Kenan–Flagler Business School

ALPHA CHALLENGE

The University of North Carolina

December 4-6, 2024

Team Number: 15

Enphase Energy, Inc. (Nasdaq GM: ENPH)

Current Price: $66 (11/24/2024)

1-Year Price Target: $82 (+24%)

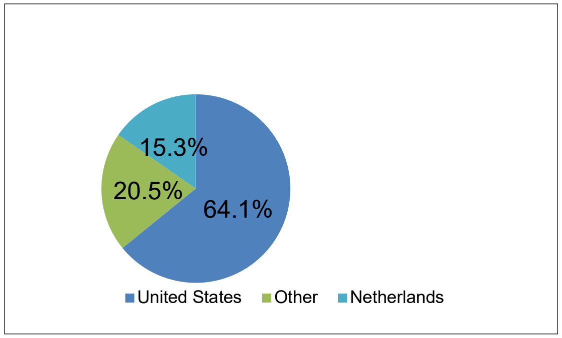
Students: Vincent Chiu, Nikhita Ganesh, Jessica Liu

Agenda

1. Company Overview
2. Industry Overview
3. Investment Thesis 1
4. Investment Thesis 2
5. Valuation
6. Appendix

Company Overview

- Company founded in 2006
- Enphase has shipped approximately 78.0 million microinverters, and over 4.5 million Enphase-based systems have been deployed in more than 160 countries
- The company has a strong presence in residential solar markets and is expanding globally, with growth in regions like **North America**, **Europe**, and **Australia**. Enphase stands out for its **technological innovation** in microinverters and integrated solutions, positioning it as a leader in the **solar and energy storage sectors**. Its financial performance has been strong, driven by increasing demand for renewable energy and energy independence.
- Catalyzed solar industry with transformative microinverter technology, which converts sunlight into a safe, reliable, and scalable energy source
    - Works with virtually every solar panel made, creating one of the industry's best-performing clean energy systems when paired with award-winning smart battery technology



Industry Overview

- Enphase operates in the **renewable energy industry**, specifically within the **solar energy** and **energy storage** sectors.
- While the company specializes in **microinverters** and **energy management solutions**, its competition spans both **solar inverter manufacturers** (such as SolarEdge, SMA, and LG) and **energy storage companies** (like SunPower).
- According to the International Energy Agency (IEA), solar is expected to continue its rise as one of the most widely deployed renewable energy technologies globally. Enphase stands to benefit from this broader trend as a key player in solar energy hardware and software.

Competitors

solaredge

First Solar

SUNPOWER

SMA SOLAR TECHNOLOGY

Thesis 1: Enphase has a profitable future given its position as an integral player in the renewable energy sector, which has been experiencing continuous growth – especially with respect to solar power opportunities and accelerating demand for clean energy.

- The global solar market is expected to continue growing as governments and corporations increasingly adopt green energy solutions.
- Enphase's innovative microinverters and energy management solutions provide significant advantages over traditional solar technologies, positioning the company for long-term market share gains.
- The U.S. Inflation Reduction Act (IRA) and other global incentives provide substantial subsidies for clean energy, which will likely drive demand for solar products, including microinverters.

Summary of DCF Assumptions and Output

	Downside	Base	Upside
Year 5 Revenue (CAGR)	$2,529 M (2.0%)	$2,854 M (4.5%)	$3,138M (6.5%)
Year 5 EBITDA (CAGR)	$592 M (2.0%)	$668 M (5.5%)	$735 M (6.5%)
WACC	11%	11%	11%
Terminal EBITDA	20x	22x	24x
Implied Share Price	~$68	~$82	~$96

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ENPHASE.

Questions?

Appendix

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Appendix: Key Management Overview

Name	Title	Years at Enphase/ Industry	Experience
Badrinarayanan Kothandaraman	*President&CEO*	7 years at enphase, ~29 years in industry	Badri joined Enphase in April 2017 as Chief Operating Officer. He became President and CEO in September 2017. Leading Enphase as CEO, likely driving its vision, strategy, and growth in the renewable energy sector. His semiconductor background, including expertise in product development, has likely influenced Enphase's advancements in technology and innovation. Acting as President and CEO of Enphase, overseeing the company's operations, strategy, and leadership.D3
Mandy Yang	*EVP and CFO*	6 years at enphase, 20 years in industry	Mandy joined Enphase in 2018 as Chief Accounting Officer and Corporate Treasurer. She has held the role of Chief Accounting Officer and Corporate Treasurer since joining in 2018. Leveraging her expertise in accounting, financial reporting, treasury, and tax to enhance Enphase's financial operations and reporting standards. Drawing on her extensive experience in the energy management and solar technology sectors to contribute to the company's financial strategy and compliance. Bachelor's degree in International Business from National Taiwan University. M.B.A. in Finance and Accounting from the University of Illinois at Urbana-Champaign. Certified Public Accountant in California and a Chartered Financial Analyst.
David Ranhoff	*EVP and CCO*	7 years at enphase, over 30 years in industry	He was appointed Chief Commercial Officer (CCO) in 2017 and served in that capacity until July 2024. Currently serves as a commercial advisor at Enphase. As CCO, he was responsible for Enphase's sales, marketing, and services, likely driving revenue growth and strengthening the company's market presence during his tenure. President and CEO of GCL Solar Materials before joining Enphase. President of the Solar Materials group at SunEdison, which GCL acquired in early 2017. Senior Vice President of Sales and Marketing for solar materials and semiconductor divisions at SunEdison. Joined SunEdison through its acquisition of Solaicx, where he served as President and CEO. President and CEO at Credence Systems, holding roles such as COO, EVP of Sales and Marketing, and Managing Director of European Operations during his 20-year career there.
Raghu Belur	*SVP, Co-Founder, Chief Products Officer*	18 years at enphase, 25+ years in industry	Co-founded Enphase Energy with Martin Fornage in 2006. Over 25 years of experience in the clean energy and high technology industries. Has been instrumental in developing Enphase's integrated energy system, which includes solar generation, storage, monitoring, and control. Prior experience includes: Developing high-speed optical communication technology at Cerent, later acquired by Cisco Systems. Engineering work at the Indian Institute of Science, contributing to the development of an alternative energy gasification system. Academic background: M.S. in Electrical Engineering from Texas A&M University. MBA from the Haas School of Business at U.C. Berkeley.

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Appendix: Income Statement

Enphase Energy, Inc. (ENPH) $ 66.29 Next Rpt Date: 11 Feb '25 Key Statistics FactSet Fundamentals

Standardized | As-Reported | Search for an item

GAAP/IFRS | Non-GAAP | Supplemental | Growth | Common Size

GAAP/IFRS Income Statement

	SEP '24 LTM	DEC '23	DEC '22	DEC '21	DEC '20	DEC '19	DEC '18	DEC '17	DEC '16	DEC '15	DEC '14
Sales	1,250.2	2,290.8	2,330.9	1,382.0	774.4	624.3	316.2	286.2	322.6	357.2	343.9
Cost of Goods Sold (COGS) incl. ...	680.1	1,249.8	1,372.1	827.6	430.6	403.1	221.7	230.1	264.6	249.0	230.9
Gross Income	570.2	1,041.0	958.8	554.4	343.8	221.2	94.4	56.0	58.0	108.2	113.0
SG&A Expense	539.3	579.6	506.1	333.7	157.4	115.9	87.9	78.5	116.9	129.4	117.3
EBIT (Operating Income)	30.8	461.4	452.7	220.7	186.4	105.3	6.5	-22.5	-58.9	-21.1	-4.2
Nonoperating Income - Net	81.2	67.5	12.5	3.7	-1.7	-2.9	-2.2	2.8	-0.6	-1.2	-1.3
Interest Expense	8.9	8.8	9.4	45.2	21.0	9.7	9.6	7.9	2.8	0.5	1.6
Unusual Expense - Net	40.4	7.0	3.7	58.4	44.3	2.6	4.9	17.7	3.7	-2.1	0.2
Pretax Income	62.7	513.1	452.0	120.9	119.4	90.1	-10.2	-45.3	-66.0	-20.7	-7.3
Income Taxes	1.3	74.2	54.7	-24.5	-14.6	-71.0	1.4	-0.1	1.5	1.4	0.8
Consolidated Net Income	61.4	438.9	397.4	145.4	134.0	161.1	-11.6	-45.2	-67.5	-22.1	-8.1
Net Income	61.4	438.9	397.4	145.4	134.0	161.1	-11.6	-45.2	-67.5	-22.1	-8.1
Net Income available to Common	61.4	438.9	397.4	145.4	134.0	161.1	-11.6	-45.2	-67.5	-22.1	-8.1
Per Share											
EPS (recurring)	0.67	3.12	2.79	1.31	1.16	1.25	-0.08	-0.40	-1.28	-0.53	-0.18
EPS (basic)	0.45	3.22	2.94	1.09	1.07	1.38	-0.12	-0.54	-1.34	-0.49	-0.19
Basic Shares Outstanding	135.33	136.38	135.35	134.03	125.56	116.71	99.62	82.94	50.52	44.63	42.90
Total Shares Outstanding	135.08	135.72	136.44	133.89	128.96	123.11	107.04	85.91	62.27	45.82	43.76
EPS (diluted)	0.46	3.08	2.77	1.02	0.95	1.23	-0.12	-0.54	-1.34	-0.49	-0.19
Diluted Shares Outstanding	139.91	143.29	144.39	142.88	141.92	131.64	99.62	82.94	50.52	44.63	42.90
Total Shares Outstanding	135.08	135.72	136.44	133.89	128.96	123.11	107.04	85.91	62.27	45.82	43.76
Earnings Persistence	-	79.71	85.39	27.25	65.74	46.88	69.06	60.01	56.98	48.82	41.46
EBITDA											
EBITDA	105.6	529.3	505.1	246.9	204.5	119.4	16.2	-13.5	-48.3	-10.6	4.0
EBIT	30.8	461.4	452.7	220.7	186.4	105.3	6.5	-22.5	-58.9	-21.1	-4.2
Depreciation & Amortization Exp...	74.8	67.9	52.4	26.2	18.1	14.1	9.7	9.0	10.6	10.5	8.3

All figures in millions of U.S. Dollar except per share items.

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Appendix: Balance Sheet

Enphase Energy, Inc. (ENPH) $ 66.29 Next Rpt Date: 11 Feb '25 Key Statistics FactSet Fundamentals

Standardized | As-Reported | Search for an item

GAAP/IFRS | Supplemental | Growth | Common Size

GAAP/IFRS Balance Sheet

	DEC '23	DEC '22	DEC '21	DEC '20	DEC '19	DEC '18	DEC '17	DEC '16	DEC '15	DEC '14
Assets										
Cash & Short-Term Investments	1,695.0	1,612.8	1,016.7	679.4	296.1	106.2	29.1	17.8	28.5	42.0
Short-Term Receivables	486.2	473.0	357.1	200.0	160.5	78.9	65.3	61.0	46.1	45.1
Inventories	213.6	149.7	74.4	41.8	32.1	16.3	26.0	32.0	40.8	21.6
Other Current Assets	48.7	28.7	14.3	11.9	11.0	20.9	10.0	7.1	6.4	6.2
Total Current Assets	2,443.5	2,264.3	1,462.5	933.1	499.7	222.3	130.4	117.9	121.8	114.9
Net Property, Plant & Equipment	188.1	132.7	96.6	60.7	39.1	21.0	26.5	31.4	32.1	30.8
Total Long-Term Investments	204.0	157.8	110.6	52.0	0.0	0.0	0.0	0.0	0.0	0.0
Intangible Assets	283.1	313.1	279.0	53.6	55.4	60.1	4.2	4.6	6.0	5.6
Deferred Tax Assets	252.4	204.9	122.5	92.9	74.5	-	-	-	-	-
Other Assets	11.9	11.5	8.1	7.9	44.6	36.5	8.0	9.7	5.7	0.9
Total Assets	3,383.0	3,084.3	2,079.3	1,200.1	713.2	339.9	169.1	163.6	165.5	152.2
Liabilities & Shareholders' Equity										
Current										
ST Debt & Curr. Portion LT Debt	5.2	96.3	89.9	330.5	6.1	28.2	17.4	13.1	17.0	0.0
Accounts Payable	116.2	125.1	113.8	72.6	57.5	48.8	28.7	31.7	25.6	22.3
Income Tax Payable	8.5	16.1	-	-	-	-	-	-	-	-
Other Current Liabilities	402.5	400.7	236.1	130.9	135.8	70.2	45.6	37.9	30.3	36.4
Total Current Liabilities	532.4	638.2	439.8	534.0	199.3	147.2	91.7	82.8	72.8	58.7
Long-Term										
Long-Term Debt	1,312.5	1,218.5	963.5	20.1	112.2	81.6	32.3	20.8	0.0	0.0
Provision for Risks & Charges	153.0	95.9	54.0	34.7	27.0	23.2	22.4	22.8	23.5	26.3
Other Liabilities	401.4	306.1	191.8	127.3	102.5	80.2	31.8	35.9	27.8	20.2
Total Liabilities	2,399.4	2,258.7	1,649.1	716.1	441.0	332.2	178.3	162.3	124.1	105.2
Equity										
Common Equity	983.6	825.6	430.2	484.0	272.2	7.8	-9.1	1.3	41.4	47.0
Total Shareholders' Equity	983.6	825.6	430.2	484.0	272.2	7.8	-9.1	1.3	41.4	47.0
Total Equity	983.6	825.6	430.2	484.0	272.2	7.8	-9.1	1.3	41.4	47.0
Total Liabilities & Shareholders' Equ...	3,383.0	3,084.3	2,079.3	1,200.1	713.2	339.9	169.1	163.6	165.5	152.2
Per Share										
Book Value per Share	7.25	6.05	3.21	3.75	2.21	0.07	-0.11	0.02	0.90	1.07
Tangible Book Value per Share	5.16	3.76	1.13	3.34	1.76	-0.49	-0.15	-0.05	0.77	0.95

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Appendix: Cash Flow

Enphase Energy, Inc. (ENPH) **$ 66.29** Next Rpt Date: 11 Feb '25 Key Statistics FactSet Fundamentals

Standardized | As-Reported | Search for an item

GAAP/IFRS | Supplemental | Growth

GAAP/IFRS Cash Flow

	SEP '24 LTM	DEC '23	DEC '22	DEC '21	DEC '20	DEC '19	DEC '18	DEC '17	DEC '16	DEC '15	DEC '14
Operating Activities											
Net Income / Starting Line	61.42	438.94	397.36	145.45	134.00	161.15	-11.63	-45.19	-67.46	-22.08	-8.05
Depreciation, Depletion & Amorti...	81.57	74.71	58.78	32.44	18.10	14.12	9.67	9.00	10.64	10.54	8.26
Deferred Taxes & Investment Tax ...	-32.70	-43.35	3.63	-31.24	-17.12	-73.38	0.12	-1.39	0.65	0.64	0.00
Other Funds	256.52	209.35	222.92	190.32	106.01	35.75	16.45	10.56	16.12	12.91	11.18
Funds from Operations	366.81	679.65	682.69	336.97	240.99	137.64	14.61	-27.03	-40.06	2.01	11.39
Changes in Working Capital	15.04	17.13	62.13	15.06	-24.65	1.43	1.52	-1.42	7.10	-23.32	12.83
Net Operating Cash Flow	381.85	696.78	744.82	352.03	216.33	139.07	16.13	-28.44	-32.95	-21.31	24.22
Investing Activities											
Capital Expenditures	-45.6	-110.4	-46.4	-52.5	-20.6	-14.8	-4.2	-4.1	-12.8	-12.8	-14.0
Net Assets from Acquisitions	0.0	0.0	-62.2	-235.7	0.0	0.0	-15.0	0.0	0.0	0.0	-2.2
Sale of Fixed Assets & Businesses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Purchase/Sale of Investments	-0.7	-256.0	-263.3	-931.4	-5.0	0.0	0.0	0.0	0.0	0.3	0.0
Other Funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.3
Net Investing Cash Flow	-46.3	-366.4	-371.9	-1,219.5	-25.6	-14.8	-19.2	-4.1	-11.8	-12.5	-16.5
Financing Activities											
Change in Capital Stock	-269.9	-396.1	10.4	-271.7	79.9	34.8	22.6	27.0	17.3	4.0	5.4
Issuance/Reduction of Debt, Net	-0.0	0.0	0.0	610.3	220.8	45.2	58.0	16.3	17.1	17.0	-8.7
Other Funds	-102.7	-120.6	-27.5	-29.1	-109.1	-14.2	0.0	0.0	0.0	-0.3	0.0
Net Financing Cash Flow	-372.5	-516.8	-17.1	309.4	191.7	65.9	80.6	43.3	34.4	20.7	-3.3
All Activities											
Exchange Rate Effect	3.26	1.85	-1.86	-1.96	0.83	-0.26	-0.50	0.65	-0.32	-0.52	-0.50
Net Change in Cash	-33.75	-184.50	353.93	-560.06	383.27	189.87	77.09	11.38	-10.69	-13.58	3.84
Free Cash Flow	336.24	586.38	698.37	299.77	195.78	124.28	11.98	-32.56	-45.12	-33.84	10.97
Free Cash Flow per Share	2.40	4.09	4.84	2.10	1.38	0.94	0.12	-0.39	-0.89	-0.76	0.26
Free Cash Flow Yield (%)	2.13	3.10	1.83	1.15	0.79	3.61	2.54	-16.29	-88.43	-21.60	1.79

All figures in millions of U.S. Dollar except per share items.

Appendix: Comp Analysis

Company Comp Set

Company Name	Day Close Price Latest	Shares Outstanding Latest	Market Capitalization Latest	LTM Net Debt	LTM Total Pref. Equity	LTM Minority Interest	Total Enterprise Value Latest	LTM Tangible Book Value/Share	LTM Filing Date, Income Statement	LTM Total Revenue	LTM EBITDA	LTM EBIT	LTM Diluted EPS Excl. Extra Items
Enphase Energy, Inc. (NasdaqGM:ENPH)	**63.42**	**135.1**	**8,563.1**	**(434.4)**	**-**	**-**	**8,128.7**	**4.93**	**Oct-22-2024**	**1,250.2**	**102.9**	**30.8**	**0.44**
SolarEdge Technologies, Inc. (NasdaqGS:SEDG)	10.76	58.0	629.9	23.6	-	-	653.5	15.62	Nov-07-2024	1,046.8	(1,252.3)	(1,314.7)	(29.1)
Fluence Energy, Inc. (NasdaqGS:FLNC)	21.58	129.0	2,826.2	(327.4)	-	117.01	2,615.8	2.61	Aug-07-2024	2,143.4	(17.2)	(29.2)	(0.18)
First Solar, Inc. (NasdaqGS:FSLR)	184.4	107.1	19,788.6	(575.7)	-	-	19,212.9	70.12	Oct-29-2024	3,850.8	1,717.0	1,328.2	11.61
Itron, Inc. (NasdaqGS:ITRI)	116.73	45.1	5,145.2	287.3	-	20.37	5,452.8	5.03	Oct-31-2024	2,405.1	310.6	255.9	4.87
Generac Holdings Inc. (NYSE:GNRC)	184.85	59.5	10,720.8	1,364.3	-	3.02	12,088.2	2.78	Nov-05-2024	4,124.7	660.5	490.2	4.82
Midsummer AB (publ) (OM:MIDS)	0.09	209.7	19.6	14.6	-	-	33.6	0.03	Aug-30-2024	6.2	(13.5)	(17.3)	(0.12)

Company Comp Set

Company Name	TEV/Total Revenues LTM-Latest	TEV/EBITDA LTM-Latest	TEV/EBIT LTM-Latest	P/Diluted EPS Before Extra LTM-Latest	P/TangBV LTM-Latest	NTM TEV/Forward Total Revenue (Capital IQ)	NTM TEV/Forward EBITDA(Capital IQ)	NTM Forward P/E(Capital IQ)
Enphase Energy, Inc. (NasdaqGM:ENPH)	6.5x	71.5x	263.7x	145.7x	12.9x	5.00x	14.53x	18.44x
SolarEdge Technologies, Inc. (NasdaqGS:SEDG)	0.6x	NM	NM	NM	0.7x	0.64x	NM	NM
Fluence Energy, Inc. (NasdaqGS:FLNC)	1.2x	185.7x	NM	NM	8.4x	0.68x	15.24x	33.48x
First Solar, Inc. (NasdaqGS:FSLR)	5.0x	11.1x	14.5x	15.9x	2.6x	3.56x	7.01x	9.58x
Itron, Inc. (NasdaqGS:ITRI)	2.3x	16.4x	21.3x	23.4x	22.7x	2.27x	17.71x	24.68x
Generac Holdings Inc. (NYSE:GNRC)	2.9x	17.2x	24.7x	37.4x	64.7x	2.60x	13.72x	21.78x
Midsummer AB (publ) (OM:MIDS)	5.6x	NM	NM	NM	3.8x	4.27x	NM	NM

Badger Meter

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December 5th, 2024

Team: 1

Students: Tina Abilgaziyeva, Vince Galioto, Ames Murray

Long: Badger Meter Inc (NYSE: BMI)

Current Price: $221 (11/24/2024) | **2025 Price Target:** $274 (24% Upside)

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November 24th, 2024

Team Number: 18

Students: Vanessa Quon, Thage Claesson, Jim Zhang

Long: Willis Lease Financial Corporation (NasdaqGM:WLFC)

Current Price: $207.3 | **Next 12-month Target Price:** $333.5 (66% Upside)

Willis Lease (NASDAQ: WLFC) Company Overview

Pure-play jet engine leasing company mainly generating profit from leasing contract and maintenance services

Company description

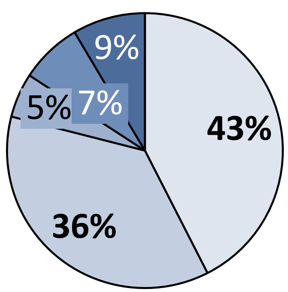
- Highly levered, capital intensive business model – acquires engines financed by ~85-90% debt financing (like LBO) and leases out purchased equipment mainly to commercial airline operators
- Two primary revenue source: 1) Engine leasing contract (43% revenue). Driven by portfolio utilization ratio and lease rate. 2) Maintenance, repair and overhaul services ("MRO", 36% revenue). Driven by engine usage time and MRO pricing
- Huge operating leverage. ~80% are fixed in the short-term, meaning can benefit significantly in topline upcycle
- Total lease portfolio of 337 engines, 12 aircraft, 1 marine vessel
- 60% owned by founding family, who tried to take private the company three times but all rejected by the Board due to insufficient acquisition pricing
- Founded in 1985, headquartered Florida and has ~362 employees

Key financials and trading stats

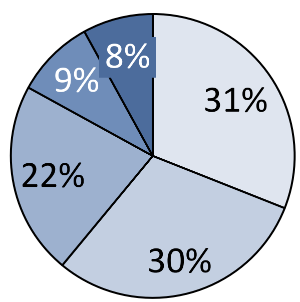
Current Price	$207.3	52W High/Low	$43.4/235.4
Market Cap	$1,330m	Avg daily trading value	$11m
Enterprise Value	$3,378m	Float	36.9%
LTM Revenue	$531m	Short Interest	2.0%
'23-26 Rev CAGR	26.2%	LTM EBITDA Margin	56.0%
LTM Net Margin	17.3%	ND / LTM EBITDA	6.2x

Key highlights

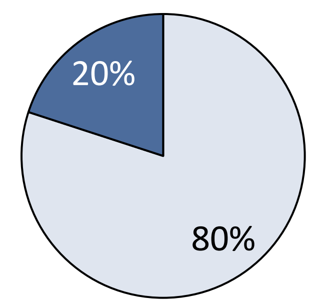
Revenue by segment



Revenue by geography



Cost structure



Source: CIQ, Company Filings, Team Estimate

WLFC Investment Setup

Stock flying under-the-radar set to soar on structural tailwinds under jet engine industry

Key investment thesis

Supply-demand Imbalance

- Surge of air travel demand challenged by parts shortage and limited manufacturing capacity
- Supply issues cannot be corrected short-term
- Rising engine leasing and maintenance rate

Trading at huge discount vs comparable business

- WLFC has fairly similar business model to FTAI, whose share price rallied by more than >300%, now trading at 40x NTM P/E…
- … while WLFC is valued at 70% discount compared to FTAI, which is unreasonable from our perspective

Liquidation value

- NBV calculated through cost method does not reflect rise in value of assets
- Thanks to the surging demand of engines, WLFC's "liquidation value" per share is at $207, offering abundant protection

WLFC is under the radar to investors

No sell-side coverage!

- No history of regular analyst meetings for WLFC management until 2024
- Conducted first earnings call in many years in Aug 2024, increasing capital market communications

66% - 645%

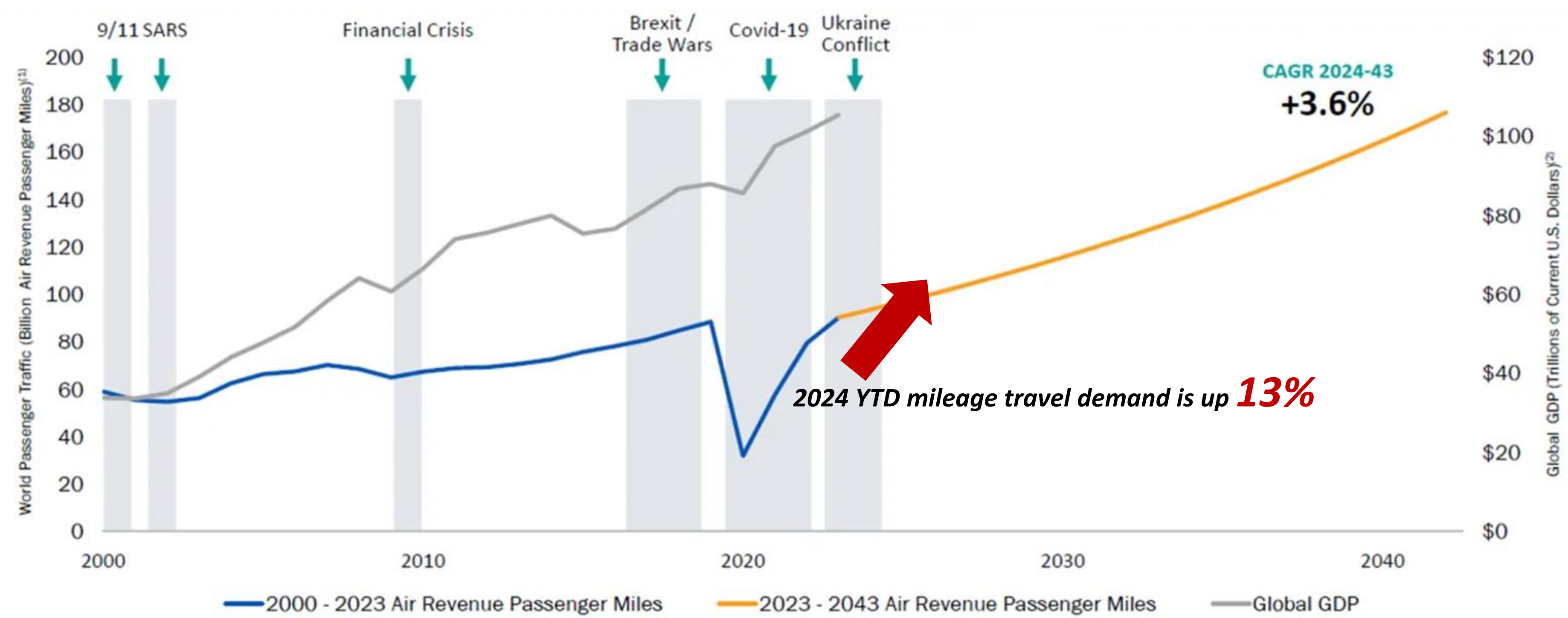
upside potential

Source: Industry White Paper, Team Estimate

Investment Thesis #1 – Supply and Demand Imbalance

End-market air travel demand is fairly robust and is expected to show secular growth without exogenous macro shocks

- **Travel demand has returned to historical highs, matching pre-COVID mileage levels**
- **The industry exhibits secular growth trends, projected at mid-single digits for the next decade**



Source: U.S. Bureau of Transportation Statistics, World Bank (2023), Airbus Global Market Forecast (2024)

Investment Thesis #1 – Supply and Demand Imbalance

Aviation industry demand and supply chain issues create growth opportunities for leasing and maintenance

"[lack of sufficient parts - most notably engines] has "significantly degraded" in recent weeks, and that the company will end up with gliders by the end of the quarter" – Airbus CEO

Materials/ Parts /Labor

Aircrafts

Engines

Huge shortage

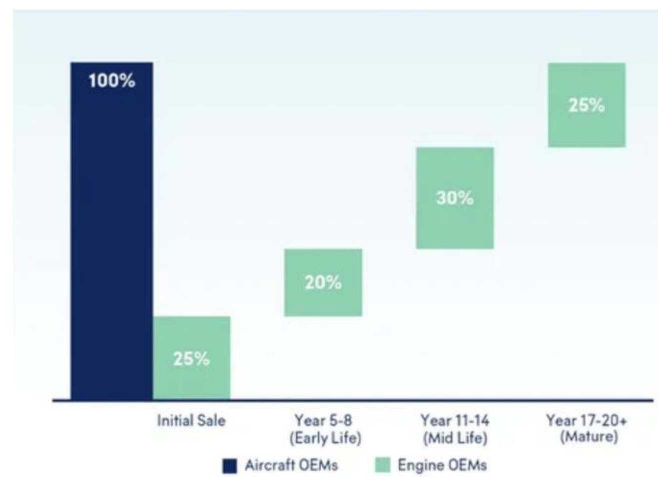
Supply chain issues causing production delays

2024 Narrowbody Deliveries

- Delivery of aircraft continues to be delayed due to manufacturing delays, engine maturation challenges
- Engine and aircraft manufacturers poll resources from the same limited pool

Shortages will persist

Lifecycle Revenue Sources for OEMs



- Engine manufacturers generate majority of revenue from aftersales shop visits
- Profits increase with shorter aircraft useful life
- Incentivization issues prevent oversupply

Source: AirCap Capital Market Day, Tegus

Investment Thesis #1 – Supply and Demand Imbalance

Larger maintenance volume, limited MRO capacity, and demand for legacy engines provide fertile environment for engine leasing businesses

Shop visits are increasing due to MRO cycle

- CFM56 engine shop visits occur every 5 years, 45% of engines have yet to experience first shop visit
- Shop visits expected to peak in 2028 with 12% CAGR

MRO spending is on the rise

"Aircraft engine MRO demand is likely to experience a near-term peak in 2026 and remain constrained through the end of the decade" - Simple Flying 2024

Surge in maintenance and leasing with new technology

- Engine cost and complexity rising due to increased use of specialized high-performance parts
- Greater proportion of engines are being leased vs. owned
- Constraints on MRO capacity and material availability leading to surge in demand for legacy engines

- MRO supply capacity shrank significantly during covid
- MRO spending is returning to levels pre-covid
- Increased spending in 2023 mostly price driven, not volume driven, supply-demand gap still exists
- Demand is expected to remain high post 2025 providing long-term stable source of income

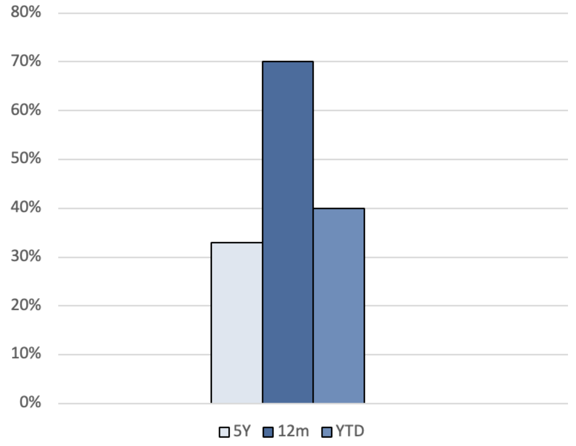
Source: where are these diagrams from

ALPHA CHALLENGE — Kenan-Flagler Business School, The University of North Carolina

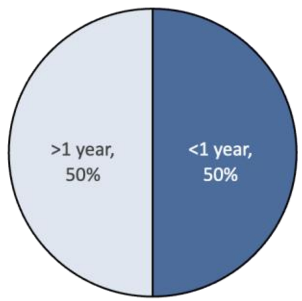
Investment Thesis #1 – Supply and Demand Imbalance

WLFC will profit from increased leasing demand and benefit from re-pricing power of short term leases

CFM56 Indicate Lease Rate Trend



WLFC Lease Term Structure

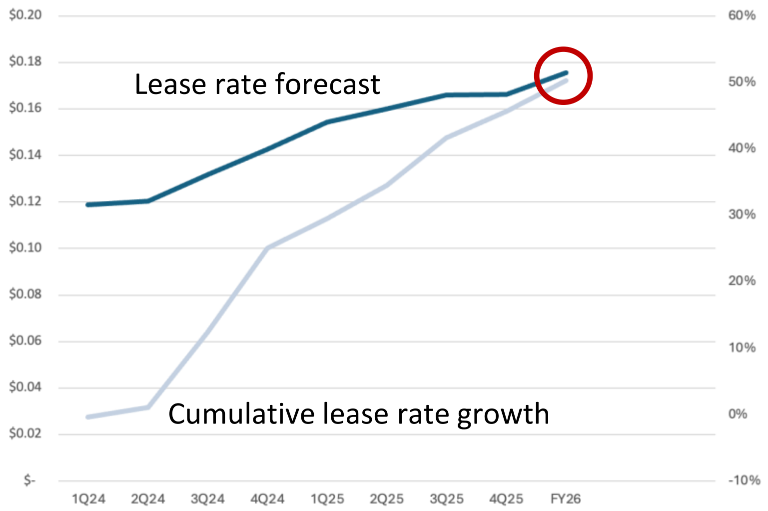


<u>Average lease duration: 2 years</u>

- MRO frequency is increasing, demand for spare engines is soaring as airlines try to keep aircraft from being grounded
- Short term leases allow for more frequent re-pricing in a rising leasing rate environment, more profitable than long term leases

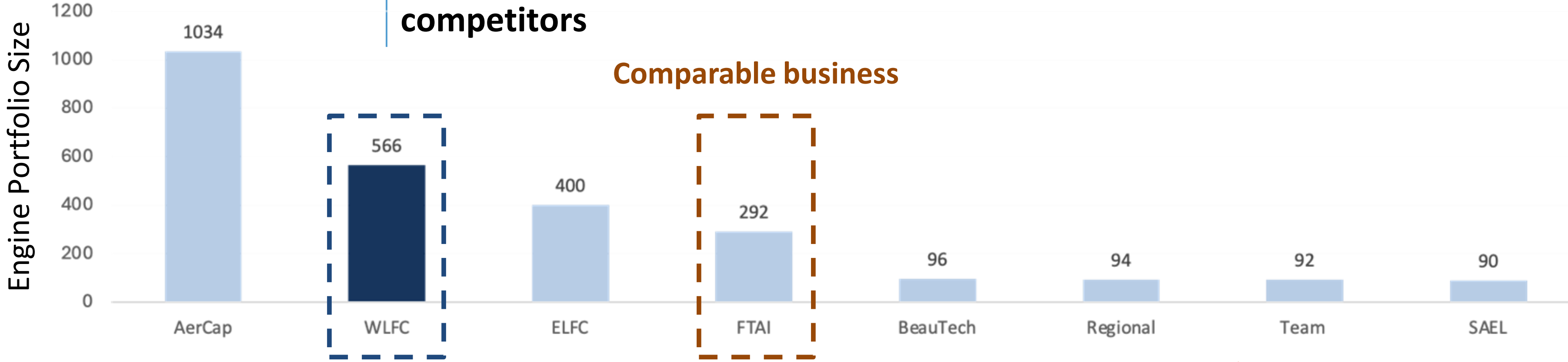
Lease rent forecasts

- Lease rent will continue to grow with rising demand and limited supply
- Forecast of 50% cumulative lease rate growth is conservative given **80% of the cumulative growth has already occurred YTD**
- Benefit from current repricing will be fully reflected in 2026 income statements



Investment Thesis #2 – Valuation Gap vs Peers

Same business, far lower price: WLFC is significantly undervalued vs competitors



	WLFC	FTAI AVIATION
Engine and aircraft leasing trading and management	√	√
Next generation engine lease & services	√	X
Maintenance services	√	√
End-of-life solutions & disassembly	√	X
Used serviceable material ("USM")	√	√
Engine parts manufacturer approval ("PMA")	X	√
Engine Modules	√	√
Owned Fleet	344 engines, 51 JV-owned engines, and 12 aircrafts	292 engines and 99 aircrafts
NBV of Fleet ($mm)	$2789.7	2032.2
EBITDA ($mm)	$305	$350
LTM EBITDA margin	56%	49%
Q2'24 Engine Utilization Rate	84%	69%

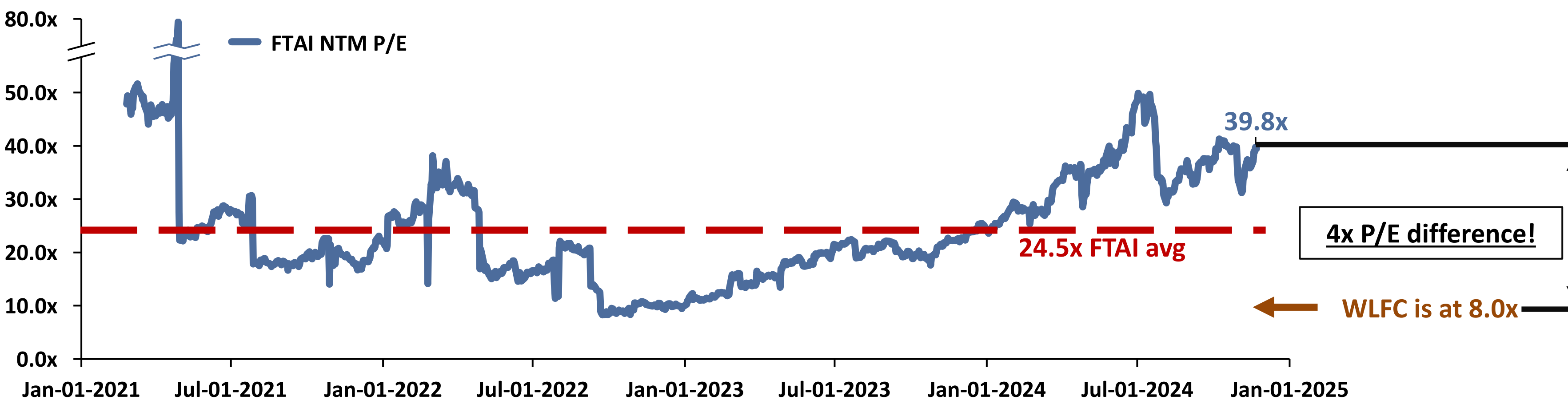
Source: WLFC Investor Day, Company Filings

ALPHA CHALLENGE
Kenan-Flagler Business School
The University of North Carolina

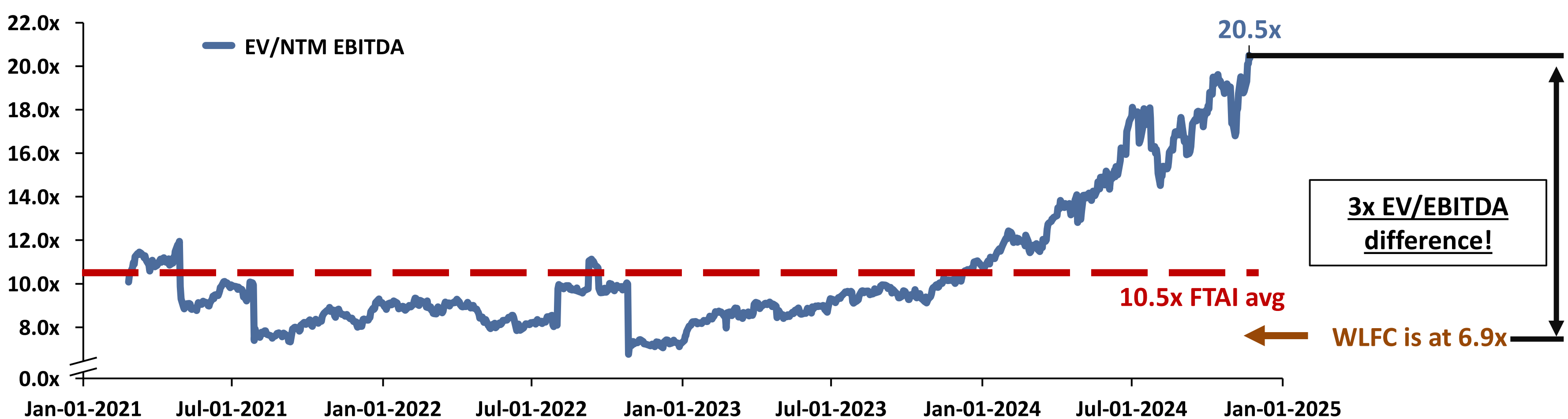
Investment Thesis #2 – Valuation Gap vs Peers

WLFC is 3-4x cheaper than FTAI based on multiple valuation, which is unreasonable given their similar business model

Forward P/E – WLFC vs FTAI



NTM EV/EBITDA – WLFC vs FTAI



Source: CIQ

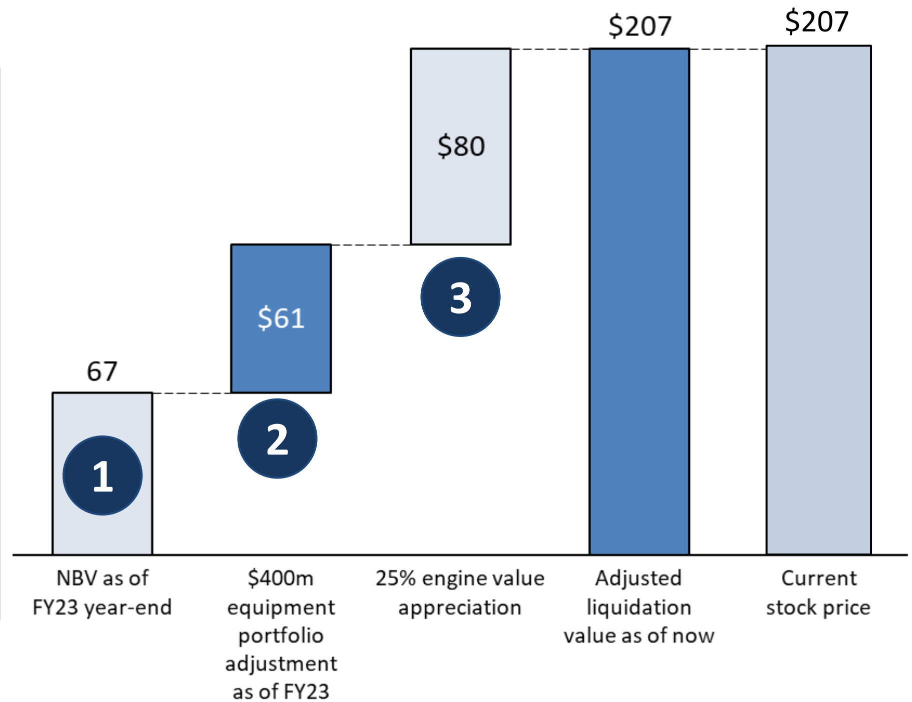
Investment Thesis #3: Liquidation Value

The current liquidation value per share aligns with the share price, providing robust downside protection

Liquidation Value

$207

Reflecting asset revaluation and lease portfolio gains, aligning with the stock price for downside protection



Liquidation Value Components

1. Net book value available to investors is calculated through the cost method, and does not reflect significant increase in asset value
2. As of 2023, there is a $400 million discrepancy between the net book value and market book value
3. 2024 YTD, the lease engine portfolio has experienced a market value appreciation of 20-25%

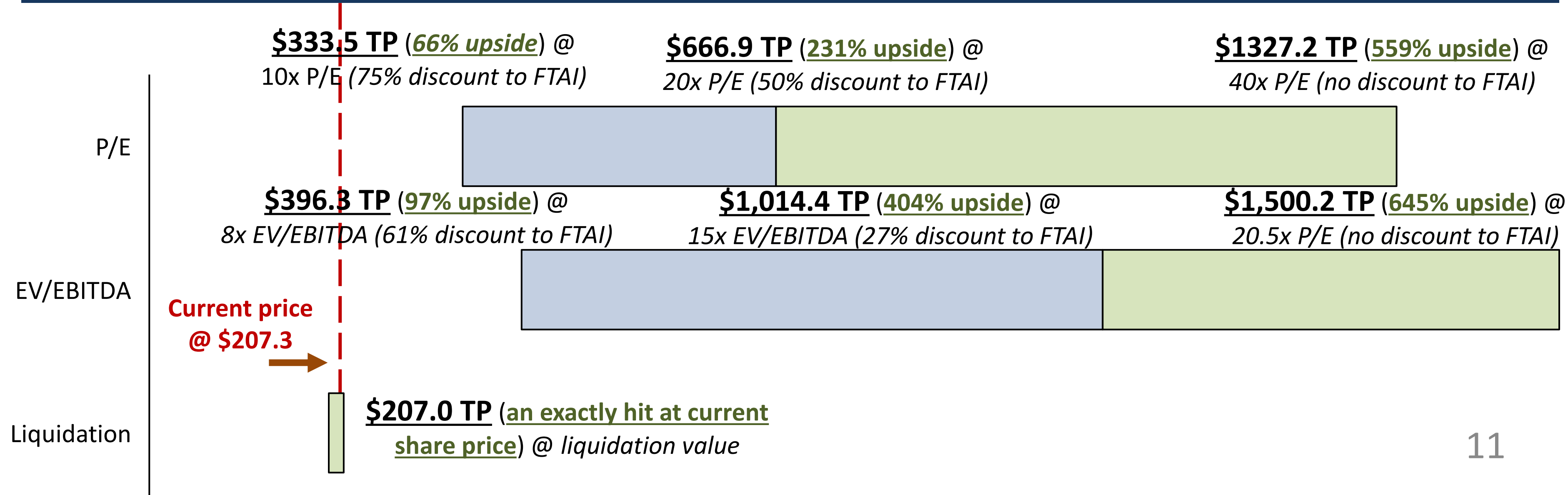
Valuation

WLFC is worth at least $333.5 (66% upside vs current share price) even based on a wild 75% to FTAI's valuation

Summary Financials

	Historical						Forecast		
(in $ m except for per share number or otherwise indicated)	**FY18**	**FY19**	**FY20**	**FY21**	**FY22**	**FY23**	**FY24E**	**FY25E**	**FY26E**
Total revenue	**348**	**409**	**289**	**274**	**312**	**419**	**567**	**728**	**857**
% yoy		*17.5%*	*(29.4%)*	*(5.0%)*	*13.8%*	*34.2%*	*35.4%*	*28.4%*	*17.8%*
EBITDA	**194**	**234**	**177**	**167**	**162**	**213**	**355**	**493**	**583**
% margin	*55.6%*	*57.1%*	*61.3%*	*60.8%*	*52.0%*	*50.9%*	*62.7%*	*67.7%*	*68.0%*
Operating Income	**52**	**81**	**19**	**8**	**7**	**43**	**158**	**265**	**351**
% margin	*15.1%*	*19.7%*	*6.7%*	*3.0%*	*2.3%*	*10.4%*	*28.0%*	*36.5%*	*40.9%*
Net Income	**40**	**64**	**6**	**0**	**2**	**40**	**115**	**173**	**229**
% margin	*11.5%*	*15.5%*	*2.2%*	*0.0%*	*0.7%*	*9.6%*	*20.2%*	*23.8%*	*26.7%*
Diluted EPS	**$6.60**	**$10.50**	**$1.05**	**$0.00**	**$0.33**	**$6.23**	**$16.71**	**$25.25**	**$33.35**
% yoy		*59.1%*	*(90.0%)*	*(99.7%)*	*11536.1%*	*1787.9%*	*168.3%*	*51.1%*	*32.1%*
P/E						32.3x	12.0x	8.0x	6.0x
EV/EBITDA						15.8x	9.5x	6.9x	5.8x

WLFC Valuation based on NTM P/E and EV/EBITDA



Appendix

Appendix: Revenue Build-up

(in $ K except for per share number or otherwise indicated)	FY22	FY23	1Q24	2Q24	3Q24	4Q24	FY24	1Q25	2Q25	3Q25	4Q25	FY25	FY26
						Forecast							
Revenue build-up		0.5092234					0.435584016						
Lease rent revenue	**162,571**	**213,138**	**52,881**	**55,866**	**64,905**	**73,217**	**246,869**	**82,889**	**89,026**	**93,877**	**95,806**	**361,598**	**408,898**
% yoy	*20.6%*	*31.1%*	*(0.6%)*	*2.7%*	*21.2%*	*41.0%*	*15.8%*	*56.7%*	*59.4%*	*44.6%*	*30.9%*	*46.5%*	*13.1%*
% qoq			*1.8%*	*5.6%*	*16.2%*	*12.8%*		*13.2%*	*7.4%*	*5.4%*	*2.1%*		
Equipment held for operating leases	2,111,935	2,112,837	2,130,327	2,317,903	2,435,583	2,512,835	2,512,835	2,595,723	2,630,730	2,669,450	2,710,292	2,710,292	2,723,844
% equipment size yoy growth	*6.1%*	*0.0%*	*(0.5%)*	*7.2%*	*12.2%*	*18.9%*	*18.9%*	*21.8%*	*13.5%*	*9.6%*	*7.9%*	*7.9%*	*0.5%*
% equipment size qoq growth			*0.8%*	*8.8%*	*5.1%*	*3.2%*		*3.3%*	*1.3%*	*1.5%*	*1.5%*		
% utilization ratio	*82%*	*84%*	*84%*	*83%*	*83%*	*83%*	*83%*	*85%*	*85%*	*86%*	*86%*	*85%*	*86%*
Lease rent per unit of utilized equipment	*$0.099*	*$0.117*	*$0.119*	*$0.120*	*$0.132*	*$0.143*	*$0.126*	*$0.154*	*$0.160*	*$0.166*	*$0.166*	*$0.160*	*$0.176*
% lease rate yoy growth	*14.2%*	*18.6%*	*(0.4%)*	*1.1%*	*12.4%*	*25.0%*	*8.1%*	*30.0%*	*33.0%*	*26.0%*	*16.5%*	*26.4%*	*10.0%*
% lease rate qoq growth			*4.0%*	*1.4%*	*9.4%*	*8.4%*		*8.2%*	*3.7%*	*3.6%*	*0.2%*		
% cumulative as of the start of FY23			*(0.4%)*	*1.1%*	*12.4%*	*25.0%*	*8.1%*	*29.5%*	*34.5%*	*41.7%*	*45.6%*	*36.6%*	*50.3%*
Lease portfolio buid-up													
Equipment held for operating leases - Beginning	1,991,368	2,111,935	2,112,837	2,130,327	2,317,903	2,435,583	2,112,837	2,512,835	2,595,723	2,630,730	2,669,450	2,512,835	2,710,292
(+) New purchases	286,393	163,640	62,790	258,787	166,861	132,052	620,490	133,145	86,921	91,334	94,231	405,632	67,757
as % of LTM lease portfolio (annualized)	*14.4%*	*7.7%*	*11.7%*	*47.9%*	*30.7%*	*25.0%*	*29.4%*	*25.0%*	*15.0%*	*15.0%*	*15.0%*	*16.1%*	*10.0%*
(-) Decay	(165,826)	(162,738)	(45,300)	(71,211)	(49,181)	(54,801)	(220,493)	(50,257)	(51,914)	(52,615)	(53,389)	(208,175)	(54,206)
as % of beginning balance	*(8.3%)*	*(7.7%)*	*(8.6%)*	*(13.4%)*	*(8.5%)*	*(9.0%)*	*(10.4%)*	*(8.0%)*	*(8.0%)*	*(8.0%)*	*(8.0%)*	*(8.3%)*	*(8.0%)*
Equipment held for operating leases - Ending	2,111,935	2,112,837	2,130,327	2,317,903	2,435,583	2,512,835	2,512,835	2,595,723	2,630,730	2,669,450	2,710,292	2,710,292	2,723,844
Maintenance reserve revenue	**83,424**	**133,668**	**43,870**	**62,897**	**49,760**	**56,301**	**212,828**	**62,680**	**67,893**	**72,057**	**76,410**	**279,039**	**357,151**
% yoy	*12.8%*	*60.2%*	*86.7%*	*77.6%*	*32.0%*	*51.9%*	*59.2%*	*42.9%*	*7.9%*	*44.8%*	*35.7%*	*31.1%*	*28.0%*
% qoq			*18.4%*	*43.4%*	*(20.9%)*	*13.1%*		*11.3%*	*8.3%*	*6.1%*	*6.0%*		
L-T MRO revenue		**15,359**	**6,300**	**17,000**	**1,200**	**1,500**	**26,000**	**3,000**	**3,000**	**3,000**	**3,000**	**12,000**	**10,000**
% yoy			*N/A*	*150.0%*	*(63.6%)*	*(71.5%)*	*69.3%*	*(52.4%)*	*(82.4%)*	*150.0%*	*100.0%*	*(53.8%)*	*(16.7%)*
S-T MRO revenue		**118,300**	**37,600**	**45,900**	**48,500**	**54,801**	**186,801**	**59,680**	**64,893**	**69,057**	**73,410**	**267,039**	**347,151**
% yoy			*60.0%*	*60.5%*	*41.0%*	*72.3%*	*57.9%*	*58.7%*	*41.4%*	*42.4%*	*34.0%*	*43.0%*	*30.0%*
as % of current lease portfolio (annualized)		*5.6%*	*7.1%*	*8.6%*	*8.4%*	*9.0%*	*8.8%*	*9.5%*	*10.0%*	*10.5%*	*11.0%*	*10.6%*	*12.8%*
Spare parts and equipment sales	**27,009**	**20,359**	**3,288**	**6,186**	**10,863**	**7,398**	**27,735**	**3,551**	**6,681**	**11,732**	**7,990**	**29,954**	**32,350**
% yoy	*55.1%*	*(24.6%)*	*(34.9%)*	*36.0%*	*223.4%*	*0.0%*	*36.2%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*	*8.0%*
Interest revenue	**7,579**	**8,721**	**2,269**	**2,284**	**3,412**	**2,311**	**10,276**	**2,269**	**2,284**	**3,412**	**2,311**	**10,276**	**10,276**
% yoy	*(41.4%)*	*15.1%*	*10.9%*	*1.2%*	*62.0%*	*0.0%*	*17.8%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Gain on sale of leased equipment	**3,133**	**10,581**	**9,201**	**14,428**	**9,519**	**1,000**	**34,148**	**2,500**	**2,500**	**2,500**	**2,500**	**10,000**	**10,000**
% yoy	*(47.6%)*	*237.7%*	*6818.0%*	*223.4%*	*1131.4%*	*(81.8%)*	*222.7%*	*(72.8%)*	*(82.7%)*	*(73.7%)*	*150.0%*	*(70.7%)*	*0.0%*
Other revenue	**28,211**	**32,088**	**7,574**	**9,459**	**7,764**	**10,102**	**34,899**	**7,953**	**9,932**	**8,152**	**10,607**	**36,644**	**38,476**
% yoy	*23.6%*	*13.7%*	*29.4%*	*19.8%*	*(5.8%)*	*0.0%*	*8.8%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*
Total revenue	**311,927**	**418,555**	**119,083**	**151,120**	**146,223**	**150,329**	**566,755**	**161,842**	**178,316**	**191,730**	**195,624**	**727,512**	**857,152**
% yoy	*13.8%*	*34.2%*	*32.6%*	*38.6%*	*38.3%*	*31.5%*	*35.4%*	*35.9%*	*18.0%*	*31.1%*	*30.1%*	*28.4%*	*17.8%*

