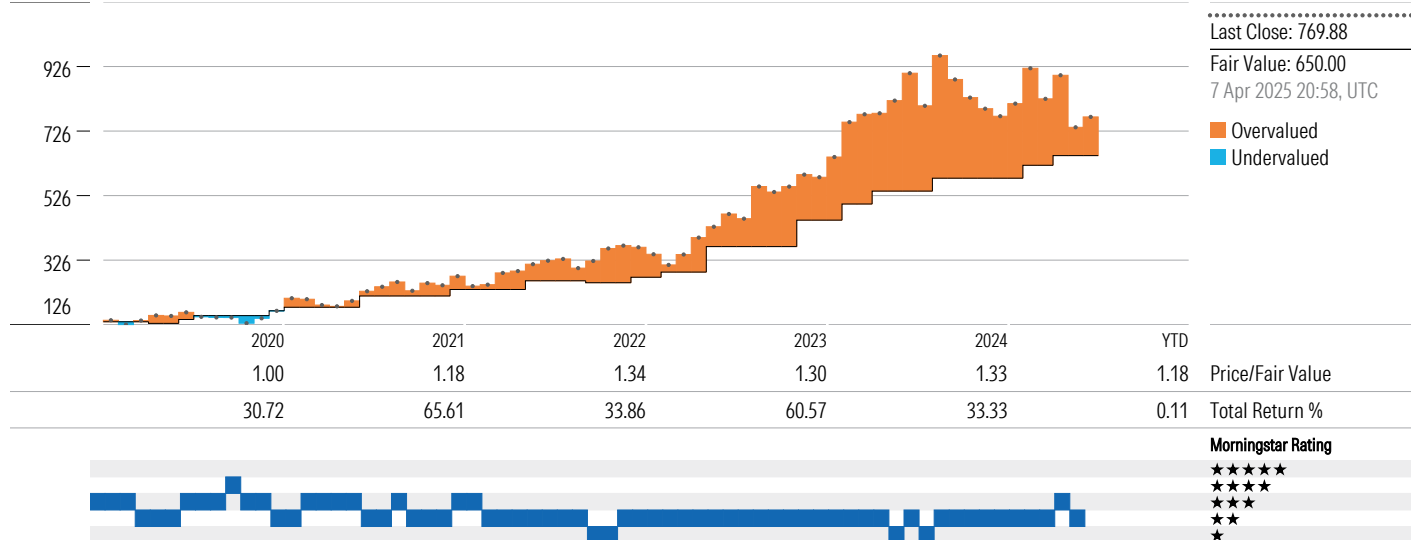


Eli Lilly and Co LLY ★★ 6 Jun 2025 21:29, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment
769.88 USD	650.00 USD	1.18	691.15 USD Bil	 Wide	 Large Growth	High	Exemplary	   
6 Jun 2025	7 Apr 2025 20:58, UTC		6 Jun 2025					7 May 2025 05:00, UTC

Price vs. Fair Value



Total Return % as of 06 Jun 2025. Last Close as of 06 Jun 2025. Fair Value as of 7 Apr 2025 20:58. UTC.

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Research Methodology for Valuing Companies

Important Disclosure

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The primary analyst covering this company does not own its stock.

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

Biopharma Industry: Latest Executive Order Threatens Broad Cut to US Drug Prices

Analyst Note Karen Andersen, CFA, Director, 12 May 2025

President Trump released an executive order on May 12 calling for a 30-day negotiation period between the Department of Health and Human Services and the biopharma industry, with the threat of a rule from the Centers for Medicare and Medicaid Services to lower US drug prices if no deal is reached.

Why it matters: The president's goal of bringing US drug prices more in line with pricing in other developed countries is among the more feared potential policy changes in the biopharma industry, although we have generally seen sweeping changes as a low-probability scenario.

- ▶ While discounts in the US and other markets make it quite difficult to get a clear comparison of net prices in various markets, we've estimated that US prices are on average roughly double those in major international markets.
- ▶ We have estimated that bringing US prices in line with European prices across US channels (public and private) would result in a 24% hit to US drug revenue, and with most firms bringing in about half of their revenue from the US, a worst-case scenario would mean a low-double-digit top-line hit.

The bottom line: We're maintaining our fair value estimates in this largely wide-moat industry. While a worst-case scenario would lower our fair value estimates, shares rose on Trump's announcement, as we think investors are encouraged by the vagueness of the order and the significant room for negotiations.

Eli Lilly and Co LLY ★★★

6 Jun 2025 21:29, UTC

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Sector

 Healthcare

Industry

Drug Manufacturers - General

Business Description

Eli Lilly is a drug firm with a focus on neuroscience, cardiometabolic, cancer, and immunology. Lilly's key products include Verzenio for cancer; Mounjaro, Zepbound, Jardiance, Trulicity, Humalog, and Humulin for cardiometabolic; and Taltz and Olumiant for immunology.

- We think a likely final focus for price cuts could be Medicare drug spending in hospitals, which represents 10% of the US drug market, limiting exposure relative to broader Medicare (30%) or all government programs (closer to 50%).
- Rulemaking is a hard way to make large changes stick. Historically, Congress has been the source of major policy changes in the industry. Efforts to include Medicaid price benchmarking in the emerging reconciliation bill appear to have failed, which likely limit Trump's scope for action.

Business Strategy & Outlook Karen Andersen, CFA, Director, 7 Apr 2025

Eli Lilly's innovative culture and strong financial commitment to developing the next generation of drugs set the company apart from its peers and fuel its long-term growth. Lilly holds industry-leading growth potential as the company is launching several new blockbusters and patent losses are fading.

Lilly's internal pipeline is well positioned to mitigate the patent losses during the next decade. The company tends to spend a low- to mid-20s percentage of its sales on financing the development efforts of new drugs, much higher than the high-teens industry average. The robust pipeline is a result of Lilly's strong commitment to research. We believe cardiometabolic drugs Mounjaro, Zepbound, and Jardiance as well as immunology drug Taltz, cancer drug Verzenio, and Alzheimer's drug Kisunla hold the highest sales potential of Lilly's currently launched drugs. Further, recently approved atopic dermatitis drug Ebgllyss (lebrikizumab) and pipeline cardiometabolic drugs retatrutide and orforglipton hold major blockbuster potential.

Lilly's strong entrenchment in insulin production should also help the company deal with patent losses. Unlike traditional drugs, Lilly's insulin drugs are very hard to copy by generics and create barriers to entry for noninsulin producers because of the large upfront investments needed to create scale efficiencies. A new weekly insulin in late-stage development offers another avenue of growth in this mature market.

The company is driving margin gains with the strong sales growth. Through operating efficacy gains from expected top-line growth, Lilly aims to expand operating margins over the next several years, which we believe is achievable. Lilly expects to increase gross margins through productivity initiatives and greater capacity utilization. Overall, we view the strong traction of recently launched high-margin drugs in several indications as supporting the overall profitability gains.

