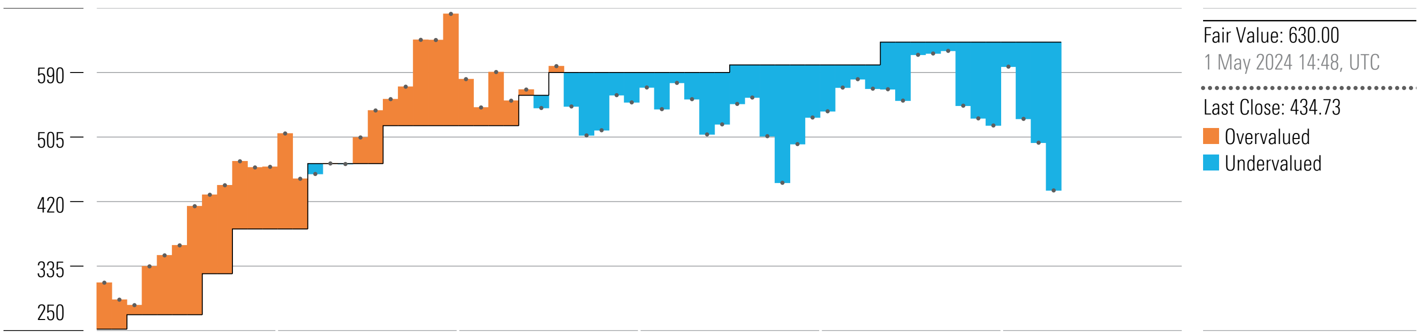
Morningstar Equity Analyst Report | Report as of 23 Apr 2025 15:48, UTC | Reporting Currency: USD | Trading Currency: USD | Exchange: NEW YORK STOCK EXCHANGE, INC. Page 1 of 22

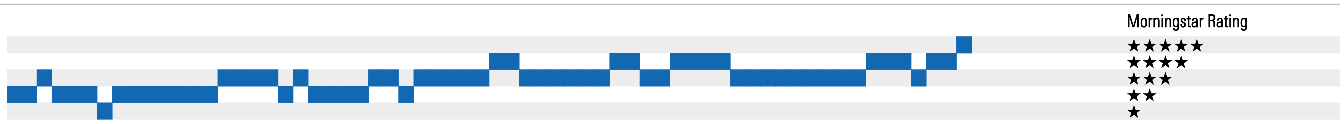
Thermo Fisher Scientific Inc TMO ★★★★★ 22 Apr 2025 21:26, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
434.73 USD 22 Apr 2025	630.00 USD 1 May 2024 14:48, UTC	0.69	164.66 USD Bil 23 Apr 2025	Wide	Large Value	Medium	Exemplary	2 Apr 2025 05:00, UTC

Price vs. Fair Value



	2020	2021	2022	2023	2024	YTD	
	1.21	1.28	0.93	0.88	0.83	0.69	Price/Fair Value
	43.65	43.48	-17.29	-3.36	-1.70	-16.35	Total Return %



Total Return % as of 22 Apr 2025. Last Close as of 22 Apr 2025. Fair Value as of 1 May 2024 14:48, UTC.

Contents

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

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

Thermo Fisher Earnings: Strong Underlying Performance; Tariffs' Bite Is Manageable

Analyst Note Alex Morozov, CFA, Regional Director, 23 Apr 2025

Thermo Fisher Scientific delivered strong first-quarter results. The company reduced its full-year guidance after incorporating the direct impact of tariffs on its revenue and profitability.

Why it matters: Direct and indirect effects of tariffs were in focus during the earnings call. The direct impact is an approximately 5% earnings reduction to the full-year guidance. The indirect impact, particularly a slowdown in China-US trade activity, is less certain but potentially more damaging.

- Thermo Fisher's massive geographic manufacturing footprint gives the company an advantage over smaller peers as it pertains to mitigating tariffs. Longer term, the firm's natural hedge and pricing power should successfully offset the impact of tariffs.
- The company is seeing a slowdown in government and academic activity in the US. The contract research services business saw $200 million in vaccine contract cancellations, stemming from the Trump administration directives.

The bottom line: We're maintaining our fair value estimate and wide moat rating. The shares appear slightly undervalued as the near-term environment remains highly volatile.

- We're adjusting the pace of China demand normalization as the current US-China trade wars will likely compress the pace of activity recovery. We also anticipate lower demand related to the National Institutes of Health's budget.

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Thermo Fisher Scientific Inc TMO ★★★★★ 22 Apr 2025 21:26, UTC

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Sector	Industry
Healthcare	Diagnostics & Research

Business Description

Thermo Fisher Scientific sells scientific instruments and laboratory equipment, diagnostics consumables, and life science reagents. The firm operates through four segments as of year end-2024 (revenue figures include some cross-segment revenue): analytical technologies (17% of sales); specialty diagnostic products (11%); life science solutions (23%); and lab products and services, which includes CRO services (54%).

- Our long-term profitability forecast is unchanged. Given the highly uncertain environment, we anticipate Thermo Fisher will keep a lid on its investments.

Business Strategy & Outlook Alex Morozov, CFA, Regional Director, 14 Mar 2025

Thermo Fisher is weathering the pullback in global biopharmaceutical spending and China softness better than most of its peers. Being the premier life science supplier and having an unmatched portfolio of products, resources, and manufacturing capabilities have allowed the firm to retain and grow its wallet share among its customers across all channels. We expect the current budget-constrained environment to slowly ease in the upcoming year. Thermo Fisher remains in a great position to leverage its share gains in the biopharma channel and capitalize on strong long-term demand.

While bigger is not always better, Thermo Fisher had long committed itself to accumulate as robust a product offering, under one roof, as possible. To reach its ultimate goal of being a one-stop shop go-to provider of life science instruments and consumables, the company has spent aggressively throughout the years on internal efforts but particularly on acquisitions. More than $50 billion has been deployed since 2010 on this strategy (including the recent PPD acquisition), which, while accretive to the company's reach, scale and product breadth, has historically suppressed its returns on invested capital, or ROICs, to rather modest levels. Not anymore.

