Advanced Drainage Systems, Inc.

Kenan–Flagler Business School
Alpha Challenge
The University of North Carolina

December 5th, 2024

Team: 1

Students: Tina Abilgaziyeva, Vince Galioto, Ames Murray

Long: Advanced Drainage Systems (NYSE: WMS)

Current Price: $132 (11/24/2024) | **1Y Price Target:** $172 (31% Upside)

Advanced Drainage Systems Overview

Revolutionizing Water Solutions with High-Performance Plastics Across Diverse End Markets

Company Overview

- Leading manufacturer of innovative **water management solutions for the stormwater** and **onsite septic wastewater** industries
- Supports **material conversion to plastic** through high-performance thermoplastic pipes and water management solutions

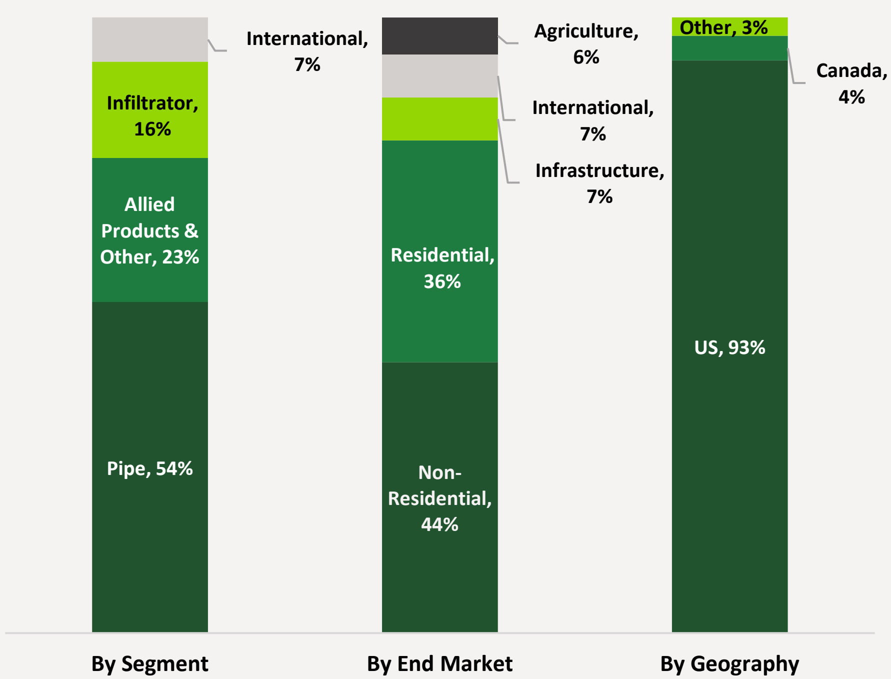
Trading and FY24 Financial Data

Current Price ($)	131.50	Revenue ($M)	2,874
Market Cap ($M)	10,080	Gross Margin	40%
EV ($M)	10,751	EBITDA ($M)	916
52W Low / High ($)	116.98-184.27	EPS ($)	6.45

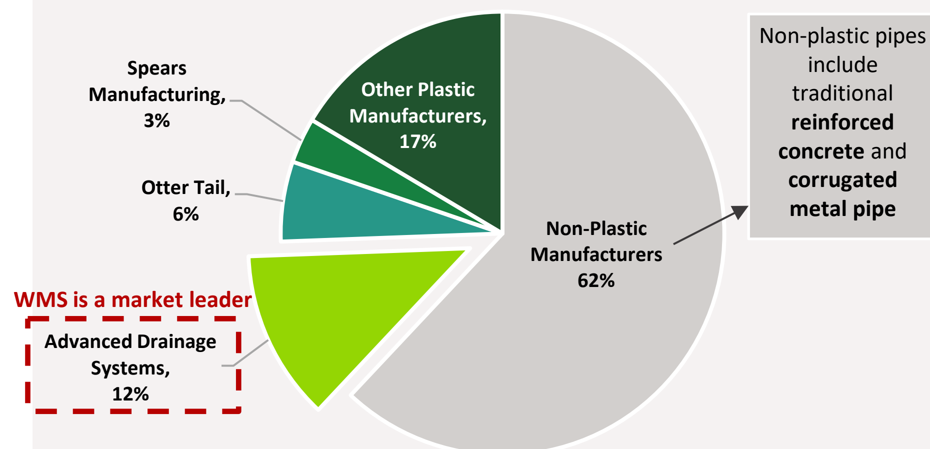
WMS is Positioned for Success

- ✓ **Regulation:** a robust regulatory team driving plastic pipe approvals and securing universal approval for Infiltrator products across the U.S. and Canada
- ✓ **Extensive distribution:** the only manufacturer of plastic pipe with a national manufacturing and distribution base
- ✓ **Operational efficiency:** operates world's largest molding machines, molds, and automation; vertically integrated
- ✓ **Economies of scale:** as a high-volume buyer of resin, WMS secures favorable terms and pricing with suppliers

Revenue Breakdown FY2024



US Market Share vs Competitors



Plastic pipes offer a stronger value proposition, driving market share gains

- **Installs 2-3x faster than concrete and other materials**
- **20% less installation cost (lighter, cheaper to transport and install)**
- **Service life of 100 years vs 45-50 for traditional materials**
- **Increasing environmental benefits as >50% of plastic supply is recycled**

Sources: FactSet, Company Filings, Investor Presentations

Advanced Drainage: Flowing Towards The Future

We Have a Chance to Invest in an Industry Leader with Secular Growth Market Exposure Trading Below the Median Peer Multiple

Investment Thesis

1 **Legacy Material Conversions, Aging Infrastructure, and Escalating Extreme Weather Events Drive Structural Growth Opportunities For WMS's Product Portfolio**

2 **Strategic Regional Presence Fuels Accelerated Growth in the Infiltrator Segment, Leveraging Migration Patterns and Targeted Incremental Sell-In Opportunities**

3 **Revenue Mix and Cost-Advantaged Materials Drive Sustainable Margin Expansion**

Why is There an Opportunity?

Consensus underestimates the company's long-term growth potential, driven by a structurally expanding market, a stronger customer value proposition, and a growing total addressable market

Sell-side estimates overly emphasize transitory challenges from non-residential market volatility and storm disruptions, including five hurricanes, failing to fully reflect WMS's strategic geographical positioning and near-term tactical opportunities

The market is overly focused on near-term margin compression from transitory cost pressures, ignoring potential expansion opportunities from structural improvements in operations

These Opportunities Underpin Our Divergence From Consensus

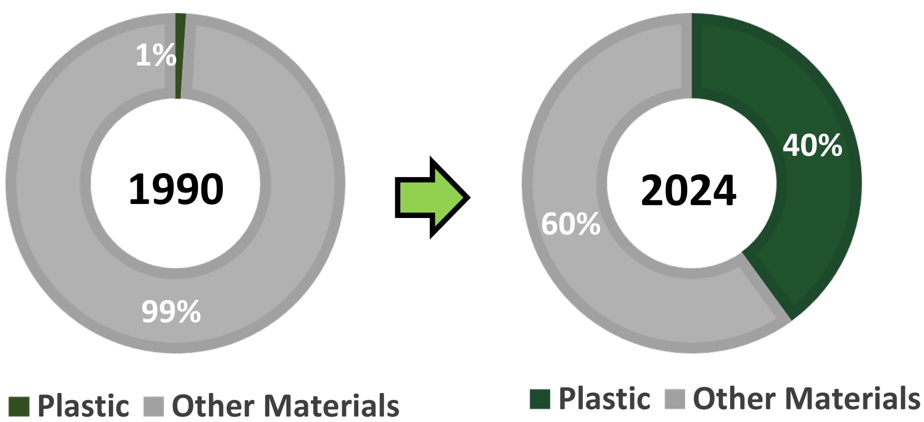
		Team Estimates		Consensus Estimates	
	FY 2024-A	FY 2026-E	Growth	FY 2026-E	Growth
Revenue	$2,874M	$3,225M	**6% CAGR**	$3,128M	**4% CAGR**
Gross Margin	39.9%	39.8%	**-10bps**	39.3%	**-60bps**
Operating Margin	25.5%	25.2%	**-30bps**	24.7%	**-80bps**
EPS	$6.45	$7.33	**7% CAGR**	$6.73	**2% CAGR**

Sources: FactSet, Internal Model Projections

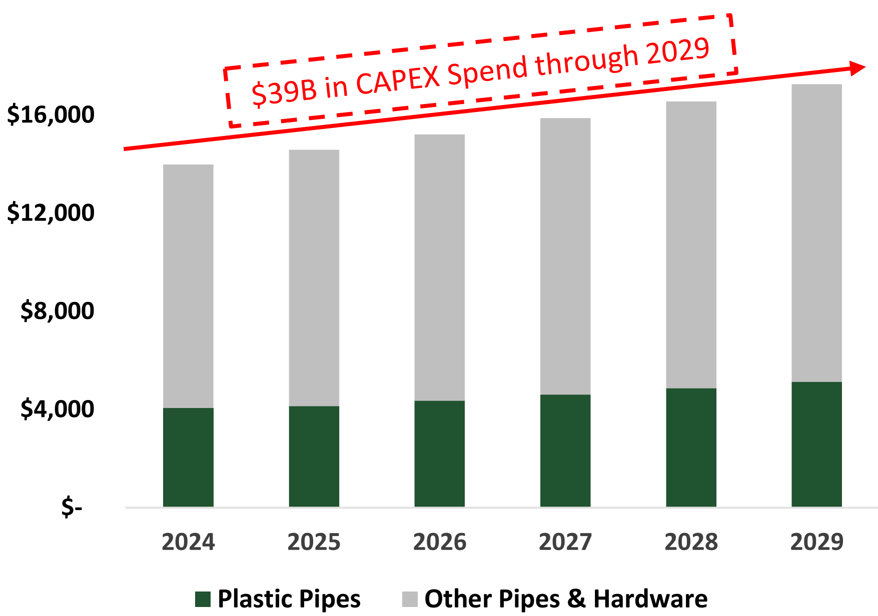
Investment Thesis #1 – Material Conversion to Plastic

Legacy Material Conversion Drives Structural Growth Opportunity

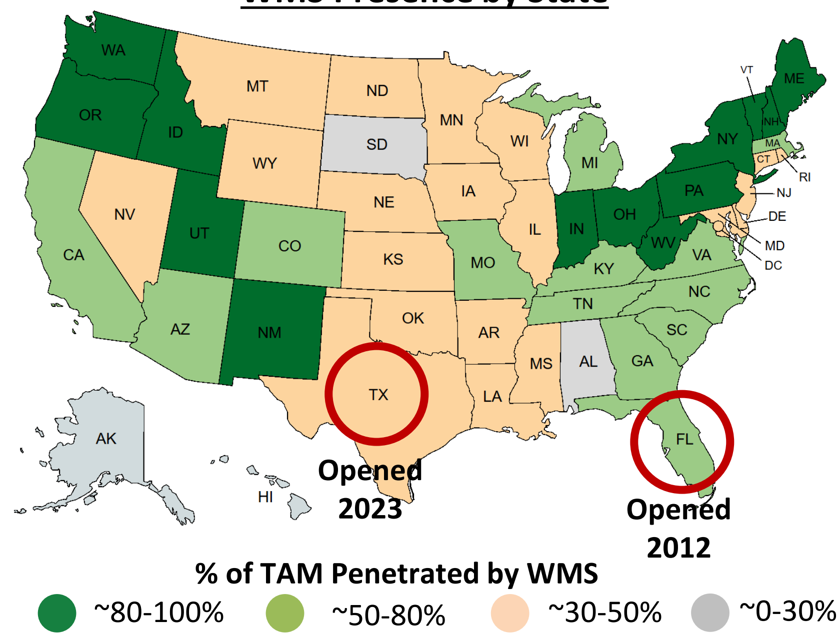
Plastic Continues to Take Share From Legacy Materials



Replacement of Aging Infrastructure Drives Demand



WMS Presence by State



After receiving State DOT approval, the potential TAM expands, positioning WMS to gain market share in priority states

Pipe: Consensus v. Estimates

Revenue	FY24A	FY25E	FY26E
Estimate	$ 1,586,618	$ 1,586,618	$ 1,697,681
Consensus	1,586,618	1,565,270	1,629,900
Delta (%)	**0.0%**	**1.4%**	**4.2%**
Growth - Team	(9.8%)	0.0%	7.0%
Growth - Consensus	(9.8%)	(1.3%)	4.1%

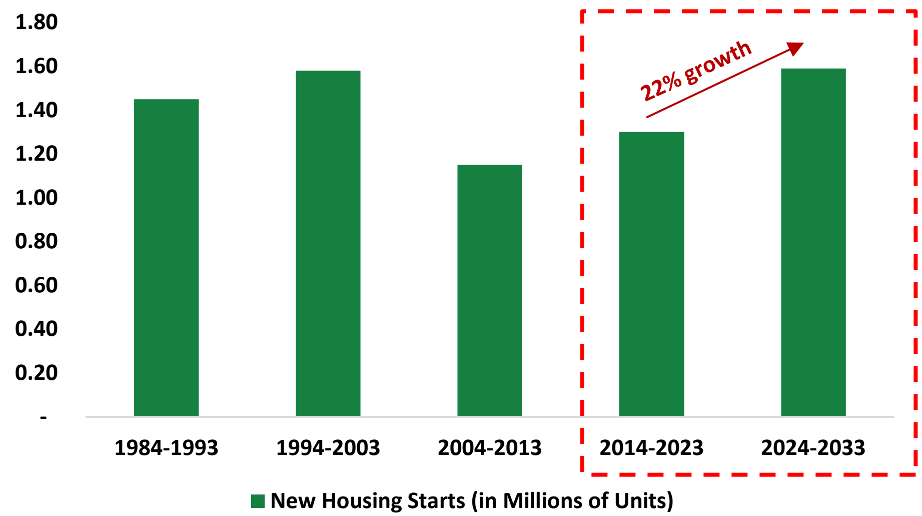
Consensus Underestimates Growth of the Pipe Segment

Sources: Bluefield Research, Stephens, Oppenheimer, 2022 Investor Presentation, Wall Street Journal, American Society of Civil Engineers, Company Video

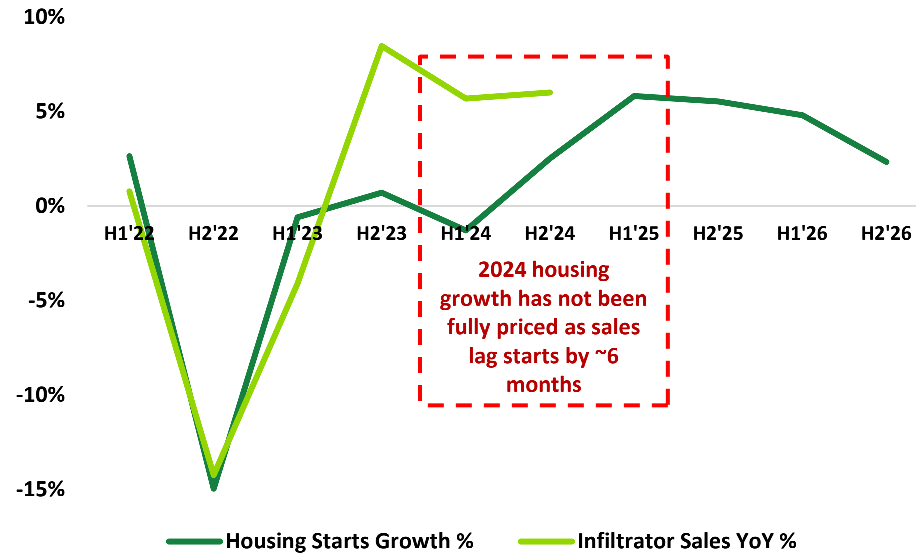
Investment Thesis #2 – Regional Strategy Fuels Growth

Strategic Regional Focus and Housing Market Momentum Drive Infiltrator's Growth

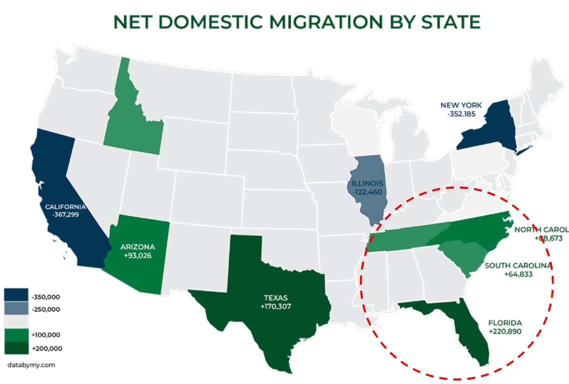
The Housing Market is Positioned for Sustained Growth



Increased Homebuilder Inventory Pre-buys will Boost Growth



WMS is Setup to Succeed in the Southeast Region



53% of WMS sales are focused on the Southeastern U.S.

33% of new single-family homes in Southeast use on-site waste-water systems

The Southeast is a hotspot for homebuilders, with more than a quarter of them located there. WMS has established strong relationships with the top 20 homebuilders.

Infiltrator primarily serves new residential construction, with its products typically installed late in the construction cycle. As a result, Infiltrator sales are more closely tied to housing completions, occurring approximately six months after a housing start.

As a Result, Our Model Projects an Estimate Above Consensus

Infiltrator: Consensus v. Estimates

Revenue	FY24A	FY25E	FY26E
Estimate	$ 531,236	$ 610,921	$ 702,560
Consensus	531,236	582,833	672,167
Delta (%)	**0.0%**	**4.8%**	**4.5%**
Growth - Team	1.5%	15.0%	15.0%
Growth - Consensus	1.5%	9.7%	15.3%

Sources: FactSet, Company Filings, Investor Presentations, FRED Economic Data, Connor Investment, Internal Model Projections

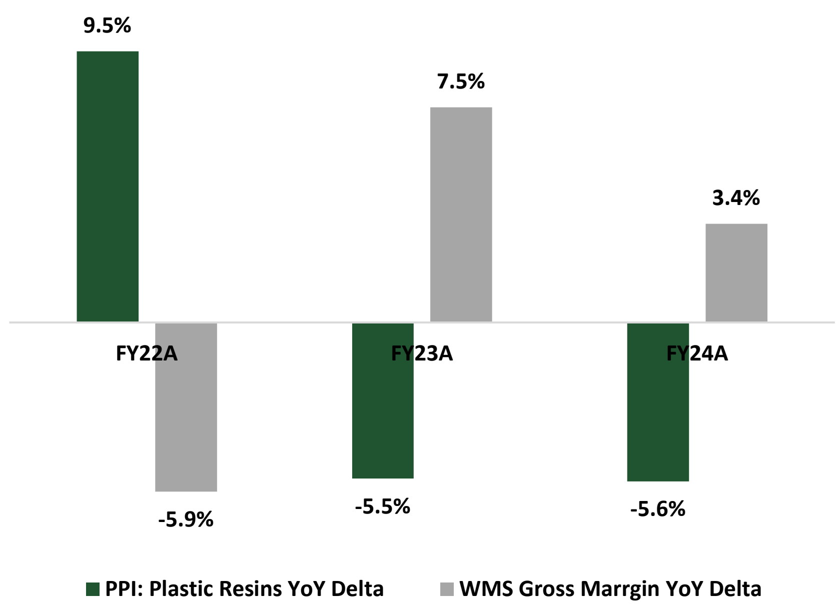
Investment Thesis #3 – Margin Expansion

Sustainable Margin Expansion Through Structural Improvements

Consensus Seems to Attribute Margins Primarily to Resin Pricing…

- Consensus underappreciates the magnitude of structural enhancements occurring within the business, viewing WMS as a primarily commoditized plastic manufacturer
- The transition toward higher-margin Infiltrator and Allied Products, with margins in the mid-50% range, is expected to drive 60bps of YoY structural gross margin expansion in FY26
- Vertically integrated recycling enhances the use of recycled plastics, which are 10%-20% cheaper than virgin materials and constitute 40% of COGS, contributing 20bps of YoY incremental margin in FY26

WMS Gross Margin vs. Plastic Resin Price Fluctuations



…Underestimating Structural Improvements Driving Margin Expansion

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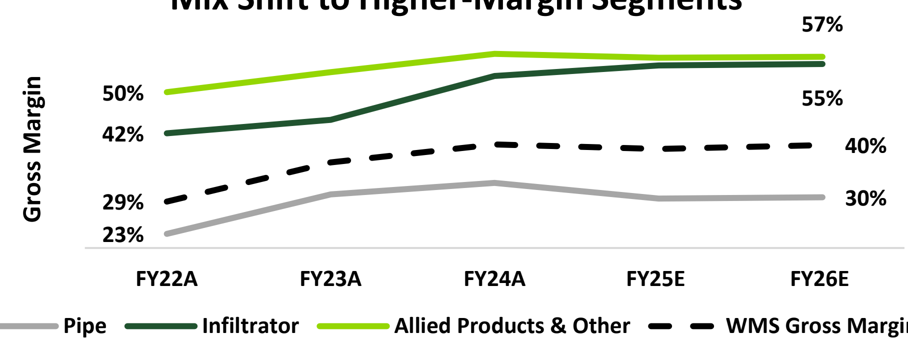
Mix Shift to Higher-Margin Segments



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Infiltrator and Allied Product segments increasing in revenue mix from 20% to 22% and 21% to 24% by FY26, respectively

