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Jun 6, 2022

Thermo Fisher Scientific (TMO)

Current
Price:

\$558

Target:

\$60-680

Upside:

20-24%

- I. Aggressive acquisition strategy coupled with consistent organic base revenue growth in core operating segments makes TMO a dominant long-term supplier of medical tools, services, and solutions.
- II. TMO is down more than 15% off its December '21 highs due to a broader healthcare sell-off coupled with investor skepticism of revenue post-COVID. We see this as a temporary price drop and project TMO to continue strong revenue growth and margins post COVID due to its competitive positioning, proven M&A strategy, and end market tailwinds in bio and pharma.

Order Type: Buy Limit at \$550

Allocation: \$3,000 (~5.5 shares)

PHIG President

PHIG Director

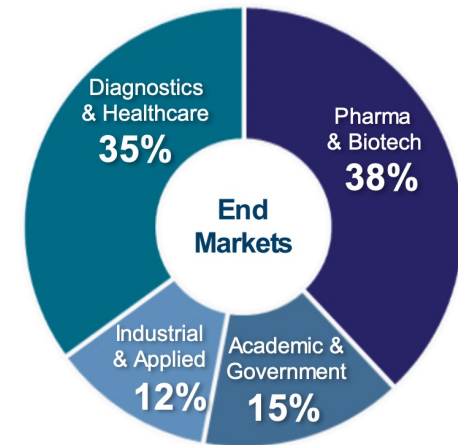
VP of Finance

Company Overview

Overview

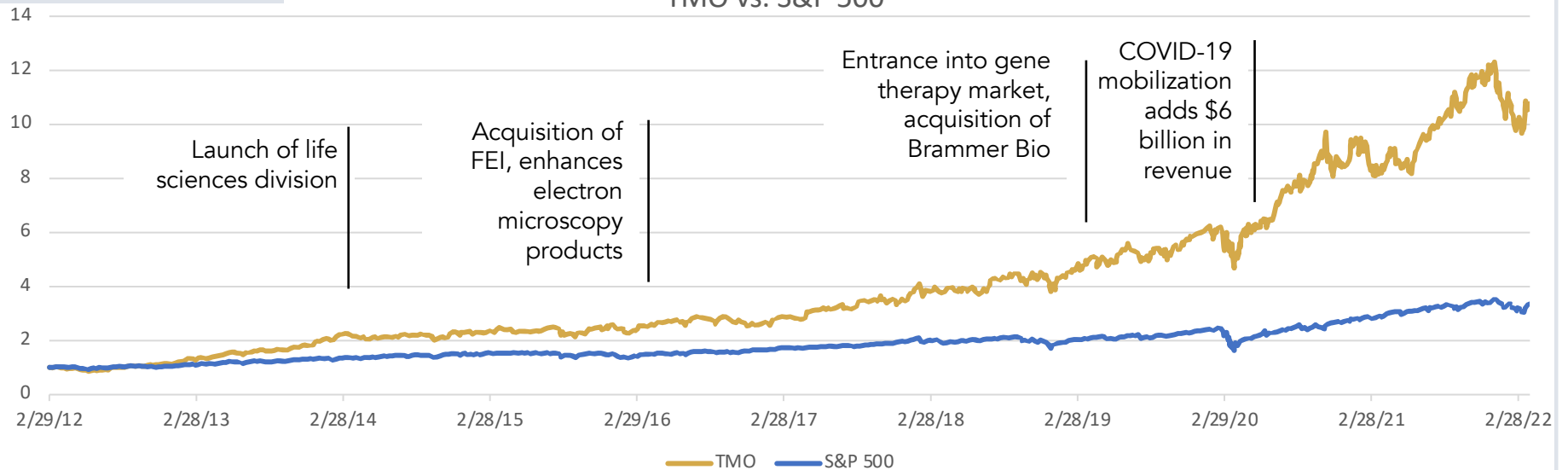
- **Thermo Fisher Scientific** is the leading medical manufacturer of instruments, lab equipment, diagnostics, and life science products.
- **Value Proposition:** We provide a range of innovative solutions to enable customers to make the world healthier, cleaner, and safer and push science and technology a step beyond.
- **Strategy:** Combination of organic base revenue growth, fueled by >\$1B in R&D spending, plus strategic M&A to enhance market position and expand product suite.
- **Customer Base:** Diversified end markets, ranging from healthcare to biotech to industrial and academic customers. Pharma revenue projected to account for 56% of revenue by 2025.

Customer Base



Timeline

TMO vs. S&P 500

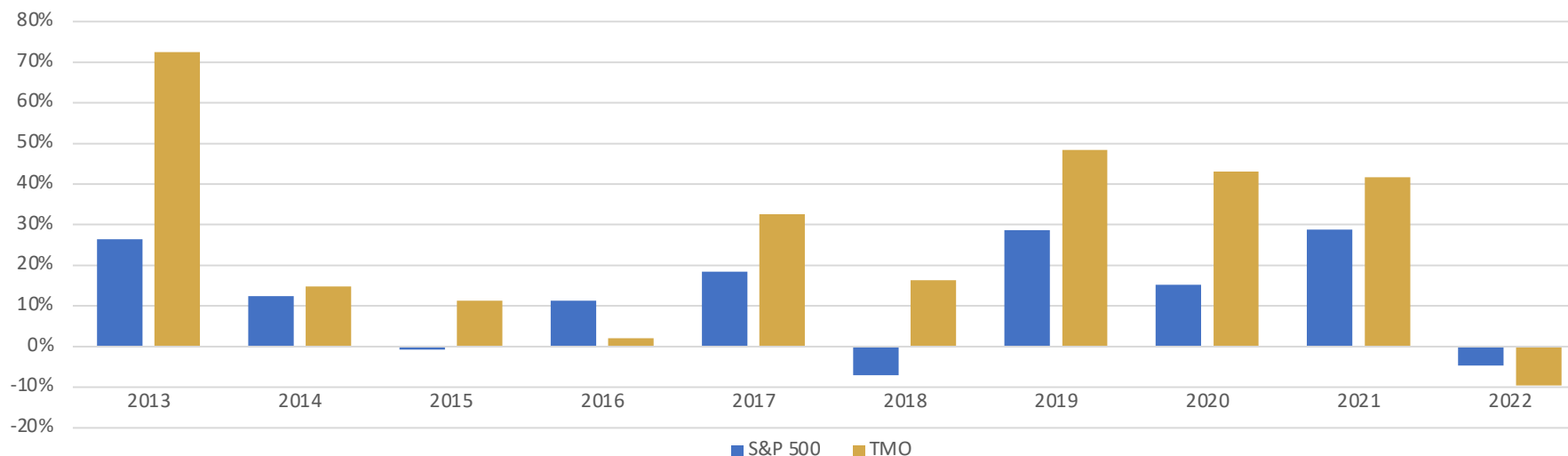


Sources: TMO 10-K, Yahoo! (Price Data), Investor Day 2021 Deck

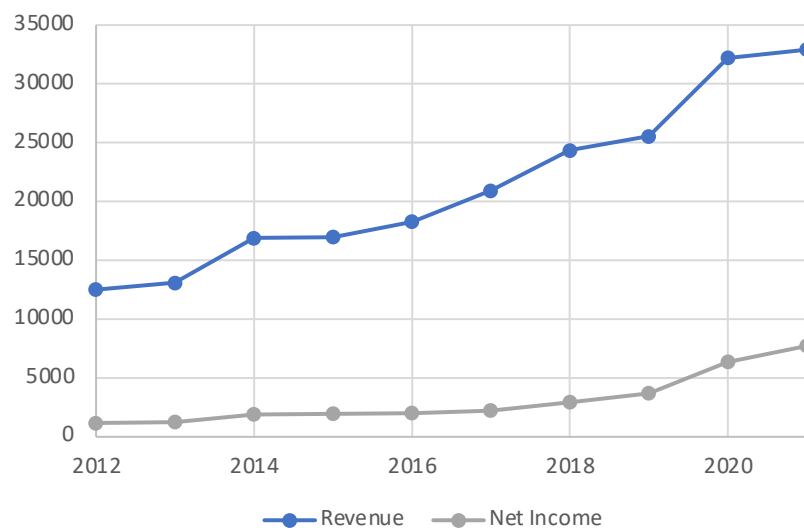
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Financial Overview

