyle market. Polaris products retailed through 1,800 dealers in North America and through 1,700 subsidiaries and 90 distributors in more than 100 countries outside North America at the end of 2017.</p>							

Exhibit 3 Consumer Cyclical Framework Valuation Dashboard

Apparel

Moat Framework Avg. Star Rating	# Companies	Avg. Star Rating	Avg. P/FVE	Company Star Rating	Highlighted Company	Star Rating	P/FVE
★★★★★ ★★★★ ★★★ ★★ ★	34	★★★	1.04	★★★★★ ★★★★ ★★★ ★★ ★	Hanesbrands Inc	★★★★★	0.62
Retail, apparel and specialty, is a broad set of companies that manufacture, source, and sell clothing, footwear, and accessories to consumers. Businesses in the category can be vertically integrated or outsource production to third-party manufacturers. The industry caters to consumers in all demographic and income segments.							
Hanesbrands manufactures innerwear and activewear apparel under brands including Hanes, Champion, and Maidenform. Products are marketed through wholesale and direct channels, with about 31% of sales to mass merchants in the United States and 8% to midtier and department stores. Over 70% of merchandise is produced in company-owned manufacturing facilities or through third-party contractors.							

Luxury Goods

Moat Framework Avg. Star Rating	# Companies	Avg. Star Rating	Avg. P/FVE	Company Star Rating	Highlighted Company	Star Rating	P/FVE
★★★★★ ★★★★ ★★★ ★★ ★	10	★★★	1.04	★★★★★ ★★★★ ★★★ ★★ ★	Cie Financiere Richemont SA	★★★★	0.81
Luxury companies typically manufacture, market, and distribute products that are priced at the premium end of their respective categories. Luxury companies' major competitive advantages are brand names and brand image—often decades or even a century or more in the making. Companies tightly control all aspects of products, brand, marketing and distribution, creating a balance between supply and demand.							
Richemont is a luxury goods conglomerate with 19 brands. Jewellery and watch brands make up over 80% of sales, but the group is also active in accessories, writing instruments, and clothing. Richemont's flagship brand is Cartier, accounting for around 70% of profits by our estimate. Its other brands include Van Cleef & Arpels, Vacheron Constantin, Piaget, Jaeger-LeCoultre, IWC Schaffhausen, Lange & Soehne, Officine Panerai, and Montblanc. The firm generates over half of sales from own retail and employs over 28,000 people, two thirds of whom are Europe-based.							

Restaurants

Moat Framework Avg. Star Rating	# Companies	Avg. Star Rating	Avg. P/FVE	Company Star Rating	Highlighted Company	Star Rating	P/FVE
★★★★★ ★★★★ ★★★ ★★ ★	10	★★★	0.97	★★★★★ ★★★★ ★★★ ★★ ★	McDonald's Corp	★★★★	0.89
Restaurant operators generate revenue through sales at company-owned locations, franchise royalties and rent payments, and licensing pacts. The category can be split into quick-service restaurants, where patrons visit a counter to pay for and receive their meals, and full-service restaurants, where seated customers place orders with waitstaff. The global restaurant industry generates more than \$2 trillion in annual revenue.							
McDonald's generates revenue through company-owned restaurants, franchise royalties, and licensing pacts. Restaurants offer a uniform value-priced menu with some regional variations. As of June 2018, there were more than 37,400 locations in 120 countries: 34,500 franchisee/affiliate units and 2,900 company units. In 2015, Easterbrook introduced a four-pillar approach to systemwide operational improvements emphasizing organizational accountability, customer centricity, progress over perfection, and process simplification.							

Specialty Retail

Moat Framework Avg. Star Rating	# Companies	Avg. Star Rating	Avg. P/FVE	Company Star Rating	Highlighted Company	Star Rating	P/FVE
★★★★★ ★★★★ ★★★ ★★ ★	30	★★★	0.99	★★★★★ ★★★★ ★★★ ★★ ★	Alibaba Group Holding Ltd	★★★★	0.58
Encompassing a broad range of retail categories, including auto parts, books, consumer electronics, home furnishings, home improvement supplies, office supplies, online retailers, pet supplies, and sporting goods, we estimate that the specialty retail industry accounts for roughly one fifth of global retail sales. Specialty retailers distribute products through retail stores, catalogs, and websites.							
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 media and entertainment platforms (8%), international retail/wholesale marketplaces (8%), cloud computing (5%), Cainiao logistics services (3%), and innovation initiatives/other (3%). Mobile GMV accounted for an estimated 83% of consolidated GMV in fiscal 2018.							