While the uplift from covid-19 tests and vaccines has been significant, the swiftness and extent of the company's response has cemented Thermo Fisher's integral role within the segment. The company has long found a receptive audience to its pitch with large pharma clients, which see sizable benefits in the simplified procurement process Thermo Fisher offers. Accelerated by the pandemic, the critical supplier status has been extended to the firm by a much wider audience, including governments. We anticipate the firm's penetration of all its customer channels to grow, aided by its expansion into contract research and manufacturing. We also think the company's global reach will continue to resonate, and its already strong presence within rapidly growing emerging markets to expand further.

Bulls Say Alex Morozov, CFA, Regional Director, 14 Mar 2025

- Thermo Fisher is among the industry's best when it comes to cost control. As near-term spending is constrained, the company's margins show exceptional resilience.
- PPD business is growing above-market rates, implying share gains. The company's scale and reach have boosted performance in this already-attractive business.
- Thermo Fisher is successfully implementing price hikes within its portfolio, offsetting inflation pressures.

Bears Say Alex Morozov, CFA, Regional Director, 14 Mar 2025

- The company was able to fuel its acquisition spree via access to extremely inexpensive debt. Generating excess returns on acquisitions in a current less favorable interest-rate environment might be more challenging.

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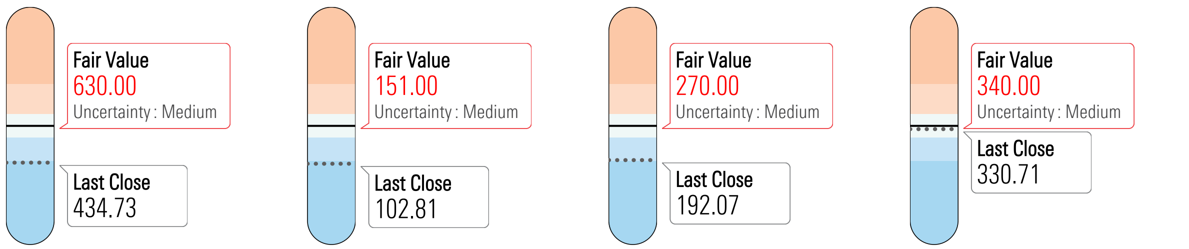
Competitors



	Thermo Fisher Scientific Inc TMO	Agilent Technologies Inc A	Danaher Corp DHR	Waters Corp WAT
Economic Moat	Wide	Wide	Wide	Wide
Currency	USD	USD	USD	USD
Fair Value	630.00 1 May 2024 14:48, UTC	151.00 31 May 2023 16:01, UTC	270.00 29 Jan 2025 16:46, UTC	340.00 1 Nov 2024 14:45, UTC
1-Star Price	850.50	203.85	364.50	459.00
5-Star Price	441.00	105.70	189.00	238.00
Assessment	Undervalued 22 Apr 2025	Undervalued 22 Apr 2025	Undervalued 22 Apr 2025	Fairly Valued 22 Apr 2025
Morningstar Rating	★★★★★22 Apr 2025 21:26, UTC	★★★★★22 Apr 2025 21:26, UTC	★★★★★22 Apr 2025 21:28, UTC	★★★22 Apr 2025 21:25, UTC
Analyst	Alex Morozov, Regional Director	Julie Utterback, Senior Equity Analyst	Julie Utterback, Senior Equity Analyst	Julie Utterback, Senior Equity Analyst
Capital Allocation	Exemplary	Exemplary	Exemplary	Exemplary
Price/Fair Value	0.69	0.68	0.71	0.97
Price/Sales	3.88	4.55	5.89	6.66
Price/Book	3.34	4.87	2.70	10.74
Price/Earning	19.89	23.58	36.41	30.41
Dividend Yield	0.37%	0.94%	0.59%	0.00%
Market Cap	164.11 Bil	29.31 Bil	137.42 Bil	19.68 Bil
52-Week Range	409.85—627.88	96.43—155.35	171.00—281.70	279.24—423.56
Investment Style	Large Value	Mid Blend	Large Blend	Mid Growth

- Thermo Fisher's 2024 performance was materially affected by weakness in China. While we expect this market to rebound, 2025 will still remain muted.
- While a smaller portion currently, the firm's presence in the industrial end market exposes it to macroeconomic headwinds.

Economic Moat Alex Morozov, CFA, Regional Director, 1 May 2024

Thermo Fisher has a wide economic moat, continuously supported by its ongoing acquisition strategy. The recent ultralow interest rate environment—of which Thermo Fisher took ample advantage—made the company aggressive and a desirable acquisition partner, as only a handful of other life science firms have the balance sheet to support comparable large deals. From 2010 the firm has spent on average $4.7 billion on acquisitions per year, and we expect this to continue. However, with the total company size now dwarfing its peers, there are only a very few scenarios probable of an acquisition large enough to make a material dent in ROICs.

Strategically the firm's acquisitions have been an enormous boon for its competitive positioning. There are only limited product gaps now in the company offering to the life science research sector, which in turn has allowed it to steadily gain wallet share (average organic growth of 4%-5% versus industry growth of approximately 3% over the past decade). The one-stop shop approach, made possible in part by acquisitions, affords it pricing flexibility and results in strong customer relationships. The company finds a receptive audience with large pharma clients, which see sizable benefits in the simplified procurement process Thermo Fisher offers. As a result, the firm's penetration and entrenchment within the pharma end market (switching costs) are expanding, which we expect to continue.

The company has long been a ubiquitous name in the life science supplies, going back to the days of Fisher catalog. The company's access to customer channels is unparalleled; the legacy Fisher (virtual) catalog still dominates the marketplace, and its next-largest competitors in the laboratory consumable segment are materially smaller. Thermo Fisher's salesforce is by far the largest in the industry and its distribution network gives the firm unmatched reach and scale. To get a better sense of the omnipresence of the life science supplies business, the company's revenue (excluding analytical instruments and diagnostics businesses) is nearly equal to the next three largest life science suppliers combined; its products reach nearly twice as many customers as competitors and its salesforce in this segment is four times its largest peer. The company utilizes its reach effectively; every business it has acquired has been fully integrated in its core operations and typically growth from the acquired businesses accelerates once the initial integration stage is complete.