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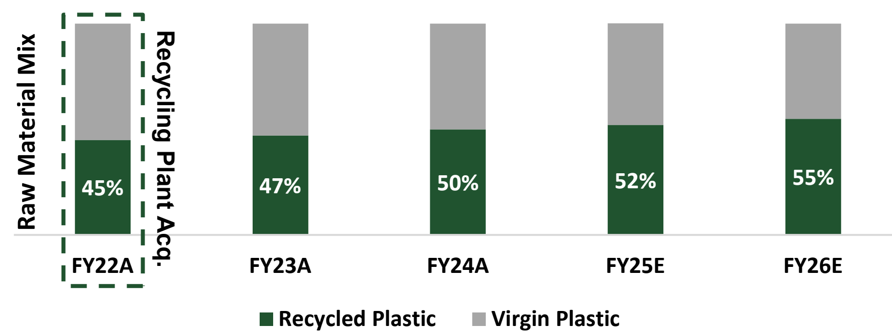
Recycled Plastic Use Reduces Material Costs



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Gross Margin Breakdown			
Margin Contribution Analysis	**FY24A**	**FY25E**	**FY26E**
Implied Net Price/Cost Impact		-1.5%	0.0%
Segment Mix Contribution		0.5%	0.6%
Recycled Material Contribution		0.1%	0.2%
YoY Gross Margin Delta		**-0.9%**	**0.8%**
Gross Margin	**FY24A**	**FY25E**	**FY26E**
Team Estimate	39.9%	39.0%	39.8%
Consensus Estimate	39.9%	38.8%	39.3%
Delta		**0.2%**	**0.5%**

Sources: FRED Data, IBISWorld, Statista, WMS 2022 Investor Presentation, FactSet, Internal Model Projections

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Valuation Summary – Substantiating the Multiples

WMS Fundamentals Support a Multiple Re-Rating

We identified JHX and TREX as core peers due to their focus on material conversion and forward growth profiles. Our valuation uses forward multiples of 23.0x P/E and 14.5x EV/EBITDA, reflecting a slight premium to JHX and a discount to TREX, aligned with historical trading ranges

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 2YR CAGR	FWD 2YR CAGR
Advanced Drainage Solutions (Consensus)	**WMS**	**$ 131.50**	**$ 10,080**	**$ 10,751**	**20.1x**	**18.1x**	**11.8x**	**10.9x**	**24.4%**	**8.0%**	**21.9%**	**10.3%**	**4.3%**	**2.1%**
Advanced Drainage Solutions (Team Estimates)					**17.9x**	**15.2x**	**10.7x**	**9.6x**	**24.4%**	**8.0%**	**21.9%**	**10.3%**	**5.9%**	**6.6%**
Material Conversion Comparables														
James Hardie Industries	JHX	35.66	14,967	15,522	21.5x	18.3x	13.7x	12.0x	26.2%	9.2%	30.4%	16.4%	3.8%	3.5%
Trex Company, Inc.	TREX	72.25	7,568	7,625	33.1x	28.9x	21.0x	18.7x	25.5%	23.1%	33.0%	31.6%	5.2%	8.5%
AZEK Co.	AZEK	50.98	7,365	7,634	35.0x	29.8x	18.7x	17.0x	18.7%	2.1%	2.8%	2.4%	6.2%	30.3%
Hayward Holdings, Inc.	HAYW	16.06	3,586	4,285	21.2x	17.9x	14.8x	13.2x	24.2%	3.9%	9.3%	4.8%	5.1%	16.5%
Latham Group, Inc.	SWIM	6.89	764	961	72.9x	40.5x	11.6x	10.4x	10.8%	(1.7%)	(4.1%)	(2.2%)	(3.0%)	(22.5%)
Median					**33.1x**	**28.9x**	**14.8x**	**13.2x**	**24.2%**	**3.9%**	**9.3%**	**4.8%**	**5.1%**	**8.5%**
Water Comparables														
Xylem Inc.	XYL	126.87	30,638	31,936	26.7x	23.8x	16.8x	15.3x	16.4%	4.6%	11.2%	6.6%	10.0%	12.1%
Zurn Elkay Water Solutions Corporation	ZWS	39.93	6,815	7,151	29.7x	26.7x	17.8x	16.4x	17.1%	3.4%	7.8%	4.5%	2.9%	17.5%
Watts Water Technologies, Inc.	WTS	215.17	7,089	6,996	24.1x	22.4x	15.5x	14.5x	17.2%	9.9%	15.8%	13.1%	5.4%	4.0%
Mueller Water Products, Inc.	MWA	25.18	3,961	4,100	21.2x	19.6x	13.3x	12.6x	17.9%	5.6%	12.2%	7.3%	3.4%	29.5%
Median					**25.4x**	**23.1x**	**16.2x**	**14.9x**	**17.2%**	**5.1%**	**11.7%**	**6.9%**	**4.4%**	**14.8%**

WMS Multiple Premium / (Discounts)	Forward P/E		Forward EV/EBITDA	
	2025	**2026**	**2025**	**2026**
Multiple (Discount) vs. Material Conversion Comps	(39.3%)	(37.3%)	(19.9%)	(17.0%)
Multiple (Discount) vs. Water Comps	(21.0%)	(21.7%)	(26.8%)	(26.6%)

Rationale for Multiple Re-Rating:

1 **Premium EBITDA Margins**
24.4% vs. 17.2% for Water Comparables

2 **Strong ROA, ROE, and ROIC**
Superior to Comparables

3 **Robust Growth Profile**
Aligned with Material Conversion Peers

Sources: FactSet, Internal Model Projections

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Valuation Summary – Overview

2025 Base Case Price Target of $172 Indicates 31% 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 Peer Trading Multiples

EV/EBITDA
Based on Current Peer Trading Multiples

Valuation Summary: 2025 Target Price

	Downside Case	Base Case	Upside Case
2026 EPS	$ 6.46	$ 7.33	$ 7.89
Forward P/E Multiple	15.0x	23.0x	25.0x
Target Price	$ 97	$ 169	$ 197
2026 EBITDA ($M)	$ 916	$ 1,003	$ 1,060
Forward EV/EBITDA Multiple	9.0x	14.5x	16.5x
Total Enterprise Value ($M)	$ 8,242	$ 14,543	$ 17,483
(-) Net Debt	770	770	770
Total Equity Value ($M)	$ 7,472	$ 13,773	$ 16,713
(÷) Shares Outstanding (M)	78	78	78
Target Price	$ 96	$ 176	$ 214
Average Target Price	$ 96	$ 172	$ 206
Upside / (Downside)	-27%	31%	56%

Forecast Assumptions

	Downside	Base	Upside
FY24-FY29 Revenue CAGR	4.2%	6.3%	7.6%
FY24-FY29 Average GM (%)	39.2%	40.2%	40.8%
FY24-FY29 EPS CAGR	8.3%	11.0%	14.0%

Base Case: Consensus v. Estimates

Revenue	FY24A	FY25E	FY26E
Estimate	$ 2,874,473	$ 2,965,989	$ 3,225,410
Consensus	2,874,473	2,941,780	3,128,130
Delta (%)	**0.0%**	**0.8%**	**3.1%**
Growth - Team	(6.4%)	3.2%	8.7%
Growth - Consensus	(6.4%)	2.3%	6.3%
Gross Margin			
Estimate	39.9%	39.0%	39.8%
Consensus	39.9%	38.8%	39.3%
Delta	**0.0%**	**0.2%**	**0.5%**
Growth - Team	9.5%	(2.2%)	2.0%
Growth - Consensus	9.5%	(2.6%)	1.3%
EPS			
Estimate	$ 6.45	$ 6.35	$ 7.33
Consensus	6.45	6.09	6.73
Delta (%)	**0.0%**	**4.3%**	**8.9%**
Growth - Team	6.1%	(1.5%)	15.4%
Growth - Consensus	6.1%	(5.6%)	10.5%

Sources: FactSet, Internal Model Projections

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Risks to Valuation

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

Regulatory Material Conversion Delays	▪ **Risk:** Transitioning from legacy materials to plastic products is critical for WMS's growth. Failure to transition customers, regulatory restrictions, or approval delays could hinder progress. ▪ **Mitigant:** WMS's lobbying team engages regulators to promote corrugated plastic and expedite approvals. The company has a proven history of entering new markets successfully.	High
Fluctuations in Plastic Resin Prices	▪ **Risk:** A rapid and substantial increase in the cost of resin could compress profit margins if WMS cannot fully pass these costs to customers via value-based pricing. ▪ **Mitigant:** Advanced Drainage mitigates this risk through bulk purchasing discounts and increased reliance on recycled plastics, supported by its vertically integrated recycling operations, reducing margin pressure.	Moderate
Exposed to Construction Cyclicality	▪ **Risk:** A prolonged downturn in Residential and Non-Residential construction, WMS's primary markets, could significantly impact earnings. ▪ **Mitigant:** Stabilizing mortgage rates and a limited housing supply, especially in the South where WMS is focused, create a favorable environment that mitigates exposure to broader construction slowdowns.	Moderate

Sources: SEC Filing, Investor Presentations

Questions?

Photo Credit: Tina Abilgaziyeva

Appendix: Investment Thesis #1 - Ageing Infrastructure

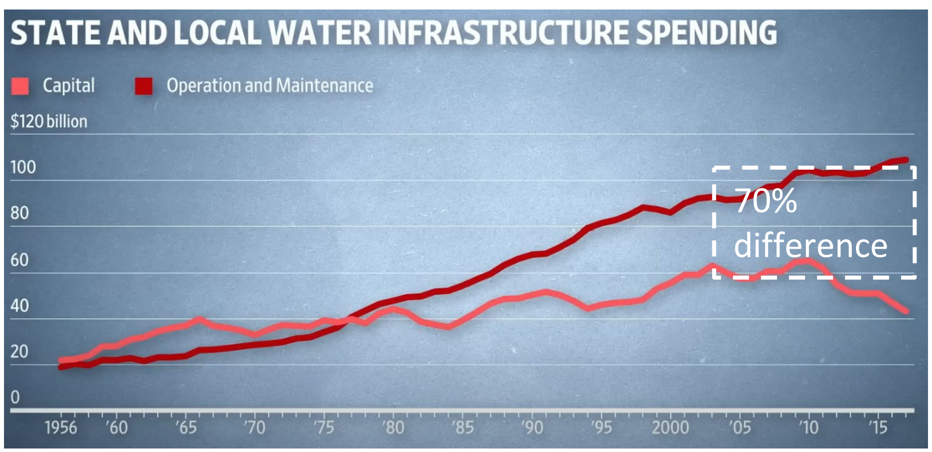
Plastic Pipes’ Superior Value Proposition Make them Ideal Solution to the US Water Infrastructure Crisis

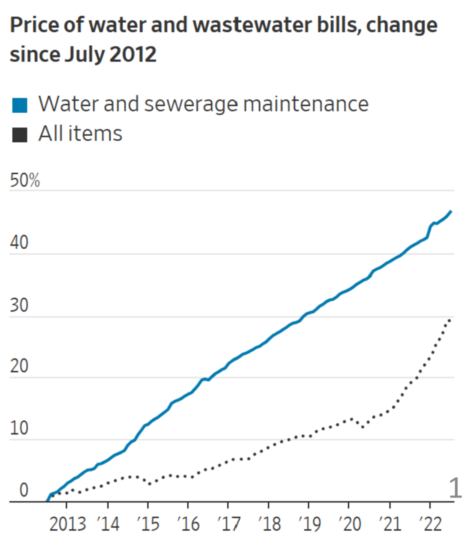
- Most of stormwater pipes, installed in the 1970s, are at or beyond their 40–50-year service life
- According the American Society of Civil Engineers (ASCE), the average US pipe is 45 years old with some pipes dating back to the 1800s
- As a result, 2/3 of the American Water Infrastructure is due for replacement
- Replacing current pipes costs roughly $1M per mile, and many states and municipalities resort to patching existing pipes. Today, replacement spending exceeds new CAPEX by 70%
- A lack of federal funds combined the increasing occurrence of water main breaks, water boil advisories, and high precipitation storms presents an opportunity for low-cost plastic pipes
- Legacy materials like cement pipes are heavier which makes them costly to transport, install, and repair
- Plastic pipes are 90% lighter and can last 100 years

HDPE & PP Value Proposition	
Installs 2-3x Faster than Concrete and Other Materials	20% less Installation Cost (lighter, cheaper to transport and install)
Service Life of 100 years v. 45-50 years for traditional materials	Increasing Enviromental Benefits as >50% of plastic supply is recycled

Plastic Pipes Offer Superior Performance at a Lower Cost and States and Utilities Rush to Replace Infrastructure

Every 2 minutes, a water main breaks in the US, >50K utilities struggle to replace pipes, results in rising water rates for consumers





Sources: 2022 Investor Presentation, Wall Street Journal, American Society of Civil Engineers

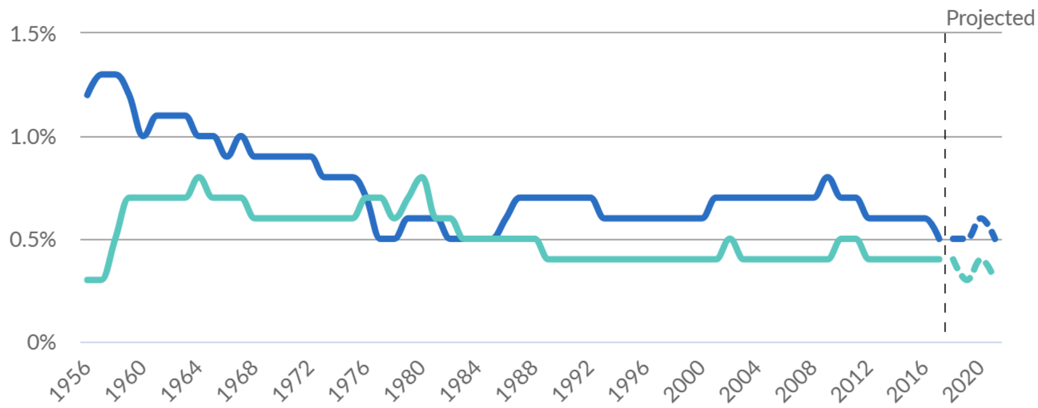
Appendix: Investment Thesis #1 Government CAPEX

Plastic Gains Share as State Departments of Transportation Approve the Use for Stormwater Infrastructure – Benefiting WMS

Figure 1

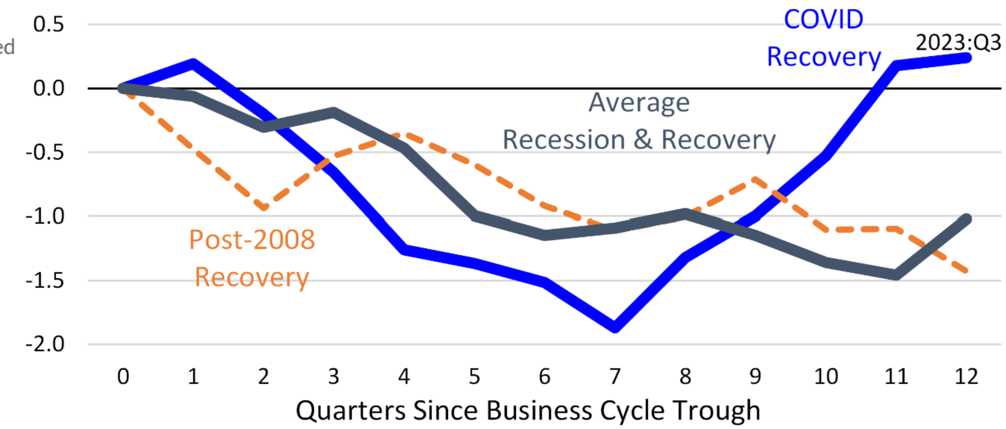
Rates of Government Infrastructure Spending Since the 1950s

Capital investments as a percentage of gross domestic product, 1956-2021



S&L Capital Investment as Share of S&L Spending Across Business Cycles

Percentage Point Change Since Business Cycle Trough

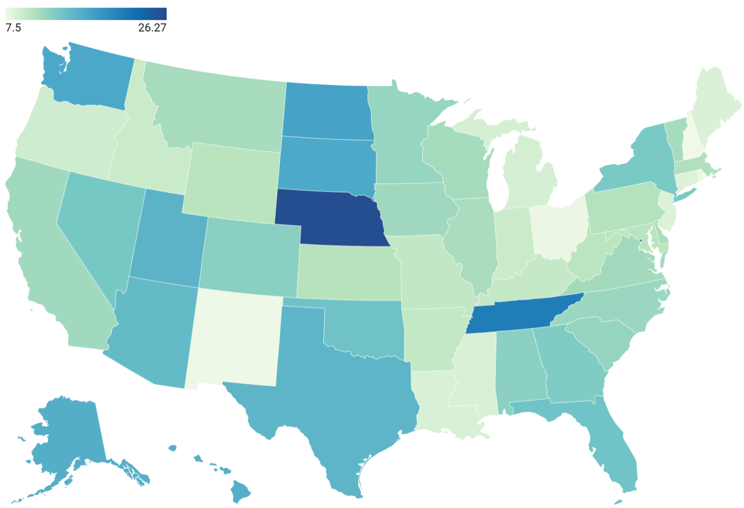


Source: Bureau of Economic Analysis; U.S. Treasury calculations.

Notes: Capital investment is gross investment in equipment and structures. Average includes NBER business cycle troughs since 1971.

Infrastructure as a percentage of 2019 state expenditures

Thirty-five states dedicated more than 10% of their total spending to transportation and utilities. Highway spending made up a large portion of states' expenditures.



Sources: The Pew Charitable Trust, US Department of the Treasury, US News and World Report

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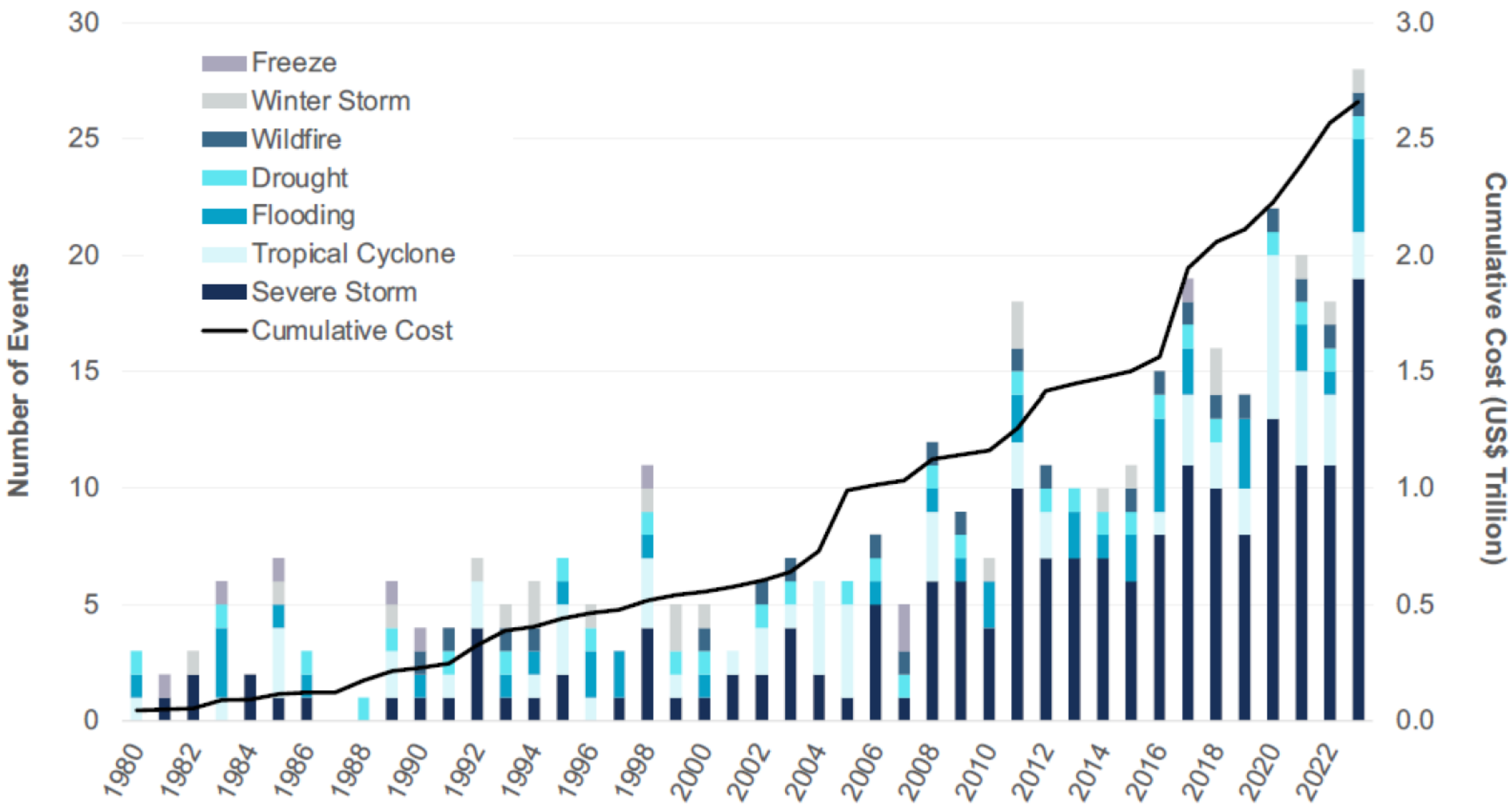
Appendix: Investment Thesis #1 - Aging Infrastructure