Source: Morningstar. Data as of Oct. 11, 2018.

Consumer Defensive

In the consumer defensive sector, although companies to which the beverages and consumer products moat frameworks apply are fairly valued on average, we see attractive return potential for Anheuser-Busch InBev and General Mills. In the overvalued retail defensive industry, we see Colruyt as a short opportunity. Finally, with the tobacco industry being materially undervalued, we highlight Imperial Brands as our top pick in the space.

Exhibit 4 Consumer Defensive Framework Valuation Dashboard**Beverages**

Moat Framework Avg. Star Rating	# Companies	Avg. Star Rating	Avg. P/FVE	Company Star Rating	Highlighted Company	Star Rating	P/FVE
★★★★★ ★★★★ ★★★ ★★ ★	26	★★★	0.99	★★★★★ ★★★★ ★★★ ★★ ★	Anheuser-Busch InBev SA/NV	★★★★★	0.70
Beverage companies market a variety of carbonated soft drinks, still beverages (including juices, teas, and waters), beers, wines, and spirits. It is not uncommon for these firms to outsource some or all of their bottling or distribution operations to third parties.							
Anheuser-Busch InBev is the largest brewer in the world and one of the world's top five consumer product companies, as measured by EBITDA. After the SABMiller acquisition, the company's portfolio now contains five of the top 10 beer brands by sales and 18 brands with retail sales over \$1 billion. AB InBev was created by the 2008 merger of Belgium-based InBev and U.S.-based Anheuser-Busch. The firm holds a 62% economic interest in Ambev and in 2016 acquired SABMiller.							

Consumer Products

Moat Framework Avg. Star Rating	# Companies	Avg. Star Rating	Avg. P/FVE	Company Star Rating	Highlighted Company	Star Rating	P/FVE
★★★★★ ★★★★ ★★★ ★★ ★	54	★★★	0.98	★★★★★ ★★★★ ★★★ ★★ ★	General Mills Inc	★★★★★	0.76
The consumer product industry includes firms that manufacture, market, and sell food and household- and personal-care items through brick-and-mortar retailers, online, and in the case of packaged food, at foodservice outlets. While certain firms only manufacture private-label fare, some branded firms produce these low-priced products to efficiently use existing capacity. Raw materials tend to be sourced from several suppliers.							
General Mills manufactures branded consumer foods, like ready-to-eat cereals, convenient meals, snacks, yogurt, baking mixes, and ice cream, to retail and food-service customers. Its key brands include Cheerios, Betty Crocker, Haagen-Dazs, Pillsbury, Nature Valley, Old El Paso, Annie's, and Yoplait. The North America retail segment contributed roughly two thirds of sales and above three fourths of operating profits in fiscal 2018. More than 70% of General Mills' revenue is generated in the United States. The firm is poised to bolster its presence in the natural and organics aisle with its acquisition of Blue Buffalo (now its pet segment), a natural pet food brand.							

Retail Defensive

Moat Framework Avg. Star Rating	# Companies	Avg. Star Rating	Avg. P/FVE	Company Star Rating	Highlighted Company	Star Rating	P/FVE
★★★★★ ★★★★ ★★★ ★★ ★	28	★★★	1.04	★★★★★ ★★★★ ★★★ ★★ ★	Etablissements Franz Colruyt	★	1.43
Defensive retailers' core operations consist of purchasing, warehousing, transporting, stocking, marketing, and selling a variety of branded and unbranded consumer products. Sales are predominantly made through retail store networks, but ecommerce is on the rise. Some firms manufacture their own products and several offer additional products and services, ranging from gasoline and pharmaceuticals to banking services.							
We view Etablissements Franz Colruyt NV as a short sale opportunity. First listed in 1979, Colruyt is a Belgian-based family-owned food retailer with nearly 30,000 employees and more than 530 stores (460 stores in Belgium and 76 in France) that traces its origins back to 1928. Aside from its flagship Colruyt supermarkets in Belgium and Luxembourg (60% of sales), it generates 16% of sales under separate banners from neighbourhood stores, biosupermarkets, covered markets, and family and seasonal stores. Its food service and wholesale businesses account for a further 18% of sales. Colruyt also owns DATS 24 filling stations, which account for 6% of sales, and a green energy business, generating electricity from wind turbines, solar panels, and biomass.							