The argument for the Analytical business moat is similar to the wide moat argument for its key competitors here Agilent and Waters. This segment serves a slightly less life science-tilted customer base than its other segments, but it benefits from switching costs and intangible assets. The intangible asset is the firm's differentiated technology and its leadership positions within tools such as mass spectrometry, chromatography, microscopy and others. Instrumentation is a high-ticket item, and typically comes with a recurring revenue stream attached. The business is also rather sticky, particularly within the biopharma end market, where the regulatory process assures high switching costs. Production methods have to stay uniform throughout the life cycle of a drug, which often extends beyond the life cycle of a typical mass spectrometer. Any changes to the production method automatically triggers approval from a regulator, which isn’t common. The market share among the big three in instrumentation hasn't materially changed over the past few decades, suggesting rational competition. Outside biopharma, switching costs aren’t as strong and are mainly a factor of interoperability (a typical customer acquires multiple tools from the same vendor) and to a lesser degree customer inertia driven by the accustomed-to expectations of a high-quality product portfolio.

The recently acquired contract research operations is typically viewed by us as a narrow-moat business,

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but within Thermo Fisher it adds to the spectrum of research services provided for biopharma clients, further entrenching its customer base. Previously, this was the only missing meaningful offering, but by acquiring PPD, the company offers its clients even greater incentive to consolidate their activities with just one vendor.

The company is also gradually becoming less and less sensitive to economic cycles, as more of its revenue is tied to the "lights on" activities of research laboratories rather than capital budgets. The business mix has gradually shifted to consumables and services, large portion of which are recurring, and now constitute 82% of total sales. A shift toward biopharma clients has also made the company less susceptible to more volatile infrastructure and applied end markets, even in emerging-market geographies where the biopharma channel is experiencing particularly high growth.

Fair Value and Profit Drivers Alex Morozov, CFA, Regional Director, 14 Mar 2025

Our fair value estimate is $630 per share. We anticipate the current constrained environment to gradually ease in 2025, but the company isn't likely to return to its historic growth levels until 2026.

Thermo Fisher is a rare example of a company that has delivered its best years ever in arguably one of the worst years economically in history. In the normalized environment, we forecast Thermo Fisher's sales will increase approximately 5.0%-6% per year organically, boosted by the faster-growing CRO segment and wallet share gains. We expect the analytical instruments and life sciences segments to drive future growth, while the mature catalog business will provide cash flows to fund investments in growth areas, such as clinical trials (PPD). We anticipate Thermo Fisher's adjusted operating margin will steadily improve over the next five years. The company's improved product mix, internal sourcing efforts, manufacturing shift to lower-cost regions, and efficiency improvements should more than offset pricing pressure in many of its commodity products.

We forecast Thermo Fisher to continue spending materially on bolt-on acquisitions. The company's historical capital allocation strategy has favored acquisitions, and while we don't forecast any material deals, we expect approximately 100 basis points of top-line benefit coming inorganically. We use a 7% cost of capital in our assumptions.

Risk and Uncertainty Alex Morozov, CFA, Regional Director, 14 Mar 2025

We assign Thermo Fisher a Medium Morningstar Uncertainty Rating. While Thermo Fisher benefited materially from the pandemic, this revenue is largely gone. The company as a supplier to the biopharma channel relies on a continued investments and funding; current biopharma spending is somewhat constrained and will likely remain muted throughout 2025. The firm's exposure to industrial end markets leads to some cyclicality within its revenue stream; the semiconductor business in particular could be severely affected if the industry's spending declines. If the company's key environmental instruments target markets—China and India—reduce their environmental quality testing due to fiscal concerns or currency headwinds, this could more than offset Thermo's recovery in the life sciences market. The company faces competition in its analytical instruments business, particularly from low-end instrument manufacturers. Thermo also depends on research activity from academia and government and could be adversely affected by delays in funding from the federal National Institutes of Health. Finally, its acquisition strategy continually exposes the firm to risk of overpaying for increasingly environmental, social, and governance-related risks, but it's worth noting that its efficiency in tax-avoidance strategies could make the company a target for regulators.

Capital Allocation Alex Morozov, CFA, Regional Director, 1 May 2024

We assign an Exemplary Morningstar Capital Allocation Rating to Thermo Fisher.

The company's balance sheet risk is quite low. While Thermo Fisher is a serial acquirer, even at its peak, the company's net debt/EBITDA was below 4. Following the PPD deal, leverage is elevated but we anticipate it to be reduced to a more normal 2 times debt/EBITDA fairly quickly.

When it comes to the company's track record with its acquisitions, purchase price aside, it is nearly impeccable. Every major deal it has made has contributed to market share gains we've seen from the firm over the past decade. Thermo Fisher deploys a very swift acquisition integration approach, leveraging its scale and reach to actually extract ever-elusive revenue synergies. Whether filling in the product gaps or geography penetration, the strategy has been largely successful. The issue has always been with the price it is willing to pay, and its appetite and aggressiveness have been further fueled by cheap financing it has been able to obtain. We aren't assuming material value creation through acquisitions, but we note that qualitatively they have been moat-enhancing even as ROICs have not materially improved.

Our only qualm is with the shareholder distribution part of our analysis. The company's dividend policy is absurdly low, as the dividend payout ratio is in single digits. The preferred way of shareholder distribution (what is left after acquisitions) has long been through buybacks. We consider them at best value-neutral based on our assessment of the company's value at the time. We do think the company's reinvestment policy is appropriate.