Current Stormwater Infrastructure was not built to accommodate increased average precipitation and frequency of major storms

Exhibit 3. US Billion-Dollar Climate Disasters, 1980–2023



Note: Costs expressed in 2023 US$

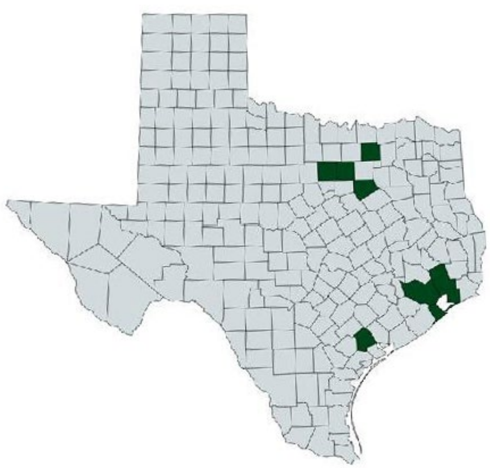
Storms now average ~22B in damages per year with Stormwater related events now accounting for >75% or $1B+ disasters. Additionally, between the 1980s and the 2020s the US counties have seen on average an 18% increase in number of extreme precipitation days

Sources: Oppenheimer Research, National Centers for Environmental Research, Bluefield Research

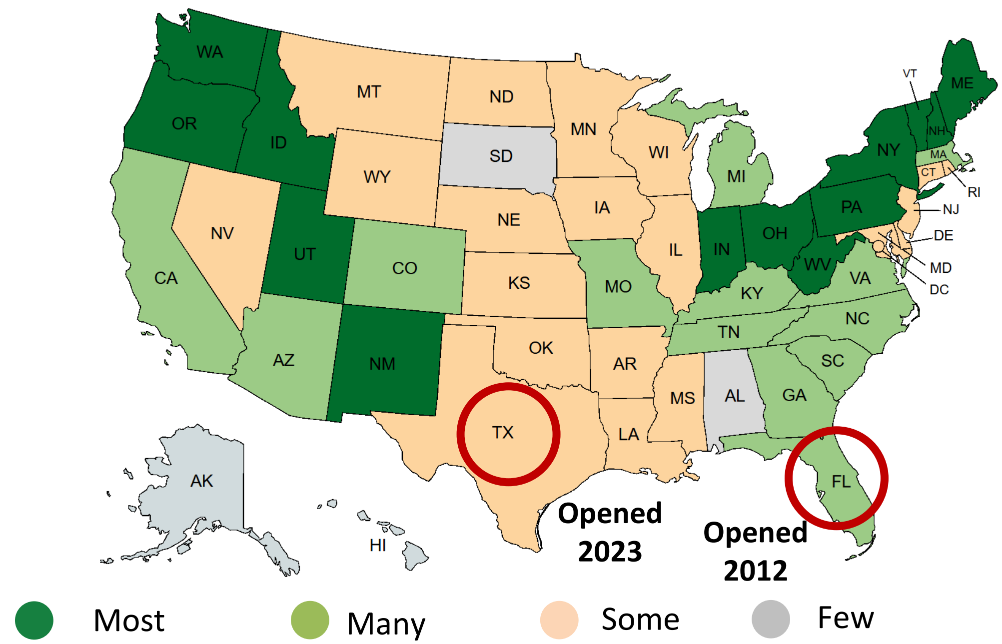
Appendix: Investment Thesis #1 Approval Process for Plastic

Plastic Gains Share as State Departments of Transportation Approve the Use for Stormwater Infrastructure – Benefiting WMS

“Many” - >60% of the population



“Some” - <50% of the population



- Most, estimated to be approvals in counties encompassing 80-100% of a state’s population
- Many, estimated to be approvals in counties encompassing 50-80% of a state's population
- Some, estimated to be approvals in counties encompassing 30-50% of a state’s population
- Few, estimated to be approvals in counties encompassing 0-30% of a state’s population
- Note: these estimates were derived via case studies provided by historical investor presentations (see Florida and Texas Examples)

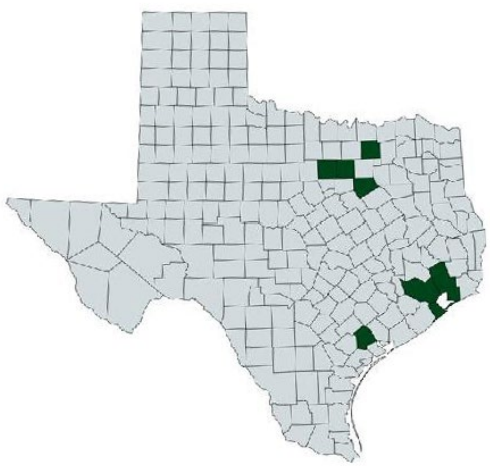
Sources: Bluefield Research, State DOT selection guides, Company Earnings Call, Company Investor Presentation, Underground Infrastructure, Company Website, Correspondence with Advanced Drainage Field Engineer

Appendix: Investment Thesis #1 Approval Process for Plastic

Plastic Gains Share as State Departments of Transportation Approve the Use for Stormwater Infrastructure – Benefiting WMS

Florida & Texas Case Studies

Since winning approval in 2012, WMS now has business in Florida counties encompassing >60% of the population



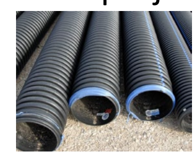
Since winning approval in 2023, WMS already grown its Texas presence to counties with ~50% of the population

Approval Process for HDPE and PP pipe

1. State DOT approves plastic pipes for State infrastructure

2. 
Contractors incorporate plastic for state projects

3. 
Counties and Municipalities begin approvals for local projects

4. 
Contractors incorporate plastic for non-infrastructure projects

- Private contractors follow State Departments of Transportation (DOT) guidelines when sourcing pipes
- From 1990 to 2022, states in the Midwest and Northeast gradually approved the use of plastic pipes for stormwater management
- This resulted in plastic growing from 1% share in 1990 to 38% share in 2022
- When a DOT approves the use of plastic, like Florida did in 2014, Plastic captures more market share as contractors are attracted to the superior value proposition.
- As a result, WMS saw Florida sales spike by 20% once other localities followed the DOT and private contractors began sourcing plastic
- In 2023, Texas approved the use of plastic pipes and WMS has begun to growth in new orders in the state

Sources: Bluefield Research, State DOT selection guides, Company Earnings Call, Company Investor Presentation, Underground Infrastructure, Company Website, Correspondence with Advanced Drainage Field Engineer

Appendix: Investment Thesis #1 Approval Process for Plastic

Example of State Pipe Material Selection Guide

[redacted] PIPE MATERIAL SELECTION GUIDE

FILL TABLES

RCP[1] (REINFORCED CONCRETE) AASHTO M170

CLASS II MIN.[4]	CLASS II MAX.	CLASS III MIN.[4]	CLASS III MAX.	CLASS IV MIN.[4]	CLASS IV MAX.	CLASS V MIN.[4]	CLASS V MAX.
2.0'	10.0'	2.0'	20.0'	1.0'	30.0'	1.0'	40.0'

(FOR FILLS >40' & <80' USE LRFD DIRECT DESIGN METHOD. NOTE: DIRECT DESIGN METHOD RCP PIPES MUST HAVE A MINIMUM DIAMETER OF 36".)

WHEN FILL HEIGHTS (NOT INCLUDING THE PAVEMENT STRUCTURE AND CURB) FOR RCP RUNNING PARALLEL TO AND UNDER CURB AND GUTTER, EXPRESSWAY GUTTER, SHOULDER BERM GUTTER AND ADJACENT TO MEDIAN BARRIER ARE 1' OR LESS, SPECIFY CLASS IV RCP.

WHEN THE FILL HEIGHTS (FROM TOP OF PIPE TO SUBGRADE) FOR RCP RUNNING UNDER/ACROSS THE PAVEMENT ARE 1' OR LESS, SPECIFY CLASS V RCP.

SPECIFY A SINGLE CLASS OF RCP IN A SINGLE RUN OF PIPE.

CSP[2] (CORRUGATED STEEL) AASHTO M36 2 2/3 X 1/2 CORRUGATION[3]

SIZE	MIN.[4]	MAXIMUM (Ga) 16	14	12	10	8
12"	1.0'	204'	256'			
15"	1.0'	162'	204'			
18"	1.0'	135'	169'	239'		
24"	1.0'	100'	126'	178'		
30"	1.0'	79'	100'	142'		
36"	1.0'	65'	83'	117'	152'	
42"	1.0'	55'	70'	100'	130'	160'
48"	1.0'	48'	61'	87'	113'	139'
54"	1.0'		54'	77'	100'	123'
60"	1.0'			69'	90'	111'
66"	1.0'				81'	100'
72"	1.0'				74'	91'
78"	1.0'					81'
84"	1.0'					69'

CAAP (CORRUGATED ALUMINUM) AASHTO M196 2 2/3 x 1/2 CORRUGATION[3]

SIZE	MIN.[4]	MAXIMUM (Ga) 16	14	12	10	8
12"	1.0'	123'	155'	218'	281'	344'
15"	1.0'	98'	123'	174'	224'	275'
18"	1.0'	81'	102'	144'	187'	228'
24"	1.0'	60'	76'	108'	139'	171'
30"	1.0'		60'	85'	111'	136'
36"	1.0'		50'	71'	92'	113'
42"	1.0'			60'	78'	96'
48"	1.0'			52'	68'	84'
54"	1.0'			46'	50'	74'
60"	1.0'				50'	62'
66"	1.0'					51'
72"	1.0'					41'

HDPE AASHTO M294 SIZE	MIN.[4]	MAX.	PP[7] ASTM F2881, ASTM F2764, OR AASHTO M330 SIZE	MIN.[4]	MAX.	PVC–ASTM F949 AASHTO M304 SIZE	MIN.[4]	MAX.
12"	2.0'	20'	12"	1.0'	20'	12"	2.0'	30'
15"	2.0'	20'	15"	1.0'	20'	15"	2.0'	30'
18"	2.0'	20'	18"	1.0'	20'	18"	2.0'	30'
24"	2.0'	20'	24"	1.0'	20'	24"	2.0'	30'
30"	2.0'	17'	30"	1.0'	20'	30"	2.0'	30'
36"	2.0'	17'	36"	1.0'	20'	36"	2.0'	30'
42"	2.0'	17'	42"	1.0'	20'			
48"	2.0'	17'	48"	1.0'	20'			
54"	2.0'	17'	54"	NA	NA			
60"	2.0'	17'	60"	1.0'	20'			

		RCP	CSP	CAAP	HDPE / PP / PVC
OPEN END CROSS PIPES	INTERSTATE[5]	CAN BE USED	USE ONLY IF PIPE SLOPE IS GREATER THAN 10%	USE ONLY IF PIPE SLOPE IS GREATER THAN 10%	DO NOT USE
	PRIMARY[5]	CAN BE USED	CAN BE USED	CAN BE USED	USE ONLY IF TRAFFIC <15000 ADT & <200 DUALS & <100 TTST
	SECONDARY	CAN BE USED	CAN BE USED	CAN BE USED	CAN BE USED
STORM DRAIN SYSTEMS	INTERSTATE	CAN BE USED	USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%	USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%	DO NOT USE
	PRIMARY	CAN BE USED	USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%	USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%	USE ONLY IF TRAFFIC <15000 ADT & <200 DUALS & <100 TTST
	SECONDARY	CAN BE USED	USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%	USE ONLY AT SYSTEM INLETS & SYSTEM OUTLET IF PIPE SLOPE IS GREATER THAN 10%	CAN BE USED
TRANSVERSE MEDIAN PIPES	INTERSTATE	CAN BE USED	USE ONLY IF PIPE SLOPE IS GREATER THAN 10%	USE ONLY IF PIPE SLOPE IS GREATER THAN 10%	DO NOT USE
	PRIMARY	CAN BE USED	CAN BE USED	CAN BE USED	USE ONLY IF TRAFFIC <15000 ADT & <200 DUALS & <100 TTST
	SECONDARY	CAN BE USED	CAN BE USED	CAN BE USED	CAN BE USED
SLOPE DRAINS[6]	INTERSTATE	DO NOT USE	CAN BE USED	CAN BE USED	CAN BE USED
	PRIMARY	DO NOT USE	CAN BE USED	CAN BE USED	CAN BE USED
	SECONDARY	DO NOT USE	CAN BE USED	CAN BE USED	CAN BE USED
SIDE DRAINS	INTERSTATE	CAN BE USED	CAN BE USED	CAN BE USED	CAN BE USED
	PRIMARY	CAN BE USED	CAN BE USED	CAN BE USED	CAN BE USED
	SECONDARY	CAN BE USED	CAN BE USED	CAN BE USED	CAN BE USED

NOTES

1– RCP IS NOT ALLOWED FOR GRADES >10%
2– FOR COUNTIES LISTED IN ARTICLE 310–D OF THE STANDARD SPECIFICATIONS CSP IS NOT ALLOWED. IN OTHER COUNTIES CSP REQUIRES AN ACCEPTABLE COATING IN ACCORDANCE WITH 1032–4.
3– FOR DIFFERENT CORRUGATIONS AND ARCH PIPES REFER TO ROADWAY DESIGN MANUAL AND MANUFACTURERS SPECIFICATION.
4– MINIMUM FILL HEIGHT IS MEASURED FROM TOP OF PIPE TO SUBGRADE.
5– WHERE SITE CONDITIONS ALLOW: INCREASE PIPE DIAMETER OF OPEN END CROSS PIPES AND SECTIONS OF STORM SEWER SYSTEMS ACTING AS OPEN END CROSS PIPES, A MINIMUM OF ONE SIZE FOR FUTURE REHABILITATION. THIS IS IN ADDITION TO UPSIZING TO COMPENSATE FOR BURYING INVERTS FOR WILDLIFE PASSAGE.
6– FOR PIPE RUNS WITH GREATER THAN 12' VERTICAL DROP TO DOWNSTREAM STRUCTURE, PROVIDE A MEANS TO REDUCE RISK OF UNINTENDED ENTRY INTO UPSTREAM END OF PIPE.
7– FILL HEIGHTS SHOWN WERE CALCULATED USING AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. JUSTIFY FILL HEIGHT OR DESIGN DEVIATIONS WITH STRUCTURAL DESIGN BASED ON AASHTO LRFD BRIDGE DESIGN OR ASTM STANDARDS. SUBMIT DESIGN SEALED BY AN NC PE FOR REVIEW & APPROVAL BY NCDOT.

INSTALLATION OF ALL PIPE TYPES IS SUBJECT TO THE INSTALLATION METHODS FOUND IN THE STANDARD DRAWINGS, STANDARD SPECIFICATIONS, HYDRAULICS GUIDELINES, AND CONTRACT DOCUMENTS; ACCOUNTING FOR SITE CONDITIONS SUCH AS SOIL PROPERTIES.

ALL PIPES TYPES ARE SUBJECT TO THE MAXIMUM AND MINIMUM FILL HEIGHT REQUIREMENTS AS FOUND IN CHAPTER 5 OF THE ROADWAY DESIGN MANUAL. THE APPROPRIATE CLASS OF PIPE FOR RCP AND GAUGE THICKNESS FOR CSP/CAAP SHOULD BE SELECTED BASED ON FILL HEIGHT.

SITE SPECIFIC CONDITIONS MAY LIMIT A PARTICULAR MATERIAL BEYOND WHAT IS IDENTIFIED IN THE TABLE. THESE CONDITIONS INCLUDE, BUT ARE NOT LIMITED TO, ABRASION, ENVIRONMENTAL, SOIL RESISTIVITY AND PH, HIGH GROUND WATER AND SPECIAL LOADING CONDITIONS. THE HYDRAULIC DESIGN ENGINEER WILL DETERMINE IF ADDITIONAL RESTRICTIONS ARE NECESSARY.

DEFINITIONS

SIDE DRAINS– STORM DRAIN PIPES RUNNING PARALLEL TO THE ROADWAY TO INCLUDE PIPES IN THE MEDIANS, OUTSIDE DITCHES, DRIVEWAYS AND UNDER SHOULDER BERM GUTTER ALONG OUTSIDE SHOULDERS GREATER THAN 4' WIDE. MAY OR MAY NOT BE OPEN ENDED. 1' MINIMUM COVER FOR ALL SIDE DRAIN PIPE IN ACCORDANCE WITH STANDARD SPECIFICATIONS.

STORM DRAIN SYSTEMS– LATERAL DRAIN PIPE UNDER CURB AND GUTTER, EXPRESSWAY GUTTER AND SHOULDER BERM GUTTER (WITH SHOULDERS 4' WIDE OR LESS) THAT CONNECT DRAINAGE STRUCTURES AND IS NOT OPEN ENDED. ALSO INCLUDES CROSS DRAIN CONNECTING TWO OR MORE SYSTEMS OR SYSTEM OUTLETS. ONLY PIPE WITH SMOOTH WALL INSIDE WALLS WILL BE ALLOWED FOR STORM DRAIN SYSTEMS.

TRANSVERSE MEDIAN PIPES– SHALLOW CROSS DRAIN PIPE THAT COLLECTS DRAINAGE IN A MEDIAN DITCH OR CURB SECTION AND DEPOSITS IT OUTSIDE DITCHES OR NATURAL DRAINAGE CHANNELS. MAY OR MAY NOT BE OPEN ENDED.

ALTERNATE PIPE– PIPE IN WHICH MATERIAL IS UNSPECIFIED ON THE DRAINAGE SUMMARY SHEET AND DRAINAGE PLANS.

HDPE– HIGH DENSITY POLYETHYLENE

PP– POLYPROPYLENE

Printed 2024 08 02
Revised 2024 08 02

[redacted] Material Selection Guide 2024 08 02 revision

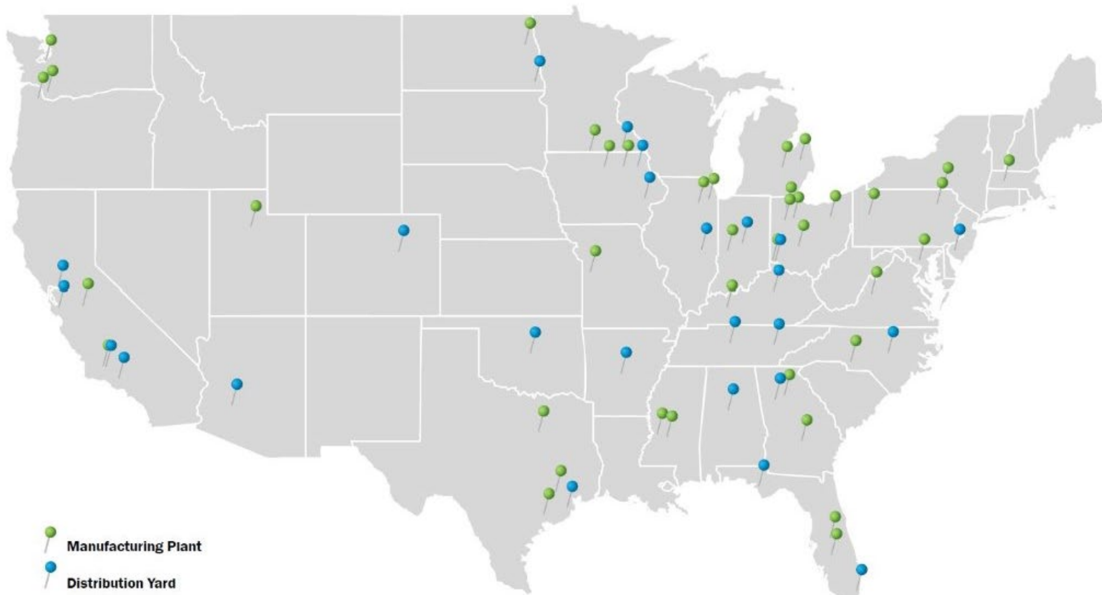
Sources: State Department of Transportation

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

Investment Thesis #1 – WMS has National Scale

WMS's Position as the Largest National Producer of Plastic Pipe Combined with its Vertical Integration Makes it the Primary Winner