Historical Performance



Revenue and Profit



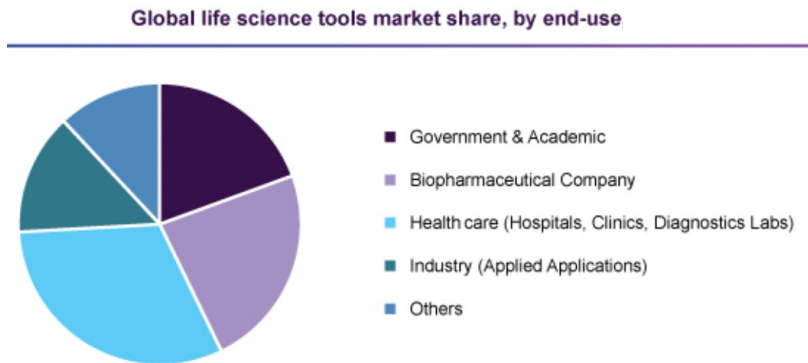
Summary

- TMO has beaten the S&P's returns significantly for eight out of the past nine years.
- Net income up over 6x over 10-year period, growing at 20.7% CAGR. Net margin currently sits at a healthy 19.7%
- Free Cash Flow (FCF) has also shown steady growth, allowing TMO to fund major strategic acquisitions without relying completely on debt and contributing to a healthy cash position on the balance sheet.

Industry Overview

Industry Overview

- The life science tools global market size was 105.5 billion in 2021. It is expected to grow to \$227.3 Billion by 2028 at 11.9% CAGR.
- North America accounts for 46% of revenue share, yet the Asia Pacific market is projected to show the fastest growth over the next decade. This is due to outsourcing of pharmaceutical R&D, leading many Contract Research Organizations to expand their presence in the region



Porter's Five Forces (NEEDS UPDATING)

Competitive Rivalry	New Entrants	Power of Suppliers	Power of Buyers	Substitutes
High	Moderate	Low	Moderate/Low	Moderate
<ul style="list-style-type: none"> ▪ Highly competitive market with 2/3 start-ups and smaller companies ▪ Big names like Thermo Fisher and Danaher, Bio-Rad ▪ Consolidation efforts through M&A's keep big players on top 	<ul style="list-style-type: none"> ▪ Requires large manufacturing capacity ▪ Large distribution networks and supply chains needed to begin product development ▪ Large number of start-ups and specialized firms 	<ul style="list-style-type: none"> ▪ TMO manufacturers its own products so suppliers would be availability of raw materials ▪ Large number of suppliers for raw materials and power not high as indicated by TMO's high gross margins 	<ul style="list-style-type: none"> ▪ Large number of buyers with high demand for medical solutions and devices ▪ Due to licensing fees and consumables sold, switching costs are high and brand loyalty is common 	<ul style="list-style-type: none"> ▪ Products are usually somewhat differentiated. ▪ Patented technology, but competition could increase upon expiration ▪ Continual investment in R&D needed to keep up with new technologies

Sources: 10-K (2021), Yahoo Finance, CSI Market, Morodor Intelligence, BusinessWire

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Competitive Advantage

Primary/Secondary Business Unit Strategy

Customer Intimacy
Emotional Bond thru Unique Experiences

Product Leadership
Constant Leapfrog of New Products

Operational Excellence
Execution Focus; Quality, Price & Ease

Customer Responsiveness
Customer Loyalty thru Consistent Service

Product Differentiation
Unique Product and/or Service

Operational Competency
Low Cost / Low Price Providers

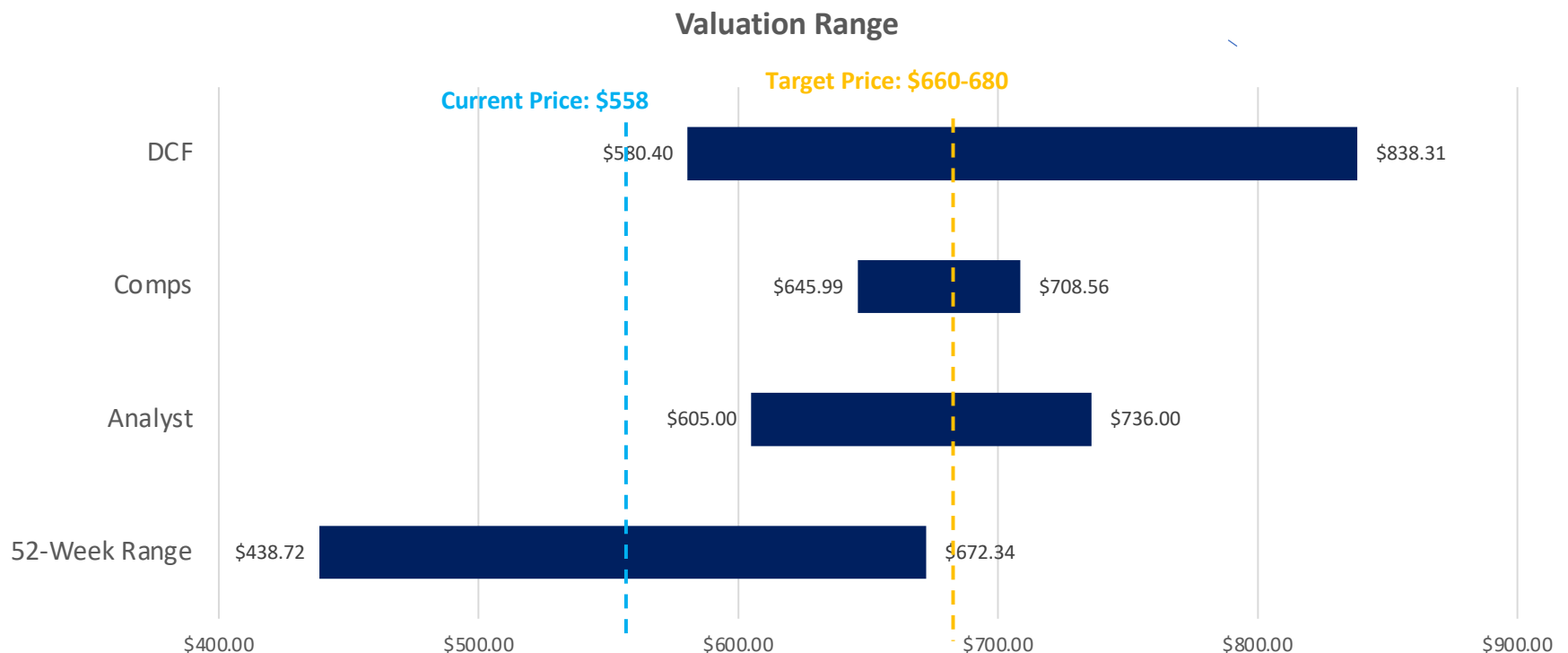
Strategic Dimensions & Distinctives (*Economic Moat*)

- Thermo Fisher Scientific is an industry leader in nearly every product category it sells in. Its product mix and depth are not found on the same scale in other companies. For example, TMO's life science business is equal to the next three competitors' life science divisions combined.
- Aggressive acquisition strategy in a fragmented market has given TMO an unparalleled size advantage over competitors resulting in key benefits.
 - **Share of wallet** increasing among customers due to being a "one-stop shop" for medical supplies and equipment.
 - **Switching costs** are becoming increasingly higher for TMO's buyers due to strong customer relationships, licenses, and the plethora of products TMO offers.
 - **Economies of scale:** High degree of vertical integration, manufacturing not outsourced. Leads to high gross margins well above industry average and creation of cost synergies.
- **Pricing Power:** TMO has strong pricing power as a supplier of key instruments and solutions, allowing it to pass off effects of inflation to buyers.
- **Complete solution.** In pharma segment, TMO's products address every stage of the drug discovery process, from discovery to development to clinical trials.
- Unparalleled access to customer channels, due to reputable name in the industry. Name recognition combined with largest sales force in the industry allows TMO to dominate across multiple markets.

