Research Highlights

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

Morningstar Equity Research
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Can Beaten-Down Homebuilders Build Profits in Your Portfolio?

Four of the five U.S. homebuilders we cover—D.R. Horton, Lennar, PulteGroup, and Toll Brothers—are trading at attractive 4-star valuations. This report lays out an investment case for each homebuilder, supported by our analysis of macroeconomic trends and a detailed review of each homebuilder's competitive positioning. While we believe long-term investors will likely realize above-average returns for each of these four stocks, D.R. Horton is our top pick, and Lennar is a solid second choice. We think D.R. Horton is best positioned to benefit from increased demand from first-time buyers, and we like its conservative balance sheet. Lennar is also well positioned, and we like its emerging multifamily business. While Lennar's balance sheet is not as strong as D.R. Horton's, it has a wider margin of safety.

If our housing demand forecast proves to be correct, U.S. homebuilders can look forward to annual housing starts reaching a peak of 1.6 million by 2022 (up from under 1.3 million in 2018) before moderating to a sustainable annual rate of below 1.5 million by 2027. However, we believe that consensus expectations are closer to our bear-case scenario, which assumes that housing starts are already at peak levels and will decline to a 1.1 million pace by 2027.

2018 was a disappointing year for housing in the United States. While housing starts and single-family home sales through October 2018 were higher than last year, they fell below our expectations. Existing home sales were even more disappointing, having declined from 2017. Euphoric investor sentiment for homebuilder stocks in 2017 turned overwhelmingly negative in 2018 as high home prices and rising interest rates gave way to softening housing data, including a significant drop in homebuilder sentiment in November 2018. Based on recent data, it's easy to understand why a bullish housing narrative is being met with increasing skepticism. However, our fundamental-based approach to forecasting housing demand tells us that increased demand from millennials could indeed be a meaningful tailwind. That, along with homebuilders' increased willingness to build smaller, more-affordable homes, could support elevated levels of new residential construction over the coming years.

- After a high-flying 2017, homebuilding stocks entered a bear-market correction in 2018.
- Though homebuilders have acknowledged a near-term pause, they remain optimistic longer term. But investors are unconvinced. We believe long-term housing supply and demand fundamentals support homebuilders' outlook.
- We project 15 million cumulative housing starts over the next decade, with total annual housing starts growing to approximately 1.6 million by 2022 before moderating to below 1.5 million by 2027. We believe that consensus expectations are closer to our bear-case scenario, which projects approximately

12 million cumulative housing starts over the next decade, with total annual starts peaking at around 1.3 million over the next three years and then declining to a 1.1 million pace by 2027.

- Increased demand from millennials coupled with homebuilders' increased willingness to build smaller, more-affordable homes, could support elevated levels of new residential construction over the coming years.
- We don't see the revised tax policy as a material headwind for future housing demand because the changes do not affect that many people; to the extent that the changes leveled the costs of ownership and renting, many still prefer to own; and those most affected by changes may be quite resilient as buyers.
- While large builders enjoy some scale-driven cost advantages, high capital intensity and limited sales visibility make it difficult for even the largest homebuilders to consistently earn excess returns, thus we award no moats to the homebuilders we cover.
- There are six key attributes that we think differentiate homebuilders from one another:
    - size and footprint
    - go-to-market strategy
    - land acquisition strategy
    - business diversification
    - capital structure and shareholder return policy
    - profitability and returns.

Four of the five U.S. homebuilders we cover—D.R. Horton, Lennar, PulteGroup, and Toll Brothers—are trading at attractive 4-star valuations. D.R. Horton is our top pick, and Lennar is a solid second choice. We think D.R. Horton is best positioned to benefit from increased first-time buyer demand, and we like its conservative balance sheet. Lennar is also well-positioned, and we like its emerging multifamily business. While Lennar's balance sheet is not as strong as D.R. Horton's, it has a wider margin of safety.

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All the U.K. Telecom Companies We Cover Are Undervalued

While the United Kingdom has historically been one of the most competitive communication markets that we cover, with around 500 companies offering some kind of communication service, the best-positioned firms have succeeded in generating solid returns on capital. However, market sentiment has gone against the U.K. telecom industry recently, and all of these operators that we cover are trading in either 4- or 5-star territory. We believe a general misunderstanding regarding the nature of competition in the U.K. market, perhaps coupled with Brexit fears, has created a compelling opportunity to invest across the sector.