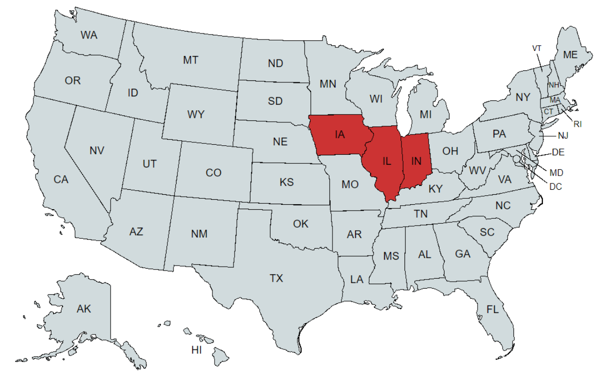
WMS National Footprint



59 plants, 29 distribution facilities, and 650+ truck fleet*

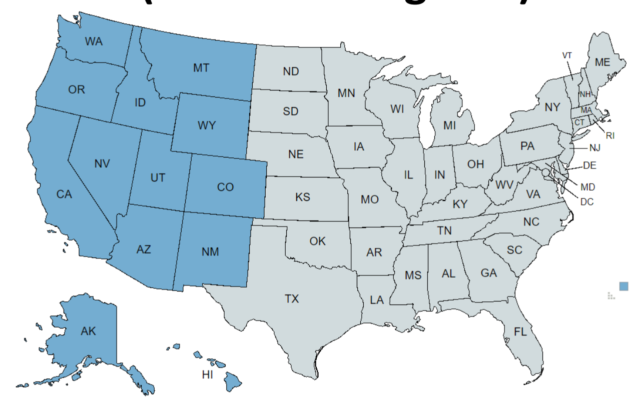
- WMS is the largest manufacturer of plastic pipe with a national manufacturing and distribution base
- Distribution centers and truck fleet allow for a distribution radius of ~300 miles from each distribution center
- WMS has advanced manufacturing with 190 patents and R&D that ensures its pipes are superior quality
- The company has an advanced molding facility in Winchester KY with the world's largest compression molding machine
- WMS's status as a high-volume resin buyer gives it economies of scale and favorable pricing
- The company also sources >50% of its resins from recycled material which provides additional cost savings

Competitor (Fratco) Footprint



-Fratco Presence

Competitor (Pacific Corrugated) Footprint



-Pacific Corrugated Presence

Note: Our map only shows WMS's US footprint. The company also has 5 plants and 12 distribution facilities internationally

Sources: Company 10-K, Company IR presentation. Fratco Company Website, Pacific Corrugated Website

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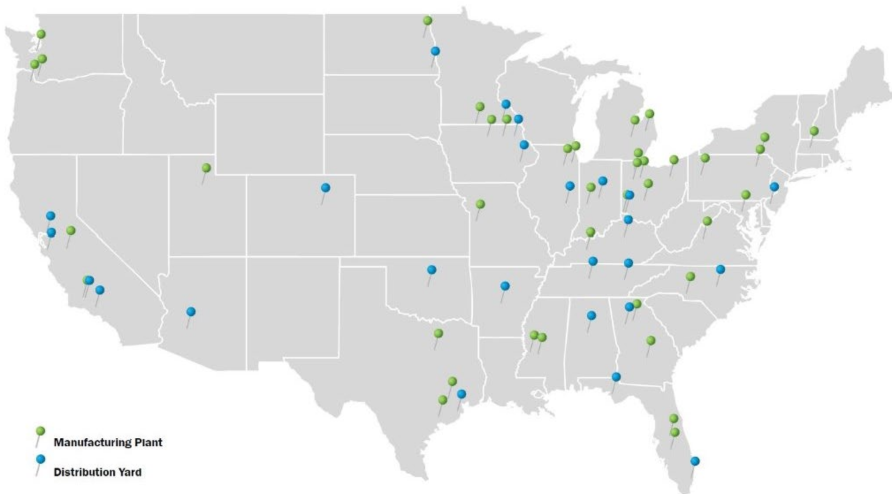
Investment Thesis #1 – WMS has National Scale

WMS's Next Largest Competitor, JM Eagle, Has a Smaller Distribution Footprint With Less Coverage of Key Markets

WMS National Footprint



JM Eagle Distribution Footprint

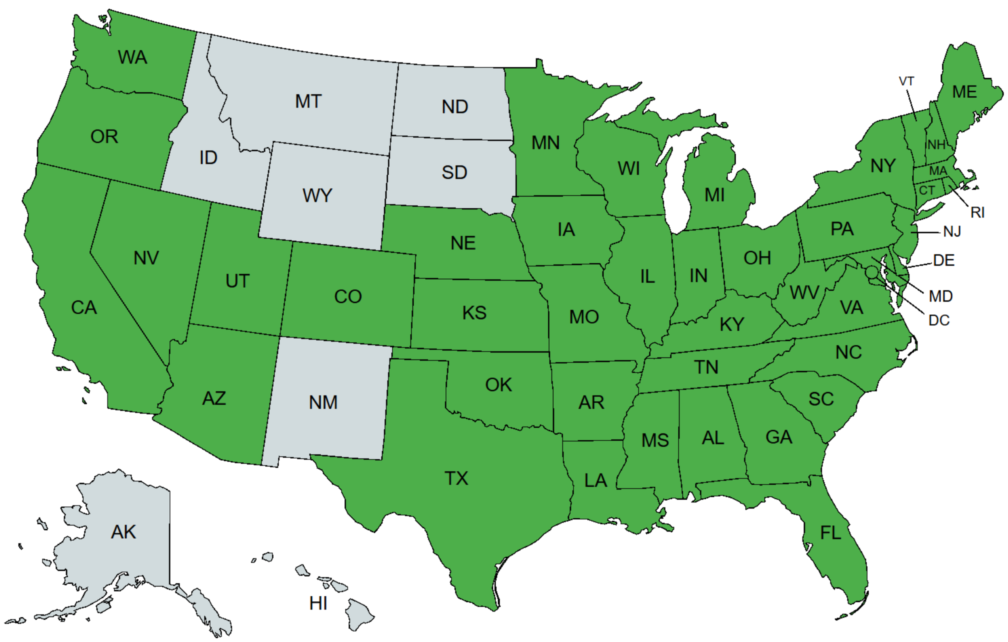
WMS	JM Eagle
29 US Distribution Facilities in 18 states	21 US Distribution Facilities in 15 US states
2 Facilities in Florida	No Distribution Facilities in Florida
3 Distribution Facilities in Texas	1 Distribution Facility in Texas
4 Facilities in California	6 Facilities in California

Sources: Company 10-K, Company IR presentation. JM Eagle Website

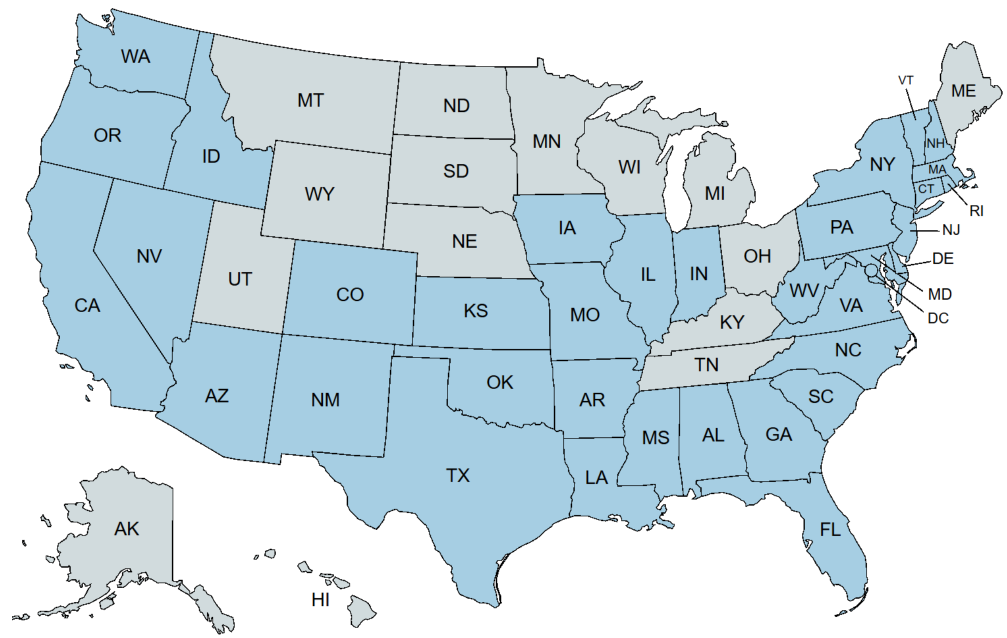
Investment Thesis #1 – WMS has national scale

WMS's Next Largest Competitor, JM Eagle, Has a Smaller Distribution Footprint With Less Coverage of Key Markets

WMS National Footprint



JM Eagle Distribution Footprint



Within WMS's Shipping Coverage

Within JM Eagle's Shipping Coverage

Note: Estimated Map Coverage Generated Using Company Website Data, Record Distribution Centers, and Effective 300 Shipping Radius

Sources: Company 10-K, Company IR presentation. JM Eagle Website, Team Generated

Investment Thesis #1 – WMS has national scale

WMS's position as the largest national producer of plastic pipe combined with its vertical integration makes it the primary winner

	Manufacturing Plants	Distribution Centers	Total
United States	51	29	80
Canada	5	4	9
Mexico (1)	4	2	6
South America (2)	4	5	9
Other (3)	—	1	1
Total	**64**	**41**	**105**

Sources: Company 10-K, Company IR presentation. JM Eagle Website

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Investment Thesis #1 – WMS has national scale

WMS's Fleet of 650+ Delivery Trucks Coupled with Their Distribution Base Gives Them an Effective Shipping Radius of ~300 Miles

Sources: Company 10-K, Company IR presentation. Site Visit

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Investment Thesis #1 – Implied Plastic Pipe Share Capture

Consensus Estimates Currently Imply Declining CapEx Share Capture

Implied Consensus Pipe Segment	Mar-24A	Mar-25E	Mar-26E
U.S. Total Investment in Stormwater Infrastructure	$ 14,514,554	$ 14,590,298	$ 15,217,680
Allocation for Stormwater Pipe Infrastructure	70.0%	70.0%	70.0%
Total Investment in U.S. Stormwater Pipe Systems	**$ 10,160,188**	**$ 10,213,208**	**$ 10,652,376**
Market Share of Plastic Stormwater Pipes (HDPE & PP)	40.0%	40.2%	40.4%
Investment Allocation in Plastic Stormwater Pipes	**$ 4,064,075**	**$ 4,105,710**	**$ 4,303,560**
Consensus Implied WMS Market Capture in Plastic Pipe	40.5%	38.1%	37.9%
WMS Plastic Pipe Revenue	**$ 1,586,618**	**$ 1,565,270**	**$ 1,629,900**
Implied Market Share			
Team - Implied WMS Market Capture in Plastic Pipe Sector		38.6%	39.4%
Consensus - Implied WMS Market Capture in Plastic Pipe Sector		38.1%	37.9%
Delta		**0.5%**	**1.6%**

Sources: Bluefield Research, Internal Model Projections, FactSet

Investment Thesis #2 – Implied Infiltrator Share Capture

Strategic Regional Presence Fuels Accelerated Infiltrator Share Capture vs. Consensus

Implied Consensus Infiltrator Segment

	Mar-24A	Mar-25E	Mar-26E
Total U.S. Septic System Market	$ 5,300,000	$ 5,618,000	$ 5,955,080
Percentage of Septic Market Comprising Plastic Systems	43.0%	43.3%	43.5%
U.S. Market for Plastic Septic Systems	**$ 2,279,000**	**$ 2,429,785**	**$ 2,590,460**
Consensus Implied WMS Market Capture in Plastic Septic	23.3%	24.0%	25.9%
WMS Infiltrator Revenue	**$ 531,236**	**$ 582,833**	**$ 672,167**
Implied Market Share			
Team - Implied WMS Market Capture in Plastic Pipe Sector		25.1%	27.1%
Consensus - Implied WMS Market Capture in Plastic Pipe Sector		24.0%	25.9%
Delta		**1.2%**	**1.2%**

Sources: Bluefield Research, Internal Model Projections, FactSet

Investment Thesis #2 – Homebuilder Partners

Residential Homebuilder Programs

Focusing on building partnerships with the top homebuilders – estimated 30% of market opportunity is with the top 20 homebuilders

In 2019, began allocating key sales and engineering talent to focus on this segment

Driving the ADS value proposition

- Footprint in key geographies
- Delivery and service model
- Product depth and breadth
- Technical support
- National distribution partnerships
- Future investments to support growth and customer demand

National programs with 7 of the top 20 homebuilders

Local relationships with the 13 other top 20 builders

Sources: Investor Presentations

Appendix: Investment Thesis #3 – Margin Expansion

Vertically Integrated Recycling Process Drives a More Resilient Margin Profile

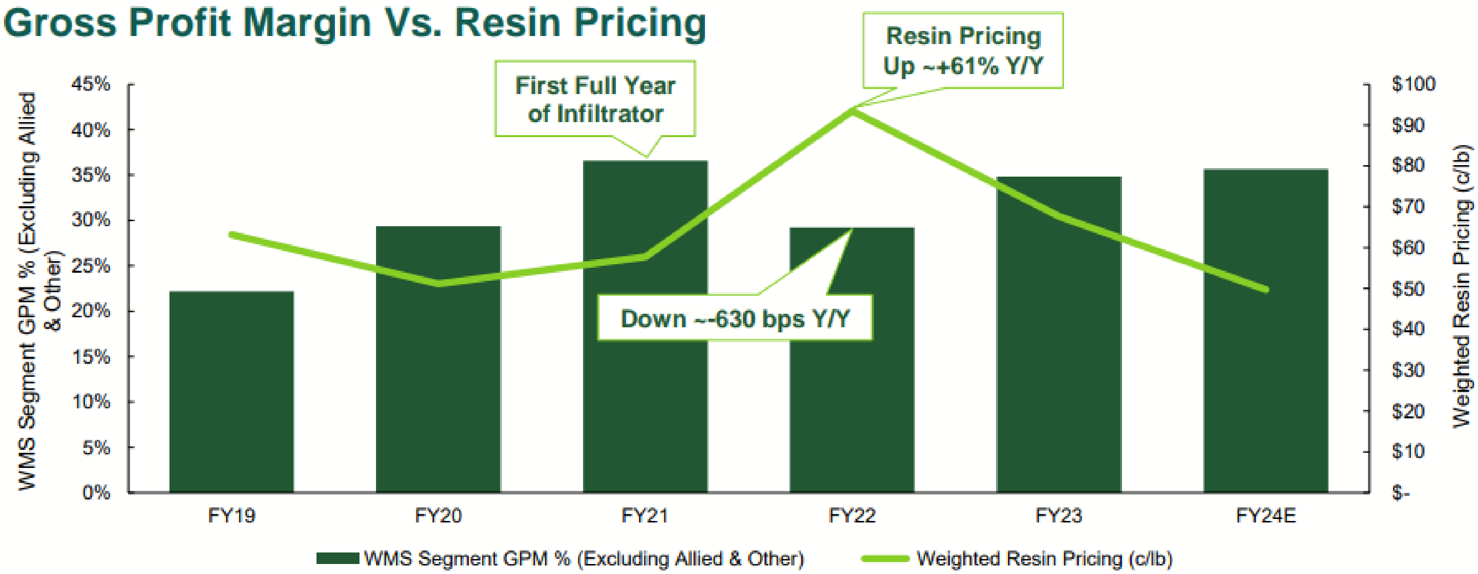
Financials: Unique and Attractive Operating Process

23

KEY Idea: Vertically integrated recycling process drives a more resilient margin profile

- **Vertically integrated recycling process:** With resins making >40% of COGS, WMS benefits from favorable pricing from its vertically integrated plastic recycling process and scale advantages.
- **Insulated from resin pricing swings:** Although not immune, due to better pricing from in-house recycling, WMS's gross margins are better insulated from dramatic swings in resin pricing. Despite WMS's margins facing meaningful pressure in FY22 from rapid resin inflation, we note margins down ~-630 bps y/y proved more resilient vs. what our analysis suggests (down ~-895 bps; based on resin pricing up ~+61% y/y).

Gross Profit Margin Vs. Resin Pricing



KeyBanc Capital Markets

Note: Weighted Resin Prices reflect 70% high-density polyethylene pricing and 30% polypropylene pricing
Source: Chemical Market Analytics, KBCM estimates, Company reports

July 23, 2023

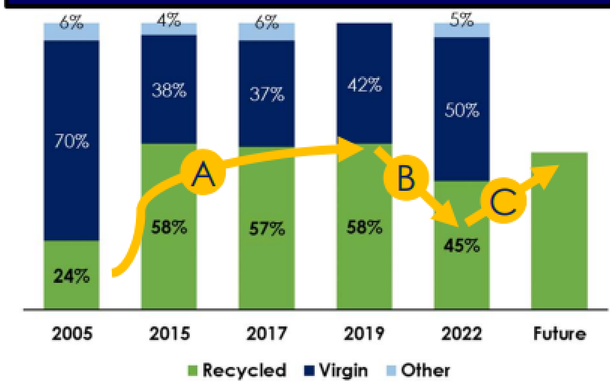
Sources: KeyBanc Capital Markets

Appendix: Investment Thesis #3 – Margin Expansion

Recycled Materials Offer Cost Advantages Compared to Virgin

2 Margin Lift From Increasing Use of Recycled Materials

Material Mix Over Time



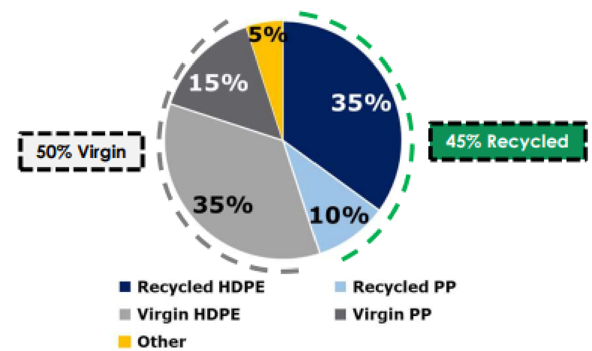
Recycled materials are 10% to 20% cheaper vs. virgin.

A Over the ten years from 2005 to 2015, WMS substantially increased their mix of recycled materials from 24% to 58% and maintained that mix for four years.

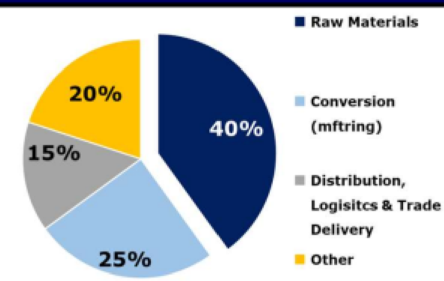
B COVID-related supply-chain disruptions drove recycled resin prices higher than virgin resins, and the company purposely shifted to more virgin purchasing. Products made of 100% virgin materials also saw greater growth.

C Over time, we expect the company to increase the use of recycled materials and return to a mid-50% mix.

Detailed Material Mix Today



COGS Mix



Rough math suggests a 1% shift to recycled materials from virgin resins results in ~$1 million lower COGS

Sources: FactSet Research Systems, Company Documents, Stephens Inc.

Sources: Stephens Inc.

Appendix: Investment Thesis #3 – Margin Expansion

Jet Polymer Acquisition Accelerates Recycling Capabilities

Advanced Drainage Systems Announces Acquisition of Jet Polymer Recycling

12/06/2021

Download

HILLIARD, Ohio--(BUSINESS WIRE)-- Advanced Drainage Systems, Inc. (NYSE: WMS) ("ADS" or the "Company"), a leading provider of innovative water management solutions in the stormwater and on-site septic wastewater industries, announced today the acquisition of Jet Polymer Recycling ("Jet"), a privately-owned recycling company located in the southeastern region of the United States.

"We are excited to welcome Jet to ADS," said Scott Barbour, President and CEO of ADS. "This acquisition advances our strategic priority to expand the ADS Recycling capabilities to support future growth, while also underpinning ADS' commitment to environmental sustainability. Through this transaction, we secure high-quality recycled plastic to leverage in the fast growing on-site septic wastewater business, as well as a platform to obtain additional high-density polyethylene in the southern region of the United States, which remains a key growth area for both ADS and Infiltrator."

Headquartered in Fort Payne, Alabama, Jet Polymer has three plastic recycling locations in Alabama and Georgia. Jet Polymer is currently the largest supplier of recycled polypropylene plastic for Infiltrator Water Technologies, a subsidiary of Advanced Drainage Systems.

About Advanced Drainage Systems

Advanced Drainage Systems is a leading provider of innovative water management solutions in the stormwater and on-site septic wastewater industries, providing superior drainage solutions for use in the construction and agriculture marketplace. For over 50 years, the Company has been manufacturing a variety of innovative and environmentally friendly alternatives to traditional materials. Its innovative products are used across a broad range of end markets and applications, including non-residential, residential, infrastructure and agriculture applications. The Company has established a leading position in many of these end markets by leveraging its national sales and distribution platform, overall product breadth and scale and manufacturing excellence. Founded in 1966, the Company operates a global network of approximately 60 manufacturing plants and 30 distribution centers. To learn more about ADS, please visit the Company's website at www.adspipe.com.