Investment Summary

Investment Thesis

- TMO is down 15.4% off its December 21' highs. It has also fallen more than the S&P500 due to an early 2022 sell-off across the healthcare sector and investor skepticism. We think this sell-off is temporary as investors expect a decline in 22-23' revenues as COVID "fades" away. We see TMO's strategic position and economic moat widening due to COVID as lab-funded spending increases, TMO partners with vaccine manufacturers to offset revenue loss due to declines in testing, and bio and pharma expand.
- **Long-term Prospects:** TMO is a solid long-term buy, delivering returns well beyond the S&P500 and industry indices for years. We think that TMO has 20-25% room to the upside over the next 12-18 months if it shows strong earnings. But even if price declines, TMO is still a strong long-term buy and hold due to consistent earnings growth, and the financial impact of its recent 2021 acquisitions may take years to be realized.



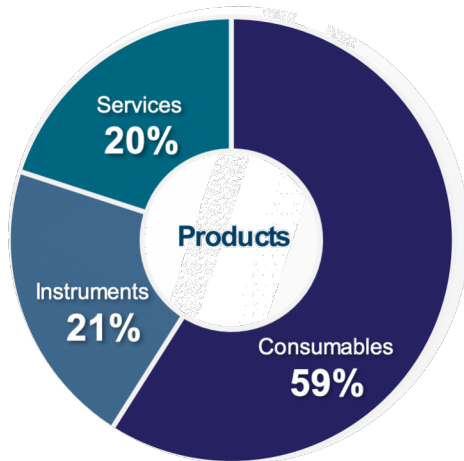


Section 1: Company Overview

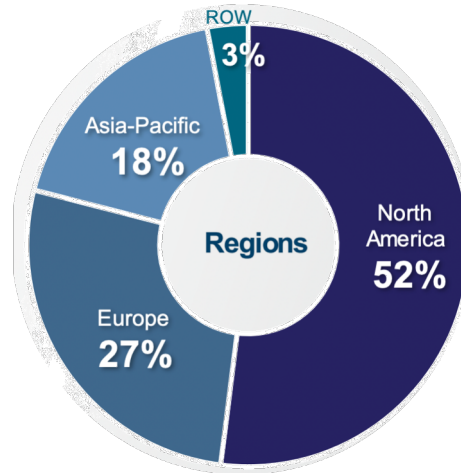
- 1) Company Overview
- 2) Financial & Performance Overview
- 3) Financial Breakdown

Company Overview

Recurring Revenue Mix

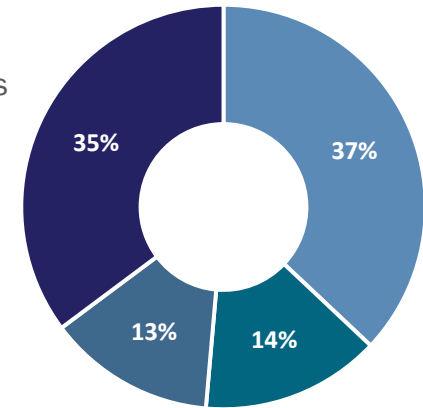


Customer Geography



Revenue by Segment

- Life Sciences
- Analytical Instruments
- Specialty Diagnostics
- Laboratory products



Brands

TMO's products are sold through over 5 well-recognized brands. TMO delivers an unmatched portfolio of products, providing a comprehensive end-to-end solution for customer needs. Products range from analytical instruments to mass spectrometric equipment to reagents and cell cultures supporting clinical drug trials.

Instruments

thermo
scientific

Genetics

applied
biosystems

Pharma

patheon

Cell Research

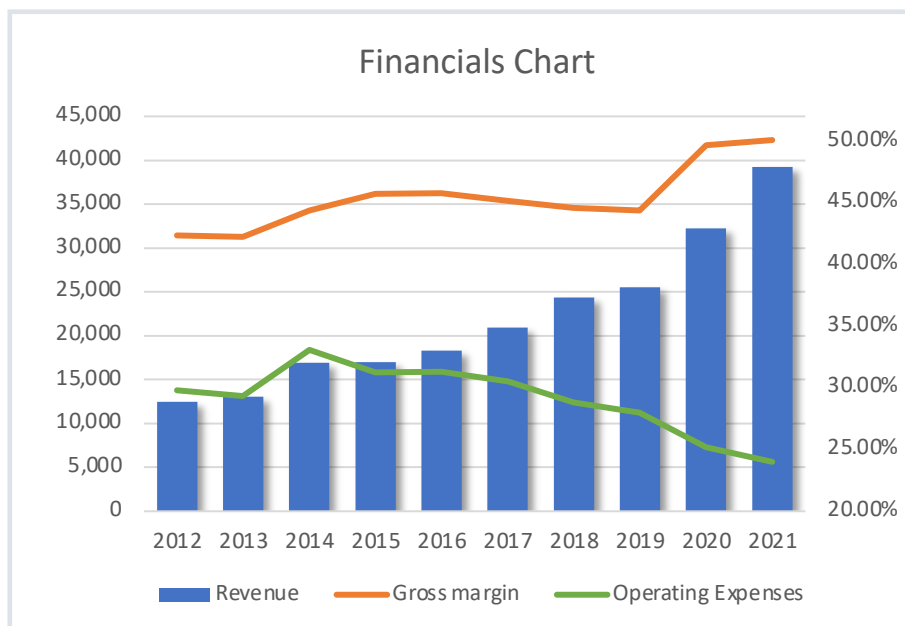
invitrogen

Lab Services

unity
lab services

Financial Breakdown

Financial Performance											
Company Metrics	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	10-Yr CAGR
Revenue	\$12,510	\$13,090	\$16,890	\$16,695	\$18,724	\$20,918	\$24,358	\$25,542	\$32,218	\$39,211	12.1%
Operating Income	\$1,564	\$1,687	\$1,905	\$2,452	\$2,647	\$3,057	\$3,833	\$4,181	\$7,893	\$10,225	20.6%
Net Income	\$1,178	\$1,273	\$1,894	\$1,975	\$2,022	\$2,225	\$2,938	\$3,696	\$6,375	\$7,725	20.7%
Adjusted EPS	\$3.21	\$3.48	\$4.71	\$4.92	\$5.09	\$5.59	\$7.24	\$9.17	\$15.96	\$19.46	19.7%
ROE	7.7	7.9	10.1	9.4	9.4	9.5	11.1	12.9	19.9	20.5	10.3%



Highlights

- Decline in SG&A and COGS despite major acquisitions. Shows ability to successfully integrate smaller companies into base businesses. EBIT margin has doubled over past decade from 13% to 26%
- Consistent YOY revenue growth at 10.2% CAGR (10-year). **7-9% average organic growth from operating segments excluding acquisitions.**
- Operating and net income have grown consistently at 20% 10-year CAGR. Pre-covid growth averaged around 15%.

Sources: 10-K, SimFin, Morningstar



Section 2: Strategic Positioning

- 1) Industry & End Market Breakdown
- 2) Catalysts & Risks
- 3) Competitive Advantage
- 4) Strategic Acquisitions