Though hundreds of firms compete in the U.K., only a few own networks, with the majority wholesaling capacity from a facilities-based rival. On the fixed-line side, nearly all operators wholesale at least some capacity from BT. On the wireless side, there are a significant number of mobile virtual network operators, or MVNOs, that rent capacity from one of the mobile network operators, or MNOs, but few have gained enough scale to be very profitable.

Three MNOs compete against BT: O2, owned by Telefonica; Vodafone; and 3 UK, owned by CK Hutchison. However, none of these rival operators owns a retail fixed-line network, instead wholesaling capacity from BT. BT's primary fixed-line competitor, Virgin Media, is the country's cable-TV operator, owned by Liberty Global. Virgin only operates on the wireless side as an MVNO. The largest pay-TV provider, satellite operator Sky, is also the second-largest broadband provider after BT, but Sky uses BT's network to reach its customers. Among undervalued U.K. telecom assets, BT is particularly attractive.

- ► Despite extensive competition in the U.K., we believe Telefonica, BT, Vodafone, Liberty Global, and Sky have narrow economic moats due to cost advantages and efficient scale.
- ► BT's acquisition of EE in 2016 created the only operator that owns both fixed-line and wireless networks. The firm is finally offering a converged product to take advantage of this unique situation.
- ► Several new companies have announced extensive fibre buildout plans, but we believe BT's size and scale advantage will enable it to remain the broadband leader in the country. Historically, Europe has been slow to move to new generations of wireless technology, but BT has announced aggressive rollout plans for 5G.
- ► Sky and BT have recently shown some restraint in bidding for content, which should help profitability and free cash flow.
- ► Ofcom has been one of the most aggressive regulators globally, so we don't see Brexit affecting telecom regulation, though it might have some impact on the companies' operations. We continue to believe that regulators won't allow consolidation amongst the large U.K. companies that we cover, but consolidation amongst the smaller operators would make sense in order to gain scale and rationalize competition amongst these players.
- ► All the operators we cover in the U.K. are currently undervalued, with Telefonica trading in 5-star territory and the rest at 4 stars. The telecom operators provide nice dividend yields while shareholders wait for market sentiment to turn. Telefonica, Vodafone, and BT remain on our Best Ideas list.

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Pulling Profits Out of Thin Air: Moats Among Industrial Gas Producers

Industrial gas producers' strong track records highlight the importance of economic moats: All three industrial gas companies we cover—Air Liquide, Air Products, and Linde—have consistently earned excess economic profits despite selling what are essentially commodities. The industrial gas, or IG, sector benefits from high switching costs and long-term customer agreements, which often include take-or-pay clauses and indexed electricity costs. These favorable contracts allow IG companies to carve out economic moats that help them consistently generate strong and relatively stable cash flow streams.

We believe that all three public IG companies we cover will continue to outearn their cost of capital throughout the next decade, thanks to their narrow moats.

Air Products is currently our favorite pick in the sector. We recently upgraded our stewardship rating to Exemplary and moat trend rating to positive, as CEO Seifi Ghasemi has orchestrated a remarkable turnaround since he took the helm in June 2014, raising EBITDA margins by over 1,000 basis points. We think the market is underestimating Air Products' tremendous revenue growth potential. Management has made great strides in its ambitious plan to deploy roughly $15 billion of capital over the next five years, having committed almost $8 billion thus far. We expect that as new projects become operational and start contributing to the bottom line over the next few years, the market will eventually take notice. The stock is currently trading in 4-star territory, which we view as an attractive entry point.

- We believe the market is underestimating Air Products' revenue growth potential as the shares trade at approximately a 15% discount to our fair value estimate. We forecast EPS to roughly double over the next five years thanks to management's plan to deploy over $15 billion of capital by fiscal 2022.
- The recent consolidation wave has reinforced Linde's and Air Liquide's positions as co-leaders in the IG sector. We think both companies will benefit from synergies from their recent M&A activity (Air Liquide's acquisition of Airgas in 2016 and the Praxair-Linde merger in 2018), but in our view, this upside is already reflected in their current share prices, with both stocks trading in 3-star territory.