Analyst Notes Archive

Life Science Industry: Tariffs Remain Concerning, but No Major Change to Our Views Currently Julie Utterback, CFA,Senior Equity Analyst,10 Apr 2025

Over the past week, life science shares have experienced significant volatility related to a deepening trade war with China and as broader US tariffs were implemented and then paused for 90 days to allow time for negotiations. A pharmaceutical-specific tariff is also being considered.Why it matters: Near-

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term life science demand, margins, and tax rates may be directly affected by tariffs, especially with China. However, the durability of tariffs is highly uncertain, and we wouldn't anticipate many drug manufacturers altering their footprint notably, given the significant costs and time required. In our coverage, China sales range from around 19% of sales at Agilent down to 7% at Illumina in 2024, with most of our remaining list typically in the midteens. This creates moderate concerns around profitability in that deepening trade war. Although unlikely, one of the major times when a biopharmaceutical manufacturer would consider switching life science tool suppliers is when building a new manufacturing facility, so we will remain on the lookout for major plans on that front.The bottom line: While short- or intermediate-term pressures may arise, we are not changing our views on the life science firms at this point, as we think the direct impact from tariffs on long-term profits will likely be limited in scope. Life science shares appear largely undervalued to us currently. On China, most of these firms, including one of the most exposed players, Agilent, have "in China, for China" manufacturing status, which limits tariff risk. European firms may have a leg up on US firms, though, if China takes further retaliatory steps specifically against US firms. Life science toolmakers that sell to the drug manufacturers will likely still enjoy very wide moats too. We would only get concerned for the near-term stickiness if significant drug manufacturing looks likely to shift back to the US, which looks unlikely to us.

Thermo Fisher Earnings: Strong Top-Line and Margin Results, Improving 2025 Dynamics Alex Morozov, CFA,Regional Director,30 Jan 2025

Thermo Fisher Scientific delivered strong fourth-quarter results. Guidance for 2025 implies healthier demand in the first half and reacceleration to historical levels in the second half. Improving demand and the company's expectation for material margin improvement in 2025 led the shares higher. Why it matters: Core organic revenue grew 5% in the quarter, a material step up from the prior quarter. The company continued to deliver strong improvement on the margin line, up 70 basis points. Most important, Thermo Fisher's guidance for 2025 suggests an improvement in global demand, with potential growth reacceleration to historical levels toward the end of the year. All segments performed above expectations. Analytical technologies, with 8% organic growth, was a particular standout. Demand for electronic microscopy instrumentation, mass spectrometry, and liquid chromatography was strong. The company performed better than some of its main peers in the quarter, implying market share gains. By geographies, North America and China were up midsingle digits, Europe was up low single digits, and Asia-Pacific was up high single digits. The 2025 guidance does not suggest a strong China rebound, however; even as Thermo Fisher starts seeing some stimulus-related orders, the overall environment is still challenging. The bottom line: We're maintaining our $630 fair value estimate and wide moat rating. The shares appear slightly undervalued as muted growth and regulatory uncertainty weigh on investor sentiment. We're modeling more normalized revenue growth in 2025 and beyond as the biopharma channel returns to growth and China demand starts to rebound. Our profitability forecast is unchanged. Given the still uncertain environment, we anticipate Thermo Fisher will keep a lid on its investments.

Thermo Fisher Earnings: Modest Improvement in Demand, Revenue Growth Return Imminent Alex Morozov, CFA,Regional Director,23 Oct 2024

While Thermo Fisher's results were largely as expected, we anticipate end markets to start improving next quarter and into 2025. Why it matters: Core organic revenue growth was flat in the quarter, still moderately affected by the run-off of pandemic revenue and the tight spending environment. We expect the company to return to growth in the near term. Thermo Fisher continues to manage its expenses prudently. All segments largely performed within expectations. Analytical technologies continue to see strong demand for electronic microscopy instrumentation. The biopharma channel improved sequentially in the quarter but remains below our long-term expectations for this end market. With funding constraints easing, we expect demand to return across all segments, particularly in bioproduction and clinical research services. The bottom line: We're maintaining our fair value estimate and wide moat rating. Shares are slightly undervalued as muted growth is still weighing on investor sentiment. We're modeling more normalized revenue growth in 2025 and beyond as the biopharma channel returns to growth and China demand rebounds. Our profitability forecast is unchanged. Given the still uncertain environment, we anticipate Thermo Fisher will keep a lid on its investments.

Thermo Fisher Earnings: More of the Same, Second Half Should Return to Growth Alex Morozov, CFA,Regional Director,24 Jul 2024

We are maintaining our $630 fair value estimate for wide-moat Thermo Fisher following its second-quarter results. Organic revenue declined 1% in the quarter but was effectively flat once adjusted for the remainder of the covid-19 revenue in the prior year. Performance on the top and bottom lines is in line with our forecast, and the company is now set to recover in the second half of the year. Flat revenue in the quarter is a sequential improvement and was largely in line with the prior commentary. Moderate improvement in analytical instruments (up 3% in the quarter) was offset by a 3% decline in the life sciences segment, though this is better than the segment's first-quarter performance of negative 12%. Muted performance in diagnostics and lab products shows that the industrywide pressures are starting to abate but are still present. Underlying conditions improved moderately across all end markets though still below our long-term demand expectations. While pharma and biotech declined in the low single digits, much of it was a result of the run-off of the vaccine revenue. Academic and industrial end markets showed healthy growth due to strong demand for electronic microscopy. Core businesses within diagnostics and healthcare channels also delivered positive performance. China delivered a surprising mid-single-digit growth in the quarter, but this was largely due to easy comparisons; the company still views the China environment as muted, though we expect growth to continue in the second half.Thermo Fisher held the line on expenses, with the adjusted operating margin flat year on

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year and improving slightly sequentially. The life sciences segment had a very strong performance on the bottom line (up 350 basis points) despite declining revenue; prudent cost management was enough to offset still materially negative volume effect.