Appendix: Cost Build-up

(in $ K except for per share number or otherwise indicated)	FY22	FY23	1Q24	2Q24	3Q24	4Q24	FY24	1Q25	2Q25	3Q25	4Q25	FY25	FY26
						Forecast							
Cost build-up													
D&A	(88,260)	(90,925)	(22,486)	(22,167)	(23,650)	(25,493)	(93,796)	(26,989)	(27,352)	(27,751)	(28,172)	(110,264)	(113,324)
% annual D&A rate	*4.1%*	*4.2%*	*4.2%*	*4.1%*	*4.0%*	*4.0%*	*3.7%*	*4.1%*	*4.1%*	*4.1%*	*4.1%*	*4.0%*	*4.1%*
as % of total revenue	*28.3%*	*21.7%*	*18.9%*	*14.7%*	*16.2%*	*17.0%*	*16.5%*	*16.7%*	*15.3%*	*14.5%*	*14.4%*	*15.2%*	*13.2%*
Cost of spare parts and equipment sales	(20,833)	(15,207)	(2,705)	(5,437)	(8,861)	(6,140)	(23,143)	(3,018)	(5,679)	(9,972)	(6,791)	(25,461)	(27,498)
as % of spare parts and equipment sales	*77.1%*	*74.7%*	*82.3%*	*87.9%*	*81.6%*	*83.0%*	*83.4%*	*85.0%*	*85.0%*	*85.0%*	*85.0%*	*85.0%*	*85.0%*
Cost of maintenance services	-	(20,779)	(5,574)	(5,671)	(6,402)	(7,071)	(24,718)	(5,567)	(6,952)	(5,707)	(7,425)	(25,651)	(26,933)
as % of other revenue	*0.0%*	*64.8%*	*73.6%*	*60.0%*	*82.5%*	*70.0%*	*70.8%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*
Write-down of equipment	(21,849)	(4,398)	(261)	-	(605)	-	(866)	-	-	-	-	-	-
G&A	(92,530)	(144,788)	(29,581)	(34,687)	(40,037)	(33,317)	(137,622)	(34,018)	(38,849)	(39,637)	(38,315)	(150,819)	(180,983)
% yoy	*22.8%*	*56.5%*	*6.3%*	*9.3%*	*50.8%*	*(15.0%)*	*(4.9%)*	*15.0%*	*12.0%*	*(1.0%)*	*15.0%*	*9.6%*	*20.0%*
as % of total revenue	*29.7%*	*34.6%*	*24.8%*	*23.0%*	*27.4%*	*22.2%*	*24.3%*	*21.0%*	*21.8%*	*20.7%*	*19.6%*	*20.7%*	*21.1%*
Technical expenses	(14,415)	(20,220)	(8,255)	(4,518)	(5,151)	(7,216)	(25,140)	(7,283)	(8,024)	(8,628)	(8,803)	(32,738)	(38,572)
% yoy	*53.7%*	*40.3%*	*90.1%*	*(32.3%)*	*(41.1%)*	*28.8%*	*24.3%*	*(11.8%)*	*77.6%*	*67.5%*	*22.0%*	*30.2%*	*17.8%*
as % of total revenue	*4.6%*	*4.8%*	*6.9%*	*3.0%*	*3.5%*	*4.8%*	*4.4%*	*4.5%*	*4.5%*	*4.5%*	*4.5%*	*4.5%*	*4.5%*
Interest expense	(66,743)	(78,795)	(23,003)	(24,562)	(27,813)	(27,624)	(103,002)	(28,975)	(29,114)	(29,373)	(29,684)	(117,146)	(118,982)
% annual interest rate	*3.6%*	*4.4%*	*5.1%*	*5.7%*	*5.7%*	*5.6%*	*4.9%*	*5.6%*	*5.3%*	*5.3%*	*5.2%*	*5.1%*	*5.2%*
as % of total revenue	*21.4%*	*18.8%*	*19.3%*	*16.3%*	*19.0%*	*18.4%*	*18.2%*	*17.9%*	*16.3%*	*15.3%*	*15.2%*	*16.1%*	*13.9%*
Total expense	(304,630)	(375,112)	(91,865)	(97,042)	(112,519)	(106,862)	(408,288)	(105,850)	(115,971)	(121,066)	(119,191)	(462,078)	(506,291)
% yoy	*14.6%*	*23.1%*	*12.7%*	*8.4%*	*31.2%*	*2.8%*	*8.8%*	*15.2%*	*19.5%*	*7.6%*	*11.5%*	*13.2%*	*9.6%*
as % of total revenue	*97.7%*	*89.6%*	*77.1%*	*64.2%*	*77.0%*	*71.1%*	*72.0%*	*65.4%*	*65.0%*	*63.1%*	*60.9%*	*63.5%*	*59.1%*

Appendix: Balance Sheet

(in $ K except for per share number or otherwise indicated)	FY22	FY23	1Q24	2Q24	3Q24	4Q24	FY24	1Q25	2Q25	3Q25	4Q25	FY25	FY26
						Forecast							
BS													
Assets													
Cash and cash equiv.	12,146	7,071	7,622	5,044	5,791								
Restricted cash	76,870	160,958	86,620	142,869	99,333								
Notes receivables	46,954	58,485	97,859	115,488	175,358								
Investment in sales type leaes	6,440	8,759	33,013	6,179	23,204								
Spare parts inventory	38,577	40,954	85,165	81,913	74,089								
Equipment held for operating leases	2,111,935	2,112,837	2,130,327	2,317,903	2,435,583	2,512,835	2,512,835	2,595,723	2,630,730	2,669,450	2,710,292	2,710,292	2,723,844
PP&E	35,350	37,160	35,531	35,968	36,119	36,417	36,417	37,308	37,766	37,925	38,238	38,238	40,150
% yoy	*12.8%*	*5.1%*	*(1.8%)*	*(3.6%)*	*(2.8%)*	*(2.0%)*	*(2.0%)*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*
Liabilities													
A/P and accrued expenses	43,040	52,937	103,348	89,161	119,560								
Maintenance reserves	59,453	92,497	99,529	104,724	108,090								
Debt obligations	1,847,278	1,802,881	1,735,570	1,946,761	1,990,455	2,085,653	2,085,653	2,206,365	2,236,121	2,269,033	2,303,749	2,303,749	2,315,267
Unearned revenue	17,863	43,533	41,687	39,735	39,294								
Debt modeling													
Debt obligations	1,847,278	1,802,881	1,735,570	1,946,761	1,990,455	2,085,653	2,085,653	2,206,365	2,236,121	2,269,033	2,303,749	2,303,749	2,315,267
as % of leasing portfolio	*87.5%*	*85.3%*	*81.5%*	*84.0%*	*81.7%*	*83.0%*	*83.0%*	*85.0%*	*85.0%*	*85.0%*	*85.0%*	*85.0%*	*85.0%*
Variable rate debt			**290,000**	**527,300**	**616,900**	**625,696**	**625,696**	**661,909**	**670,836**	**680,710**	**691,125**	**691,125**	**694,580**
as % of total debt			*16.7%*	*27.1%*	*31.0%*	*30.0%*	*30.0%*	*30.0%*	*30.0%*	*30.0%*	*30.0%*	*30.0%*	*30.0%*
Interest expense - variable debt			(5,677)	(10,322)	(11,505)	(11,200)	(38,704)	(11,600)	(11,505)	(11,504)	(11,542)	(46,151)	(46,051)
% interest rate (SOFR + ~2.5%)			*7.83%*	*7.83%*	*7.46%*	*7.16%*	*6.2%*	*7.01%*	*6.86%*	*6.76%*	*6.68%*	*6.68%*	*6.63%*
Fixed rate debt			**1,445,570**	**1,419,461**	**1,373,555**	**1,459,957**	**1,459,957**	**1,544,455**	**1,565,285**	**1,588,323**	**1,612,624**	**1,612,624**	**1,620,687**
as % of total debt			*83.3%*	*72.9%*	*69.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*	*70.0%*
Interest expense - fixed debt			(17,326)	(14,240)	(16,308)	(16,425)	(64,299)	(17,375)	(17,609)	(17,869)	(18,142)	(70,995)	(72,931)
% interest rate			*4.8%*	*4.0%*	*4.7%*	*4.50%*	*4.40%*	*4.50%*	*4.50%*	*4.50%*	*4.50%*	*4.40%*	*4.50%*
Total interest expense	(66,743)	(78,795)	(23,003)	(24,562)	(27,813)	(27,624)	(103,002)	(28,975)	(29,114)	(29,373)	(29,684)	(117,146)	(118,982)
Interest coverage ratio	*2.43x*	*2.71x*	*3.16x*	*4.10x*	*3.06x*	*3.50x*	*3.45x*	*3.86x*	*4.08x*	*4.35x*	*4.52x*	*4.21x*	*4.90x*

Appendix: Cap Table and Liquidation Value

Cap table	**Total**	**Per share**
Market cap	**$1,330**	**$201.3**
(+) Total debt	$2,000	$302.8
(-) Cash and cash equiv.	$14	$2.2
(+) Preferred shares	$63	$9.5
Enterprice value	**$3,378**	**$511.5**

Multiple valuation							
	P/E	***Discount to FTAI***		**Current TP**	**N12M TP**	***% upside***	Thinkcell waterfall
N12M TP@10.0x P/E	10.0x	*(75%)*	39.8x	$252.5	$333.5	*66%*	$333.5
N12M TP@20.0x P/E	20.0x	*(50%)*		$505.0	$666.9	*231%*	$333.5
N12M TP@39.8x P/E	39.8x	*0%*		$1,005.0	$1,327.2	*559%*	$660.3
	EV/EBITDA	***Discount to FTAI***		**Current TP**	**N12M TP**		
N12M TP@8.0x EV/EBITDA	8.0x	*(61%)*	20.5x	$597.1	$396.3	*97%*	$396.3
N12M TP@15.0x P/E	15.0x	*(27%)*		$1,119.5	$1,014.4	*404%*	$618.2
N12M TP@20.5x P/E	20.5x	*0%*		$1,530.0	$1,500.2	*645%*	$485.7

Liquidation value	**Total**	**Per share**	
NBV as of FY23 year-end	$439	$66.5	
$400m equipment portfolio adjustment as of FY23	$400	$60.6	
25% engine value appreciation	$528	$80.0	25%
Adjusted liquidation value as of now	**$1,367**	**$207.0**	

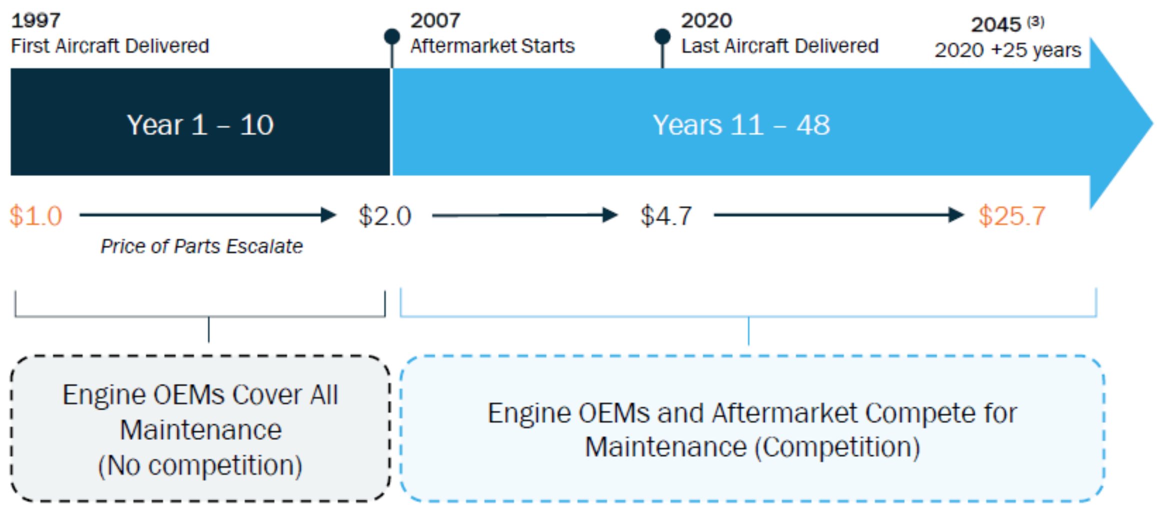
Appendix: Engine OEM Unit Economics

The Engine Platform Lifecycle

- Boeing and Airbus form a duopoly, competing fiercely to deliver new airplanes to airlines – ***exerts downward pressure on suppliers***
- As a result, Engine Original Equipment Manufacturers ("Engine OEMs") operate under a razor-blade economic model [1]:
  - Razor: Sell new engines at minimal to no profit
  - Blades: Sell replacement parts through maintenance over next 40 years [2] – *price of parts escalate ~7%+ per year* [3]
- Engine maintenance is normally completed every 5 years
  - Airlines' third-largest expense, after fuel and labor

Service-Driven Profit: The Business Model of Engine Manufacturers

Illustrative Example: Assuming $1.0 of replacement parts escalated at 7% p.a. [3]



Aftermarket Opportunity

Engine OEMs open maintenance networks to make services more accessible, thereby creating a longer-lasting platform.

Benefit to OEM	Benefit to Aftermarket
Longer-lasting platforms are accretive to razor-blade model	Substantial reward for aftermarket players capable of innovating cost-saving solutions

Appendix: Supply and Demand Imbalance of Jet Engine

There's a **shortage of aircraft**, a **shortage of engines** and a **shortage of spare parts**... The **durability of new technology engines is not as good as its predecessors**. Together with our partners, we have had the ability to **predict the demand driven by these phenomena**

Tom Slattery, AerCap Executive VP of Engines, May 8, 2024

OEM Delays

So whilst there is plenty of discussion about when the OEMs will return to their pre-COVID output rates, many seem to overlook the **2,700 new technology aircraft that simply have not been built** in the last 5 years

AerCap, February 23, 2024

<u>Supply chain strains set to weigh on aviation industry bounce-back</u>
European planemaker Airbus, said it was sending "dozens and dozens" of engineers deep into supply chains to unlock bottlenecks, and aircraft maintenance firms such as Lufthansa Technik said they were **stocking more spare parts to mitigate delay**

Reuters, February 23, 2024

Next-Gen Engine Durability

<u>It's the airplane of the future. It's still grounded</u>
RTX-owned Pratt & Whitney has said that many of its PW1500G turbofans, which were supposed to last 20,000 flight cycles, should be sent to the shop at 5,000

Wall Street Journal, September 10, 2024

<u>Airbus A320 output throttled by leap engine blade issues</u>

Bloomberg, July 26, 2024

<u>RTX engine issue will ground 350 planes per year through 2026</u>
RTX...will have to pull a total of 600 to 700 engines off their Airbus A320neo jets for **lengthy quality inspections between 2023 and 2026**

Reuters, September 11, 2023

Limited MRO Capacity

<u>Aircraft engine maintenance times are higher than ever due to supply shortages</u>
Aircraft engine MRO demand is likely to experience a **near-term peak in 2026** and **remain constrained through the end of the decade.** The next large surge in demand from new-generation engines will begin towards the end of 2030

Simple Flying, July 20, 2024

"We have to fight every day to get the parts. This is true for Safran and also the whole industry," Andriès said in an interview. "We've gone from an unprecedented crisis of demand back in 2020. Now demand is back but we are in an **unprecedented crisis of supply**"

Olivier Andriès, Safran Executive, June 14, 2023

New Engine Supply Constraints and Limited MRO Capacity Drive Demand for Spare Engines for Years to Come

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Badger Meter Overview

Revolutionizing Water Management with Smart Metering and Software Solutions

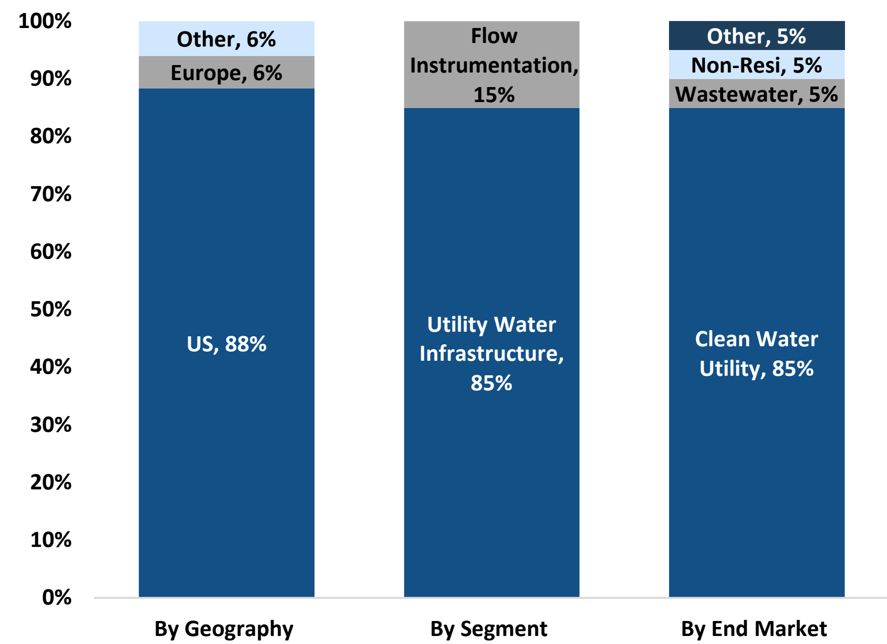
Company Description

- Pure-play provider of leading smart water management solutions
- Solutions encompass smart measurement hardware, reliable communications, and data analytics software

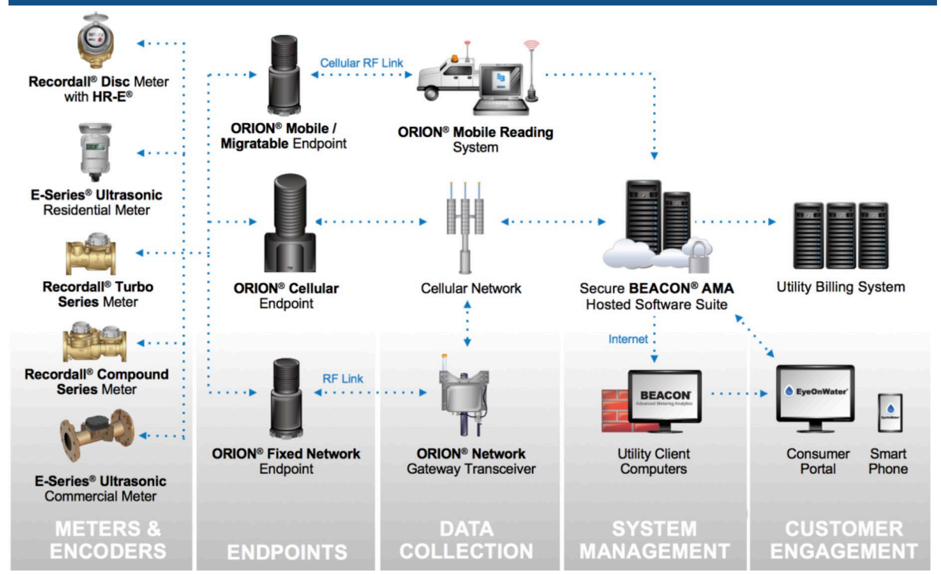
Trading and FY23 Financial Data

Current Price ($)	221.00	Revenue ($M)	704
Market Cap ($M)	6,554	Gross Margin	39%
EV ($M)	6,295	EBITDA ($M)	146
52W Low / High ($)	139.50-230.76	EPS ($)	3.14

Revenue Breakdown

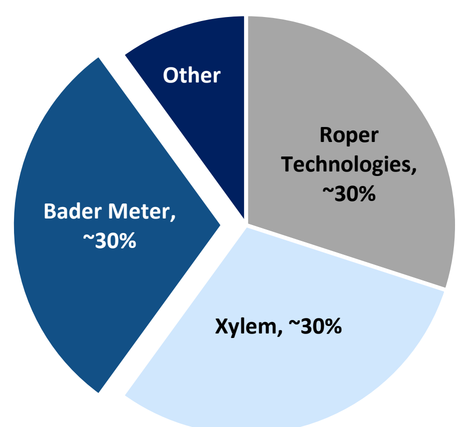


BMI Offers Integrated Water Solutions



BMI Operates in a Stable Oligopoly Market

BMI owns its distribution, where Roper and Xylem are more biased toward third party distribution



BMI operates in an attractive market with limited competition from low-cost rivals, yet lacks the high growth needed to attract software or technology firms

Sources: FactSet, Company Filings, Investor Presentations

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Badger Meter: Flowing Towards The Future

We Have a Chance to Invest in an Industry Leader with Secular Growth Market Exposure and an Emerging SaaS Platform

Investment Thesis	Why is There an Opportunity?
1 BMI's Comprehensive Product Portfolio Positions the Company to Capitalize on the Secular Shift Toward Smart Water Metering Hardware	Sell-side estimates underestimate the growth potential of metering hardware sales as utilities shift from legacy and Advanced Meter Reading (AMR) systems to Advanced Metering Infrastructure (AMI)
2 Accelerating Adoption of AMI Technology Drives Stronger Software Sales and Fuels the Development of a Scalable, Recurring Revenue SaaS Platform	Consensus projections underestimate the growth of software as a share of total sales, overlooking the nearly 100% attachment rate between software and AMI meters, driving an increasing proportion of recurring revenue over time
3 Accretive Portfolio Mix Shift and Cost Optimization Drive Sustainable Margin Expansion and Propel Earnings Growth	The market has yet to fully appreciate the anticipated margin expansion driven by the growing share of SaaS in BMI's business, enhancing the overall gross margin profile and delivering attractive incremental margins

These Opportunities Underpin Our Divergence From Consensus

		Team Estimates		Consensus Estimates	
	FY 2023-A	FY 2026-E	Growth	FY 2026-E	Growth
Revenue	$704M	$1,029M	**13.5% CAGR**	$958M	**10.8% CAGR**
Gross Margin	39.3%	41.6%	**230bps**	40.0%	**70bps**
Operating Margin	16.8%	22.0%	**520bps**	20.3%	**350bps**
EPS	$3.14	$6.03	**24.3% CAGR**	$5.28	**18.9% CAGR**

Sources: FactSet, Internal Model Projections

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Investment Thesis #1 – Transition to Smart Metering

Utility-Driven AMI Transition Fuels Hardware Growth

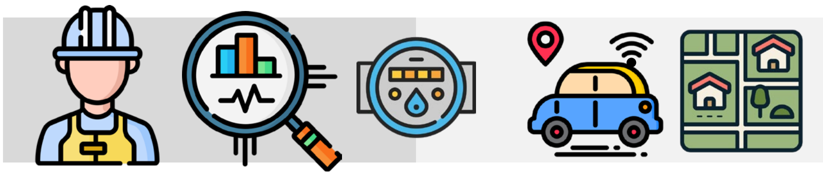
U.S. Utilities Drive Demand for Smart Water Meters to Reduce Water Loss and Lowers Costs

Present

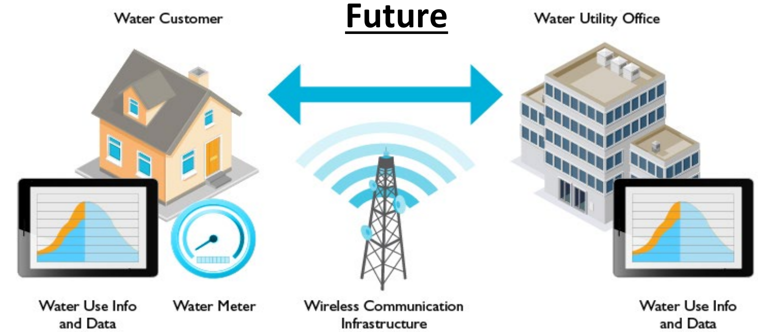
Every year, U.S. Utilities underbill 20% of water, known as non-revenue water

Utilities are facing a labor shortage with ~50% of employees retiring over the next 10 years

Today's meters require manual reading or drive-by radio capture

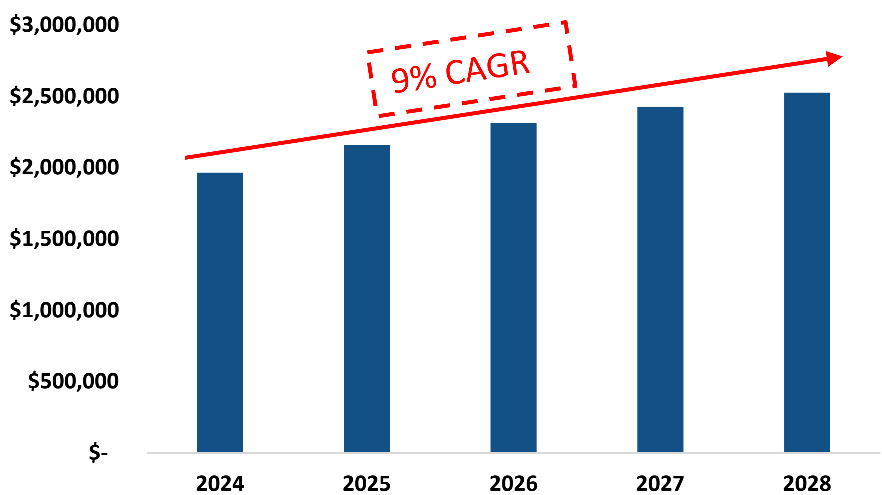


Future



- AMI enables remote, on-demand meter readings, eliminating the need for manual or drive-by readings
- Only 1/3 of U.S. utilities have adopted AMI

U.S. Smart Water Meter Market: ~$2.5B by 2028



Market Undervalues Utilities' Transition to AMI

WSSC Cost Benefit Analysis ('000)		
NPV of Life Cycle Cost	$	(256,826)
NPV of Turnover Savings	$	35,663
NPV of Labor Savings	$	17,992
NPV of Effiency Gains	$	371,096
NPV of Other Costs/Benefits	$	(30,946)
Total NPV	**$**	**136,979**
Payback Period		11 years

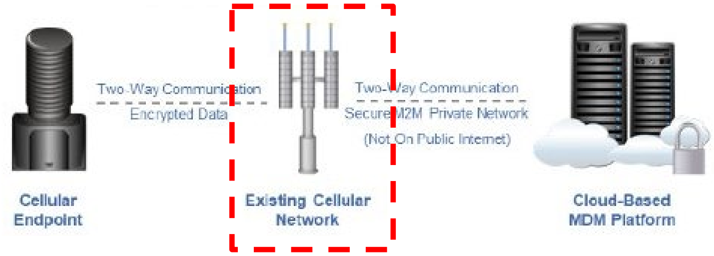
BMI Wins Share by Reducing the NPV of Life Cycle Cost by Using a Pre-existing Cellular Network to Reduce Upfront Cost

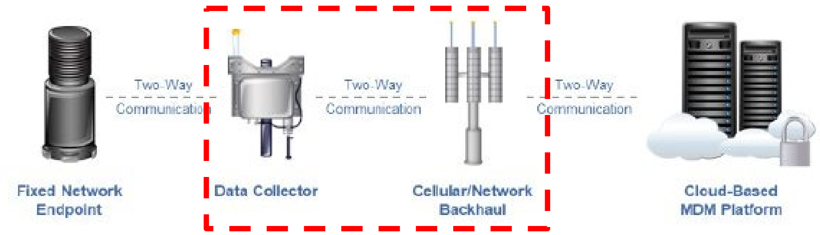
Sources: Deutsche Bank, McKinsey, Business Market Insights, Bluefield Research, City of Wyoming, WSSC AMI Cost Benefit Analysis

Investment Thesis #2 – Evolution Towards SaaS

AMI Hardware Upgrade Cycle Drives Software Growth

BMI – Cellular Network | **vs** | **Competition – Fixed Network**





BMI's approach reduces upfront costs and friction for utilities by partnering with pre-existing cellular networks, lowering initial expenses

Utilities incur higher upfront costs, including expenses for fixed network infrastructure, as well as ongoing, recurring fees for annual maintenance

Maximizing Recurring Revenue: 100% Software Attachment to AMI Meters

AMI meters include **BEACON network and software services** that have a **~100% attachment rate** with the physical meter

Beacon SaaS Interface

The Growing Impact of Software

Segment Revenues				
Net Sales	**FY24E**	**FY25E**	**FY26E**	**FY27E**
Hardware	$ 766,849	$ 856,278	$ 918,304	$ 956,327
Software	60,377	82,610	111,170	145,415
Segment Revenue Contribution				
% of Net Sales	**FY24E**	**FY25E**	**FY26E**	**FY27E**
Hardware	92.7%	91.2%	89.2%	86.8%
Software	7.3%	8.8%	10.8%	13.2%
Segment Growth Profiles				
YoY Growth	**FY24E**	**FY25E**	**FY26E**	**FY27E**
Hardware	16.3%	11.7%	7.2%	4.1%
Software	36.2%	36.8%	34.6%	30.8%

SaaS is Expected to Grow at >30% CAGR through FY27

Investment Thesis #3 – Margin Expansion

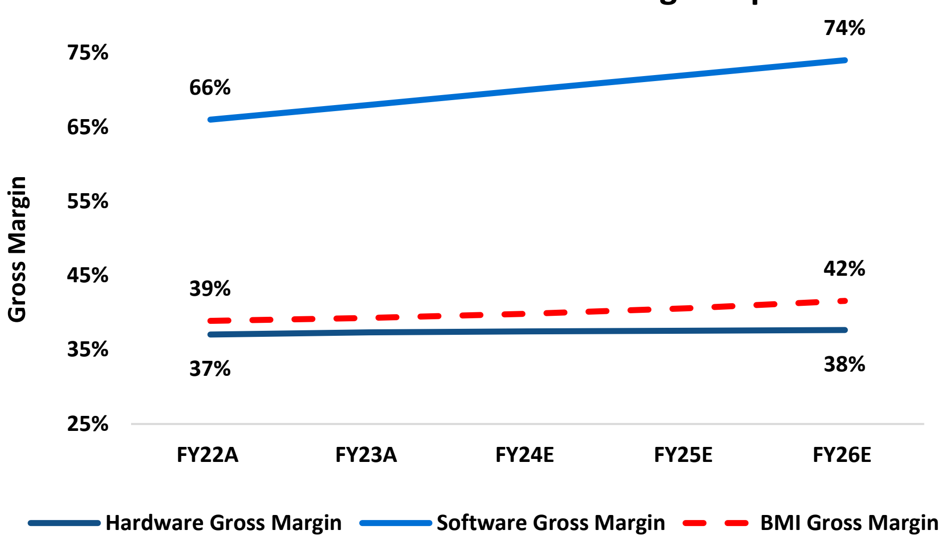
Software Growth Drives Sustainable Margin Expansion

Management Does Not Provide Guidance, and the Street Does Not Bifurcate Software and Hardware Segments in its Modeling…

- Consensus underestimates the magnitude of the structural improvement in BMI's forward margin profile, driven by its developing SaaS platform
- Software offers an increasing recurring revenue stream with a ~30%+ gross margin uplift, compared to Hardware, driving both incremental and structural gross margin expansion
- The transition from legacy mechanical to AMI meters enhances value-based pricing initiatives and drives hardware margin expansion
- We believe our build-up approach is directionally correct and underscores the underappreciated importance of Software

Software Segment Increasing in Revenue Mix From 6% to 11% by FY26

Software Growth Drives Gross Margin Expansion



…However, Implied Margins Can be Discovered Through Comparable Analysis

1

Smart Meter Software - Comparable Margins			
Ropper Technologies	**FY21A**	**FY22A**	**FY23A**
Software - Revenue	$ 4,833,800	$ 5,371,800	$ 6,177,800
Software - COGS	(1,426,200)	(1,619,000)	(1,870,600)
Software - Gross Margins	**70.5%**	**69.9%**	**69.7%**

\+

Assumed BMI Software Margins		**66.0%**	**68.0%**

ROP operates a mature software platform across various verticals, including water metering. We applied a margin discount to BMI due to its platform's infancy, expecting incremental margins to improve as fixed costs are absorbed.

2

Smart Meter Hardware - Comparable Margins			
Xylem	**FY21A**	**FY22A**	**FY23A**
Hardware - Revenue	$ 4,684,000	$ 4,978,000	$ 6,291,000
Hardware - COGS	(2,831,000)	(3,002,000)	(3,817,000)
Hardware - Gross Margins	**39.6%**	**39.7%**	**39.3%**
Itron			
Hardware - Revenue	$ 1,609,634	$ 1,435,510	$ 1,784,264
Hardware - COGS	(1,131,646)	(1,011,757)	(1,178,622)
Hardware - Gross Margins	**29.7%**	**29.5%**	**33.9%**

=

Implied BMI Hardware Margins		**37.1%**	**37.4%**

XYL targets AMI meters, while ITRI sells primarily mechanical and AMR. We are confident in BMI's implied margins, derived from consolidated and assumed software margins, due to its growing AMI-focused portfolio.

3

Badger Meter - Margin Analysis			
BMI	**FY24E**	**FY25E**	**FY26E**
Hardware Gross Margin	37.5%	37.6%	37.7%
Software Gross Margin	70.0%	72.0%	74.0%
Consolidated Gross Margin	**39.8%**	**40.6%**	**41.6%**
BMI Software Incremental Margin	**75.5%**	**77.4%**	**79.8%**

The increasing revenue mix and incremental margin from software drive a divergence from consensus estimates.

Consensus v. Estimates			
Gross Margin	**FY24E**	**FY25E**	**FY26E**
Estimate	39.8%	40.6%	41.6%
Consensus	39.6%	39.4%	40.0%
Delta	**0.2%**	**1.2%**	**1.5%**

Sources: FactSet, Internal Model Projections

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Valuation Summary – Substantiating the Multiples

BMI's Strong Fundamentals and SaaS Evolution Justify Premium Valuation Multiples

BMI is primarily viewed as a hardware manufacturer; however, its true value lies in its emergence as a SaaS platform, poised for substantial earnings growth through high-margin recurring revenue. Its forward earnings profile significantly outpaces peers, including 2x that of core peer XYL, justifying its current multiple. We base our valuation on forward trading multiples of 45.2x P/E and 30.4x EV/EBITDA.

Comparable Company Valuation Multiples	Market Data				P/E		EV/EBITDA		EBITDA %	ROA	ROE	ROIC	Revenue	EPS
Company	Ticker	Stock Price	Mkt Cap ($M)	EV ($M)	2025	2026	2025	2026	5YR Avg.	5YR Avg.	5YR Avg.	5YR Avg.	FWD 3YR CAGR	FWD 3YR CAGR
Consolidated Badger Meter (Consensus)	BMI	$ 221.00	$ 6,554	$ 6,295	45.2x	41.8x	30.4x	27.6x	20.7%	12.1%	16.0%	15.8%	10.8%	18.9%
Consolidated Badger Meter (Team Estimates)					42.9x	36.6x	28.2x	24.4x	20.7%	12.1%	16.0%	15.8%	13.5%	24.3%
Smart Water Metering Comparables														
Roper Technologies	ROP	560.14	61,115	68,343	28.0x	25.7x	22.0x	20.1x	38.0%	5.6%	10.9%	6.6%	10.2%	9.3%
Xylem	XYL	126.87	31,008	32,306	26.7x	23.8x	16.8x	15.3x	16.4%	4.6%	11.2%	6.6%	8.4%	12.2%
Zurn Elkay Water Solutions Corporation	ZWS	39.93	6,915	7,252	29.7x	26.7x	17.8x	16.4x	17.1%	3.4%	7.8%	4.5%	3.9%	15.6%
Itron, Inc.	ITRI	118.93	5,470	5,816	23.7x	20.5x	17.5x	15.1x	8.8%	0.0%	(0.4%)	(0.0%)	6.1%	20.0%
Median					27.4x	24.7x	17.6x	15.8x	16.8%	4.0%	9.4%	5.5%	7.2%	13.9%
Fundamental Growth Comparables														
ServiceNow, Inc	NOW	1,060.60	225,600	221,400	63.9x	52.4x	46.8x	38.5x	10.3%	6.1%	17.1%	11.6%	21.1%	23.3%
Amphenol	APH	74.29	94,662	98,748	34.4x	30.6x	21.3x	19.5x	23.6%	11.6%	36.4%	15.5%	14.6%	17.2%
Quanta Services	PWR	341.92	51,344	54,968	38.3x	32.6x	24.1x	21.3x	8.3%	4.8%	10.7%	7.1%	11.6%	17.9%
AAON	AAON	137.42	11,504	11,583	46.7x	38.5x	29.1x	24.8x	20.6%	15.4%	21.2%	19.8%	14.0%	17.5%
Median					42.5x	35.5x	26.6x	23.0x	15.5%	8.9%	19.2%	13.5%	14.3%	17.7%

Multiple Substantiation:

1. **Premium EBITDA Margins**
Surpassing Peer Performance

2. **Strong ROA, ROE, and ROIC**
Superior to Smart Water Comparables

3. **Robust Growth Profile**
Aligned with Fundamental Growth Peers

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Valuation Summary – Overview

2025 Base Case Price Target of $274 Indicates 24% Upside

Valuation Methodology: Price Targets Derived from Averaged P/E and EV/EBITDA Multiple Results Across Downside, Base, and Upside Case Scenarios

P/E
Based on Current Forward Trading Multiple

EV/EBITDA
Based on Current Forward Trading Multiple

Valuation Summary: 2025 Target Price

	Downside Case	Base Case	Upside Case
2026 EPS	$ 4.79	$ 6.03	$ 6.97
Forward P/E Multiple	34.9x	45.2x	47.2x
Target Price	**$ 167**	**$ 273**	**$ 329**
2026 EBITDA ($M)	**$ 210**	**$ 259**	**$ 295**
Forward EV/EBITDA Multiple	22.1x	30.4x	32.4x
Total Enterprise Value ($M)	**$ 4,640**	**$ 7,856**	**$ 9,564**
(+) Net Cash (M)	259	259	259
Total Equity Value ($M)	**$ 4,899**	**$ 8,115**	**$ 9,823**
(÷) Shares Outstanding (M)	30	30	30
Target Price	**$ 166**	**$ 275**	**$ 332**
Average Target Price	**$ 167**	**$ 274**	**$ 331**
Upside / (Downside)	-25%	24%	50%

Forecast Assumptions

	Downside	Base	Upside
FY23-FY28 Revenue CAGR	7.9%	10.7%	13.3%
FY23-FY28 Average GM (%)	39.7%	41.4%	42.3%
FY23-FY28 EPS CAGR	14.3%	20.4%	25.1%

Base Case: Consensus v. Estimates

Revenue	**FY23A**	**FY24E**	**FY25E**	**FY26E**
Estimate	$ 703,592	827,225	$ 938,887	$1,029,474
Consensus	703,592	822,850	895,963	958,145
Delta (%)		**0.5%**	**4.8%**	**7.4%**
Implied Growth - Team	24.4%	17.6%	13.5%	9.6%
Implied Growth - Consensus	24.4%	16.9%	8.9%	6.9%
Gross Margin	**FY23A**	**FY24E**	**FY25E**	**FY26E**
Estimate	39.3%	39.8%	40.6%	41.6%
Consensus	39.3%	39.6%	39.4%	40.0%
Delta		**0.2%**	**1.2%**	**1.5%**
Implied Growth - Team	1.0%	1.4%	1.9%	2.4%
Implied Growth - Consensus	1.0%	0.8%	(0.4%)	1.6%
EPS	**FY23A**	**FY24E**	**FY25E**	**FY26E**
Estimate	$ 3.14	$ 4.29	$ 5.15	$ 6.03
Consensus	3.14	4.25	4.89	5.28
Delta (%)		**1.0%**	**5.3%**	**14.2%**
Implied Growth - Team	38.9%	36.7%	20.0%	17.1%
Implied Growth - Consensus	38.9%	35.4%	15.1%	8.0%

Sources: FactSet, Internal Model Projections

Risks to Valuation

While Key Valuation Risks Exist, BMI Is Strategically Positioned to Mitigate Them

Risk	Description	Rating
Water Utilities Deployment Schedules	▪ **Risk:** Any shift in capital spending priorities away from ultrasonic technologies, or a deceleration in their deployment schedule, could pose a headwind to BMI. ▪ **Mitigant:** BMI's expanding SaaS platform generates stable, recurring revenue, progressively reducing dependency on new utility partnerships. Additionally, the Industrial Flow segment broadens the customer base.	Moderate
Supply Chain Bottlenecks and Input Cost Inflation	▪ **Risk:** BMI faces exposure to fluctuating raw material costs (e.g., brass, cast iron, plastic) and electronic components (e.g., microprocessors). These disruptions can increase input costs, pressure gross margins, and impact BMI's ability to meet demand. ▪ **Mitigant:** BMI mitigates this risk by dual sourcing components through strategic partnerships and passing on increased costs to consumers.	Moderate
Competitive Landscape and Innovation Requirements	▪ **Risk:** Larger, better-capitalized rivals could also pressure BMI with aggressive pricing, leading to potential market share loss. ▪ **Mitigant:** BMI's decades of market leadership and first-mover advantage provide unmatched customer data, enabling continuous innovation that aligns with customer demands. Strong relationships and value-added solutions help mitigate competitive pricing pressures.	Low

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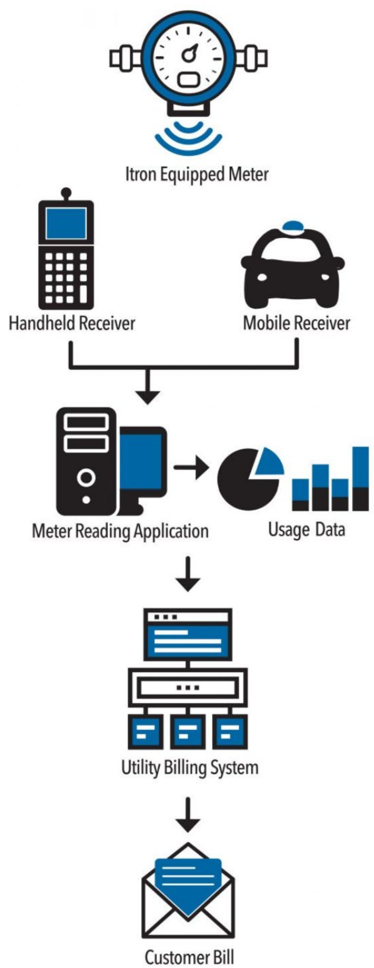
Questions?

Badger Meter

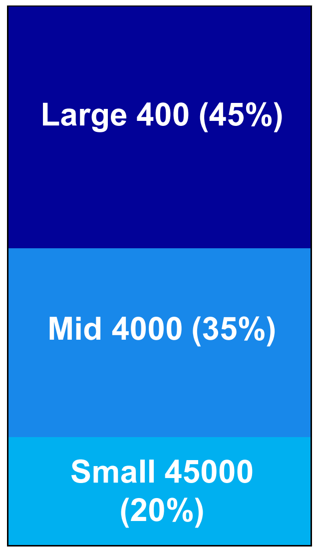
Appendix: Investment Thesis #1 – Conversion to AMI

The market is underestimating Utility Segment growth as more utilities upgrade to smart systems to reduce water losses

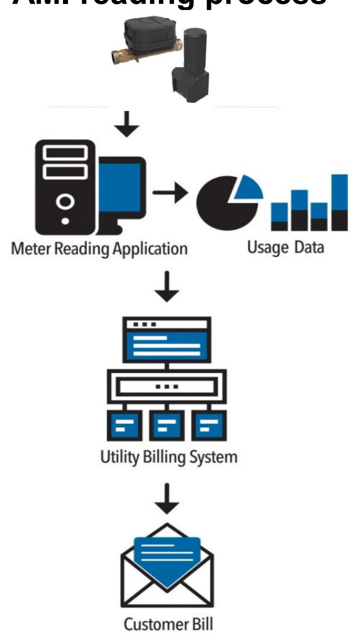
AMR reading process



>50K US Utilities



AMI reading process



- The meter replacement cycle is driven by utility capital expenditures and results of rate cases state by state
- If utilities can prove the long-term merits of upgraded metering through cost benefit analysis, state utility commissions may allow for rate increases in the short run to compensate for cost of implementation
- These rate cases, which are public record, also provide a window into how utilities evaluate the merits of AMR and AMI
- In one state we observed via utility affidavit that switching to smart metering reduced monthly metering hours from ~1,500 per month to ~300 per month and a 71% reduction in billing errors
- 65% of the national meter install base has converted to some form of smart meter (AMR or AMI) and only 1/3 of the >50K US utilities have begun the conversion process form AMR to AMI

Aqua, a multi-state water utility, showed the benefits of smart meters In testimony to state water utility commissions

Aqua Case Study

	Pre-Smart	Smart
Monthly Reading Hours	1,476	296
Corrected Billings	2.63%	0.75%
Leak/Tamper Detection	-	Improved
Uncollected Bills	-	Declined

Utilities gradually upgrade their metering infrastructure through their CAPEX and rate case cycles. Utilities save labor costs and time by converting from AMR to AMI

Sources: Deutsche Bank, Butler County Ohio Water System, North Carolina Utilities Commission, Investor Presentation, Seaport Research

Appendix: Investment Thesis #1 – Aqua Rate Case

Switching to Smart Metering Benefits Utilities, but Some are Hesitant to pay for Fixed Network Costs of AMI

expected to reduce monthly meter reading hours from 1,476 per month to 296 per month, thereby resulting in a more efficient meter reading program. As the AMR technology is deployed in North Carolina, Company staff will be able to spend more time on service calls, customer inquiries, leak detection, and other work that can improve customers' service experience.

AMR technology also provides information to more quickly identify customer issues such as high use or zero use through indicators and tamper reports available with monthly meter reading. Currently, this information is used by Aqua NC as part of month-end reporting to create priority service orders. The information is used in coordination with field investigations to identify and investigate customer leaks, meter malfunctions, and theft of service. The

AMR technology has also reduced billing errors due to human error in manual reads. This is demonstrated by the decreased number of estimated bills

for customers with AMR technology as compared to customers with conventional meters. On average, estimated bills result for approximately 0.75% of Aqua NC accounts read by AMR technology versus 2.63% of Company accounts read by the conventional method. Aqua expects this similar decrease in percent of estimates to be realized progressively as the exchange program continues through 2027.

In addition, Company witness Thompson testified that the Company is converting to AMR technology in a manner that will facilitate upgrades to Advanced Metrology Infrastructure (AMI) technology as that technology becomes more cost effective. Aqua NC has ensured that the meters and meter reading and data logging technology, ERTs that are being installed as part of this program can also be utilized if later evaluations should justify an upgrade to AMI technology. Aqua NC does not believe the additional cost of AMI (repeaters, cell towers, and security) are cost-justified, presently. Furthermore, the meters being currently installed are both AMR and AMI capable, as are the 100W ERTs that are currently being used to implement the AMR program. The 100W ERTs offer an advanced two-way meter data collection using handheld (AMR), mobile (AMR), fixed network (AMI), and combination hybrid solutions. The meter and the 100W

Aqua Case Study

	Pre-Smart	Smart
Monthly Reading Hours	1,476	296
Corrected Billings	2.63%	0.75%
Leak/Tamper Detection	-	Improved
Uncollected Bills	-	Declined

Utilities like Aqua already see the benefits of switching to Smart Metering like AMR. AMI can further these benefits, but some Utilities are hesitant to pay the upfront cost of building out fixed infrastructure. This is why BMI is working to use pre-existing cellular networks

Sources: North Carolina Utilities Commission

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Appendix: Investment Thesis #1 – WSSC AMI Analysis

AMI Meters Provide Positive NPV Over a 20 Year Lifecycle

Table 3 – Comparison of AMI Acquisition Project Costs and Meter Populations (WSSC Water estimate = $423/meter)

Water Utility	AMI Status	Acquisition Cost	Meter Population
City of Baltimore	Complete (2017)[3]	$180M ($439/mtr)	410,000
Detroit	Complete (2012)	$150M ($750/mtr)	200,000
Cleveland	Complete (2016)	$86M ($203/mtr)	425,000
Austin Water	In Progress	$95M ($358/mtr)	265,000
Columbia SC	In Progress	$49M ($350/mtr)	140,000
Akron	In Progress	$35M ($437/mtr)	80,000

Table 4 - Summary of Estimated Lifecycle Costs for Project, (20 Year Lifecycle)

COSTS	NET PRESENT VALUE	CASH VALUE
Capital Project Cost	$ 146,589,746	$ 165,285,507
10% Project Contingency	$ 14,658,975	$ 16,528,551
Total Plus 10% Contingency	$ 161,248,721	$ 181,814,058
Project Management	$ 7,687,530	$ 8,667,982
System Integration	$ 8,529,684	$ 9,291,800
Salvage Value of Meters	$ (1,040,586)	$ (1,173,300)
Opt-Out Related Costs	$ 8,068,174	$ 9,816,168
Total Acquisition Cost	**$ 184,493,524**	**$ 208,416,707**
Network Operating Costs	$ 28,160,727	$ 46,896,273
Meter/MIU Maintenance Costs	$ 14,389,883	$ 24,049,392
Integration Post-Production Support	$ 4,327,952	$ 4,960,000
Monthly Billing Operating Costs	$ 25,453,600	$ 44,721,194
20-Year Lifecycle Cost	**$ 256,825,686**	**$ 329,043,566**

Table 6 - Summary of Tangible Benefits for Project, (20 Year Lifecycle)

BENEFITS	NET PRESENT VALUE	CASH VALUE
Savings on Normal Meter Turnover	$ 35,663,289	$ 48,814,535
Labor Savings	$ 17,991,615	$ 30,036,274
Carbon Footprint Reduction	$ 1,607,438	$ 2,525,288
Reduction in Workers' Comp. Claims	$ 1,508,039	$ 2,365,932
Domestic Leak Detection	$ (34,601,136)	$ (56,501,126)
Revenue Gain from Meter Accuracy	$ 371,096,064	$ 588,407,479
Total Benefits	**$ 393,265,309**	**$ 615,648,382**

Table 7 - Summary of AMI Project Economics

Summary Statistic	Value
Simple Payback (Years)	11
Present Value Costs	$ 256,825,686
Present Value Benefits	$ 393,265,309
Net Present Value	$ 136,439,623
Internal Rate of Return[5]	**13.3%**
Modified Internal Rate of Return[6]	**4.6%**
Benefit/Cost Ratio	**1.53**

Sources: North Carolina Utilities Commission

Appendix: Investment Thesis #1 – Conversion to AMI

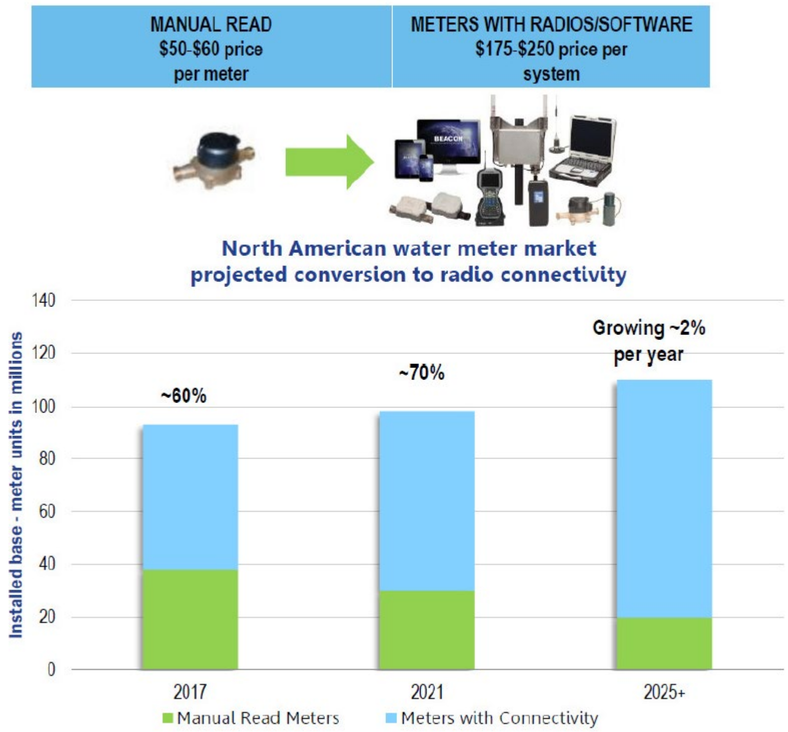
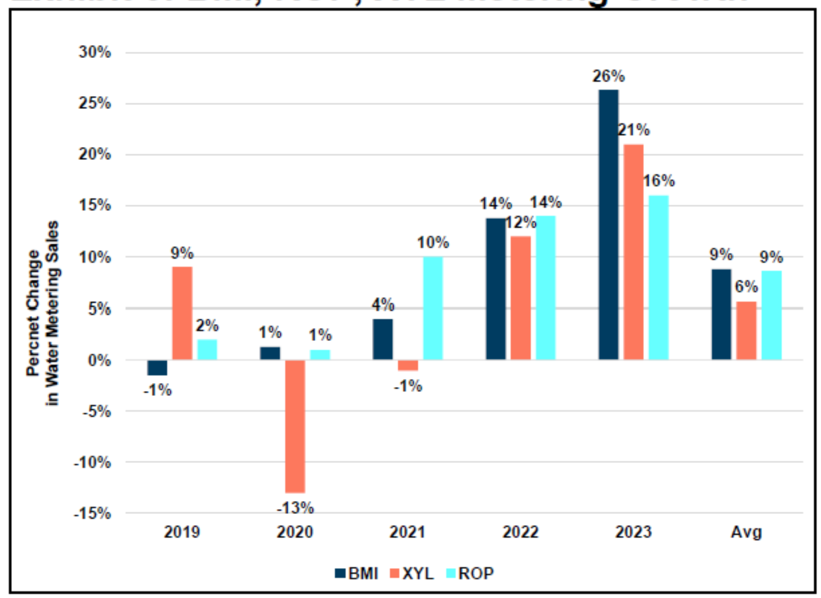


Exhibit 5: BMI, ROP, XYL Metering Growth



Source: Company data; SRP estimates.