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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	$12.03	High	Narrow	0.62	4.76	Inton
Compass Minerals International (CMP)	★★★★	$81	$46.84	High	Wide	0.58	1.59	Goldstein
James Hardie Industries (JHX)	★★★★	AUD 21.2	AUD 15.08	Medium	Narrow	0.71	6.67	Slade
Martin Marietta Materials (MLM)	★★★★	$250	$175.5	High	Narrow	0.70	11.01	Inton
Communication Services								
BT Group (BT.A)	★★★★	GBX 360	GBX 251.45	High	Narrow	0.70	24.95	C. Nichols
China Mobile (941)	★★★★	HKD 97	HKD 74.95	Medium	Narrow	0.77	1534.64	Baker
Telefonica (TEF)	★★★★★	$13	$7.79	High	Narrow	0.60	40.45	C. Nichols
Telstra (TLS)	★★★★★	AUD 4.4	AUD 2.87	Medium	Narrow	0.65	34.13	Han
Vodafone Group (VOD)	★★★★	$250	$160.48	High	Narrow	0.64	42.88	C. Nichols
Consumer Cyclical								
Alibaba Group Holding (BABA)	★★★★	$240	$151.48	High	Wide	0.63	389.60	Hottovy
Anta Sports Products (2020)	★★★★★	HKD 55	HKD 37.3	Medium	Narrow	0.68	100.15	Su
Bayerische Motoren Werke (BMW)	★★★★	EUR 117	EUR 74.18	High	Narrow	0.63	48.30	Hilgert
Cie Financiere Richemont (CFR)	★★★★	CHF 90	CHF 63.56	High	Wide	0.71	35.89	Sokolova
Dufry (DUFN)	★★★★	CHF 144	CHF 95.5	High	Narrow	0.66	4.82	Sokolova
Expedia Group (EXPE)	★★★★	$180	$119.59	High	Narrow	0.66	17.82	Wasiolek
General Motors (GM)	★★★★	$46	$35.11	High	None	0.76	49.55	Whiston
Hanesbrands (HBI)	★★★★★	$27	$13.8	Medium	Narrow	0.51	4.98	Swartz
InvoCare (IVC)	★★★★	AUD 16	AUD 11.23	Medium	Wide	0.70	1.24	Ragonese
Mattel (MAT)	★★★★	$21	$12.08	High	Narrow	0.58	4.17	Katz
Norwegian Cruise Line Holdings (NCLH)	★★★★	$69	$47.27	High	Narrow	0.69	10.40	Katz
Walt Disney (DIS)	★★★★	$130	$113.39	Medium	Wide	0.87	168.80	Macker
WPP (WPP)	★★★★★	GBX 1450	GBX 870.8	Medium	Narrow	0.60	10.99	Mogharabi
Consumer Defensive								
A2 Milk (ATM)	★★★★	AUD 13.7	AUD 10.75	High	Narrow	0.78	8.24	Fleck
Anheuser-Busch InBev (BUD)	★★★★★	$118	$71.3	Low	Wide	0.60	141.51	Gorham
G8 Education (GEM)	★★★★	AUD 3.5	AUD 2.83	High	None	0.81	1.29	James
General Mills (GIS)	★★★★★	$58	$38.12	Low	Wide	0.66	22.73	Vora
Imperial Brands (IMB)	★★★★★	GBX 3700	GBX 2422	Low	Wide	0.65	23.10	Gorham
Mondelez International (MDLZ)	★★★★	$52	$44.35	Medium	Wide	0.85	64.48	Lash
Energy								
Cenovus Energy (CVE)	★★★★★	$21	$10.6	Very High	None	0.50	13.03	Gemino
Diamondback Energy (FANG)	★★★★	$148	$96.32	High	Narrow	0.65	15.80	Meats
Enbridge (ENB)	★★★★★	$62	$43.11	Medium	Wide	0.70	78.82	Gemino
Enterprise Products Partners (EPD)	★★★★★	$35.5	$26.29	Low	Wide	0.74	57.38	Ellis
Royal Dutch Shell (RDS.B)	★★★★	$83	$60.57	Medium	Narrow	0.73	244.64	Good
Total (TOT)	★★★★	$77	$55.65	Medium	None	0.72	145.53	Good
Woodside Petroleum (WPL)	★★★★	AUD 46.5	AUD 31.16	High	None	0.67	29.17	Taylor
Financial Services								
Agricultural Bank of China (601288)	★★★	CNY 4.2	CNY 3.57	High	Narrow	0.85	1232.53	Tan
Altaba (AABA)	★★★★	$98	$62.76	High	None	0.64	37.82	Mogharabi
American International Group (AIG)	★★★★★	$76	$37.29	Medium	None	0.49	32.99	Horn
BlackRock (BLK)	★★★★	$500	$387.27	Medium	Wide	0.77	61.45	Warren
Capital One Financial (COF)	★★★★★	$127	$80.39	Medium	Narrow	0.63	38.08	Plunkett
Credit Suisse Group (CSGN)	★★★★★	CHF 22	CHF 11.2	High	Narrow	0.51	28.59	Scholtz