Bulls Say Karen Andersen, CFA, Director, 7 Apr 2025

- Lilly's strong leadership in weight-loss drugs should drive industry-leading growth with approved drugs and well-positioned next-generation weight-loss drugs in the pipeline.
- Lilly's cancer drug Verzenio reported strong data in early-stage breast cancer, opening up the strong potential in this multi-billion-dollar market.
- Lilly is developing a new Alzheimer's drug (Kisunla/donanemab) that could become a major

Eli Lilly and Co LLY ★★ 6 Jun 2025 21:29, UTC

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Competitors

	Eli Lilly and Co LLY	Bristol-Myers Squibb Co BMY	Merck & Co Inc MRK	Novo Nordisk AS Class B NOVO B
Economic Moat	Wide	Wide	Wide	Wide
Currency	USD	USD	USD	DKK
Fair Value	650.00 7 Apr 2025 20:58, UTC	66.00 11 Nov 2024 23:29, UTC	111.00 4 Feb 2025 19:32, UTC	595.00 19 May 2025 15:00, UTC
1-Star Price	1,007.50	89.10	149.85	922.25
5-Star Price	390.00	46.20	77.70	357.00
Assessment	Overvalued 6 Jun 2025	Undervalued 6 Jun 2025	Undervalued 6 Jun 2025	Undervalued 6 Jun 2025
Morningstar Rating	★★ 6 Jun 2025 21:29, UTC	★★★★ 6 Jun 2025 21:28, UTC	★★★★★ 6 Jun 2025 21:22, UTC	★★★★ 6 Jun 2025 23:35, UTC
Analyst	Karen Andersen, Director	Karen Andersen, Director	Karen Andersen, Director	Karen Andersen, Director
Capital Allocation	Exemplary	Exemplary	Standard	Exemplary
Price/Fair Value	1.18	0.73	0.71	0.82
Price/Sales	14.11	2.04	3.08	7.01
Price/Book	43.60	5.60	4.04	15.27
Price/Earning	43.56	6.51	9.95	20.14
Dividend Yield	0.73%	5.10%	4.07%	2.39%
Market Cap	691.15 Bil	98.52 Bil	198.30 Bil	2,178.81 Bil
52-Week Range	677.09—972.53	39.35—63.33	73.31—134.63	380.00—1,033.20
Investment Style	Large Growth	Large Value	Large Value	Large Growth

blockbuster, especially since few treatment options exist for the disease.

Bears Say Karen Andersen, CFA, Director, 7 Apr 2025

- The risks to success for Alzheimer's drug Kisunla remain high because of bottlenecks in patient diagnosis, required scans and monitoring, as well as competition.
- Several of Lilly's next-generation cardiometabolic drugs could lead to cannibalization of current approved Lilly drugs.
- Competition to weight-loss drug Zepbound could significantly increase over the next three years, from both established competitor Novo Nordisk and new entrants.

Economic Moat Karen Andersen, CFA, Director, 6 Feb 2025

Patents, economies of scale, and a powerful distribution network support Eli Lilly's wide moat. Lilly's patent-protected drugs carry strong pricing power, which enables the firm to generate returns on

Eli Lilly and Co

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invested capital in excess of its cost of capital. Further, the patents give the company time to develop the next generation of drugs before generic competition arises. Lilly's diversified product portfolio means the company's top drugs represent only a moderate amount of total sales, although the top drug (in 2024), Mounjaro/Zepbound, represented 37% of total sales and is poised to grow north of 50% of sales starting in 2025. We expect increasing dependence on Lilly's new GLP-1 drugs (including Mounjaro and Zepbound) will eventually mean close to two thirds of the firm's sales will be from this class of drugs by 2032. However, Mounjaro and Zepbound have patent protection until at least 2036, and multiple Lilly pipeline programs are in progress behind them in obesity, obesity-related indications, and brain health.

Lilly's operating structure allows for cost-cutting after patent losses to reduce the margin pressure from lost high-margin drug sales. Overall, Lilly's established product line creates the enormous cash flows needed to fund the average \$800 million in development costs per new drug. In addition, the company's powerful distribution network sets up the company as a strong partner for smaller drug companies that lack Lilly's resources. Also, Lilly's recently launched biologic drugs create higher hurdles over traditional small molecule for biosimilars to gain market share following the eventual patent expirations.

We think the firm does face environmental, social, and governance risks, particularly related to potential US drug price-related policy reform (close to 60% of total sales are generated by prescription drugs sales in the US) to increase access by lowering drug prices. Ongoing product governance issues (including litigation related to side effects and patents) also weigh on the company. While we have factored these threats into our analysis, we don't see them as material to our moat rating for Eli Lilly.

Fair Value and Profit Drivers Karen Andersen, CFA, Director, 7 Apr 2025

We are raising our Eli Lilly fair value estimate to \$650 per share from \$620, after raising our assumptions for potential orforglipron sales. This was slightly countered by lower assumed sales for Alzheimer's drug Kisunla due to the slower commercialization ramp seen with Biogen and Eisai's Leqembi.

Mounjaro and Zepbound are supporting solid margin expansion for Lilly based on strong pricing power. Our assumptions for overall biopharma GLP-1 sales in 2031 surpass \$200 billion across diabetes, obesity, and overweight patients with Lilly capturing \$80 billion of the market. We think more than 25% of obese adults and 15% of overweight adults in the US will receive treatment in 10 years, with the vast majority receiving branded GLP-1 therapies. We think US prices could fall substantially as volumes increase (in line with payer contracts) and as new entrants launch (beginning in 2026-27), with average net prices falling from roughly \$7,000 annually to \$3,000 in 10 years.

In aggregate, the company looks well positioned to drive top-line growth. We project a 34% top-line growth rate in 2025, with double-digit growth possible until the end of the decade. We expect diabetes

Eli Lilly and Co LLY ★★ 6 Jun 2025 21:29, UTC

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and weight loss drugs Mounjaro, Zepbound, and Jardiance, along with cancer drug Verzenio and immunology drug Taltz, to remain important drivers for cash flows. Also, Alzheimer's drug Kisunla should ramp to meaningful sales following the drug's recent launch. Lilly has already significantly expanded operating margins, and we expect operating margins to increase from the low-s to the mid-s over the next few years. We assume a 5% EBI growth rate between our 10-year explicit forecast and the perpetuity stage of our model, which accounts for Lilly's solid innovation, offset somewhat by tirzepatide generic competition during this period (2036). We estimate a weighted cost of capital for Lilly at 7.3%, in line with the peer group.

Risk and Uncertainty Karen Andersen, CFA, Director, 27 Sep 2024

We are maintaining Eli Lilly's Uncertainty Rating of High based on a high variable outcome for several key drug launches. Diabetes and weight loss drugs Mounjaro/Zepbound are likely to develop into major new drugs. However, the cone of uncertainty for the drugs is higher, as several variables are affecting the sales potential, especially for the weight loss indication, including level of insurance coverage and pricing. Alzheimer's drug Kisunla holds the potential to become another major new drug, but its outlook also has a wide range of outcomes, since the market potential could be very large but the visibility on market uptake is less clear. With Kisunla and Mounjaro/Zepbound representing close to two thirds of Lilly's projected sales by the end of the next 10 years, we believe a High Uncertainty Rating is appropriate. Most big biopharma firms tend to have Medium Uncertainty Ratings. Beyond product-specific uncertainties, Lilly faces tough competition from generics manufacturers and brand-name drugmakers. The company encounters considerable regulatory and legal risks, including product approvals, patent challenges, and liability lawsuits.