Thermo Fisher Earnings: Demand Outlook Improves With Biotech Funding and China Recovering Alex Morozov, CFA,Regional Director,24 Apr 2024

We are maintaining our $600 fair value estimate for wide-moat Thermo Fisher following its first-quarter results. Organic revenue declined 4% in the quarter, in line with recent trends. The company, however, noted a moderately improved demand environment, which allowed it to slightly raise the lower end of its annual revenue guidance. We reiterate our wide moat rating. Revenue softness in the quarter was in line with prior expectations, and the company still anticipates the market to decline by midsingle digits. There was a bit more optimism about the health of the market, with overall spending expected to start recovering earlier in the year. The broad biotech funding environment is recovering notably, which is showing up in the activity levels of Thermo Fisher's CRO and CDMO businesses, with revenue acceleration to follow. North America and Europe results were as expected. While China declined in midsingle digits in the quarter, the outlook improved with the announced stimulus. The company was a bit cautious on the actual impact of the stimulus, particularly to this year's order book, suggesting the effect of signaling to a long-term commitment to funding. However, given the company's material exposure to the China market and its strong competitive positioning there, improving sentiment is a major positive.With revenue still down, Thermo Fisher is doing what it always does—pulling a lever on expenditures. The company saw another quarter of improving operating margins, up 20 basis points (excluding adjustments), with cost control primarily responsible.

Thermo Fisher Earnings: Revenue Under Pressure but in Line With Expectations Alex Morozov, CFA,Regional Director,31 Jan 2024

We are maintaining our $600 fair value estimate for wide-moat Thermo Fisher following its fourth-quarter results. As was the case in the prior quarter, the company is seeing continuing broad market weakness but managing it well, with core revenue down 4%. With demand softness likely to persist in the near term, the firm's approach to costs is impressive, with adjusted operating margin improving 70 basis points year over year. We maintain our wide moat rating. Demand softness was in line with the prior guidance, and the company reiterated its expectations of a muted performance in 2024 (although it appears Thermo Fisher dialed down the industrywide forecast a tad). Bioproduction continued to struggle and will likely do so in 2024 and so will China. The 2024 total revenue guidance of flat growth is ahead of our 2024 forecast, so we are planning to dial it down even though we consider it very conservative. However, Thermo Fisher reiterated its confidence in the industry's long-term demand forecast of 4%-6% and its own ability to grow 3% above market growth, which is materially above our long term 5%-6% growth for the company. Thus, our valuation is not affected by the near-term revenue deceleration. With revenue down, Thermo Fisher is doing what it always does—pulling a lever on expenditures. The company saw another quarter of improving operating margins, albeit helped partly by business mix. All segments delivered operating income margin ahead of last year, a remarkable feat in light of flat-ish revenue.

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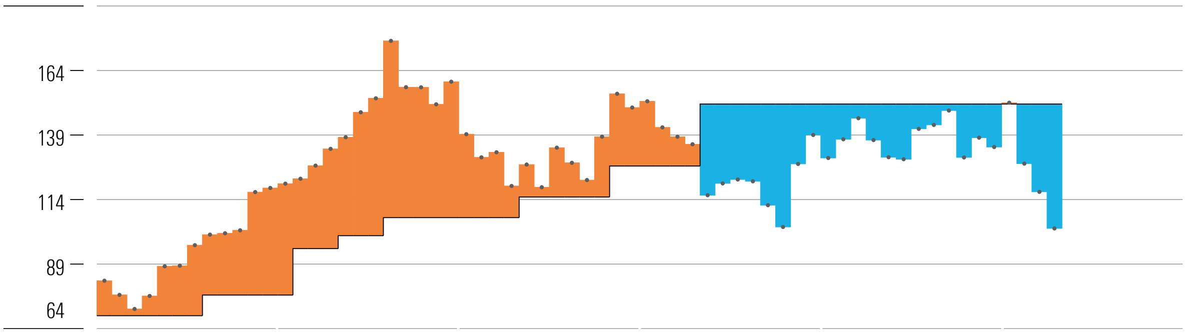
Competitors Price vs. Fair Value

Agilent Technologies Inc A

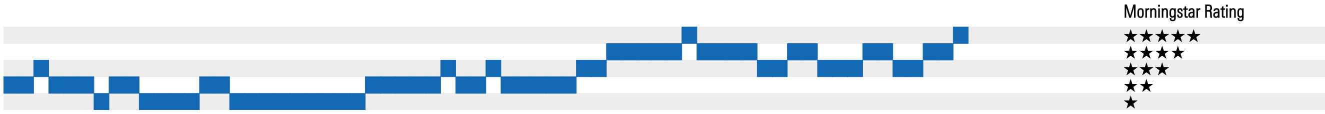


Fair Value: 151.00
31 May 2023 16:01, UTC

Last Close: 102.81
Overvalued
Undervalued

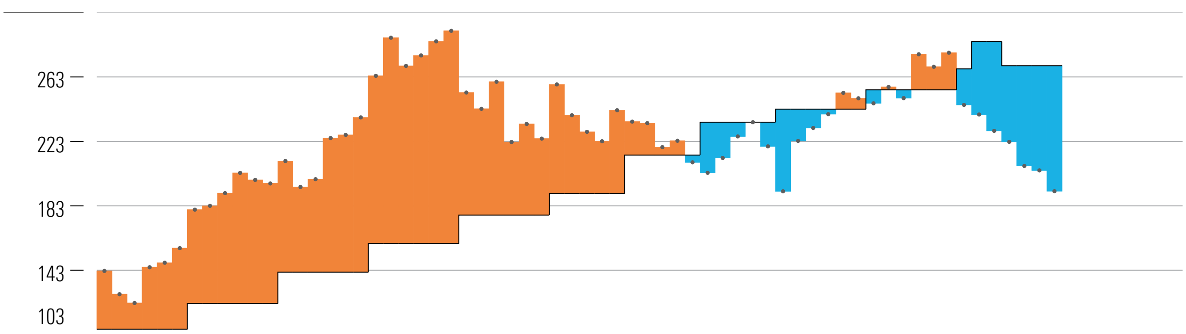
	2020	2021	2022	2023	2024	YTD
Price/Fair Value	1.54	1.49	1.18	0.92	0.89	0.68
Total Return %	39.53	35.39	-5.60	-6.49	-2.69	-23.29

Morningstar Rating



Total Return % as of 22 Apr 2025. Last Close as of 22 Apr 2025. Fair Value as of 31 May 2023 16:01, UTC.