Source: Morningstar. As of Dec. 14, 2018

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, Continued								
Link Administration Holdings (LNK)	★★★★	AUD 8.5	AUD 6.83	Medium	Narrow	0.80	3.62	James
Macquarie Group (MQG)	★★★★	AUD 135	AUD 113.18	Medium	Narrow	0.84	38.85	Ellis
Oversea-Chinese Banking Corp (O39)	★★★★	SGD 13.6	SGD 11.12	High	Narrow	0.82	47.26	Wu
Pendal Group (PDL)	★★★★	AUD 11	AUD 8.17	Medium	Narrow	0.74	2.60	Likos
Sumitomo Mitsui Financial Group (8316)	★★★★★	JPY 5960	JPY 3917	Medium	None	0.66	5466.58	Makdad
T. Rowe Price Group (TROW)	★★★★	$120	$93.26	Medium	Wide	0.78	22.44	Warren
Westpac Banking (WBC)	★★★★	AUD 33	AUD 24.88	Medium	Wide	0.75	85.31	Ellis
Healthcare								
Allergan (AGN)	★★★★★	$245	$150.86	Medium	Wide	0.62	50.88	Waterhouse
DaVita (DVA)	★★★★	$81	$59.4	Medium	Narrow	0.73	9.86	Strole
Medtronic (MDT)	★★★★	$110	$95.5	Medium	Wide	0.87	128.26	Wang
Roche Holding (ROG)	★★★★★	CHF 333	CHF 249.9	Low	Wide	0.75	213.19	Andersen
Industrials								
Anixter International (AXE)	★★★★★	$107	$58.54	Medium	Narrow	0.55	1.96	Bernard
Beijing Enterprises Holdings (392)	★★★★	HKD 58	HKD 44.85	Medium	Narrow	0.77	56.60	Song
CK Hutchison Holdings (1)	★★★★★	HKD 118	HKD 79.2	Medium	None	0.67	305.41	Tan
G4S (GFS)	★★★★★	GBX 337	GBX 195.8	Medium	None	0.58	3.04	Field
GEA Group (G1A)	★★★★★	EUR 45	EUR 22.58	Medium	Wide	0.50	4.08	Molina
General Dynamics (GD)	★★★★	$216	$171.01	Medium	Wide	0.79	50.64	Higgins
Grupo Aeroportuario del Pacifico (GAP B)	★★★★	MXN 210	MXN 144.81	High	Wide	NA	81.24	Higgins
Guangshen Railway (525)	★★★★★	HKD 6.3	HKD 2.98	High	None	0.47	25.19	Song
Johnson Controls International (JCI)	★★★★	$46	$32.14	High	Narrow	0.70	29.70	Bernard
Kion Group (KGX)	★★★★★	EUR 90	EUR 45.77	Medium	Narrow	0.51	5.39	Molina
Sodexo (SW)	★★★★	EUR 110	EUR 91.46	Medium	Narrow	0.83	13.32	Field
Stericycle (SRCL)	★★★★★	$83	$40.89	High	Narrow	0.49	3.70	Young
Real Estate								
Aveo Group (AOG)	★★★★	AUD 2.3	AUD 1.55	Medium	None	0.67	0.90	Sherlock
CK Asset Holdings (1113)	★★★★★	HKD 81	HKD 57.45	Medium	Narrow	0.71	212.19	Zhong
Macerich (MAC)	★★★★	$59	$48.78	High	Narrow	0.83	6.88	Brown
Sun Hung Kai Properties (16)	★★★★	HKD 153	HKD 113.5	Medium	Narrow	0.74	328.81	Zhong
Technology								
Applied Materials (AMAT)	★★★★	$49	$33.71	High	Wide	0.69	32.31	Davuluri
Intel (INTC)	★★★★	$65	$48.29	Medium	Wide	0.74	220.40	Davuluri
KLA-Tencor (KLAC)	★★★★	$128	$92.68	High	Wide	0.72	14.19	Davuluri
Lam Research (LRCX)	★★★★	$185	$138.76	High	Narrow	0.75	21.53	Davuluri
Microchip Technology (MCHP)	★★★★★	$112	$72.43	Medium	Wide	0.65	17.13	Colello
Murata Manufacturing (6981)	★★★★	JPY 24000	JPY 16050	High	Narrow	0.67	3422.78	Ito
Skyworks Solutions (SWKS)	★★★★	$113	$69.62	High	Narrow	0.62	12.36	Colello
Tencent Holdings (700)	★★★★	HKD 499	HKD 308.8	High	Wide	0.62	2939.85	Tam
Utilities								
Dominion Energy (D)	★★★★	$84	$76.05	Low	Wide	0.91	49.92	Fishman
Enel (ENEL)	★★★★	EUR 5.7	EUR 5.02	Medium	None	0.88	51.04	Fulop
ENN Energy Holdings (2688)	★★★★	HKD 83	HKD 72.45	Medium	Narrow	0.87	81.43	Lee
FirstEnergy (FE)	★★★★	$41	$39.44	Low	Narrow	0.96	20.17	Fishman
Orsted (ORSTED)	★★★	DKK 450	DKK 458.6	Low	Narrow	1.02	192.63	Fulop