Our rating is not materially affected by ESG risks, although we see access to basic services (tied to drug pricing) as the biggest ESG risk that the firm needs to manage. Lilly generates close to 60% of total sales from US prescription drug sales (slightly higher relative to peers) so additional major pricing reforms could weigh on sales and margins. Additionally, we assume a more than 50% probability of Lilly seeing future costs related to product governance ESG risks (such as off-label marketing or litigation related to side effects), and model base case annual legal costs at 3% of non-GAAP net income (on the high end relative to peers based on Lilly's product portfolio being more prone to possible litigation).

Capital Allocation Karen Andersen, CFA, Director, 6 Feb 2025

Our Capital Allocation Rating for Lilly is Exemplary. The rating reflects our belief that the company possesses a sound balance sheet, a strong record of investments, and largely fair shareholder distributions.

We believe Eli Lilly holds a sound balance sheet with low levels of risk regarding the size of the debt carried, the business cyclicity facing the firm, and the debt maturity outlook. While an argument could be made to increase the leverage of the balance sheet to be more active in investing, we believe Lilly

Eli Lilly and Co

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along with the majority of firms in the large-cap biopharma industry should hold ample balance sheet strength to support opportunistic acquisitions as dynamic scientific data emerges that might require relatively investment quick action. Also, a strong balance sheet helps biopharma firms through most product litigation challenges with minimal concern from the market.

Turning to investments, we believe Lilly is operating at an exceptional level. The firm has been aggressively investing in research and development over the past several years with R&D expenditures as a percentage of sales ranging in the low to mid-20s, above the industry average of high teens. The strong investments in creating the next generation of drugs has yielded one of the best pipelines of drugs supporting next generation of drugs to offset patent losses. The strong investment in innovative new drugs (largely targeting areas of diabetes, oncology, and neurology) also helps fortify the firm's wide moat and expand the returns on invested capital.

On the acquisition side and partnership side, Lilly has executed well on several deals. While it has shied away from mega deals, several of the more midsize acquisitions appear to be helping augment internal research and development efforts. Acquisitions for Loxo Oncology (\$8 billion, bringing in Retevmo) and Dermira (\$1 billion, bringing in Ebglyss) appear to be good uses of capital. More recent acquisitions of Dice Therapeutics and Versanis look reasonable but are dependent on the success of mid-stage drugs.

We view Lilly's dividends and share repurchases as about right. Over the past five years, Lilly has paid out a dividend at close to 50% of normalized earnings. We expect dividends to increase at a double-digit rate over the next several years. On the share-repurchase side, Lilly has deployed a moderate level of capital, which has been a good decision, given the strong stock price performance. However, we also think it has been good for Lilly to prioritize funding research and development that has largely supported the strong stock price movement.

Dave Ricks took the helm as CEO in January 2017 in a smooth transition from previous CEO John Lechleiter, who retired. Ricks brings strong experience as president of Lilly's biomedicines group, which covered Alzheimer's disease, urology, immunology, musculoskeletal disease, and pain, as well as the company's global marketing function. Ricks joined Lilly in 1996 as a business development associate.

Analyst Notes Archive

Eli Lilly Earnings: Solid Performance Overshadowed by Novo Nordisk's Obesity Coverage Win Karen Andersen, CFA,Director,1 May 2025

Eli Lilly's first-quarter revenue grew 45% as combined sales for Mounjaro (diabetes) and Zepbound (obesity) rose dramatically to reach \$6.2 billion, up year over year from \$2.3 billion. Separately, Novo Nordisk announced Wegovy's preferred status as of July 1 with pharmacy benefit manager CVS. Why it matters: Lilly met financial expectations and is on track to meet 2025 guidance (apart from acquisition charges for a breast cancer drug in-licensed in the quarter), but the CVS announcement highlights

Eli Lilly and Co LLY ★★ 6 Jun 2025 21:29, UTC

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concerns that Novo Nordisk could remain a strong commercial competitor in obesity. During the first quarter, Zepbound showed even stronger share gains than we had expected, with US prescription share up from the end of the fourth quarter by 13 percentage points to 60%. We think Mounjaro/Zepbound sales could surpass \$30 billion this year (83% growth). We think price competition with Novo Nordisk and other future competitors means that non-GAAP performance margin (similar to operating margin) could only improve another 400 basis points in the long run, from 42.6% in the quarter to 46.7% by 2030. The bottom line: We're maintaining our \$650 fair value estimate for wide-moat Eli Lilly following solid results that show strong share gains, but we're cautious on pricing, even before the entry of a third competitor. We think the market was assuming more stable pricing and greater Lilly dominance. We expect Lilly to continue to gain market share over Novo Nordisk this year as part of a global \$75 billion GLP-1 market, with potential for the market to reach \$200 billion by 2031. We think upcoming orforglipron data in obesity in the third quarter will help clarify how competitive the molecule will be in the US market, where high-efficacy injectables are entrenched and Novo also hopes to launch an oral version of Wegovy in 2026.

Eli Lilly: Maintaining Our Fair Value Estimate Following First Phase 3 Data for Oral GLP-1 Program

Karen Andersen, CFA, Director, 17 Apr 2025

Eli Lilly's orforglipron's highest 36 mg dose produced a 1.5% drop in A1C (a measure of blood sugar) and 6.3% placebo-adjusted weight loss after 40 weeks of daily oral GLP-1 treatment in the phase 3 Achieve-1 study, with nausea/vomiting rates in the midteens and no signals of liver safety issues. Why it matters: Lilly's orforglipron is the star of Lilly's pipeline, as an oral GLP-1 therapy that could offer the blood sugar control and weight loss benefits of the GLP-1 class but in a product that is easier to manufacture and distribute for wide global uptake. Pfizer's oral GLP-1 danuglipron was discontinued earlier this week due to liver safety issues, and the lack of such issues in Lilly's first phase 3 readout (559 individuals) is reassuring. The drug's data look similar to Novo Nordisk's 1 mg weekly injectable Ozempic, which generated a 1.6% A1C decline and 3.9% placebo-adjusted weight loss in the 30-week Sustain-1 study in diabetes, with a 24% rate of nausea. The bottom line: We're maintaining our \$650 Lilly fair value estimate as we await further orforglipron data in obesity patients in the third quarter (the Attain-1 study). We think stronger, midteens weight loss in this population is the main hurdle to watch for, given solid performance on safety and tolerability in this initial phase 3 trial. We recently raised our orforglipron sales forecast (see our April 7 note) to roughly \$20 billion by 2034, after assessing the pipelines across our large-cap biopharma universe.