Tobacco

Moat Framework Avg. Star Rating	# Companies	Avg. Star Rating	Avg. P/FVE	Company Star Rating	Highlighted Company	Star Rating	P/FVE
★★★★★ ★★★★ ★★★ ★★ ★	5	★★★★	0.81	★★★★★ ★★★★ ★★★ ★★ ★	Imperial Brands PLC	★★★★★	0.72
Tobacco companies manufacture and market a variety of products including cigarettes, cigars, roll-your-own tobacco, smokeless tobacco, and more recently, vaping devices and heated tobacco products. Although volumes are generally in decline, especially in developed markets, the combustible category is the main driver of this sector's earnings power. Many markets are oligopolies, although China is a monopoly.							
Imperial Brands is the world's fourth-largest international tobacco company (excluding China National Tobacco) with total fiscal 2017 volume of 265 billion cigarettes sold in more than 160 countries. The firm holds a leading global position in the fine-cut tobacco and hand-rolling paper categories and is a leading seller of cigars in several countries. Recent acquisitions in the United States make Imperial the third-largest manufacturer in that market. Through its acquisition of Altadis, the firm has a logistics platform in Western Europe.							

Source: Morningstar. Data as of Oct. 11, 2018.

Erin Lash, CFA | erin.lash@morningstar.com

Celgene: Winning the Fight to Preserve a Post-Revlimid Moat

Celgene's exceptional track record for dependable guidance and double-digit growth took a hit in fall 2017, when the failure of Crohn's disease drug candidate GED-0301 and slow growth for psoriasis drug Otezla forced management to lower 2020 guidance. The FDA's February refuse-to-file letter about the promising multiple sclerosis drug ozanimod and questions surrounding the durability of efficacy for the firm's CAR-T cell therapies have also served to bring investor focus back to core drug Revlimid, which regularly generates more than 60% of Celgene's revenue and is poised to succumb to generics in the 2022–27 time frame. As it stands today, we assume top-line growth will turn negative in 2023, but growth prospects improve by 2026, and pipeline success or additional acquisitions are quite capable of countering the massive hit to Revlimid. Our DCF valuation implies that the market is fixating on Revlimid declines and failing to account for the potential of the firm's late-stage pipeline.

- ▶ Our new \$116 fair value estimate (Celgene recently traded at a nearly 30% discount to this) factors in a more bullish take on the longevity of multiple myeloma drug Pomalyst and ozanimod in multiple sclerosis, as well as stronger launches for CAR-T therapies and luspatercept, but more bearish estimates for ozanimod in gastrointestinal indications (limited data) and psoriasis drug Otezla (steeper competition).
- ▶ Using an NPV analysis for Revlimid, we value the drug at \$59 per share, and using a DCF analysis, we value "RemainCo" (Celgene minus Revlimid) at \$55 per share. This is quite close to our DCF-based valuation for the full firm. While our 2022 estimates for Revlimid sales of \$11.5 billion are below the \$13 billion consensus estimate, we think the market is overly bearish on Celgene's long-term prospects.
- ▶ We assign key pipeline drugs (see below) higher sales projections than consensus, which more than counters our bearish view on Revlimid in our valuation. These products drive a stronger, more diversified foundation for the firm going forward and support our narrow moat and positive trend ratings.

Celgene's Key Pipeline Products, 2022E: \$5B Morningstar Versus \$3.5B Consensus (DrugAnalyst)

Drug	Drug Class	Therapeutic Area	2022E Sales, Morningstar	2022E Sales, Consensus	Launch Timing	Peak Sales	Key Data Timing
Liso-cel	CD19 CAR-T	Leukemia/lymphoma	1.0	0.8	2019	2.5	2018
CC-486	Epigenetic	MDS/AML/DLBCL	0.4	0.25	2020	1	2018
Bb2121	BCMA CAR-T	Multiple myeloma	1.0	0.7	2020	2.5	2019
Ozanimod	S1P	MS, Crohn's, UC	1.3	1.1	2020	3	2019 (UC)
luspatercept	TGF-β	MDS/beta-thal/MF	0.8	0.6	2020	2	2019
CC-122/220/92480	IMiDs	MM/lymphoma/SLE	0.5	0	2021+	2	2019+