Source: Morningstar. As of Dec. 14, 2018

Highlighted Stocks

BMW BMW:DE

Morningstar Rating	Sector	Moat Trend	Currency	Fair Value Estimate	Current Price	Uncertainty Rating	Moat Rating	Price/Fair Value	Market Cap (Bil)
★★★★	Consumer Cyclical	Negative	EUR	117	74.27	High	Narrow	0.63	48.30

Source: Morningstar. As of Dec. 14, 2018

In our opinion, the market has overly discounted the shares on concerns of international trade conflict; that the U.S. demand cycle will turn; that spending to develop electrified powertrain will become excessive; that the company is too exposed to diesel-powered light vehicles in Europe; and that an antitrust investigation among German automakers will lead to excessive fines.

Select Report, Dec. 12, 2018

Given the global strength of BMW's brands, including passenger vehicles, motorcycles, Mini, and Rolls-Royce, in addition to leading powertrain technology and consistent excess returns, we assign the company a narrow moat rating. Unlike its direct compatriot competitors, Audi and Mercedes-Benz, the consolidated intangible asset moat sources are not diminished by other no-moat businesses like commercial truck and mass-market brands. BMW has generated returns on invested capital above its weighted average cost of capital in 10 out of the past 12 years. In eight of those years, returns were greater than 5 percentage points above WACC. With the stock currently trading at a 39% discount to our fair value estimate, we view BMW shares as undervalued relative to our forecast revenue and cash flow.

- BMW's narrow moat rating is derived from an intangible asset moat source including brand and intellectual property in powertrain. The company's moat has supported an average of 7 percentage points of excess returns during the past 10 years.
- In our opinion, the market has overly discounted the shares on concerns of international trade conflict; that the U.S. demand cycle will turn; that spending to develop electrified powertrain will become excessive; that the company is too exposed to diesel-powered light vehicles in Europe; and that an antitrust investigation among German automakers will lead to excessive fines.
- We expect some margin pressure from electrification and autonomy, thus we project EBITDA margin of 13.4% for the first three years of our Stage I forecast versus the historical 10-year high of 17.5%. We also assume a 14.4% midcycle EBITDA margin in year five, 60 basis points below the historical 10-year median of 15.0%.
- Assuming our estimated worst-case fine of EUR 9.9 billion in the event the European Commission finds that BMW colluded with other German automakers, our fair value estimate would drop to EUR 100 from EUR 117, still resulting in a 4-star rating.
- Our EUR 117 fair value estimate represents 36% upside to the current EUR 86 consensus price target.