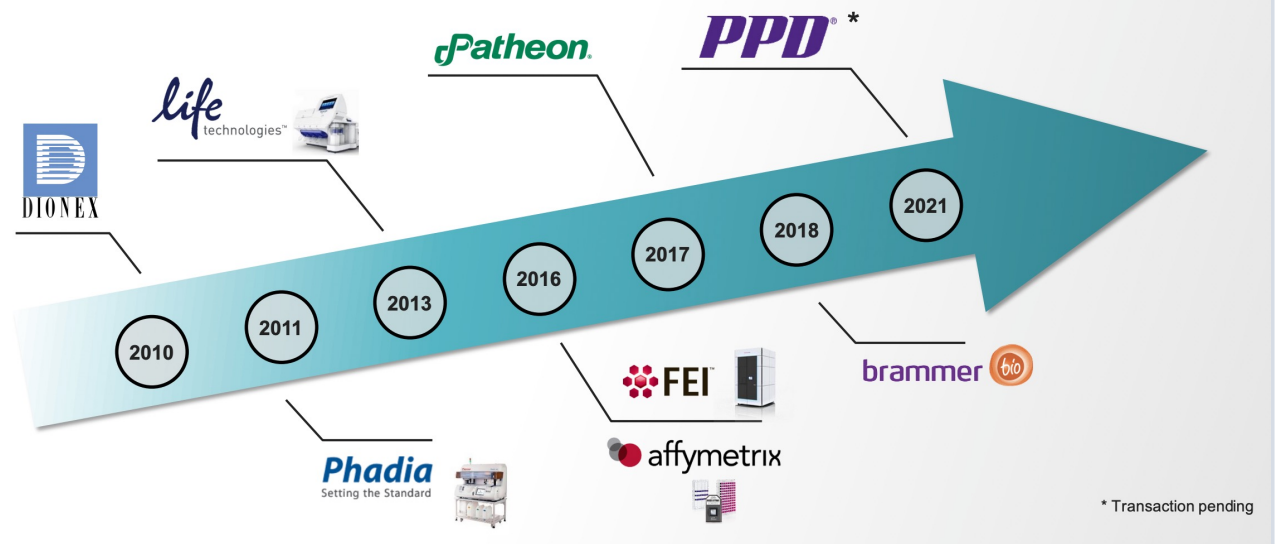
Catalysts & Risks

COVID-19	<ul style="list-style-type: none">▪ The COVID-19 Pandemic has increased revenue and cash for TMO, but more importantly, it has opened TMO up to attract more buyers. TMO's supplier status has been extended to new markets including governments, who purchase testing and other equipment. TMO's penetration into multiple customers channels is expected to grow as COVID becomes an endemic. For example, TMO has long-term contracts with Moderna/Pfizer for vaccine manufacturing support.
Bio & Pharma Expansion	<ul style="list-style-type: none">▪ Bio and pharma are key drivers for the life sciences and lab products segments. Spending in the pharma and biotech industries (\$752B) is projected to increase at 15% CAGR till 2028 especially with more government funding and awareness of disease. TMO expects pharma and biotech to account for over 50% of its revenue by 2026.
NIH Spending	<ul style="list-style-type: none">▪ NIH spending is a key factor for medical manufacturing companies that supply NIH labs. NIH budget was flat from 2012-2015, yet in the past 5 years it has grown at a CAGR of 5.8%. We see this spending continuing to increase as the government directs additional funding to life sciences in an effort to avoid another pandemic.
Foreign Exposure	<ul style="list-style-type: none">▪ TMO is exposed to foreign industrial markets. One of its key businesses, FEI sells heavily in environmental instruments in India and China end markets. These markets have a higher degree of seasonality and thus lead to cyclability in the revenue cycle. A drop off in spending from China or India, particularly in their environmental testing, could lead to TMO revenue decline in its life sciences division.
Rising Interest Rates	<ul style="list-style-type: none">▪ TMO uses on M&A as a key part of its capital deployment strategy and thus carries significant debt on its balance sheet. Rising interest rates could impact this strategy by limiting the acquisitions TMO can make in a higher rate environment. Could also effect existing debt that has a variable interest rate attached.
Acquisition Risk	<ul style="list-style-type: none">▪ A heavy M&A strategy carries inherent risks. Despite past successes, TMO could overpay for a target or acquire a company that does not contribute as much as expected to revenue / profits. Also, complications with acquisitions could lead to longer than expected time to integrate, lowering revenue below projected expectations.

Acquisitions & Management

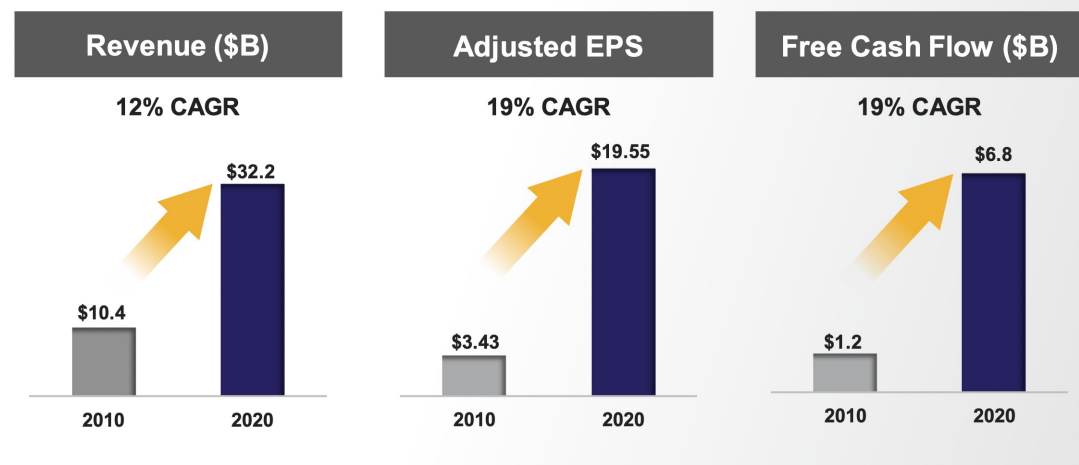
Acquisitions

- Over \$40 billion in capital deployed on M&A over past 10 years
- History of success: Life technologies acquisition led to segment tripling in revenue with healthy margins since 2014
- Acquisitions succeed due to TMO's vertical integration and large distribution networks.



Management

- Consistently grown EPS, ROE, and ROIC year over year.
- Proven capable of successfully integrating acquisitions and making them profitable.
- Balance sheet still healthy. Interest coverage at 22x with increasing EBITDA margins and Debt to EBITDA at 2.91x.



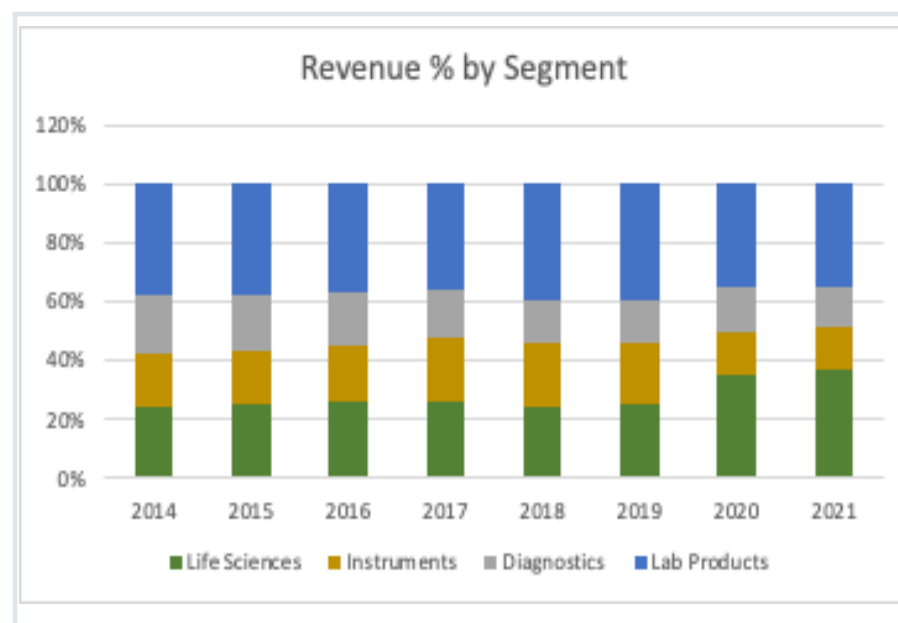
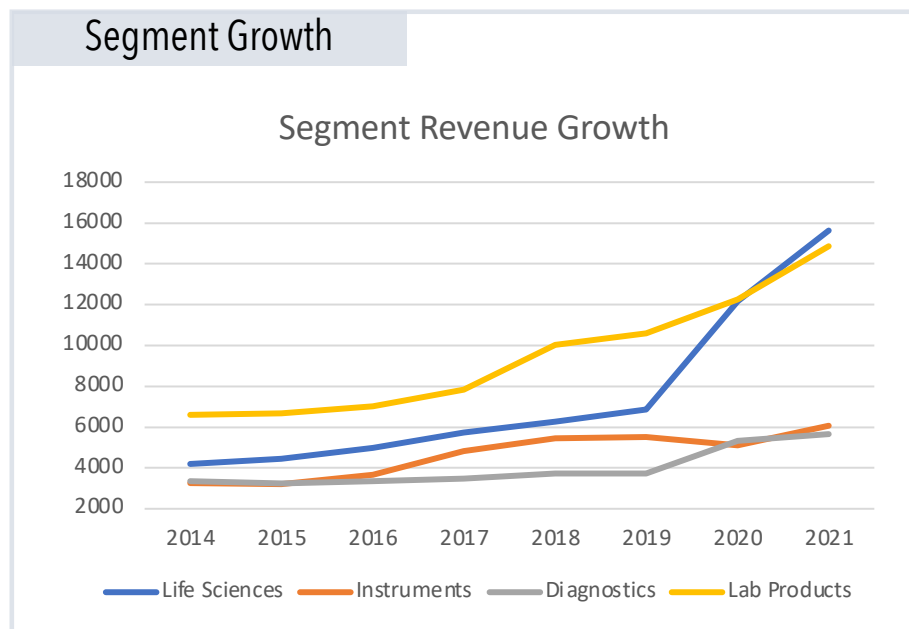