Danaher Corp DHR

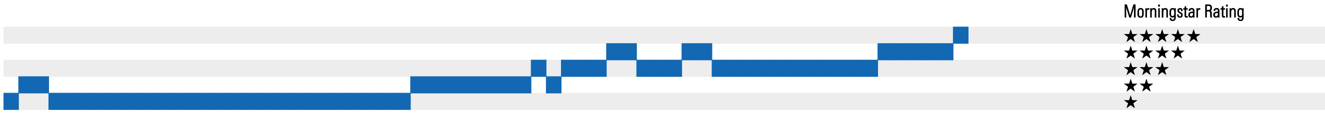


Fair Value: 270.00
29 Jan 2025 16:46, UTC

Last Close: 192.07
Overvalued
Undervalued

	2020	2021	2022	2023	2024	YTD
Price/Fair Value	1.61	1.83	1.10	0.95	0.81	0.71
Total Return %	45.20	48.49	-19.02	0.50	-0.31	-16.19

Morningstar Rating



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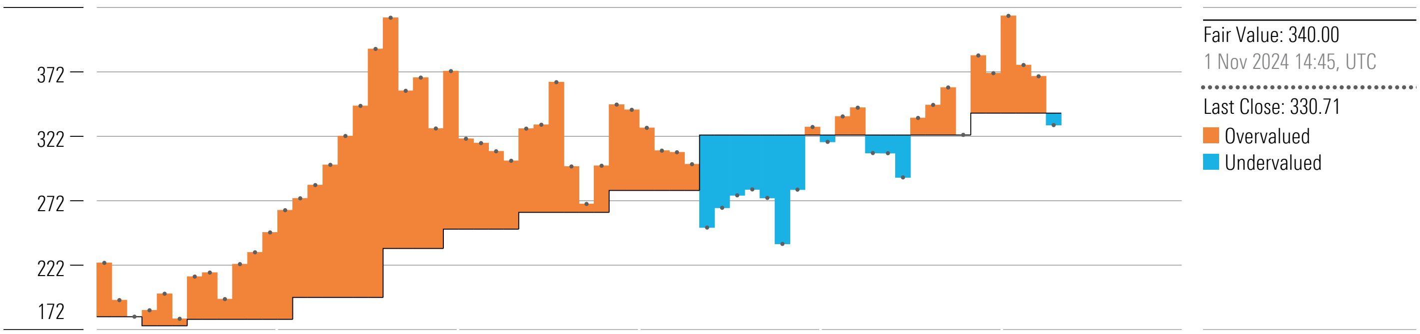
Thermo Fisher Scientific Inc TMO ★★★★★ 22 Apr 2025 21:26, UTC

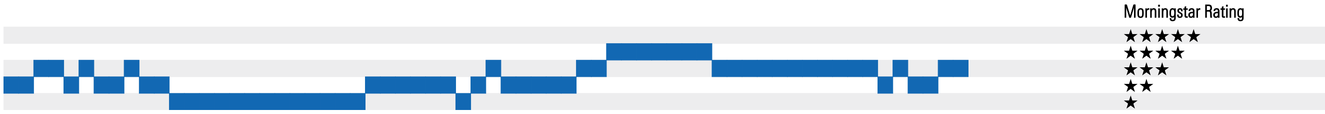
Competitors Price vs. Fair Value

Waters Corp WAT



	2020	2021	2022	2023	2024	YTD	
	1.37	1.49	1.22	1.02	1.09	0.97	Price/Fair Value
	5.89	50.59	-8.06	-3.90	12.68	-10.86	Total Return %

Morningstar Rating



Total Return % as of 22 Apr 2025. Last Close as of 22 Apr 2025. Fair Value as of 1 Nov 2024 14:45, UTC.

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Thermo Fisher Scientific Inc TMO ★★★★★ 22 Apr 2025 21:26, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
434.73 USD 22 Apr 2025	630.00 USD 1 May 2024 14:48, UTC	0.69	164.66 USD Bil 23 Apr 2025	Wide	Large Value	Medium	Exemplary	2 Apr 2025 05:00, UTC

Morningstar Valuation Model Summary

Financials as of 14 Mar 2025	Actual			Forecast				
Fiscal Year, ends 31 Dec	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Revenue (USD Mil)	44,915	42,857	42,879	43,757	46,332	48,694	51,200	53,858
Operating Income (USD Mil)	8,507	7,318	7,730	8,506	9,563	10,605	11,463	12,239
EBITDA (USD Mil)	11,774	10,265	10,445	11,284	12,233	13,310	14,205	14,939
Adjusted EBITDA (USD Mil)	14,366	13,216	12,829	13,279	14,127	15,104	15,898	16,531
Net Income (USD Mil)	6,950	5,995	6,335	7,349	8,307	9,252	10,030	10,734
Adjusted Net Income (USD Mil)	9,156	8,362	8,373	9,378	10,329	11,266	12,036	12,731
Free Cash Flow To The Firm (USD Mil)	7,220	2,863	4,448	4,668	6,017	6,822	7,405	7,767
Weighted Average Diluted Shares Outstanding (Mil)	394	388	383	382	380	379	377	376
Earnings Per Share (Diluted) (USD)	17.64	15.45	16.54	19.26	21.86	24.44	26.61	28.59
Adjusted Earnings Per Share (Diluted) (USD)	23.24	21.55	21.86	24.58	27.18	29.76	31.93	33.91
Dividends Per Share (USD)	1.15	1.35	1.52	1.60	1.69	1.78	1.88	1.98

Margins & Returns as of 14 Mar 2025		Actual			Forecast					
	3 Year Avg	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**5 Year Avg**
Operating Margin %	17.3	18.9	17.1	18.0	19.4	20.6	21.8	22.4	22.7	21.2
EBITDA Margin %	—	26.2	24.0	24.4	25.8	26.4	27.3	27.7	27.7	—
Adjusted EBITDA Margin %	—	32.0	30.8	29.9	30.3	30.5	31.0	31.1	30.7	30.7
Net Margin %	14.8	15.5	14.0	14.8	16.8	17.9	19.0	19.6	19.9	18.6
Adjusted Net Margin %	19.8	20.4	19.5	19.5	21.4	22.3	23.1	23.5	23.6	22.8
Free Cash Flow To The Firm Margin %	11.0	16.1	6.7	10.4	10.7	13.0	14.0	14.5	14.4	13.3