Karen Andersen, CFA | karen.andersen@morningstar.com

Best Ideas

Company and Industry	Morningstar Rating	Fair Value Estimate	Current Price	Uncertainty Rating	Moat Rating	Price / Fair Value	Market Cap (B)	Analyst
Basic Materials								
Cameco (CCJ)	★★★★★	\$19.5	\$11.6	High	Narrow	0.59	4.67	Inton
Compass Minerals International (CMP)	★★★★	\$83	\$64.5	High	Wide	0.78	2.18	Goldstein
Martin Marietta Materials (MLM)	★★★★	\$260	\$168.86	High	Narrow	0.65	10.64	Inton
Communication Services								
BT Group (BT.A)	★★★★	GBX 360	GBX 237	High	Narrow	0.66	23.51	C. Nichols
China Mobile (941)	★★★★	HKD 100	HKD 78	Medium	Narrow	0.78	1597.09	Baker
Comcast (CMCSA)	★★★★	\$42	\$33.68	Medium	Wide	0.80	157.07	Macker
Telefonica (TEF)	★★★★★	\$13	\$6.95	High	Narrow	0.53	36.09	C. Nichols
Telstra (TLS)	★★★★	AUD 4.4	AUD 3.08	Medium	Narrow	0.70	36.63	Han
Consumer Cyclical								
Alibaba Group Holding (BABA)	★★★★	\$240	\$141.9	High	Wide	0.59	355.67	Hottovy
Bayerische Motoren Werke (BMW)	★★★★	EUR 117	EUR 74.3	High	Narrow	0.64	49.02	Hilgert
Expedia Group (EXPE)	★★★★	\$185	\$115.69	High	Narrow	0.63	17.45	Wasiolek
General Motors (GM)	★★★★	\$45	\$32.31	High	None	0.72	45.99	Whiston
Hanesbrands (HBI)	★★★★★	\$27	\$16.17	Medium	Narrow	0.60	5.83	Hottovy
InvoCare (IVC)	★★★★	AUD 16	AUD 11.6	Medium	Wide	0.73	1.28	Ragonese
Mattel (MAT)	★★★★	\$21.5	\$13.99	High	Narrow	0.65	4.79	Katz
Norwegian Cruise Line Holdings (NCLH)	★★★★	\$69	\$50.62	High	Narrow	0.73	11.21	Katz
Walt Disney (DIS)	★★★★	\$130	\$111.15	Medium	Wide	0.86	167.85	Macker
WPP (WPP)	★★★★	GBX 1500	GBX 1065	Medium	Narrow	0.71	13.44	Mogharabi
Consumer Defensive								
A2 Milk (ATM)	★★★★	AUD 14.6	AUD 9.89	High	Narrow	0.68	7.27	Fleck
G8 Education (GEM)	★★★★★	AUD 3.5	AUD 2.06	High	None	0.59	0.93	James
General Mills (GIS)	★★★★★	\$58	\$42.85	Low	Wide	0.74	26.20	Vora
Imperial Brands (IMB)	★★★★★	GBX 3700	GBX 2678	Low	Wide	0.72	25.57	Gorham
Kao (4452)	★★★	JPY 8800	JPY 8529	Low	Wide	0.97	4157.21	Wei
Mondelez International (MDLZ)	★★★★	\$52	\$41.19	Medium	Wide	0.79	61.99	Lash
PepsiCo (PEP)	★★★★	\$122	\$105.06	Low	Wide	0.86	151.52	Vora
Procter & Gamble (PG)	★★★★	\$97	\$78.87	Low	Wide	0.81	202.72	Lash
Reckitt Benckiser Group (RB.)	★★★★	GBX 7300	GBX 6449	Low	Wide	0.88	46.60	Gorham
Energy								
Cenovus Energy (CVE)	★★★★	\$21	\$11.69	Very High	None	0.56	14.88	Gemino
Enbridge (ENB)	★★★★★	\$64	\$41.49	Medium	Wide	0.65	73.47	Gemino
Enterprise Products Partners (EPD)	★★★★	\$35.5	\$28.48	Low	Wide	0.80	61.97	Ellis
Royal Dutch Shell (RDS.B)	★★★★	\$83	\$67.43	Medium	Narrow	0.81	281.47	Good
Total (TOT)	★★★★	\$77	\$61.57	Medium	None	0.80	165.95	Good
Woodside Petroleum (WPL)	★★★★	AUD 46.5	AUD 36	High	None	0.77	33.70	Taylor