Biopharma Industry: Trump's Executive Order Could Help Innovation, but Range of Scenarios Still Open

Karen Andersen, CFA, Director, 16 Apr 2025

President Donald Trump issued an executive order on April 15 listing several potential policy changes aimed at lowering US drug prices. Why it matters: Biopharma has been holding its breath as it awaits

Eli Lilly and Co LLY ★★

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Trump's plans for reducing drug costs, with a range of possible policy changes that could help or hinder innovation. As a worst-case scenario, international price benchmarks could significantly lower US drug pricing and reduce economic incentives for innovative drug development globally. On a more positive note, correcting the "pill penalty" that only gives small molecule drugs nine years of protection from Medicare negotiation (biologics get 13) could encourage innovation regardless of treatment modality. The bottom line: We're not making any changes to our valuations or uncertainty ratings as a result of Trump's recent executive order, which was light on details and could be construed as a positive or negative for the industry. Trump wants US Department of Health and Human Services Secretary Robert F. Kennedy Jr. to work with Congress to correct the pill penalty, although this relies on Congressional action and does not specify how long the protection period should be. Another goal is for RFK to begin a new Medicare payment model to lower drug prices within one year, which could revive Trump's international price benchmarking model that was finalized under Trump in 2020 but halted by President Joe Biden in 2022. Big picture: We think the biopharma industry looks undervalued, as innovation and a promising mergers and acquisitions environment support long-term pricing power and help counter potential near-term tariff pressure, long-term rising tax rates as US manufacturing increases, and likely approval delays.

Biopharma Industry: We Anticipate Tariffs to Bring Short-Term Margin Pressure; No Valuation Changes

Karen Andersen, CFA, Director, 9 Apr 2025

President Trump has announced that "major" pharmaceutical product tariffs are likely to be revealed soon, but at the same time, paused broader tariffs for most trade partners for 90 days to allow time for negotiations. Why it matters: The biopharma industry has largely been exempt from tariffs (except for 20% tariffs on imports to the US from China, implemented in March). The industry continues to brace for a potential pharma-specific announcement, which could have implications for global manufacturing strategies. The rumored 25% tariff could be applied to products manufactured in Europe and imported into the US. While there might be some flexibility to move toward a more domestic manufacturing strategy, avoiding tariffs completely would require new facilities that take several years to build. Both US and Europe-based firms have significant European manufacturing exposure due to tax advantages (US firms), home country manufacturing (Europe firms), and other reasons, including lower production costs and lower exposure to currency fluctuations. The bottom line: We are not changing our biopharma uncertainty ratings or fair value estimates, as we think the direct impact from tariffs on earnings is likely to be limited in scope. Moreover, the indirect impact from a potential recession should also be limited given the noncyclical nature of drug spending. We assume pharmaceutical tariffs are enacted but do not last after 2026 due to political pressure from midterm elections. In this scenario, we think biopharma is unlikely to wholesale rethink its manufacturing footprint, apart from incremental US capacity additions. Using a non-GAAP industry average margin analysis of the short-run tariff impact, a 25% tariff would only amount to a 2-percentage-point operating margin headwind in the worst case, or

Eli Lilly and Co

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a 6% headwind to operating profits, using an industry average 32% operating profit margin.

Eli Lilly and Novo Nordisk: Obesity Drug Coverage in Medicare Not a Straight Path

Karen Andersen, CFA,Director,7 Apr 2025

The Centers for Medicare and Medicaid Services issued a final rule on April 4 related to Medicare changes, opting not to finalize a proposed rule to expand obesity drug coverage to Medicare Part D. Why it matters: Expansion of US access to GLP-1 therapies for obesity will be critical for broader uptake of the therapies. The two wide-moat firms are currently competing in a two-way race and poised to dominate a GLP-1 market on track to surpass \$200 billion by 2031. Of the 110 million Americans with obesity, roughly 30 million are eligible for Medicare Part D. The bottom line: After taking the opportunity to reassess the relative merits of the pipelines at both Novo and Lilly, we're raising our Lilly fair value estimate to \$650 per share from \$620 and maintaining our DKK 640/\$89 fair value estimate for Novo Nordisk. We had not assumed this proposed rule would pass, and we continue to think that Novo and Lilly will gain Medicare obesity drug coverage via overlapping indications with time, such as Zepbound's recent approval in sleep apnea and semaglutide's potential 2026 approval in liver disease. We now assume that orforglipron sales could approach \$20 billion by 2034, up from roughly \$10 billion in our prior valuation. We think prior efficacy data and the ease of small molecule manufacturing and distribution bode well for the program.

Biopharma Industry: Exempt From Global 10% Tariff, but We Still See Margin and Tax Rate Risks

Karen Andersen, CFA,Director,3 Apr 2025

On April 2, President Donald Trump announced a 10% tariff on imports from all countries, effective on April 5. However, pharmaceuticals appear to be among the exemptions listed in the full executive order, as part of Annex II. Why it matters: The biopharma industry has been sheltered from tariffs for decades, including during the first Trump administration, but investors had been concerned about potential global tariffs, as the industry has significant manufacturing in European countries like Ireland, Germany, and Switzerland. With roughly \$200 billion in pharmaceutical imports in 2024, a 10% tariff could amount to a \$20 billion headwind across the industry, with the biggest firms seeing potential annual tariffs as high as \$1 billion. Previously implemented tariffs on pharmaceutical imports from China (raised from 10% in February to 20% in March) appear manageable for branded biopharma, due to limited manufacturing in China, and pharmaceuticals are generally exempt from Mexico and Canada tariffs (25%, March 2025). The bottom line: We think a future global pharmaceutical tariff is still a risk and could pressure gross margins and increase long-term tax rates. However, we expect firms to be able to adapt their manufacturing, and nearly all large-cap biopharma firms continue to hold wide economic moats. On margins, we could see near-term pressure from tariffs and long-term pressure from additional investment in US manufacturing facilities, which are not likely to receive approval for several years, even assuming US Food and Drug Administration inspections stay on track following staff

Eli Lilly and Co

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6 Jun 2025 21:29, UTC

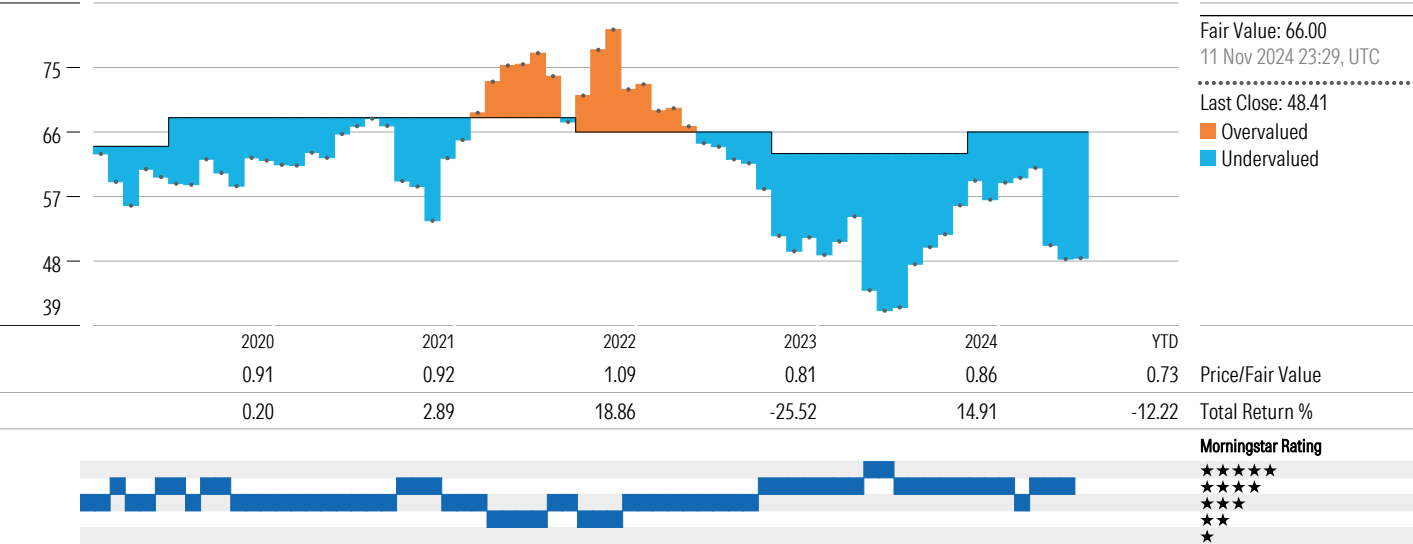
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reductions. With increased US manufacturing, we expect tax rates could begin to rise closer to the current 21% US corporate tax rate, a level we assume will be maintained as Trump aims to extend his tax cuts via the reconciliation process in the Republican-controlled Congress. ■■■