Sources: Deutsche Bank, Seaport Research

Appendix: Investment Thesis #1 – Implied Hardware Share

Consensus - Implied BMI Smart Water Meter Market Share	FY23	FY24	FY25	FY26
	Dec-23A	Dec-24E	Dec-25E	Dec-26E
North America Smart Water Metering Market	**$ 1,708,720**	**$ 1,965,028**	**$ 2,161,531**	**$ 2,312,838**
Consensus BMI Market Share in Smart Water Metering Market	38.6%	38.7%	37.6%	37.3%
Consensus Implied BMI Hardware Revenue	**659,275**	**761,078**	**813,121**	**862,517**
Consensus Hardware Breakdown				
Utility Water		$ 719,867	$ 786,200	$ 856,300
Flow Instrumentation		101,133	105,367	110,633
Total Revenue		821,000	891,567	966,933
Less: Implied Software Revenue		(59,922)	(78,446)	(104,416)
Consensus Implied Hardware		**$ 761,078**	**$ 813,121**	**$ 862,517**
Implied Market Share				
Team - Implied BMI Smart Water Meter Market Share	38.6%	39.0%	39.6%	39.7%
Consensus - Implied BMI Smart Water Meter Market Share	38.6%	38.7%	37.6%	37.3%
Delta		**0.3%**	**2.0%**	**2.4%**

Sources: Internal Model Projections, FactSet

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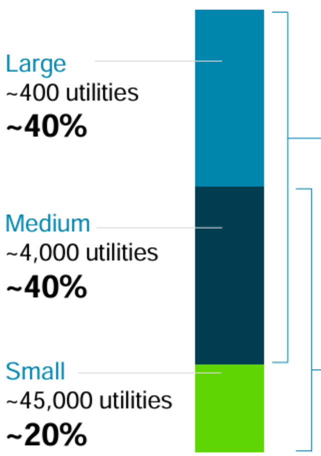
Investment Thesis #2 – Fixed Network (Xylem)

Highly Differentiated in the Attractive AMI Market

US Water Utility Market

Share of Total Endpoints



Large and Medium Utilities

- Leading position
- Room to grow, ~45% adoption
- Sticky replacement cycle
- 100% software attach rate

Medium and Small Utilities

- Strongest distribution network

Why Xylem Wins vs Cellular

30% Lower Annual Operating Cost

15-year Full Warranty Battery Life

99% Network coverage on **FlexNet**

0% Reliance on third-party network

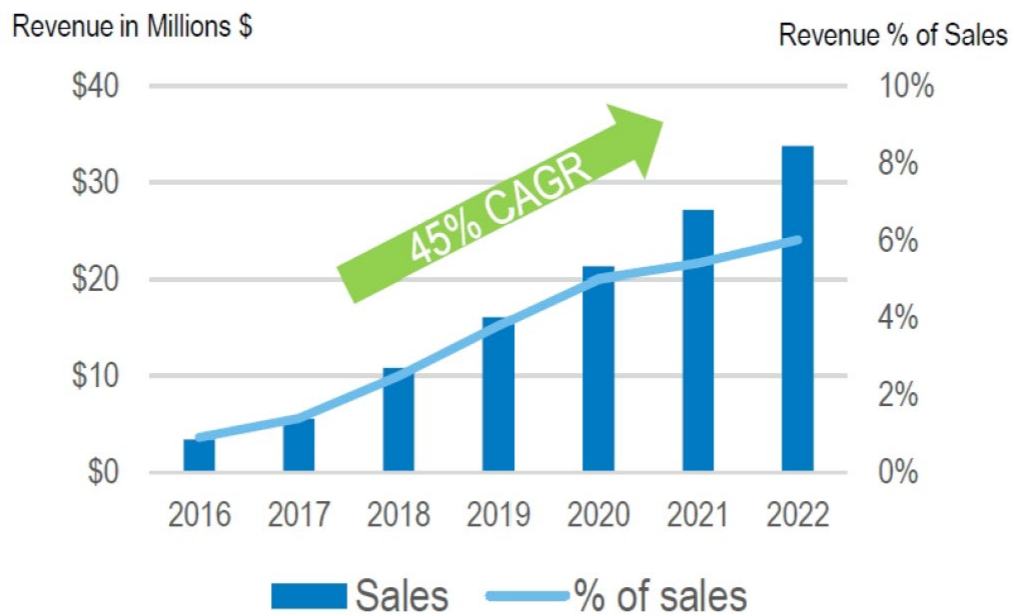
Winning AMI offering positions us as a trusted partner to utilities

Competitors with Fixed Networks Claim that their Network is 30% cheaper to operate. However, this means Utilities bear additional costs upfront to build a new network from scratch. Utilities, who are cost sensitive and must justify investments to recoup costs in rates cases, may opt to pay less upfront for a cellular network.

Sources: Xylem Investor Presentation

Appendix: Investment Thesis #2 – BMI SaaS positioning

Figure 10: SaaS Growth (Linked to Cellular AMI)



Sources: Deutsche Bank

Valuation Comparable - P/E FY1 Trading History

BMI Historically Trades at a Forward Premium to Peers

Sources: FactSet

Comparables Description

Comparable Company Descriptions		
Smart Water Metering Comparables	**Ticker**	
Roper Technologies	ROP	ROP is a diversified technology company specializing in smart meter manufacturing and software solutions for utilities
Xylem	XYL	XYL produces smart meters, water pumps, filtration systems, treatment services, and software for utilities and industrial clients
Zurn Elkay Water Solutions Corporation	ZWS	ZWS provides water safety, control systems, flow solutions, and filtration products for utilities and industrial clients
Itron Inc	ITRI	ITRI produces energy and water management solutions, including smart water meters for utilities
Fundamental Growth Comparables	**Ticker**	
ServiceNow, Inc	NOW	NOW provides cloud-based SaaS for workflow digitization and shares a similar 3-year EPS growth profile with BMI
Quanta Services	PWR	PWR supplies equipment for utilities and energy infrastructure companies, with a 3-year EPS growth similar to BMI
AAON	AAON	AAON manufactures HVAC equipment and data center cooling solutions, with a 3-year EPS and revenue growth similar to BMI
Amphenol	APH	APH produces electrical equipment for data centers and industrials, with a 3-year EPS growth and Return of Invested Capital similar to BMI

Sources: Internally Generated

Capital Allocation

Longstanding Capital Allocation Priorities with Ample Liquidity to Execute

1. **Internal Investment** to support organic growth and sustain core business
2. Grow the **dividend** annually in line with earnings
3. Accelerate **acquisitions** that align to strategy and return targets

- Strong free cash flow, working capital management
- No outstanding debt obligations and $259M of cash at September 30, 2024; $150M untapped revolver
- August 2024 dividend increase of 26% marked 32 consecutive years of dividend increases.

$ Dividend Aristocrat

Sources: BMI Investor Presentation

Key Management Overview

Name/Title	Years at WMS/Industry	Experience
Kenneth C. Bockhorst / Chairman & CEO	7 / 7	Joined in 2017; Spent 20 years in operations roles at Actuant, IDEX, and Eaton
Robert A. Wrocklage / CFO	6 / 6	Joined in 2018; Previously served as Principal Accounting Officer at Actuant
Fred J. Begale / SVP - Engineering	17 / 37	Joined in 2007; Spent 20 years in Engineering Management role at Eaton before joining BMI
Richard Htwe / SVP - Global Operations	1 / 30	Joined in 2023; Previously spent 30 years in Operations roles at Emerson Electric
Matthew L. Stuyvenberg / SVP - SaaS	17 / 17	Joined in 2007; Mechanical Engineer whose last position was VP of Software and Water Quality

Sources: Internally Generated

Management Incentives

	2023 Annual Bonus Scale			2023 Annual Bonus Achievement
	Threshold	Target	Maximum	Actual
2023 Adjusted EBITDA	$ 113.9	$ 121.9	$ 131.0	$ 146.5
Bonus Payout	50%	100%	200%	200%
2023 Absolute Free Cash Flow	$ 76.0	$ 82.0	$ 89.0	$ 98.1
Bonus Payout	50%	100%	200%	200%

	2021-2023 LTIP Incentive Plan Performance Awards			LTIP Incentive Result (Achievement)
Performance Metric	Threshold (50%)	Target (100%)	Maximum (200%)	Actual
Free Cash Flow Conversion	100.0%	115.0%	125.0%	116.1% (111%)
ROIC	13.5%	16.0%	18.5%	23.6% (200%)

Sources: BMI Proxy Statement - 2023

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Management Incentives Continued

Summary Compensation Table for 2023 (all amounts in $)

Name & Principal Position	Year	Salary (1)	Bonus (2)	Stock Awards (3)	Non-Equity Incentive Plan Compensation: Annual Bonus (4)	Non-Equity Incentive Plan Compensation: LTIP Cash (5)	Change in Pension and Non-Qualified Deferred Compensation (6)	All Other Compen-sation (7)	Total
Kenneth C. Bockhorst	2023	750,000	-	1,962,621	1,650,000	-	97,362	84,305	4,544,288
Chairman, President &	2022	675,000	-	1,380,249	968,220	804,752	34,012	78,611	3,940,844
CEO	2021	640,000	-	1,199,221	1,408,000	276,024	72,945	78,129	3,674,319
Robert A. Wrocklage	2023	405,000	-	464,756	526,500	-	22,452	50,737	1,469,445
Senior Vice President - Chief	2022	368,000	-	359,925	263,930	197,392	7,748	47,970	1,244,965
Financial Officer	2021	350,000	-	326,002	385,000	59,360	19,885	44,430	1,184,677
Richard Htwe (8) Vice President - Global Operations	2023	300,000	50,000	154,836	240,000	-	-	36,366	781,202
Kimberly K. Stoll	2023	290,000	-	180,704	232,000	-	8,123	49,370	760,197
Vice President - Sales and	2022	275,000	-	147,894	143,440	102,492	6,433	43,475	718,734
Marketing	2021	263,000	-	134,395	210,400	37,100	6,005	42,418	693,318
Sheryl L. Hopkins Vice President - Human Resources	2023	285,000	-	154,836	228,000	-	5,219	42,333	715,388

Sources: BMI Proxy Statement - 2023

Income Statement

Badger Meter - Income Statement

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
($ in thousands)	Dec-19A	Dec-20A	Dec-21A	Dec-22A	Dec-23A	Dec-24E	Dec-25E	Dec-26E	Dec-27E	Dec-28E
Net sales	$ 424,625	$ 425,544	$ 505,198	$ 565,568	$ 703,592	$ 827,225	$ 938,887	$ 1,029,474	$ 1,101,743	$ 1,169,397
Cost of goods sold	(261,097)	(257,295)	(299,714)	(345,598)	(427,154)	(497,703)	(557,794)	(601,379)	(630,122)	(652,040)
Gross profit	**163,528**	**168,249**	**205,484**	**219,970**	**276,438**	**329,522**	**381,093**	**428,095**	**471,621**	**517,357**
Selling, engineering and administration	(101,380)	(103,093)	(126,761)	(132,675)	(158,389)	(170,078)	(188,341)	(201,365)	(209,992)	(217,040)
Income from operations	**62,148**	**65,156**	**78,723**	**87,295**	**118,049**	**159,444**	**192,753**	**226,730**	**261,629**	**300,317**
Interest income / expense, net	(253)	(30)	20	552	4,047	7,671	8,386	9,574	10,197	13,199
Other pension and postretirement benefits / costs	(288)	(145)	(120)	(130)	(130)	(130)	(130)	(130)	(130)	(130)
Income before income taxes	**61,607**	**64,981**	**78,623**	**87,717**	**121,966**	**166,986**	**201,009**	**236,174**	**271,696**	**313,386**
Income tax expense	(14,430)	(15,638)	(17,739)	(21,221)	(29,368)	(40,077)	(48,242)	(56,682)	(65,207)	(75,213)
Net income	**$ 47,177**	**$ 49,343**	**$ 60,884**	**$ 66,496**	**$ 92,598**	**$ 126,909**	**$ 152,767**	**$ 179,492**	**$ 206,489**	**$ 238,173**
GAAP Basic Earnings per Share	**$ 1.63**	**$ 1.70**	**$ 2.09**	**$ 2.28**	**$ 3.16**	**$ 4.32**	**$ 5.18**	**$ 6.07**	**$ 6.96**	**$ 8.00**
Basic Weighted Average Shares	29,028	29,052	29,144	29,218	29,284	29,384	29,484	29,584	29,684	29,784
GAAP Diluted Earnings per Share	**$ 1.61**	**$ 1.69**	**$ 2.08**	**$ 2.26**	**$ 3.14**	**$ 4.29**	**$ 5.15**	**$ 6.03**	**$ 6.92**	**$ 7.95**
Diluted Weighted Average Shares	29,220	29,230	29,338	29,376	29,456	29,556	29,656	29,756	29,856	29,956
Dividend per Share	**$ 0.64**	**$ 0.70**	**$ 0.76**	**$ 0.85**	**$ 0.99**	**$ 1.35**	**$ 1.62**	**$ 1.90**	**$ 2.18**	**$ 2.51**

Model Assumptions

Sales Growth	(2.1%)	0.2%	18.7%	11.9%	24.4%	17.6%	13.5%	9.6%	7.0%	6.1%
Selling, engineering and administration as a % of Sales	23.9%	24.2%	25.1%	23.5%	22.5%	20.6%	20.1%	19.6%	19.1%	18.6%
Depreciation Expense as a % of Sales	2.7%	2.9%	2.2%	2.0%	1.6%	1.2%	1.1%	1.0%	1.0%	0.9%
Amortization Expense as a % of Sales	3.0%	3.0%	3.3%	2.7%	2.4%	2.3%	2.2%	2.1%	2.1%	2.0%
Effective tax rate	23.4%	24.1%	22.6%	24.2%	24.1%	24.0%	24.0%	24.0%	24.0%	24.0%
Payout Ratio	39.8%	41.4%	36.5%	37.6%	31.5%	31.5%	31.5%	31.5%	31.5%	31.5%

Key Performance Metrics

Gross Margin	38.5%	39.5%	40.7%	38.9%	39.3%	39.8%	40.6%	41.6%	42.8%	44.2%
EBITDA margin	20.3%	21.2%	21.1%	20.1%	20.8%	22.8%	27.0%	27.5%	28.6%	30.3%
EBIT margin	14.6%	15.3%	15.6%	15.4%	16.8%	19.3%	23.3%	24.1%	25.4%	27.2%
Pre-Tax Margin	14.5%	15.3%	15.6%	15.5%	17.3%	20.2%	21.4%	22.9%	24.7%	26.8%
Net Margin	11.1%	11.6%	12.1%	11.8%	13.2%	15.3%	16.3%	17.4%	18.7%	20.4%
ROIC	14.7%	14.0%	15.7%	15.6%	19.2%	22.7%	23.3%	23.3%	22.9%	22.6%
ROE	14.9%	14.3%	15.9%	15.7%	19.3%	22.7%	23.3%	23.3%	22.9%	22.6%
ROA	11.6%	11.0%	12.2%	11.7%	14.0%	16.7%	17.7%	18.2%	18.4%	18.6%

Sources: Internal Model Projections

Kenan–Flagler Business School
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The University of North Carolina

Balance Sheet

Badger Meter - Balance Sheet	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
($ in thousands)	Dec-19A	Dec-20A	Dec-21A	Dec-22A	Dec-23A	Dec-24E	Dec-25E	Dec-26E	Dec-27E	Dec-28E
Assets										
Cash and cash equivalents	$ 48,871	$ 72,273	$ 87,174	$ 138,052	$ 191,782	$ 279,545	$ 382,955	$ 509,851	$ 659,926	$ 833,331
Accounts receivable	61,365	61,689	65,866	76,651	83,507	93,017	104,287	112,938	119,357	125,085
Inventories	81,948	81,586	99,611	119,856	153,674	158,672	177,065	190,076	198,298	204,302
Other Current Assets	7,910	8,140	8,709	13,273	13,214	13,214	13,214	13,214	13,214	13,214
Total current assets	200,094	223,688	261,360	347,832	442,177	544,448	677,521	826,080	990,796	1,175,932
Net Property, Plant & Equipment	85,761	89,570	83,927	80,075	79,400	83,973	86,146	89,351	93,384	98,360
Intangible assets, net	125,121	148,306	174,089	159,668	170,600	151,574	130,918	109,299	86,714	63,326
Other Assets	10,917	9,653	11,442	15,472	24,742	24,742	24,742	24,742	24,742	24,742
Total Assets	**$ 421,893**	**$ 471,217**	**$ 530,818**	**$ 603,047**	**$ 716,919**	**$ 804,737**	**$ 919,327**	**$ 1,049,472**	**$ 1,195,635**	**$ 1,362,359**
Liabilities & Shareholders' Equity										
Accounts payable	$ 30,523	$ 34,923	$ 41,859	$ 71,440	$ 81,807	82,729	92,717	99,962	104,739	108,382
Other Current Liabilities	26,724	33,113	40,287	38,872	50,141	50,141	50,141	50,141	50,141	50,141
Total current liabilities	57,247	68,036	82,146	110,312	131,948	132,870	142,858	150,103	154,880	158,523
Lease Obligations	8,792	4,692	4,255	4,393	3,206	3,206	3,206	3,206	3,206	3,206
Other long-term liabilities	24,786	37,230	41,347	45,920	65,283	65,283	65,283	65,283	65,283	65,283
Total Liabilities	90,825	109,958	127,748	160,625	200,437	201,359	211,347	218,592	223,369	227,012
Common stock	37,200	37,221	37,221	37,221	37,221	37,221	37,221	37,221	37,221	37,221
Treasury stock	(34,238)	(37,089)	(37,046)	(37,253)	(36,997)	(36,997)	(36,997)	(36,997)	(36,997)	(36,997)
Additional paid-in capital	41,956	44,964	49,224	53,282	59,185	59,185	59,185	59,185	59,185	59,185
Retained earnings	285,879	314,850	353,535	395,155	458,719	545,615	650,217	773,118	914,503	1,077,584
Other	271	1,313	136	(5,983)	(1,646)	(1,646)	(1,646)	(1,646)	(1,646)	(1,646)
Total Equity	331,068	361,259	403,070	442,422	516,482	603,378	707,980	830,881	972,266	1,135,347
Total Liabilities and Equity	**$ 421,893**	**$ 471,217**	**$ 530,818**	**$ 603,047**	**$ 716,919**	**$ 804,737**	**$ 919,327**	**$ 1,049,472**	**$ 1,195,635**	**$ 1,362,359**
Check	*Balances*	*Balances*	*Balances*	*Balances*	*Balances*	*Balances*	*Balances*	*Balances*	*Balances*	*Balances*
Model Assumptions										
Days Sales Outstanding (DSO)	55 Days	53 Days	46 Days	46 Days	42 Days	41 Days	41 Days	40 Days	40 Days	39 Days
Days Inventory Outstanding (DIO)	114 Days	116 Days	110 Days	116 Days	117 Days	116 Days	116 Days	115 Days	115 Days	114 Days
Days Payable Outstanding (DPO)	37 Days	46 Days	44 Days	57 Days	61 Days	61 Days	61 Days	61 Days	61 Days	61 Days
Cash Conversion	132 Days	122 Days	112 Days	105 Days	98 Days	97 Days	96 Days	95 Days	94 Days	93 Days
Accounts receivable, net	61,365	61,689	65,866	76,651	83,507	93,017	104,287	112,938	119,357	125,085
Inventories, net	81,948	81,586	99,611	119,856	153,674	158,672	177,065	190,076	198,298	204,302
Accounts payable	(30,523)	(34,923)	(41,859)	(71,440)	(81,807)	(82,729)	(92,717)	(99,962)	(104,739)	(108,382)
Working Capital	112,790	108,352	123,618	125,067	155,374	168,960	188,635	203,053	212,916	221,005
Working Capital as a % of Sales										
CAPEX as % of PY Sales		2.1%	1.6%	1.2%	2.1%	1.6%	1.5%	1.4%	1.4%	1.4%
CAPEX as % of PY PP&E, net		10.6%	7.5%	7.0%	15.0%	14.5%	14.9%	15.7%	16.2%	16.6%
Key Performance Metrics										
Current ratio	3.5x	3.3x	3.2x	3.2x	3.4x	4.1x	4.7x	5.5x	6.4x	7.4x
Quick ratio	2.1x	2.1x	2.0x	2.1x	2.2x	2.8x	3.4x	4.1x	5.0x	6.0x
Cash ratio	0.9x	1.1x	1.1x	1.3x	1.5x	2.1x	2.7x	3.4x	4.3x	5.3x

Sources: Internal Model Projections

Kenan–Flagler Business School
ALPHA CHALLENGE
The University of North Carolina

Statement of Cash Flows

Badger Meter - Cash Flow Statement	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
($ in thousands)	Dec-19A	Dec-20A	Dec-21A	Dec-22A	Dec-23A	Dec-24E	Dec-25E	Dec-26E	Dec-27E	Dec-28E
Operating Activities										
Net income	$ 47,177	$ 49,343	$ 60,884	$ 66,496	$ 92,598	$ 126,909	$ 152,767	$ 179,492	$ 206,489	$ 238,173
Depreciation	11,569	12,253	11,291	11,090	10,937	9,927	10,328	10,295	10,467	10,525
Amortization	12,577	12,963	16,571	15,151	17,173	19,026	20,656	21,619	22,586	23,388
Other Non-Cash Charges	(350)	(1,461)	(959)	(3,119)	(4,800)	-	-	-	-	-
Changes in Working Capital	9,741	16,480	(277)	(7,167)	(5,791)	(13,586)	(19,675)	(14,419)	(9,863)	(8,089)
Cash Flow from Operating Activities	**$ 80,714**	**$ 89,578**	**$ 87,510**	**$ 82,451**	**$ 110,117**	**$ 142,276**	**$ 164,075**	**$ 196,987**	**$ 229,678**	**$ 263,997**
Investing Activities										
Capital Expenditures	$ (7,496)	$ (9,059)	$ (6,746)	$ (5,891)	$ (12,003)	$ (11,500)	$ (12,500)	$ (13,500)	$ (14,500)	$ (15,500)
Acquisitions	-	(29,134)	(45,273)	-	(17,127)	(3,000)	-	-	-	-
Sale of Fixed Assets & Businesses	-	-	-	-	-	-	-	-	-	-
Other	-	-	596	-	-	-	-	-	-	-
Cash Flow from Investing Activities	**$ (7,496)**	**$ (38,193)**	**$ (51,423)**	**$ (5,891)**	**$ (29,130)**	**$ (14,500)**	**$ (12,500)**	**$ (13,500)**	**$ (14,500)**	**$ (15,500)**
Free Cash Flow	**$ 73,218**	**$ 80,519**	**$ 80,764**	**$ 76,560**	**$ 98,114**	**$ 130,776**	**$ 151,575**	**$ 183,487**	**$ 215,178**	**$ 248,497**
Financing Activities										
Common Dividends	$ (18,595)	$ (20,340)	$ (22,155)	$ (24,881)	$ (29,052)	$ (40,013)	$ (48,165)	$ (56,591)	$ (65,103)	$ (75,093)
Sale of Common & Preferred Stock	2,148	1,238	2,108	703	967	-	-	-	-	-
Repurchase of Common Stock	(5,207)	(3,116)	(460)	(427)	-	-	-	-	-	-
Issuance/Reduction of Debt, Net	(13,500)	(4,600)	-	-	-	-	-	-	-	-
Other	(2,555)	(1,001)	-	-	-	-	-	-	-	-
Cash Flow from Financing Activities	**$ (37,709)**	**$ (27,819)**	**$ (20,507)**	**$ (24,605)**	**$ (28,085)**	**$ (40,013)**	**$ (48,165)**	**$ (56,591)**	**$ (65,103)**	**$ (75,093)**
Cash, cash equivalents and restricted cash, beginning of period	13,086	48,871	72,273	87,174	138,052	191,782	279,545	382,955	509,851	659,926
Effect of foreign exchange rate changes on cash and equivalents	276	(164)	(679)	(1,077)	828	-	-	-	-	-
Net Change in Cash	35,785	23,402	14,901	50,878	53,730	87,763	103,410	126,896	150,075	173,404
Cash and cash equivalents, end of period	**$ 48,871**	**$ 72,273**	**$ 87,174**	**$ 138,052**	**$ 191,782**	**$ 279,545**	**$ 382,955**	**$ 509,851**	**$ 659,926**	**$ 833,331**
Check	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*
Free Cash Flow Breakdown										
EBIT	$ 61,860	$ 65,011	$ 78,603	$ 87,165	$ 117,919	$ 159,314	$ 192,623	$ 226,600	$ 261,499	$ 300,187
(+) Taxes	14,489	(15,645)	(17,734)	(21,087)	(28,394)	(38,235)	(46,229)	(54,384)	(62,760)	(72,045)
NOPAT	76,349	49,366	60,869	66,078	89,525	121,079	146,393	172,216	198,739	228,142
(+) Depreciation and Amortization	24,146	25,216	27,862	26,241	28,110	28,953	30,983	31,914	33,052	33,913
(+) Change in Working Capital	9,741	16,480	(277)	(7,167)	(5,791)	(13,586)	(19,675)	(14,419)	(9,863)	(8,089)
(+) Other Non-Cash Charges	(350)	(1,461)	(959)	(3,119)	(4,800)	-	-	-	-	-
(+) Capital Expenditures	(7,496)	(9,059)	(6,746)	(5,891)	(12,003)	(11,500)	(12,500)	(13,500)	(14,500)	(15,500)
Unlevered Free Cash Flow	**$ 102,390**	**$ 80,542**	**$ 80,749**	**$ 76,142**	**$ 95,041**	**$ 124,946**	**$ 145,202**	**$ 176,211**	**$ 207,429**	**$ 238,466**
(+) Net Borrowings	(13,500)	(4,600)	-	-	-	-	-	-	-	-
Levered Free Cash Flow	**$ 88,890**	**$ 75,942**	**$ 80,749**	**$ 76,142**	**$ 95,041**	**$ 124,946**	**$ 145,202**	**$ 176,211**	**$ 207,429**	**$ 238,466**
FCFF / Sales	24.1%	18.9%	16.0%	13.5%	13.5%	15.1%	15.5%	17.1%	18.8%	20.4%
FCFE / Sales	20.9%	17.8%	16.0%	13.5%	13.5%	15.1%	15.5%	17.1%	18.8%	20.4%

Sources: Internal Model Projections

Revenue Build

Badger Meter - Revenue Build	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
($ in thousands)	Dec-19A	Dec-20A	Dec-21A	Dec-22A	Dec-23A	Dec-24E	Dec-25E	Dec-26E	Dec-27E	Dec-28E
Consolidated Segment Results										
Utility Water	$ 330,725	$ 344,344	$ 415,298	$ 471,768	$ 603,092	$ 723,710	$ 832,267	$ 919,655	$ 988,629	$ 1,052,890
Flow Instrumentation	93,900	81,200	89,900	93,800	100,500	103,515	106,620	109,819	113,114	116,507
Total Consolidated Sales	**$ 424,625**	**$ 425,544**	**$ 505,198**	**$ 565,568**	**$ 703,592**	**$ 827,225**	**$ 938,887**	**$ 1,029,474**	**$ 1,101,743**	**$ 1,169,397**
% of Consolidated Net Sales										
Utility Water	77.9%	80.9%	82.2%	83.4%	85.7%	87.5%	88.6%	89.3%	89.7%	90.0%
Flow Instrumentation	22.1%	19.1%	17.8%	16.6%	14.3%	12.5%	11.4%	10.7%	10.3%	10.0%
YoY Growth %										
Utility Water		4.1%	20.6%	13.6%	27.8%	20.0%	15.0%	10.5%	7.5%	6.5%
Flow Instrumentation		(13.5%)	10.7%	4.3%	7.1%	3.0%	3.0%	3.0%	3.0%	3.0%
Total Consolidated		**0.2%**	**18.7%**	**11.9%**	**24.4%**	**17.6%**	**13.5%**	**9.6%**	**7.0%**	**6.1%**
Smart Water Meter Market										
North America Smart Water Metering Market				**$ 1,400,590**	**$ 1,708,720**	**$ 1,965,028**	**$ 2,161,531**	**$ 2,312,838**	**$ 2,428,480**	**$ 2,525,619**
BMI Market Share in Smart Water Metering Market				37.8%	38.6%	39.0%	39.6%	39.7%	39.4%	38.9%
BMI Water Meter Hardware Revenue	**$ 408,479**	**$ 404,065**	**$ 476,674**	**$ 529,603**	**$ 659,275**	**$ 766,849**	**$ 856,278**	**$ 918,304**	**$ 956,327**	**$ 983,478**
Hardware Sales	$ 408,479	$ 404,065	$ 476,674	$ 529,603	$ 659,275	$ 766,849	$ 856,278	$ 918,304	$ 956,327	$ 983,478
Software Sales	16,146	21,479	28,524	35,965	44,317	60,377	82,610	111,170	145,415	185,919
Total Consolidated Sales	**$ 424,625**	**$ 425,544**	**$ 505,198**	**$ 565,568**	**$ 703,592**	**$ 827,225**	**$ 938,887**	**$ 1,029,474**	**$ 1,101,743**	**$ 1,169,397**
% of Consolidated Net Sales										
Hardware Sales	96.2%	95.0%	94.4%	93.6%	93.7%	92.7%	91.2%	89.2%	86.8%	84.1%
Software Sales	3.8%	5.0%	5.6%	6.4%	6.3%	7.3%	8.8%	10.8%	13.2%	15.9%
YoY Growth %										
Hardware Sales		(1.1%)	18.0%	11.1%	24.5%	16.3%	11.7%	7.2%	4.1%	2.8%
Software Sales		33.0%	32.8%	26.1%	23.2%	36.2%	36.8%	34.6%	30.8%	27.9%
Total Consolidated Sales		**0.2%**	**18.7%**	**11.9%**	**24.4%**	**17.6%**	**13.5%**	**9.6%**	**7.0%**	**6.1%**

Sources: Internal Model Projections

Margin Analysis

Badger Meter - Margin Analysis

($ in thousands)	FY19 Dec-19A	FY20 Dec-20A	FY21 Dec-21A	FY22 Dec-22A	FY23 Dec-23A	FY24 Dec-24E	FY25 Dec-25E	FY26 Dec-26E	FY27 Dec-27E	FY28 Dec-28E
Consolidated Gross Margin Build										
Hardware Sales	$ 408,479	$ 404,065	$ 476,674	$ 529,603	$ 659,275	$ 766,849	$ 856,278	$ 918,304	$ 956,327	$ 983,478
Software Sales	16,146	21,479	28,524	35,965	44,317	60,377	82,610	111,170	145,415	185,919
Total Consolidated	**$ 424,625**	**$ 425,544**	**$ 505,198**	**$ 565,568**	**$ 703,592**	**$ 827,225**	**$ 938,887**	**$ 1,029,474**	**$ 1,101,743**	**$ 1,169,397**
% of Consolidated Net Sales										
Hardware Sales	96.2%	95.0%	94.4%	93.6%	93.7%	92.7%	91.2%	89.2%	86.8%	84.1%
Software Sales	3.8%	5.0%	5.6%	6.4%	6.3%	7.3%	8.8%	10.8%	13.2%	15.9%
Hardware Gross Profit				$ 196,233	$ 246,302	$ 287,258	$ 321,614	$ 345,830	$ 361,105	$ 372,341
Software Gross Profit				23,737	30,136	42,264	59,479	82,266	110,516	145,017
Consolidated Gross Profit				**$ 219,970**	**$ 276,438**	**$ 329,522**	**$ 381,093**	**$ 428,095**	**$ 471,621**	**$ 517,357**
Hardware Gross Margin				37.1%	37.4%	37.5%	37.6%	37.7%	37.8%	37.9%
Software Gross Margin				66.0%	68.0%	70.0%	72.0%	74.0%	76.0%	78.0%
Consolidated Gross Margin				**38.9%**	**39.3%**	**39.8%**	**40.6%**	**41.6%**	**42.8%**	**44.2%**
Software - Incremental Margin						**75.5%**	**77.4%**	**79.8%**	**82.5%**	**85.2%**
Consolidated EBITDA Build										
Consolidated Net income	$ 47,177	$ 49,343	$ 60,884	$ 66,496	$ 92,598	$ 126,909	$ 152,767	$ 179,492	$ 206,489	$ 238,173
(+) Interest (income) / expense, net	253	30	(20)	(552)	(4,047)	(7,671)	(8,386)	(9,574)	(10,197)	(13,199)
(+) Income tax expense	14,430	15,638	17,739	21,221	29,368	40,077	48,242	56,682	65,207	75,213
EBIT	**$ 61,860**	**$ 65,011**	**$ 78,603**	**$ 87,165**	**$ 117,919**	**$ 159,314**	**$ 192,623**	**$ 226,600**	**$ 261,499**	**$ 300,187**
(+) Depreciation & Amortization Expense	24,146	25,216	27,862	26,241	28,110	28,953	30,983	31,914	33,052	33,913
EBITDA	**$ 86,006**	**$ 90,227**	**$ 106,465**	**$ 113,406**	**$ 146,029**	**$ 188,267**	**$ 223,606**	**$ 258,514**	**$ 294,551**	**$ 334,100**
EBIT Margin	14.6%	15.3%	15.6%	15.4%	16.8%	19.3%	23.3%	24.1%	25.4%	27.2%
EBITDA Margin	20.3%	21.2%	21.1%	20.1%	20.8%	22.8%	27.0%	27.5%	28.6%	30.3%

Sources: Internal Model Projections

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Scenario Analysis: Base Case

Badger Meter - Scenario Analysis	Base Case					
	FY23	FY24	FY25	FY26	FY27	FY28
($ in millions)	Dec-23A	Dec-24E	Dec-25E	Dec-26E	Dec-27E	Dec-28E
Hardware Sales	659,275	766,849	856,278	918,304	956,327	983,478
Growth	24.5%	16.3%	11.7%	7.2%	4.1%	2.8%
Software Sales	44,317	60,377	82,610	111,170	145,415	185,919
Growth	23.2%	36.2%	36.8%	34.6%	30.8%	27.9%
Net sales	**703,592**	**827,225**	**938,887**	**1,029,474**	**1,101,743**	**1,169,397**
Growth	24.4%	17.6%	13.5%	9.6%	7.0%	6.1%
Cost of goods sold	(427,154)	(497,703)	(557,794)	(601,379)	(630,122)	(652,040)
Gross profit	**276,438**	**329,522**	**381,093**	**428,095**	**471,621**	**517,357**
Margin	39.3%	39.8%	40.6%	41.6%	42.8%	44.2%
Selling, engineering and administration	(158,389)	(170,078)	(188,341)	(201,365)	(209,992)	(217,040)
% of Sales	22.5%	20.6%	20.1%	19.6%	19.1%	18.6%
Income from operations	**118,049**	**159,444**	**192,753**	**226,730**	**261,629**	**300,317**
Margin	16.8%	19.3%	20.5%	22.0%	23.7%	25.7%
Interest income / expense, net	4,047	7,671	8,386	9,574	10,197	13,199
Other pension and postretirement benefits / costs	(130)	(130)	(130)	(130)	(130)	(130)
Income before income taxes	**121,966**	**166,986**	**201,009**	**236,174**	**271,696**	**313,386**
Margin	17.3%	20.2%	21.4%	22.9%	24.7%	26.8%
Income Taxes	(29,368)	(40,077)	(48,242)	(56,682)	(65,207)	(75,213)
ETR	24.1%	24.0%	24.0%	24.0%	24.0%	24.0%
Net income	**92,598**	**126,909**	**152,767**	**179,492**	**206,489**	**238,173**
Diluted Earnings per Share	**$ 3.14**	**$ 4.29**	**$ 5.15**	**$ 6.03**	**$ 6.92**	**$ 7.95**
Diluted Weighted Average Shares	29,456	29,556	29,656	29,756	29,856	29,956

Sources: Internal Model Projections

Discounted Cash Flow Analysis: Base Case

Base Case: Badger Meter Discounted Cash Flow Analysis

	Calendar Year Ending December 31,					
	2024E	2025E	2026E	2027E	2028E	Terminal Value
NOPAT	121,079	146,393	172,216	198,739	228,142	
(+) Depreciation and Amortization	28,953	30,983	31,914	33,052	33,913	
(+) Change in Working Capital	(13,586)	(19,675)	(14,419)	(9,863)	(8,089)	
(+) Other Non-Cash Charges	-	-	-	-	-	
(+) Capital Expenditures	(11,500)	(12,500)	(13,500)	(14,500)	(15,500)	
Unlevered Free Cash Flow	**$ 124,946**	**$ 145,202**	**$ 176,211**	**$ 207,429**	**$ 238,466**	**$ 6,670,614**
Discount Factor	0.93	0.87	0.81	0.76	0.71	0.71
PV of Free Cash Flow	**$ 116,554**	**$ 126,352**	**$ 143,037**	**$ 157,069**	**$ 168,443**	**$ 4,711,854**

Enterprise Value	**$ 5,423,309**
(+) Net Cash	258,955
Equity Value	**$ 5,682,264**
(÷) Shares Outstanding	29,456
Price per Share	**$ 192.91**

Assumptions

Weighted Average Cost of Capital	7.2%
Perpetual Grow th Rate	3.5%

Sources: Internal Model Projections

ALPHA CHALLENGE
Kenan-Flagler Business School
The University of North Carolina

Scenario Analysis: Upside Case

Badger Meter - Scenario Analysis	Upside Case					
	FY23	FY24	FY25	FY26	FY27	FY28
($ in millions)	Dec-23A	Dec-24E	Dec-25E	Dec-26E	Dec-27E	Dec-28E
Hardware Sales	659,275	770,145	875,361	965,031	1,033,940	1,094,313
Growth	24.5%	16.8%	13.7%	10.2%	7.1%	5.8%
Software Sales	44,317	60,598	85,943	119,952	162,901	216,420
Growth	23.2%	36.7%	41.8%	39.6%	35.8%	32.9%
Net sales	**703,592**	**830,743**	**961,304**	**1,084,983**	**1,196,841**	**1,310,732**
Growth	24.4%	18.1%	15.7%	12.9%	10.3%	9.5%
Cost of goods sold	(427,154)	(498,158)	(559,096)	(620,243)	(669,551)	(714,462)
Gross profit	**276,438**	**332,585**	**402,209**	**464,740**	**527,290**	**596,270**
Margin	39.3%	40.0%	41.8%	42.8%	44.1%	45.5%
Selling, engineering and administration	(158,389)	(169,970)	(183,225)	(201,373)	(216,149)	(230,165)
% of Sales	22.5%	20.5%	19.1%	18.6%	18.1%	17.6%
Income from operations	**118,049**	**162,615**	**218,984**	**263,368**	**311,141**	**366,106**
Margin	16.8%	19.6%	22.8%	24.3%	26.0%	27.9%
Interest income / expense, net	4,047	7,671	8,386	9,574	10,197	13,199
Other pension and postretirement benefits / costs	(130)	(130)	(130)	(130)	(130)	(130)
Income before income taxes	**121,966**	**170,156**	**227,240**	**272,811**	**321,208**	**379,174**
Margin	17.3%	20.5%	23.6%	25.1%	26.8%	28.9%
Income Taxes	(29,368)	(40,837)	(54,538)	(65,475)	(77,090)	(91,002)
ETR	24.1%	24.0%	24.0%	24.0%	24.0%	24.0%
Net income	**92,598**	**129,319**	**172,703**	**207,337**	**244,118**	**288,172**
Diluted Earnings per Share	**$ 3.14**	**$ 4.38**	**$ 5.82**	**$ 6.97**	**$ 8.18**	**$ 9.62**
Diluted Weighted Average Shares	29,456	29,556	29,656	29,756	29,856	29,956

Sources: Internal Model Projections

Kenan-Flagler Business School ALPHA CHALLENGE The University of North Carolina

Discounted Cash Flow Analysis: Upside Case

Upside Case: Badger Meter Discounted Cash Flow Analysis

	Calendar Year Ending December 31,					
	2024E	2025E	2026E	2027E	2028E	Terminal Value
NOPAT	$ 123,587	$ 166,428	$ 200,159	$ 236,467	$ 278,240	
(+) Depreciation and Amortization	28,953	30,506	31,164	32,273	33,110	
(+) Change in Working Capital	(13,489)	(16,532)	(12,584)	(9,935)	(8,519)	
(+) Other Non-Cash Charges	-	-	-	-	-	
(+) Capital Expenditures	(11,500)	(12,500)	(13,500)	(14,500)	(15,500)	
Unlevered Free Cash Flow	**$ 127,551**	**$ 167,901**	**$ 205,240**	**$ 244,304**	**$ 287,331**	**$ 8,037,515**
Discount Factor	0.93	0.87	0.81	0.76	0.71	0.71
PV of Free Cash Flow	**$ 118,984**	**$ 146,105**	**$ 166,601**	**$ 184,991**	**$ 202,959**	**$ 5,677,379**

Enterprise Value	**$ 6,497,020**
(+) Net Cash	258,955
Equity Value	**$ 6,755,975**
(÷) Shares Outstanding	29,456
Price per Share	**$ 229.36**

Assumptions

Weighted Average Cost of Capital	7.2%
Perpetual Growth Rate	3.5%

Sources: Internal Model Projections

Scenario Analysis: Downside Case

Badger Meter - Scenario Analysis	Downside Case					
	FY23	FY24	FY25	FY26	FY27	FY28
($ in millions)	Dec-23A	Dec-24E	Dec-25E	Dec-26E	Dec-27E	Dec-28E
Hardware Sales	659,275	763,552	822,055	856,941	866,715	865,320
Growth	24.5%	15.8%	7.7%	4.2%	1.1%	(0.2%)
Software Sales	44,317	60,155	79,900	104,328	132,293	163,849
Growth	23.2%	35.7%	32.8%	30.6%	26.8%	23.9%
Net sales	**703,592**	**823,707**	**901,955**	**961,268**	**999,007**	**1,029,169**
Growth	24.4%	17.1%	9.5%	6.6%	3.9%	3.0%
Cost of goods sold	(427,154)	(497,234)	(558,401)	(585,567)	(596,339)	(599,580)
Gross profit	**276,438**	**326,473**	**343,554**	**375,701**	**402,668**	**429,589**
Margin	39.3%	39.6%	38.1%	39.1%	40.3%	41.7%
Selling, engineering and administration	(158,389)	(171,002)	(189,952)	(197,637)	(200,401)	(201,305)
% of Sales	22.5%	20.8%	21.1%	20.6%	20.1%	19.6%
Income from operations	**118,049**	**155,472**	**153,602**	**178,064**	**202,267**	**228,284**
Margin	16.8%	18.9%	17.0%	18.5%	20.2%	22.2%
Interest income / expense, net	4,047	7,671	8,386	9,574	10,197	13,199
Other pension and postretirement benefits / costs	(130)	(130)	(130)	(130)	(130)	(130)
Income before income taxes	**121,966**	**163,013**	**161,858**	**187,508**	**212,334**	**241,352**
Margin	17.3%	19.8%	17.9%	19.5%	21.3%	23.5%
Income Taxes	(29,368)	(39,123)	(38,846)	(45,002)	(50,960)	(57,925)
ETR	24.1%	24.0%	24.0%	24.0%	24.0%	24.0%
Net income	**92,598**	**123,890**	**123,012**	**142,506**	**161,374**	**183,428**
Diluted Earnings per Share	**$ 3.14**	**$ 4.19**	**$ 4.15**	**$ 4.79**	**$ 5.41**	**$ 6.12**
Diluted Weighted Average Shares	29,456	29,556	29,656	29,756	29,856	29,956

Sources: Internal Model Projections

Discounted Cash Flow Analysis: Downside Case

Downside Case: Badger Meter Discounted Cash Flow Analysis

	Calendar Year Ending December 31,					
	2024E	2025E	2026E	2027E	2028E	Terminal Value
NOPAT	$ 118,158	$ 116,737	$ 135,329	$ 153,723	$ 173,496	
(+) Depreciation and Amortization	28,953	30,506	31,164	32,273	33,110	
(+) Change in Working Capital	(13,489)	(16,532)	(12,584)	(9,935)	(8,519)	
(+) Other Non-Cash Charges	-	-	-	-	-	
(+) Capital Expenditures	(11,500)	(12,500)	(13,500)	(14,500)	(15,500)	
Unlevered Free Cash Flow	**$ 122,122**	**$ 118,211**	**$ 140,409**	**$ 161,560**	**$ 182,587**	**$ 4,609,207**
Discount Factor	0.93	0.86	0.80	0.75	0.69	0.69
PV of Free Cash Flow	**$ 113,496**	**$ 102,102**	**$ 112,709**	**$ 120,527**	**$ 126,593**	**$ 3,195,691**
Enterprise Value	**$ 3,771,119**					
(+) Net Cash	258,955					
Equity Value	**$ 4,030,074**					
(÷) Shares Outstanding	29,456					
Price per Share	**$ 136.82**					

Assumptions

Weighted Average Cost of Capital	7.6%
Perpetual Growth Rate	3.5%

Sources: Internal Model Projections

Supply Chain Analysis

Raw Materials and Components

Raw materials used in the manufacture of the Company's products include purchased castings made of metal or alloys (such as brass, which uses copper as its main component, aluminum, stainless steel and cast iron), plastic resins, glass, microprocessors and other electronic subassemblies, and components. There are multiple sources for these raw materials and components, but the Company relies on single suppliers for certain brass castings, resins and electronic subassemblies. The Company believes these items would be available from other sources, but that the loss of certain suppliers may result in a higher cost of materials, delivery delays, short-term increases in inventory and higher quality control costs. The Company carries business interruption insurance generally. The Company's purchases of raw materials are based on production schedules, and as a result, inventory on hand is generally not exposed to price fluctuations. World commodity markets and currency exchange rates may also affect the prices of material purchased in the future. The Company does not hold significant amounts of precious metals.

The inability to obtain adequate supplies of raw materials and component parts for our products at reasonable prices could have a material adverse effect on our business, financial condition or results of operations by decreasing profit margins and by negatively impacting timely deliveries to customers. In the past, we have been able to offset price increases in raw materials and component parts by increased sales prices, active materials management, product engineering programs and the diversity of materials used in the production processes. However, we cannot be certain that we will be able to accomplish this in the future. Since we do not control the actual production of these raw materials and component parts, there may be continued delays in the production or transportation of these materials for reasons that are beyond our control. World commodity markets and inflationary environments may affect raw material and component part prices. In addition, we rely on single suppliers for microprocessors, castings and components in several of our product lines and the loss of such suppliers could temporarily disrupt operations in the short term.

The Company relies on single suppliers for most brass castings and certain resin and electronic subassemblies in several of its product lines. The Company believes these items would be available from other sources, but that the loss of certain suppliers could result in a higher cost of materials, delivery delays, short-term increases in inventory and higher quality control costs in the short term. The Company attempts to mitigate these risks by working closely with key suppliers, purchasing minimal amounts from alternative suppliers and by purchasing business interruption insurance where appropriate.

1 3

BMI depends on a single supplier form most of its brass castings and certain electronic subassemblies. Most of these inputs can be found at alternative suppliers but a loss of a single supplier could expose BMI to cost headwinds if it attempted to switch

2

BMI has been able to pass supply chain disruption costs to customers in the past

Sources: BMI 2023 10-K

Primary Research

Site Visit / Correspondence

- Inspected Local Residential BMI Meters

Interviews/Sources

- Interview with Former Aqua America State Controller
- Interview with State President of Water Utility (Aqua America)
- Examined State Utility Commission Rate Cases and Testimonials
- Examined WSSC Cost Benefit Analysis

Photo Credit: Tina Abilgaziyeva

Sources: Team Generated

BMI Solutions

"Choice Matters" Portfolio of Solutions to Solve Customer Challenges

Secular Drivers

- Population Growth Demand Change
- Workforce Churn / Retirements
- Aging infrastructure Asset Maintenance
- Customer Experiences Stakeholder Participation
- Regulations and ESG
- Quality and Safety
- Energy Efficiency
- Water Scarcity / Climate Change

Solutions

Measurement & Control

For precise monitoring of your entire water system

- Flow Meters
- Water Quality Sensors
- Valves
- Actuators
- Monitoring Devices

Connectivity & Communication

Resilient, secure and flexible data collection and transfer

- AMI/Network as a Service (NaaS)
- Cellular Endpoints
- RTU's
- Protocols Integrated to Device Terminals

Insights & Action

Actionable data intelligence for proactive water management

- Software as a Service (SaaS)
- Consumer Engagement Mobile App
- Digital Platforms
- Dashboards

Collaboration & Support

Providing expertise, training and solution delivery

- Training
- Maintenance
- Project Management
- Customer Service
- Technical Support

Outcomes

- Revenue and Capacity
- Efficiency Benefits
- Water Conservation GHG Reduction
- Compliance

Sources: Investor Deck

Secular Tailwinds

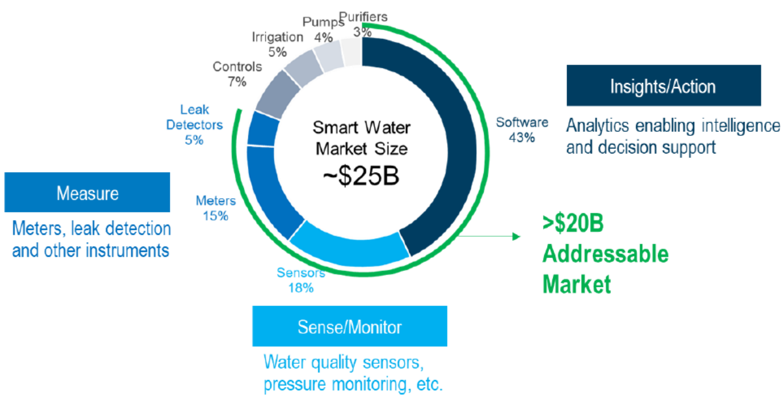
Over the Past Five Years We've Evolved and Expanded Our Served Market Capitalizing On Macro Growth Tailwinds

CEO Transition
Defend and grow US Utility Sales

Early 2020s
Premier AMI solutions provider

Today
Comprehensive & scalable water management solutions

"Smart Water" Market Breakdown



- Strategy evolution aligned with customer desire for comprehensive and tailorable solutions from trusted source
- Broad and expanding portfolio to meet each customer at their pace on the smart water journey
  - Smart measurement hardware – meters, pressure, water quality, network monitoring
  - Reliable, secure communication solutions
  - Integrated software – data and analytics that enable intelligence, decision support and consumer engagement
  - Training, project management, installation oversight, support
- Ample financial capacity for continued organic and M&A investments to further evolve solution offerings

Sources: Investor Deck

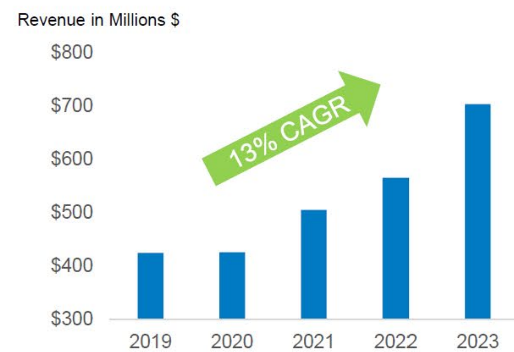
Improving Metrics

We Have Fundamentally Improved Our Financial Profile Delivering Strong Sales Growth, Recurring Revenue, Improving Margins and Cash Generation

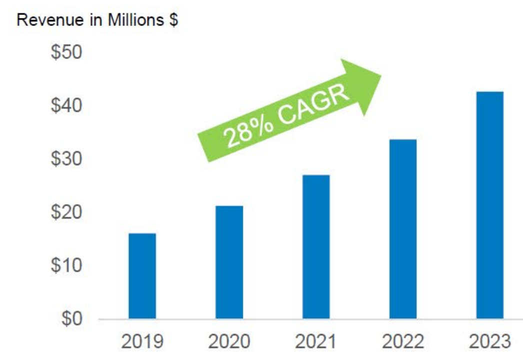
Q3 YTD 2024

- 19% Sales Growth
- SaaS Growth +34%
- +260 bps Operating Margin
- Free Cash Flow +53%
- 39% EPS Growth

Consolidated Sales Growth

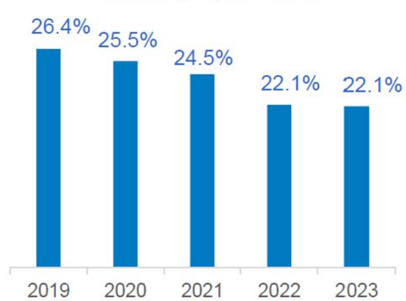


SaaS Revenue Growth

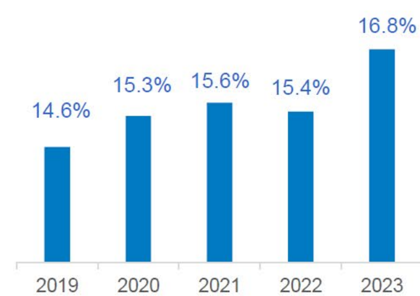


Reduced Working Capital Intensity

Net Working Capital as a % of Sales



Improved Operating Profit Margins



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Sources: Investor Deck

AMI Adoption

AMI Adoption Accelerating with Business Case for Utilities Well Understood; Timing Aligned to Meter Replacement Cycle Bringing Higher ASP Opportunity

The Business Case
Why are utilities willing to pay more?