Best Ideas

Company and Industry	Morningstar Rating	Fair Value Estimate	Current Price	Uncertainty Rating	Moat Rating	Price / Fair Value	Market Cap (B)	Analyst
Financial Services								
Agricultural Bank of China (601288)	★★★★	CNY 4.2	CNY 3.74	High	Narrow	0.89	1289.72	Tan
American International Group (AIG)	★★★★★	\$76	\$50.14	Medium	None	0.66	46.55	Horn
BlackRock (BLK)	★★★★	\$580	\$417.68	Medium	Wide	0.72	68.52	Warren
Capital One Financial (COF)	★★★★	\$127	\$90.94	Medium	Narrow	0.72	43.51	Plunkett
Credit Suisse Group (CSGN)	★★★★	CHF 22	CHF 13.41	High	Narrow	0.61	34.21	Scholtz
Mitsubishi UFJ Financial Group (8306)	★★★★	JPY 880	JPY 685.6	Medium	None	0.78	9077.92	Wu
Pendal Group (PDL)	★★★★	AUD 11	AUD 8.22	Medium	Narrow	0.75	2.31	Likos
Westpac Banking (WBC)	★★★★	AUD 35	AUD 26.45	Medium	Wide	0.76	89.56	Ellis
Healthcare								
Allergan (AGN)	★★★★	\$263	\$182.22	Medium	Wide	0.69	61.85	Waterhouse
McKesson (MCK)	★★★★★	\$210	\$129.24	Medium	Wide	0.62	25.82	Lekraj
Medtronic (MDT)	★★★	\$105	\$93.11	Medium	Wide	0.89	128.64	Wang
Ramsay Health Care (RHC)	★★★★	AUD 76	AUD 52.92	Medium	Narrow	0.70	10.69	Kallos
Roche Holding (ROG)	★★★★★	CHF 337	CHF 235.55	Low	Wide	0.70	201.27	Andersen
Industrials								
Anixter International (AXE)	★★★★★	\$107	\$63.41	Medium	Narrow	0.59	2.12	Bernard
Beijing Enterprises Holdings (392)	★★★★	HKD 58	HKD 42.6	Medium	Narrow	0.73	53.76	Song
CK Hutchison Holdings (1)	★★★★	HKD 118	HKD 81.3	Medium	None	0.69	313.51	Tan
G4S (GFS)	★★★★★	GBX 337	GBX 217	Medium	None	0.64	3.45	Field
GEA Group (G1A)	★★★★★	EUR 45	EUR 26.17	Medium	Wide	0.58	4.89	Molina
General Dynamics (GD)	★★★	\$220	\$192.94	Medium	Wide	0.88	57.16	Higgins
Grupo Aeroportuario del Pacifico (GAP B)	★★★	MXN 221	MXN 191.54	High	Wide	0.87	107.45	Higgins
Guangshen Railway (525)	★★★★★	HKD 6.5	HKD 3.09	High	None	0.48	21.89	Song
Johnson Controls International (JCI)	★★★★	\$53	\$33.73	High	Narrow	0.64	31.20	Bernard
Kion Group (KGX)	★★★★★	EUR 90	EUR 45.45	Medium	Narrow	0.51	5.52	Molina
Royal Philips (PHIA)	★★★★	EUR 42	EUR 35.11	Medium	Narrow	0.84	33.33	Vonk
Sodexo (SW)	★★★★	EUR 110	EUR 87.04	Medium	Narrow	0.79	12.65	Field
Stericycle (SRCL)	★★★★	\$86	\$52.95	High	Narrow	NA	4.55	Young
Real Estate								
AVEO Group (AOG)	★★★★	AUD 2.8	AUD 1.98	Medium	None	0.71	1.15	Sherlock
Sun Hung Kai Properties (16)	★★★★	HKD 153	HKD 104.7	Medium	Narrow	0.68	303.32	Zhong
Welltower (WELL)	★★★★	\$72	\$61.73	Medium	None	0.86	22.97	Brown
Technology								
Intel (INTC)	★★★★	\$65	\$44.23	Medium	Wide	0.68	206.57	Davuluri
Microchip Technology (MCHP)	★★★★★	\$112	\$67.71	Medium	Wide	0.60	15.65	Colello
Murata Manufacturing (6981)	★★★★	JPY 24000	JPY 16495	High	Narrow	0.69	3517.58	Ito
MYOB Group (MYO)	★★★	AUD 3.82	AUD 3.52	Medium	Narrow	0.92	2.11	James
Synaptics (SYNA)	★★★★	\$64	\$36.59	Very High	None	0.57	1.28	Davuluri
Tencent Holdings (700)	★★★★★	HKD 590	HKD 288.4	High	Wide	0.49	2745.68	Tam
Utilities								
Dominion Energy (D)	★★★★	\$84	\$71.78	Low	Wide	0.85	46.93	Fishman
Enel (ENEL)	★★★★	EUR 5.7	EUR 4.34	Medium	None	0.76	44.49	Fulop
FirstEnergy (FE)	★★★★	\$41	\$37.21	Low	Narrow	0.91	18.08	Fishman
Scana (SCG)	★★★★★	\$56	\$39.77	Medium	Narrow	0.71	5.67	Miller