Growth & Ratios as of 14 Mar 2025		Actual			Forecast					
	3 Year CAGR	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**5 Year CAGR**
Revenue Growth %	3.0	14.5	-4.6	0.1	2.1	5.9	5.1	5.1	5.2	4.7
Operating Income Growth %	-8.9	-16.8	-14.0	5.6	10.0	12.4	10.9	8.1	6.8	9.6
EBITDA Growth %	-5.9	-6.7	-12.8	1.8	8.0	8.4	8.8	6.7	5.2	7.4
Adjusted EBITDA Growth %	-4.5	-2.5	-8.0	-2.9	3.5	6.4	6.9	5.3	4.0	5.2
Earnings Per Share Growth %	-5.3	-9.4	-12.4	7.0	16.5	13.5	11.8	8.9	7.4	11.6
Adjusted Earnings Per Share Growth %	-5.3	-7.5	-7.3	1.4	12.5	10.6	9.5	7.3	6.2	11.6

Valuation as of 14 Mar 2025	Actual			Forecast				
	2022	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Price/Earning	23.7	24.6	23.8	17.7	16.0	14.6	13.6	12.8
Price/Sales	4.8	4.8	4.6	3.8	3.5	3.4	3.2	3.0
Price/Book	4.9	4.4	4.0	3.1	2.8	2.6	2.3	2.1
Price/Cash Flow	—	—	—	—	—	—	—	—
EV/EBITDA	16.9	17.7	17.7	14.3	13.4	12.6	11.9	11.5
EV/EBIT	28.5	32.0	29.3	22.3	19.8	17.9	16.6	15.5
Dividend Yield %	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.5
Dividend Payout %	5.0	6.3	7.0	6.5	6.2	6.0	5.9	5.8
Free Cash Flow Yield %	—	—	—	—	—	—	—	—

Operating Performance / Profitability as of 14 Mar 2025	Actual			Forecast				
Fiscal Year, ends 31 Dec	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
ROA %	7.1	6.1	6.5	7.6	8.5	9.3	9.7	10.0
ROE %	15.8	12.8	12.8	13.8	14.3	14.6	14.4	14.0
ROIC %	18.4	15.7	14.4	14.1	14.3	14.6	14.7	14.5

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Thermo Fisher Scientific Inc TMO ★★★★★ 22 Apr 2025 21:26, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
434.73 USD 22 Apr 2025	630.00 USD 1 May 2024 14:48, UTC	0.69	164.66 USD Bil 23 Apr 2025	Wide	Large Value	Medium	Exemplary	2 Apr 2025 05:00, UTC

Financial Leverage (Reporting Currency)	Actual			Forecast				
Fiscal Year, ends 31 Dec	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Debt/Capital %	13.8	14.5	13.6	9.4	7.6	6.2	5.0	4.0
Assets/Equity	2.2	2.1	2.0	1.8	1.7	1.6	1.5	1.4
Net Debt/EBITDA	2.2	2.6	2.5	2.1	1.6	1.2	0.8	0.4
Total Debt/EBITDA	2.4	2.6	2.4	2.0	1.6	1.3	1.0	0.8
EBITDA/ Net Interest Expense	25.7	23.6	42.8	44.3	47.1	50.3	53.0	55.1

Forecast Revisions as of 14 Mar 2025	2025		2026		2027	
Prior data as of 31 Oct 2024	**Current**	**Prior**	**Current**	**Prior**	**Current**	**Prior**
Fair Value Estimate Change (Trading Currency)	630.00	640.20	—	—	—	—
Revenue (USD Mil)	43,757	42,718	46,332	45,109	48,694	47,575
Operating Income (USD Mil)	8,506	7,245	9,563	8,327	10,605	9,356
EBITDA (USD Mil)	13,279	12,984	14,127	13,914	15,104	14,800
Net Income (USD Mil)	9,378	8,193	10,329	9,233	11,266	10,150
Earnings Per Share (Diluted) (USD)	19.26	15.24	21.86	18.04	24.44	20.54
Adjusted Earnings Per Share (Diluted) (USD)	24.58	21.34	27.18	24.14	29.76	26.64
Dividends Per Share (USD)	1.60	1.43	1.69	1.51	1.78	1.59

Key Valuation Drivers as of 14 Mar 2025	
Cost of Equity %	7.5
Pre-Tax Cost of Debt %	5.8
Weighted Average Cost of Capital %	7.0
Long-Run Tax Rate %	16.0
Stage II EBI Growth Rate %	7.0
Stage II Investment Rate %	20.0
Perpetuity Year	20

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

Discounted Cash Flow Valuation as of 14 Mar 2025	**USD Mil**
Present Value Stage I	23,394
Present Value Stage II	105,820
Present Value Stage III	135,517
Total Firm Value	**264,731**
Cash and Equivalents	5,569
Debt	31,275
Other Adjustments	-311
Equity Value	**239,336**
Projected Diluted Shares	383
Fair Value per Share (USD)	**630.00**

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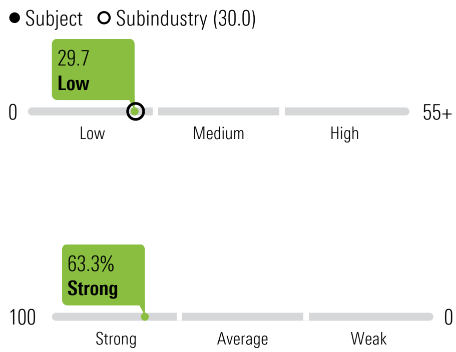
Thermo Fisher Scientific Inc TMO ★★★★★ 22 Apr 2025 21:26, UTC

Last Price	Fair Value Estimate	Price/FVE	Market Cap	Economic Moat™	Equity Style Box	Uncertainty	Capital Allocation	ESG Risk Rating Assessment[1]
434.73 USD 22 Apr 2025	630.00 USD 1 May 2024 14:48, UTC	0.69	164.66 USD Bil 23 Apr 2025	Wide	Large Value	Medium	Exemplary	2 Apr 2025 05:00, UTC