- Reduce non-revenue water (NRW)
  - Mechanical meters lose some accuracy over time
  - Continuous flow / leak detection – in network and homes
- Lower operating cost / improve efficiencies
  - Reduced truck rolls - move in/out reads and billings
  - Flow shut-off/restriction technology – labor to turn off and on water services
- Encourage conservation
  - Manage what you measure
  - Leak avoidance / fix

The Solutions
How our leading technologies deliver

- Meters
  - Static (E-series ultrasonic) holds accuracy over life; residential and commercial sizes
- Radio Endpoints
  - Efficient and safe - remote reads
  - Data and analytics – more data, more often
  - Cellular – infrastructure-free for utilities; flexible and resilient
- Software
  - Leak identification / detection
  - EyeOnWater for consumer engagement

MANUAL READ MECHANICAL METER WITH REGISTER
~$70

METER WITH CELLULAR RADIOS/SOFTWARE
~$250 per System

Sources: Investor Deck

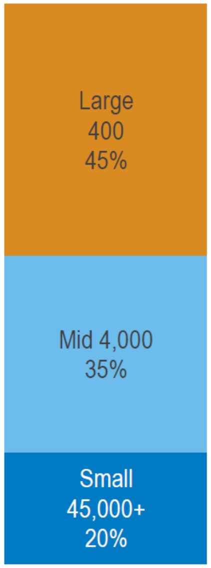
Badger Meter Enjoys a Strong Market Position in North American AMI Adoption; Customer Diversity with Tailorable and Differentiated Offerings

AMI "Choice Matters" Differentiation

Broadest Range of Offerings – Choice Matters	• Brass and polymer • Mechanical and static (ultrasonic) • Drive by, fixed and cellular radio technology
Technology Leadership	• ORION Cellular – leverages existing infrastructure, flexible, secure, broad coverage • SaaS with BEACON/EyeOnWater – actionable data for utility and homeowner
Innovation	• Ultrasonic expertise • Remote actuating flow restriction valve • Real-time water quality sensing – optical and electrochemical • Network monitoring – RTUs, high frequency pressure, acoustic leak detection
High Service Levels and Customer Support	• Strong brand preference – long term relationships / loyalty • Channel coverage - regional service center and local distribution to cover smaller utilities • Highly trained Solution Architects, customer care and field technology support
Low Lifecycle Costs	• Highly accurate and quality products / low warranty • Exceptional battery life • Leverage existing cellular technology network

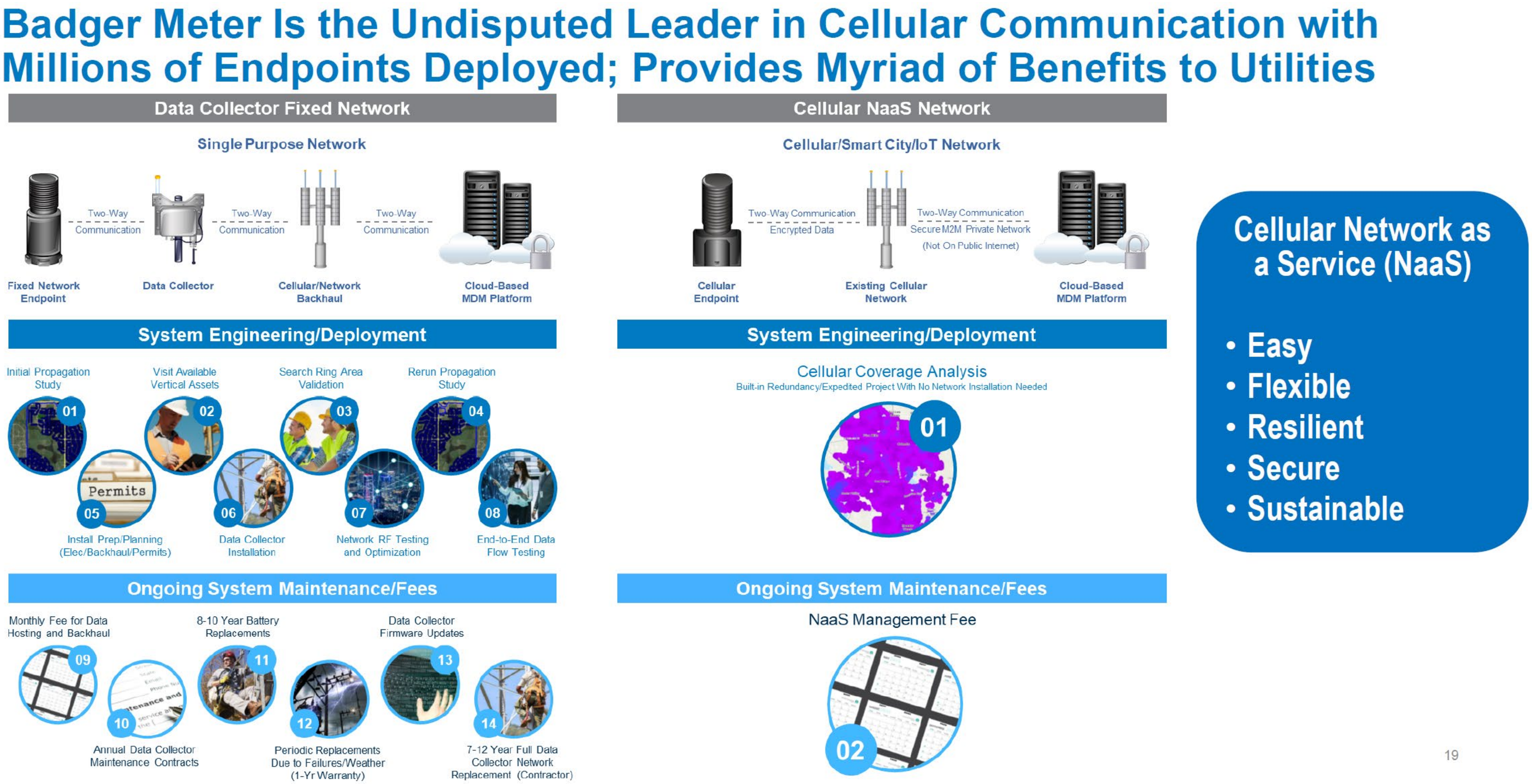
>50K Water Utilities in US

Utility Size and their Share of Meter connections



Sources: Investor Deck

Fixed Network v. Cellular NaaS Network



Sources: Investor Deck

Key Growth Strategies for Utility Smart Water

- Maintain leading position in the North American smart water market through continued development of leading-edge offerings
  - AMI adoption rate only at one third of connections
  - Leverage natural meter replacement cycle to upgrade customers (no radio or AMR to AMI)
- Penetrate and grow select international markets (e.g. Middle East, UK) with fit-for-market solutions
- Leverage addition of real-time water quality monitoring, high frequency pressure & network monitoring and other system health parameters into actionable data to improve utility operations
- Augment software, including consumer engagement technology, for optimized customer solution

Sources: Investor Deck

Kenan-Flagler Business School
ALPHA CHALLENGE
The University of North Carolina

M&A Strategy and History

Strategic M&A is an Enabler to Expand Offerings and Accelerate Growth

- Technology solutions that can be leveraged across both utility and flow instrumentation markets
  - Water quality monitoring
  - Leak detection, conservation
- Software enhancements - SaaS
  - Utility operations
  - Network monitoring
  - Consumer portals
- International penetration

Year	Company	Type	Location	Price
Utility Water Instrumentation and Connectivity:				
2024	Telog / Unity	RTUs and software	US	$3M
2023	Syrinix, Ltd.	Pressure monitoring	UK	$18M
2021	Analytical Technology, Inc	Water quality monitoring	USA / UK	$44M
2020	s::can	Water quality monitoring	Vienna, Austria	$31M
2018	Innovative Metering Solutions	Distributor	Tampa, FL	$8M
2017	Carolina Meter	Distributor	Wilmington, NC	$6M
2017	D-Flow	Ultrasonic Technology/R&D	Lulea, Sweden	$23M
2015	United Utilities	Distributor	Smyrna, TN	$3M
2014	National Meter	Distributor	Denver, CO	$23M
2013	Aquacue	Software/cellular technology/R&D	Los Gatos, CA	$14M
Flow and Industrial Instrumentation:				
2012	Racine Federated	Technology/Manufacturing	Racine, WI	$57M
2011	Remag	Technology/Manufacturing	Bern, Switzerland	$5M
2010	Cox Instruments	Technology/Manufacturing	Scottsdale, AZ	$8M

Sources: Investor Deck

BMI AMI Transition Analysis (Sell-Side)

Figure 9: Deutsche Bank Connected Meter Transition Analysis

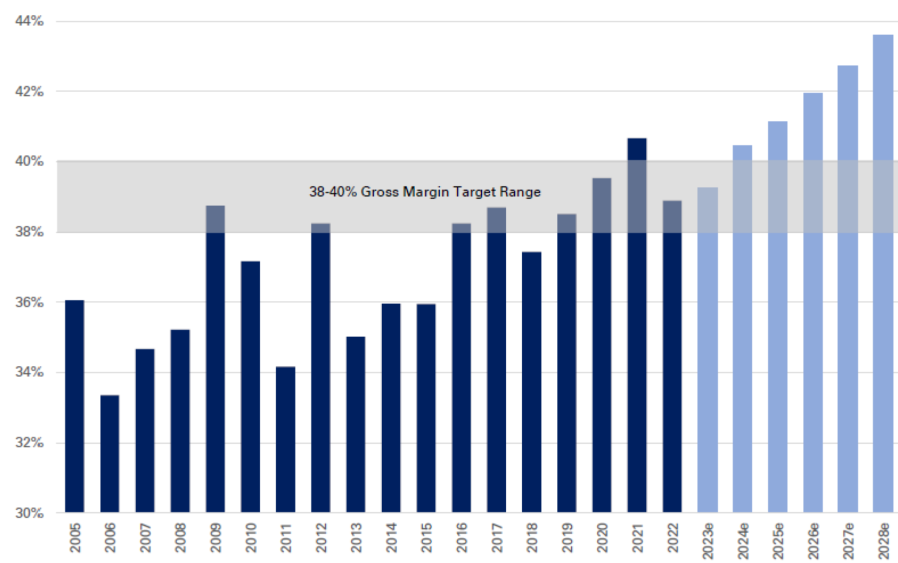
	2017	…	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033		
Installed Base - Meter Units (millions)	**92.5**		**97.5**	**98.2**	**99.0**	**99.9**	**101.0**	**102.1**	**103.4**	**104.8**	**106.4**	**108.1**	**109.9**	**111.9**	**114.1**		
Incremental Net Units Y/Y				0.7	0.8	0.9	1.0	1.2	1.3	1.4	1.6	1.7	1.8	2.0	2.2		
% Change Y/Y				0.7%	0.8%	0.9%	1.0%	1.1%	1.3%	1.4%	1.5%	1.6%	1.7%	1.8%	1.9%		
Manual Read Meters Units	**37.5**		**30.0**	**28.0**	**26.0**	**24.0**	**22.0**	**20.0**	**18.0**	**16.0**	**14.0**	**12.0**	**10.0**	**8.0**	**6.0**		
Incremental Net Units Y/Y				-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		
% Change Y/Y				-6.7%	-7.1%	-7.7%	-8.3%	-9.1%	-10.0%	-11.1%	-12.5%	-14.3%	-16.7%	-20.0%	-25.0%		
% of Total Units	**41%**		**31%**	**29%**	**26%**	**24%**	**22%**	**20%**	**17%**	**15%**	**13%**	**11%**	**9%**	**7%**	**5%**		
Meters with Connectivity Units	**55.0**		**67.5**	**70.2**	**73.0**	**75.9**	**79.0**	**82.1**	**85.4**	**88.8**	**92.4**	**96.1**	**99.9**	**103.9**	**108.1**		
Incremental Net Units Y/Y				2.7	2.8	2.9	3.0	3.2	3.3	3.4	3.6	3.7	3.8	4.0	4.2		
% Change Y/Y				4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%		
% of Total Units	**59%**		**69%**	**71%**	**74%**	**76%**	**78%**	**80%**	**83%**	**85%**	**87%**	**89%**	**91%**	**93%**	**95%**		
% Total Units Sold Annually																	
Mechanical Meters			80%	78%	76%	74%	72%	70%	68%	66%	64%	62%	60%	58%	56%		
Static Meters			20%	22%	24%	26%	28%	30%	32%	34%	36%	38%	40%	42%	44%		
Mechanical with Connection (AMR)			65%	62%	58%	55%	51%	48%	44%	41%	37%	34%	30%	27%	23%	-3.5%	Annual
Mechanical with Connection (AMI)			15%	17%	18%	20%	21%	23%	24%	26%	27%	29%	30%	32%	33%	1.5%	Mix
Static with Connection (AMI)			20%	22%	24%	26%	28%	30%	32%	34%	36%	38%	40%	42%	44%	2.0%	Change
Mechanical with Connection (AMR)			$160	$163	$166	$170	$173	$177	$180	$184	$187	$191	$195	$199	$203	2.0%	Annual
Mechanical with Connection (AMI)			$190	$194	$198	$202	$206	$210	$214	$218	$223	$227	$232	$236	$241	2.0%	Price
Static with Connection (AMI)			$250	$255	$260	$265	$271	$276	$282	$287	$293	$299	$305	$311	$317	2.0%	Increases
Weighted Average Price Per Unit			$183	$188	$195	$201	$207	$214	$221	$228	$235	$242	$250	$258	$266		
% Change Y/Y				3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%		
Estimated Sales (Units x Price)				**$509**	**$546**	**$586**	**$630**	**$676**	**$725**	**$778**	**$835**	**$895**	**$960**	**$1,030**	**$1,104**		
% Change Y/Y					**7%**	**7%**	**7%**	**7%**	**7%**	**7%**	**7%**	**7%**	**7%**	**7%**	**7%**		

Sources: Deutsche Bank

BMI SaaS Impact Analysis (Sell-Side)

Figure 11: Badger Meter SaaS Impact Analysis

	2022	2023e	2024e	2025e	2026e	2027e	2028e
Total Sales	565.6	635.9	676.1	719.8	770.3	823.8	885.2
Total Gross Profit	220.0	253.1	273.6	296.2	323.2	352.1	386.1
Total Gross Margin	**38.9%**	**39.8%**	**40.5%**	**41.2%**	**42.0%**	**42.7%**	**43.6%**
Core Sales	531.6	588.4	611.9	636.4	661.9	688.3	715.9
% Growth Y/Y		10.7%	4%	4%	4%	4%	4%
Core GM %	36.9%	37.4%	37.4%	37.4%	37.4%	37.4%	37.4%
Core GP Dollars	196.2	219.9	228.7	237.8	247.4	257.2	267.5
SaaS Sales	33.9	47.5	64.1	83.4	108.4	135.5	169.4
% Sales	6.0%	7.5%	9.5%	11.6%	14.1%	16.4%	19.1%
% Growth Y/Y		40%	35%	30%	30%	25%	25%
SaaS GM %	70%	70%	70%	70%	70%	70%	70%
SaaS GP Dollars	23.8	33.3	44.9	58.4	75.9	94.8	118.6
SaaS EBIT %	30%	30%	30%	30%	30%	30%	30%
SaaS EBIT Dollars	10.2	14.3	19.2	25.0	32.5	40.6	50.8
Tax Rate	24.2%	24.4%	24.4%	24.4%	24.4%	24.4%	24.4%
Share Count	29.4	29.4	29.4	29.4	29.4	29.4	29.4
SaaS EPS Impact	**0.26**	**0.37**	**0.49**	**0.64**	**0.84**	**1.04**	**1.30**
Y/Y Change		***39%***	***35%***	***30%***	***30%***	***25%***	***25%***
Incremental vs. 2023e			**0.13**	**0.28**	**0.47**	**0.68**	**0.94**
% vs. 2023e Current EPS			***5%***	***10%***	***17%***	***25%***	***34%***
Current Total EPS	2.26	2.75					



Sources: Deutsche Bank

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December 5th, 2024

Team Number: 2

Students: Sarah Ashkar, Sid Balaji, Advik Shetty

Executive Summary

Company Overview

- Crocs, Inc., founded in 2002 and headquartered in Broomfield, Colorado, is a global leader in casual footwear, best known for its foam clogs and customizable Jibbitz charms. The company operates in over 80 countries through wholesale, retail, and e-commerce channels.

Investment Rationale

- Crocs has robust fundamentals, and the market has overreacted to recent earnings.
- International growth presents a significant opportunity for Crocs to expand its market share, diversify revenue streams, and capitalize on increasing global demand for casual, comfort-focused footwear.
- The expansion into new product categories, such as sandals, leverages Crocs' brand recognition and taps into adjacent markets, driving incremental revenue growth.

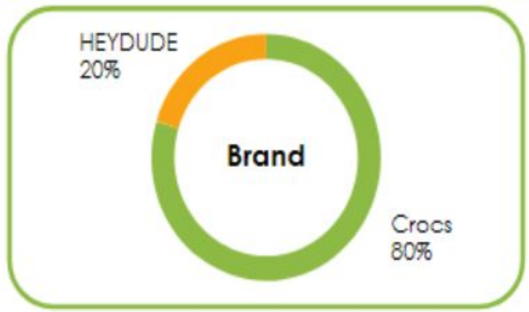
Recommendation

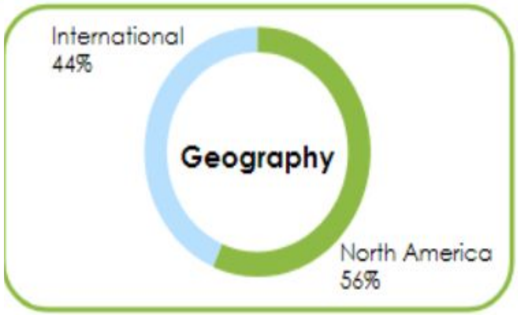
BUY: Price target of $150

Crocs – A Globally Recognized Brand & Incredibly Stable Core Business

- ***~150 million pairs*** sold in 2023
- Acquired HeyDude for 2.5bn in 2022
- Products ***sold in 85 + countries***
- Annual sales of **$4 billion**
- Casual shoe market valued at $80.1b (2023); expected to grow at a CAGR of 7.4% $163.1b
- Considered a workwear item: hospitals, restaurants, military members, and teachers

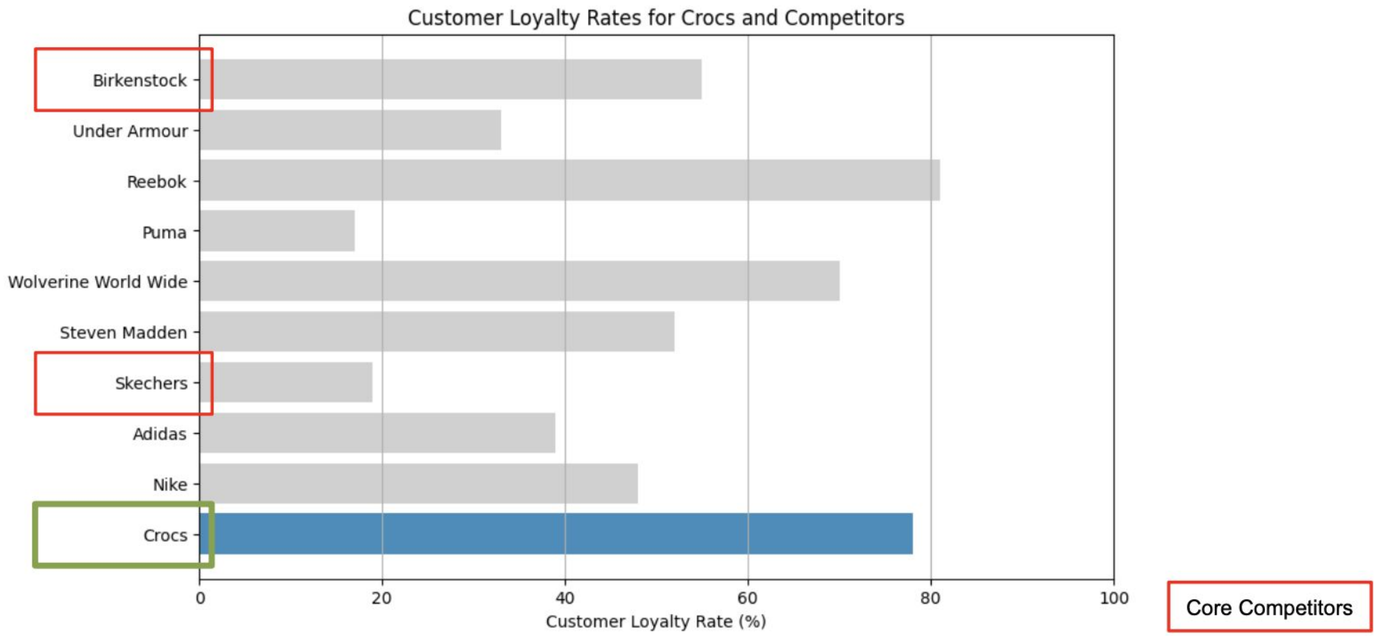
Revenue Breakdown





	As of 11/22/2024
Market Cap	6.18B
Enterprise Value	7.77B
Trailing P/E	7.71
Forward P/E	8.57
PEG Ratio (5yr expected)	--
Price/Sales (ttm)	1.58
Price/Book (mrq)	3.58
Enterprise Value/Revenue	1.91
Enterprise Value/EBITDA	7.08

Crocs has Competitive Advantage in High Brand Loyalty



Innovative Materials
Crocs' proprietary Croslite™ material is cost-effective, offering higher margins compared to traditional footwear materials.

High Penetration of Molded Products
A large portion of Crocs' product line consists of molded footwear, which is generally less expensive to produce than more complex shoe constructions

78% customer loyalty rate
Higher than all of core competitors, and nearly all other footwear companies

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We Believe Crocs' Business is Stronger than Consensus

Core Brand
Crocs

New Business
HeyDude

New Management
Terence Reilly

	Consensus	Investment Thesis
Core Brand	▪ A declining fad ▪ Covid Stock w/o growth prospects	▪ Double digit revenue growth in Asia ▪ Product resiliency of US demand not priced in ▪ More brands entering the category in the luxury, sports and fashion spaces. Viewed as a positive as it validates the clog silhouette with customers
New Business	▪ A failed acquisition after Q3 earnings miss ▪ Crocs overpaid in 2022	▪ Recent revenue miss is result of marketing shift from performance to brand marketing. ▪ Management expected short term revenue decline.
New Management	▪ Will not be able to recreate Stanley mug growth in turnaround of HeyDude	▪ Brand Awareness increased from 18% Q1 → 38% Q3 ▪ Market is underestimating power of brand partnerships & ease of scaling through alternative media platforms

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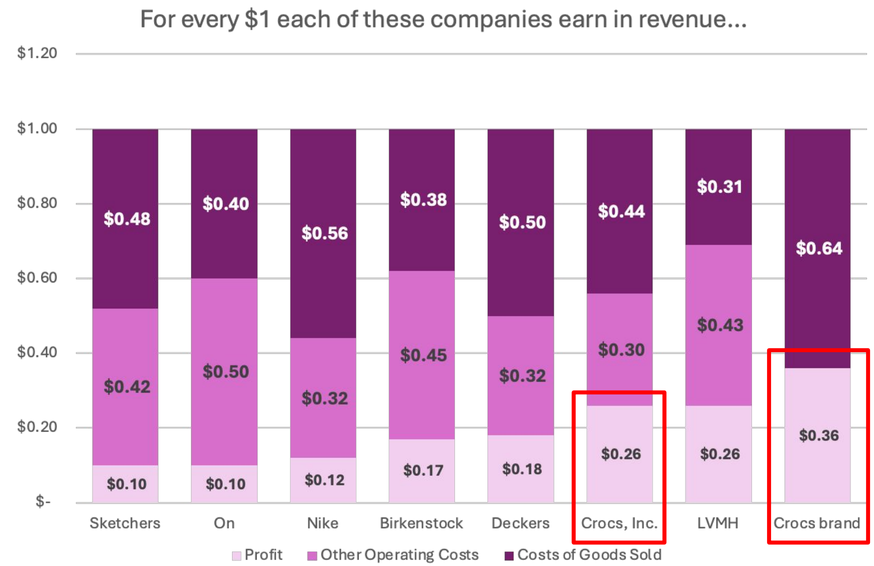
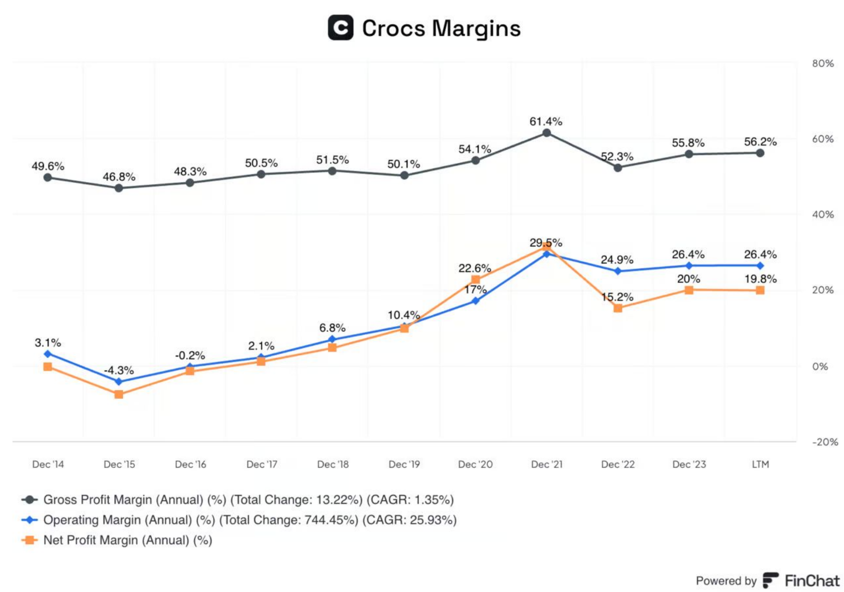
Thesis 1: Market has Overreacted to Recent Earnings

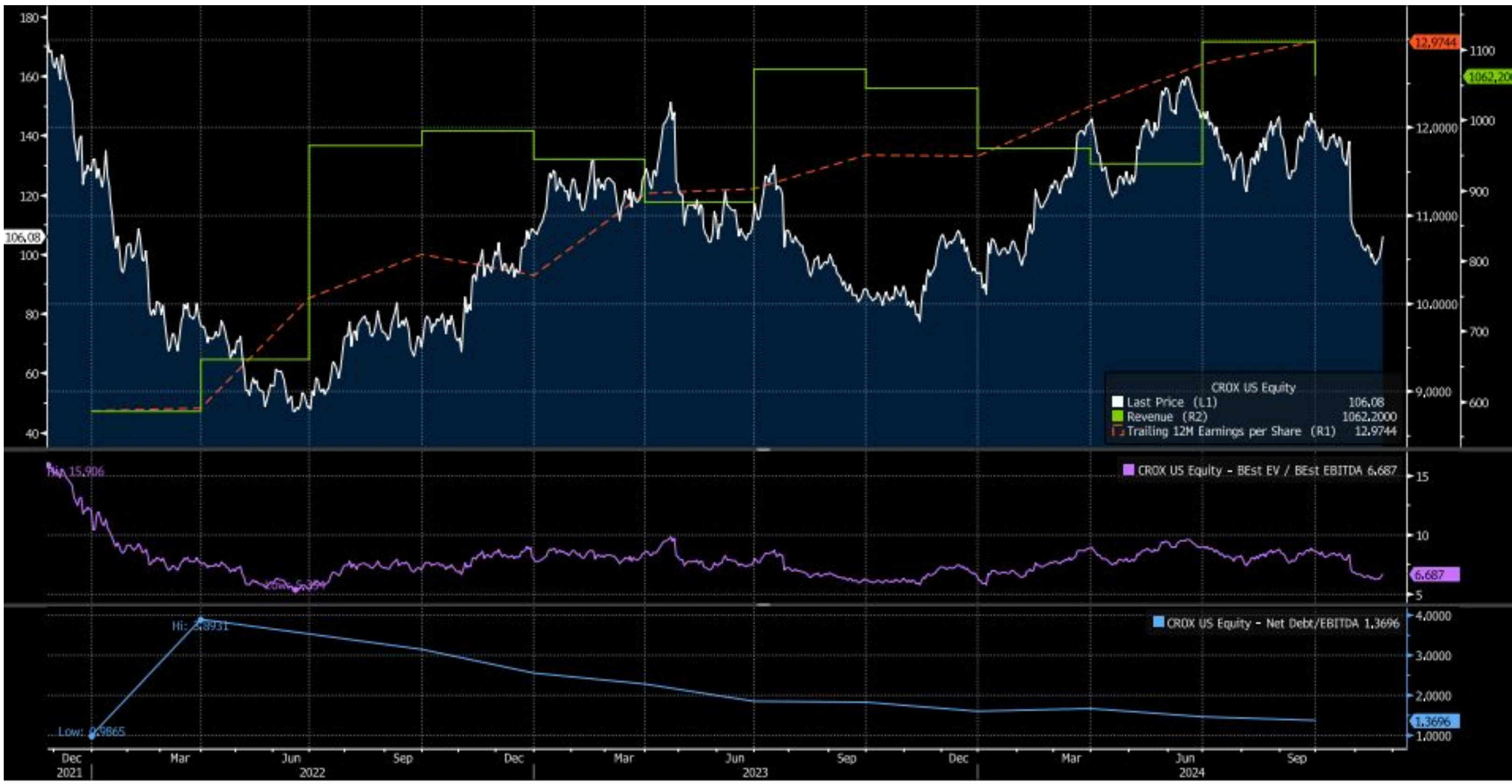
- The Crocs brand continues to show strong growth, **Q3 2024 revenue increasing by 7.4% YoY**, exceeding expectations
- **Q3 2024** total revenue reached $1.06b, a 1.6% increase YoY
- Adjusted earnings per share (EPS) of $3.60 in Q3 2024, surpassing guidance and showing a 10.8% increase from the previous year
- Gross margin improved to **59.6% in Q3 2024**, up from 57.4% in Q3 2023
- The company repaid **$387m in debt TYD** and **repurchased $151m** of shares in Q3 2024
- Paid off $1.4b of debt from 2022 - 2023
- As Q3 '24, **interest coverage ratio: 10.30**



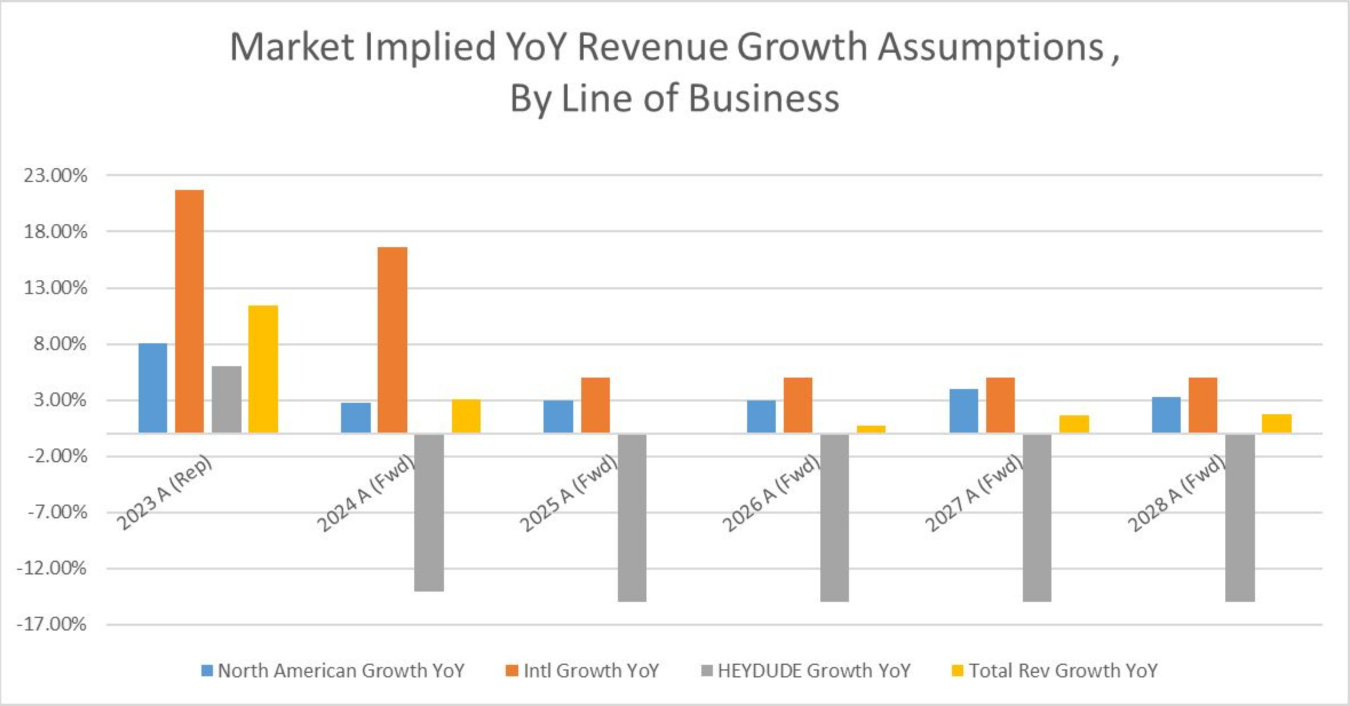


Thesis 1.1: Market has Overreacted to Recent Earnings

Price correction post Q3 earnings disappointment despite longer term robust fundamentals. Low EV/EBITDA multiple implies market perceives business as without growth prospects.



Thesis 1.1: Reverse DCF, Current Price Implies Top-Line Growth of 1% at Stable Gross Margins.



At current price ~$100, the market is very conservative on Crocs' business, and price includes a free call option on HeyDude business.

Growth and Revenue Assumptions to Arrive at Current Price from DCF

- HeyDude Revenue Growth : -15% avg
- International Revenue Growth : 5% avg
- North America Revenue Growth: 3.3% avg
- Top Line Revenue Growth : 1%
- Terminal Growth rate at 2%

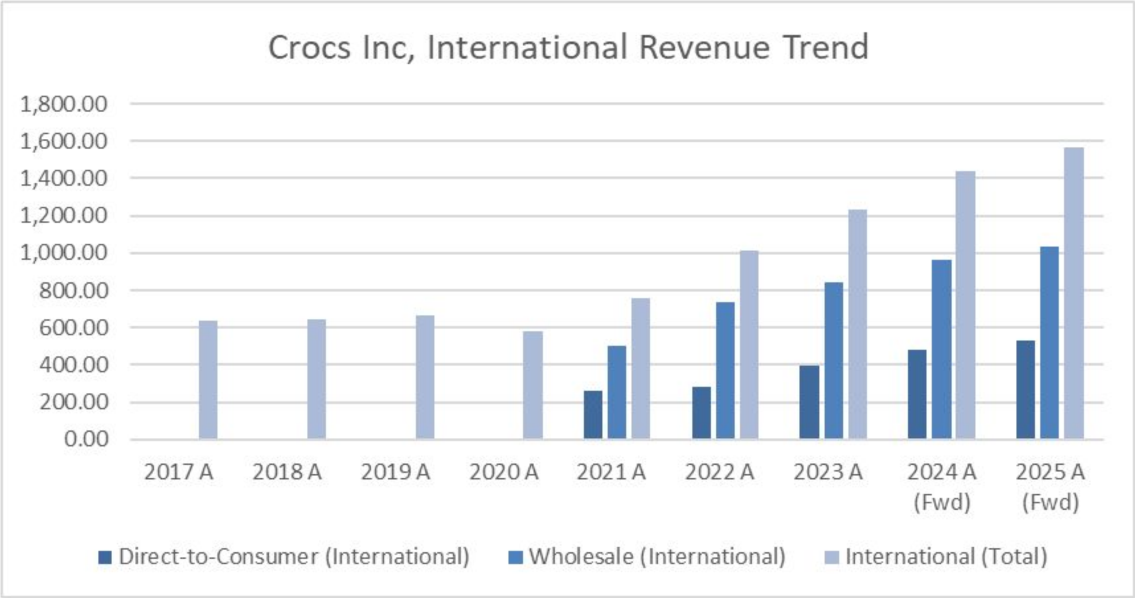
Thesis 2: Emerging International Market: A Key Growth Driver

International Expansion

- Crocs is focusing on international markets as a key driver of growth.
- International sales for the Crocs brand increased by 24% (Q3 2024)

Emerging Markets

- Rising disposable incomes in emerging economies have increased spending on new fashionable footwear.
- Market Growing at CAGR 20-25%

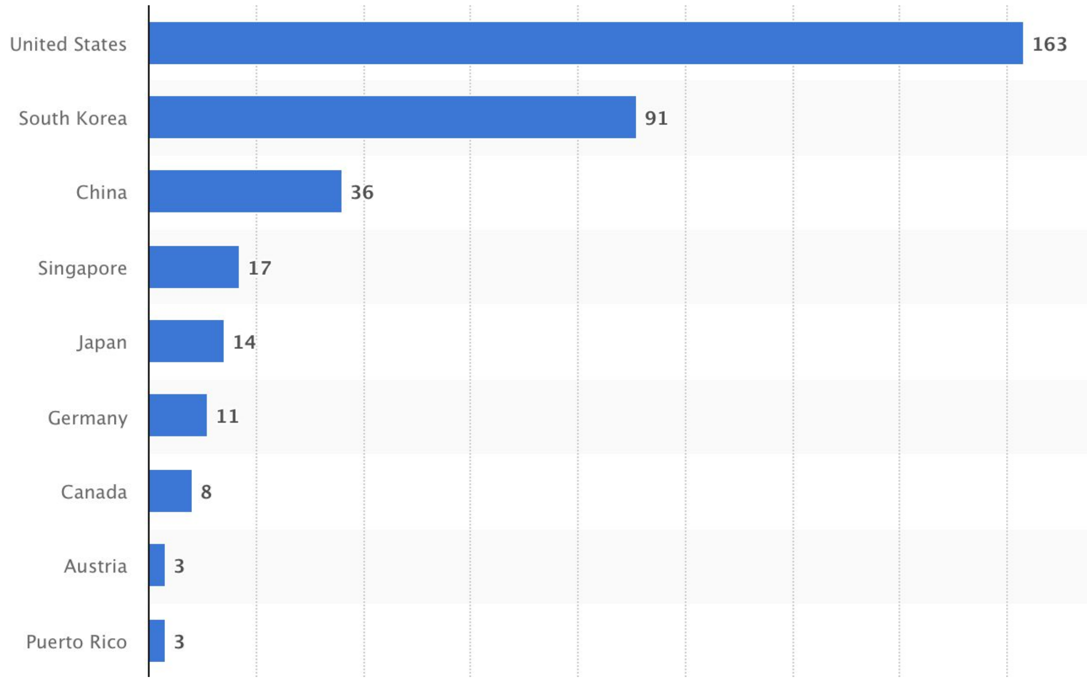


Hiring Openings in Asia

Thesis 2.1: The Success of Crocs in the Global and Chinese Market

Crocs employs more refined and localized strategies in China to better align with Chinese consumers' preferences and purchasing behaviors.

Number of Crocs' stores worldwide in 2023, by country



Performance and Localized Management in the Chinese Market

1. Core Consumer Segment Analysis
2. Localized Strategies
   - Localized Product Design
   - Digital Marketing and E-commerce Partnerships
   - Multi-Fronted Strategy against Counterfeits

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Thesis 2.2: Crocs Has Been Targeting China through Digital E-Commerce and Marketing

- Partner operated stores in major cities and digital
- Crocs Brand ranked as a **Top 10 overall fashion brand on Tmall** during the Midsummer Festival (Summer 2024) for the first time. **One of only two footwear brands** mentioned in the top 10 fashion rankings.
    - Tmall is a Chinese e-commerce website. Owned by Alibaba Group and is China's largest business-to-consumer platform.
- Partnered with local style icons and influencers, such as Yang Mi and Bai Jingting

天猫
TMALL.COM

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Thesis 3: New Markets & Expanded Products Show Continued Demand

Market Demand & Business Impact

Sandals

- $30bn TAM
- Accounts for 13% of the Crocs' sales
- Category can grow at 25-30% annually

Clogs

- In 2023, clog sales rose 12%, driven by diversification into height and fashion-forward items
- Continued strong post-pandemic trend

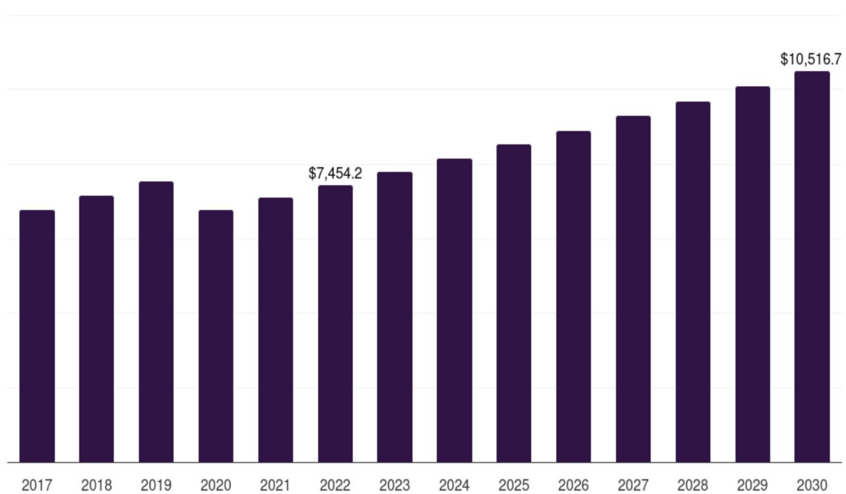
Personalization

- Sales rose 17% above the growth of the business in 2023
- Jibbitz; accessorize and personalize clogs, for 9% of Crocs' sales
- Crocs customers who buy Jibbitz have twice the average lifetime value

Sandals provide an additional entry point to the Crocs brand for consumers who may not choose to engage with the clog

- Revenue in the Asia sandals market amounts to US$46.1bn in 2024. The market is expected to grow annually by 1.39% (CAGR 2024-2029).
- In the China sandals market, volume is expected to amount to 842.5M pairs by 2029 and show a volume growth of 1.3% in 2025.
    a. Crocs Brand sold 119M pairs in 2023
- Asian culture leans towards sandals, with keeping feet cool in hot climate and with many wearing slippers or sandals inside the house.

Asia Pacific flip flops market, 2017-2030 (US$M)



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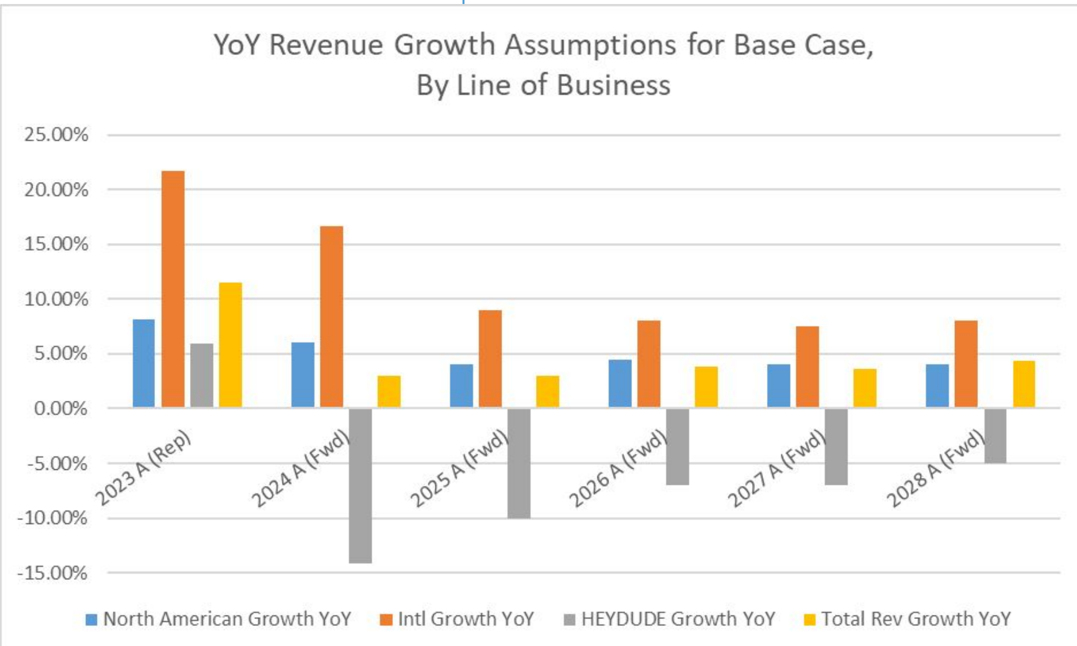
Valuation: Base Case ~50% Upside, without HeyDude Turnaround



Free Cash Flow to Firm:	Value	Per Share
Present Value of FCFF:	4,331	74.3
Terminal Value:		
Perpetual Growth	6,698	114.9
Firm Intrinsic Value	**11,029**	**189.2**
- Net Debt	1,847	31.7
- Preferred	0	0.0
- Minority Interst	0	0.0
Value of Equity	9,182	**157.5**
Current Price		106.08
Upside/Downside		**48.51%**

Key Assumptions

- HeyDude revenue shrinks at -7.25% avg
- International revenue grows at 8.1% avg
- North America revenue grows at 4.1% avg
- Terminal Growth rate at 2.1%

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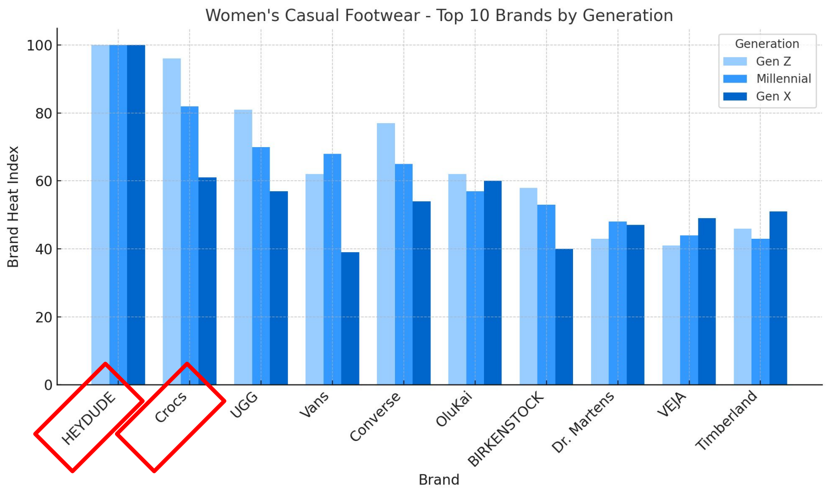
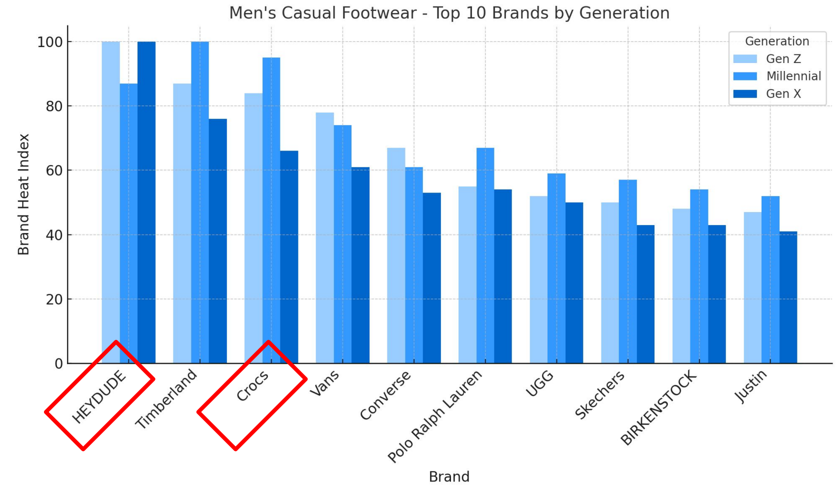
Valuation: Base Case Revenue

INCOME STATEMENT	FY '21 A 12/31/21	FY '22 A 12/31/22	FY '23 A 12/31/23	FY '24 E 12/31/24	FY '25 E 12/31/25	FY '26 E 12/31/26	FY '27 E 12/31/27	FY '28 E 12/31/28
Revenue	**2,313**	**3,555**	**3,962**	**4,082**	**4,203**	**4,362**	**4,521**	**4,718**
Revenue Growth (YoY)	*66.9%*	*53.7%*	*11.5%*	*3.0%*	*2.9%*	*3.8%*	*3.6%*	*4.3%*
Cost of Revenue	(887)	(1,684)	(1,725)	(1,701)	(1,761)	(1,832)	(1,899)	(1,981)
Gross Profit	**1,426**	**1,871**	**2,237**	**2,382**	**2,442**	**2,530**	**2,622**	**2,736**
Gross margin	*61.6%*	*52.6%*	*56.5%*	*58.3%*	*58.1%*	*58.0%*	*58.0%*	*58.0%*
Other Operating Income	-	-	-	-				
Operating Expenses	(737)	(945)	(1,164)	(1,346)	(1,472)	(1,527)	(1,596)	(1,685)
Other Operating Expenses	-	2	0.4	-	-	-	-	-
Operating Income	**689**	**926**	**1,074**	**1,036**	**970**	**1,003**	**1,026**	**1,051**
Operating Margin	*29.8%*	*26.0%*	*27.1%*	*25.4%*	*23.1%*	*23.0%*	*22.7%*	*22.3%*
Non-Operating Income (Loss)	(19)	(132)	(161)	(118)	(126)	(123)	(120)	(116)
Interest Expense, Net	(21)	(135)	(159)	(114)	(126)	(124)	(121)	(117)
Foreign Exch Gain (Loss)	(0)	3	(1)	(4)				
Income (Loss) from Affiliates (Pre Tax)	-	-	-	-	-	-	-	-
Other Non-Op Income (Loss)	2	(0)	(0)	0	1	1	1	1
Pretax Income	**670**	**794**	**913**	**918**	**844**	**880**	**906**	**935**
Income Taxes	60	(167)	(218)	(153)	(190)	(198)	(204)	(210)
Income (Loss) from Affiliates (After Tax)	-	-	-	-	-	-	-	-
Income (Loss) from Cont Ops	**726**	**540**	**793**	**765**	**654**	**682**	**702**	**725**
Net Extraordinary Items	-	-	-	-				
Minority Interest	-	-	-	-	-	-	-	-
Net Income	**730**	**626**	**695**	**765**	**654**	**682**	**702**	**725**

Catalysts and Tailwinds for Crocs

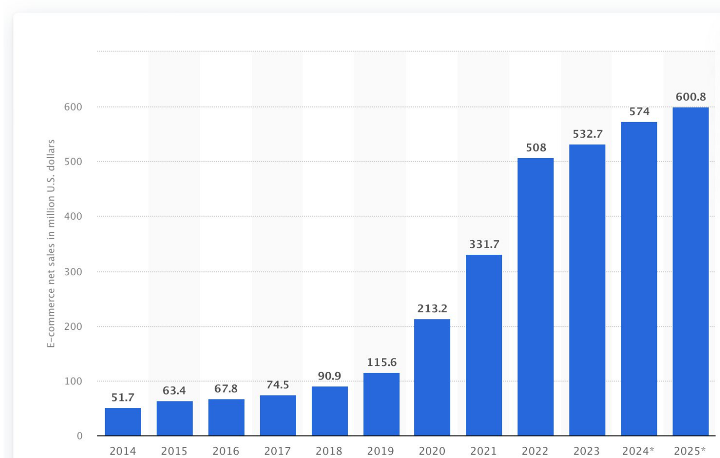




1. Increasing popularity is proof that Crocs' switch from performance to brand marketing is working. LEK's survey of 4,000 U.S. consumers between the ages of 14 and 55 show HeyDude and Crocs brands are on the steepest positive trajectory with shoppers
2. Direct-to-Consumer (DTC) Channel: Crocs has been capitalizing on its DTC channel, which allows more control over Average Selling Prices (ASPs)
   - Crocs ASP has grown from $18.21 (2019) to $24.92 (2023); **ASP CAGR of 8.1%**
3. Personalization Trend: 44% of consumers are interested in personalized fashion, only **6% of shoe brands offer this feature**
4. E-commerce Growth: Growing popularity of online shopping platforms has made it easier for consumers to access a wider variety of shoe options and brands
5. Athleisure Trend: Athleisure footwear estimated to grow at a **5.0% CAGR** from 2024 to 2030
6. Health & Comfort Consciousness: Consumers are prioritizing comfort and functionality, leading to a surge in demand for comfortable footwear

E-commerce net sales of crocs.com from 2014 to 2025

(in million U.S. dollars)



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Catalyst: HeyDude Turnaround

Terence Reilly, President HEYDUDE

Terence Reilly

- Hired as HEYDUDE's **President** in April 2024
- 25 years in global marketing and operations

Previously employed at Crocs for 6 years, left in 2020 as the **Chief Marketing Officer**

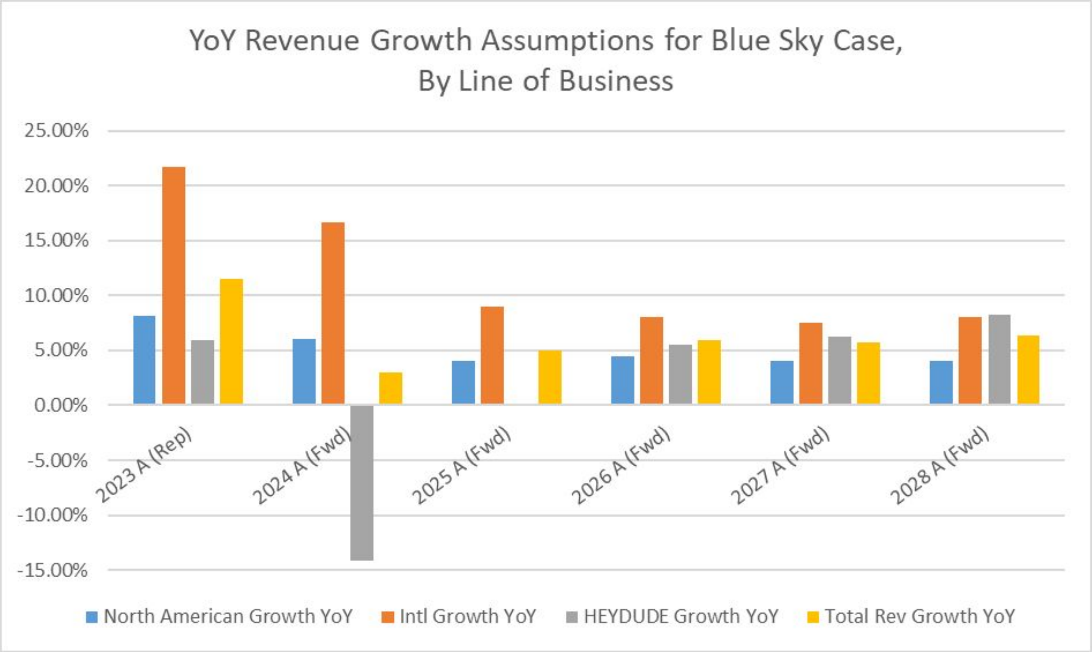
- Prior to HEYDUDE, Terence Reilly was the **President of Stanley (mugs) from 2020 - 2024**
- **His Crocs and Stanley Playbook:** Using influencer marketing on niche items that create a personal statement, and by create scarcity
  - Implemented a new marketing strategy, **grew sales by 300%** for Stanley's core product, the Quencher
  - During his **4-year's at Stanley**, he radically altered the brand image of Stanley and grew **sales** from **$70m to $750m**

The Public HEYDUDE Marketing Strategy thus far…

Partnering leading influencers, attracting more female customers, launching online stores within social media platforms (TikTok, etc.), appeal to a younger demographic

1. Developing an **outlet and physical storefront**; opened 13 new stores in Q2 '24, expanded **to 32 from 19 stores**
2. Exploring **test markets in Europe** and planning expansion into **new international markets** over the next 2-3 years
3. Reduced performance, last quarter and 24E decreasing sales from marketing, Shift to *investment* in developing brand

Valuation Blue Sky Case - ~70% Upside



Free Cash Flow to Firm:	Value	Per Share
Present Value of FCFF:	4,333	74.4
Terminal Value:		
Perpetual Growth	8,065	138.4
Firm Intrinsic Value	**12,398**	**212.7**
- Net Debt	1,847	31.7
- Preferred	0	0.0
- Minority Interst	0	0.0
Value of Equity	10,551	**181.0**
Current Price		106.08
Upside/Downside		**70.66%**

Key Assumptions

HeyDude business turnaround

- Same assumptions as Base case, with difference in Hey Dude growth, average at 5% through 2028

Valuation - Blue Sky Revenue

INCOME STATEMENT	FY '21 A 12/31/21	FY '22 A 12/31/22	FY '23 A 12/31/23	FY '24 E 12/31/24	FY '25 E 12/31/25	FY '26 E 12/31/26	FY '27 E 12/31/27	FY '28 E 12/31/28
Revenue	**2,313**	**3,555**	**3,962**	**4,082**	**4,284**	**4,540**	**4,800**	**5,104**
Revenue Growth (YoY)	*66.9%*	*53.7%*	*11.5%*	*3.0%*	*4.9%*	*6.0%*	*5.7%*	*6.3%*
Cost of Revenue	(887)	(1,684)	(1,725)	(1,695)	(1,768)	(1,869)	(2,000)	(2,125)
Gross Profit	**1,426**	**1,871**	**2,237**	**2,388**	**2,516**	**2,671**	**2,801**	**2,979**
Gross margin	*61.6%*	*52.6%*	*56.5%*	*58.5%*	*58.7%*	*58.8%*	*58.3%*	*58.4%*
Other Operating Income	-	-	-	-				
Operating Expenses	(737)	(945)	(1,164)	(1,307)	(1,332)	(1,398)	(1,566)	(1,665)
Other Operating Expenses	-	*2*	*0.4*	-	-	-	-	-
Operating Income	**689**	**926**	**1,074**	**1,081**	**1,184**	**1,274**	**1,235**	**1,314**
Operating Margin	*29.8%*	*26.0%*	*27.1%*	*26.5%*	*27.6%*	*28.1%*	*25.7%*	*25.7%*
Non-Operating Income (Loss)	(19)	(132)	(161)	(118)	(126)	(124)	(121)	(118)
Interest Expense, Net	(21)	(135)	(159)	(114)	(126)	(125)	(122)	(119)
Foreign Exch Gain (Loss)	(0)	3	(1)	(4)				
Income (Loss) from Affiliates (Pre Tax)	-	-	-	-	-	-	-	-
Other Non-Op Income (Loss)	2	(0)	(0)	0	1	1	1	1
Pretax Income	**670**	**794**	**913**	**963**	**1,059**	**1,150**	**1,114**	**1,196**
Income Taxes	60	(167)	(218)	(162)	(238)	(259)	(251)	(269)
Income (Loss) from Affiliates (After Tax)	-	-	-	-	-	-	-	-
Income (Loss) from Cont Ops	**726**	**540**	**793**	**801**	**820**	**891**	**863**	**927**
Net Extraordinary Items	-	-	-	-				
Minority Interest	-	-	-	-	-	-	-	-
Net Income	**730**	**626**	**695**	**801**	**820**	**891**	**863**	**927**

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Valuation - Comparables

Crocs stands out as the leader across most metrics, especially in profitability, efficiency, and valuation. It is positioned as a high-performing company with solid growth and strong margins.