Highlighted Stocks

Adobe Systems ADBE

Morningstar Rating	Industry	Moat Trend	Currency	Fair Value Estimate	Current Price	Uncertainty Rating	Moat Rating	Price/Fair Value	Market Cap (Bil)
★★★★	Technology	Stable	USD	300	249.21	Medium	Wide	0.83	116.13

Source: Morningstar. As of Oct. 12, 2018

Adobe has transitioned from an on-premises business model to become a software-as-a-service heavyweight, and its Creative Cloud is the gold standard for creative professionals.

Analyst Note, Oct. 10, 2018

We are raising our fair value estimate for Adobe Systems to \$300 per share from \$245 after incorporating new assumptions into our model. We are maintaining its wide moat, stable trend, medium uncertainty, and Standard stewardship ratings. Adobe remains a cash machine, benefiting from 20%-plus revenue growth, and GAAP operating margins are near 30%. The firm approved an \$8 billion buyback this year. With shares trading at a discount, we think this remains an attractive point of entry.

The firm's software-as-a-service products are bucketed into three segments, digital media, digital experience, and publishing, with the former two serving as the growth engine of the business. Digital media houses Adobe's creative software products for web designers, application developers, photographers, and animators, among others. We believe Adobe has an effective monopoly in the creative software market, which creates durable switching costs, as its applications are mission-critical.

We also believe a network effect exists in the firm's digital media products. The education system for creative minds relies heavily on Adobe's products, which propagates a platform that is widely understood and used in the design community.

Adobe has transitioned from an on-premises business model to become a software-as-a-service heavyweight, and its Creative Cloud is the gold standard for creative professionals. Creative Cloud has benefited Adobe by offering customers more attractive prices, locking in customers for longer periods, curbing piracy, and providing management with more visibility into future revenue. Customers can increasingly pick applications to suit their needs, and a subscription model removes the large, up-front cost that existed with Creative Cloud's predecessor. Through acquisitions, such as Macromedia in 2005, Adobe has built the most comprehensive suite of creative software.

Great software companies have more than one act, and act two for Adobe has centered around its analytics and digital marketing initiatives. As companies look to create omnichannel, targeted ad campaigns, Adobe's marketing software has become mission-critical for major brands and enterprises.

Caterpillar CAT

Morningstar Rating	Industry	Moat Trend	Currency	Fair Value Estimate	Current Price	Uncertainty Rating	Moat Rating	Price/Fair Value	Market Cap (Bil)
★★★★	Industrials	Stable	USD	178	142.20	High	Wide	0.80	85.42

Source: Morningstar. As of Oct. 12, 2018

*Our opinion of Caterpillar's long-term prospects has improved significantly.***Analyst Note, Oct. 9, 2018**

We are raising our fair value estimate for Caterpillar to \$178 per share from \$125, with much of the increase due to operating performance improvements in the past two quarters and management's clearly articulated strategy. Hence, our opinion of Caterpillar's long-term prospects has improved significantly. With this new information, we view the stock as undervalued. Under the leadership of Jim Umpleby, who became CEO in 2017, Caterpillar has significantly improved its operating performance. Through its new operations and execution strategy, the company improved margins through better asset allocation and lean manufacturing. While sales dropped 43% from 2012 to 2016, Caterpillar was able to cut costs and streamline operations. Through this restructuring, Caterpillar has emerged from the longest downturn in its history leaner and stronger. This shows up in a dramatic increase in operating margins that we estimate will be 16.3% in 2018 versus 13.8% in the firm's highest revenue year, 2012.