Sources: WMS Investor Relations

Appendix: Investment Thesis #3 – Value Based Pricing

Corrugated Plastic Pipe is Not a Commoditized Product Like PVC

Corrugated Plastic Pipe

1. Corrugation refers to the ridges along the length of the pipe
2. These ridges give the pipe additional strength and flexibility
3. Corrugated Pipes also vary based on Wall and Perforation. For example, double walled has two layers separated by a layer of insulation which increases the strength needed for stormwater applications
4. Perforations or "holes" can be added to allow water to naturally seep into the surrounding soil for drainage purposes
5. These differentiations require a more advanced manufacturing process with more value added than a commodity

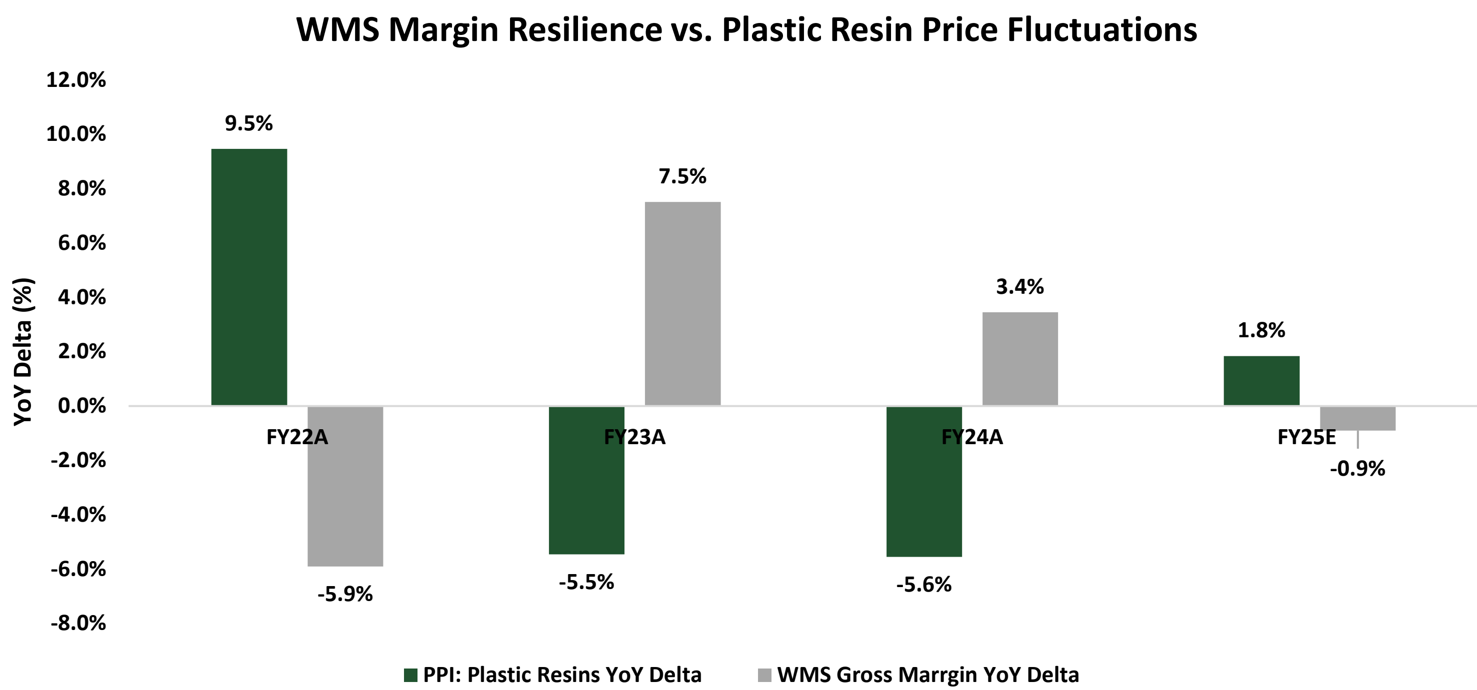
PVC Pipe

1. PVC pipe is standardized with no differentiation
2. These pipes are less flexible than corrugated pipe which makes them less ideal for stormwater management applications
3. The manufacturing process is relatively simple: (Prep, Mix, Extrude, Cool, Size, and Cut)
4. PVC manufacturers add little value beyond the molding and cutting of PVC resins
5. The lack of differentiation and advanced manufacturing makes PVC pipe a commoditized product

Sources: Dulet Piping Solutions, Western AG PVC Pipe Manufacturer, Drainage Advice, Self Generated

Appendix: Investment Thesis #3 – Value Based Pricing

Corrugated Plastic Pipe is Not a Commoditized Product Like PVC



Value-Based Pricing Mitigates Margin Compression During Resin Inflation and Enables Incremental Margin Capture in Deflation, Underscoring WMS's Pricing Power

Sources: Internal Model Projections

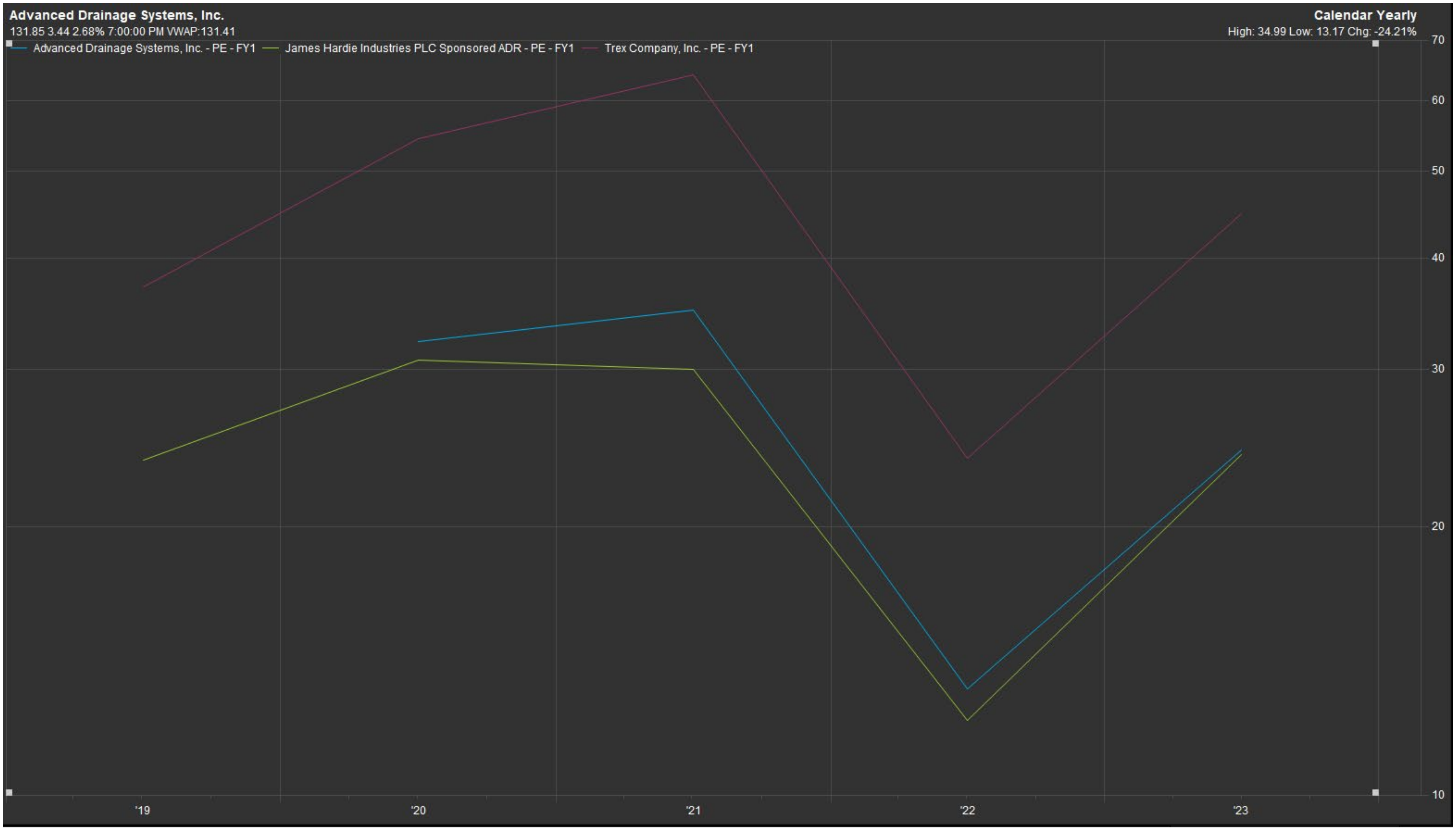
Valuation Comparable Descriptions

Comparable Company Descriptions		
Material Conversion Comparables	**Ticker**	
James Hardie Industries	JHX	JHX manufactures fiber cement siding and backer board, offering durable, low-maintenance alternatives to traditional cement structures.
Trex Company, Inc.	TREX	Trex manufactures wood-alternative decking and railing, replacing traditional wood structures with products that resist rotting, warping, and splintering.
AZEK Co.	AZEK	AZEK Co., Inc. manufactures outdoor living products, focusing on the use of recycled plastic and wood to replace virgin materials.
Hayward Holdings, Inc.	HAYW	Hayward Holdings, Inc. designs, manufactures, and markets a wide range of pool equipment and automation systems, using industrial thermoplastic in its products.
Latham Group, Inc.	SWIM	Latham Group, Inc. designs, manufactures, and markets in-ground residential swimming pools using advanced engineered plastics.
Water Comparables	**Ticker**	
Xylem Inc.	XYL	Xylem, Inc. manufactures engineered water technologies, with its Water Infrastructure segment focused on the transportation, treatment, and testing of water.
Zurn Elkay Water Solutions Corporation	ZWS	Zurn Elkay Water Solutions Corp. engages in the design, procurement, manufacture, and sale of product focused water solutions.
Watts Water Technologies, Inc.	WTS	Watts Water Technologies, Inc. manufactures products for water conservation, safety, and flow control, offering solutions in flow control and drainage.
Mueller Water Products, Inc.	MWA	Mueller Water Products, Inc. engages in the manufacture and sale of products used in the transmission, distribution, and measurement of water.

Sources: FactSet, SEC Filings

Valuation Comparable - P/E FY1 Trading History

WMS Historically Trades at a Forward Premium to JHX and Discount to TREX

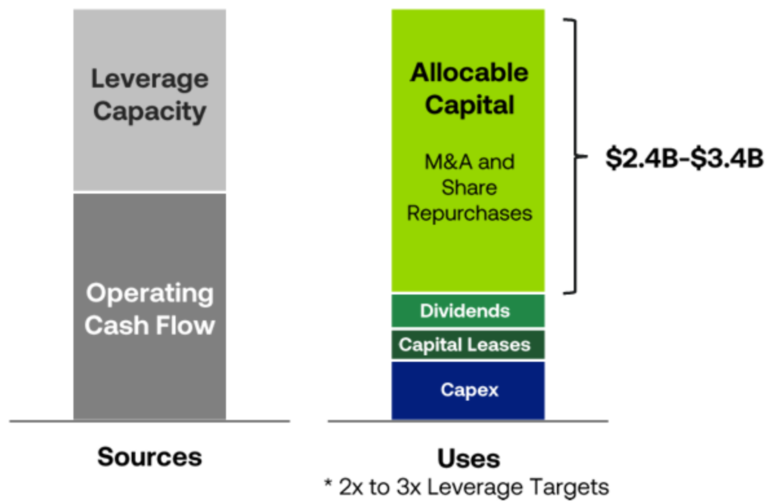


Sources: FactSet

Capital Allocation

$2.4B to $3.4B of Allocable Capital FY23 – FY25

FY23 – FY25 Capital Allocation



Deployment Priorities

1. **Capital Expenditures**
   - Investing in strategic growth, productivity, and automation initiatives
   - Growth / Capacity Expansion
   - Recycling and Material Science Capabilities
   - Safety Initiatives
2. **Strategic Acquisitions**
   - ROIC > WACC
   - Significant synergy opportunities
3. **Share Buybacks**
   - Opportunistic
   - Ladder/threshold disciplined execution
   - $292M buyback completed in early FY22
   - $1B buyback plan announced in FY22
4. **Dividend Growth**
   - Use current and forecasted financial performance to dictate future increases

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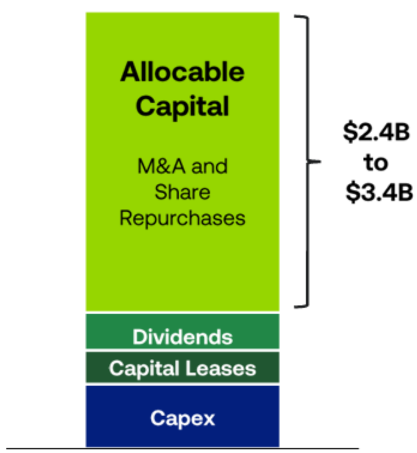
Sources: Investor Presentations

Capital Allocation, contd.

Balanced and Disciplined Capital Allocation Strategy

FY23 – FY25 Allocable Capital



Deployment Priorities

* 2x to 3x Leverage Targets

CAPITAL EXPENDITURES

- $400M to $500M spend planned for the next 3 years

SHARE REPURCHASES

- $292M program executed in FY22
- $1B program announced in February 2022

ALLOCABLE CAPITAL

- Significant allocable capital remains and provides management with significant flexibility to optimize shareholder value

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Sources: Investor Presentations

M&A Strategy

Focused Acquisition Strategy

Dedicated Resources → Widening Aperture → Disciplined Process

Dedicated Resources

Increased Corporate Development function capabilities over the last 2 years

Grown internal capabilities and resources

- Proactive approach to M&A and target identification
- Effective and cost-efficient mix of internal and external resources to manage integration and synergy capture
- Nimble when opportunities develop
- Portfolio of knowledge and perspective on likely targets

Widening Aperture

Continue to maintain a robust M&A Funnel

- Multiple sources of 'Target' identification beyond Corporate Development team (Sales & Marketing, Supply Chain, Advisors, etc.)

Primary emphasis on Capture, Convey, Store and Treat components of ADS' core stormwater business

- North American focus
- Geographic expansion considered if attractive opportunities arise
- Will explore opportunities to expand on themes of water, sustainability and conversion

Disciplined Process

Well-defined measures of attractiveness and relatedness guide disciplined pursuit of M&A

- Quantitative and qualitative metrics for prioritization of deal flow
- Strong ability to extract significant synergies
- Target ROIC > WACC by year 3

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Sources: Investor Presentations

Key Management Overview

Name/Title	Years at WMS/Industry	Experience
D. Scott Barbour / CEO	7 / 7	Joined in 2017; Former Product Engineer with 27+ years at Colt Industries and Emerson Electric
Scott Cotrill / CFO	9 / 9	Joined in 2015; Previously worked for other building materials companies like Jeld-Wen
Darin Harvey / SVP Supply Chian	6 / 6	Joined in 2018; Previous experience managing supply chains for oil & gas equipment
Brian King / SVP Product & Marketing	4 / 11	Joined in 2020; Previous experience with other building materials companies like Owen's Corning
Craig Taylor / SVP IWT	4 / 20	Joined in 2020; 25+ years of experience at Stanley Black and Decker and United Technologies
Thomas Waun / SVP Product Dev. and Material Science	2 / 2	Joined in 2022; 30 years of management experience at Emerson Electric and IBM

Sources: 10-K

Management Incentives

	Compensation Element	Form	Purpose	Links to Performance
FIXED	Base Salary	Cash	Provide steady annual compensation	Based on external market compensation and indiviudal performance.
AT RISK	Annual Incentive Program	Cash	Reward the achievement of short term company performance goals	Payouts based upon performance in Net Sales and Adjusted EBITDA, along with individual performance against goals.
AT RISK	Long Term Incentive Program	Equity	Reward long term company performance	50% based on 3 year financial performance in Cash Flow from Operations and Return on Invested Capital, with other 50% split between restricted stock and non-qualified stock options.

Named Executive Officer	Annual Salary March 31, 2022	Annual Salary March 31, 2023	Annual Salary Increase ($)	Annual Salary Increase (%)
D. Scott Barbour	$900,000	$930,000	$30,000	3%
Scott A. Cottrill	$550,000	$565,000	$15,000	3%
Roy E. Moore, Jr.	$510,000	$535,000	$25,000	5%
Darin S. Harvey	$425,000	$438,000	$13,000	3%
Kevin C. Talley	$415,000	$428,000	$13,000	3%

Sources: 2023 Proxy Statement

Management Incentives Continued

Our established targets enhance the alignment of our pay-for-performance and stockholder alignment principles. The annual incentive targets for fiscal year 2023 as a percentage of salary are as follows:

Named Executive Officer	Target Incentive Opportunity (% of Base Salary)
D. Scott Barbour	118%
Scott A. Cottrill	85%
Roy E. Moore, Jr.	70%
Darin S. Harvey	70%
Kevin C. Talley	70%

Business Performance Levels in Annual Incentive Plan – Messrs. Barbour, Cottrill, Harvey & Talley

As reflected in the table below, threshold, target, and maximum performance levels were established based on the Committee's assessment of performance targets that appropriately drive and reward achievement of growth versus our prior year performance levels. The performance levels established for the non-individual metrics in the Plan for fiscal 2023 were as follows:

- **Target performance levels**, which earn a 100% payout, reflect a 16% improvement versus fiscal year 2022 actual results for Adjusted EBITDA and 21% for Net Sales.
- **Threshold performance levels**, which earn a 50% payout, reflect a 8% improvement over fiscal year 2022 actual results for Adjusted EBITDA and Net Sales.
- **Maximum performance levels**, which earn a 200% payout, reflect a 23% improvement versus fiscal year 2022 actual results for Adjusted EBITDA and 29% for Net Sales.

		Business Performance Levels – FY23 (000's)		
Business Performance Measures	**Measure Weighting**	**Threshold**	**Target**	**Max**
Adjusted EBITDA	60%	$730,000	$820,105	$870,000
Net Sales	20%	$2,985,000	$3,200,194	$3,400,000
	Payout %'s	***50%***	***100%***	***200%***

Business Performance Levels in Annual Incentive Plan – Mr. Moore

As reflected in the table below, threshold, target, and maximum performance levels were established for the Infiltrator Adjusted EBITDA metric based on national housing statistics provided by the U.S. Census Bureau and U.S. Department of Housing and Urban Development. While this relational incentive feature is unique to Infiltrator, the Committee believes this plan design, in place at the time of the acquisition, continues to reflect a key value driver for purposes of establishing annual cash incentive opportunity for Mr. Moore.

		Business Performance Levels – FY23 (000's)		
Business Performance Measures	**Measure Weighting**	**Threshold**	**Target**	**Max**
Infiltrator EBITDA	70%			
Market Outcome 0% - 5%		$207,500	$233,000	$247,000
Market Outcome 5% - 12%		$218,000	$245,000	$260,000
Market Outcome > 12%		$225,250	$253,000	$268,200
ADS Adjusted EBITDA	10%	$730,000	$820,105	$870,000
	Payout %'s	***50%***	***100%***	***200%***

Sources: 2023 Proxy Statement

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

Income Statement

Advanced Drainage Systems - Income Statement

	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
($ in thousands)	Mar-20A	Mar-21A	Mar-22A	Mar-23A	Mar-24A	Mar-25E	Mar-26E	Mar-27E	Mar-28E	Mar-29E
Net sales	$ 1,673,805	$ 1,982,780	$ 2,769,315	$ 3,071,121	$ 2,874,473	$ 2,965,989	$ 3,225,410	$ 3,466,980	$ 3,687,782	$ 3,900,514
Cost of goods sold	(1,357,326)	(1,292,698)	(1,968,931)	(1,952,713)	(1,728,524)	(1,810,030)	(1,942,940)	(2,072,291)	(2,183,647)	(2,291,058)
Gross profit	**316,479**	**690,082**	**800,384**	**1,118,408**	**1,145,949**	**1,155,959**	**1,282,470**	**1,394,689**	**1,504,135**	**1,609,456**
Selling, general and administrative	(349,480)	(267,574)	(321,094)	(339,504)	(370,714)	(385,579)	(419,303)	(422,972)	(446,222)	(468,062)
Loss / gain on disposal of assets or businesses	(5,338)	(4,275)	(3,398)	(4,397)	8,365	-	-	-	-	-
Intangible amortization	(57,010)	(73,708)	(63,974)	(55,197)	(51,469)	(51,550)	(50,905)	(49,420)	(47,191)	(44,499)
Income from operations	**(95,349)**	**344,525**	**411,918**	**719,310**	**732,131**	**718,830**	**812,262**	**922,298**	**1,010,723**	**1,096,895**
Interest expense	(82,711)	(35,658)	(33,550)	(70,182)	(88,862)	(87,945)	(87,191)	(72,798)	(46,641)	(34,508)
Interest income and other, net	(1,554)	3,404	5,143	7,972	23,484	14,705	16,517	22,568	21,735	23,616
Income before income taxes	**(179,614)**	**312,271**	**383,511**	**657,100**	**666,753**	**645,591**	**741,588**	**872,067**	**985,816**	**1,086,004**
Income tax expense	(14,092)	(86,382)	(110,071)	(150,589)	(158,998)	(148,486)	(170,565)	(200,576)	(226,738)	(249,781)
Equity in net income of unconsolidated affiliates	1,909	201	1,586	4,842	5,536	-	-	-	-	-
Net income	**(191,797)**	**226,090**	**275,026**	**511,353**	**513,291**	**497,105**	**571,022**	**671,492**	**759,078**	**836,223**
Net income attributable to noncontrolling interest	(1,377)	(1,860)	(3,695)	(4,267)	(3,376)	(3,376)	(3,376)	(3,376)	(3,376)	(3,376)
Net income attributable to ADS	**$ (193,174)**	**$ 224,230**	**$ 271,331**	**$ 507,086**	**$ 509,915**	**$ 493,729**	**$ 567,646**	**$ 668,116**	**$ 755,702**	**$ 832,847**
GAAP Basic Earnings per Share	**$ (3.21)**	**$ 2.64**	**$ 3.22**	**$ 6.16**	**$ 6.52**	**$ 6.42**	**$ 7.40**	**$ 8.75**	**$ 9.93**	**$ 10.98**
Basic Weighted Average Shares	63,820	70,155	71,276	82,315	78,252	76,962	76,659	76,373	76,103	75,846
GAAP Diluted Earnings per Share	**$ (3.21)**	**$ 2.59**	**$ 3.15**	**$ 6.08**	**$ 6.45**	**$ 6.35**	**$ 7.33**	**$ 8.66**	**$ 9.83**	**$ 10.87**
Diluted Weighted Average Shares	63,820	71,566	72,911	83,336	79,017	77,727	77,424	77,138	76,868	76,611
Adjusted Diluted Earnings per Share	**$ (3.03)**	**$ 3.13**	**$ 3.72**	**$ 6.16**	**$ 6.39**	**$ 6.35**	**$ 7.33**	**$ 8.66**	**$ 9.83**	**$ 10.87**
Diluted Weighted Average Shares	63,820	71,566	72,911	83,336	79,017	77,727	77,424	77,138	76,868	76,611
Dividend per Share	**$ 0.36**	**$ 0.36**	**$ 0.44**	**$ 0.48**	**$ 0.56**	**$ 0.64**	**$ 0.72**	**$ 0.80**	**$ 0.88**	**$ 0.96**