Company	Market Cap (b)	EV/EBITDA '23	EV/EBITDA '24E	Rev Growth ('22-'23)	Profits/ Employee	Forward P/E	FCF /Share	P/FCF	ROA ('21-'23)	ROIC ('21-'23)	ROIC ('17-'19)	Gross Margin	Profit Margin
Crocs	*$5.58*	*6.9x*	*10.2x*	*11.5%*	*$118,741*	*7.6*	*13.15*	*5.9*	*21.5%*	*32.1%*	*12.7%*	*58.2%*	*20.5%*
Skechers	$9.03	10.7x	10.4x	7.5%	$35,046	12.3	5.81	22.7	6.0%	7.4%	11.9%	50.7%	7.2%
Birkenstock	$8.71	25.5x	23.2x	20.0%	$18,992	24.9	1.40	33.2	5.5%	4.6%	4.7%	55.8%	6.4%
Average	$7.77	14.4x	14.6x	12.9%	$57,593	14.9	6.79	20.6	11.0%	14.7%	9.8%	54.9%	11.4%
Crocs Discount		**52%**	**30%**	-	**106%**	**48%**	-	**70%**	-	-	-	-	-

Points of Focus:

Profit per Employee:
106% more than double the average

Valuation Ratios: Crocs appears attractively valued with the lowest Forward P/E and P/FCF, indicating strong potential earnings and free cash flow relative to price

ROIC: Crocs outperforms across all periods, excellent efficiency in deploying capital; even prior to the pandemic

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Risks & Mitigations

Risks	Strategic Mitigations
Liquidity The acquisition of HeyDude added debt to Crocs' balance sheet; $1.4b of LT debt (MRQ)	**Strong Cash Flows & Refinancing Ability** Crocs has expanding cash flow from operations, a current ratio of 1.43, and the ability to refinance debt; a steady QoQ reduction of debt
Brand Crocs' success is heavily dependent on maintaining its brand image and relevance, especially among younger consumers.	**Brand Strength** Crocs is currently the 6th most popular footwear brand among Gen Z in the US; very high customer loyalty from a near monopoly
Competition Crocs faces competition in the casual footwear industry	**Diversification & Innovation** The acquisition of HEYDUDE further established a foothold within the casual footwear industry
Economic Macroeconomic factors like recessions, or inflation can impact consumer spending on Crocs products	**Financial Discipline** Crocs has been engaging in share repurchases and maintaining profitability, while paying down debt
Manufacturing Risk A new administration imposes tariffs of Chinese Manufactured Goods	**Supply Chain Diversification** Vietnam (53% of production) is the largest production hub for Crocs

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2024 Management Expectations

Management reflected more caution when compared with Q2's earning call, primarily due to HEYDUDE

Strengths

- Management's ability to maintain margin expectations; increase in EPS guidance highlights operational efficiencies

Key Challenges

- HEYDUDE's revenue decline, finding ways to reignite its growth trajectory will be critical in the coming quarters.

Opportunities

- Leveraging Crocs' strong international momentum and maintaining cost discipline to offset revenue declines, redeveloping the HEYDUDE brand in the coming quarters

Management's Guidance Change from Q2 to Q3

	Q2 2024	Q3 2024
Revenue Growth	3% to 5%	3%
Crocs Brand Revenue Growth	7% to 9%	8%
HEYDUDE Revenue Growth	-8% to -10%	-14.5%
Operating Margins	Maintaining at ~25%	
EPS	\$12.45 to \$12.90	\$12.82 to \$12.90

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Q&A

Appendix

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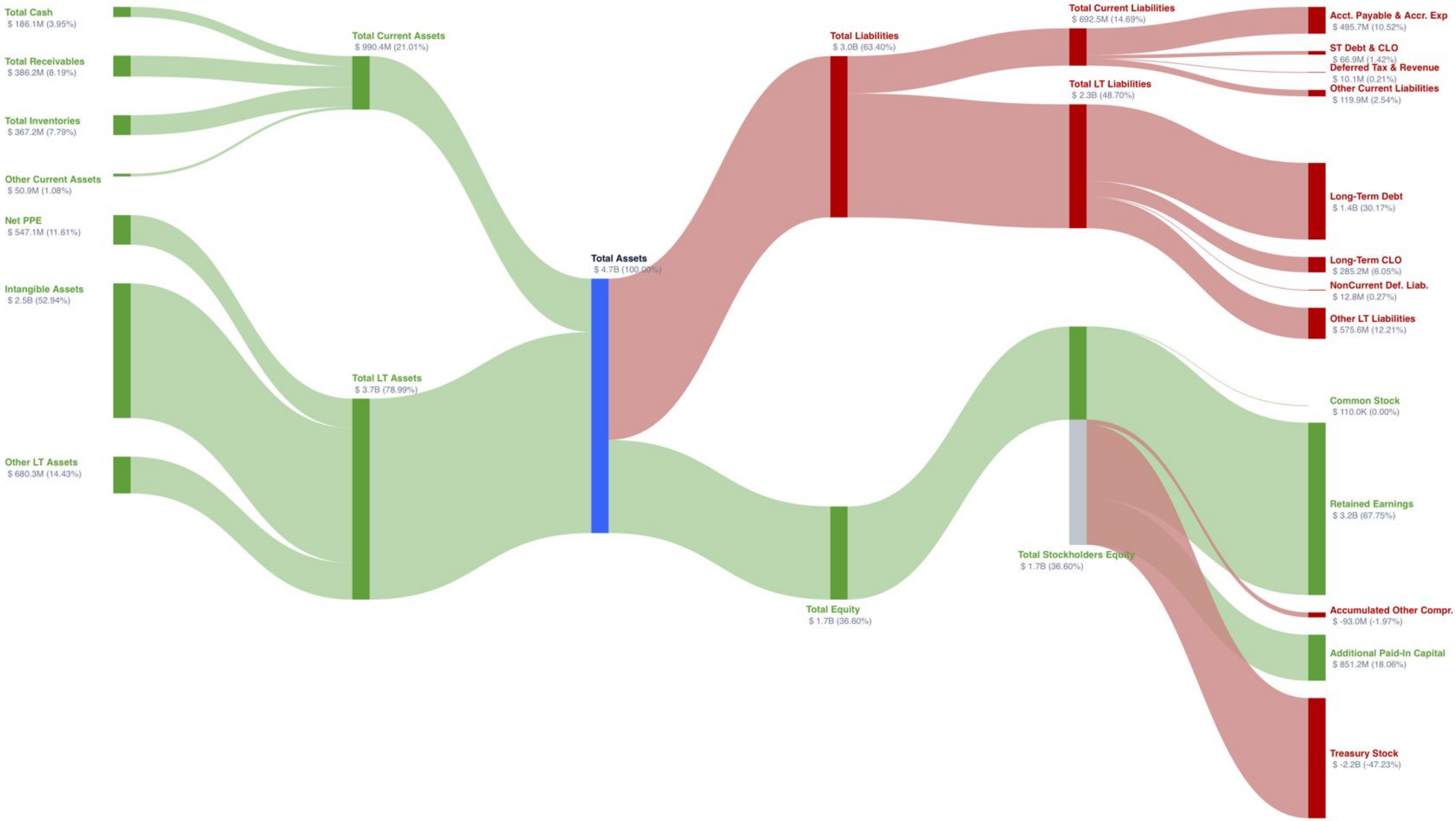
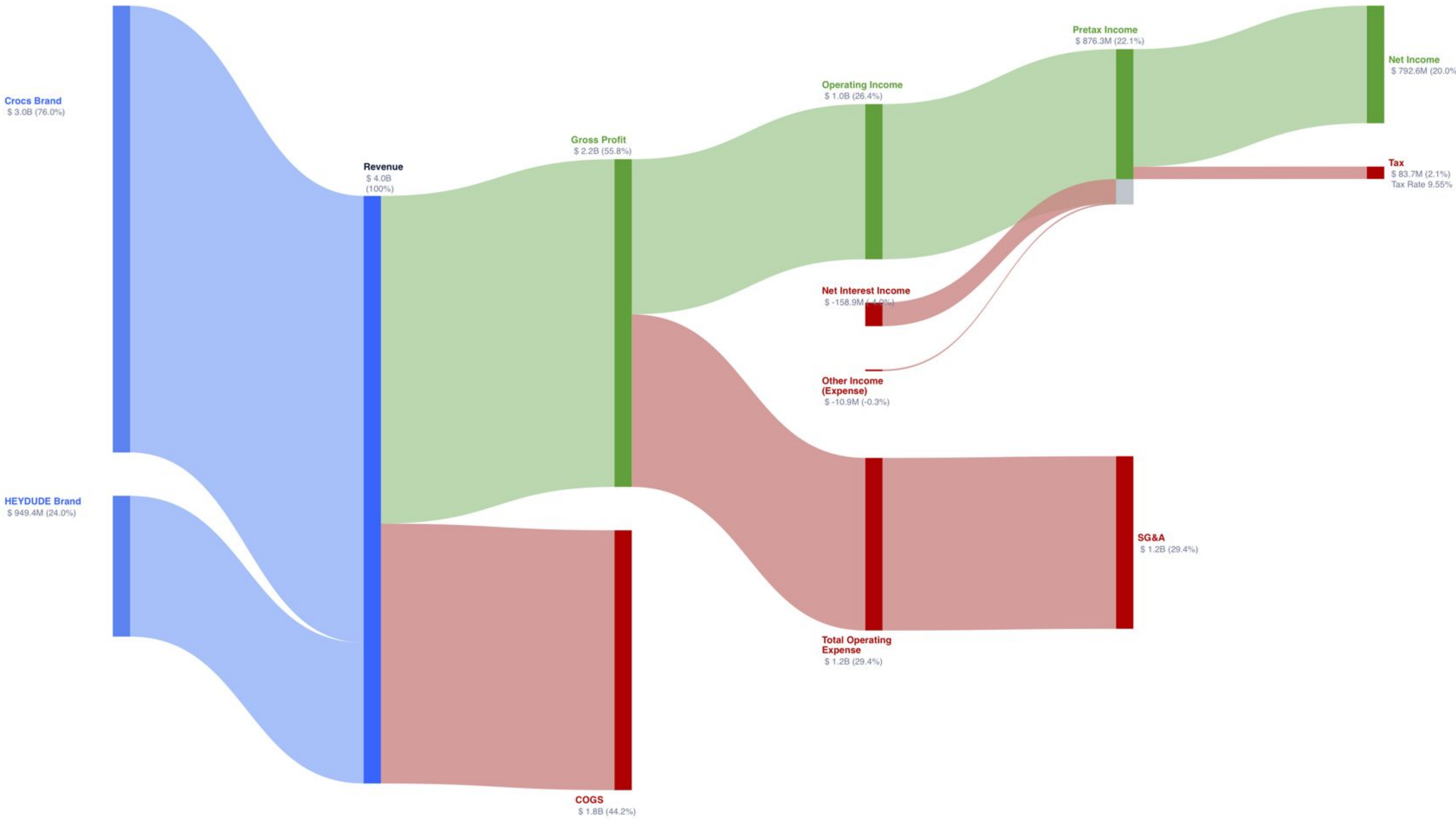
	2018 A	2019 A	2020 A	2021 A	2022 A	2023 A
Operating Summary						
Revenue	1,088	1,231	1,386	2,313	3,555	3,962
Gross Profit	560	617	754	1,426	1,871	2,237
Operating Income	91	142	246	689	926	1,074
Pretax Income	93	133	238	670	794	913
EBITDA	120	227	335	779	1,031	1,208
Net Income	73	151	253	730	626	695
EPS	(0.68)	2.15	3.75	11.69	10.23	11.33
Diluted EPS	(0.68)	2.10	3.68	11.46	10.10	11.22
Margin Analysis						
Gross Margin	51.5%	50.1%	54.4%	61.6%	52.6%	56.5%
Operating Margin	8.4%	11.6%	17.7%	29.8%	26.0%	27.1%
Pretax Margin	8.6%	10.8%	17.2%	28.9%	22.3%	23.0%
EBITDA Margin	11.1%	18.4%	24.2%	33.7%	29.0%	30.5%
Profit Margin	6.7%	12.3%	18.2%	31.6%	17.6%	17.5%
Key Assumptions						
Revenue Growth (YoY)	6.3%	13.1%	12.6%	66.9%	53.7%	11.5%
Gross Margin	51.5%	50.1%	54.4%	61.6%	52.6%	56.5%
Operating Ratio	43.1%	38.6%	36.7%	31.9%	26.6%	29.4%
SG&A	*42.5%*	*38.9%*	*36.2%*	*31.5%*	*26.4%*	*29.1%*
R&D	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
D&A	*1.0%*	*0.6%*	*0.6%*	*0.4%*	*0.3%*	*0.3%*
Tax Rate	*22.1%*	*-13.9%*	*-5.9%*	*-9.0%*	*21.1%*	*23.9%*
Interest Rate	*0.8%*	*2.2%*	*1.8%*	*2.2%*	*5.2%*	*8.1%*
Cash Flow Summary						
Cash From Operations	**114**	**90**	**267**	**567**	**603**	**930**
Capex	(12)	(37)	(42)	(56)	(104)	(116)
Free Cash Flow	**102**	**53**	**225**	**511**	**499**	**815**
Change in Debt	119	85	(25)	605	1,595	(666)
Change in Equity	(63)	(147)	(171)	(1,020)	(11)	(192)
Dividends paid	(205)	(3)	0	0	0	0
M&A	0	0	0	0	(2,047)	0
Other Changes in Cash Flow	(3)	(4)	(2)	(18)	(57)	1
Net change in cash	**(50)**	**(15)**	**27**	**78**	**(22)**	**(42)**

	2018 A	2019 A	2020 A	2021 A	2022 A	2023 A
Growth, Profitability, Cash Flow & Credit Ratios						
Revenue growth		13.1%	12.6%	66.9%	53.7%	11.5%
EBITDA growth		88.0%	47.8%	132.7%	32.4%	17.1%
Gross Profit margin	51.5%	50.1%	54.4%	61.6%	52.6%	56.5%
EBITDA margin	11.1%	18.4%	24.2%	33.7%	29.0%	30.5%
EBITDA / interest	-369.6x	28.2x	51.3x	37.3x	7.6x	7.6x
(EBITDA - capex) / interest	-332.9x	23.6x	44.9x	34.7x	6.9x	6.9x
Capex / revenue	1.1%	3.0%	3.0%	2.4%	2.9%	2.9%
Capex / EBITDA	9.9%	16.1%	12.6%	7.2%	10.1%	9.6%
FCF / debt	85.2%	13.6%	60.2%	53.1%	19.2%	40.8%
Gross Leverage	1.0x	1.7x	1.1x	1.2x	2.5x	1.7x
Net Leverage	n.a.	1.3x	0.7x	1.0x	2.3x	1.5x

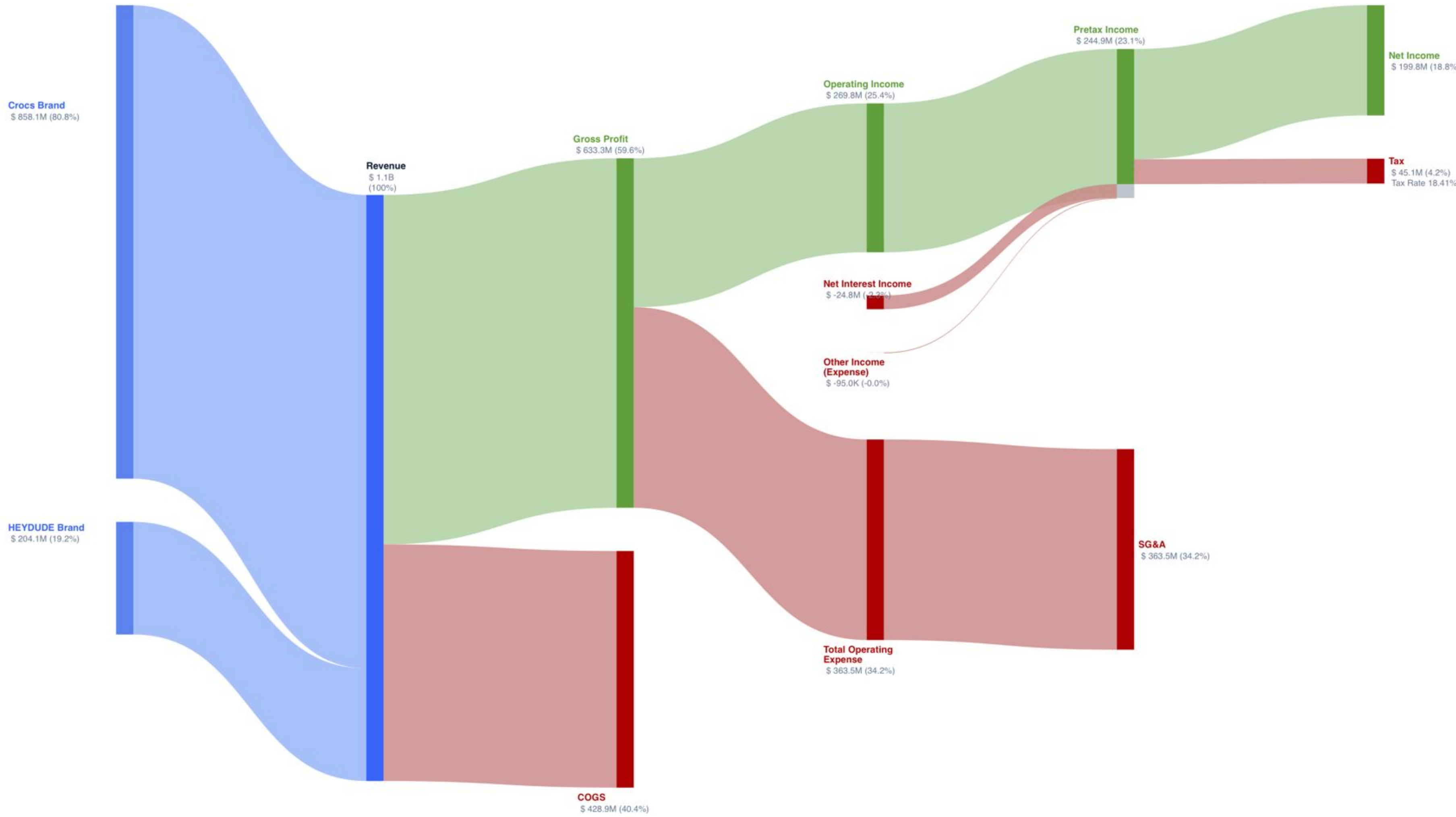
Crox Balance Sheet Breakdown



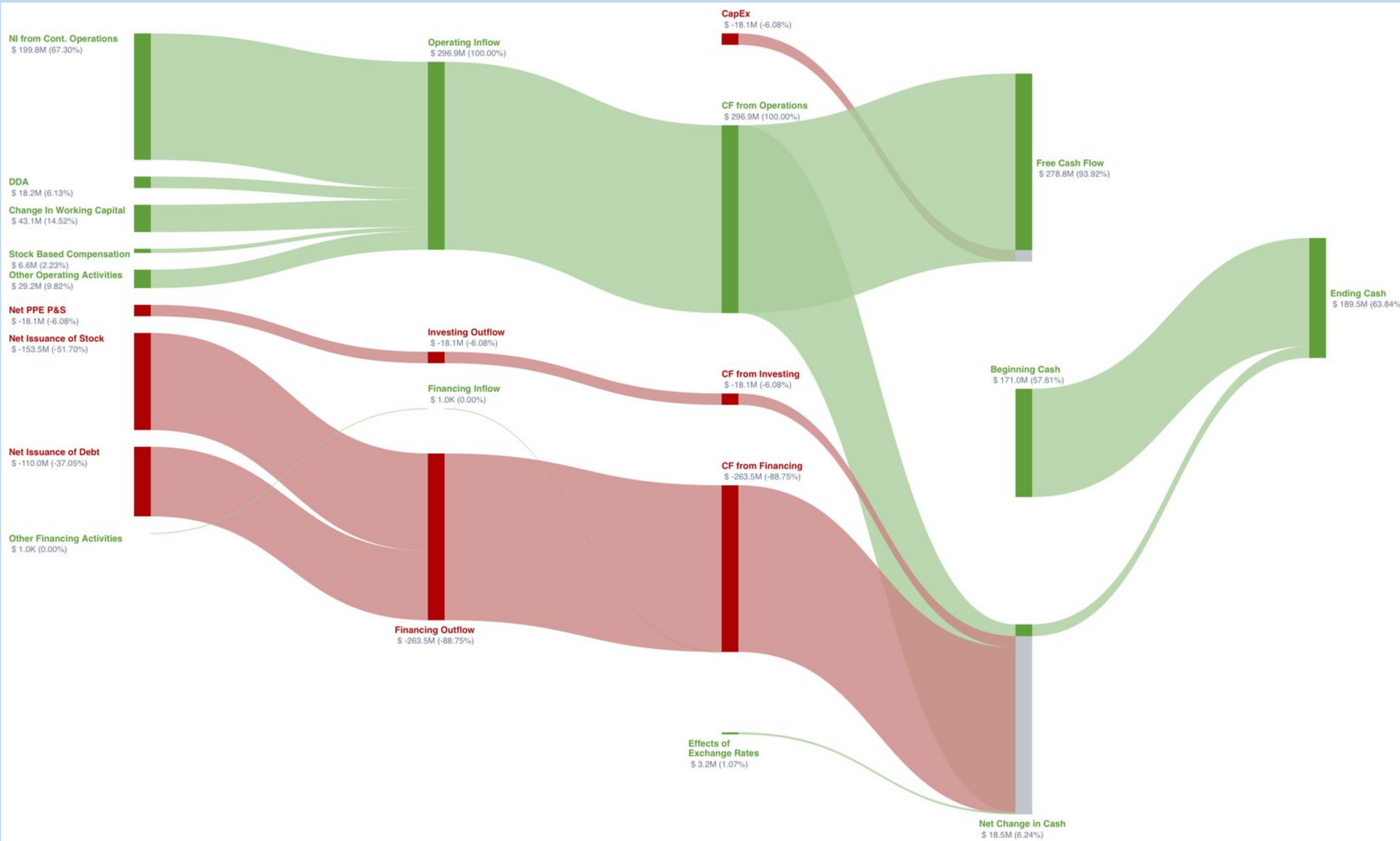
Income Statement Breakdown



Income Statement (Quarter Ending Sept 23) Breakdown



CashFlow Statement Breakdown (Quarter Ending Sep 2024)



CashFlow Statement FY23

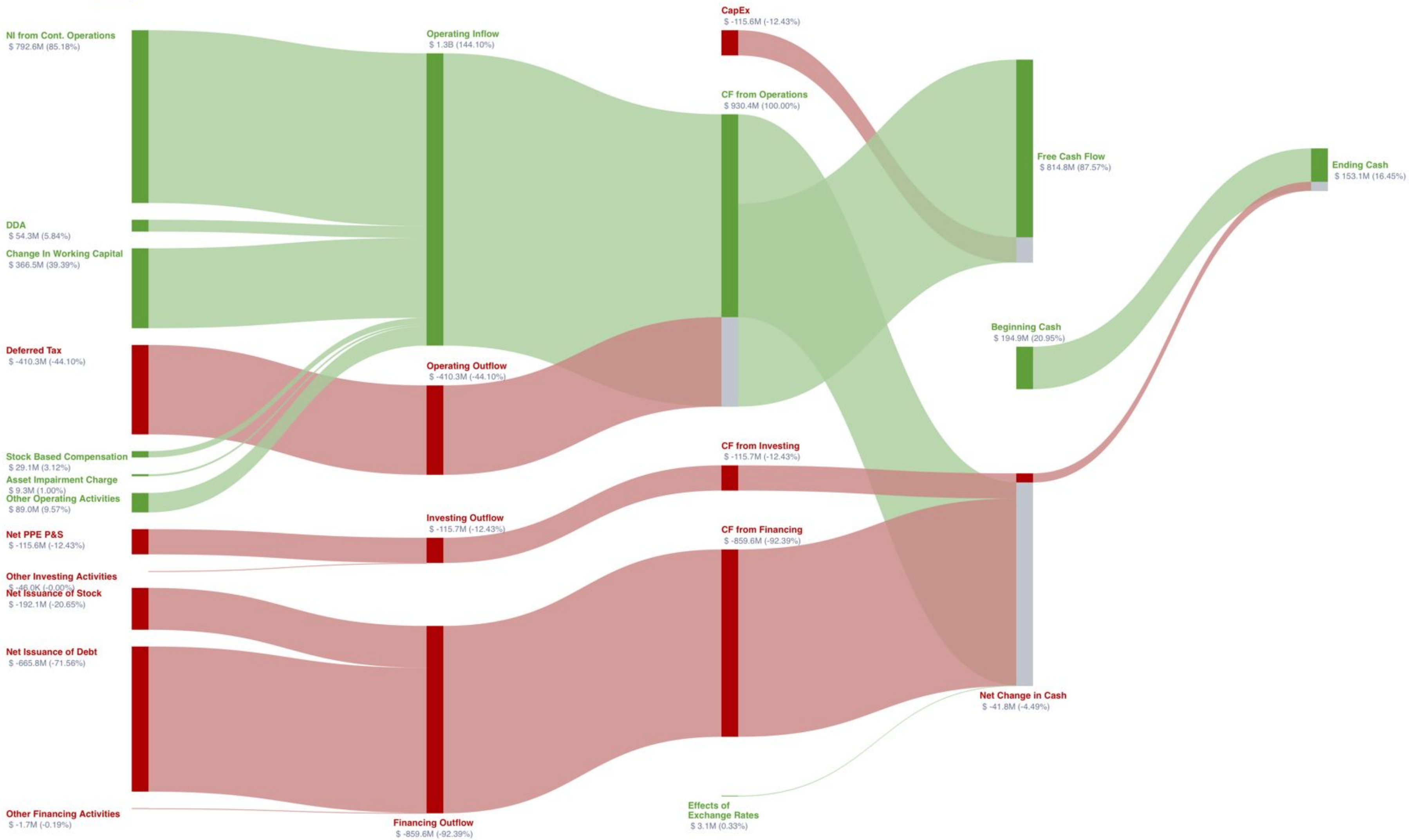
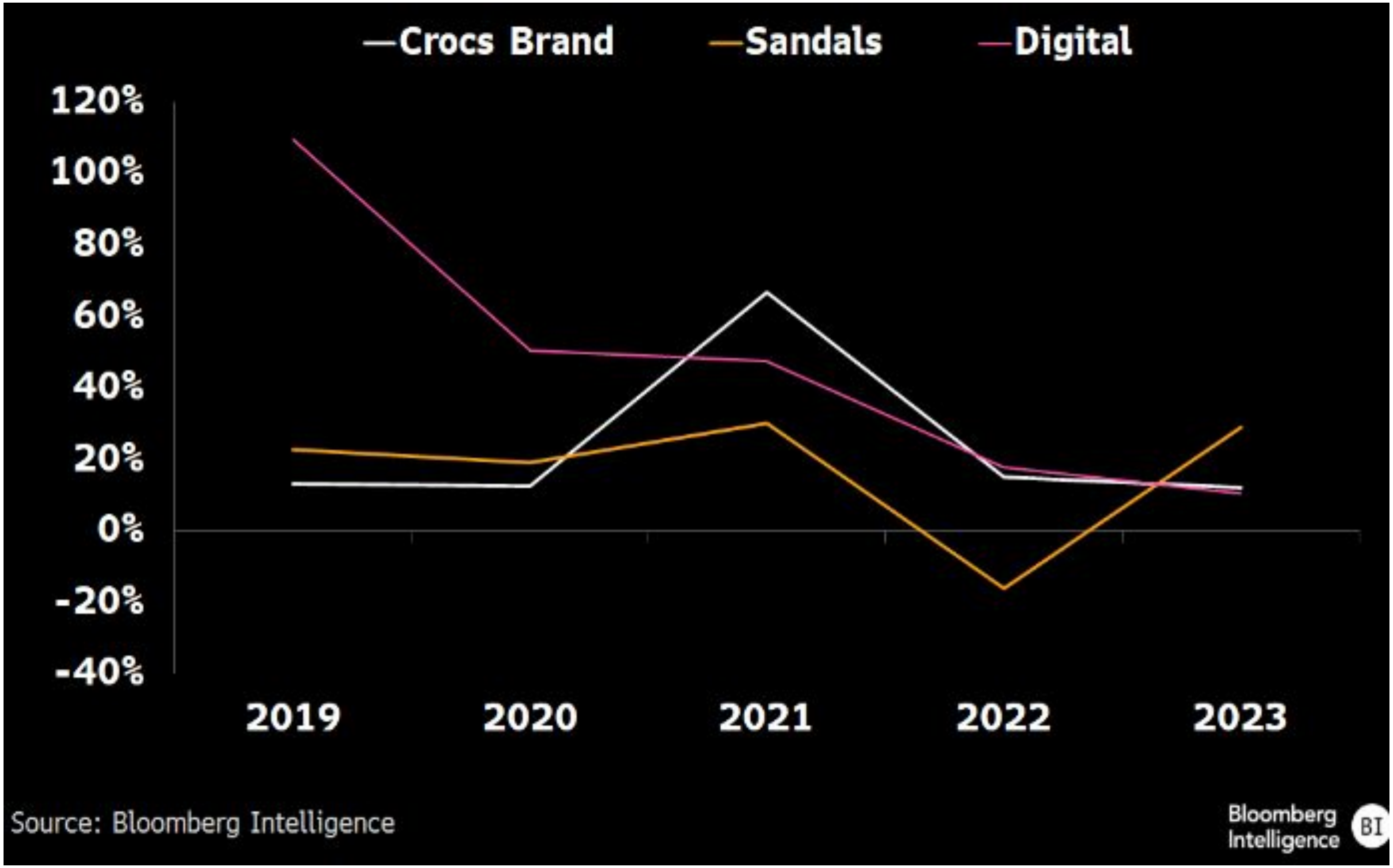
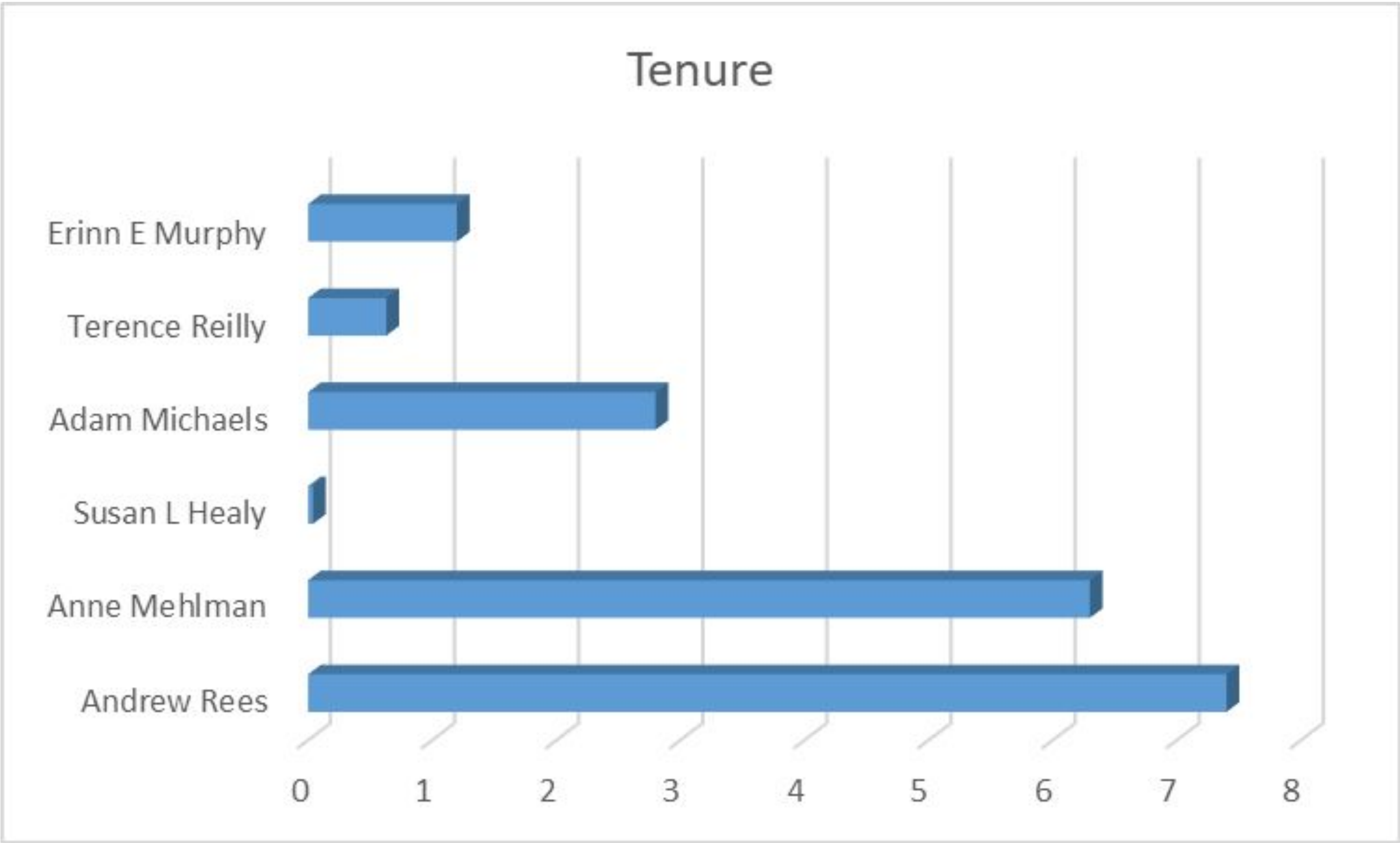


Chart of Segment Growth



Management Tenure



Management

Andrew Rees

Director and Chief Executive Officer

Andrew Rees is the Chief Executive Officer of Crocs, Inc., overseeing the brand's global strategy and operations. Mr. Rees joined Crocs as President in June 2014 and became CEO and joined the Board of Directors in June 2017. Mr. Rees has more than 25 years of experience in the footwear and retail industry. Prior to joining Crocs, Mr. Rees served as Managing Director of L.E.K. Consulting in Boston where he founded and led the firm's Retail and Consumer Products Practice for 13 years. While at L.E.K., Mr. Rees served as a consultant for Crocs from 2013 to 2014, supporting the development and execution of the company's strategic growth plan. Previously, Mr. Rees served as Vice President of both Strategic Planning and Retail Operations for Reebok International. He also held a variety of positions at Laura Ashley. He has a Bachelor's degree from Imperial College, The University of London.

	Name	Title	Board	Age	Tenure	Sta
1)	Andrew Rees	Chief Executive Officer	✓	57 *	7.4	06/01/20
2)	Anne Mehlman	Pres:Crocs Brand/Exec VP		43 *	6.3	08/24/20
3)	Susan L Healy	Exec VP/CFO		58 *	0.4	06/03/20
4)	Adam Michaels	Exec VP/Chief Digital Officer		47 *	2.8	01/20/20
5)	Terence Reilly	Exec VP/Pres:Heydude		56 *	0.6	04/29/20
6)	Erinn E Murphy	Senior VP:IR & Corporate Strategy			1.2	09/05/20

Management

Terence Reilly

EVP and Brand President for HEYDUDE

Terence Reilly serves as Executive Vice President and Brand President for the HEYDUDE Brand since April 2024. Mr. Reilly has more than 25 years of global marketing and operational experience and has had a decorated career. Since 2020, he has held the top spot at Stanley where he created and led the strategy that propelled the brand's resurgence into a must-have icon. Prior to Stanley, Mr. Reilly served in marketing leadership at Crocs, Inc. from 2013 to 2020 culminating in the Senior Vice President and Chief Marketing Officer role. Prior to 2013, he held various senior level marketing and leadership positions. Mr. Reilly received his Bachelor's degree in Communications from Rider University.

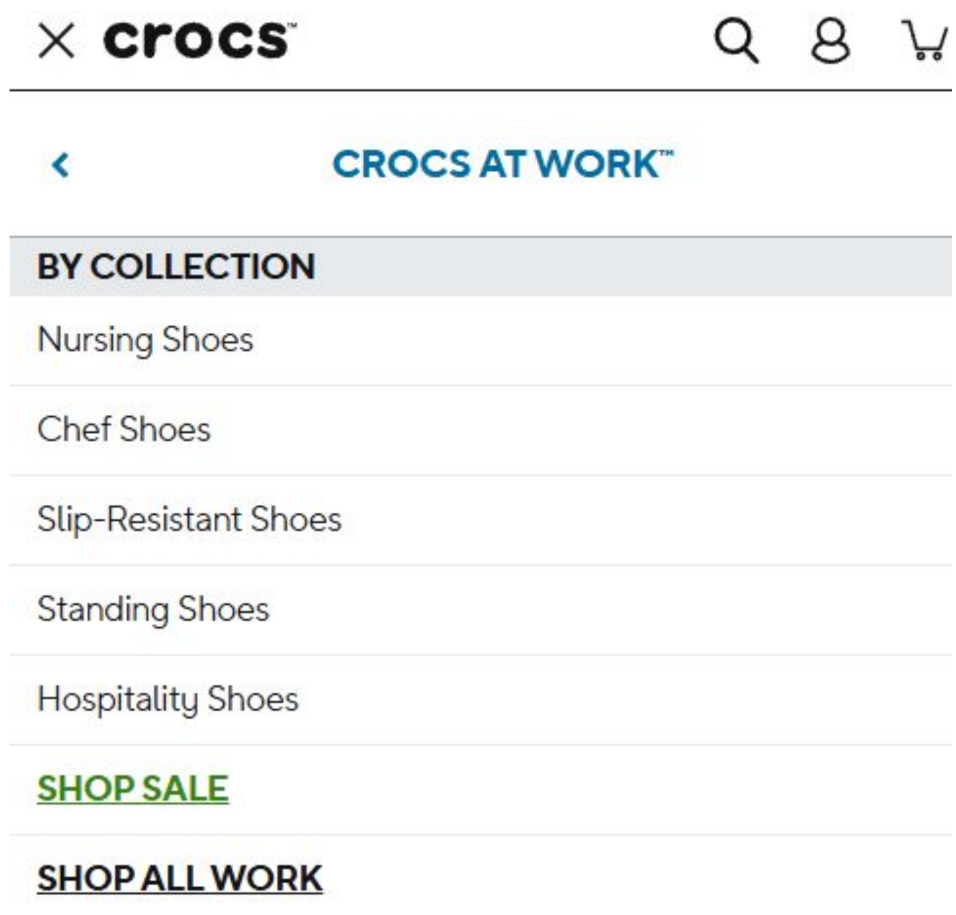
Susan Healy

EVP and Chief Financial Officer

Susan Healy serves as the Executive Vice President and Chief Financial Officer, having joined Crocs, Inc. in June 2024. In this role, she has responsibility over financial planning and analysis, accounting, investor relations, tax, internal audit, and corporate development. Ms. Healy joins Crocs, Inc. from IAA, Inc., a global marketplace for automotive buyers and sellers, where she served as Chief Financial Officer and led the company through its $7 billion merger with Ritchie Bros. Auctioneers Incorporated. She has over three decades of financial and operational leadership experience. Prior to 2021, Ms. Healy served as Senior Vice President of Finance for Ulta Beauty. Earlier in her career, she held various senior financial leadership roles in addition to a 12-year tenure at Goldman Sachs. Ms. Healy received her B.S. in Finance from California Polytechnic State University and her J.D. from Harvard Law School.