Section 3: Operating Segment Analysis

- 1) Segment Overview
- 2) Life Sciences
- 3) Lab products
- 4) Analytical Instruments
- 5) Specialty Diagnostics

Segment Breakdown

Segment Breakdown											
Segment	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	10-Yr CAGR
Life Sciences	n/a	n/a	\$4,196	\$4,439	\$4,978	\$5,728	\$6,269	\$6,856	\$12,168	\$15,631	17.9%
Analytical instruments	\$4,018	\$4,125	\$3,252	\$3,208	\$3,668	\$4,821	\$5,469	\$5,522	\$5,124	\$6,069	4.2%
Specialty Diagnostics	\$2,962	\$3,192	\$3,344	\$3,243	\$3,339	\$3,486	\$3,724	\$3,718	\$5,343	\$5,659	6.7%
Lab Products	\$6,054	\$6,350	\$6,602	\$6,661	\$7,030	\$7,825	\$10,035	\$10,599	\$12,245	\$14,862	9.4%



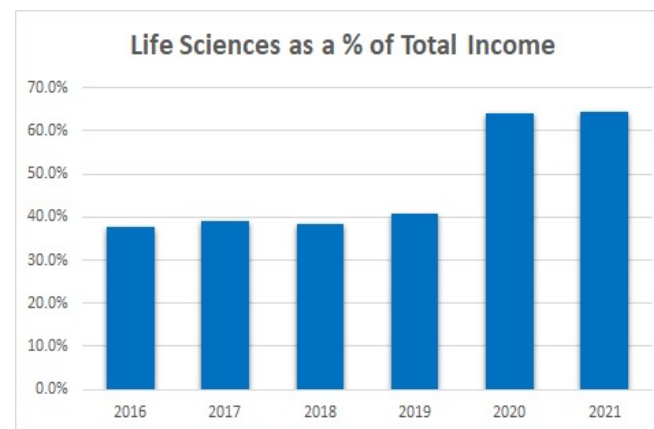
Sources: 10-K, Morningstar

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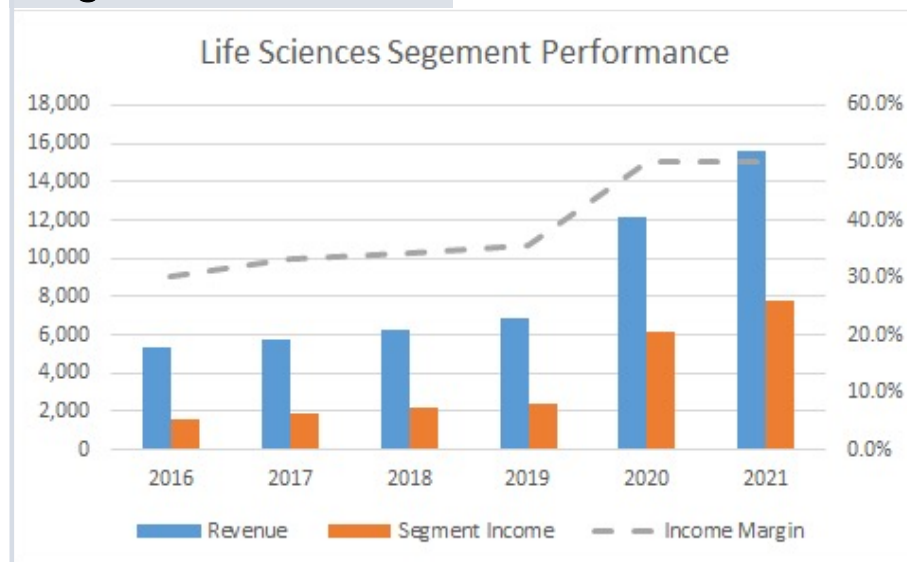
Segment 1: Life Sciences Tools & Services

Overview and Growth

- The Life Sciences Tools and Services segment serves companies involved in drug discovery, development, and production by providing genetic research equipment, cell cultures, consumables and supplies, clinical trial services, and contract research services.
- Consumers are typically medical research institutions, academic research labs, and pharmaceutical companies involved in drug discovery and clinical trials.
- TMO is a clear leader in three areas which are predicted to have consistent growth:
 - Mass Spectrometry (8% CAGR), Flow Cytometry (7%) CAGR, and Nucleic Acid Microarrays (8.2% CAGR)



Segment Financials



Summary

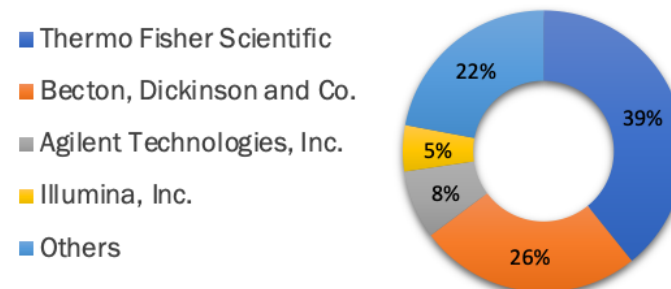
- This is TMO's most profitable sector (50%) margins and its end markets (bio/pharma) are projected to grow significantly.
- COVID contributed to the growth of this field, but it's continued growth will be fueled by advancements in the genomics and proteomics fields. Growth is also stimulated by increased use of genomics operations as a service rather than just a laboratory tool.
- TMO is a leader in three fields which are expected to have high, consistent growth rates (Mass Spectrometry, Flow Cytometry, and Microarrays)

Segment 2: Laboratory Products

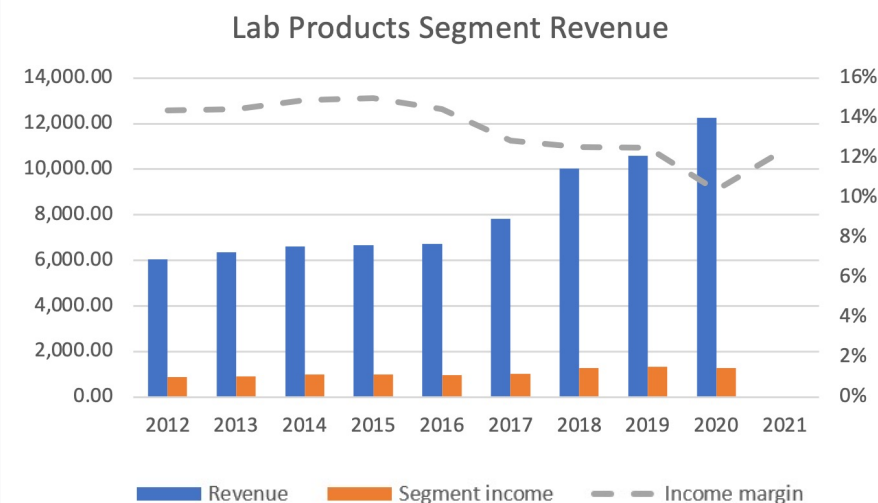
Overview and Growth

- The Lab Products segment offers buyers a variety of lab equipment designed for drug development, clinical research, storage, and analysis, such as immersion coolers, pH measurement solutions and automated laboratory pipette tips. This segment constituted 38% of TMO's total revenue in 2021.
- TMO sells to over 1.5 million consumers world-wide. This includes research facilities, pharmacies, first responders, and schools
- This segment interacts heavily with the Electronic Lab Notebook Market and Lab Information Management System Market. Both these industries are expected to expand by 4.8% and 9.1% CAGR.
- TMO is the market leader in the Lab Products sector.