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Crown Resorts CWN:AU

Morningstar Rating	Sector	Moat Trend	Currency	Fair Value Estimate	Current Price	Uncertainty Rating	Moat Rating	Price/Fair Value	Market Cap (Bil)
★★★★	Consumer Cyclical	Stable	AUD	15	11.89	High	Narrow	0.79	8.17

Source: Morningstar. As of Dec. 14, 2018

We believe the market is underestimating the value of the pending Sydney casino. With a superior location and high-end focus, we believe Crown is likely to steal a meaningful portion of Star Sydney's VIP and premium table revenue, while at the same time growing the market.

Select Report, Dec. 14, 2018

Shares in Crown Resorts are undervalued, trading at a 21% discount to our AUD 15 per share fair value estimate. This follows a violent sell-off during recent months, reflecting market uncertainty around the near-term outlook for VIP, and a softening consumer environment, both of which we are positive on, longer term. The growth outlook is underpinned by Crown snatching VIP customers from the Star casino, but also by an influx in Chinese tourists to Australia's two major cities. We believe the market is underestimating the value of the pending Sydney casino. With a superior location and high-end focus, we believe Crown is likely to steal a meaningful portion of Star Sydney's VIP and premium table revenue, while at the same time growing the market. Additionally, with world class facilities in Australia's most popular cities, we believe Crown is well placed to leverage ongoing growth in inbound tourism, particularly from China, which should grow at a double-digit pace for the foreseeable future.

- While the market has expressed concern about the viability of the Sydney development given the recent challenges faced by the VIP market, we continue to believe it makes a lot of sense. VIP is notoriously volatile; however, as seen in recent years, this market has bounced back strongly. Despite Australia's VIP market growing by around 15% per year on average during the past seven years, we estimate this slice only represents 4% of the global market. Longer term, we expect Australia to capture more share.
- The recent market sell-off has created an opportunity to invest in narrow-moat-rated Crown Resorts at a meaningful 21% discount to our fair value estimate. Our fair value estimate implies a fiscal 2019 price/earnings multiple of 24, which is well justified given the strong long-term growth outlook.
- We project earnings per share growth of around 12% on average during the next five years. The bulk of this earnings uplift will occur after fiscal 2022, when Crown Sydney comes on line.
- Crown's balance sheet is in pristine condition following its recent flurry of divestments. We expect net debt to peak at just below 1 times EBITDA during the capital-intensive construction phase of the Sydney casino. This is by no means concerning and based on our estimates, Crown can comfortably tolerate net debt/EBITDA of up to 2 times. Upon completion of the casino, we would not be surprised if the company were to undertake capital management initiatives including either special dividends or share buybacks.

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NN Group NN:NL

Morningstar Rating	Industry	Moat Trend	Currency	Fair Value Estimate	Current Price	Uncertainty Rating	Moat Rating	Price/Fair Value	Market Cap (Bil)
★★★★	Financial Services	Stable	EUR	48	34.83	Medium	None	0.73	11.92

Source: Morningstar. As of Dec. 14, 2018

The Netherlands life business also has its fair share of headwinds. However, we think things aren't as bad as they appear, and investors are pricing in dire scenarios that aren't sustainable.

Select Report, Dec. 11, 2018
NN Group has been through nowhere near as many problems as Aegon, but we think there is still market price dislocation supported by earnings. While NN Group currently trades at around EUR 35 per share, we set our fair value estimate for this business at EUR 48, more than 35% upside from the current market price. We think the business offers lower risk than Aegon because of lower historical capital volatility and problems.

We think there are two key areas investors should focus on and they are both based in the Netherlands. The nonlife business is set for a bounce in the medium term as the division benefits from a better pricing environment and a more rational market, but these conditions are yet to show through. We also think there is a structural compression in claims coming that the market is not anticipating, and pricing will be held onto through better distribution and rational co-operation. We also think that the disability and accident division is set to rebound. The business cycle is improving, and we think this is strongly tied to income protection and there might also be some room for rate rises in these lines of business.