Caterpillar benefits from its strong brand and extremely broad portfolio of products. We believe its recent approach of providing lower-cost equipment for emerging markets is a wise strategy. We are enthusiastic about Caterpillar's technology advances, which should allow the company to maintain its market-leading position. Our analyses of several end markets suggest that many of the geographic/segment combinations are far below peak revenue levels.

In recent years, Caterpillar has reduced manufacturing floor space by 25%, or 20 million square feet, and trimmed its head count by 16,000, or about 14% of its workforce. Between 2012 and 2017, it reduced total assets from \$57.9 billion to \$48.5 billion. During this process, it consolidated or closed 30 facilities. Many of these locations were older, inefficient operations including former Bucyrus facilities. At the same time, quality has improved by 40%. We view the asset rationalization as wise, providing for durable returns. More important, these changes give Caterpillar a more flexible cost structure.

Longer term, demographic trends are in Caterpillar's favor. Global GDP and population are growing while more people are moving to urban areas. Oxford Economics estimates global infrastructure spending should increase 2.8% annually until 2040. In the U.S., the American Society of Civil Engineers rates America's infrastructure at a D+. Much of the world lives in poverty, lacking access to modern infrastructure like permanent housing structures, paved roads, and indoor plumbing. The World Bank estimates that 13% of the world's population lacks access to reliable electricity. Caterpillar stands to play a vital role in bringing growth and development projects to fruition.

Primary Health Care PRY:AU

Morningstar Rating	Industry	Moat Trend	Currency	Fair Value Estimate	Current Price	Uncertainty Rating	Moat Rating	Price/Fair Value	Market Cap (Bil)
★★★★	Healthcare	Stable	AUD	3.50	2.82	Medium	None	0.81	1.75

Source: Morningstar. As of Oct. 12, 2018

The group should also benefit from an aging and growing population, which will drive greater demand for medical services.

Analyst Note, Oct. 10, 2018

We reiterate our AUD 3.50 per share fair value estimate for Primary Health Care as we transition coverage to a new analyst. Our no-moat and medium fair value uncertainty ratings are unchanged. Shares in Primary Health Care currently trade at a meaningful discount to our fair value estimate.

We continue to project earnings per share growth of around 7% a year on average during the next five years. The government is increasingly focusing on preventative health, which typically results in superior health outcomes, reducing pressure on public finances. This benefits around 50% of group earnings which are generated through the diagnostic (radiology and pathology) divisions. The group should also benefit from an aging and growing population, which will drive greater demand for medical services, supporting our mid-single-digit revenue growth expectations on average during the coming years.

We forecast group operating margins to expand to around 12% by fiscal 2023, up from our 10.5% fiscal 2019 forecast. Given the high level of operating leverage within the firm, general practitioner, or GP, numbers within the medical centers are a crucial component of the expected margin uplift. The medical centers are currently underutilized, and the network operating at below full capacity, which leaves considerable scope to add practices and services for several years.

Government payments are responsible for most of Primary's services. While this has been beneficial to-date, it can be a double-edge sword. The constant threat of increased regulation or budget cuts could put pressure on earnings. While we don't expect any changes to be debilitating, they could constrain growth. An example of this would be the government limiting growth in the scheduled Medicare rebate for GP consultations.

Most of the company's earnings are derived from the medical center segment, and while it benefits from a cost advantage over smaller players, we continue to believe this is insufficient to justify a moat rating. The industry is highly fragmented and barriers to entry are low, and the ongoing risk of increased competition constrain patient growth at Primary's centers

Daniel Ragonese | daniel.ragonese@morningstar.com

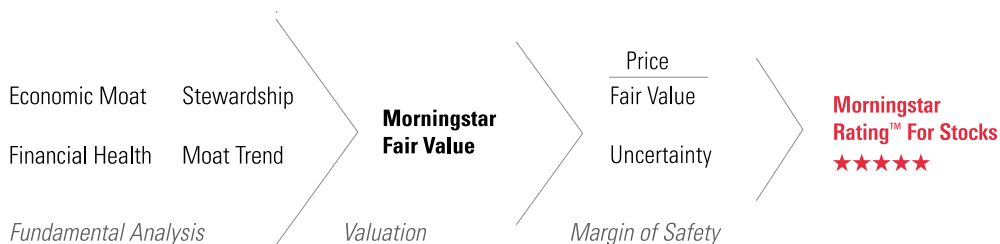
Research Methodology for Valuing Companies

Overview

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

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

Morningstar Research Methodology



Source: Morningstar.