Lab Products Market Share



Segment Financials



Market Summary

- In 2021 the Lab Products market was valued at 32.6 billion. Over the next 7 years the industry is expected to grow at 7.5% CAGR to 54.1 billion in 2028.
- The market is primarily driven by new investment into R&D for biotechnology and pharmaceuticals. The increasing volume of life science research investigations and clinical laboratory tests is boosting the demand for laboratory disposable products.
- Technology advancements are increasing lab capabilities and making processes in the lab more streamlined. Buyers want simple and streamlined products.

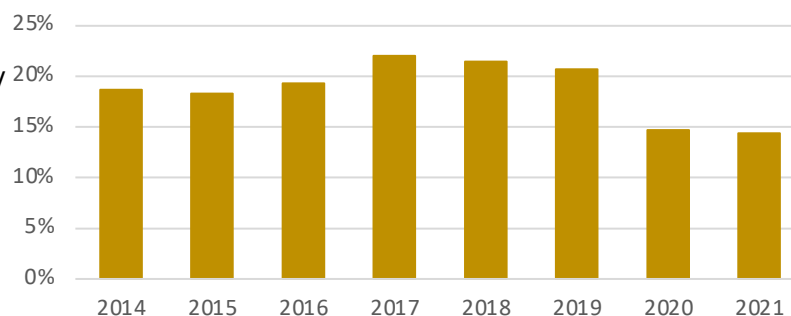
Segment 3: Analytical Instruments

Overview

The Analytical Instruments segment offers a variety of consumables, software, and instruments used in labs, production, and on the field. This segment accounts for approximately 14% of TMO's total revenue

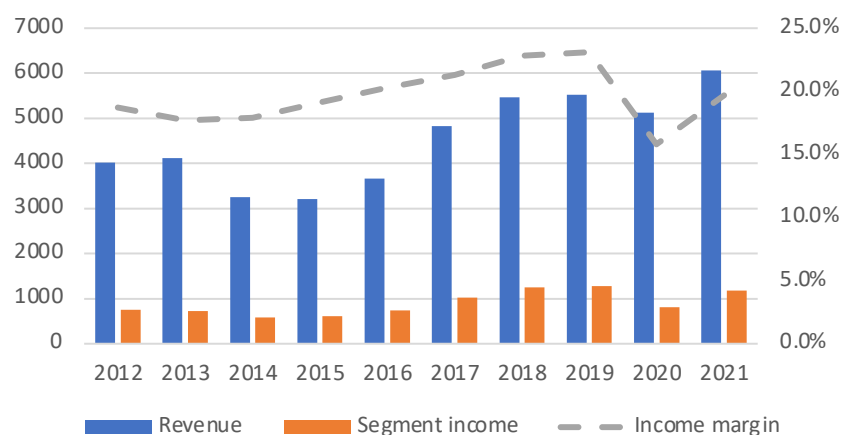
1. Chromatography and Mass Spectrometry
 - Chromatography instruments used by food industry, environmental researchers, industrial processes
 - Drug discovery relies heavily on Mass Spectrometry instruments, making TMO a key supplier for pharmaceutical companies
2. Chemical Analysis
3. Materials and Structural Analysis

Analytical Instruments as a % of Total Revenue



Segment Financials

Segment Revenue & Income



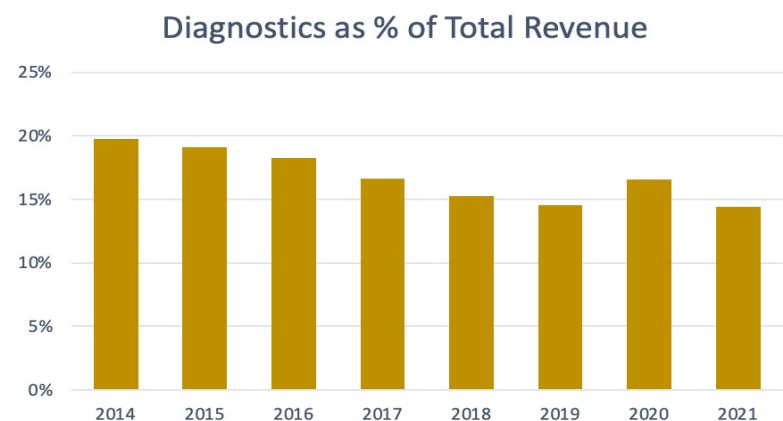
Summary

- 2021 Revenue growth and increased margins due to increased demand in electron microscopy, chromatography, and spectrometry sub-segments.
- Market for analytical instruments currently at \$43.2B, projected to grow to \$66.3B by 2027 at 6.5% CAGR.
- Emphasis on production quality is a key driver for analytical instruments. Food and beverage industry also showing increased demand. Government R&D spending increasing also leading to higher demand.

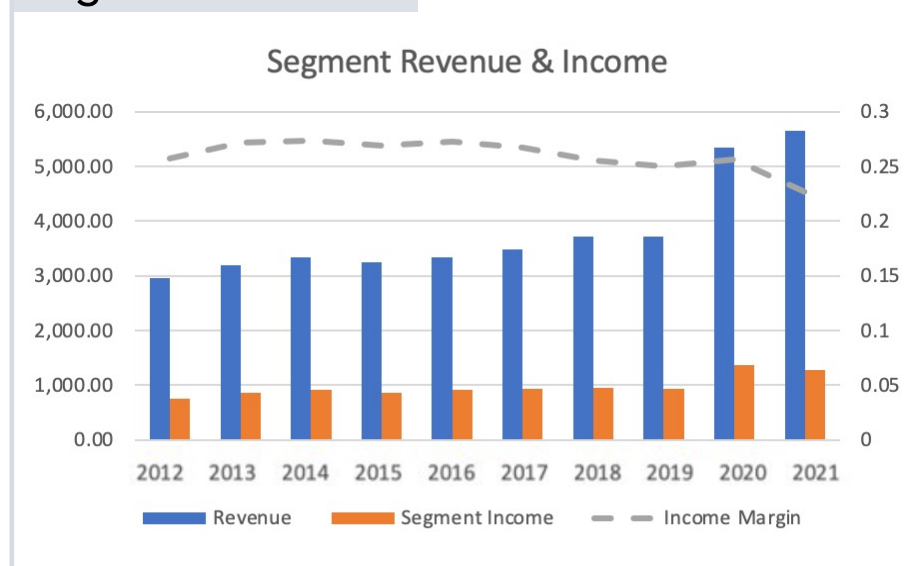
Segment 4: Specialty Diagnostics

Overview

- Specialty Diagnostics segment offers a wide range of diagnostic test kits, reagents, culture media, instruments and associated products which serve customers in healthcare, clinical, pharmaceutical, industrial, and food safety laboratories.
- The global market for AI medical diagnostics is estimated to increase from \$748 million in 2021 to reach \$4.0 billion by 2026, at a compound annual growth rate (CAGR) of 39.8%
- TMO has specialty diagnostic tests based on patented biomarkers for sepsis, cardiovascular and pulmonary diseases, as well as intensive care treatments and prenatal screening.
- TMO continues to grow the segment. In 2021, they acquired a new transplant diagnostics information system provider.



Segment Financials



Summary

- The market is driven by increasing number of lifestyle diseases, rise in life expectancy due to preventive healthcare practices and increasing medical tourism.
- While innovation is the key driver behind the specialty diagnostics sector, the majority of revenue comes from sales to US hospitals and labs.
- TMO begin to focus heavily on the specialty diagnostic segment during 2020 and 2021 in response to the COVID-19 pandemic. Revenue may drop off as COVID becomes an endemic.