ESG Risk Rating Breakdown

Exposure	
Company Exposure[1]	29.7
– Manageable Risk	28.2
Unmanageable Risk[2]	**1.5**
Management	
Manageable Risk	28.2
– Managed Risk[3]	17.8
Management Gap[4]	**10.4**
Overall Unmanaged Risk	**11.9**



- 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 63.3% 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 Assessment[5]

ESG Risk Rating is of Apr 02, 2025. Highest Controversy Level is as of Apr 08, 2025. Sustainalytics Subindustry: Laboratory Equipment and Services. 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 02 Apr 2025

Peers are selected from the company's Sustainalytics-defined Subindustry and are displayed based on the closest market cap values

Company Name	Exposure	Management	ESG Risk Rating
Thermo Fisher Scientific Inc	29.7 | Low (0–55+)	63.3 | Strong (100–0)	11.9 | Low (0–40+)
Agilent Technologies Inc	28.6 | Low (0–55+)	68.1 | Strong (100–0)	10.1 | Low (0–40+)
Waters Corp	28.6 | Low (0–55+)	70.1 | Strong (100–0)	9.6 | Negligible (0–40+)
Danaher Corp	28.6 | Low (0–55+)	73.9 | Strong (100–0)	8.5 | Negligible (0–40+)
Merck KGaA	45.9 | Medium (0–55+)	71.3 | Strong (100–0)	15.5 | Low (0–40+)

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Appendix
Historical Morningstar Rating

Thermo Fisher Scientific Inc TMO 22 Apr 2025 21:26, 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
★★	★★	★★	★★	★★	★	★★	★★	★★	★★★	★★	★★

Agilent Technologies Inc A 22 Apr 2025 21:26, 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
★	★	★	★★	★★	★	★★	★★	★★	★★★	★★	★★

Danaher Corp DHR 22 Apr 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
★	★	★	★	★	★	★	★	★	★★	★★	★

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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, indepth 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 shortterm market-price movements), but we believe these negatives are mitigated by deep analysis and our longterm 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 singlepoint 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 workingcapital 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.

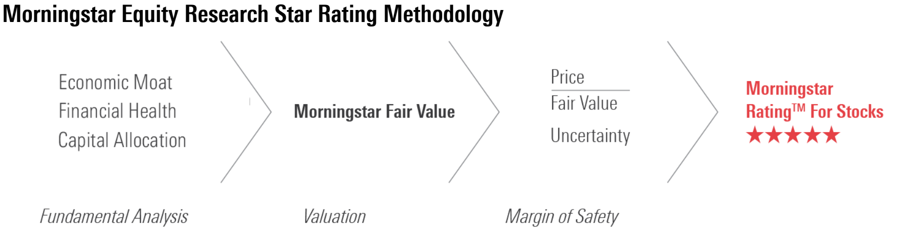
Because a dollar earned today is worth more than a dollar earned tomorrow, we discount our projections of cash flows in stages I, II, and III to arrive at a total present value of expected future cash flows. Because we are modeling free cash flow to the firm—representing cash available to provide a return 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 outcomes for the intrinsic value of a company, and any-

Morningstar Equity Research Star Rating Methodology



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thing 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 Uncertainty Ratings	★★★★★Rating	★Rating
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.

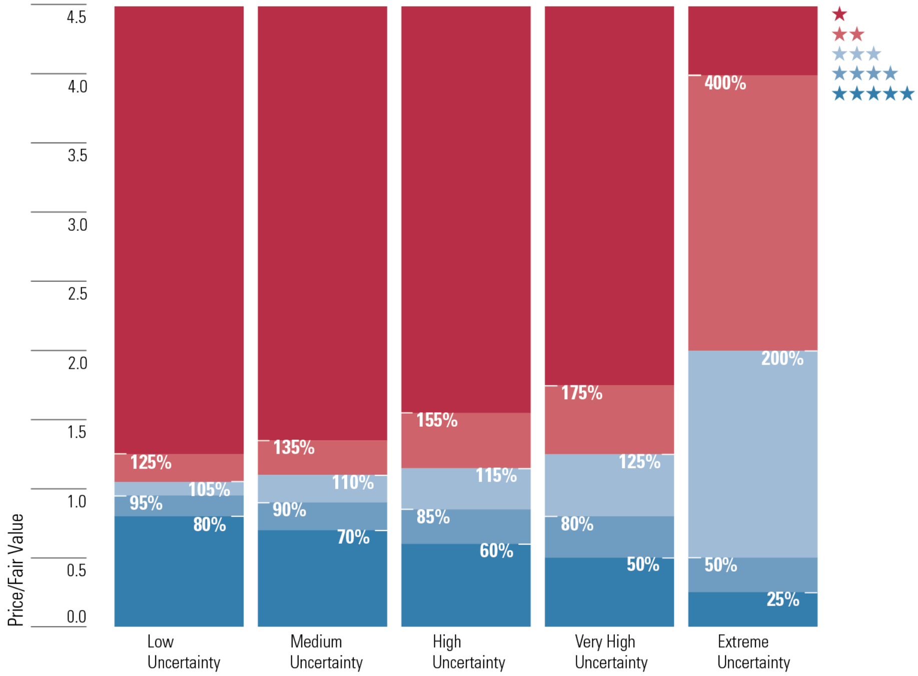
4. Market Price

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 Star Rating for Stocks

Morningstar Equity Research Star Rating Methodology



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 multiyear time frame, based on our analysis. Scenario analysis by our analysts indicates that the market is pricing in an excessively optimistic outlook, limiting upside potential and leaving the investor exposed to Capital loss.

Other Definitions

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

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, and shareholder distributions. Analysts consider compan-

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ies' 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.

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, 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.

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Sustainalytics ESG Risk Rating Assessment: The ESG Risk Rating Assessment is provided by Sustainalytics; a Morningstar company.

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/

Ratings should not be used as the sole basis in evaluating a company or security. Ratings involve unknown risks and uncertainties which may cause our expectations not to occur or to differ significantly from what was expected and should not be considered an offer or solicitation to buy or sell a security.

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