Eli Lilly and Co LLY★★ 6 Jun 2025 21:29, UTC

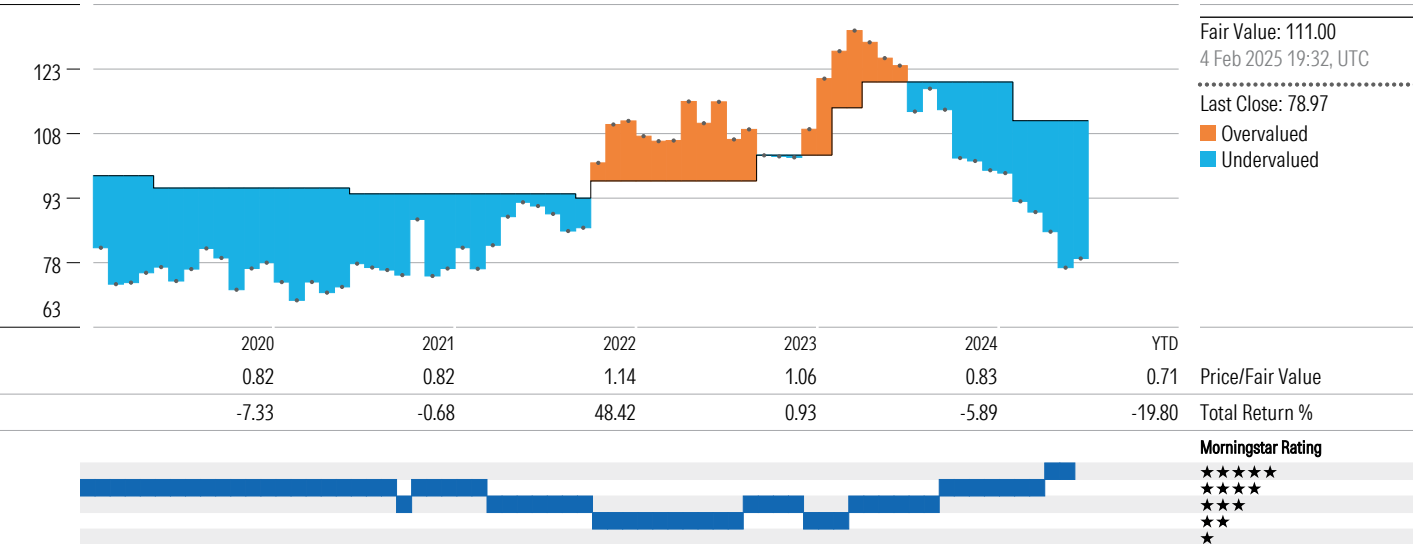
Competitors Price vs. Fair Value

Bristol-Myers Squibb Co BMY



Total Return % as of 06 Jun 2025. Last Close as of 06 Jun 2025. Fair Value as of 11 Nov 2024 23:29, UTC.

Merck & Co Inc MRK



Total Return % as of 06 Jun 2025. Last Close as of 06 Jun 2025. Fair Value as of 4 Feb 2025 19:32, UTC.

Eli Lilly and Co

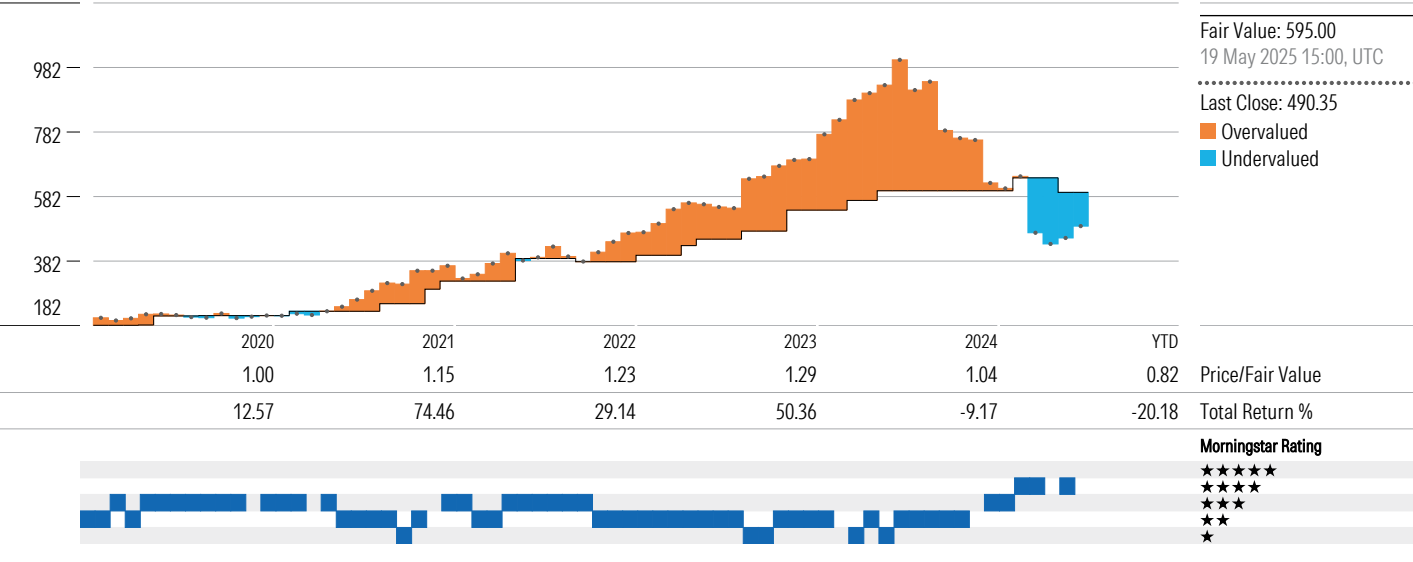
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Competitors Price vs. Fair Value

Novo Nordisk AS Class B

NOVO B



Total Return % as of 06 Jun 2025. Last Close as of 06 Jun 2025. Fair Value as of 19 May 2025 15:00, UTC.