Model Assumptions

	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Sales Growth		18.5%	39.7%	10.9%	(6.4%)	3.2%	8.7%	7.5%	6.4%	5.8%
Selling, general and administrative as a % of Sales	20.9%	13.5%	11.6%	11.1%	12.9%	13.0%	13.0%	12.2%	12.1%	12.0%
Total Operating Expenses as a % of Sales	24.3%	17.2%	13.9%	12.9%	14.7%	14.7%	14.6%	13.6%	13.4%	13.1%
Depreciation & Amortization Expense as a % of Sales	4.1%	3.6%	2.8%	2.9%	3.6%	5.8%	5.4%	5.1%	4.7%	4.4%
Interest income and other, net	(0.1%)	0.2%	0.2%	0.3%	0.8%	0.5%	0.5%	0.7%	0.6%	0.6%
Intangible amortization as a % Total D&A	45.6%	50.6%	45.1%	38.0%	33.2%	30.2%	29.2%	28.2%	27.2%	26.2%
Effective tax rate	(7.8%)	27.7%	28.7%	22.9%	23.8%	23.0%	23.0%	23.0%	23.0%	23.0%

Key Performance Metrics

	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Gross Margin	18.9%	34.8%	28.9%	36.4%	39.9%	39.0%	39.8%	40.2%	40.8%	41.3%
Adjusted EBITDA margin	21.6%	28.6%	24.4%	29.4%	32.1%	30.9%	34.2%	35.0%	35.0%	35.2%
EBITDA margin	1.8%	24.9%	20.2%	28.6%	31.9%	30.5%	33.8%	34.7%	34.8%	35.0%
EBIT margin	(5.7%)	17.6%	15.1%	23.8%	26.5%	24.7%	27.9%	29.3%	29.8%	30.4%
Pre-Tax Margin	(10.7%)	15.7%	13.8%	21.4%	23.2%	21.8%	23.0%	25.2%	26.7%	27.8%
Adjusted Net margin	(11.5%)	11.3%	9.8%	16.7%	17.6%	16.6%	17.6%	19.3%	20.5%	21.4%
Net Margin	(11.5%)	11.3%	9.8%	16.5%	17.7%	16.6%	17.6%	19.3%	20.5%	21.4%
ROIC	(13.4%)	9.6%	11.6%	23.2%	20.7%	18.5%	18.8%	20.1%	21.3%	20.6%
ROE	(26.5%)	20.0%	21.4%	49.1%	45.5%	35.2%	32.2%	29.4%	26.3%	23.5%
ROA	(11.2%)	7.7%	9.0%	18.0%	16.3%	14.4%	15.1%	16.4%	17.5%	17.2%

Sources: Internal Model Projections

Balance Sheet

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

Advanced Drainage Systems - Balance Sheet	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
($ in thousands)	Mar-20A	Mar-21A	Mar-22A	Mar-23A	Mar-24A	Mar-25E	Mar-26E	Mar-27E	Mar-28E	Mar-29E
Assets										
Cash and cash equivalents	$ 174,233	$ 195,009	$ 20,125	$ 217,128	$ 490,163	$ 550,560	$ 902,711	$ 965,988	$ 1,180,820	$ 1,830,619
Accounts receivable	200,028	236,191	341,753	306,945	323,576	333,424	360,377	384,994	406,987	427,793
Inventories	282,398	300,961	494,324	463,994	464,200	476,670	510,341	542,898	570,575	597,072
Other Current Assets	9,552	10,817	15,696	29,422	22,028	22,028	22,028	22,028	22,028	22,028
Total current assets	666,211	742,978	871,898	1,017,489	1,299,967	1,382,682	1,795,457	1,915,907	2,180,410	2,877,512
Net Property, Plant & Equipment	513,000	542,527	673,966	783,812	930,158	1,111,163	1,222,896	1,322,233	1,411,098	1,485,925
Intangible assets, net	1,164,202	1,092,258	1,041,678	1,027,820	969,835	918,285	867,381	817,961	770,770	726,271
Other Assets	47,589	60,639	93,628	109,045	114,083	114,083	114,083	114,083	114,083	114,083
Total Assets	**$ 2,391,002**	**$ 2,438,402**	**$ 2,681,170**	**$ 2,938,166**	**$ 3,314,043**	**$ 3,526,213**	**$ 3,999,817**	**$ 4,170,184**	**$ 4,476,361**	**$ 5,203,791**
Liabilities & Shareholders' Equity										
Accounts payable	$ 106,710	$ 171,098	$ 224,986	$ 210,111	$ 254,401	231,082	249,381	267,402	283,267	298,770
Current portion of long-term debt	7,955	7,000	19,451	14,693	11,870	11,870	11,870	11,870	11,870	11,870
Other Current Liabilities	123,548	140,172	146,804	153,998	173,351	173,351	173,351	173,351	173,351	173,351
Total current liabilities	238,213	318,270	391,241	378,802	439,622	416,303	434,602	452,623	468,488	483,991
Long-term debt	1,089,368	782,220	908,705	1,269,391	1,259,522	1,247,652	1,237,679	830,243	479,120	478,371
Lease Obligations	61,674	55,357	52,425	69,337	100,732	100,732	100,732	100,732	100,732	100,732
Other long-term liabilities	217,165	219,129	223,754	225,776	233,468	233,468	233,468	233,468	233,468	233,468
Total Liabilities	1,606,420	1,374,976	1,576,125	1,943,306	2,033,344	1,998,155	2,006,481	1,617,066	1,281,808	1,296,562
Redeemable common stock	269,529	240,944	195,384	153,220	108,584	108,584	108,584	108,584	108,584	108,584
Common stock	11,555	11,578	11,612	11,647	11,679	11,679	11,679	11,679	11,679	11,679
Treasury stock	(10,461)	(10,959)	(318,691)	(920,999)	(1,140,578)	(1,340,578)	(1,390,578)	(1,440,578)	(1,490,578)	(1,540,578)
Additional paid-in capital	827,573	918,587	1,065,628	1,134,864	1,219,834	1,219,834	1,219,834	1,219,834	1,219,834	1,219,834
Retained earnings	(267,619)	(75,202)	158,876	626,215	1,092,208	1,539,568	2,054,845	2,664,627	3,356,062	4,118,738
Other	(45,995)	(21,522)	(7,764)	(10,087)	(11,028)	(11,028)	(11,028)	(11,028)	(11,028)	(11,028)
Total Shareholders' Equity	784,582	1,063,426	1,105,045	994,860	1,280,699	1,528,059	1,993,336	2,553,118	3,194,553	3,907,229
Total Liabilities and Equity	**$ 2,391,002**	**$ 2,438,402**	**$ 2,681,170**	**$ 2,938,166**	**$ 3,314,043**	**$ 3,526,213**	**$ 3,999,817**	**$ 4,170,184**	**$ 4,476,361**	**$ 5,203,791**
Check	*Balances*	*Balances*	*Balances*	*Balances*	*Balances*	*Balances*	*Balances*	*Balances*	*Balances*	*Balances*
Model Assumptions										
Days Sales Outstanding (DSO)	42 Days	40 Days	38 Days	39 Days	40 Days	41 Days	41 Days	41 Days	40 Days	40 Days
Days Inventory Outstanding (DIO)	80 Days	78 Days	71 Days	87 Days	95 Days	96 Days	96 Days	96 Days	95 Days	95 Days
Days Payable Outstanding (DPO)	29 Days	37 Days	32 Days	40 Days	48 Days	47 Days	47 Days	47 Days	47 Days	48 Days
Cash Conversion	93 Days	81 Days	77 Days	85 Days	88 Days	91 Days	90 Days	89 Days	88 Days	88 Days
Accounts receivable, net	200,028	236,191	341,753	306,945	323,576	333,424	360,377	384,994	406,987	427,793
Inventories, net	282,398	300,961	494,324	463,994	464,200	476,670	510,341	542,898	570,575	597,072
Accounts payable	(106,710)	(171,098)	(224,986)	(210,111)	(254,401)	(231,082)	(249,381)	(267,402)	(283,267)	(298,770)
Working Capital	375,716	366,054	611,091	560,828	533,375	579,012	621,338	660,489	694,295	726,094
Working Capital as a % of Sales	22.4%	18.5%	22.1%	18.3%	18.6%	19.5%	19.3%	19.1%	18.8%	18.6%
CAPEX as % of PY Sales		4.7%	7.5%	6.0%	6.0%	8.7%	7.9%	7.0%	6.2%	5.4%
CAPEX as % of PY PP&E, net		15.4%	27.5%	24.8%	23.5%	26.9%	21.1%	18.4%	16.3%	14.2%
D&A as % of PY PP&E, net		28.4%	26.1%	21.5%	19.8%	18.3%	15.7%	14.3%	13.1%	12.0%
Repurchase Amount	-	-	292,000	575,027	207,308	200,000	50,000	50,000	50,000	50,000
Repurchase Price Assumption				$94	$115	155	165	175	185	195
Shares Repurchase (M)				6,100	1,800	1,290	303	286	270	256
Key Performance Metrics										
Current ratio	2.8x	2.3x	2.2x	2.7x	3.0x	3.3x	4.1x	4.2x	4.7x	5.9x
Quick ratio	1.6x	1.4x	1.0x	1.5x	1.9x	2.1x	2.9x	3.0x	3.4x	4.7x
Cash ratio	0.7x	0.6x	0.1x	0.6x	1.1x	1.3x	2.1x	2.1x	2.5x	3.8x

Sources: Internal Model Projections

Statement of Cash Flows

Advanced Drainage Systems - Cash Flow Statement	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
($ in thousands)	Mar-20A	Mar-21A	Mar-22A	Mar-23A	Mar-24A	Mar-25E	Mar-26E	Mar-27E	Mar-28E	Mar-29E
Operating Activities										
Net income	$ (191,797)	$ 226,090	$ 275,026	$ 511,353	$ 513,291	$ 497,105	$ 571,022	$ 671,492	$ 759,078	$ 836,223
Depreciation	67,930	71,878	77,834	89,952	103,434	118,995	123,268	125,663	126,135	125,173
Amortization	57,010	73,708	63,974	55,197	51,469	51,550	50,905	49,420	47,191	44,499
Other Non-Cash Charges	319,131	59,828	99,292	17,930	23,574	-	-	-	-	-
Changes in Working Capital	53,915	20,712	(241,238)	33,378	26,160	(45,637)	(42,326)	(39,151)	(33,806)	(31,800)
Cash Flow from Operating Activities	**$ 306,189**	**$ 452,216**	**$ 274,888**	**$ 707,810**	**$ 717,928**	**$ 622,012**	**$ 702,869**	**$ 807,424**	**$ 898,598**	**$ 974,095**
Investing Activities										
Capital Expenditures	$ (67,677)	$ (78,757)	$ (149,083)	$ (166,913)	$ (183,812)	$ (250,000)	$ (235,000)	$ (225,000)	$ (215,000)	$ (200,000)
Acquisitions	(1,089,322)	-	(49,309)	(48,010)	-	(50,000)	-	-	-	-
Sale of Fixed Assets & Businesses	-	-	-	-	27,498	-	-	-	-	-
Other	6,529	883	(441)	446	650	-	-	-	-	-
Cash Flow from Investing Activities	**$ (1,150,470)**	**$ (77,874)**	**$ (198,833)**	**$ (214,477)**	**$ (155,664)**	**$ (300,000)**	**$ (235,000)**	**$ (225,000)**	**$ (215,000)**	**$ (200,000)**
Free Cash Flow	**$ 238,512**	**$ 373,459**	**$ 125,805**	**$ 540,897**	**$ 534,116**	**$ 372,012**	**$ 467,869**	**$ 582,424**	**$ 683,598**	**$ 774,095**
Financing Activities										
Common Dividends	$ (92,127)	$ (32,155)	$ (38,494)	$ (39,612)	$ (43,995)	$ (49,745)	$ (55,745)	$ (61,710)	$ (67,644)	$ (73,547)
Sale of Common & Preferred Stock	301,811	7,553	4,574	5,700	6,454	-	-	-	-	-
Repurchase of Common Stock	-	-	(292,000)	(575,027)	(207,308)	(200,000)	(50,000)	(50,000)	(50,000)	(50,000)
Issuance/Reduction of Debt, Net	802,125	(328,491)	88,101	346,907	(26,883)	(11,870)	(9,973)	(407,436)	(351,123)	(749)
Other	(237)	(1,490)	(13,249)	(34,246)	(12,611)	-	-	-	-	-
Cash Flow from Financing Activities	**$ 1,011,572**	**$ (354,583)**	**$ (251,068)**	**$ (296,278)**	**$ (284,343)**	**$ (261,615)**	**$ (115,718)**	**$ (519,146)**	**$ (468,767)**	**$ (124,296)**
Cash, cash equivalents and restricted cash, beginning of period	8,891	174,233	195,009	20,125	217,128	490,163	550,560	902,711	965,988	1,180,820
Effect of foreign exchange rate changes on cash and equivalents	(1,949)	1,017	129	(52)	799	-	-	-	-	-
Net Change in Cash	165,342	20,776	(174,884)	197,003	278,720	60,397	352,151	63,277	214,832	649,800
Less: Restricted Cash	-	-	-	-	(5,685)	-	-	-	-	-
Cash and cash equivalents, end of period	**$ 174,233**	**$ 195,009**	**$ 20,125**	**$ 217,128**	**$ 490,163**	**$ 550,560**	**$ 902,711**	**$ 965,988**	**$ 1,180,820**	**$ 1,830,619**
Check	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*	*Reconciles*
Free Cash Flow Breakdown										
EBIT	$ (94,994)	$ 348,130	$ 418,647	$ 732,124	$ 761,151	$ 733,535	$ 828,779	$ 944,866	$ 1,032,457	$ 1,120,512
(+) Taxes	7,453	(96,302)	(120,155)	(167,782)	(181,509)	(168,713)	(190,619)	(217,319)	(237,465)	(257,718)
NOPAT	(87,541)	251,828	298,492	564,342	579,642	564,822	638,160	727,547	794,992	862,794
(+) Depreciation and Amortization	124,940	145,586	141,808	145,149	154,903	170,544	174,172	175,082	173,326	169,672
(+) Change in Working Capital	53,915	20,712	(241,238)	33,378	26,160	(45,637)	(42,326)	(39,151)	(33,806)	(31,800)
(+) Other Non-Cash Charges	319,131	59,828	99,292	17,930	23,574	-	-	-	-	-
(+) Capital Expenditures	(67,677)	(78,757)	(149,083)	(166,913)	(183,812)	(250,000)	(235,000)	(225,000)	(215,000)	(200,000)
Unlevered Free Cash Flow	**$ 342,768**	**$ 399,197**	**$ 149,271**	**$ 593,886**	**$ 600,467**	**$ 439,729**	**$ 535,006**	**$ 638,478**	**$ 719,512**	**$ 800,667**
(+) Net Borrowings	802,125	(328,491)	88,101	346,907	(26,883)	(11,870)	(9,973)	(407,436)	(351,123)	(749)
Levered Free Cash Flow	**$ 1,144,893**	**$ 70,706**	**$ 237,372**	**$ 940,793**	**$ 573,584**	**$ 427,859**	**$ 525,033**	**$ 231,042**	**$ 368,389**	**$ 799,918**
FCFF / Sales	20.5%	20.1%	5.4%	19.3%	20.9%	14.8%	16.6%	18.4%	19.5%	20.5%
FCFE / Sales	68.4%	3.6%	8.6%	30.6%	20.0%	14.4%	16.3%	6.7%	10.0%	20.5%

Sources: Internal Model Projections

Revenue Build

Advanced Drainage Systems - Revenue Build	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
($ in thousands)	Mar-20A	Mar-21A	Mar-22A	Mar-23A	Mar-24A	Mar-25E	Mar-26E	Mar-27E	Mar-28E	Mar-29E
Consolidated Segment Results										
Pipe	$ 954,633	$ 1,059,200	$ 1,555,248	$ 1,758,961	$ 1,586,618	$ 1,586,618	$ 1,697,681	$ 1,792,751	$ 1,886,871	$ 1,981,214
Infiltrator	211,005	397,813	551,906	523,643	531,236	610,921	702,560	786,867	857,685	917,723
International	148,581	164,858	224,742	239,068	222,002	226,442	230,971	235,590	240,302	245,108
Allied Products & Other	403,273	442,447	569,352	700,319	684,329	698,112	763,957	824,666	886,829	950,983
Intersegment Eliminations	(43,687)	(81,538)	(131,933)	(150,870)	(149,712)	(156,105)	(169,758)	(172,894)	(183,905)	(194,514)
Total Consolidated Sales	**$ 1,673,805**	**$ 1,982,780**	**$ 2,769,315**	**$ 3,071,121**	**$ 2,874,473**	**$ 2,965,989**	**$ 3,225,410**	**$ 3,466,980**	**$ 3,687,782**	**$ 3,900,514**
% of Consolidated Net Sales										
Pipe	57.0%	53.4%	56.2%	57.3%	55.2%	53.5%	52.6%	51.7%	51.2%	50.8%
Infiltrator	12.6%	20.1%	19.9%	17.1%	18.5%	20.6%	21.8%	22.7%	23.3%	23.5%
International	8.9%	8.3%	8.1%	7.8%	7.7%	7.6%	7.2%	6.8%	6.5%	6.3%
Allied Products & Other	24.1%	22.3%	20.6%	22.8%	23.8%	23.5%	23.7%	23.8%	24.0%	24.4%
Intersegment Eliminations	(2.6%)	(4.1%)	(4.8%)	(4.9%)	(5.2%)	(5.3%)	(5.3%)	(5.0%)	(5.0%)	(5.0%)
YoY Growth %										
Pipe		11.0%	46.8%	13.1%	(9.8%)	0.0%	7.0%	5.6%	5.3%	5.0%
Infiltrator		88.5%	38.7%	(5.1%)	1.5%	15.0%	15.0%	12.0%	9.0%	7.0%
International		11.0%	36.3%	6.4%	(7.1%)	2.0%	2.0%	2.0%	2.0%	2.0%
Allied Products & Other		9.7%	28.7%	23.0%	(2.3%)	2.0%	9.4%	7.9%	7.5%	7.2%
Total Consolidated		**18.5%**	**39.7%**	**10.9%**	**(6.4%)**	**3.2%**	**8.7%**	**7.5%**	**6.4%**	**5.8%**
Pipe Segment Build										
U.S. Total Investment in Stormwater Infrastructure					$ 14,514,554	$ 14,590,298	$ 15,217,680	$ 15,872,041	$ 16,554,538	$ 17,266,383
Allocation for Stormwater Pipe Infrastructure					70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Total Investment in U.S. Stormwater Pipe Systems					**$ 10,160,188**	**$ 10,213,208**	**$ 10,652,376**	**$ 11,110,428**	**$ 11,588,177**	**$ 12,086,468**
Market Share of Plastic Stormwater Pipes (HDPE & PP)					40.0%	40.2%	40.4%	40.6%	40.8%	41.0%
Investment Allocation in Plastic Stormwater Pipes					**$ 4,064,075**	**$ 4,105,710**	**$ 4,303,560**	**$ 4,510,834**	**$ 4,727,976**	**$ 4,955,452**
WMS Market Capture in Plastic Pipe Sector					39.0%	38.6%	39.4%	39.7%	39.9%	40.0%
WMS Plastic Pipe Revenue					**$ 1,586,618**	**$ 1,586,618**	**$ 1,697,681**	**$ 1,792,751**	**$ 1,886,871**	**$ 1,981,214**
Infiltrator Segment Build										
Total U.S. Septic System Market					$ 5,300,000	$ 5,618,000	$ 5,955,080	$ 6,312,385	$ 6,691,128	$ 7,092,596
Percentage of Septic Market Comprising Plastic Systems					43.0%	43.3%	43.5%	43.8%	44.0%	44.3%
U.S. Market for Plastic Septic Systems					**$ 2,279,000**	**$ 2,429,785**	**$ 2,590,460**	**$ 2,761,668**	**$ 2,944,096**	**$ 3,138,474**
WMS Market Capture in Plastic Septic Systems					23.3%	25.1%	27.1%	28.5%	29.1%	29.2%
WMS Infiltrator Revenue					**$ 531,236**	**$ 610,921**	**$ 702,560**	**$ 786,867**	**$ 857,685**	**$ 917,723**
Allied Products & Other Segment Build										
Allied Products & Other	$ 403,273	$ 442,447	$ 569,352	$ 700,319	$ 684,329	$ 698,112	$ 763,957	$ 824,666	$ 886,829	$ 950,983
Pipe	954,633	1,059,200	1,555,248	1,758,961	1,586,618	1,586,618	1,697,681	1,792,751	1,886,871	1,981,214
Allied Products & Other as a % of Pipe	**42.2%**	**41.8%**	**36.6%**	**39.8%**	**43.1%**	**44.0%**	**45.0%**	**46.0%**	**47.0%**	**48.0%**