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.

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 (ROIC) over and above our estimate of a firm's cost of capital, or weighted average cost of capital (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 their 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 where we see signs of deterioration.

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 5 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 net new investment (NNI) to derive our annual free cash flow forecast.

Stage II: Fade

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

Stage III: Perpetuity

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

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

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.

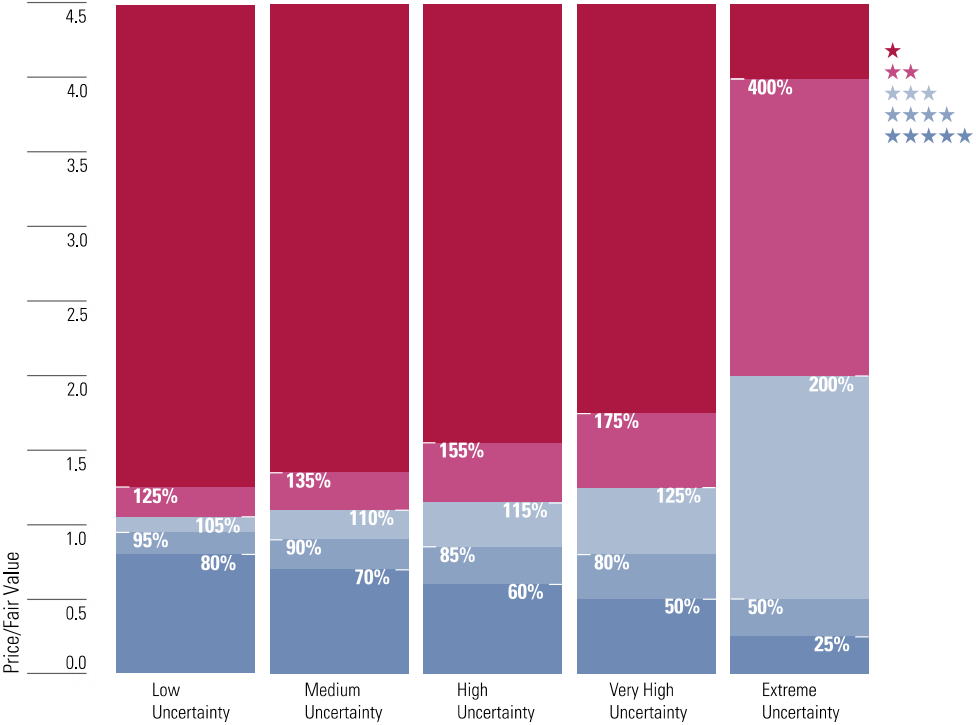
Analysts consider at least two scenarios in addition to their base case: a bull case and a bear case. Assumptions are chosen such that the analyst believes there is a 25% probability that the company will perform better than the bull case and a 25% probability that the company will perform worse than 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 regarding 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 a 25% premium.
- Medium: Margin of safety for 5-star rating is a 30% discount and for 1-star rating is a 35% premium.
- High: Margin of safety for 5-star rating is a 40% discount and for 1-star rating is a 55% premium.
- Very high: Margin of safety for 5-star rating is a 50% discount and for 1-star rating is a 75% premium.
- Extreme: Margin of safety for 5-star rating is a 75% discount and for 1-star rating is a 300% premium.

Morningstar Equity Research Star Rating Methodology



Market Price

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

For more details 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 recalculated at the market close on every day the market on which the stock is listed is open. Our analysts keep close tabs on the companies they follow and, based on thorough and ongoing analysis, raise or lower their fair value estimates as warranted.

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

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

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

The Morningstar Star Ratings for stocks are defined below:

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

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

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

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

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

Risk Warning

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+1 312 696-6869

equitysupport@morningstar.com



22 West Washington Street
Chicago, IL 60602 USA

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