Professional Customers, Reliable, Underlooked Segment

- Doctors/Nurses
- Lifeguards
- Clean-Lab Researchers
- Veterinary Staff
- Food Service Workers



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Comparables

Analysis of CROX US Multiples - Premium to Comps

3M 6M 1Y 2Y 5Y

	Current vs 2Y Average Historical Premium					2Y Historical Premium Range			Implied @ Hist Avg	
Metric	Current	Hist Avg	Diff	# SD	3M Trend	Low	Range	High	Multiple	Price (USD)
Current Price							Current ◆ Hist Avg			105.22
1) BF P/E	-47%	-34%	-13%	-1.5		-51%		-13%	10.2x	131.58
2) BF EV/EBITDA	-39%	-24%	-15%	-1.7		-40%		-3%	8.4x	130.88
3) BF EV/EBIT	-41%	-27%	-14%	-1.6		-43%		-7%	8.8x	128.09
4) BF EV/Rev	6%	39%	-33%	-2.0		6%		78%	2.4x	145.83
5) LF P/BV	-19%	57%	-76%	-1.5		-19%		173%	6.9x	203.84

View All Comps Below

Summary of Current Multiples

	Name	2Y Corr	Mkt Cap (USD)	BF P/E	BF EV/EBITDA	BF EV/EBIT	BF EV/Rev	LF P/BV
11)	Crocs Inc		6.13B	8.1x	6.7x	7.2x	1.8x	3.6x
	Current Premium to Comps Mean			-47%	-39%	-41%	6%	-19%
	Mean (Including CROX US)		7.70B	15.4x	11.0x	12.1x	1.7x	4.4x
12)	Skechers USA Inc	0.50	9.57B	13.1x	7.5x	8.9x	1.1x	2.2x
13)	Steven Madden Ltd	0.46	3.30B	15.7x	10.8x	11.6x	1.4x	4.1x
14)	Wolverine World Wide Inc	0.41	1.24B	12.9x	10.2x	12.2x	1.1x	4.7x
15)	Deckers Outdoor Corp	0.41	24.87B	27.2x	19.8x	20.7x	4.6x	11.2x
16)	Birkenstock Holding Plc	0.31	8.69B	23.8x	13.7x	16.7x	4.3x	3.0x

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WACC

Weighted Average Cost of Capital

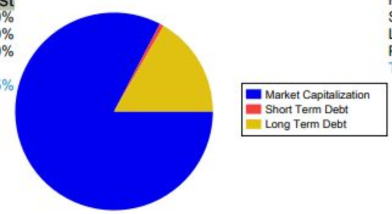
Company: Crocs Inc — Ticker: CROX US Equity

Period: Current (2024 Q3) — Filing Status: Most Recent

Cost of Capital

	Weight	Cost	Weight x Cost
Equity	82.70%	11.40%	9.50%
Debt	17.30%	6.20%	1.10%
Preferred Equity	0.00%	0.00%	0.00%
WACC			10.5%

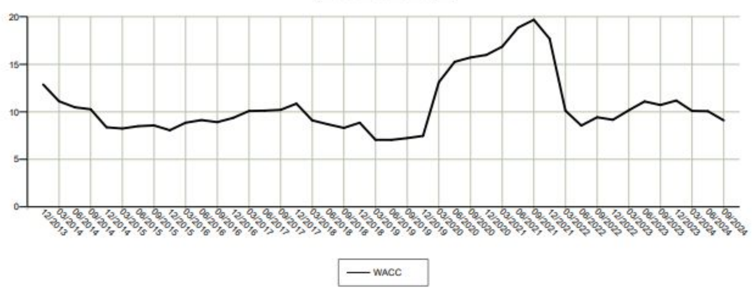
Capital Structure Graph



Capital Structure

	Millions of USD	
Market Capitalization	8,471.40	82.70%
Short Term Debt	66.90	0.70%
Long Term Debt	1,707.10	16.70%
Preferred Equity	0.00	0.00%
Total	10,245.40	100.00%

Historical Graph



Economic Value Added

	Millions of USD
Net Operating Profit	1,031.51
Cash Operating Taxes	513.29
NOPAT	518.22
Total Investment Capital	2,992.47
Capital Charge	315.23
Economic Value Added	202.99
ROIC	17.32%
EVA Spread	6.78%

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Balance Sheet

In Millions of USD except Per Share 12 Months Ending	2019 Y 12/31/2019	2020 Y 12/31/2020	2021 Y 12/31/2021	2022 Y 12/31/2022	2023 Y 12/31/2023	2024 Q1 03/31/2024	2024 Q2 06/30/2024	2024 Q3 09/30/2024
Total Assets								
+ Cash, Cash Equivalents & STI	108.3	135.8	213.2	191.6	149.3	159.3	167.7	186.1
+ Cash & Cash Equivalents	108.3	135.8	213.2	191.6	149.3	159.3	167.7	186.1
+ ST Investments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Accounts & Notes Receiv	108.2	149.8	182.6	295.6	305.7	481.5	420.2	361.7
+ Accounts Receivable, Net	108.2	149.8	182.6	295.6	305.7	481.5	420.2	361.7
+ Notes Receivable, Net	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Inventories	172.0	175.1	213.5	471.6	385.1	392.0	376.6	367.2
+ Raw Materials	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Work In Process	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Finished Goods	172.0	175.1	213.5	471.6	385.1	–	376.6	367.2
+ Other Inventory	0.0	0.0	0.0	0.0	0.0	–	0.0	0.0
+ Other ST Assets	36.9	32.1	57.2	67.2	70.6	73.6	62.4	75.5
+ Derivative & Hedging Assets	0.1	0.4	0.0	0.0	–	–	–	–
+ Taxes Receivable	1.3	1.9	22.3	14.8	4.4	3.0	2.5	2.9
+ Misc ST Assets	35.5	29.8	34.9	52.4	66.2	70.7	59.9	72.5
Total Current Assets	425.4	492.8	666.6	1,026.0	910.7	1,106.4	1,026.9	990.4
+ Property, Plant & Equip, Net	229.6	224.9	269.2	421.4	525.8	523.0	536.2	547.1
+ Property, Plant & Equip	309.2	311.2	352.9	518.6	646.3	652.2	669.4	694.1
- Accumulated Depreciation	79.6	86.3	83.7	97.1	120.5	129.1	133.2	147.0
+ LT Investments & Receivables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Other LT Assets	83.8	401.0	609.3	3,054.4	3,207.4	3,166.2	3,156.7	3,175.6
+ Total Intangible Assets	48.7	39.4	30.4	2,515.0	2,504.2	2,499.2	2,496.8	2,495.3
+ Goodwill	1.6	1.7	1.6	714.8	711.6	711.6	711.5	711.6
+ Other Intangible Assets	47.1	37.6	28.8	1,800.2	1,792.6	1,787.6	1,785.3	1,783.7
+ Deferred Tax Assets	24.7	350.8	567.2	528.3	668.0	647.7	640.6	659.9
+ Derivative & Hedging Assets	0.0	0.0	0.0	0.0	0.0	–	–	–
+ Misc LT Assets	10.4	10.9	11.7	11.1	35.3	19.3	19.3	20.5
Total Noncurrent Assets	313.4	625.9	878.5	3,475.8	3,733.1	3,689.2	3,692.9	3,722.7
Total Assets	738.8	1,118.7	1,545.1	4,501.8	4,643.8	4,795.6	4,719.8	4,713.2

Cash Flow Statement

In Millions of USD except Per Share 12 Months Ending	2021 Q4 12/31/2021	2022 Q1 03/31/2022	2022 Q2 06/30/2022	2022 Q3 09/30/2022	2022 Q4 12/31/2022	2023 Q1 03/31/2023	2023 Q2 06/30/2023	2023 Q3 09/30/2023	2023 Q4 12/31/2023	2024 Q1 03/31/2024	2024 Q2 06/30/2024	2024 Q3 09/30/2024
Cash from Operating Activities												
+ Net Income	725.7	700.1	541.4	557.3	540.2	616.9	669.0	676.7	792.6	795.5	812.0	834.7
+ Depreciation & Amortization	32.0	31.8	33.0	34.6	39.2	44.5	48.3	53.3	54.3	57.3	62.2	65.7
+ Non-Cash Items	–	-187.0	-21.5	-15.3	52.1	43.2	44.5	45.4	-358.1	-323.1	-317.2	-319.3
+ Stock-Based Compensation	–	38.3	36.3	33.6	31.3	30.5	29.6	29.3	29.1	29.2	31.0	29.9
+ Other Non-Cash Adj	–	-225.4	-57.9	-49.0	20.8	12.8	14.9	16.1	-387.1	-352.3	-348.1	-349.2
+ Chg in Non-Cash Work Cap	8.2	-76.6	-143.3	-117.9	-28.3	-22.8	87.2	161.8	441.6	363.2	416.5	439.1
+ (Inc) Dec in Accts Receiv	-35.1	-84.5	-133.6	-120.9	-56.8	-48.2	10.6	10.2	-13.3	-71.1	-18.6	28.1
+ (Inc) Dec in Inventories	-43.1	-47.4	-128.4	-141.6	-91.6	-68.7	64.7	126.0	86.3	83.3	56.6	26.4
+ Inc (Dec) in Accts Payable	–	35.0	44.4	55.5	41.7	3.4	-15.6	-14.8	37.2	6.5	-9.7	9.3
+ Inc (Dec) in Other	–	20.3	74.2	89.1	78.4	90.8	27.5	40.4	331.4	344.6	388.1	375.4
+ Net Cash From Disc Ops	–	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash from Operating Activities	567.2	468.3	409.5	458.7	603.1	681.8	849.0	937.2	930.4	892.9	973.5	1,020.3
Cash from Investing Activities												
+ Change in Fixed & Intang	–	-87.7	-91.3	-109.7	-104.2	-92.0	-99.1	-101.0	-115.6	-103.8	-96.8	-80.1
+ Disp in Fixed & Intang	–	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Disp of Fixed Prod Assets	–	0.0	–	–	–	–	–	–	0.0	0.0	0.0	0.0
+ Disp of Intangible Assets	–	0.0	–	–	–	–	–	–	0.0	0.0	0.0	0.0
+ Acq of Fixed & Intang	–	-87.7	-91.3	-109.7	-104.2	-92.0	-99.1	-101.0	-115.6	-103.8	-96.8	-80.1
+ Acq of Fixed Prod Assets	–	-87.7	-91.3	-109.7	-104.2	-92.0	-99.1	-101.0	-115.6	-103.8	-96.8	-80.1
+ Acq of Intangible Assets	–	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Net Change in LT Investment	–	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Dec in LT Investment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Inc in LT Investment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Net Cash From Acq & Div	–	-2,031.8	-2,040.3	-2,046.9	-2,046.9	-15.1	-6.6	0.0	0.0	0.0	0.0	0.0
+ Cash from Divestitures	–	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Cash for Acq of Subs	–	-2,031.8	-2,040.3	-2,046.9	-2,046.9	-15.1	-6.6	0.0	0.0	0.0	0.0	0.0
+ Cash for JVs	–	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Other Investing Activities	–	0.1	0.0	0.0	0.0	-0.1	0.0	-0.1	0.0	0.0	0.0	0.0
+ Net Cash From Disc Ops	–	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash from Investing Activities	-55.9	-2,119.4	-2,131.6	-2,156.6	-2,151.1	-107.2	-105.7	-101.1	-115.7	-103.8	-96.8	-80.1
Cash from Financing Activities												
+ Dividends Paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Cash From (Repayment) Debt	–	2,590.2	2,435.7	1,975.4	1,594.6	-601.9	-750.1	-684.8	-665.8	-562.7	-505.0	-525.0
+ Cash From (Repay) ST Debt	–	0.0	0.0	–	–	–	–	–	0.0	0.0	0.0	0.0
+ Cash From LT Debt	–	2,940.2	2,810.7	2,460.7	–	–	–	–	257.9	121.4	121.4	121.4
+ Repayments of LT Debt	–	-350.0	-375.0	-485.3	–	–	–	–	-923.7	-684.1	-626.4	-646.4
+ Cash (Repurchase) of Equity	–	-965.9	-665.3	-512.8	-11.5	-15.6	-16.4	-167.1	-192.1	-187.6	-361.4	-359.5
+ Increase in Capital Stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Decrease in Capital Stock	-1,020.1	-965.9	-665.3	-512.8	-11.5	-15.6	-16.4	-167.1	-192.1	-187.6	-361.4	-359.5
+ Other Financing Activities	–	-56.6	-57.1	-51.6	-53.5	-4.6	-2.8	-3.9	-1.7	-2.2	-2.1	-1.0
+ Net Cash From Disc Ops	–	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash from Financing Activities	–	1,567.6	1,713.3	1,411.0	1,529.7	-622.1	-769.3	-855.8	-859.6	-752.5	-868.5	-885.5
Effect of Foreign Exchange Rates	–	-2.3	-3.8	-8.9	-3.8	1.1	5.0	4.8	3.1	-2.5	-6.7	3.8
Net Changes in Cash	77.7	-85.9	-12.6	-295.8	-22.0	-46.4	-21.0	-14.9	-41.8	34.1	1.4	58.5

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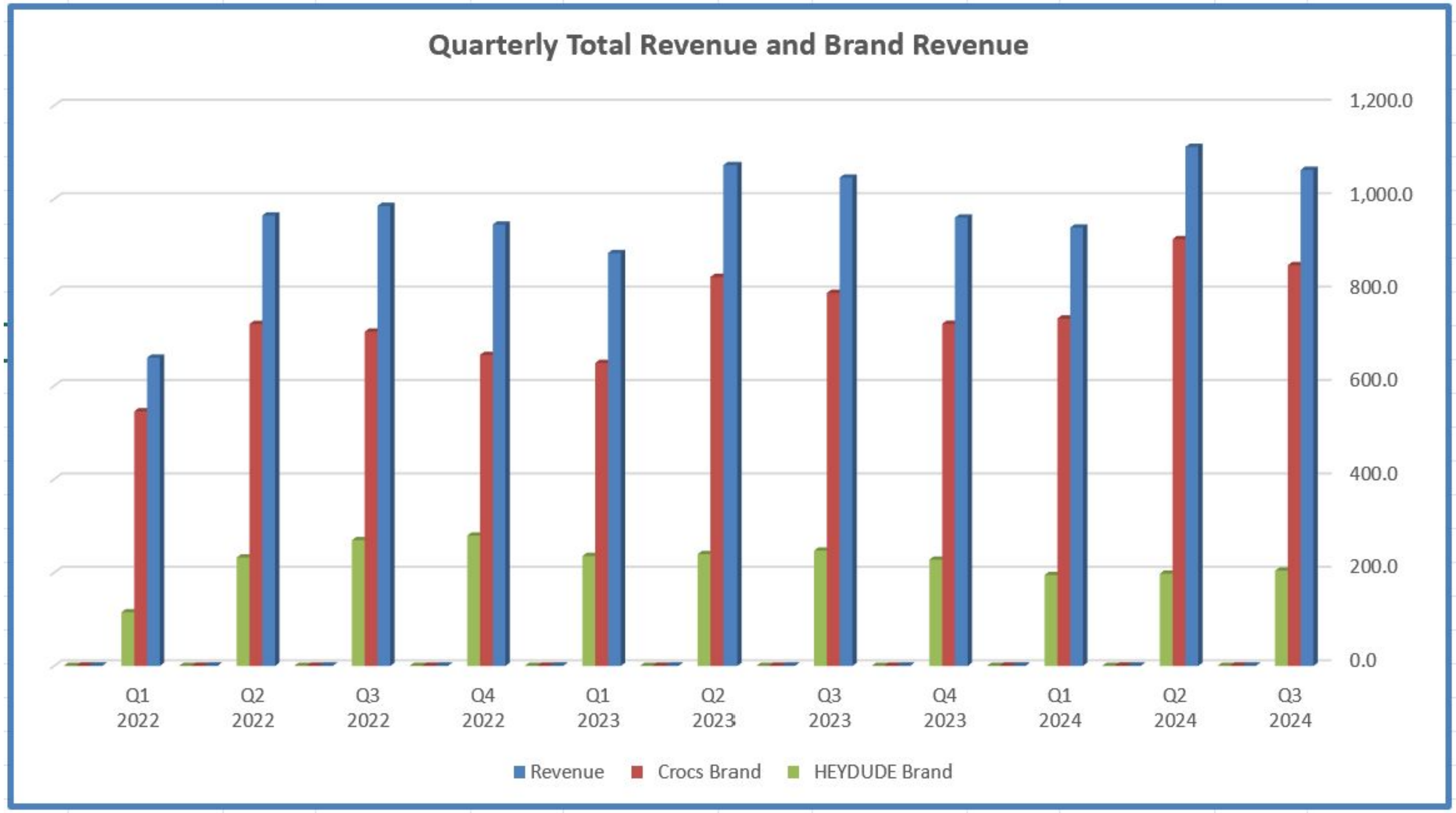
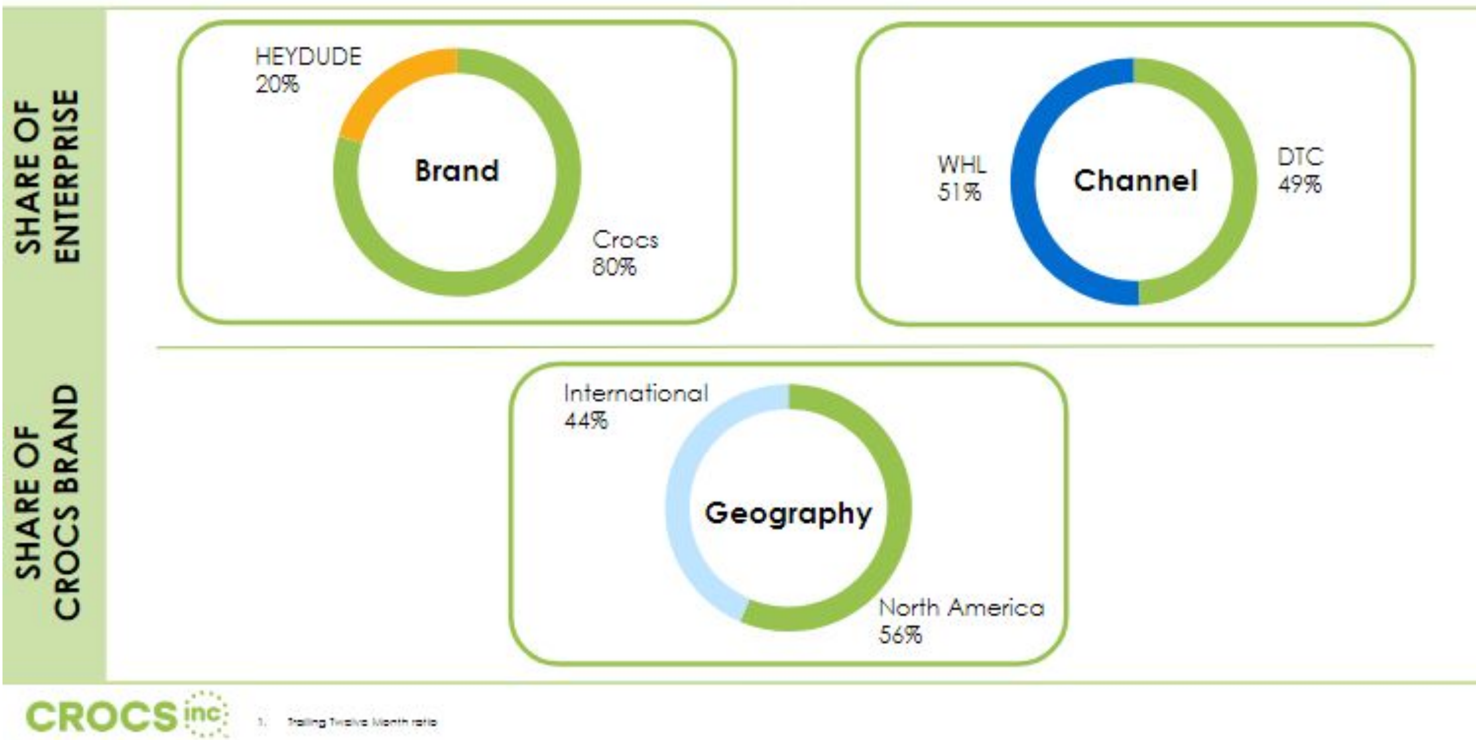
Income Statement

In Millions of USD except Per Share 12 Months Ending	2020 Y 12/31/2020	2021 Y 12/31/2021	2022 Y 12/31/2022	2023 Y 12/31/2023	Last 12M 09/30/2024
Revenue	1,386.0	2,313.4	3,555.0	3,962.3	4,072.4
+ Sales & Services Revenue	1,386.0	2,313.4	3,555.0	3,962.3	4,072.4
- Cost of Revenue	631.7	887.4	1,683.6	1,725.0	1,701.2
+ Cost of Goods & Services	627.8	881.1	1,673.6	1,706.2	1,701.2
+ Depreciation & Amortization	3.9	6.2	10.0	18.8	
Gross Profit	754.3	1,426.1	1,871.3	2,237.3	2,371.3
+ Other Operating Income	0.0	0.0	0.0	0.0	0.0
- Operating Expenses	508.6	737.2	945.4	1,163.5	1,307.7
+ Selling, General & Admin	501.0	728.4	937.7	1,151.1	1,311.4
+ Research & Development	0.0	0.0	0.0	0.0	
+ Depreciation & Amortization	7.9	8.7	9.6	12.9	
+ Other Operating Expense	-0.3	0.0	-1.9	-0.4	-3.7
Operating Income (Loss)	245.6	688.9	926.0	1,073.8	1,063.5
- Non-Operating (Income) Loss	7.1	19.2	132.2	160.5	122.3
+ Interest Expense, Net	6.5	20.9	135.1	158.9	118.3
+ Interest Expense	6.7	21.6	136.2	161.4	122.4
- Interest Income	0.2	0.8	1.0	2.4	4.1
+ Foreign Exch (Gain) Loss	1.1	0.1	-3.2	1.2	3.5
+ (Income) Loss from Affiliates	–	–	–	–	
+ Other Non-Op (Income) Loss	-0.5	-1.8	0.3	0.3	0.5
Pretax Income (Loss), Adjusted	238.5	669.7	793.7	913.3	941.2
- Abnormal Losses (Gains)	31.5	5.8	75.2	37.0	32.0
+ Merger/Acquisition Expense	–	–	62.2	–	
+ Disposal of Assets	0.3	–	–	0.4	
+ Asset Write-Down	21.1	–	–	9.3	
+ Legal Settlement	–	–	–	–	
+ Restructuring	6.6	5.8	11.1	27.3	
+ Other Abnormal Items	3.5	–	1.9	–	
Pretax Income (Loss), GAAP	207.0	663.8	718.5	876.3	909.2
- Income Tax Expense (Benefit)	-105.9	-61.8	178.3	83.7	74.5
+ Current Income Tax	219.2	179.4	183.1	494.0	
+ Deferred Income Tax	-325.1	-241.3	-4.8	-410.3	
+ Tax Allowance/Credit	–	–	–	–	
Income (Loss) from Cont Ops	312.9	725.7	540.2	792.6	834.7
- Net Extraordinary Losses (Gains)	0.0	0.0	0.0	0.0	0.0
+ Discontinued Operations	0.0	0.0	0.0	0.0	0.0
+ XO & Accounting Changes	0.0	0.0	0.0	0.0	0.0
Income (Loss) Incl. MI	312.9	725.7	540.2	792.6	834.7
- Minority Interest	0.0	0.0	0.0	0.0	0.0
Net Income, GAAP	312.9	725.7	540.2	792.6	834.7
- Preferred Dividends	0.0	0.0	0.0	0.0	0.0
- Other Adjustments	0.0	0.0	0.0	0.0	0.0
Net Income Avail to Common, GAAP	312.9	725.7	540.2	792.6	834.7

Market Concerned About Sustainable Growth after Q3 Revenue Miss and Lower Guidance



Rev Breakdown



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EV

In Millions of USD except Per Share	2022 Q3	2022 Q4	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2	2024 Q3	Current
3 Months Ending	09/30/2022	12/31/2022	03/31/2023	06/30/2023	09/30/2023	12/31/2023	03/31/2024	06/30/2024	09/30/2024	11/07/2024
Market Capitalization	4,236.3	6,690.1	7,839.3	6,982.5	5,364.4	5,651.3	8,728.7	8,698.0	8,471.4	5,997.2
- Cash & Equivalents	143.0	191.6	125.7	166.2	127.3	149.3	159.3	167.7	186.1	186.1
+ Preferred Equity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Minority Interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Total Debt	2,896.3	2,595.0	2,550.6	2,289.2	2,286.7	1,996.4	2,057.7	1,870.6	1,774.0	1,774.0
Enterprise Value	6,989.6	9,093.5	10,264.2	9,105.5	7,523.8	7,498.4	10,627.1	10,400.9	10,059.3	7,585.1
Total Capital	3,527.1	3,412.9	3,519.1	3,478.9	3,486.9	3,450.3	3,654.8	3,523.8	3,499.1	3,499.1
Total Debt/Total Capital	82.12	76.03	72.48	65.80	65.58	57.86	56.30	53.08	50.70	50.70
Total Debt/EV	0.41	0.29	0.25	0.25	0.30	0.27	0.19	0.18	0.18	0.23
EV/Sales	2.19	2.56	2.72	2.34	1.91	1.89	2.65	2.56	2.47	1.86
EV/EBITDA	8.01	9.66	9.62	7.97	6.40	6.53	9.29	8.98	8.68	6.54
EV/EBIT	8.84	10.69	10.61	8.78	7.18	7.23	10.33	10.04	9.75	7.35
EV/Cash Flow to Firm	11.74	11.83	11.81	8.69	6.58	6.51	9.60	8.82	8.25	6.22
EV/Free Cash Flow to Firm	14.40	13.69	13.21	9.60	7.22	7.24	10.60	9.61	8.83	6.66
Diluted Market Cap	4,282.1	6,777.0	7,918.8	7,039.1	5,436.3	5,695.9	8,779.6	8,868.2	8,616.3	6,122.7
Diluted Enterprise Value	7,035.9	9,175.2	10,364.8	9,169.2	7,565.2	7,538.9	10,697.7	10,465.2	10,124.5	7,653.9
EV per Share	113.28	147.38	165.55	146.63	123.75	123.94	175.08	174.51	171.95	171.95
Reference Items										
Trailing 12 Month Values for Ratios										
IFRS 16/ASC 842 Adoption	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sales	3,196.4	3,555.0	3,779.0	3,886.8	3,947.4	3,962.3	4,016.8	4,055.9	4,072.4	4,072.4
EBITDA	872.8	941.3	1,066.8	1,142.9	1,175.5	1,148.0	1,144.5	1,158.7	1,159.4	1,159.4
EBIT	790.7	850.8	967.0	1,037.5	1,047.3	1,036.8	1,028.3	1,035.5	1,031.5	1,031.5
Cash Flow To Firm	534.9	705.5	803.2	978.8	1,071.8	1,076.4	1,028.1	1,095.9	1,132.6	1,132.6
Free Cash Flow To Firm	425.2	601.3	711.2	879.8	970.9	960.8	924.3	999.2	1,052.5	1,052.5

Margins

In Millions of USD except Per Share 12 Months Ending	2018 Y 12/31/2018	2019 Y~ 12/31/2019	2020 Y 12/31/2020	2021 Y 12/31/2021	2022 Y 12/31/2022	2023 Y 12/31/2023	Last 12M 09/30/2024
EBITDA	120.5	226.6	334.8	779.2	1,031.2	1,207.7	1,191.4
EBITDA Margin (T12M)	11.07	18.41	24.16	33.68	29.01	30.48	29.26
EBITA	107.9	217.7	323.0	764.2	1,011.6	1,176.0	779.6
EBIT	91.2	142.2	245.6	688.9	926.0	1,073.8	1,063.5
Gross Margin	51.48	50.14	54.42	61.64	52.64	56.47	58.23
Operating Margin	8.38	11.56	17.72	29.78	26.05	27.10	26.12
Profit Margin	6.69	12.29	18.22	31.56	17.62	17.55	19.27
Sales per Employee	278,955.40	323,584.80	301,293.70	400,938.65	532,183.38	563,634.00	
Dividends per Share	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Cash Common Dividends	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capitalized Interest Expense	–	–	–	–	–	–	
Depreciation Expense	12.6	8.9	11.8	14.9	19.6	31.7	48.1
Rental Expense	80.3	80.8	82.2	98.4	113.1	137.5	115.9

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Reverse DCF Workings and Assumption

INCOME STATEMENT	FY '23 A 12/31/23	Q1 '24 A 3/31/24	Q2 '24 A 6/30/24	Q3 '24 A 9/30/24	Q4 '24 E 12/31/24	FY '24 E 12/31/24	FY '25 E 12/31/25	FY '26 E 12/31/26	FY '27 E 12/31/27	FY '28 E 12/31/28
Revenue	3,962	939	1,112	1,062	963	4,075	4,080	4,108	4,186	4,255
Revenue Growth (YoY)	11.5%	6.2%	3.6%	1.6%	0.3%	2.9%	0.1%	0.7%	1.9%	1.6%
Cost of Revenue	(1,725)	(413)	(430)	(429)	(420)	(1,692)	(1,684)	(1,691)	(1,744)	(1,772)
Gross Profit	2,237	525	682	633	543	2,384	2,396	2,417	2,442	2,483
Gross margin	56.5%	56.0%	61.4%	59.6%	56.4%	58.5%	58.7%	58.8%	58.3%	58.4%
Other Operating Income	-	-	-	-	-	-				
Operating Expenses	(1,164)	(271)	(356)	(364)	(353)	(1,343)	(1,445)	(1,501)	(1,594)	(1,673)
Other Operating Expenses	0.4	-	-	-	-	-	-	-	-	-
Operating Income	1,074	255	326	270	190	1,040	951	916	848	810
Operating Margin	27.1%	27.1%	29.3%	25.4%	19.7%	25.5%	23.3%	22.3%	20.3%	19.0%
Non-Operating Income (Loss)	(161)	(32)	(29)	(25)	(31)	(118)	(126)	(124)	(122)	(121)
Interest Expense, Net	(159)	(30)	(28)	(25)	(31)	(114)	(126)	(125)	(123)	(122)
Foreign Exch Gain (Loss)	(1)	(2)	(1)	(0)	-	(4)				
Income (Loss) from Affiliates (Pre Tax)	-	-	-	-	-	-	-	-	-	-
Other Non-Op Income (Loss)	(0)	0	0	0	(0)	0	1	1	1	1
Pretax Income	913	222	296	245	159	923	825	791	726	689
Income Taxes	(218)	(38)	(53)	(31)	(32)	(154)	(165)	(158)	(145)	(138)
Income (Loss) from Affiliates (After Tax)	-	-	-	-	-	-	-	-	-	-
Income (Loss) from Cont Ops	793	152	229	200	127	769	660	633	581	551
Net Extraordinary Items	-	-	-	-	-	-				
Minority Interest	-	-	-	-	-	-	-	-	-	-
Net Income	695	184	244	214	127	769	660	633	581	551

Free Cash Flow to Firm:		Value	Per Share
Present Value of FCFF:		2,886	49.5
Terminal Value:			
◉ Perpetual Growth		4,860	83.4
○ EV/Sales	2.56	7,735	132.7
○ EV/EBITDA	6.68	4,345	74.6
○ EV/EBIT	10.98	6,319	108.4
○ EV/FCF	30.00	11,372	195.1
Firm Intrinsic Value		**7,746**	**132.9**
- Net Debt		1,847	31.7
- Preferred		0	0.0
- Minority Interst		0	0.0
Value of Equity		5,899	**101.2**

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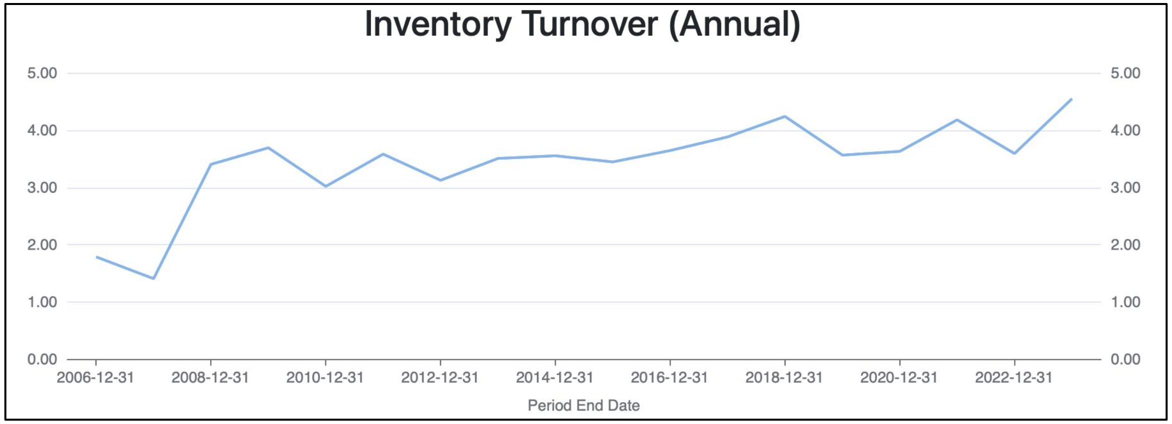
Debt Payment and Share Buyback Information

	2023	2022
Long-term borrowings	1,640,996	2,298,027

- ✔ Q3 2024: During the quarter, we repaid approximately **$110 million of debt**, reducing borrowings to approximately $1.4 billion. Year to date, we have repaid $248 million of debt, and we ended the quarter at the lower end of our long-term net leverage target range of 1 to 1.5 times. Year to date, we have completed **$326 million of share buybacks, repurchasing 2.3 million shares**. We currently have $549 million remaining on our share repurchase authorization.
- ✔ Q2 2024: During the quarter, we repaid approximately **$200 million of debt**, reducing borrowings to approximately $1.5 billion. We ended the quarter within our long-term net leverage target range of 1 to 1.5x. We completed **$175 million of share buybacks** during the quarter repurchasing 1.2 million shares at an average price of $149.53 per share
- ✔ Q1 2024: Q1 is a high net working capital quarter, and we typically limit buyback and debt paydown activity, as a result.
- ✔ Q4 2023: Our strong cash flow generation allowed us to repay **$666 million of debt**. Since acquiring HEYDUDE in February 2022, we have repaid $1.2 billion in debt and resumed our share repurchase activity in the second half of 2023.
- ✔ Q3 2023: Our continued strong free cash flow generation enabled us to repay approximately **$90 million of debt** in Q3, reducing borrowings to approximately $2 billion. At the end of Q3, our gross leverage was approximately 1.7 times as we ended the third quarter with $127 million of cash and cash equivalents.
- ✔ Q2 2023: Our continued strong free cash flow generation enabled us to repay approximately **$300 million of debt** in the first half, reducing borrowings to $2 billion.
- ✔ Q1 2023: We repaid **$41 million of debt** in the quarter, reducing borrowings to $2.28 billion. At the end of Q1, adjusted gross leverage was approximately 2.1 times, and net leverage was approximately 2 times. We are confident our ability to achieve gross leverage under 2 times by the middle of this year.

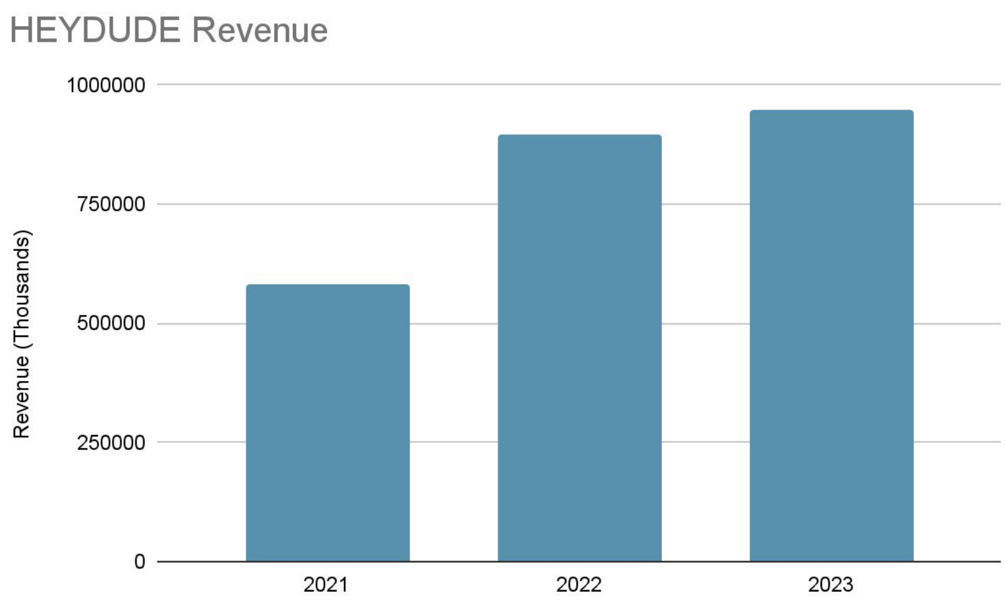
Crocs Store Analysis and Inventory Information

- ✔ Typically, a Crocs store employs a team that includes a store manager, assistant managers, and several sales associates. Smaller stores may operate with a staff of **5 to 10 employees**, while larger or high-traffic locations might have **15 or more team members** to adequately serve customers and manage operations.
- ✔ As of December 31, 2023, Crocs had a total of **349 stores in operation around the world**.
- ✔ Current operating lease liabilities: $62M in 2023
- ✔ Long term operating lease liabilities: $269M in 2023
- ✔ Crocs, Inc. (CROX) had Inventory Turnover of 4.55 for the most recently reported fiscal year, ending 2023-12-31.
    - Sketchers inventory turnover ratio was 2.82 in 2023
    - Berkenstocks inventory turnover ratio was 1.15 in 2023



HEYDUDE Acquisition

- ✔ The shoe maker bought Italian DTC brand Heydude at the end of 2021 for $2.05 billion in cash and $450 million in Crocs shares.
- ✔ Crocs acquired HEYDUDE to expand its addressable market and become a more prominent player in the global casual footwear market.



Revenues by Channel

Revenues by Channel

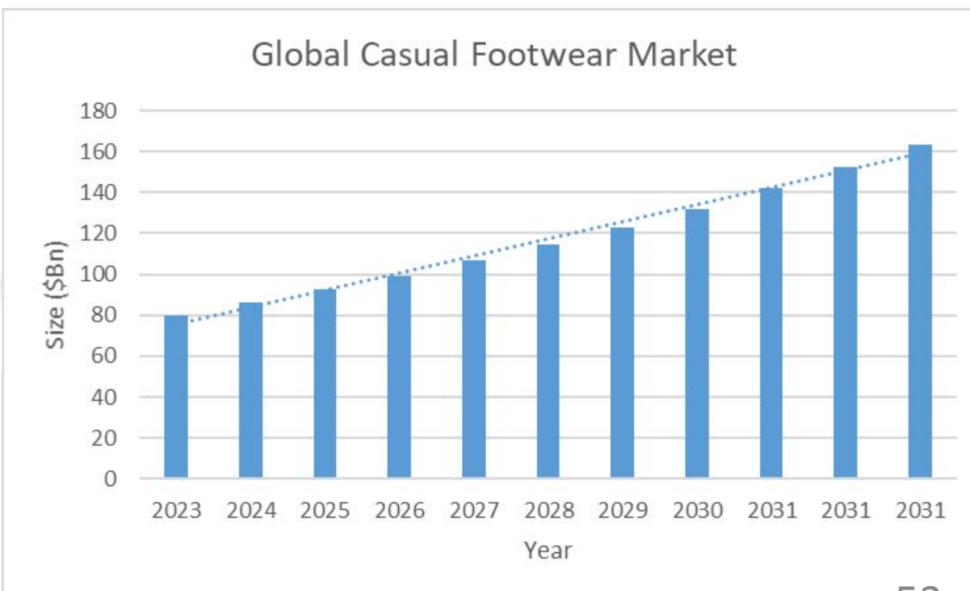
	Year Ended December 31,		% Change Favorable (Unfavorable)	Constant Currency % Change (1)
	2023	2022	2023-2022	2023-2022
	(in thousands)			
Crocs Brand:				
Wholesale	$ 1,493,537	$ 1,377,302	8.4 %	9.3 %
Direct-to-consumer	1,519,417	1,281,823	18.5 %	19.0 %
Total Crocs Brand	3,012,954	2,659,125	13.3 %	14.0 %
HEYDUDE Brand (2):				
Wholesale	566,937	574,140	(1.3)%	(1.3)%
Direct-to-consumer	382,456	321,720	18.9 %	18.9 %
Total HEYDUDE Brand	949,393	895,860	6.0 %	6.0 %
Total consolidated revenues (2)	$ 3,962,347	$ 3,554,985	11.5 %	12.0 %

Crocs Supply Chain

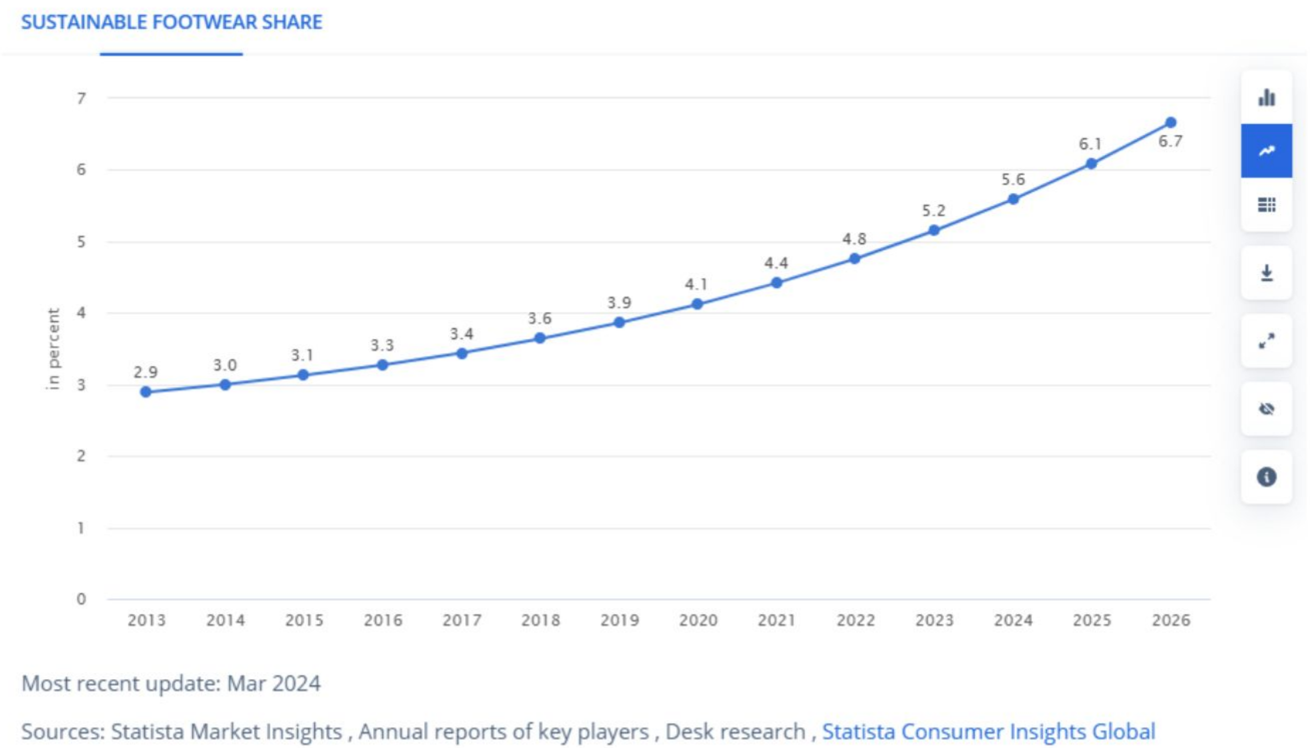
- Chief Executive Andrew Rees explained on an earnings call a key advantage is the fact that the retailer's **clog shoes are easy to make and so the company faces fewer hurdles in shifting production around when needed**.
- "Our shoes are really simple, and so [swapping] factories can be very, very quick," Rees explained. "The classic clog has three components, two of which are made on site, so you don't have a lot of external logistics to be able to get started. We think we're competent in terms of rapid manufacturing."
- Crocs are mainly manufactured in Vietnam

Global Casual Shoe Market Expected to grow at 7%

- ✔ The **global footwear market** expected to grow at a **CAGR of 4.3% from 2024 – 2030**
- ✔ Casual shoe market valued at $80.1b (2023); expected to grow at a CAGR of 7.4% $163.1b (2033) [source: Verified Market Reports]
- ✔ Growing trend towards casualization in footwear, accelerated by the pandemic; expected to continue influencing design & consumer preferences
- ✔ **Non-athletic footwear** accounted for **67% of market share** in 2023; growing at a CAGR of of ~6.4% a year
- ✔ Women's footwear segment held 48% market share in 2023



The company has introduced bio-based Croslite material, for a 50% reduction in its carbon footprint per pair of Crocs shoes aiming by 2030.



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December 5th, 2024

Team Number: 9

Students: Tom Alappat, Nate Ingram, Kyesha Robertson

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TransMedics

Executive Summary

Company Overview

TransMedics Group is a medical technology company focused on expanding the supply of viable transplant organs through its Organ Care System (OCS) technology and dedicated logistics network, enabling more life-saving transplants

Key Highlights and Offerings:

- **OCS Machines**: FDA-approved warm perfusion devices that simulate human body conditions, preserving donor hearts, livers, and lungs for twice as long as traditional cold storage
- **Logistics Network**: In-house, white-glove organ procurement and delivery service, staffed with TransMedics' pilots, surgeons, and aircraft

Recommendation

Company Name	**TransMedics Group**
Ticker	**TMDX**
Recommendation	**BUY**
Target price	**$181.91**
Price (11/22/2024)	**$76.04**
52-Week Range	**$40.01 - $177.37**
Market Cap	**$2,552 mm**
Enterprise Value	**$3,060 mm**

Investment Rationale

- Only FDA approved multi-organ (heart, liver, lung) portable perfusion machine on the market
- Increases the supply of available transplants by enabling organs to be donated after circulatory death
- Organ procurement service eliminates logistics burden on transplant centers to source organs and reduces patient's time on transplant waitlist
- Outcomes of transplants which utilized perfusion storage demonstrate reduced post operation complications
- Perfusion machines allow surgeons to run diagnostics to increase confidence in organ performance before transplant

Key Statistics

>130%
Growth in transplant volumes

18
Jets in TransMedics' Procurement Fleet

~109%
Growth in LTM annualized revenues

>50%
Reduction in primary graft dysfunction

~50%
Reduction in night-time transplants

Company Leadership

Leadership skillset is mostly in product development and medical expertise. The firm could benefit from bringing in additional management with experience scaling biotech companies from growth stage through enterprise stage

Name & Designation	Experience
 **Waleed Hassanein, M.D.** *Founder, President & CEO*	▪ Founded TMDX in 1998 to revolutionize organ transplant therapy leading to the development of TMDX's revolutionary portable organ preservation and transplantation technology ▪ Named 50 Global Thinkers in Healthcare by Foreign Policy Magazine in 2015 ▪ Holds MD from Georgetown University School of Medicine
 **Stephen Gordon** *CFO*	▪ Over 20 years of experience in high technology and medical device companies ▪ Joined TMDX in March 2015 and presently leads the finance and accounting teams ▪ Prior to joining TMDX, held various leadership positions in Analogic Corp, Hologic, Cytyc, Maxtor and HP ▪ Holds BA in Finance and Accounting from Wharton and an MBA from Boston University
 **Tamer Khayal, M.D.** *Chief Commercial Officer*	▪ Joined TMDX in 2001 and over 18 years assumed growing responsibilities (including Chief Medical Officer) to the current role of Chief Commercial Officer in Jan 2018 ▪ As CMO, he led efforts to build TMDX's clinical evidence, reimbursement initiatives, and a patient-focused approach to commercial rollout of Organ Care Technology earning recognition worldwide ▪ Holds MD from Cairo University School of Medicine and GCE from University of London, England
 **Miriam Provost Ph.D.** *VP of Global Regulatory Affairs*	▪ Over 24 years of experience in Medical Device Regulatory Affairs including 13 years at the FDA ▪ Internationally recognized expert in Regulatory Affairs including 13 years at the FDA where she gained broad knowledge in FDA policies ▪ Holds BA in chemical engineering University of Dayton and Ph.D. from the University of Pennsylvania
 **Mark Anderson** *VP, Product Development*	▪ 15 years of experience bringing Class II and III medical products into markets including organ perfusion and heart assist devices ▪ Joined TMDX in March 2006 ▪ Holds electrical engineering degree from Worcester Polytechnic Institute

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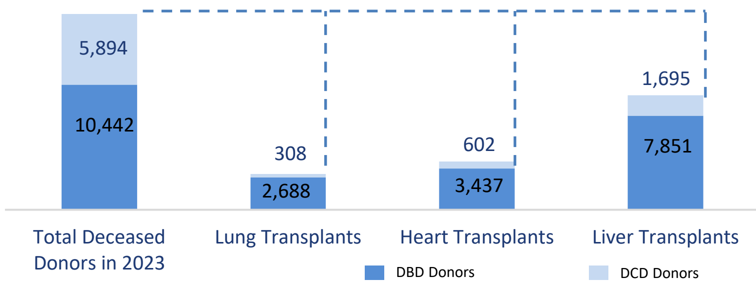
Organ Transplants are Supply Constrained

Supply Shortage

Massive Underutilization of Donor Organs



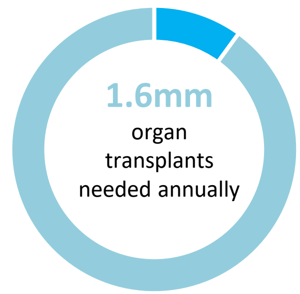
100,000+ Americans are on the waitlist for organ transplants and 17 die per day due to not receiving the transplant they need, according to the Dept. Health and Human Services

Factors that limit organ supply

Logistical Constraints	Donor not identified by healthcare services, brain death cannot be diagnosed (DBD), circulatory death does not occur within the right time frame (DCD), logistical problems (no surgical team available to recover organs)
Donor Pool	Not medically suitable, unstable donor/sudden cardiac arrest, anatomy or function of organs unsatisfactory, organs damaged during removal and other issues
Consent	The individual has expressed that they do not wish to donate organs, the family objects to donation

North American Demand

Demand Factors



160,000 transplants annually

10% of global demand is met

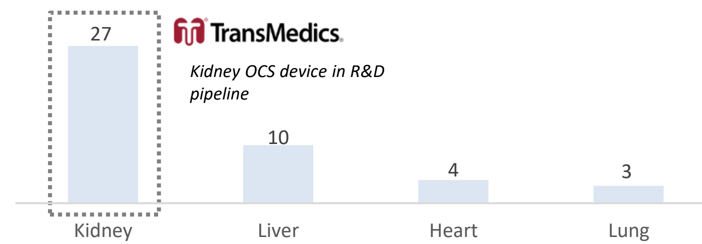
Demand Drivers
- Transplantation costs less than organ failure
- Longer Lifespans
- Increased organ dysfunction syndrome

>12mm AMERICANS
Lung Failure

~650K AMERICANS
Heart Failure

~2.8mm AMERICANS
Liver Failure

Transplants (in'000) in the United States in 2023



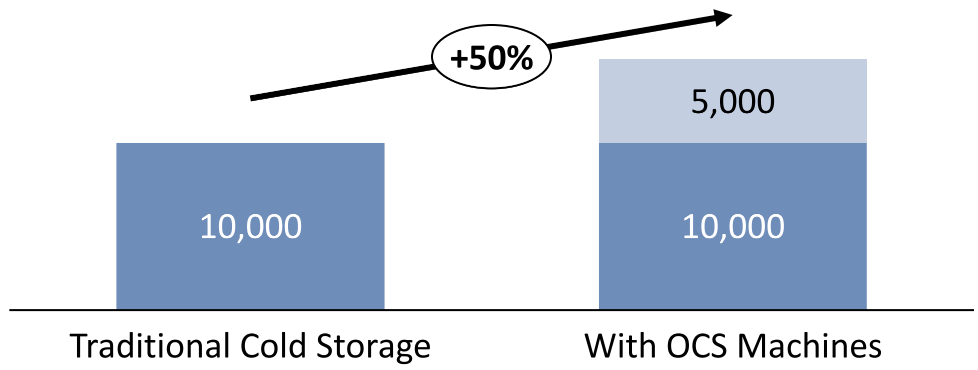
*OPTN has a mandate to reach **60,000** US transplants by 2026 (**36% increase from 2023**)*

2023 OPTN US National Data

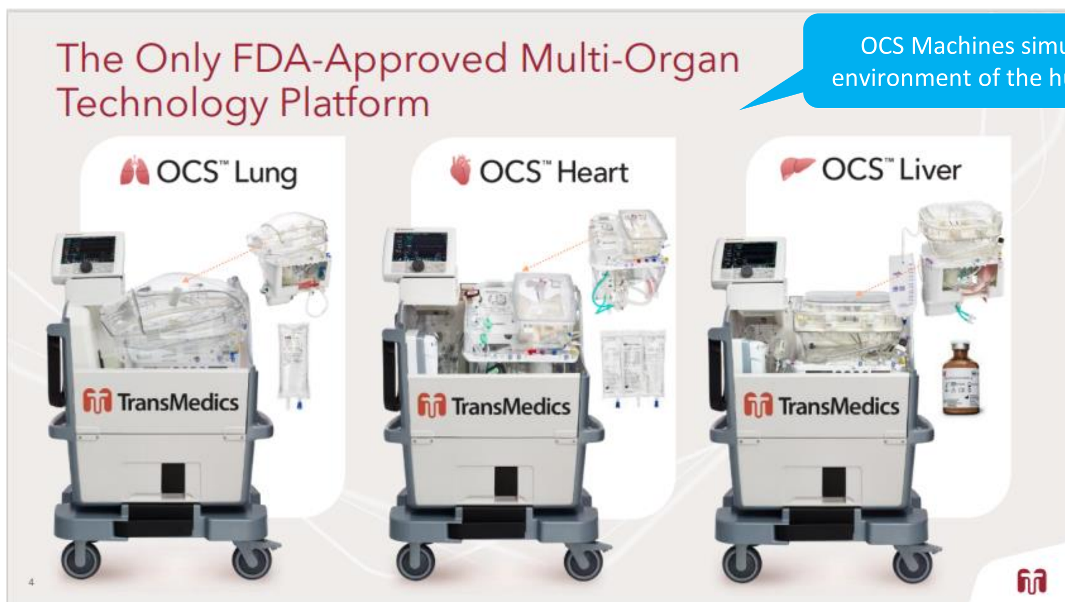
TransMedics' OCS Solution Increases the Supply of Available Organs to Transplant

- The traditional donor pool includes ~10,000 donors who experience death after brain dead (DBD)
- OCS Machines enable physicians to harvest organs from an additional ~5,000 potential donors who experience death after circulatory death (DCD)
  - DCD donor pool continues to grow as surgeons gain more familiarity with this new class of donors

Potential Donors (000s)



- ~12 hours with OCS Heart vs 4-6 hours on ice
- ~24 hours with OCS Liver vs 8-10 hours on ice
- ~12 hours with OCS Lung vs 4-6 hours on ice



OCS Machines simulate the environment of the human body

Liver transplant - Mayo Clinic

Company Materials

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Transplant Centers Faced with Logistical Challenges in Donor Organ Acquisition

1. Travel Coordination

   Planning flights and ground transport often with 3rd party vendors at odd hours

   Limited availability of transportation options when organ is available

2. Staffing and Team Allocation

   Surgeon required to travel to and from donor site and then perform transplant procedure

   On-Call Requirements of transplant team

   Fatigue of highly-specialized staff can impact performance and retention

3. Coordination with Donor Hospital

   Interfacing required between donor and recipient hospitals for timing, protocol alignment, and procedural requirements

4. Organ Transport Equipment & Preservation

   Access to high-quality preservation equipment

   Skill required to use new perfusion technology is higher than traditional ice box method

5. Financial and Resource Constraints

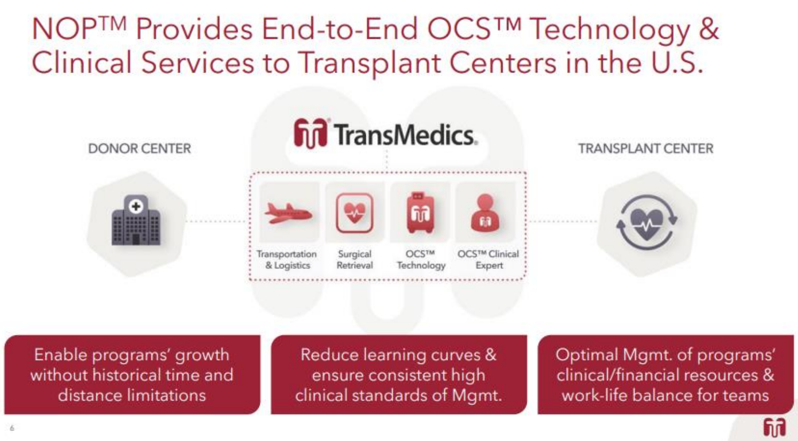
   Highly variable costs associated with emergency flights and personnel overtime

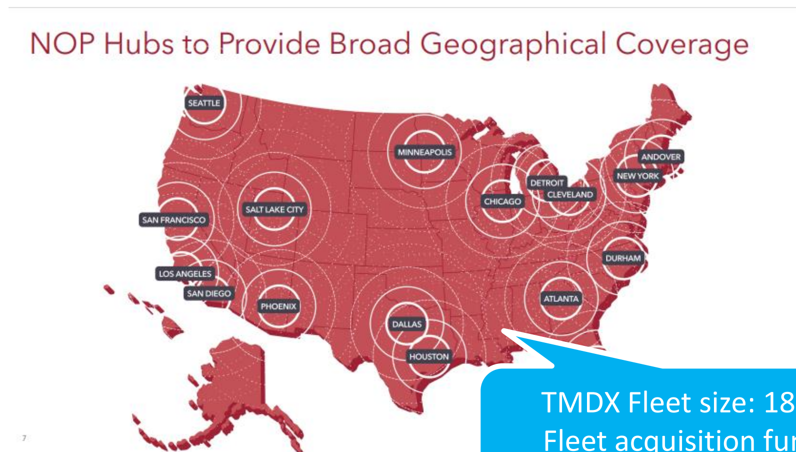
   Difficult resource allocation decision that strain a smaller transplant center's resources

TransMedics Simplifies Transplant Logistics for Hospitals with NOP Service

TransMedics National OCS Program (NOP) retrieves organs for transplant hospitals utilizing its in-house OCS machines, pilots, surgeons, and aircraft for ~$20,000 fee

NOP service is staffed with firm owned jets, pilots, and surgeons





TMDX Fleet size: 18 jets; Fleet acquisition funded through operational cash flow

"This service is a game-changer. It enables surgeons to accept more transplant procedures because it removes the travel component and limits on-service time for a transplant procedure. This provides a huge improvement in the quality of life for transplant surgeons. And more importantly, it allows for transplants to become a scheduled procedure" *– Pediatric Cardiologist*

"TransMedics' NOP service has reduced organ procurement to one phone call" *– UPMC Transplant Administrator*

Company Materials

Interviews with Experts in the Transplant Space

Physicians’ Views about TransMedics' Offerings

OCS Consoles enable diagnostic screening of a heart with the ability to monitor pH and lactic acid levels. If needed, I can take action to correct these levels while the heart is still in OCS Console. If literature comes out that this improves outcomes from 89% to 94%, this technology will become the standard of care for transplants” – Heart Failure and Transplant Surgeon in Virginia

“Extended the preservation time of an organ is only 50% of the solution. The more important half has always been the logistics planning. Combining the two enables transplant centers to both do more transplant volume and avoid middle of the night procedures” – Transplant Infectious Disease Doctor in Indiana

“Right now, we use TransMedics for probably about 50% to 70% of procurements…..successful transplant centers generate a ton of revenue for their institution. So when thinking about ways to increase the volume of transplants that are happening, that is probably near the top of the institutions' financial plan” – Heart Failure and Transplant Surgeon in Georgia

“The biggest challenge with using perfusion machines for organ harvesting is the increase in surgical skill needed to extract an organ. You are no longer just cutting arteries and clipping them. You are now attaching the perfusion machine’s connection points to the heart and then detaching them later. It would be prudent to have someone who works with those machines regularly to maximize successful outcomes” – Heart Failure and Transplant Surgeon in West Virginia

We spoke with over 20 physicians involved with transplants to understand the challenges of the transplant environment and the TransMedics Group’s value proposition

How TransMedics Makes Money

Unit Economics

1 transplant = 1 disposable set + 1 NOP Service
Revenue = ~$85k
Gross Margin = ~$56k

- OCS Consoles are designed to be a traditional razor blade business model with a machine and disposable "bag" required for each transplant
- TMDX focuses on renting OCS consoles and selling disposable sets, and its NOP logistics service