Sources: Internal Model Projections

Margin Analysis

Advanced Drainage Systems - Margin Analysis

	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
($ in thousands)	Mar-20A	Mar-21A	Mar-22A	Mar-23A	Mar-24A	Mar-25E	Mar-26E	Mar-27E	Mar-28E	Mar-29E
Consolidated Gross Margin Build										
Pipe	$ 954,633	$ 1,059,200	$ 1,555,248	$ 1,758,961	$ 1,586,618	$ 1,586,618	$ 1,697,681	$ 1,792,751	$ 1,886,871	$ 1,981,214
Infiltrator	211,005	397,813	551,906	523,643	531,236	610,921	702,560	786,867	857,685	917,723
International	148,581	164,858	224,742	239,068	222,002	226,442	230,971	235,590	240,302	245,108
Allied Products & Other	403,273	442,447	569,352	700,319	684,329	698,112	763,957	824,666	886,829	950,983
Intersegment Eliminations	(43,687)	(81,538)	(131,933)	(150,870)	(149,712)	(156,105)	(169,758)	(172,894)	(183,905)	(194,514)
Total Consolidated Revenue	**$ 1,673,805**	**$ 1,982,780**	**$ 2,769,315**	**$ 3,071,121**	**$ 2,874,473**	**$ 2,965,989**	**$ 3,225,410**	**$ 3,466,980**	**$ 3,687,782**	**$ 3,900,514**
Pipe	$ 239,531	$ 322,846	$ 353,182	$ 532,551	$ 515,444	$ 468,052	$ 504,211	$ 534,240	$ 564,174	$ 594,364
Infiltrator	98,245	191,163	231,825	233,580	281,677	336,007	388,515	435,924	476,015	510,254
International	36,999	49,921	58,822	61,681	62,578	64,536	65,827	67,143	68,486	69,856
Allied Products & Other	201,206	225,052	284,091	376,299	391,766	394,433	433,163	468,410	504,606	542,060
Intersegment Eliminations	(1,895)	(503)	(28)	924	(4,557)	-	-	-	-	-
Total Segment Adjusted Gross Profit	**$ 574,086**	**$ 788,479**	**$ 927,892**	**$ 1,205,035**	**$ 1,246,908**	**$ 1,263,028**	**$ 1,391,717**	**$ 1,505,717**	**$ 1,613,281**	**$ 1,716,534**
(-) Depreciation and amortization	(62,225)	(66,408)	(71,705)	(84,048)	(96,251)	(102,362)	(104,539)	(106,320)	(104,438)	(102,370)
(-) ESOP and stock-based compensation expense	(14,319)	(31,792)	(36,622)	(2,579)	(4,708)	(4,708)	(4,708)	(4,708)	(4,708)	(4,708)
(-) ESOP acceleration compensation	(168,610)	-	(19,181)	-	-	-	-	-	-	-
(-) Other	(12,453)	(197)	-	-	-	-	-	-	-	-
Consolidated GAAP Gross Profit	**$ 316,479**	**$ 690,082**	**$ 800,384**	**$ 1,118,408**	**$ 1,145,949**	**$ 1,155,959**	**$ 1,282,470**	**$ 1,394,689**	**$ 1,504,135**	**$ 1,609,456**
Pipe Gross Margin	25.1%	30.5%	22.7%	30.3%	32.5%	29.5%	29.7%	29.8%	29.9%	30.0%
Infiltrator Gross Margin	46.6%	48.1%	42.0%	44.6%	53.0%	55.0%	55.3%	55.4%	55.5%	55.6%
International Gross Margin	24.9%	30.3%	26.2%	25.8%	28.2%	28.5%	28.5%	28.5%	28.5%	28.5%
Allied Products & Other Gross Margin	49.9%	50.9%	49.9%	53.7%	57.2%	56.5%	56.7%	56.8%	56.9%	57.0%
Total Segment Adjusted Gross Margin	**34.3%**	**39.8%**	**33.5%**	**39.2%**	**43.4%**	**42.6%**	**43.1%**	**43.4%**	**43.7%**	**44.0%**
Consolidated GAAP Gross Margin	**18.9%**	**34.8%**	**28.9%**	**36.4%**	**39.9%**	**39.0%**	**39.8%**	**40.2%**	**40.8%**	**41.3%**
Consolidated Adjusted EBITDA Build										
Consolidated Net income	$ (191,797)	$ 226,090	$ 275,026	$ 511,353	$ 513,291	$ 497,105	$ 571,022	$ 671,492	$ 759,078	$ 836,223
(+) Interest expense	82,711	35,658	33,550	70,182	88,862	87,945	87,191	72,798	46,641	34,508
(+) Income tax expense	14,092	86,382	110,071	150,589	158,998	148,486	170,565	200,576	226,738	249,781
EBIT	**$ (94,994)**	**$ 348,130**	**$ 418,647**	**$ 732,124**	**$ 761,151**	**$ 733,535**	**$ 828,779**	**$ 944,866**	**$ 1,032,457**	**$ 1,120,512**
(+) Depreciation & Amortization Expense	124,940	145,586	141,808	145,149	154,903	170,544	174,172	175,082	173,326	169,672
EBITDA	**$ 29,946**	**$ 493,716**	**$ 560,455**	**$ 877,273**	**$ 916,054**	**$ 904,080**	**$ 1,002,951**	**$ 1,119,948**	**$ 1,205,783**	**$ 1,290,184**
(+) (Gain) loss on disposal of assets and costs from exits		4,275	3,398	4,397	(8,365)	-	-	-	-	-
(+) Stock-based compensation expense		65,434	24,158	21,659	31,986	28,000	29,000	30,000	31,000	32,000
(+) Transaction costs		1,415	3,539	3,903	3,444	-	-	-	-	-
(+) Interest income		-	(52)	(9,782)	(22,047)	(14,705)	(16,517)	(22,568)	(21,735)	(23,616)
(+) Other adjustments		2,115	84,544	6,512	1,875	-	-	-	-	-
Adjusted EBITDA	**$ 361,868**	**$ 566,955**	**$ 676,042**	**$ 903,962**	**$ 922,947**	**$ 917,375**	**$ 1,015,434**	**$ 1,127,380**	**$ 1,215,048**	**$ 1,298,568**
EBIT Margin	(5.7%)	17.6%	15.1%	23.8%	26.5%	24.7%	27.9%	29.3%	29.8%	30.4%
EBITDA Margin	1.8%	24.9%	20.2%	28.6%	31.9%	30.5%	33.8%	34.7%	34.8%	35.0%
Adjusted EBITDA Margin	21.6%	28.6%	24.4%	29.4%	32.1%	30.9%	34.2%	35.0%	35.0%	35.2%
Consolidated Adjusted Net Income Build										
Net income attributable to common shareowners	$ (193,174)	$ 224,230	$ 271,331	$ 507,086	$ 509,915	$ 493,729	$ 567,646	$ 668,116	$ 755,702	$ 832,847
(+) Adjustments to Net Income	-	-	-	6,667	(4,741)	-	-	-	-	-
Adjusted Net Income	**$ (193,174)**	**$ 224,230**	**$ 271,331**	**$ 513,753**	**$ 505,174**	**$ 493,729**	**$ 567,646**	**$ 668,116**	**$ 755,702**	**$ 832,847**
GAAP Net Margin	(11.5%)	11.3%	9.8%	16.5%	17.7%	16.6%	17.6%	19.3%	20.5%	21.4%
Adjusted Net Margin	(11.5%)	11.3%	9.8%	16.7%	17.6%	16.6%	17.6%	19.3%	20.5%	21.4%

Sources: Internal Model Projections

Debt Schedule

Advanced Drainage Systems - Debt Schedule	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
($ in thousands)	Mar-20A	Mar-21A	Mar-22A	Mar-23A	Mar-24A	Mar-25E	Mar-26E	Mar-27E	Mar-28E	Mar-29E
Debt Scheduale										
Term Loan Facility, beg.	$ -	$ 648,250	$ 441,250	$ 434,250	$ 427,250	$ 420,250	$ 408,380	$ 398,407	$ 340,971	$ -
(+) Draw dow n, net	648,250	-	-	-	-					
(–) Repayment, net	-	(207,000)	(7,000)	(7,000)	(7,000)	(11,870)	(9,973)	(57,436)	(340,971)	
Term Loan Facility, end	$ 648,250	$ 441,250	$ 434,250	$ 427,250	$ 420,250	$ 408,380	$ 398,407	$ 340,971	$ -	$ -
(+) 5.0% Senior Notes due 2027	350,000	350,000	350,000	350,000	350,000	350,000	350,000	-	-	-
(+) 6.375% Senior Notes due 2030	-	-	-	500,000	500,000	500,000	500,000	500,000	500,000	500,000
(+) Revolving Credit Facility	100,000	-	114,300	-	-	-	-	-	-	-
(+) 1.6% Equipment financing	1,492	-	31,254	18,638	10,901	10,901	10,901	10,901	749	-
Total Debt	**$ 1,099,742**	**$ 791,250**	**$ 929,804**	**$ 1,295,888**	**$ 1,281,151**	**$ 1,269,281**	**$ 1,259,308**	**$ 851,872**	**$ 500,749**	**$ 500,000**
(-) Unamortized debt issuance costs	(2,419)	(2,030)	(1,648)	(11,804)	(9,759)	(9,759)	(9,759)	(9,759)	(9,759)	(9,759)
(-) Current portion of long-term debt	(7,955)	(7,000)	(19,451)	(14,693)	(11,870)	(11,870)	(11,870)	(11,870)	(11,870)	(11,870)
Total Long-term debt	**$ 1,089,368**	**$ 782,220**	**$ 908,705**	**$ 1,269,391**	**$ 1,259,522**	**$ 1,247,652**	**$ 1,237,679**	**$ 830,243**	**$ 479,120**	**$ 478,371**
Schedule of Long-term Debt Maturities - Per SEC Filings						11,870	9,973	407,436	351,123	749
Consolidated Debt Outstanding										
Long-term debt	$ 1,089,368	$ 782,220	$ 908,705	$ 1,269,391	$ 1,259,522	$ 1,247,652	$ 1,237,679	$ 830,243	$ 479,120	$ 478,371
Current portion of long-term debt	7,955	7,000	19,451	14,693	11,870	11,870	11,870	11,870	11,870	11,870
(-) Cash and cash equivalents	(174,233)	(195,009)	(20,125)	(217,128)	(490,163)	(550,560)	(902,711)	(965,988)	(1,180,820)	(1,830,619)
Net Debt	**$ 923,090**	**$ 594,211**	**$ 908,031**	**$ 1,066,956**	**$ 781,229**	**$ 708,962**	**$ 346,838**	**$ (123,875)**	**$ (689,830)**	**$ (1,340,378)**
Interest Expense, net										
Average Debt Balance		$ 945,496	$ 860,527	$ 1,112,846	$ 1,288,520	$ 1,275,216	$ 1,264,295	$ 1,055,590	$ 676,311	$ 500,375
Interest Expense, net		35,658	33,550	70,182	88,862	87,945	87,191	72,798	46,641	34,508
Effective Interest Rate		**3.8%**	**3.9%**	**6.3%**	**6.9%**	**6.9%**	**6.9%**	**6.9%**	**6.9%**	**6.9%**
Summary Credit Metrics										
Interest Expense	82,711	35,658	33,550	70,182	88,862	87,945	87,191	72,798	46,641	34,508
EBIT	(94,994)	348,130	418,647	732,124	761,151	733,535	828,779	944,866	1,032,457	1,120,512
EBITDA	29,946	493,716	560,455	877,273	916,054	904,080	1,002,951	1,119,948	1,205,783	1,290,184
CAPEX	67,677	78,757	149,083	166,913	183,812	250,000	235,000	225,000	215,000	200,000
LTM Coverage Ratios										
EBIT / total interest expense	(1.1x)	9.8x	12.5x	10.4x	8.6x	8.3x	9.5x	13.0x	22.1x	32.5x
EBITDA / total interest expense	0.4x	13.8x	16.7x	12.5x	10.3x	10.3x	11.5x	15.4x	25.9x	37.4x
(EBITDA – capex) / total interest expense	(0.5x)	11.6x	12.3x	10.1x	8.2x	7.4x	8.8x	12.3x	21.2x	31.6x
Total Debt / EBITDA	36.4x	1.6x	1.6x	1.4x	1.4x	1.4x	1.2x	0.7x	0.4x	0.4x
Net Debt / EBITDA	30.8x	1.2x	1.6x	1.2x	0.9x	0.8x	0.3x	(0.1x)	(0.6x)	(1.0x)

Sources: Internal Model Projections

Scenario Analysis: Base Case

Advanced Drainage Systems - Scenario Analysis	Base Case					
	FY24	FY25	FY26	FY27	FY28	FY29
($ in millions)	Mar-24A	Mar-25E	Mar-26E	Mar-27E	Mar-28E	Mar-29E
Pipe	$ 1,586,618	$ 1,586,618	$ 1,697,681	$ 1,792,751	$ 1,886,871	$ 1,981,214
Growth		0.0%	7.0%	5.6%	5.3%	5.0%
Infiltrator	531,236	610,921	702,560	786,867	857,685	917,723
Growth		15.0%	15.0%	12.0%	9.0%	7.0%
International	222,002	226,442	230,971	235,590	240,302	245,108
Growth		2.0%	2.0%	2.0%	2.0%	2.0%
Allied Products & Other	684,329	698,112	763,957	824,666	886,829	950,983
Growth		2.0%	9.4%	7.9%	7.5%	7.2%
Intersegment Eliminations	(149,712)	(156,105)	(169,758)	(172,894)	(183,905)	(194,514)
Net sales	**$ 2,874,473**	**$ 2,965,989**	**$ 3,225,410**	**$ 3,466,980**	**$ 3,687,782**	**$ 3,900,514**
Growth		3.2%	8.7%	7.5%	6.4%	5.8%
Cost of goods sold	(1,728,524)	(1,810,030)	(1,942,940)	(2,072,291)	(2,183,647)	(2,291,058)
Gross profit	**1,145,949**	**1,155,959**	**1,282,470**	**1,394,689**	**1,504,135**	**1,609,456**
Margin	39.9%	39.0%	39.8%	40.2%	40.8%	41.3%
Selling, general and administrative	(370,714)	(385,579)	(419,303)	(422,972)	(446,222)	(468,062)
% of Sales	12.9%	13.0%	13.0%	12.2%	12.1%	12.0%
Intangible amortization	(51,469)	(51,550)	(50,905)	(49,420)	(47,191)	(44,499)
Income from operations	**732,131**	**718,830**	**812,262**	**922,298**	**1,010,723**	**1,096,895**
Margin	25.5%	24.2%	25.2%	26.6%	27.4%	28.1%
Interest expense	(88,862)	(87,945)	(87,191)	(72,798)	(46,641)	(34,508)
Interest income and other, net	23,484	14,705	16,517	22,568	21,735	23,616
Income before income taxes	**666,753**	**645,591**	**741,588**	**872,067**	**985,816**	**1,086,004**
Margin	23.2%	21.8%	23.0%	25.2%	26.7%	27.8%
Income tax expense	(158,998)	(148,486)	(170,565)	(200,576)	(226,738)	(249,781)
ETR	23.8%	23.0%	23.0%	23.0%	23.0%	23.0%
Net income	**513,291**	**497,105**	**571,022**	**671,492**	**759,078**	**836,223**
Net income attributable to noncontrolling interest	(3,376)	(3,376)	(3,376)	(3,376)	(3,376)	(3,376)
Net income attributable to ADS	**$ 509,915**	**$ 493,729**	**$ 567,646**	**$ 668,116**	**$ 755,702**	**$ 832,847**
Diluted Earnings per Share	**$ 6.45**	**$ 6.35**	**$ 7.33**	**$ 8.66**	**$ 9.83**	**$ 10.87**
Diluted Weighted Average Shares	79,017	77,727	77,424	77,138	76,868	76,611

Sources: Internal Model Projections

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

Discounted Cash Flow Analysis: Base Case

Base Case: Advanced Drainage Systems Discounted Cash Flow Analysis

	Fiscal Year Ending March 31,					
	2025E	2026E	2027E	2028E	2029E	Terminal Value
NOPAT	$ 564,822	$ 638,160	$ 727,547	$ 794,992	$ 862,794	
(+) Depreciation and Amortization	170,544	174,172	175,082	173,326	169,672	
(+) Change in Working Capital	(45,637)	(42,326)	(39,151)	(33,806)	(31,800)	
(+) Other Non-Cash Charges	-	-	-	-	-	
(+) Capital Expenditures	(250,000)	(235,000)	(225,000)	(215,000)	(200,000)	
Unlevered Free Cash Flow	**$ 439,729**	**$ 535,006**	**$ 638,478**	**$ 719,512**	**$ 800,667**	**$ 15,746,444**
Discount Factor	0.92	0.85	0.78	0.72	0.67	0.67
PV of Free Cash Flow	**$ 405,281**	**$ 454,464**	**$ 499,870**	**$ 519,181**	**$ 532,480**	**$ 10,472,100**

Enterprise Value	**$ 12,883,376**
(-) Net Debt	769,733
Equity Value	**$ 12,113,643**
(÷) Shares Outstanding	79,017
Price per Share	**$ 153.30**

Assumptions

Weighted Average Cost of Capital	8.5%
Perpetual Growth Rate	3.3%

Sources: Internal Model Projections

Scenario Analysis: Upside Case

Advanced Drainage Systems - Scenario Analysis	Upside Case					
	FY24	FY25	FY26	FY27	FY28	FY29
($ in millions)	Mar-24A	Mar-25E	Mar-26E	Mar-27E	Mar-28E	Mar-29E
Pipe	$ 1,586,618	$ 1,618,350	$ 1,747,818	$ 1,863,174	$ 1,979,623	$ 2,098,400
Growth		2.0%	8.0%	6.6%	6.3%	6.0%
Infiltrator	531,236	621,546	720,993	814,723	896,195	967,891
Growth		17.0%	16.0%	13.0%	10.0%	8.0%
International	222,002	227,552	233,241	239,072	245,049	251,175
Growth		2.5%	2.5%	2.5%	2.5%	2.5%
Allied Products & Other	684,329	704,955	785,544	863,680	946,058	1,033,417
Growth		3.0%	11.4%	9.9%	9.5%	9.2%
Intersegment Eliminations	(149,712)	(158,620)	(174,380)	(179,581)	(193,179)	(206,667)
Net sales	**$ 2,874,473**	**$ 3,013,784**	**$ 3,313,217**	**$ 3,601,068**	**$ 3,873,746**	**$ 4,144,216**
Growth		4.8%	9.9%	8.7%	7.6%	7.0%
Cost of goods sold	(1,728,524)	(1,833,170)	(1,970,985)	(2,125,430)	(2,264,708)	(2,403,120)
Gross profit	**1,145,949**	**1,180,614**	**1,342,233**	**1,475,638**	**1,609,037**	**1,741,096**
Margin	39.9%	39.2%	40.5%	41.0%	41.5%	42.0%
Selling, general and administrative	(370,714)	(384,257)	(422,435)	(430,328)	(459,039)	(486,945)
% of Sales	12.9%	12.8%	12.8%	12.0%	11.9%	11.8%
Intangible amortization	(51,469)	(51,550)	(50,905)	(49,420)	(47,191)	-
Income from operations	**732,131**	**744,807**	**868,893**	**995,890**	**1,102,807**	**1,254,150**
Margin	25.5%	24.7%	26.2%	27.7%	28.5%	30.3%
Interest expense	(88,862)	(87,945)	(87,191)	(72,798)	(46,641)	(34,508)
Interest income and other, net	23,484	14,705	16,517	22,568	21,735	23,616
Income before income taxes	**666,753**	**671,567**	**798,218**	**945,660**	**1,077,901**	**1,243,259**
Margin	23.2%	22.3%	24.1%	26.3%	27.8%	30.0%
Income tax expense	(158,998)	(154,460)	(183,590)	(217,502)	(247,917)	(285,949)
ETR	23.8%	23.0%	23.0%	23.0%	23.0%	23.0%
Net income	**513,291**	**517,107**	**614,628**	**728,158**	**829,984**	**957,309**
Net income attributable to noncontrolling interest	(3,376)	(3,376)	(3,376)	(3,376)	(3,376)	(3,376)
Net income attributable to ADS	**$ 509,915**	**$ 513,731**	**$ 611,252**	**$ 724,782**	**$ 826,608**	**$ 953,933**
Diluted Earnings per Share	**$ 6.45**	**$ 6.61**	**$ 7.89**	**$ 9.40**	**$ 10.75**	**$ 12.45**
Diluted Weighted Average Shares	79,017	77,727	77,424	77,138	76,868	76,611