Eli Lilly and Co 6 Jun 2025 21:29, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
769.88 USD 6 Jun 2025	650.00 USD 7 Apr 2025 20:58, UTC	1.18	691.15 USD Bil 6 Jun 2025	 Wide	 Large Growth	High	Exemplary	 7 May 2025 05:00, UTC

Morningstar Valuation Model Summary

Financials as of 01 May 2025

Fiscal Year, ends 31 Dec	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Revenue (USD Mil)	28,541	34,124	45,043	59,206	72,074	83,499	91,969	102,225
Operating Income (USD Mil)	8,653	10,787	17,502	25,193	32,138	37,749	42,153	47,332
EBITDA (USD Mil)	8,598	8,394	15,052	25,862	35,136	41,123	45,801	51,317
Adjusted EBITDA (USD Mil)	8,598	8,394	15,052	25,862	35,136	41,123	45,801	51,317
Net Income (USD Mil)	6,245	5,240	10,590	18,994	25,697	30,024	33,292	37,346
Adjusted Net Income (USD Mil)	7,187	5,712	11,746	19,405	26,096	30,400	33,644	37,680
Free Cash Flow To The Firm (USD Mil)	5,460	-1,512	2,312	14,758	18,145	22,961	27,484	31,419
Weighted Average Diluted Shares Outstanding (Mil)	905	903	904	898	889	880	871	863
Earnings Per Share (Diluted) (USD)	6.90	5.80	11.71	21.15	28.91	34.12	38.21	43.30
Adjusted Earnings Per Share (Diluted) (USD)	7.94	6.32	12.99	21.61	29.36	34.54	38.62	43.69
Dividends Per Share (USD)	3.92	4.52	5.20	6.00	6.93	8.32	9.98	11.98

Margins & Returns as of 01 May 2025

	3 Year Avg	Actual			Forecast					5 Year Avg
		2022	2023	2024	2025	2026	2027	2028	2029	
Operating Margin %	24.8	30.3	31.6	38.9	42.6	44.6	45.2	45.8	46.3	44.4
EBITDA Margin %	—	30.1	24.6	33.4	43.7	48.8	49.3	49.8	50.2	—
Adjusted EBITDA Margin %	—	30.1	24.6	33.4	43.7	48.8	49.3	49.8	50.2	48.3
Net Margin %	20.3	21.9	15.4	23.5	32.1	35.7	36.0	36.2	36.5	35.3
Adjusted Net Margin %	22.7	25.2	16.7	26.1	32.8	36.2	36.4	36.6	36.9	35.8
Free Cash Flow To The Firm Margin %	6.6	19.1	-4.4	5.1	24.9	25.2	27.5	29.9	30.7	27.6

Growth & Ratios as of 01 May 2025

	3 Year CAGR	Actual			Forecast					5 Year CAGR
		2022	2023	2024	2025	2026	2027	2028	2029	
Revenue Growth %	16.7	0.8	19.6	32.0	31.4	21.7	15.9	10.1	11.2	17.8
Operating Income Growth %	30.2	9.1	24.7	62.2	44.0	27.6	17.5	11.7	12.3	22.0
EBITDA Growth %	28.0	7.2	-2.4	79.3	71.8	35.9	17.0	11.4	12.0	29.6
Adjusted EBITDA Growth %	23.4	7.2	-2.4	79.3	71.8	35.9	17.0	11.4	12.0	27.8
Earnings Per Share Growth %	24.1	12.8	-16.0	101.9	80.6	36.7	18.0	12.0	13.3	29.9
Adjusted Earnings Per Share Growth %	24.1	-2.6	-20.4	105.5	66.3	35.8	17.7	11.8	13.1	29.9

Valuation as of 01 May 2025

	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Price/Earning	46.1	92.2	59.4	35.6	26.2	22.3	19.9	17.6
Price/Sales	12.2	16.2	15.4	11.7	9.6	8.3	7.5	6.8
Price/Book	31.1	48.9	49.2	30.2	18.5	12.5	9.2	7.1
Price/Cash Flow	—	—	—	—	—	—	—	—
EV/EBITDA	42.0	68.0	47.9	28.1	20.7	17.7	15.9	14.2
EV/EBIT	41.7	52.9	41.2	28.8	22.6	19.2	17.2	15.3
Dividend Yield %	1.1	0.8	0.7	0.8	0.9	1.1	1.3	1.6
Dividend Payout %	49.3	71.5	40.0	27.8	23.6	24.1	25.8	27.4
Free Cash Flow Yield %	—	—	—	—	—	—	—	—

Operating Performance / Profitability as of 01 May 2025

Fiscal Year, ends 31 Dec	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
ROA %	12.6	8.2	13.5	21.5	24.9	25.1	24.2	23.7
ROE %	58.0	48.2	74.2	82.6	69.2	55.3	45.6	39.7
ROIC %	19.7	22.7	28.7	34.0	37.0	37.4	36.4	36.3

Eli Lilly and Co LLY ★★

6 Jun 2025 21:29, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
769.88 USD 6 Jun 2025	650.00 USD 7 Apr 2025 20:58, UTC	1.18	691.15 USD Bil 6 Jun 2025	Wide	Large Growth	High	Exemplary	 7 May 2025 05:00, UTC

Financial Leverage (Reporting Currency)

Fiscal Year, ends 31 Dec	Actual			Forecast				
	2022	2023	2024	2025	2026	2027	2028	2029
Debt/Capital %	4.5	4.4	4.6	5.2	4.9	4.5	4.1	3.7
Assets/Equity	4.6	5.9	5.5	3.8	2.8	2.2	1.9	1.7
Net Debt/EBITDA	1.6	2.7	2.0	1.0	0.6	0.3	0.0	-0.3
Total Debt/EBITDA	1.9	3.0	2.2	1.3	0.9	0.8	0.7	0.6
EBITDA/ Net Interest Expense	32.0	26.9	24.9	31.8	47.2	56.6	74.2	99.3

Forecast Revisions as of 1 May 2025

Prior data as of 14 Apr 2025	2025		2026		2027	
	Current	Prior	Current	Prior	Current	Prior
Fair Value Estimate Change (Trading Currency)	650.00	648.77	—	—	—	—
Revenue (USD Mil)	59,206	60,173	72,074	72,913	83,499	84,330
Operating Income (USD Mil)	25,193	24,105	32,138	32,518	37,749	38,130
EBITDA (USD Mil)	25,862	26,411	35,136	35,545	41,123	41,533
Net Income (USD Mil)	19,405	19,758	26,096	26,407	30,400	30,708
Earnings Per Share (Diluted) (USD)	21.15	21.54	28.91	29.25	34.12	34.46
Adjusted Earnings Per Share (Diluted) (USD)	21.61	22.00	29.36	29.70	34.54	34.89
Dividends Per Share (USD)	6.00	6.00	6.93	6.93	8.32	8.32

Key Valuation Drivers as of 01 May 2025

Cost of Equity %	7.5
Pre-Tax Cost of Debt %	5.3
Weighted Average Cost of Capital %	7.3
Long-Run Tax Rate %	19.0
Stage II EBI Growth Rate %	5.0
Stage II Investment Rate %	28.0
Perpetuity Year	20

Additional estimates and scenarios available for download at <https://pitchbook.com/>.