Item	Price	Margin
OCS Console	$250k - $300k	80%
Disposable Set	$65k	80%
NOP Service	~$20k	~19%

NOP Margin expected to increase to ~25% as TMDX's fleet gains greater efficiency

Q3 2024 Earning's Transcript

Company Materials

How Hospitals Get Paid for Transplants

Medicare

- Organ Procurement is separate from transplant procedures for Medicare billing process
- Medicare reimburses organ procurement at a cost-plus margin rate; this includes all transportation, staffing, and equipment (including OCS)
  - Hospitals make 15% - 25% margin on organ procurement no matter the cost
- Organ procurement reimbursement was established in the 1960's through the Social Security Act, making it difficult to modify without Congressional action

Commercial Insurance

- Commercial insurance pays a case rate for each organ (heart, liver, lung, kidney, etc) that includes transplant procedure and organ procurement in one bill
  - e.g. case rate for heart transplant: ~$1 million
- Case Rates can scale with the transplant center's cost if outcomes are improved
  - Strong payer interest in TransMedics' driven by cost-savings hospitals and insurance see from reduced post-transplant care

"Unfortunately, TransMedics' customers - administrators and surgeons – often lack understanding of the reimbursement dynamics, which makes them hesitant to adopt the technology. However, once they are educated on how the process works, there has been no hesitation to use the technology due to its cost-effectiveness"–
Former VP of Market Access at TransMedics

Tegus Interview with former TransMedics' VP of Market Access

TransMedics

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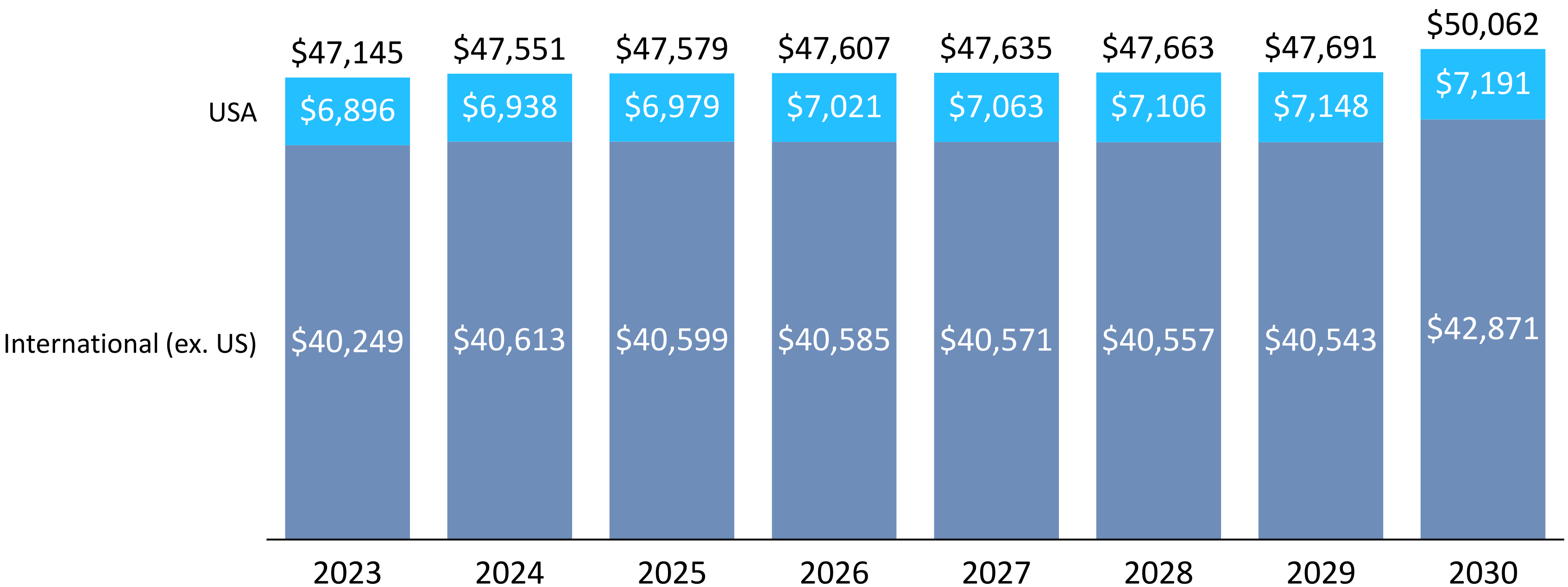
TAM illustrates significant opportunity in international markets

2023 – 2030 Organ Procurement Market Forecast, $ Millions

2024 Domestic TAM ~$7B

2024 International TAM ~$40.5B



International adoption is dependent on organ-sharing agreements between neighboring countries

"International prices are the same as US prices" – TransMedics' Heart OCS Program Manager

Team Analysis using NIH, WHO, & OPTN data

Comparable Firms

Company	TEV (mm)	LTM Revenue (mm)	Gross Margin %	EBITDA Margin %	NTM Rev Mult	NTM EBITDA Mult
CONMED Corporation	$3,216	$1,288	55.8%	16.9%	2.3x	11.4x
Boston Scientific Corporation	$141,401	$15,911	68.7%	25.5%	7.8x	26.8x
AtriCure, Inc.	$1,689	$448	74.8%	-3.6%	3.3x	50.3x
iRhythm Technologies, Inc.	$2,529	$560	67.8%	-16.2%	3.9x	56.9x
Artivion, Inc.	$1,493	$385	64.5%	13.7%	3.6x	18.7x
Intuitive Surgical, Inc.	$190,908	$7,867	67.0%	31.8%	20.9x	50.3x
Medtronic plc	$130,906	$32,996	65.4%	28.0%	3.8x	12.7x
Average	**$67,449**	**$8,494**	**66.3%**	**13.7%**	**6.5x**	**32.4x**
Median	**$3,216**	**$1,288**	**67.0%**	**16.9%**	**3.8x**	**26.8x**

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TMDX DCF Valuation – EBITDA Multiple

Discount Rate		12.1%
Terminal Value FY2028		9,770.2
Terminal Year EBITDA FY2028		325.7
Terminal Multiple		**30.0 x**
		Present Value
Sum of Present Value of Projected FCFF		552.7
Present Value of Terminal Value		6,117.0
Implied Enterprise Value, mm		**6,669.7**
Less: Debt		508.5
Less: Operating Leases		-
Less: Preferred Equity		-
Less: Unfunded Pension Liabilities		-
Less: Noncontrolling Interest		-
Plus: Cash & Cash Equiv.		330.1
Plus: Equity Investments		-
Other Adjustments		-
Implied Equity Value, mm		**6,491.2**
Diluted Shares Outstanding		**35.7**
Implied Share Price - USD		181.91
FX - USD/USD		1.00
Implied Share Price - USD		**181.91**
Last Price - USD		76.04
Premium to Last Price		***139.2%***

30x EBITDA multiple justified by the proprietary technology TMDX owns that has no FDA-approved competitor and anticipation of 2nd generation of OCS technology launching in 2025

Last Price (USD)	76.04	*Dec-24*	*Dec-25*	*Dec-26*	*Dec-27*	*Dec-28*
Most Recent Quarter:	Q3-2024	Remaining FY2024	FY2025	FY2026	FY2027	FY2028
Discounted Cash Flow Analysis						
Net Revenue		**115.2**	**592.8**	**682.3**	**772.8**	**872.4**
Net income (loss)		(3.1)	79.2	153.7	205.2	266.1
D&A		6.9	25.7	24.2	21.9	19.8
SBC		2.3	9.3	9.3	9.3	9.3
Other		-	0.0	0.0	(0.0)	(0.0)
Operating Cash Flow before WC (Levered)		**6.1**	**114.2**	**187.2**	**236.4**	**295.2**
Interest expense		7.7	30.5	30.5	30.5	30.5
EBT		(3.1)	79.2	153.7	205.2	266.1
Total Tax Expense		-	-	-	-	-
Tax Rate		-	-	-	-	-
After Tax Interest Expense		7.7	30.5	30.5	30.5	30.5
Operating Cash Flow before WC (Unlevered)		**13.8**	**144.7**	**217.7**	**266.9**	**325.7**
Capex		(0.2)	(88.9)	(81.9)	(38.6)	(43.6)
Acquisition		-	-	-	-	-
Divestiture		-	-	-	-	-
Change in WC		(31.3)	21.2	24.6	27.8	31.4
Free Cash Flow to Firm (FCF		**(17.7)**	**77.0**	**160.4**	**256.1**	**313.5**
Time Period		0.1	1.1	2.1	3.1	4.1
Present Value of FCFF		**(17.5)**	**67.9**	**126.2**	**179.7**	**196.3**
FCFF Growth Rate				*108.3%*	*59.6%*	*22.4%*
Capex, as % of Net Revenue		*26.7%*	*15.0%*	*12.0%*	*5.0%*	*5.0%*
Change in WC, as % of Net Revenue		*-16.2%*	*3.6%*	*3.6%*	*3.6%*	*3.6%*

Capex forecasts the acquisition of 3 additional jets in 2025 and 2026 to bring fleet size to management's projection of 24

*WACC (Discount Rate) from Bloomberg

Valuation Football Field

- EV/EBITDA is using 2028 EBITDA between a 26x and 34x multiple

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Competitive Landscape

Perfusion Technology Players				
	TransMedics	XVIVO	OrganOx living organs for life	PARAGONIX
Cost	$250,000 per machine; $65,000 per surgery	$250,000 - $300,000 per machine; $35,000 - $45,000 per surgery	$150,000 - $200,000 per machine; $30,000 - $50,000 per surgery	$10,000 - $15,000 per machine; $4,000 - $6,000 per surgery
Technology	Warm Perfusion (Organs are kept alive and functioning outside the body, simulating conditions inside the human body)	Cold Perfusion and Lung Perfusion (organs are preserved at cold temperatures but some products also use warm perfusion)	Normothermic Perfusion (Organs are kept at body temperature, maintaining normal function)	Cold Storage (organs are preserved using advanced cold storage technology) - SherpaPak
Organs	Heart, Lungs & Liver (market leader in warm perfusion technology	Primarily focuses on Lungs (market leader in lung preservation) but has products for other organs in development	Liver (market leader in liver preservation using warm perfusion)	Heart and Lungs (market leader in cold storage for heart transplants)
Offering	Full-service logistics network with airplanes and dedicated transport services, alongside real-time support for organ transport and transplantation	On-site lung perfusion technology	On-site liver perfusion technology & remote monitoring	Supplies cold storage transport systems only
FDA status	Approved for lung and heart transplants. Recently, liver OCS technology has been under review or approved in some contexts	XVIVO's Lung Perfusion System has FDA approval for lung transplants; anticipating entering US market in 2026	Has received approval for liver transplant systems in Europe; FDA status varies, with some products undergoing trials or regulatory review	FDA cleared for use in heart transplants
Time	Heart: Up to 12 hours with the OCS Heart system; Lungs: Up to 12 hours with the OCS Lung system; Liver: Up to 24 hours with the OCS Liver system	XVIVO (Cold/Warm Perfusion): Lung up to 12 hours (warm perfusion); 6-8 hours (cold storage)	OrganOx (Normothermic Perfusion): Liver up to 24 hours	Paragonix (Cold Storage): Heart and Lung 6-10 hours

Cold Perfusion does not compete with warm perfusion; they have different use cases

Paragonix was acquired by Getinge on Aug 22, 2024 for $477mm
TransMedics acquired Bridge to Life's warm and cold perfusion technology on Aug 2, 2023

Investment Risks and Mitigants

Risk Category	Level of Concern	Description
Headline	**Low**	Doctors changed the definition of death to be able to harvest organs from DCD donors. There have been multiple articles put out calling this practice immoral **Mitigant:** DCD Donors allow for thousands of lives to be saved by increasing the supply of transplant organs. Some may opt out of organ donation but too much public health good is being done to ban DCD organ donation
Operational	**High**	TransMedics has zero experience operating a mission response logistics service **Mitigant:** Track the average number of aircraft in service for the company over 12 months to see if operational efficiency is achieved
Competition	**Medium**	New competitors like XVIVO are attempting to enter the US Market by 2026. **Mitigant:** TMDX has a 3-year head start in the US market and already made relationships with the largest transplant centers in the nation. Additionally, the logistics service TMDX offers is a unique marketplace offering. Lastly, TMDX has new versions of their OCS consoles slated to finish FDA trials next year that significantly improve on their existing OCS models
Regulatory	**Low**	Congressman Paul Gosar wrote a letter to TMDX asking the firm to explain their high costs billed to Medicare. This could result in an action to reduce Medicare reimbursement for organ procurement **Mitigant:** Organ procurement is codified in the Social Security Act of the 1960s. It would take a law approved by Congress to change that reimbursement program

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Revenue Model

- TMDX Company Goal of 10,000 domestic transplants by 2028
    - Did not model increase in transplants mandated by OPTN by 2026
- International expansion has reduced ramp due to the uncertainty of payment structure
- Model doesn’t include the introduction of the Kidney OCS console in 2026/2027
- No Historical NOP Revenue in Historical Earnings
- Assumed 50% of TMDX transplants will utilize NOP service

Real-Time Stock Price : Bloomberg OFF Model Sheet Currency : USD	Dec-16 FY2016	Dec-17 FY2017	Dec-18 FY2018	Dec-19 FY2019	Dec-20 FY2020	Dec-21 FY2021	Dec-22 FY2022	Dec-23 FY2023	Dec-24 FY2024	Dec-25 FY2025	Dec-26 FY2026	Dec-27 FY2027	Dec-28 FY2028
Segmented Results - Revenue Breakdown (FS)													
United States - OCS Disposable Sets Revenue, mm	3.5	2.7	6.1	13.0	15.4	17.5	67.2	177.1	334.2	455.0	520.0	585.0	650.0
United States - OCS Consoles Revenue, mm	-	-	0.4	3.3	3.8	4.4	16.8	44.3	81.0	46.3	48.0	50.0	50.0
United States - NOP Revenue, mm										73.5	88.2	104.2	121.6
United States - OCS Disposable Sets Revenue as % of Total United States Rever	*100.0%*	*100.0%*	*93.4%*	*80.0%*	*80.0%*	*80.0%*	*80.0%*	*80.0%*	*80.5%*	*79.2%*	*79.2%*	*79.1%*	*79.1%*
United States - Average Selling Price per OCS Disposable Set, $	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 41,234	$ 65,000	$ 65,000	$ 65,000	$ 65,000
United States - OCS Disposable Sets Sold, # of units	87	69	153	325	385	437	1,681	4,427	8,105	7,000	8,000	9,000	10,000
United States - Average Selling Price of OCS Console, $	$ 230,000		$ 230,000	$ 230,000	$ 230,000	$ 230,000	$ 230,000	$ 230,000	$ 231,213	$ 231,250	$ 240,000	$ 250,000	$ 250,000
United States - OCS Consoles Sold, # of units			2	14	17	19	73	192	350	200	200	200	200
United States - Average Selling Price of NOP Mission, $									$20,000	$21,000	$22,050	$23,153	$24,310
United States - NOP Mission, # of units									1,875	3,500	4,000	4,500	5,000
International - OCS Disposable Sets Revenue, mm	2.2	4.0	5.2	5.9	5.1	6.7	7.5	12.3	12.7	12.8	18.0	24.0	40.0
International - OCS Consoles Revenue, mm	0.5	1.0	1.3	1.5	1.3	1.7	1.9	3.1	3.9	5.3	8.1	9.6	10.8
International - OCS Disposable Sets Revenue as % of Total United States Reven	*80.0%*	*80.0%*	*80.0%*	*80.0%*	*80.0%*	*80.0%*	*80.0%*	*80.0%*	*76.6%*	*70.8%*	*69.1%*	*71.4%*	*78.7%*
International - Average Selling Price per OCS Disposable Set, $	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000	$ 40,000
International - OCS Disposable Sets Sold, # of units	55	99	129	147	128	168	188	308	318	320	450	600	1,000
International - Average Selling Price of OCS Console, $	$ 230,000	$ 230,000	$ 230,000	$ 230,000	$ 230,000	$ 230,000	$ 230,000	$ 230,000	$ 230,000	$ 230,000	$ 230,000	$ 240,000	$ 240,000
International - OCS Consoles Sold, # of units	2	4	6	6	6	7	8	13	17	23	35	40	45
OCS organ transplants in US, # of transplants							1,000	2,300	3,750				10,000

Base Model from Tegus; iterated on by team to model NOP Revenue; NOP inputs were informed from expert calls and Q3 2024 earnings call commentary

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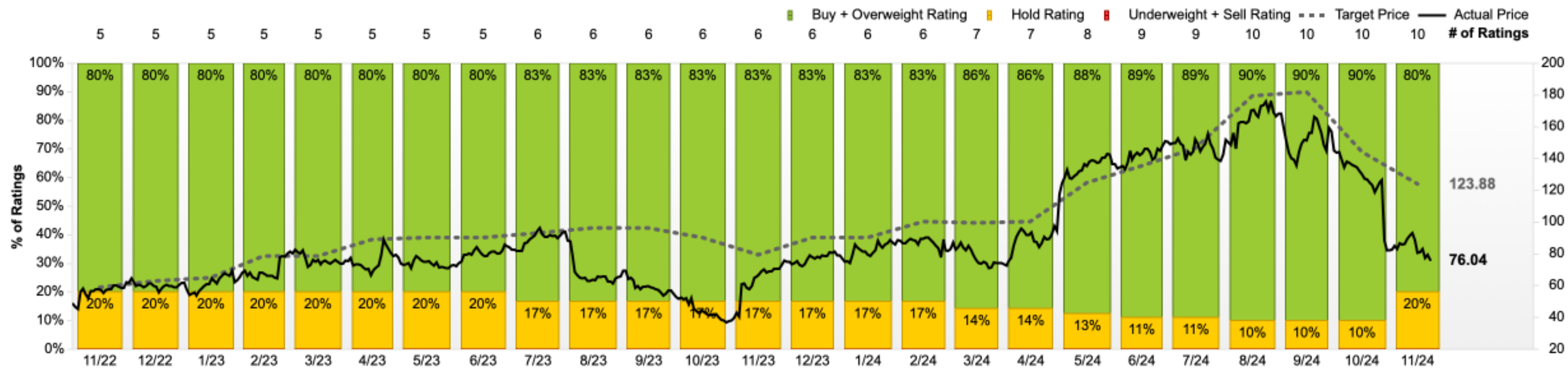
Analyst Targets

TransMedics

TransMedics Group, Inc. (TMDX) **$76.04** Next Rpt Date: 04 Mar '25 Key Statistics FactSet Estimates



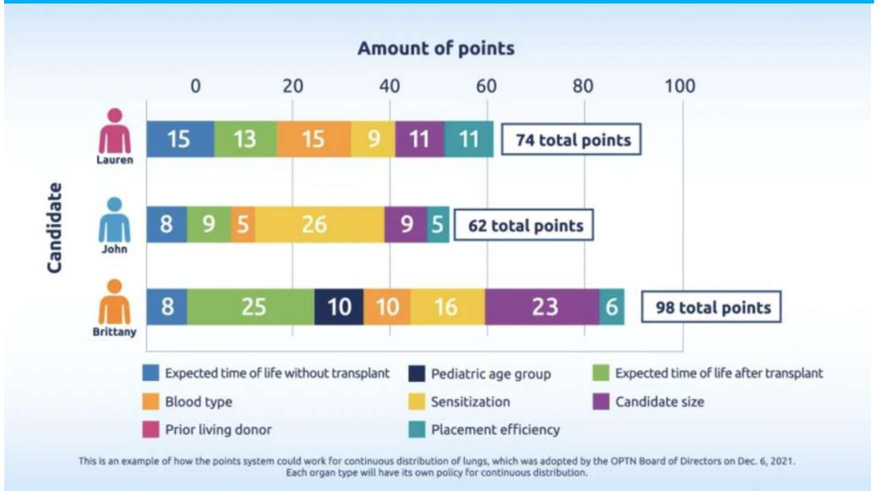
U.S. Dollar

Broker	Analyst	Rating Date	Rating*	Price on Rating Date	Tgt Price Date	Tgt Price*	Price on Tgt Price Date	Tgt Price Implied Return (%
Mean		**24 Nov '24**	**Overweight (1.30)**	**76.04**	**24 Nov '24**	**123.88**	**76.04**	**62.**
Needham	Mike Matson	21 Nov '24	Hold	79.34	29 Oct '24	-	88.50	-
Oppenheimer	Suraj Kalia	20 Nov '24	Buy	77.20	20 Nov '24	125.00	77.20	64.
Canaccord Genuity	William J. Plovanic	19 Nov '24	Buy	82.92	19 Nov '24	104.00	82.92	36.
Piper Sandler Companies	Matt O'Brien	19 Nov '24	Buy	82.92	19 Nov '24	110.00	82.92	44.
William Blair	Ryan Daniels	14 Nov '24	Buy	88.36	-	-	-	-
TD Cowen	Joshua Jennings	14 Nov '24	Buy	88.36	14 Nov '24	120.00	88.36	57.
Restricted	Restricted	01 Nov '24	Hold	82.40	01 Nov '24	87.00	82.40	14.
Restricted	Restricted	29 Oct '24	Buy	88.50	29 Oct '24	116.00	88.50	52.
CL King & Associates	Kristen M. Stewart	29 Oct '24	Overweight	88.50	29 Oct '24	179.00	88.50	135.
Restricted	Restricted	29 Oct '24	Overweight	88.50	29 Oct '24	150.00	88.50	97.

FactSet

NEW ORGAN ALLOCATION SYSTEM REDUCES EMPHASIS ON DISTANCE

New Allocation System



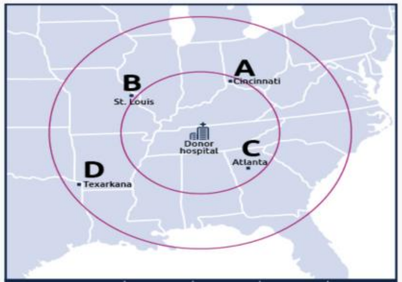
Old Allocation System

The current system that matches organs with patients gives points to candidates at various steps of a sequence in the organ offer process.

EXAMPLE
In this broad example, there are four candidates who are being prioritized for an organ offer: Candidates A, B, C and D.

These patients vary in terms of their:

- Medical urgency
- Distance from the donor hospital
- Candidate biology (compatibility)
- Predicted one-year post-transplant survival



Factors	Candidate A	Candidate B	Candidate C	Candidate D
Medical Urgency	Medium	High	Low	Medium
Distance from Donor Hospital	249 NM	251 NM	230 NM	300 NM
Candidate Biology (compatibilty)	Medium	Low	Medium	High
1 year survival after transplant	High	Medium	High	Low

New System Improves Equity through These Guidelines

1. **Composite Score**: Considers multiple factors beyond distance, like medical urgency and compatibility.
2. **No Hard Boundaries**: Removes strict geographic limits, prioritizing broader patient needs over proximity.
3. **Balanced Efficiency**: Incorporates distance but emphasizes fairness, enabling wider access across regions.

Reduced Emphasis on Distance is a Major Advantage for TransMedics

https://optn.transplant.hrsa.gov/policies-bylaws/a-closer-look/continuous-distribution/#CD_NewSystem

TMDX Unique Competitive Advantage

NATIONAL OCS PROGRAM (NOP)

Streamline the Process of Organ Transplantation in U.S.

BROAD INDICATIONS

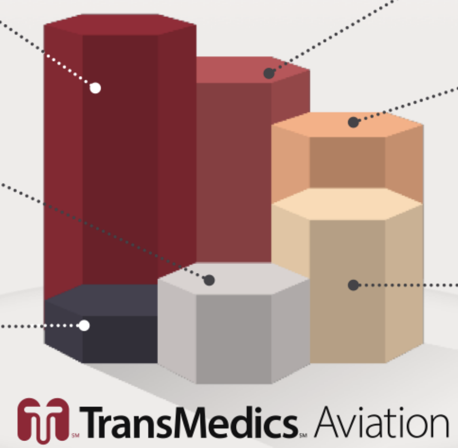
Multiple Approved FDA PMAs with Broad DBD and DCD indications

TECHNOLOGY

Technology Customized to Fit in and Optimize Current Workflow

IP

>400 Issued Patents and Pending Patent Applications Worldwide*



VERSATILE

The Only FDA Approved Multi-Organ Platform

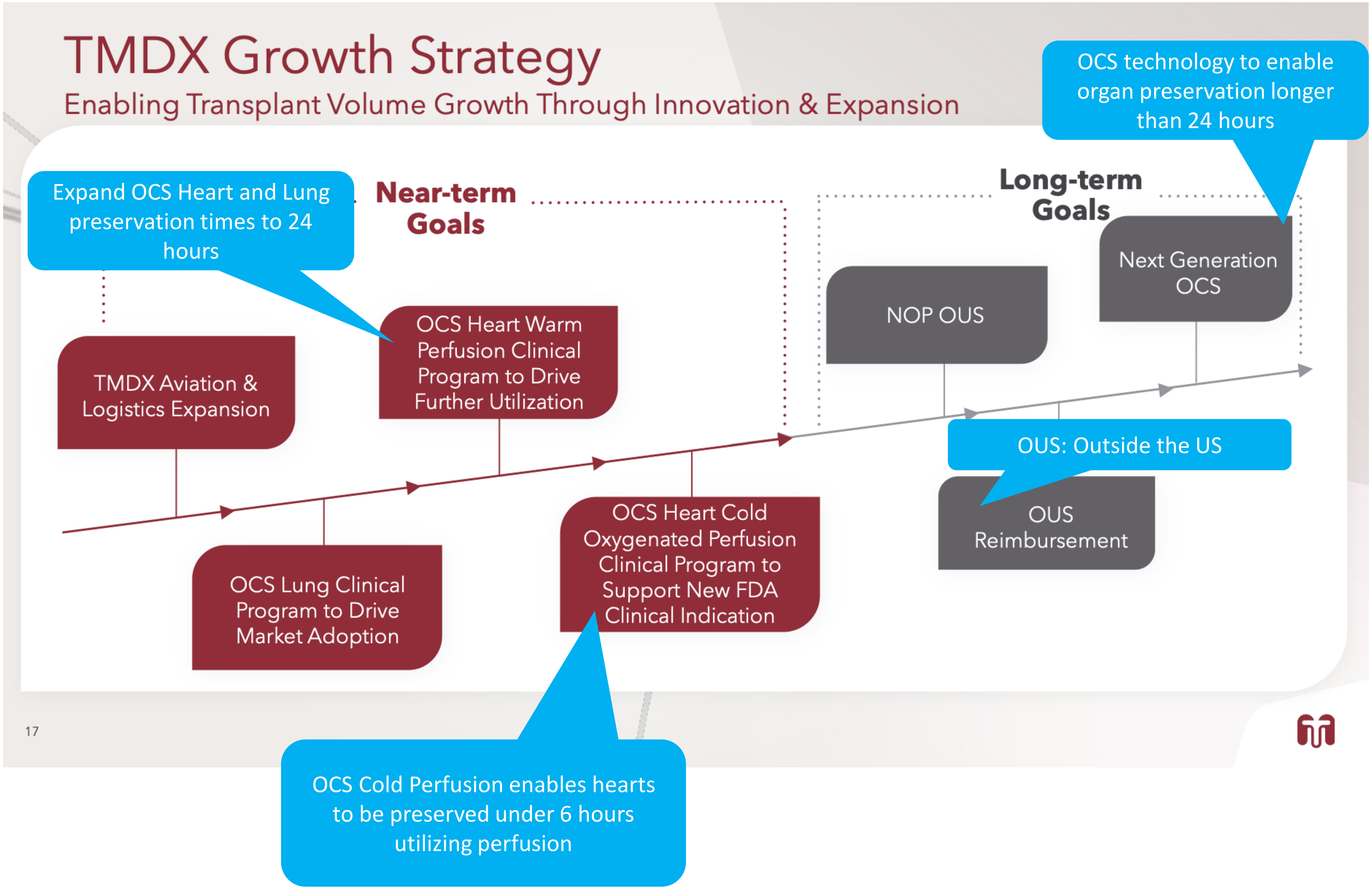
CLINICAL EVIDENCE

Established Body of Global Clinical Evidence

GLOBAL PRESENCE

Established Presence at Leading Global Academic Transplant Centers

* As of October 28, 2024


TMDX Growth Strategy
Enabling Transplant Volume Growth Through Innovation & Expansion
OCS technology to enable organ preservation longer than 24 hours
Expand OCS Heart and Lung preservation times to 24 hours
Near-term Goals
Long-term Goals
TMDX Aviation & Logistics Expansion
OCS Heart Warm Perfusion Clinical Program to Drive Further Utilization
OCS Lung Clinical Program to Drive Market Adoption
OCS Heart Cold Oxygenated Perfusion Clinical Program to Support New FDA Clinical Indication
NOP OUS
Next Generation OCS
OUS: Outside the US
OUS Reimbursement
17
OCS Cold Perfusion enables hearts to be preserved under 6 hours utilizing perfusion

Kenan–Flagler Business School

ALPHA CHALLENGE

The University of North Carolina

DECEMBER , 2024

Team Number: 10

Students: Jiahao Zhang

Karishma Solanki

Mauricio Meza

Eagle Materials

EXP – Eagle Materials

BUY – EAGLE MATERIALS (NYSE: EXP)

TP’25: $367 (22% Upside) – Current Price: $300.27

We recommend a BUY in Eagle Materials (NYSE:EXP), based on a 2025 Target Price of $367, implying a 22% upside from current market price of $300.27 per share (11/20/24). This price implies a 14x EV/EBITDA multiple.

Company Overview		Eagle Materials (NYSE:EXP) is a leading manufacturer of building materials. The company’s main products are Portland cement and Gypsum wallboard (drywall). Operating cement plants, distribution centers, cement terminals, ready-mix concrete facilities and wallboard plants. Geographically diverse presence in 20+ States across the US heartland and sunbelt, protected from seaborn imports.
Investment Thesis	**STRUCTURAL CHANGE IN INDUSTRY**	Market’s expected growth does not account for a structural shift in supply and demand balance. Regulatory constrains on supply have pushed cement and gypsum prices to a sustainable higher level. Due to its non-coastal location, Eagle is benefitting from increased pricing power. Infrastructure funding to be deployed and housing market at bottom of cycle will provide positive price action support.
	CAPITAL ALLOCATION AND BUYBACKS	Solid track record of growth M&A (average 30% increase in cement capacity every 4 years). Successful margin expansion through vertical integration and bolt-on projects. Management has managed to return over $2Bn to shareholders in the past 5 years, reducing share count in 30%. Current dividend plus buyback yield is 3.6%.
	MULTIPLE RE-RATING IN PROCESS	Since May, multiples are on a breakout above their 5Y average. Despite the challenging year in terms demand due to bad weather, the company has seen a rerating as a combination of pricing power and commitment to its buyback program. We believe the company will reach multiple levels as other US building materials players with strong fundamentals .

VALUATION

Target price ‘25 of $367:

DCF Model ($308.2): Assuming a 9% WACC, a terminal 12.5x EV/EBITDA multiple similar to current valuation levels and lower than peers trading multiples.
Implied perpetual growth rate of 3.9%, accounting for inflation and population organic growth.

Trading Overview

Historical Share Price

Trading Statistics

MARKET CAP ($M)	10,080
EBITDA ($M)	796
P/E '25	18.6x
EV/EBITDA '25	12.3x
P/B	7.2x
YTD RETURN (%)	53%
52W Range	178.65-317.00
Avg Volume	272.61K
Short Float	3.27%
Short Ratio	3.97

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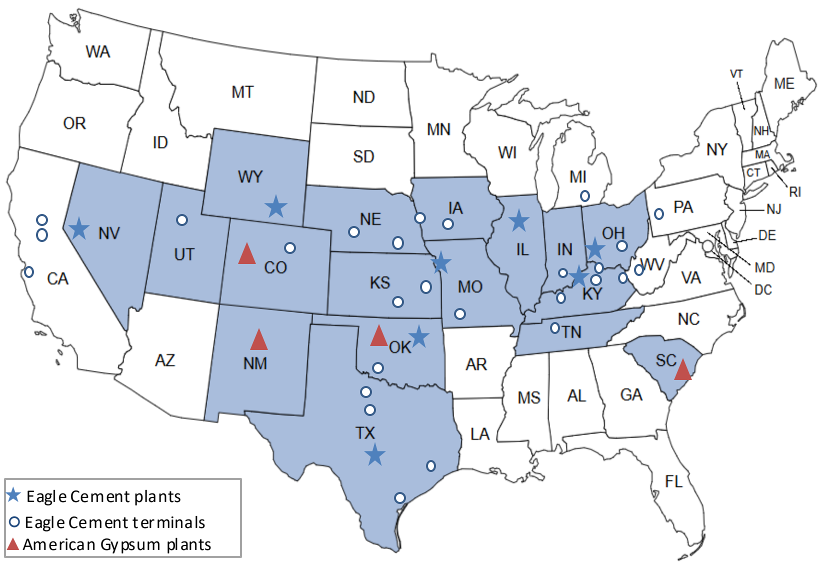
BUSINESS DESCRIPTION

Eagle Materials (NYSE:EXP) is a leading manufacturer of heavy and light building materials products. The company produces Portland cement, gypsum wallboard, ready-mix concrete, aggregates, and recycled paperboard serving residential, commercial, and industrial clients across 20+ States. In the heavy materials segment, the company operates 8 cement plants, one slag grinding facility, over 30 cement distribution terminal, 25 ready-mix concrete plants, and 5 aggregates processing plants. In the light materials segment, the company operates 4 gypsum wallboard plants and 1 recycled paperboard facility.

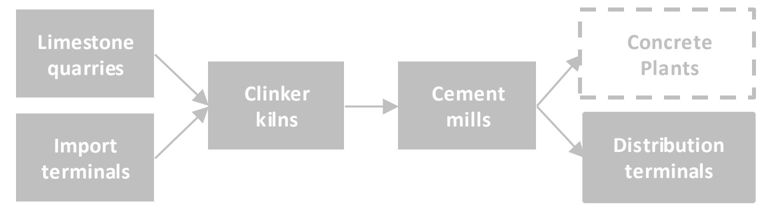
ADVANTAGEOUS GEOGRAPHIC PRESENCE



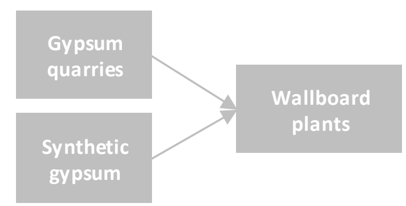
- #7 Cement producer and #2 Gypsum Wallboard producer in the US.
- Locations protected from seaborne imports grant local pricing power.
- According to a Moody’s Analytics report from February 2024, population in the main ten states (65% of revenues) is expected to grow approximately 11% between 2020 and 2050, compared to 7% for the United States as a whole.

SELECTIVE END-TO-END VERTICAL INTEGRATION

CEMENT – Choosing not to compete on Concrete segment



GYPSUM WALLBOARD



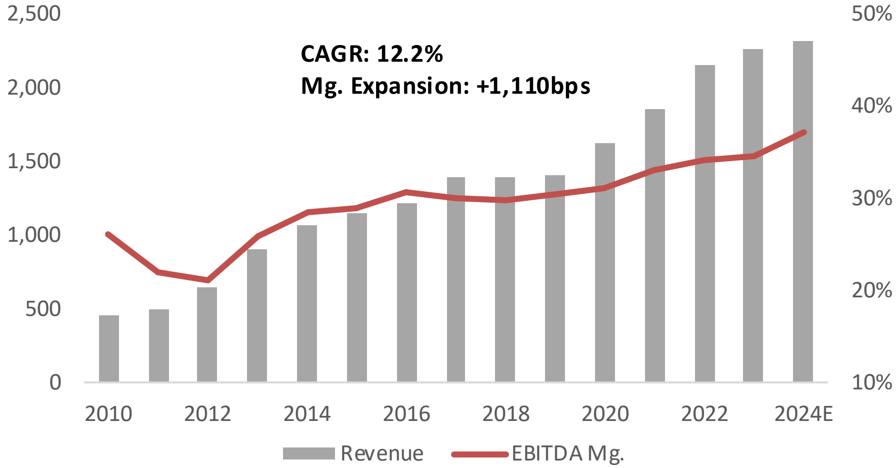
MAIN METRICS – 3Q2024 LTM

REVENUE ($M)	2,267.8
EBITDA ($M)	796.0
EBITDA MG.	35.1%
FCF ($M)	462.5
FCF MARGIN	20.3%
EPS	13.720

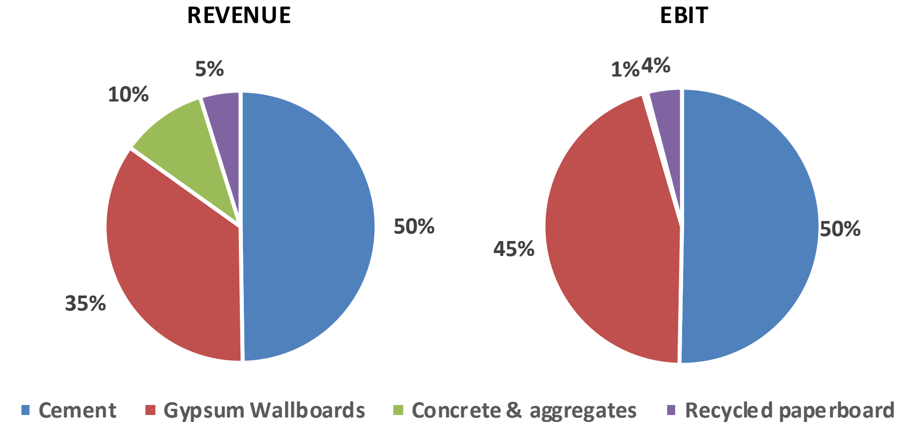
DEBT / EQUITY	0.76x
NET DEBT/ EBITDA	1.26x
INTEREST COVERAGE	14.8x
ROIC	19.3%
ROE	35.3%

BUSINESS DESCRIPTION

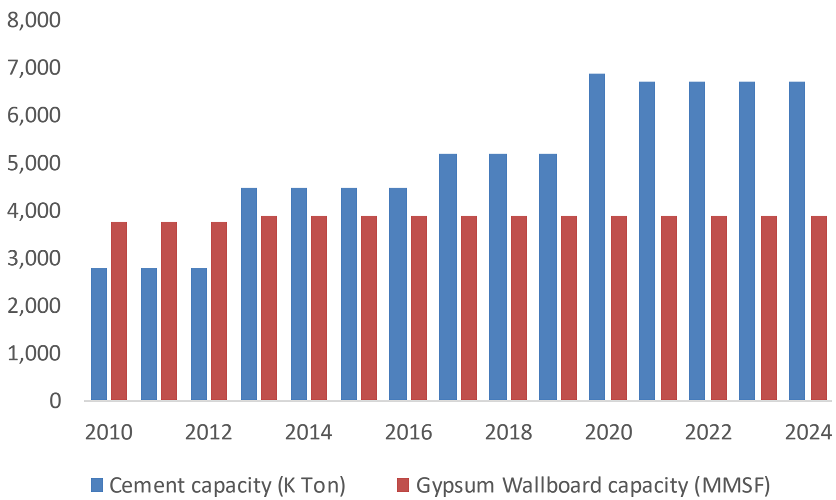
SUSTAINED GROWTH AND MARGIN EXPANSION



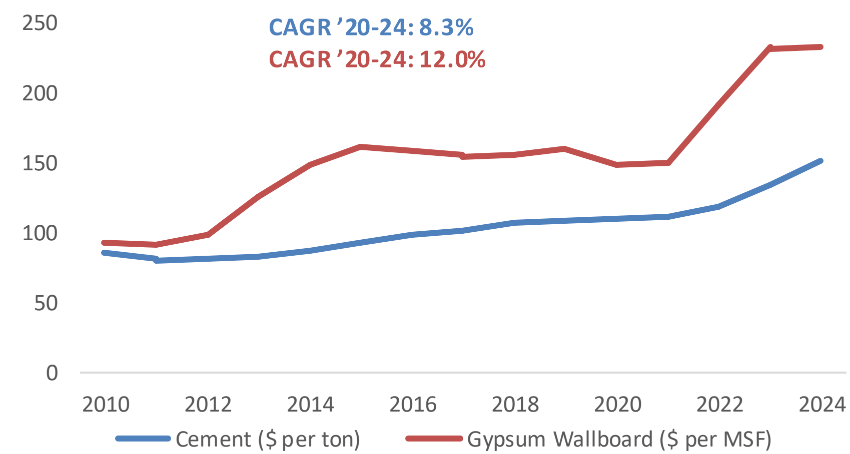
SEGMENT REVENUE BREAKDOWN



PAST DECADE’S GROWTH HAS FOCUSED ON CEMENT ONGOING PROJECTS OF +10% CAPACITY IN 2Y



SUCCESSFUL PRICING STRATEGY ON BOTH MARKETS



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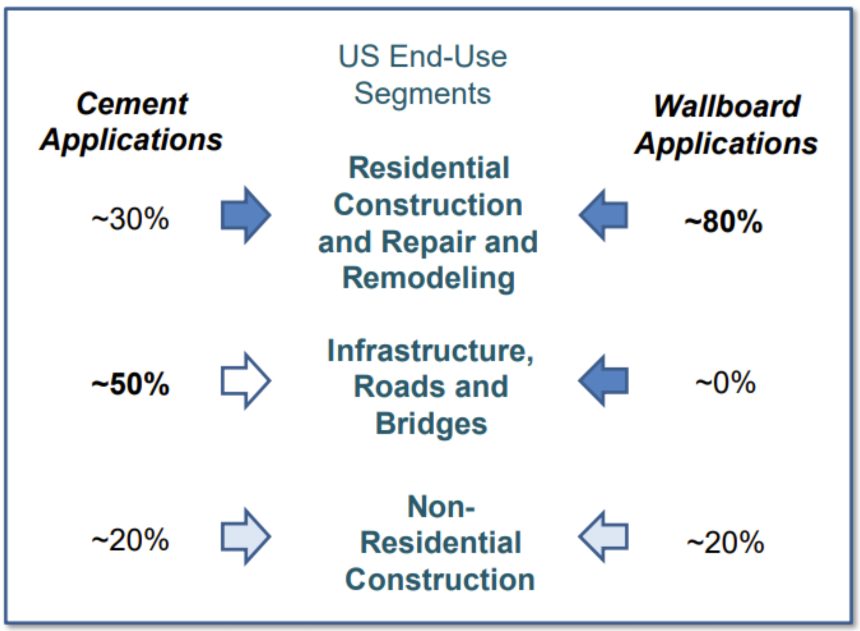
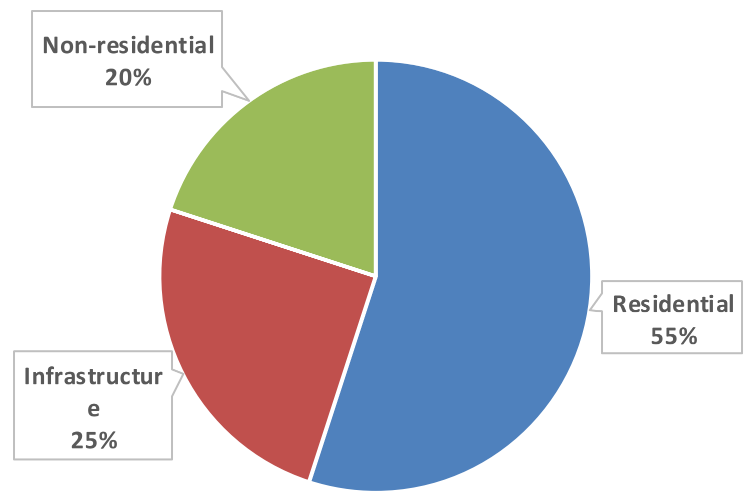
BUSINESS DRIVERS

REVENUE GROWTH DRIVEN BY RISING DEMAND AND PRICING POWER. CONTINOUS MARGIN EXPANSION.

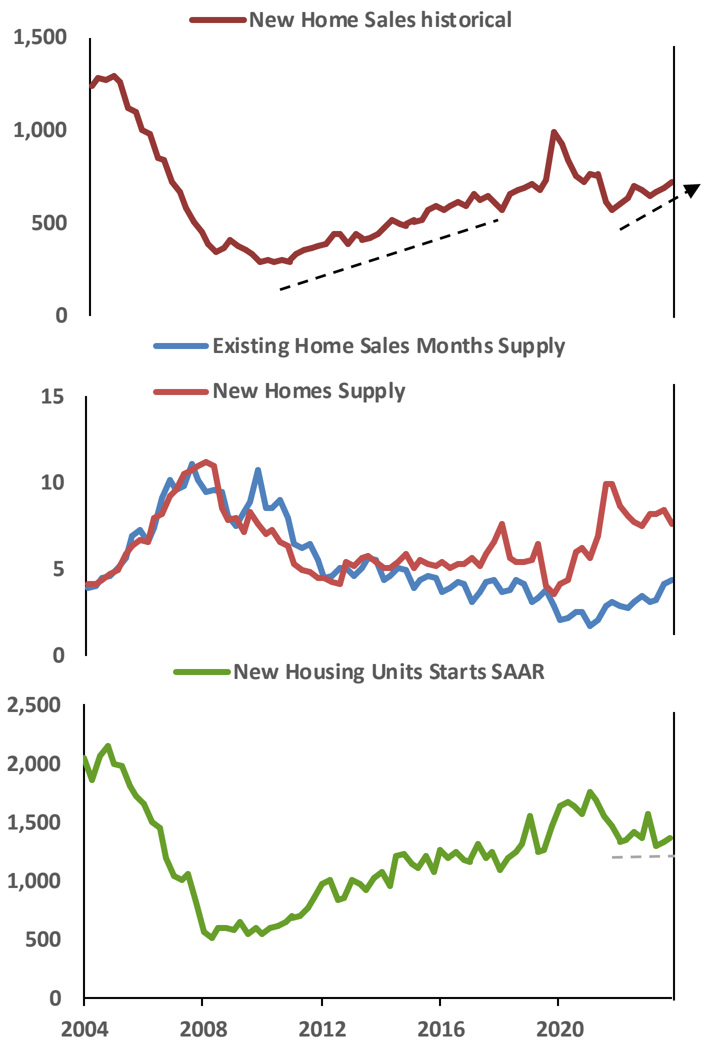


EAGLE MATERIALS EXPOSURE BY SEGMENT



INVESTMENT THESIS #1 - HOUSING MARKET

NEW HOME DEMAND SURGES POST 2022 INTEREST RATE SPIKE

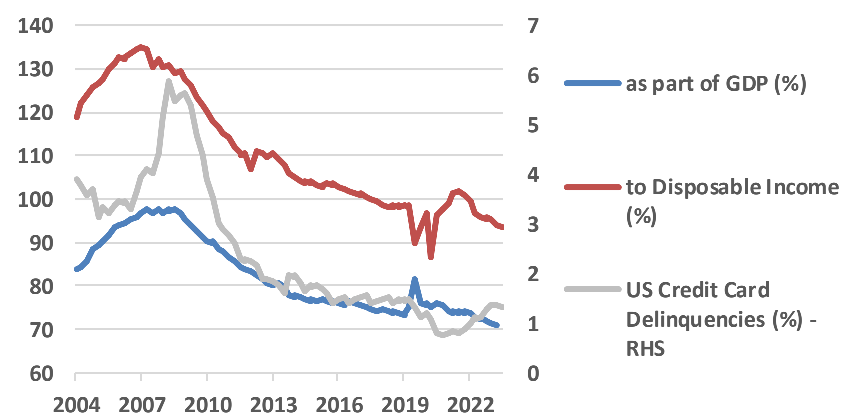


Residential demand for new homes (including single family, town houses, multi-family and condos) has resumed its upward trend after the 2022-2023 slowdown product of interest rate hikes.
Further accommodative policy and new fiscal stimulus would boost demand.

After spiking in 2022, New Homes Supply in months is decreasing. The recovery has been boosted by sales but also by a stabilization in Housing Starts.

However, Existing Homes Supply in months is increasing. New Housing Units Starts seems to have bottomed out in 2024 with a more benign level of interest rates for developers and a firmer. We expect further developments as the economy continues to grow and financial conditions become less restrictive.

HOUSEHOLD DEBT CONTINUES TO TREND DOWN

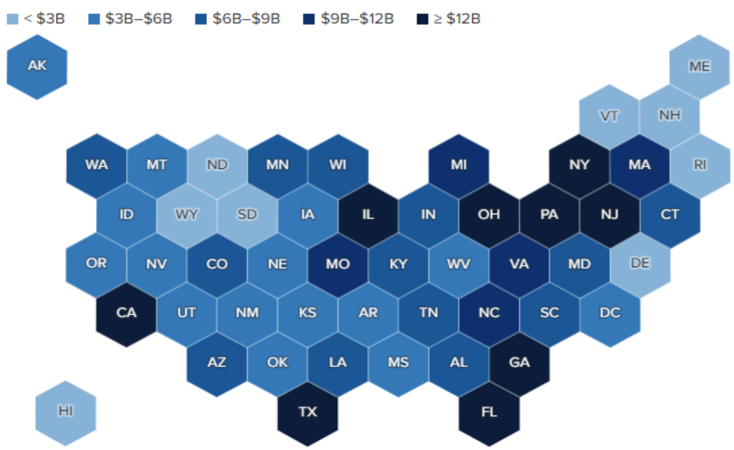


INVESTMENT THESIS #1 - INFRASTRUCTURE AND INDUSTRIAL DEMAND

TAILWINDS FOR INFRASTRUCTURE SPENDING

IIJA funds have rolled out slower than anticipated, with 75% of funds yet to materialize. Therefore, we believe that this leaves ample funding in 2025 which could surprise on the upside boosting demand.

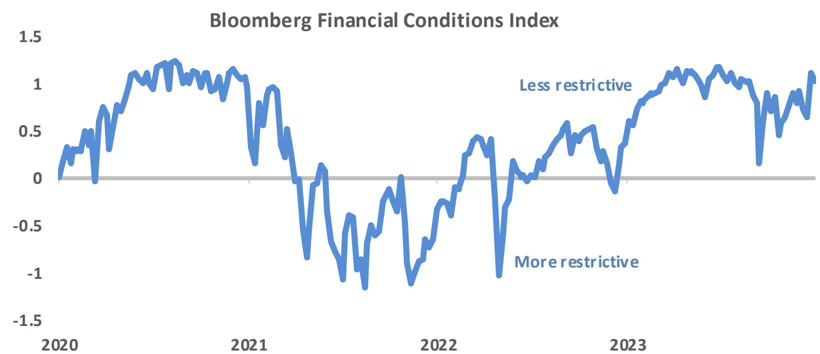
Infrastructure Investment and Jobs Act (IIJA) execution has been 25%
So far, $247Bn of the total $550Bn in the Bill have been released to the States. Final construction activity is expected to pickup between 2024 and 2028 as works are finalized. California, Texas and the Midwestern States are expected to receive significant part of the funding.



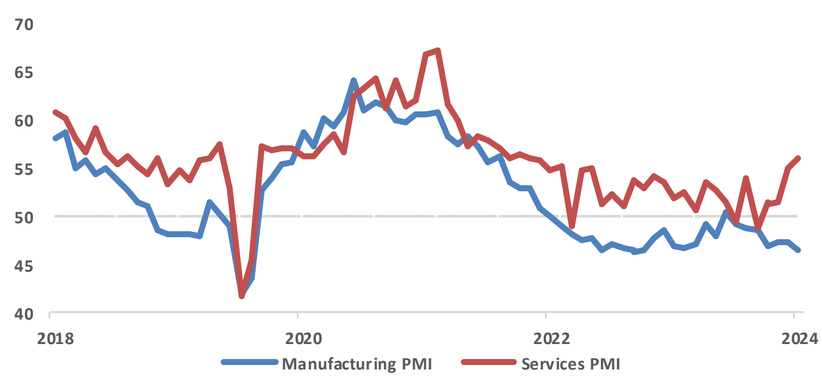
Note: White House estimates are summaries based on allocation of funds in prior legislation and are subject to change.
Source: The White House
Map data: Tilegrams/NPR

MANUFACTURING ACTIVITY

Financial conditions have greatly improved since 2022.
Despite the high interest rate levels, credit is available, and financial conditions are trending upwards. Ultimately, for cement demand, the delta will depend on the balance within interest sensitive sectors and the rest of the economy.

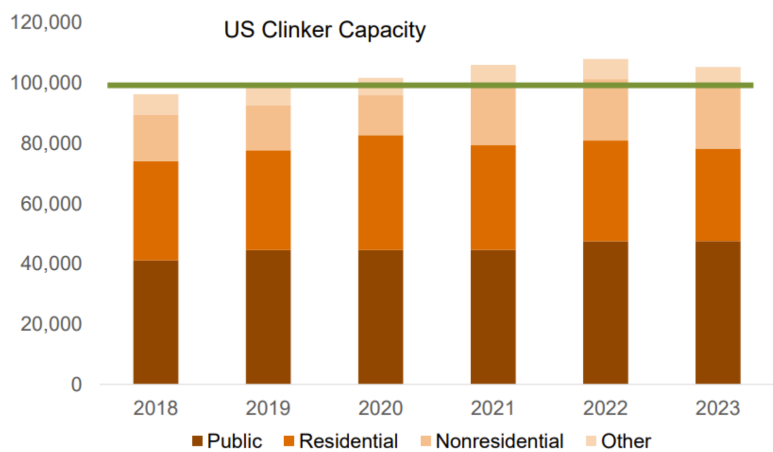


Manufacturing PMI has not picked up yet.
Services are supporting economic growth while Manufacturing has remained below 50 for most of the past two years. However, this hasn't affected cement demand in the past 3 years.