Section 4: Valuation

- 1) Comparables Relative Valuation
- 2) Discounted Cash Flow Model
- 3) Investment Summary

TMO Relative Valuation

Company	Ticker	Market data		Financials (LTM)			Valuation (LTM)		
		Equity Value	Enterprise Value	Revenue	EBITDA	Net Income	EV/Revenue	EV/EBITDA	P/E
Thermo Fisher	TMO	230,860	261,250	39,211	11,969	7,725	6.7x	21.8x	29.9x
Agilent	A	40,460	42,030	6,445	1,777	1,205	6.5x	23.7x	33.6x
Danaher	DHR	207,070	231,030	29,453	10,004	6,433	7.8x	23.1x	32.2x
Illumina	ILMN	57,390	58,590	4,526	1,196	762	12.9x	49.0x	75.3x
Roche	RHHBY	362,240	369,790	59,755	22,781	14,019	6.2x	16.2x	25.8x
PerkinElmer	PKI	21,430	26,020	5,067	1,740	943	5.1x	15.0x	22.7x
Mettler-Toledo	MTD	30,860	32,450	3,718	1,101	769	8.7x	29.5x	40.1x
WuXi ApTec (CNY)	WUXIF	397,820	392,300	22,902	7,430	5,097	17.1x	52.8x	78.0x
High							17.1x	52.8x	78.0x
75th Percentile							5.1x	15.0x	22.7x
Average							9.2x	29.9x	44.0x
Median							7.8x	23.7x	33.6x
25th Percentile							6.4x	19.7x	29.0x
Low							5.1x	15.0x	22.7x

TMO Valuation (Medians)			EV/Revenue	EV/EBITDA	P/E
Implied Enterprise Value			307,572	283,093	289,770
Net Debt			30,390	30,390	30,390
Implied Market Value			277,182	252,703	259,380
Shares Outstanding			391	391	391
Implied Value Per Share			708.91	646.30	663.38
			Average:	672.86	

DCF Conservative (Base) Case

Discounted Cash Flow Analysis: TMO

Unlevered Free Cash Flow Calculation										
(\$mm)	Historical				Forecast					Terminal Value
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2026
Revenue	24,358	25,542	32,218	39,211	41,901	45,927	48,882	52,038	55,408	
<i>% Revenue Growth</i>		4.86%	26.14%	21.71%	6.86%	9.61%	6.43%	6.46%	6.48%	
Less COGS (excluding depreciation)	11,234	11,937	13,889	16,981	18,780	20,584	21,909	23,323	24,834	
Gross Profit	13,124	13,605	18,329	22,230	23,121	25,343	26,973	28,715	30,574	
<i>% Margin</i>	53.88%	53.27%	56.89%	56.69%	55.18%	55.18%	55.18%	55.18%	55.18%	
Less SG&A Expenses (Excludes D&A)	6,057	6,144	6,930	8,007	9,214	10,099	10,749	11,443	12,184	
Less R&D Expenses	967	1,003	1,181	1,406	1,587	1,739	1,851	1,971	2,098	
Less Non-Recurring Items	50	(413)	99	197	(17)	(17)	(17)	(17)	(17)	
Plus Unusual Income/Expense Items	128	154	(11)	(651)	(95)	(95)	(95)	(95)	(95)	
EBITDA	6,178	7,025	10,108	11,969	12,242	13,426	14,295	15,222	16,213	Use 2026 EBITDA and UFCF for Terminal Value Calc
<i>% Margin</i>	25.4%	27.5%	31.4%	30.5%	29.2%	29.2%	29.2%	29.3%	29.3%	
Less D&A	2,267	2,277	2,325	2,592	2,842	3,115	3,316	3,530	3,758	
EBIT	3,911	4,748	7,783	9,377	9,400	10,310	10,979	11,693	12,455	
<i>% Margin</i>	16.06%	18.59%	24.16%	23.91%	22.43%	22.45%	22.46%	22.47%	22.48%	
Less Taxes	324	374	850	1,109	1,535	1,684	1,793	1,909	2,033	
NOPAT	3,587	4,374	6,933	8,268	7,864	8,627	9,186	9,784	10,422	
Plus D&A	2,267	2,277	2,325	2,592	2,842	3,115	3,316	3,530	3,758	
Less Change in non-cash NWC	(829)	327	(17)	781	1,012	552	405	433	462	
Less CapEx	758	926	1,474	2,523	1,411	1,547	1,647	1,753	1,867	
Unlevered Free Cash Flows	5,925	5,398	7,801	7,556	8,283	9,643	10,450	11,128	11,851	11,851

Value of Discounted Cash Flows										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	Terminal
Terminal Value										
Unlevered Free Cash Flow					8,283	9,643	10,450	11,128	11,851	11,851
Discount Period (Years)					1	2	3	4	5	5
Discount Factor					0.94	0.89	0.83	0.78	0.74	0.74
Discounted Cash Flows	-	-	-	-	7,792	8,534	8,700	8,716	8,733	8,733

DCF Valuation

Equity Value Per Share: Multiple Method										
WACC										
\$687.50	5.30%		5.80%		6.30%		6.80%		7.30%	
20.5x	\$	690.35	\$	673.38	\$	656.88	\$	640.82	\$	625.20
21.0x	\$	706.36	\$	689.02	\$	672.14	\$	655.73	\$	639.77
21.5x	\$	722.37	\$	704.65	\$	687.41	\$	670.65	\$	654.34
22.0x	\$	738.38	\$	720.28	\$	702.68	\$	685.56	\$	668.91
22.5x	\$	754.38	\$	735.91	\$	717.95	\$	700.48	\$	683.48

Item	Assumption	Justification
Average Sales Growth	7.17%	Analyst projections and segment CAGR growth projections
Beta	0.82	Historical (5-year)
Eff. Tax Rate	12.54%	Historical
Risk Free Rate	2.7%	10-Yr T-Bond
Equity Risk Prem.	5.3	Expected market return of 8%
EV/EBITDA Exit Multiple	21.5	Industry average (10+ companies)

DCF Valuation

Downside Case: 4.5% average revenue growth, higher COGS & SG&A

Equity Value Per Share: Multiple Method										
WACC										
\$580.47	5.30%		5.80%		6.30%		6.80%		7.30%	
20.5x	\$	583.06	\$	568.53	\$	554.40	\$	540.66	\$	527.29
21.0x	\$	596.68	\$	581.84	\$	567.40	\$	553.36	\$	539.69
21.5x	\$	610.31	\$	595.14	\$	580.40	\$	566.05	\$	552.09
22.0x	\$	623.93	\$	608.45	\$	593.39	\$	578.74	\$	564.49
22.5x	\$	637.56	\$	621.76	\$	606.39	\$	591.44	\$	576.90

Upside Case: 9.8% average revenue growth, lower COGS & SG&A (PPI Cost savings)

Equity Value Per Share: Multiple Method										
WACC										
\$838.42	5.30%		5.80%		6.30%		6.80%		7.30%	
20.5x	\$	841.75	\$	821.35	\$	801.51	\$	782.21	\$	763.44
21.0x	\$	861.04	\$	840.19	\$	819.91	\$	800.19	\$	781.00
21.5x	\$	880.33	\$	859.03	\$	838.31	\$	818.16	\$	798.56
22.0x	\$	899.63	\$	877.87	\$	856.71	\$	836.14	\$	816.12
22.5x	\$	918.92	\$	896.71	\$	875.12	\$	854.11	\$	833.68

DCF Base & WACC

Weighted Average Cost of Capital (WACC)	
Debt	
Debt (Current + Long Term)	34,870
Cost of Debt	1.54%
Tax Rate	12.54%
After-Tax Cost of Debt	1.3%
Debt to Total Capitalization	14%
Equity	
Total Equity	222,700
Risk Free Rate	2.70%
Expected Rate of Return	8.00%
Equity Risk Premium	5.30%
Beta	0.82
Cost of Equity	7.05%
Equity to Total Capitalization	86%
Total Capitalization	257,570
WACC	6.30%