Discounted Cash Flow Valuation as of 01 May 2025

	USD Mil
Present Value Stage I	194,635
Present Value Stage II	145,240
Present Value Stage III	260,908
Total Firm Value	600,783
Cash and Equivalents	3,423
Debt	33,644
Other Adjustments	-1,513
Equity Value	572,075
Projected Diluted Shares	898
Fair Value per Share (USD)	650.00

Eli Lilly and Co LLY ★★ 6 Jun 2025 21:29, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment¹
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ESG Risk Rating Breakdown

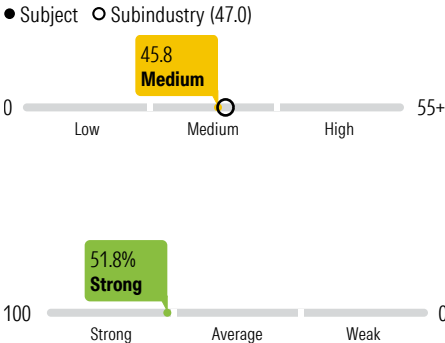
Exposure

Company Exposure¹	45.8
- Manageable Risk	42.7
Unmanageable Risk²	3.0

Management

Manageable Risk	42.7
- Managed Risk³	22.1
Management Gap⁴	20.6

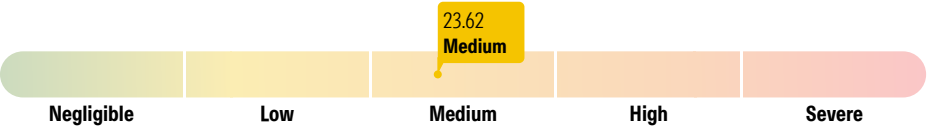
Overall Unmanaged Risk 23.6



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

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

ESG Risk Rating



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

1. A company's Exposure to material ESG issues 2. Unmanageable Risk refers to risks that are inherent to a particular business model that cannot be managed by programs or initiatives 3. Managed Risk = Manageable Risk multiplied by a Management score of 51.8% 4. Management Gap assesses risks that are not managed, but are considered manageable 5. ESG Risk Rating Assessment = Overall Unmanaged Risk = Management Gap plus Unmanageable Risk

ESG Risk Rating Assessment⁵



ESG Risk Rating is of May 07, 2025. Highest Controversy Level is as of May 08, 2025. Sustainalytics Subindustry: Pharmaceuticals. Sustainalytics provides Morningstar with company ESG ratings and metrics on a monthly basis and as such, the ratings in Morningstar may not necessarily reflect current Sustainalytics' scores for the company. For the most up to date rating and more information, please visit: sustainalytics.com/esg-ratings/.

Peer Analysis 07 May 2025

Company Name	Exposure	Management	ESG Risk Rating
Eli Lilly and Co	45.8 Medium 0 —●— 55+	51.8 Strong 100 —●— 0	23.6 Medium 0 —●— 40+
Bristol-Myers Squibb Co	39.2 Medium 0 —●— 55+	49.2 Average 100 —●— 0	20.7 Medium 0 —●— 40+
Merck & Co Inc	47.2 Medium 0 —●— 55+	62.6 Strong 100 —●— 0	19.7 Low 0 —●— 40+
Savara Inc	40.8 Medium 0 —●— 55+	38.3 Average 100 —●— 0	25.8 Medium 0 —●— 40+
Novo Nordisk AS	49.0 Medium 0 —●— 55+	57.3 Strong 100 —●— 0	23.0 Medium 0 —●— 40+

Appendix

Historical Morningstar Rating

Eli Lilly and Co LLY 6 Jun 2025 21:29, UTC

Dec 2025	Nov 2025	Oct 2025	Sep 2025	Aug 2025	Jul 2025	Jun 2025	May 2025	Apr 2025	Mar 2025	Feb 2025	Jan 2025
—	—	—	—	—	—	★★	★★★	★★	★★	★★	★★
Dec 2024	Nov 2024	Oct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	Apr 2024	Mar 2024	Feb 2024	Jan 2024
★★	★★	★★	★★	★	★★	★	★★	★★	★★	★★	★★
Dec 2023	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023
★★	★★	★★	★★	★★	★★	★★	★★	★★	★★	★★	★★
Dec 2022	Nov 2022	Oct 2022	Sep 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022
★★	★	★	★★	★★	★★	★★	★★	★★	★★	★★★	★★★
Dec 2021	Nov 2021	Oct 2021	Sep 2021	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
★★	★★	★★	★★★	★★	★★	★★★	★★★	★★★	★★★	★★	★★
Dec 2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020	Feb 2020	Jan 2020
★★★	★★★	★★★★	★★★★	★★★★	★★★★	★★	★★	★★	★★★★	★★★★	★★★★

Bristol-Myers Squibb Co BMY 6 Jun 2025 21:28, UTC

Dec 2025	Nov 2025	Oct 2025	Sep 2025	Aug 2025	Jul 2025	Jun 2025	May 2025	Apr 2025	Mar 2025	Feb 2025	Jan 2025
—	—	—	—	—	—	★★★★	★★★★	★★★★	★★★	★★★★	★★★★
Dec 2024	Nov 2024	Oct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	Apr 2024	Mar 2024	Feb 2024	Jan 2024
★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
Dec 2023	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023
★★★★	★★★★	★★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Dec 2022	Nov 2022	Oct 2022	Sep 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022
★★	★★	★★	★★★	★★★	★★	★★	★★	★★	★★★	★★★	★★★
Dec 2021	Nov 2021	Oct 2021	Sep 2021	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
★★★★	★★★★	★★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
Dec 2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020	Feb 2020	Jan 2020
★★★	★★★	★★★★	★★★★	★★★	★★★★	★★★★	★★★	★★★	★★★★	★★★	★★★

Merck & Co Inc MRK 6 Jun 2025 21:22, UTC

Dec 2025	Nov 2025	Oct 2025	Sep 2025	Aug 2025	Jul 2025	Jun 2025	May 2025	Apr 2025	Mar 2025	Feb 2025	Jan 2025
—	—	—	—	—	—	★★★★★	★★★★★	★★★★	★★★★	★★★★	★★★★
Dec 2024	Nov 2024	Oct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	Apr 2024	Mar 2024	Feb 2024	Jan 2024
★★★★	★★★★	★★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★	★★	★★
Dec 2023	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	Apr 2023	Mar 2023	Feb 2023	Jan 2023
★★★	★★★	★★★	★★★	★★	★★	★★	★★	★★	★★	★★	★★
Dec 2022	Nov 2022	Oct 2022	Sep 2022	Aug 2022	Jul 2022	Jun 2022	May 2022	Apr 2022	Mar 2022	Feb 2022	Jan 2022
★★	★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★★	★★★★	★★★★
Dec 2021	Nov 2021	Oct 2021	Sep 2021	Aug 2021	Jul 2021	Jun 2021	May 2021	Apr 2021	Mar 2021	Feb 2021	Jan 2021
★★★★	★★★★	★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★
Dec 2020	Nov 2020	Oct 2020	Sep 2020	Aug 2020	Jul 2020	Jun 2020	May 2020	Apr 2020	Mar 2020	Feb 2020	Jan 2020
★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★