The Netherlands life business also has its fair share of headwinds. However, we think things aren't as bad as they appear, and investors are pricing in dire scenarios that aren't sustainable. Movement in provisions is a large concern but provisions for risk of policyholders has some internal transfers and this has made outflows look overly elevated. The general account is experiencing natural attrition as the individual life closed book runs off and this is scaring investors. However, we have factored the capital run-off and applied a 5.0% annuitisation rate and we don t think it is as bad as investors believe. We also think our prior investment margin estimates have been overly conservative.

- Netherlands insurance markets look structurally challenged, which has led to overly negative sentiment, providing an opportunity to pick up an undervalued but medium-quality business.
- There is decent earnings visibility, a strong capital position, and no problems with leverage.

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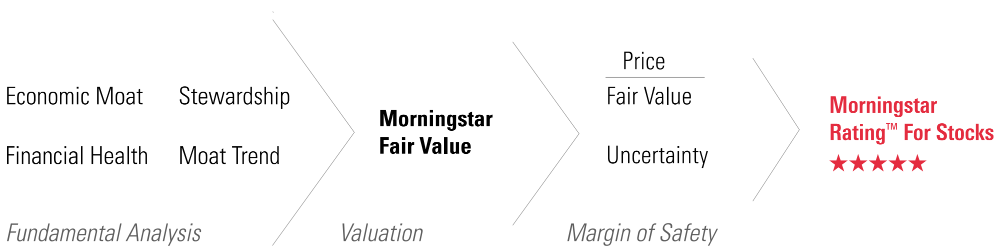
Research Methodology for Valuing Companies

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.

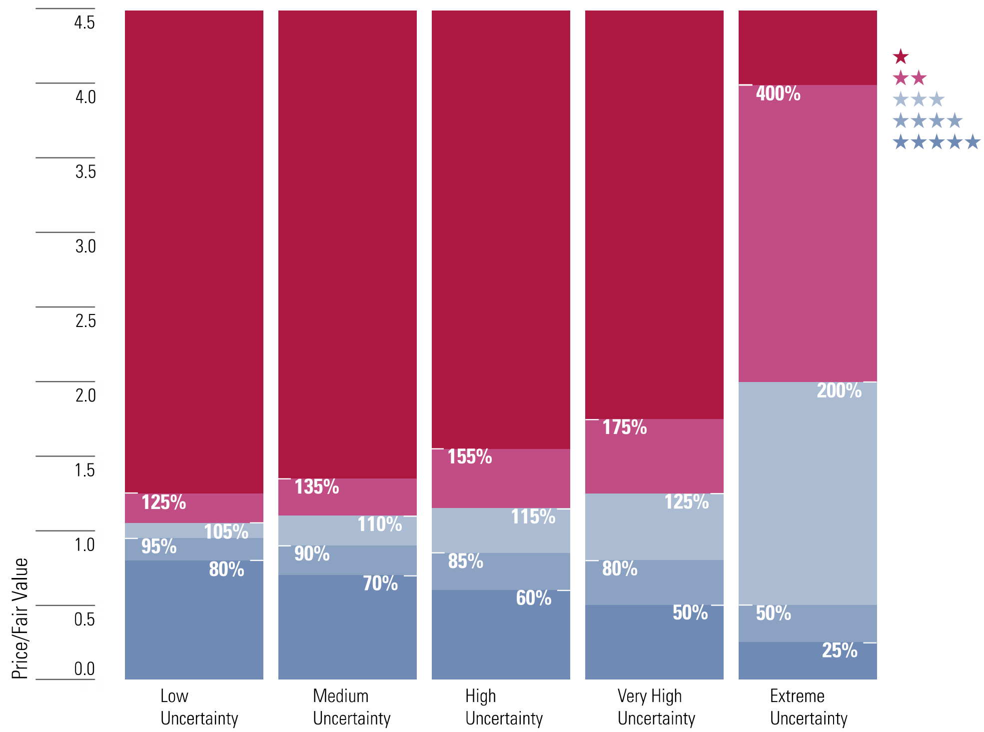
Analysts consider at least two scenarios in addition to their base case: a bull case and a bear case. Assumptions are chosen such that the analyst believes there is a 25% probability that the company will perform better than the bull case and a 25% probability that the company will perform worse than 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.

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