Terminal Value: Exit Multiple Method	
EBITDA (Final Period)	16,213
EBITDA Exit Multiple	21.5
Terminal Value	348,587
Present Value of TV	256,861
Present Enterprise Value	299,336
Terminal Value % of EV	116%

Share Price Calc: Exit Multiple	
WACC	6.30%
EBITDA Exit Multiple	21.5
Terminal Value	348,587.4
Present Value of TV	256,861
Implied Enterprise Value	299,336
Less: Debt	34,870
Less: Preferred Stock	0
Less: Minority Interest	
Plus: Cash	4,477
Implied Equity Value	268,943
Total Shares Outstanding	391.19
Implied Equity Value/Share	687.50
Current Value/Share	568.00
Upside:	\$119.50
	21%

DCF Downside

Unlevered Free Cash Flow Calculation											
(\$mm)	Historical				Forecast						Terminal Value
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2026	
Revenue	24,358	25,542	32,218	39,211	41,024	44,368	46,170	47,644	48,746	48,746	
% Revenue Growth	-	4.86%	26.14%	21.71%	4.62%	8.15%	4.06%	3.19%	2.31%	2.31%	
Less COGS (excluding depreciation)	11,234	11,937	13,889	16,981	18,461	19,966	20,777	21,440	21,936	21,936	
Gross Profit	13,124	13,605	18,329	22,230	22,563	24,402	25,394	26,204	26,810	26,810	
% Margin	53.88%	53.27%	56.89%	56.69%	55.00%	55.00%	55.00%	55.00%	55.00%	55.00%	
Less SG&A Expenses (Excludes D&A)	6,057	6,144	6,930	8,007	9,317	10,076	10,485	10,820	11,070	11,070	
Less R&D Expenses	967	1,003	1,181	1,406	1,559	1,686	1,754	1,810	1,852	1,852	
Less Non-Recurring Items	50	(413)	99	197	(17)	(17)	(17)	(17)	(17)	(17)	
Plus Unusual Income/Expense Items	128	154	(11)	(651)	(95)	(95)	(95)	(95)	(95)	(95)	
EBITDA	6,178	7,025	10,108	11,969	11,610	12,562	13,076	13,495	13,809	13,809	
% Margin	25.4%	27.5%	31.4%	30.5%	28.3%	28.3%	28.3%	28.3%	28.3%	28.3%	
Less D&A	2,267	2,277	2,325	2,592	2,783	3,010	3,132	3,232	3,306	3,306	
EBIT	3,911	4,748	7,783	9,377	8,827	9,553	9,944	10,264	10,503	10,503	
% Margin	16.06%	18.59%	24.16%	23.91%	21.52%	21.53%	21.54%	21.54%	21.55%	21.55%	
Less Taxes	324	374	850	1,109	1,456	1,575	1,640	1,692	1,732	1,732	
NOPAT	3,587	4,374	6,933	8,268	7,371	7,977	8,304	8,571	8,771	8,771	
Plus D&A	2,267	2,277	2,325	2,592	2,783	3,010	3,132	3,232	3,306	3,306	
Less Change in non-cash NWC	0	327	(17)	781	892	459	247	202	151	151	
Less CapEx	758	926	1,474	2,523	1,382	1,495	1,555	1,605	1,642	1,642	
Unlevered Free Cash Flows	5,096	5,398	7,801	7,556	7,880	9,033	9,633	9,996	10,284	10,284	

Value of Discounted Cash Flows										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	Terminal
Terminal Value										
Unlevered Free Cash Flow					7,880	9,033	9,633	9,996	10,284	10,284
Discount Period (Years)					1	2	3	4	5	5
Discount Factor					0.94	0.89	0.83	0.78	0.74	0.74
Discounted Cash Flows	-	-	-	-	7,413	7,995	8,021	7,830	7,578	7,578

Terminal Value: Exit Multiple Method	
EBITDA (Final Period)	13,809
EBITDA Exit Multiple	21.5
Terminal Value	296,902
Present Value of TV	218,776
Present Enterprise Value	257,613
Terminal Value % of EV	115%

Share Price Calc: Exit Multiple	
WACC	6.30%
EBITDA Exit Multiple	21.5
Terminal Value	296,902.4
Present Value of TV	218,776
Implied Enterprise Value	257,613
Less: Debt	34,870
Less: Preferred Stock	0
Less: Minority Interest	
Plus: Cash	4,477
Implied Equity Value	227,220
Total Shares Outstanding	391.44
Implied Equity Value/Share	580.47
Current Value/Share	568.00
Upside:	\$12.47
	2%

DCF Upside

Unlevered Free Cash Flow Calculation										
(\$mm)	Historical				Forecast					Terminal Value
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2026
Revenue	24,358	25,542	32,218	39,211	44,220	49,621	54,037	58,123	62,519	
% Revenue Growth	-	4.86%	26.14%	21.71%	12.77%	12.21%	8.90%	7.56%	7.56%	
Less COGS (excluding depreciation)	11,234	11,937	13,889	16,981	19,810	22,230	24,209	26,039	28,009	
Gross Profit	13,124	13,605	18,329	22,230	24,409	27,391	29,829	32,084	34,511	
% Margin	53.88%	53.27%	56.89%	56.69%	55.20%	55.20%	55.20%	55.20%	55.20%	
Less SG&A Expenses (Excludes D&A)	6,057	6,144	6,930	8,007	9,268	10,401	11,078	11,915	12,504	
Less R&D Expenses	967	1,003	1,181	1,406	1,680	1,886	2,053	2,209	2,376	
Less Non-Recurring Items	50	(413)	99	197	(17)	(17)	(17)	(17)	(17)	
Plus Unusual Income/Expense Items	128	154	(11)	(651)	(95)	(95)	(95)	(95)	(95)	
EBITDA	6,178	7,025	10,108	11,969	13,382	15,026	16,619	17,882	19,553	Use 2026 EBITDA and
% Margin	25.4%	27.5%	31.4%	30.5%	30.3%	30.3%	30.8%	30.8%	31.3%	UFCE for Terminal
Less D&A	2,267	2,277	2,325	2,592	2,999	3,366	3,665	3,943	4,241	Value Calc
EBIT	3,911	4,748	7,783	9,377	10,383	11,660	12,954	13,939	15,312	
% Margin	16.06%	18.59%	24.16%	23.91%	23.48%	23.50%	23.97%	23.98%	24.49%	
Less Taxes	324	374	850	1,109	1,678	1,884	2,084	2,242	2,452	
NOPAT	3,587	4,374	6,933	8,268	8,705	9,776	10,870	11,697	12,860	
Plus D&A	2,267	2,277	2,325	2,592	2,999	3,366	3,665	3,943	4,241	
Less Change in non-cash NWC	0	327	(17)	781	1,330	741	606	561	603	
Less CapEx	758	926	1,474	2,523	1,490	1,672	1,820	1,958	2,106	
Unlevered Free Cash Flows	5,096	5,398	7,801	7,556	8,884	10,729	12,109	13,121	14,392	14,392

Value of Discounted Cash Flows										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	Terminal
Terminal Value										
Unlevered Free Cash Flow					8,884	10,729	12,109	13,121	14,392	14,392
Discount Period (Years)					1	2	3	4	5	5
Discount Factor					0.94	0.89	0.83	0.78	0.74	0.74
Discounted Cash Flows	-	-	-	-	8,358	9,496	10,082	10,277	10,605	10,605

Terminal Value: Exit Multiple Method	
EBITDA (Final Period)	19,553
EBITDA Exit Multiple	21.5
Terminal Value	420,386
Present Value of TV	309,766
Present Enterprise Value	358,584
Terminal Value % of EV	117%

Share Price Calc: Exit Multiple	
WACC	6.30%
EBITDA Exit Multiple	21.5
Terminal Value	420,385.6
Present Value of TV	309,766
Implied Enterprise Value	358,584
Less: Debt	34,870
Less: Preferred Stock	0
Less: Minority Interest	0
Plus: Cash	4,477
Implied Equity Value	328,191
Total Shares Outstanding	391.44
Implied Equity Value/Share	838.42
Current Value/Share	568.00
Upside:	\$270.42 48%