Novo Nordisk AS Class B NOVO B 6 Jun 2025 23:35, UTC

Dec 2025 —	Nov 2025 —	Oct 2025 —	Sep 2025 —	Aug 2025 —	Jul 2025 —	Jun 2025 ★★★★★	May 2025 —	Apr 2025 ★★★★★	Mar 2025 ★★★★★	Feb 2025 ★★★★	Jan 2025 ★★★★
Dec 2024 —	Nov 2024 ★★	Oct 2024 ★★	Sep 2024 ★★	Aug 2024 ★★	Jul 2024 ★★	Jun 2024 ★	May 2024 ★★	Apr 2024 ★	Mar 2024 —	Feb 2024 ★★	Jan 2024 ★★
Dec 2023 ★★	Nov 2023 ★★	Oct 2023 ★	Sep 2023 ★	Aug 2023 ★★	Jul 2023 ★★	Jun 2023 ★★	May 2023 ★★	Apr 2023 ★★	Mar 2023 ★★	Feb 2023 ★★	Jan 2023 ★★
Dec 2022 ★★	Nov 2022 ★★	Oct 2022 ★★★★	Sep 2022 ★★★★	Aug 2022 ★★★★	Jul 2022 ★★★★	Jun 2022 ★★★★	May 2022 ★★★★	Apr 2022 ★★	Mar 2022 ★★	Feb 2022 ★★★★	Jan 2022 ★★★★
Dec 2021 —	Nov 2021 ★★	Oct 2021 ★	Sep 2021 ★★	Aug 2021 ★★	Jul 2021 ★★	Jun 2021 ★★	May 2021 ★★★★	Apr 2021 —	Mar 2021 ★★★★	Feb 2021 ★★★★	Jan 2021 ★★★★
Dec 2020 —	Nov 2020 ★★★★	Oct 2020 ★★★★	Sep 2020 ★★★★	Aug 2020 ★★★★	Jul 2020 ★★★★	Jun 2020 ★★★★	May 2020 ★★★★	Apr 2020 ★★	Mar 2020 ★★★★	Feb 2020 ★★	Jan 2020 ★★

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.

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.

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

2. Estimated Fair Value

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

Our model is divided into three distinct stages:

Stage I: Explicit Forecast

In this stage, which can last five to 10 years, analysts make full financial statement forecasts, including items such as revenue, profit margins, tax rates, changes in 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.

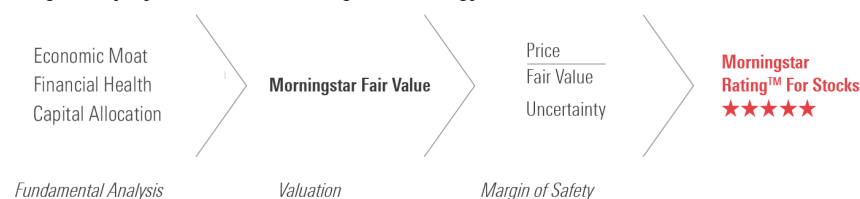
Because a dollar earned today is worth more than a dollar earned tomorrow, we discount our projections of cash flows in stages I, II, and III to arrive at a total present value of expected future cash flows. Because we are modeling free cash flow to the firm—representing cash available to provide a return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

3. Uncertainty Around That Fair Value Estimate

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

Our Uncertainty Rating is meant to take into account anything that can increase the potential dispersion of future

Morningstar Equity Research Star Rating Methodology



Research Methodology for Valuing Companies

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

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

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

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

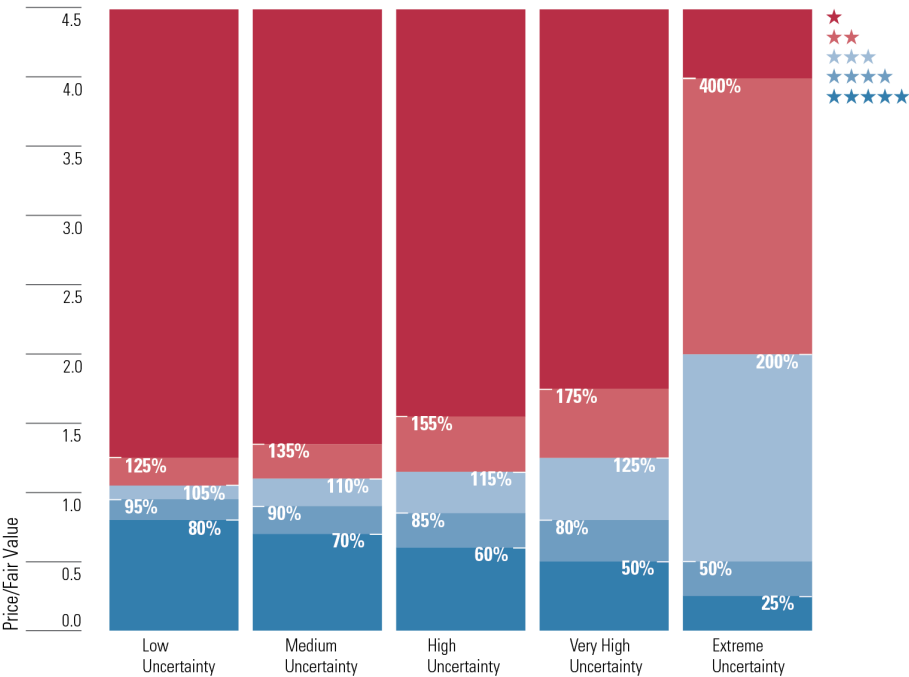
Our uncertainty rating is based on the interquartile range, or the middle 50% of potential outcomes, covering the 25th percentile–75th percentile. This means that when a stock hits 5 stars, we expect there is a 75% chance that the intrinsic value of that stock lies above the current market price. Similarly,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

4. Market Price

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

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

Morningstar Equity Research Star Rating Methodology



Morningstar Star Rating for Stocks

Once we determine the fair value estimate of a stock, we compare it with the stock's current market price on a daily basis, and the star rating is automatically re-calculated at the market close on every day the market on which the stock is listed is open. 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 multi-year time frame, based on our analysis. Scenario analysis by our analysts indicates that the market is pricing in an excessively optimistic outlook, limiting upside potential and leaving the investor exposed to Capital loss.

Other Definitions

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

Capital Allocation Rating: Our Capital Allocation (or Stewardship) Rating represents our assessment of the quality of management's capital allocation, with particular emphasis on the firm's balance sheet, investments,

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

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

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

Sustainalytics analyzes over 1,300 data points to assess a company's exposure to and management of ESG risks. In other words, ESG Risk Ratings measures a company's unmanaged ESG Risks represented as a quantitative score.

Unmanaged Risk is measured on an open-ended scale starting at zero (no risk) with lower scores representing less unmanaged risk and, for 95% of cases, the unmanaged ESG Risk score is below 50.

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

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

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