INVESTMENT THESIS #1 – REGULATIONS HAVE CREATED A NEW STRUCTURAL PRICING ENVIRONMENT

STRUCTURALLY CONSTRAINED CEMENT SUPPLY



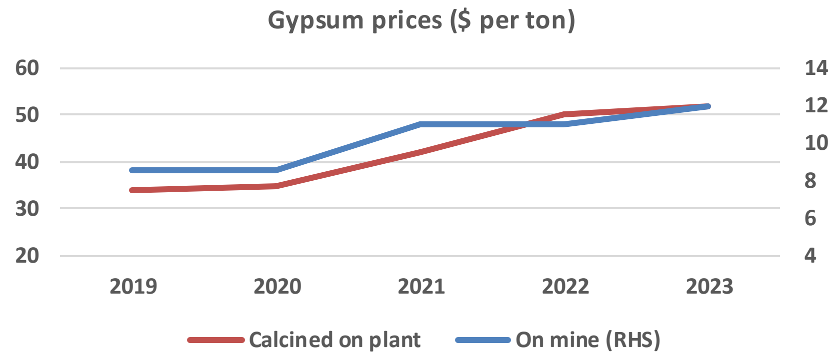
Current cement demand has surpassed national Clinker capacity, creating positive price pressure.

High competition with imported Clinker and cement from Vietnam and Turkey. Added transport costs establish new price floor.

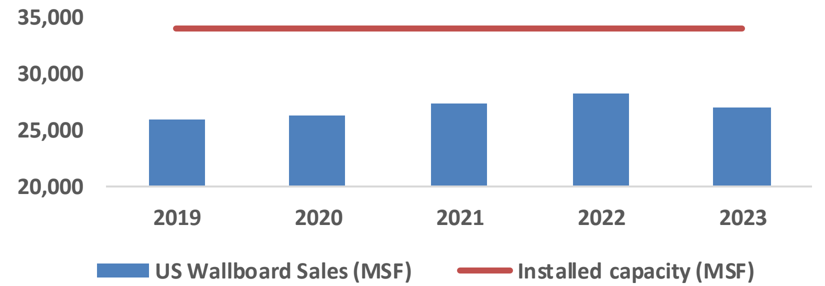
NESHAP Regulations approved in 2010 made environmental compliance costs prohibitive for new plants.

In the US, greenfield projects for cement plants haven't been built in the past 10 years, as importing clinker is more cost-effective for manufacturers. Added capacity has come from plant modernizations.

WALLBOARD HAS CAPACITY BUT HIGHER PRICES



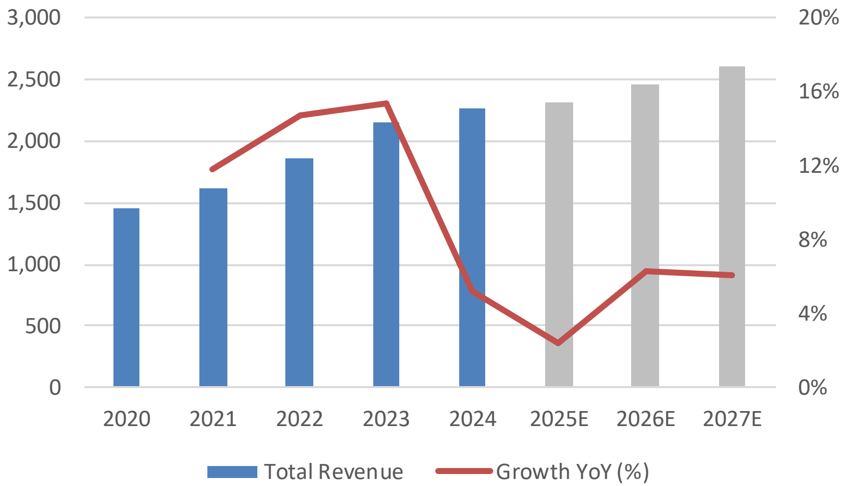
Coal-mines closures in North America have boosted prices as synthetic Gypsum supply (a coal by-product) was reduced.
Producers of Gypsum have been focusing on natural mines, benefiting vertically integrated players with higher prices.



Wallboard demand is expected to grow with organic residential demand and industrial/commercial activity. Production still has excess capacity but not enough Gypsum suppliers.

INVESTMENT THESIS #1 – MARKET IS NOT FACTORING IN THIS NEW INDUSTRY DYNAMIC

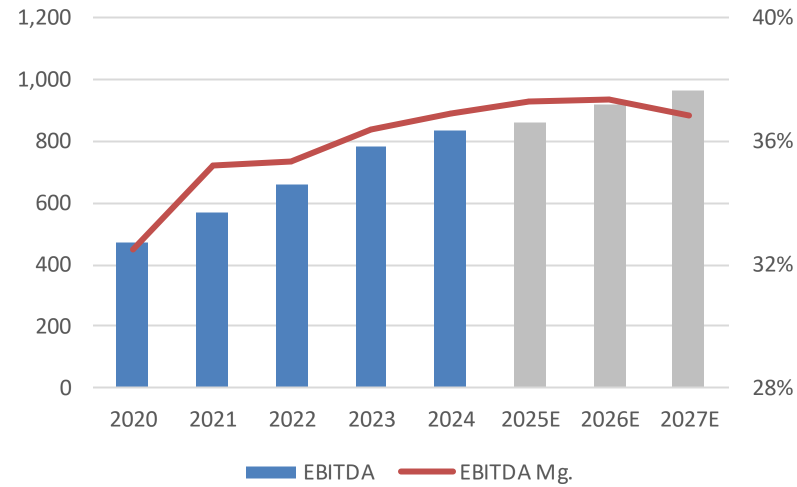
EXPECTED GROWTH IS CONSISTENT WITH MODEST PRICE INCREASES ONLY



Market is not factoring volume growth after softer volumes in 2024 due to weather disruptions on volumes (rain in Texas and Hurricane Milton).
However, average price increase in the last 4 years has been 8% in cement and 12% in wallboards, despite weather interruptions.
This upside does not take into account any volume increase from the two ongoing expansion projects coming online in the next two years (650,000 additional tons of cement capacity).

We expect a strong 2025 revenue by delayed 2024 demand from 2024 and strong pricing action.

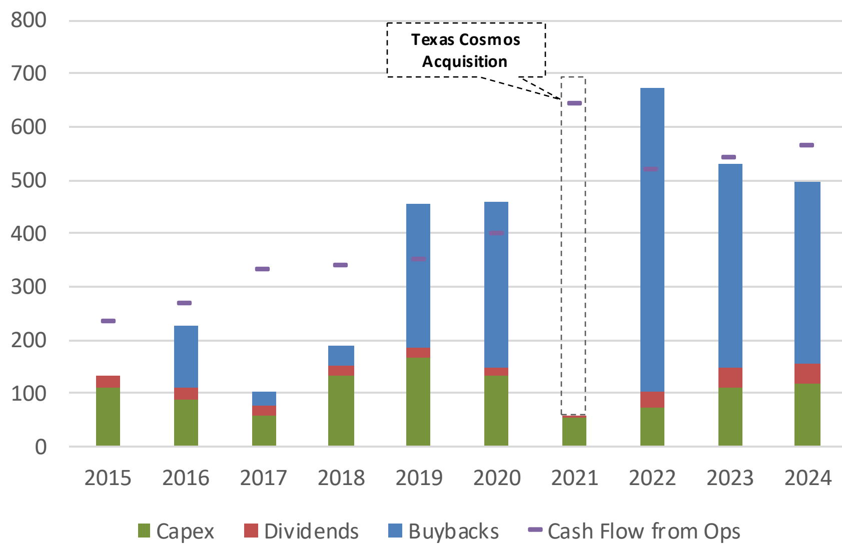
HOWEVER, THE MARKET DOES BELIEVE IN THE ONCOMING MARGIN EXPANSION



Pricing power as well as efficiency projects and vertical integration acquisitions have been vital in the past years to boost margins, which the market expects to continue in the next couple of years.
A 50bps increase is expected by 2026, more moderate than previous years.

INVESTMENT THESIS #2 - CAPITAL ALLOCATION

DISCIPLINED CAPEX ALLOWED FOR CAPITAL DISTRIBUTIONS IN THE PAST 5 YEARS



M&A TRACK RECORD, A BIG AQCUISITON EVERY 3 YEARS

	Capacity Expansion	Vertical Integration
2020	**$665M** – Texas Cosmos Cement Plant	
2021		
2022		**$120M** - ConAgg concrete and aggregate facilities in California **$39M** – Cement distribution terminal in Tennessee
2023		**$55M** - Cement import and Distribution facilities in Northern California

STRATEGIC PILLARS

I. Investment in growth opportunities that satisfy required financial return and are consistent with strategic focus

Since 2010, total cement capacity has grown 138%, mainly through opportunistic acquisitions. Despite low leverage metrics, the company has been selective on executing M&A opportunities.

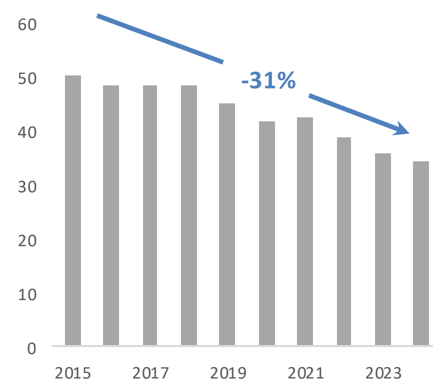
II. Maintain advantage as a low-cost producer through continuous operational investments:

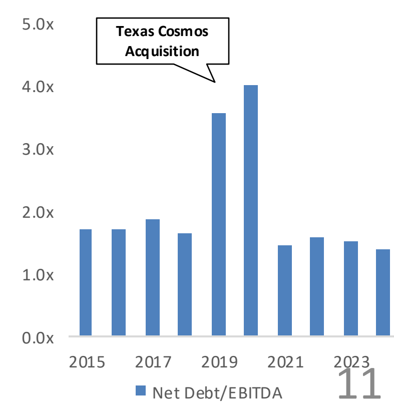
Recent CAPEX focus has been on modernization of current plants and vertical integration.

III. Return excess cash to shareholders:

In the past 5 years, the company has paid dividends and bought shares back for $1.8B, amounting to 67% of the cash flow from operations. The remaining amount of the active buyback program represents 10.4% of shares outstanding.

SHARES OUTSTANDING REDUCTION WITH LOW LEVERAGE





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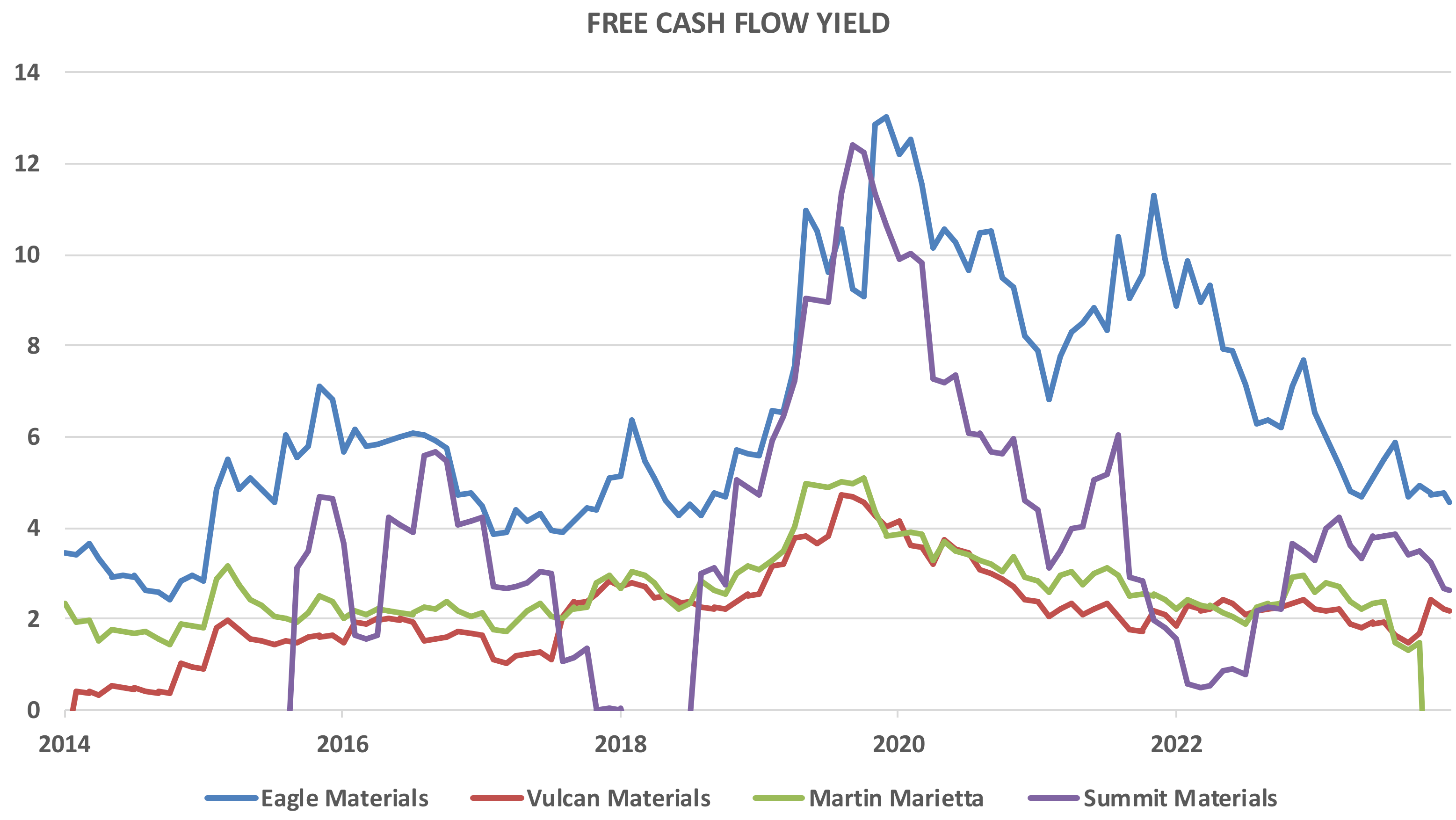
INVESTMENT THESIS #3 - COMPS

FUNDAMENTALS ARE SIMILAR OR SUPERIOR TO HIGHER MULTIPLES COMPS

	Eagle Materials	Martin Marietta	SUMMIT Materials	Vulcan Materials Company	CEMEX
Revenue Mix	Cement: 50% Wallboard: 35% Ready-Mix Concrete: 10%	Aggregates: 63% Ready-Mix Concrete:14% Cement: 10% Other: 13%	Concrete and Asphalt: 46% Aggregates: 27% Cement: 15% Services: 12%	Aggregates: 69% Asphalt: 15% Ready-Mix Concrete: 16%	Cement: 40% Ready-Mix Concrete: 32% Aggregates: 13% Solutions & Products: 11%
Geographical Exposure	US: 100%	US: 100%	US: 100%	US: 100%	US: 30% Mexico: 29% EMEA: 29% South America: 10%
Market Cap ($ MM)	10,080	35,600	8,650	36,840	8,000
EV/EBITDA '25	12.4x	16.9x	9.9x	17.3x	5.2x
Free Cash Flow Yield	4.25%	2.43%	3.18%	1.8%	0.9%
Revenue ($ MM)	$2,267	$6,512	$3,754	$7,398	$16,936
Revenue CAGR 5Y	10.2%	9.8%	4.5%	12.2%	5.1%
EBITDA ($ MM)	$796	$1,964	$857	$2,010	$3,372
EBITDA Mg.	35.1%	30.1%	22.8%	27.2%	19.9%
EPS CAGR 5Y	21.2%	22.3%	1.0%	10.2%	-9%
FCF Mg.	20.4%	-24%	4.5%	10.9%	4.2%
ROIC 5Y Avg	16%	7.9%	5.9%	7.85%	2.0%
Net Debt / EBITDA	1.3x	1.4x	2.8x	1.7x	3.1x

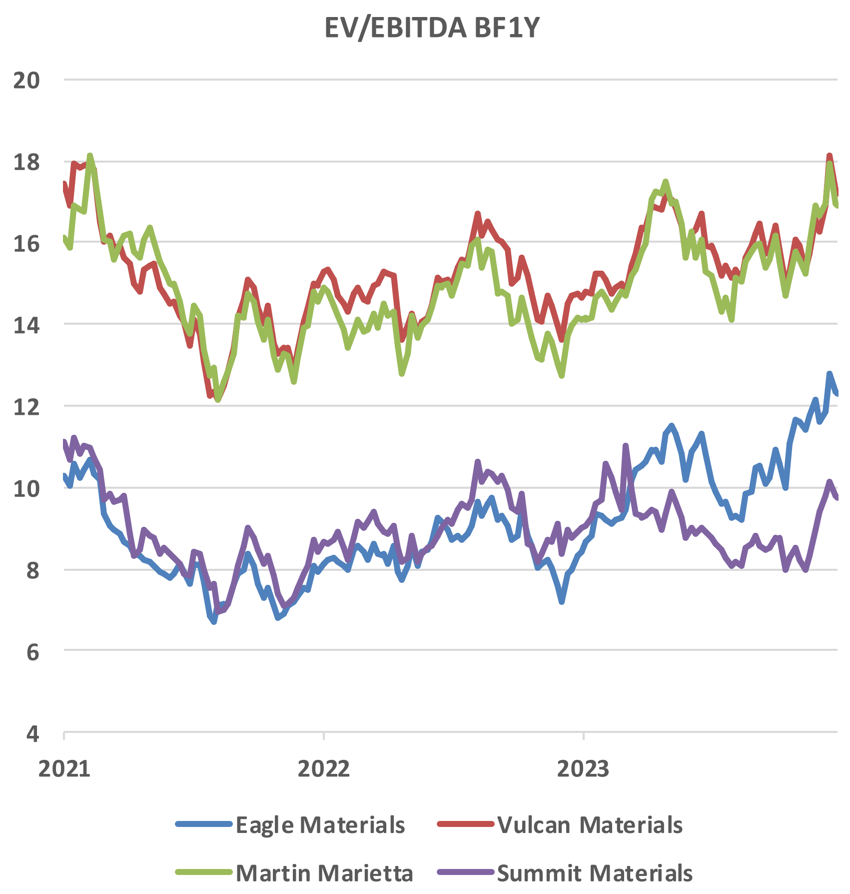
INVESTMENT THESIS #3 - RELATIVE VALUATION

HIGHER FREE CASH FLOW YIELD THAN US PEERS – TRENDING DOWNWARDS



INVESTMENT THESIS #3 - RELATIVE VALUATION

MULTIPLE IS ON A BREAKOUT BETWEEN LOW AND HIGH-QUALITY PEERS



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RELATIVE VALUATION

COMPELLING DISCOUNT TO PEERS ON THE AGGREGATE SECTOR

Comparable Companies Multiples Forward

Region	Company	Market Cap ($M)	P/E 1Y	P/E 2Y	EV/EBITDA 1Y	EV/EBITDA 2Y
US	Summit Materials	8,650	28.4x	23.4x	10.9x	9.7x
	Vulcan Materials	36,840	38.7x	30.6x	19.9x	17.1x
	Martin Marietta	35,600	33.0x	27.6x	19.2x	16.8x
	Knife River Corp	5,530	27.5x	23.4x	13.2x	11.8x
	US Median	22,125	30.7x	25.5x	16.2x	14.3x
	Global Median	58,020	15.6x	14.2x	9.6x	9.1x
	Asia Median	17,630	22.7x	13.2x	13.6x	10.2x
	Latam Median	1,614	9.8x	9.6x	6.4x	6.0x

Comps P/E Forward

Comps Multiple Median (P/E 1Y FWD)	30.7x
EPS '25	$17.8
Number of Shares Outstanding (M)	33.5
Equity Value ($M)	**$18,344.7**
Share Price	**$546.89**
Total upside	**82.1%**

Comps EV/EBITDA Forward

Comps Multiple Median (EV/EBITDA 1Y FWD)	16.2x
EBITDA '25	$913.3
Enterprise Value	$14,781.2
Less: Total Debt	(1,061.4)
Less: Preferred Securities	-
Less: Noncontrolling Interest	-
Plus: Cash and Cash Equivalents	48.9
Equity Value ($M)	**$13,768.8**
Number of Shares Outstanding (M)	33.5
Share Price	**$410.48**
Total upside	**36.7%**

VALUATION – BASE CASE

STRONG PRICING POWER, CURRENT EXPANSION PROJECTS AND SOLID DEMAND
NOT FACTORING IN BUYBACK EFFECT

Base Case	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	CAGR 2019 - 2023	CAGR 2023 - 2030
Revenue	1,384	1,585	1,792	2,091	2,253	2,288	2,591	2,812	3,005	3,175	3,355	3,538	*13.0%*	*7.5%*
YoY		15%	13%	17%	8%	2%	13%	9%	7%	6%	6%	5%		
Gross profit	335	408	490	603	701	700	842	928	1,007	1,080	1,141	1,203	*20.3%*	*9.4%*
Gross margin	24%	26%	27%	29%	31%	31%	33%	33%	34%	34%	34%	34%		
EBITDA	381	480	577	687	789	783	913	1,009	1,097	1,161	1,214	1,268	*20.0%*	*8.4%*
EBITDA Margin	28%	30%	32%	33%	35%	34%	35%	36%	37%	37%	36%	36%		
EBIT Margin	20%	22%	25%	26%	29%	28%	30%	31%	31%	32%	32%	32%		
Profit Margin	-9%	22%	20%	21%	22%	21%	23%	24%	24%	25%	25%	25%		
FCFF	**179**	**-329**	**419**	**329**	**456**	**531**	**381**	**463**	**754**	**807**	**843**	**884**	***26.3%***	***8.9%***

Enterprise Value	
Cumulative Present Value of FCF	**$2,874.9**
Terminal Value	
Terminal Year EBITDA (2030E)	$1,285.3
Exit Multiple	12.5x
Terminal Value	**$16,065.6**
Discount Factor	0.65
Present Value of Terminal Value	**$10,441.6**
% of Enterprise Value	*78.4%*
Enterprise Value	**$13,316.4**

Implied Equity Value and Share Price	
Enterprise Value	$13,316.4
Less: Total Debt	(1,061.4)
Less: Preferred Securities	-
Less: Noncontrolling Interest	-
Plus: Cash and Cash Equivalents	48.9
Implied Equity Value	**$12,304.0**
Shares outstanding (M)	33.5
Implied Share Price	**$366.81**
Current price (11/20/24)	300.27
Total upside	22.2%
Yield	3.63%

Implied Perpetuity Growth Rate	
Terminal Year Free Cash Flow (2030E)	$897.9
WACC	9.0%
Terminal Value	$16,065.6
Implied Perpetuity Growth Rate	**3.2%**

Considering 3.2% perpetuity growth:
Inflation + organic population growth

Implied EV/EBITDA	
Enterprise Value	$13,316.4
LTM 12/31/2030 EBITDA	897.9
Implied EV/EBITDA	**14.8x**

MAIN ASSUMPTIONS:

Prices:
- Cement: Increases in line to recent history and converging to inflation over the projection period
- Wallboard: Short term increases at 5% and converging to inflation over the projection period

Shipments:
- Cement: Recovery from 2024 weather disruptions and large increase from starting infrastructure projects during 2025-2028
- Wallboard: Recovery from 2024 weather disruptions and steady growth supported by housing market bottom.

Efficiencies:
- Margin continue expansion due to current operational projects.
- Steady SGA expenses.

Expansions:
- Considering 10% increase from ongoing projects.
- Not considering any acquisition. However, we consider the balance sheet and FCF could handle another deal. We look favorably to this optionality due to management's track record.

ALTERNATIVE SCENARIOS - DCF

	Base case	Upside case	Downside case
Cumulative free cashflows	2,875	2,721	1,868
Terminal Year EBITDA	1,285	1,450	1,038
Exit Multiple	**13x**	**13x**	**13x**
Terminal Value	**16,066**	**18,121**	**12,980**
Present Value of Terminal Value	**10,442**	**11,777**	**8,436**
% of Enterprise Value	*78%*	*81%*	*82%*
Enterprise Value	**13,316**	**14,499**	**10,304**
Less: Total Debt	-1,061	-1,061	-1,061
Plus: Cash and Cash Equivalents	49	49	49
Implied Equity Value	**12,304**	**13,486**	**9,292**
Implied share price	**367**	**402**	**277**
Percentage return	**22%**	**34%**	**-8%**

Base Case	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	CAGR 2019 - 2023	CAGR 2023 - 2030
Revenue	1,384	1,585	1,792	2,091	2,253	2,288	2,591	2,812	3,005	3,175	3,355	3,538	*13.0%*	*7.5%*
YoY		15%	13%	17%	8%	2%	13%	9%	7%	6%	6%	5%		
Gross profit	335	408	490	603	701	700	842	928	1,007	1,080	1,157	1,221	*20.3%*	*9.7%*
Gross margin	24%	26%	27%	29%	31%	31%	33%	33%	34%	34%	35%	35%		
EBITDA	381	480	577	687	789	783	913	1,009	1,097	1,161	1,230	1,285	*20.0%*	*8.6%*
EBITDA Margin	28%	30%	32%	33%	35%	34%	35%	36%	37%	37%	37%	36%		
EBIT Margin	20%	22%	25%	26%	29%	28%	30%	31%	31%	32%	32%	32%		
Profit Margin	-9%	22%	20%	21%	22%	21%	23%	24%	24%	25%	25%	25%		
FCFF	**179**	**-329**	**419**	**329**	**456**	**531**	**381**	**463**	**754**	**807**	**859**	**898**	***26.3%***	***9.2%***

Upside case	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	CAGR 2019 - 2023	CAGR 2023 - 2030
Revenue	1,384	1,585	1,792	2,091	2,253	2,288	2,591	2,961	3,317	3,639	3,843	4,052	*13.0%*	*10.0%*
YoY		15%	13%	17%	8%	2%	13%	14%	12%	10%	6%	5%		
Gross profit	335	408	490	603	701	700	842	977	1,111	1,237	1,326	1,398	*20.3%*	*12.2%*
Gross margin	24%	26%	27%	29%	31%	31%	33%	33%	34%	34%	35%	35%		
EBITDA	381	480	577	687	789	783	913	1,054	1,194	1,307	1,387	1,450	*20.0%*	*10.8%*
EBITDA Margin	28%	30%	32%	33%	35%	34%	35%	36%	36%	36%	36%	36%		
EBIT Margin	20%	22%	25%	26%	29%	28%	30%	31%	31%	32%	32%	32%		
Profit Margin	-9%	22%	20%	21%	22%	21%	23%	24%	24%	25%	25%	25%		
FCFF	**179**	**-329**	**419**	**329**	**456**	**531**	**381**	**475**	**614**	**708**	**787**	**1,022**	***26.3%***	***11.5%***

Downside case	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	CAGR 2019 - 2023	CAGR 2023 - 2030
Revenue	1,384	1,585	1,792	2,091	2,253	2,288	2,144	2,278	2,396	2,564	2,666	2,767	*13.0%*	*3.2%*
YoY		15%	13%	17%	8%	2%	-6%	6%	5%	7%	4%	4%		
Gross profit	335	408	490	603	701	700	697	752	803	872	920	955	*20.3%*	*5.3%*
Gross margin	24%	26%	27%	29%	31%	31%	33%	33%	34%	34%	35%	35%		
EBITDA	381	480	577	687	789	783	779	846	908	969	1,010	1,038	*20.0%*	*4.8%*
EBITDA Margin	28%	30%	32%	33%	35%	34%	36%	37%	38%	38%	38%	38%		
EBIT Margin	20%	22%	25%	26%	29%	28%	30%	31%	31%	32%	32%	32%		
Profit Margin	-9%	22%	20%	21%	22%	21%	23%	23%	24%	25%	25%	25%		
FCFF	**179**	**-329**	**419**	**329**	**456**	**531**	**347**	**349**	**428**	**467**	**509**	**718**	***26.3%***	***5.2%***

MAIN ASSUMPTIONS:

Upside Case:
- Strong pricing environment for both cement and wallboard.
- 15% capacity increase by acquisition, maintaining profit margin levels. $ 1.5Bn CAPEX

Downside Case:
- 10% Cement and Wallboard demand drop in 2025-2026 with gradual recovery.
- Price increases only as inflation.
- No expansions projects executed.

RISK FACTORS

ECONOMIC ACTIVITY AND CYCLICALITY

Issue

Revenue dependence on economic activity level, mainly at the residential construction level, an economic slowdown would greatly affect revenue. High cyclicality of the company revenues. Short-term disruptions caused by weather.

Mitigants

Current demand surpasses capacity by ~10%, which could act as a buffer if demand slumps. Coastal States would be most affected by lower prices, while Eagle's area of operation remains protected in its majority.
Weather disruptions tend to push demand to following quarters, causing delays but not cancellation of projects.

ENVIRONMENTAL REGULATION

Issue

Regulation on environmental standards for production or new projects can increase expected CAPEX and costs. Required technological developments, less efficient fuel usage, existing plant adaptations, constrained fuel supply.

Mitigants

ENERGY AND FUEL PRICE RISK

Issue

Cement manufacturing is highly energy-intensive, with fuel costs typically accounting for ~10% of costs. Sharp increases in coal, petcoke, and diesel prices can significantly compress profit margins.

Mitigants

Long-term purchase agreements of solid fuels in place to neutralize short-term price volatility. Strong price
During the fuel price hike of 2022, energy costs for the company increased by 14%, mainly affected by coal and petcoke. The company managed to offset the increase by hiking prices and gross margin expanded by 200bps in the year.

SHIFT IN INFRASTRUCTURE AND GOVERNMENT SPENDING

Issue

Infrastructure segment is dependent on spending execution and Government funds deployment. Clawbacks or delays on States budget could result in lower cement demand than expected by the market.

Mitigants

Already approved IIJA provides a baseline for infrastructure demand for the next years.
$380Bn were already assigned to projects at a State level from the existing Act. This creates a difficult political scenario to cancel the projects.
Renewable projects pending authorization could be rescinded but could be replaced by fossil fuel and transportation projects according to the new Administration's interests.

APPENDIX

TOP MANAGEMENT

AVERAGE OF 12 YEARS AT THE COMPANY – AVERAGE OF 25 YEARS IN INDUSTRIAL COMPANIES

PRESIDENT AND CEO – MICHAEL R. HAACK

Joined Eagle Materials in 2014 as COO. He was appointed President and Chief Executive Officer in July 2019.
Previously Mr. Haack spent 17 years at Halliburton Energy Services, holding successively important operating positions, most recently as Global Operations Manager at Halliburton's Sperry Drilling division.
MSc from Texas A&M University and a BSc degree from Purdue University, both in Industrial Engineering, and an MBA from Rice University.

EXECUTIVE VP - CFO – CRAIG KESLER

Joined Eagle Materials in 2004 as Director - Strategic Planning and assumed the role of Vice President - Investor Relations and Corporate Development in 2005. In August 2009, he was promoted to Executive Vice President - Finance and Administration and Chief Financial Officer.
Prior to Eagle Materials, served multi-national clients in public accounting with Arthur Andersen LLP and Ernst & Young LLP.
B.A. in accounting from Southwestern University and is a Certified Public Accountant.

PRESIDENT – AMERICAN GYPSUM – ERIC CRIBBS

Joined Eagle Materials in 2015. In November 2018 was appointed VP - Concrete & Aggregates Division, and in January 2020 assumed the role of VP - Safety, Logistics, and Procurement & Materials. In 2021 was promoted as Executive VP of Concrete & Aggregates, Advanced Cementitious Materials, Logistics and Procurement & Materials. Holds its current position since 2023. Prior to Eagle Materials, he was the US Northern Region Operations Manager for Halliburton. BSc in Petroleum Engineering from the University of Alaska Fairbanks.

SENIOR VP – CEMENT EAST – TONY THOMPSON

Joined Eagle Materials in 2010 as President of Texas Lehigh Cement Company LP, and assumed the role of VP - Cement, Concrete & Aggregates East Region in 2018. Was promoted to his current position in 2019.
Prior to Eagle Materials, Mr. Thompson worked for the international building materials company Holcim for 15 years in various leadership roles. BSc in Mechanical Engineering from Mississippi State University.

EXECUTIVE VP – GENERAL COUNSEL – MATT NEWBY

Joined Eagle Materials in June 2012 as Associate General Counsel and was promoted to Executive VP - General Counsel and Secretary in 2022.
Prior to Eagle Materials, he was an associate at the law firms of Weil, Gotshal & Manges LLP and Baker Botts LLP.
Holds a JD, with honors, from University of Texas School of Law and BBA from Baylor University.

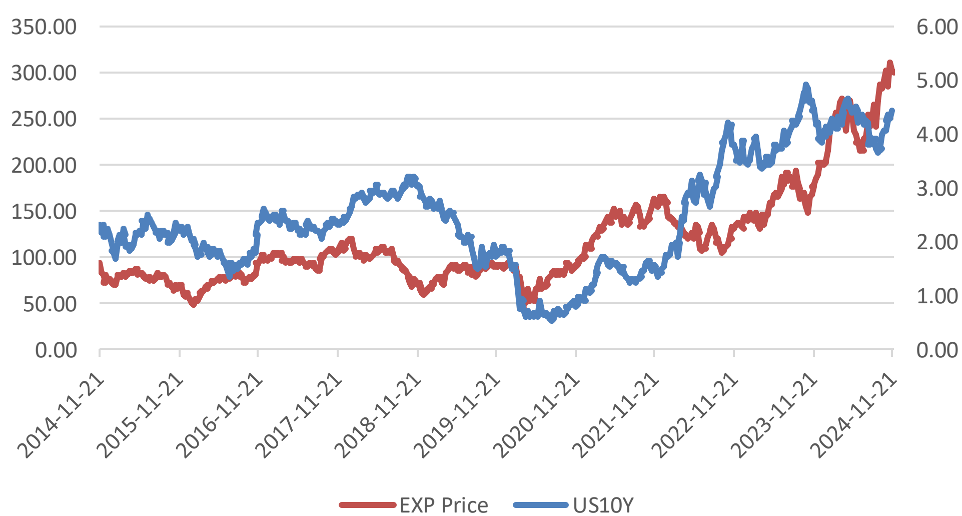
INVESTMENT THESIS # 1 – HIGHER RATES RISKS PRICED IN

MORTGAGE RATE STILL 100BPS LOWER THAN ITS PEAK

In the past, public homebuilders have adapted well to mortgage rates exceeding 8% by offering buydowns and building smaller homes to address affordability challenges. Therefore, we do not expect a high risk on the end market.

Moreover, the market has already priced in risks of higher rates which could present an upside opportunity if rates end up lower than current expectations.

EXP Share Price No Significant Negative Correlation to US10Y

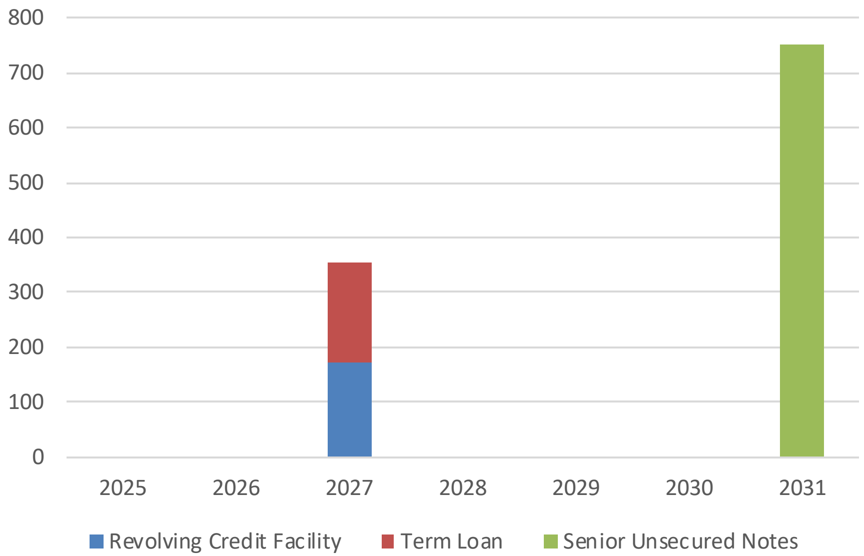


EXP share price has no inverse correlations with the US-110y year treasury yield, with the only recent period of such finding being end of 2021 to end of 2022.

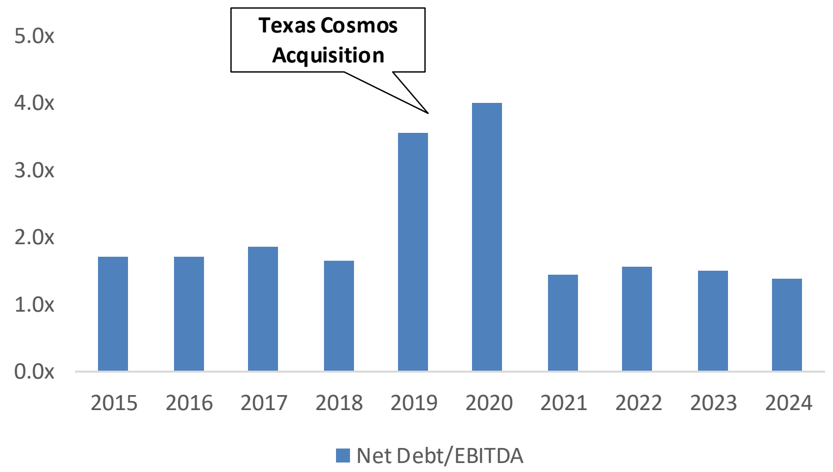
Source: Mortgage News Daily, Workspace

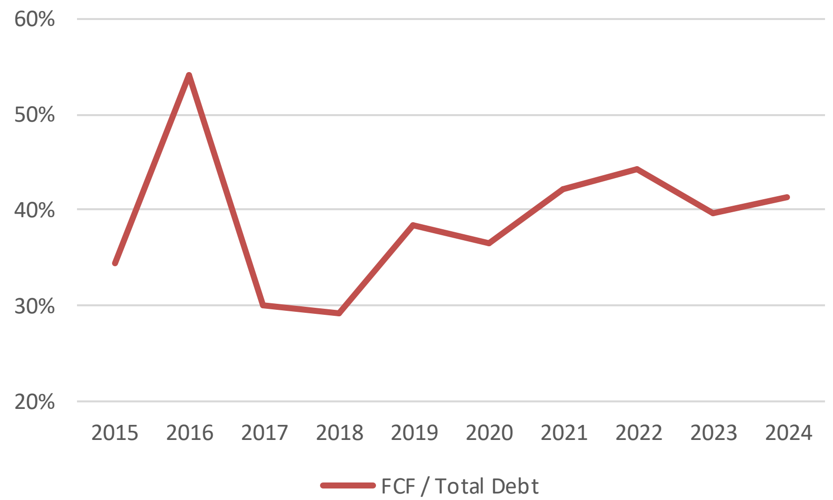
INVESTMENT THESIS #2 - CAPITAL STRUCTURE – (Baa2 / BBB)

SPREAD OUT MATURITIES AND LEVERAGE METRICS WOULD ALLOW TO EXTEND BUYBACK PROGRAMS

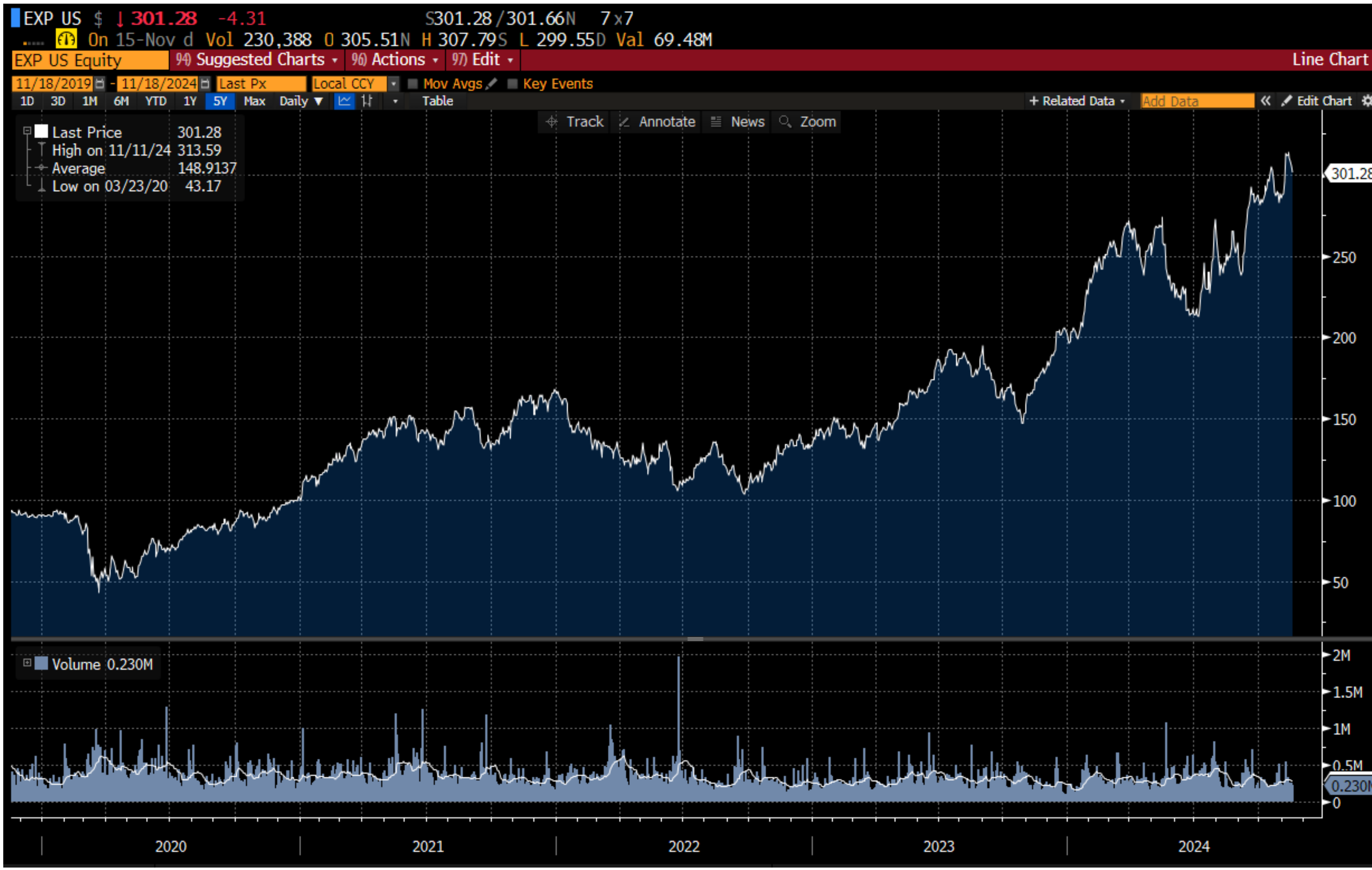


	Maturity	Interest rate	Amount ($ M)
Revolving Credit Facility	May-27	6.6%	170
Term Loan	May-27	6.6%	182.5
Senior Unsecured Notes	Jul-31	2.5%	750
Operational Leases	5Y		33.8



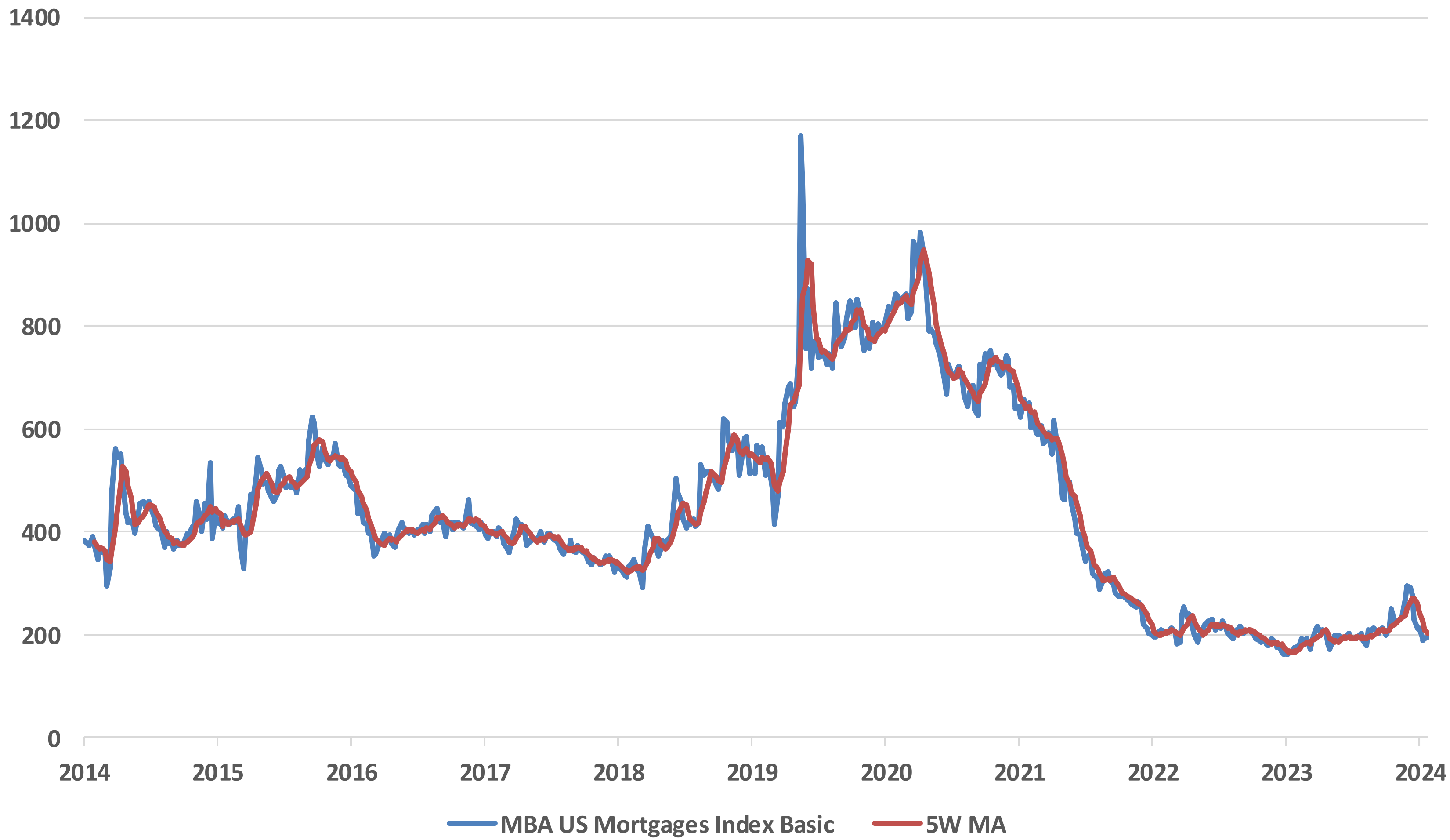


STOCK PRICE


EXP US $ 301.28 -4.31
S301.28 / 301.66N 7 x 7
On 15-Nov d Vol 230,388 O 305.51N H 307.79S L 299.55D Val 69.48M
EXP US Equity
94) Suggested Charts
96) Actions
97) Edit
Line Chart
11/18/2019 - 11/18/2024
Last Px
Local CCY
Mov Avgs
Key Events
1D 3D 1M 6M YTD 1Y 5Y Max Daily
Table
+ Related Data
Add Data
Edit Chart
Track
Annotate
News
Zoom
Last Price 301.28
High on 11/11/24 313.59
Average 148.9137
Low on 03/23/20 43.17
301.28
250
200
150
100
50
Volume 0.230M
2M
1.5M
1M
0.5M
0.230M
0
2020
2021
2022
2023
2024

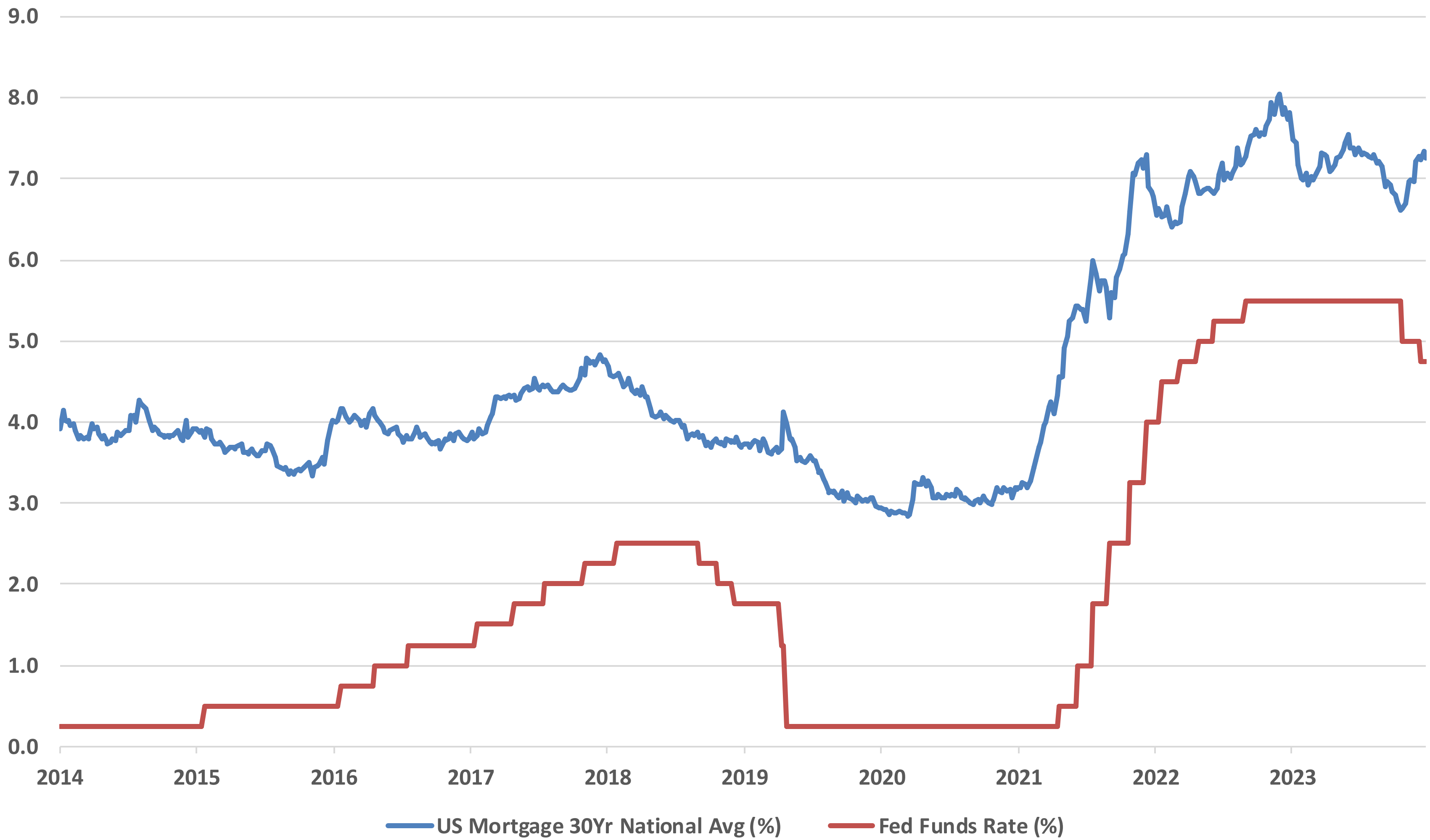
HOUSING MARKET

MBA MORTGAGE APPLICATION INDEX SEEMS TO HAVE BOTTOMED OUT



HOUSING MARKET

MORTGAGE INTEREST RATES ALSO SEEM TO HAVE REACHED A CEILING



GLOBAL CEMENT AND BUILDING MATERIALS COMPANIES

MULTIPLES SHOW A CLEAR PREMIUM FOR US COMPANIES FOLLOWED BY ASIAN PEERS

Comparable Companies Multiples Forward

Region	Company	Market Cap ($M)	P/E 1Y	P/E 2Y	EV/EBITDA 1Y	EV/EBITDA 2Y
US	Summit Materials	8,650	28.4x	23.4x	10.9x	9.7x
	Vulcan Materials	36,840	38.7x	30.6x	19.9x	17.1x
	Martin Marietta	35,600	33.0x	27.6x	19.2x	16.8x
	Knife River Corp	5,530	27.5x	23.4x	13.2x	11.8x
Global	Cemex Corp	8,290	7.6x	4.4x	5.3x	5.2x
	Holcim	58,020	15.6x	14.2x	9.6x	9.1x
	CRH	67,750	18.2x	16.5x	11.7x	10.8x
Asia	China National Building Materi	25,641	22.7x	9.3x	10.7x	9.4x
	Ultratech Cement	36,710	43.8x	32.0x	24.0x	18.5x
	Asia Cement Corp	5,870	14.2x	13.2x	17.8x	17.5x
	ACC	4,850	24.1x	18.3x	13.6x	9.1x
	ANHUI	17,630	5.2x	4.7x	11.8x	10.2x
Latam	Cementos Argos	2,579	19.0x	16.5x	8.2x	8.5x
	GCC	2,922	9.2x	9.6x	5.2x	5.1x
	UNACEM	649				
	Cementos Pacasmayo	579	9.8x	8.9x	6.4x	6.0x
	Median	8,470	19.0x	16.5x	11.7x	9.7x
	Average	19,882	21.1x	16.8x	12.5x	11.0x
	US Median	22,125	30.7x	25.5x	16.2x	14.3x
	Global Median	58,020	15.6x	14.2x	9.6x	9.1x
	Asia Median	17,630	22.7x	13.2x	13.6x	10.2x
	Latam Median	1,614	9.8x	9.6x	6.4x	6.0x

INVESTMENT THESIS #3 - RELATIVE VALUATION

LOWER VALUATION DESPITE A HIGHER LONGER TERM ROIC