Sources: Internal Model Projections

Discounted Cash Flow Analysis: Upside Case

Upside Case: Advanced Drainage Systems Discounted Cash Flow Analysis

	Fiscal Year Ending March 31,					
	2025E	**2026E**	**2027E**	**2028E**	**2029E**	**Terminal Value**
NOPAT	$ 578,840	$ 669,047	$ 734,364	$ 795,942	$ 965,696	
(+) Depreciation and Amortization	170,544	174,172	175,082	173,326	169,672	
(+) Change in Working Capital	(45,637)	(42,326)	(39,151)	(33,806)	(31,800)	
(+) Other Non-Cash Charges	-	-	-	-	-	
(+) Capital Expenditures	(250,000)	(235,000)	(225,000)	(215,000)	(200,000)	
Unlevered Free Cash Flow	**$ 453,747**	**$ 565,894**	**$ 645,296**	**$ 720,462**	**$ 903,568**	**$ 18,658,688**
Discount Factor	0.92	0.85	0.79	0.73	0.67	0.67
PV of Free Cash Flow	**$ 419,166**	**$ 482,924**	**$ 508,716**	**$ 524,686**	**$ 607,885**	**$ 12,552,828**
Enterprise Value	**$ 15,096,205**					
(-) Net Debt	769,733					
Equity Value	**$ 14,326,472**					
(÷) Shares Outstanding	79,017					
Price per Share	**$ 181.31**					

Assumptions

Weighted Average Cost of Capital	8.3%
Perpetual Grow th Rate	3.3%

Sources: Internal Model Projections

Scenario Analysis: Downside Case

Advanced Drainage Systems - Scenario Analysis	Downside Case					
	FY24	FY25	FY26	FY27	FY28	FY29
($ in millions)	Mar-24A	Mar-25E	Mar-26E	Mar-27E	Mar-28E	Mar-29E
Pipe	$ 1,586,618	$ 1,554,886	$ 1,632,630	$ 1,691,405	$ 1,746,375	$ 1,798,767
Growth		(2.0%)	5.0%	3.6%	3.3%	3.0%
Infiltrator	531,236	600,297	678,335	746,169	798,401	838,321
Growth		13.0%	13.0%	10.0%	7.0%	5.0%
International	222,002	224,222	226,464	228,729	231,016	233,326
Growth		1.0%	1.0%	1.0%	1.0%	1.0%
Allied Products & Other	684,329	684,425	728,446	764,480	799,173	833,010
Growth		0.0%	6.4%	4.9%	4.5%	4.2%
Intersegment Eliminations	(149,712)	(153,191)	(163,294)	(162,962)	(169,811)	(175,913)
Net sales	**$ 2,874,473**	**$ 2,910,638**	**$ 3,102,582**	**$ 3,267,820**	**$ 3,405,154**	**$ 3,527,511**
Growth		1.3%	6.6%	5.3%	4.2%	3.6%
Cost of goods sold	(1,728,524)	(1,783,528)	(1,907,732)	(1,994,096)	(2,058,859)	(2,116,060)
Gross profit	**1,145,949**	**1,127,110**	**1,194,849**	**1,273,724**	**1,346,295**	**1,411,451**
Margin	39.9%	38.7%	38.5%	39.0%	39.5%	40.0%
Selling, general and administrative	(370,714)	(392,936)	(418,849)	(415,013)	(429,049)	(440,939)
% of Sales	12.9%	13.5%	13.5%	12.7%	12.6%	12.5%
Intangible amortization	(51,469)	(51,550)	(50,905)	(49,420)	(47,191)	-
Income from operations	**732,131**	**682,624**	**725,096**	**809,291**	**870,055**	**970,512**
Margin	25.5%	23.5%	23.4%	24.8%	25.6%	27.5%
Interest expense	(88,862)	(87,945)	(87,191)	(72,798)	(46,641)	(34,508)
Interest income and other, net	23,484	14,705	16,517	22,568	21,735	23,616
Income before income taxes	**666,753**	**609,384**	**654,422**	**759,061**	**845,148**	**959,621**
Margin	23.2%	20.9%	21.1%	23.2%	24.8%	27.2%
Income tax expense	(158,998)	(140,158)	(150,517)	(174,584)	(194,384)	(220,713)
ETR	23.8%	23.0%	23.0%	23.0%	23.0%	23.0%
Net income	**513,291**	**469,226**	**503,905**	**584,477**	**650,764**	**738,908**
Net income attributable to noncontrolling interest	(3,376)	(3,376)	(3,376)	(3,376)	(3,376)	(3,376)
Net income attributable to ADS	**$ 509,915**	**$ 465,850**	**$ 500,529**	**$ 581,101**	**$ 647,388**	**$ 735,532**
Diluted Earnings per Share	**$ 6.45**	**$ 5.99**	**$ 6.46**	**$ 7.53**	**$ 8.42**	**$ 9.60**
Diluted Weighted Average Shares	79,017	77,727	77,424	77,138	76,868	76,611

Sources: Internal Model Projections

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

Discounted Cash Flow Analysis: Downside Case

Downside Case: Advanced Drainage Systems Discounted Cash Flow Analysis

	Fiscal Year Ending March 31,					
	2025E	2026E	2027E	2028E	2029E	Terminal Value
NOPAT	$ 522,530	$ 572,153	$ 623,154	$ 669,942	$ 747,294	
(+) Depreciation and Amortization	170,544	174,172	175,082	173,326	169,672	
(+) Change in Working Capital	(45,637)	(42,326)	(39,151)	(33,806)	(31,800)	
(+) Other Non-Cash Charges	-	-	-	-	-	
(+) Capital Expenditures	(250,000)	(235,000)	(225,000)	(215,000)	(200,000)	
Unlevered Free Cash Flow	**$ 397,437**	**$ 468,999**	**$ 534,086**	**$ 594,462**	**$ 685,167**	**$ 9,363,951**
Discount Factor	0.91	0.83	0.75	0.68	0.62	0.62
PV of Free Cash Flow	**$ 361,307**	**$ 387,603**	**$ 401,266**	**$ 406,026**	**$ 425,435**	**$ 5,814,277**

Enterprise Value	**$ 7,795,913**
(-) Net Debt	769,733
Equity Value	**$ 7,026,180**
(÷) Shares Outstanding	79,017
Price per Share	**$ 88.92**

Assumptions

Weighted Average Cost of Capital	10.0%
Perpetual Growth Rate	2.5%

Sources: Internal Model Projections

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

Supply Chain Analysis

Fluctuations in the price and availability of resins, our principal raw materials, and our inability to obtain adequate supplies of resins from suppliers and pa[…] resin price increases to customers could adversely affect our business, financial condition, results of operations and cash flows.

Resin prices fluctuate substantially as a result of changes in crude oil and natural gas prices, changes in existing processing capabilities and the capacity of resin suppliers. (1) Polypropylene resin suppliers are limited, high-density polyethylene suppliers are geographically concentrated, and supply of recycled resin is also limited. Supply interruptions could arise from disruptions to existing petrochemical capacity and recycled resin sources caused by labor disputes and shortages, weather conditions or natural disasters affecting supplies or shipments, transportation disruptions or other factors beyond our control. An extended disruption in the timely availability of raw materials from our key suppliers would result in a decrease in our revenues and profitability. Additionally, our customers' production schedules could be impacted by these shortages, which could result in reduced sales of our products.

Inflation in these raw material costs could also result in significant cost increases, further affecting our business. Our ability to maintain profitability heavily depends on our ability to pass through to our customers any increase in raw material costs. If increases in the cost of raw materials cannot be passed on to our customers, our business, financial condition, results of operations and cash flows will be adversely affected. Conversely, in the event that there is deflation, we may experience pressure from our customers to reduce prices. We may not be able to reduce our cost base to offset any such price concessions which could adversely impact our results of operations and cash flows.

Raw Material Costs - Our raw material cost and product selling prices fluctuate with changes in the price of resins utilized in production. We actively manage our resin purchases and pass fluctuations in the cost of resin through to our customers, where possible, in order to maintain our profitability. Fluctuations in the price of crude oil and natural gas prices may impact the cost of resin. In addition, changes in and disruptions to existing capacities could also significantly increase resin prices, often within a short period of time. Our ability to pass through raw material price increases to our customers may lag the increase in our costs of goods sold. Sharp rises in raw material prices over a short period of time have histori[…] (2) curred with a significant supply disruption, which may increase prices to levels that cannot be fully passed through to customers due to pricing of competing products or the anticipated length of time the raw material pricing will stay elevated.

We currently purchase in excess of 1.1 billion pounds of virgin and recycled resin annually from approximately 525 suppliers in North America. As a high-volume buyer of resin, we are able to achieve economies of scale to negotiate favorable terms and pricing. Our purchasing strategies differ based on the material (virgin resin versus recycled material). The price movements of the different materials vary, resulting in the need to use a number of strategies to reduce volatility.

(3) […]er to reduce the volatility of raw material costs in the future, our raw material strategies for managing our costs include the following:

- increasing the use of recycled resin in place of virgin resin while meeting or exceeding industry standards;
- internally processing greater amounts of our recycled resin in order to closely monitor quality and minimize costs;
- managing a resin price risk program that may entail both physical fixed price and volume contracts; and
- maintaining supply agreements with our major resin suppliers that provide multi-year terms and volumes that are in excess of our projected consumption.

We also consume a large amount of energy and other petroleum products in our operations, including the electricity we use in our manufacturing process as well as the diesel fuel consumed in delivering a significant volume of products to our customers through our in-house fleet. As a result, our operating profit also depends upon our ability to manage the cost of the energy and fuel we require, as well as our ability to pass through increased prices or surcharges to our customers.

Raw Material and Commodity Price Risk - Our primary raw materials used in the production of our products are HDPE and PP resins. As these resins are hydrocarbon-based mate[…] (4) […]hanges in the price of feedstocks, such as crude oil derivatives and natural gas liquids, as well as changes in the market supply and demand may cause the cost of these resins to fluctuate significantly. We have supply agreements with our major resin suppliers that provide multi-year terms and volumes that are in excess of our projected consumption. These supply agreements generally do not contain fixed prices, exposing us to pricing risk. Given the significance of these costs and the inherent volatility in supplier pricing, our ability to reflect these changes in the cost of resins in our product selling prices in an efficient manner contributes to the management of our overall risk and the potential impact on our results of operations. (5) A 1% increase in the price of resin would increase our cost of goods sold by approximately $5.0 million.

1. Plastic suppliers are geographically concentrated in states with high oil and natural gas production like Texas and Midwestern States like Ohio. This concentration exposes the supply chain to severe weather risks

2. WMS can secure favorable pricing due to its position as a can buyer of plastic resins (1.1B lbs. in 2024). Its sources its materials from a fragmented group of 525 suppliers

3. WMS is mitigating concentration and commodity risks by sourcing more recycled resins from suppliers and in-house

4. WMS supplier contracts generally don't include fixed prices which exposes WMS to fluctuations in the supply of US Natural Gas and Virgin Plastic

5. A 1% increase in the price of resin would increase COGS by $1M in 2024

Sources: Company 10-K, Leadership Group for Industry Transition

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

Primary Research

Site Visit / Correspondence

- Site Visit to Advanced Drainage Distribution Facility
- Correspondence with Territory Representative & Field Engineer

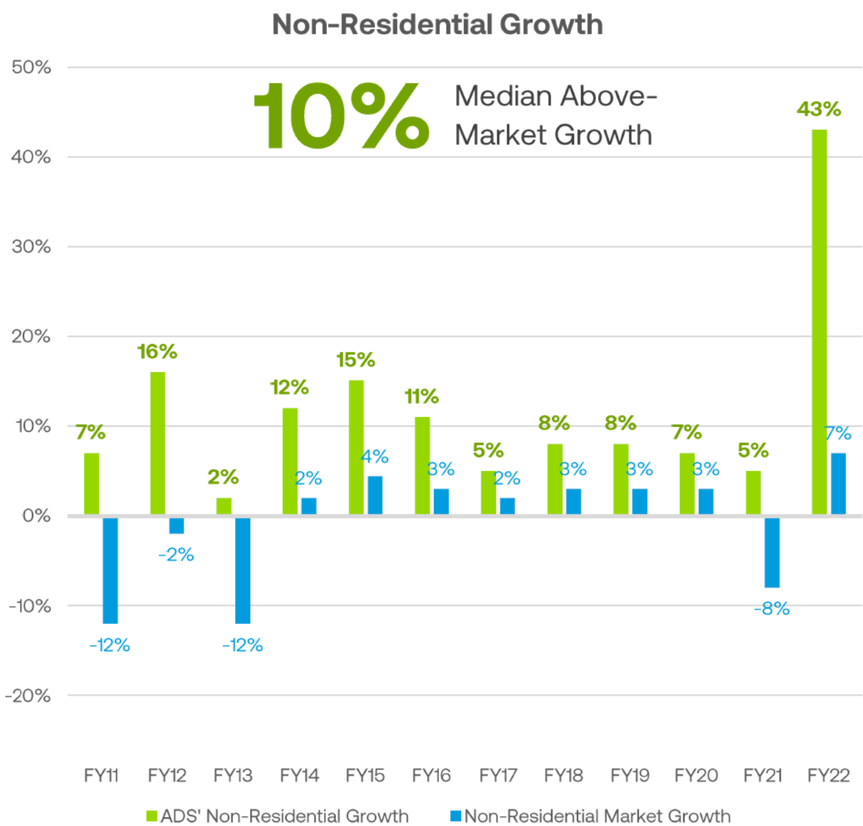
Interviews/Sources

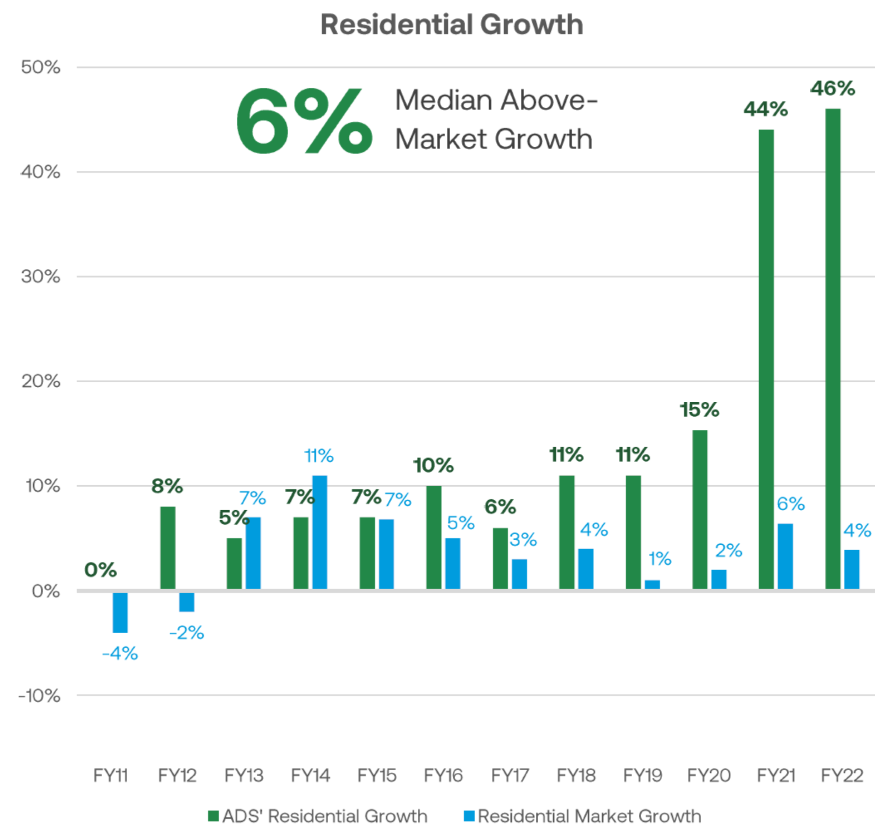
- Interview with Analyst at William Blair

Sources: Team Generated

Outperforming End Markets

Demonstrated Ability to Outperform End Markets





Sources: Investor Presentations

Favorable Price Mix

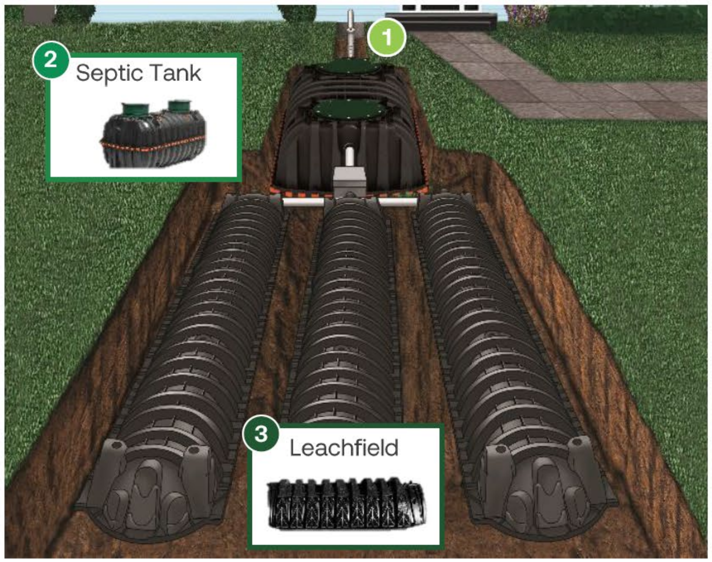
Sources: Investor Presentations

WMS Example Products

Sources: Investor Presentations

Onsite Septic Wastewater Solutions

Passive



1 Conveyance

Wastewater is fed through piping systems into an underground tank located outside of the home

2 Primary Treatment

Septic tank stores and treats solids while releasing clarified effluent into the leachfield

3 Secondary Treatment

Leachfield stores and allows infiltration of effluent into soil; naturally filtered and returned to local aquifer

Active

4

4 Active Treatment Systems

Additional higher-level effluent treatment prior to dispersal

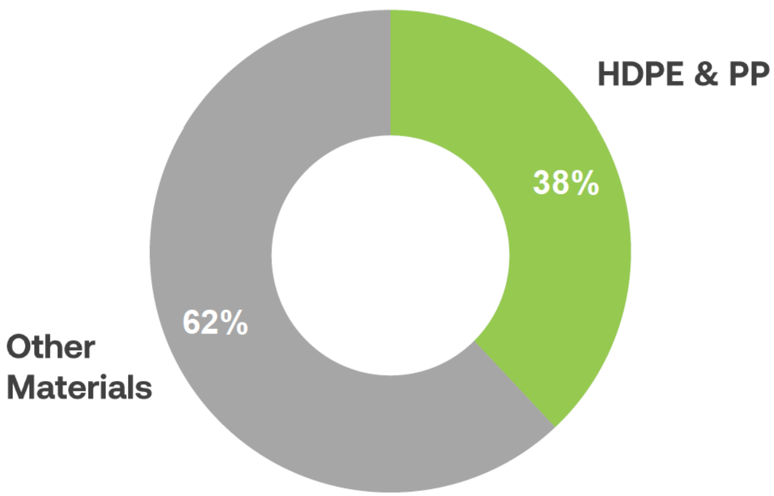
Sources: Investor Presentations

Material Conversion

Material Conversion Accelerating Growth

Our products perform better, are safer to install and are more cost effective than traditional materials.

Share of Storm Sewer Market



ADS & Infiltrator Products Outperform Traditional Materials

Installs 2x-3x Faster

- Reduced labor and equipment due to lighter weight and longer length

20% Less Installed Cost

- Fewer deliveries per project
- Safer to handle

Resilient

- Resistant to chemicals and abrasion
- Performs in all situations

Superior Performance

- High quality ensured by national standards
- Fewer, higher quality joints

Sources: Investor Presentations

Market Share Model

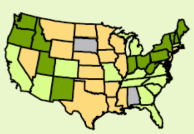
Market Share Model Accelerates Conversion

Proven market share model leverages best-in-class sales force, technical expertise, and distribution & logistics network to deliver above-market growth and position ADS as the supplier of choice

Approvals

- Works closely with local agencies and State DOT's
- Technical Engineering team leverages research, studies and relationships to develop industry standards and increase regulatory approvals
- Focused on increasing applications and competition

Storm Approvals by State



Most
Many
Some
Few

Acceptance

- Build relationships with civil and other private consulting engineering firms
- Project identification and specification of storm water solutions package on plans, early in the process

50+
Field Engineers

40
Engineers & Technicians

ADS

Coverage

- Develop relationships with contractors and distributors
- Improve market awareness and accelerate conversion

300
Sales and Engineering Professionals

3,000+
Distributor Partners

Win Rate

- Selling projects vs. taking orders
- Project tracking to ensure products are specified
- High coverage sales model

Inserta-Tee Configurator | Nylo Configurator | StormTech Design Tool | Installation Cost Calculator | FlexStorm Configurator

Sources: Investor Presentations

Sales and Distribution

Sales, Distribution and Logistics Capabilities to Serve the Water Works Industry

Our vast sales and engineering force and distribution footprint coupled with our company owned fleet ensures we have the right products, at the right site, at the right time to meet customer needs

Our vast capabilities allow us to serve the customer

300+ Sales and Engineering Professionals

50+ Field Engineers

48 US & Canada Manufacturing Facilities

26 US & Canada Distribution Centers

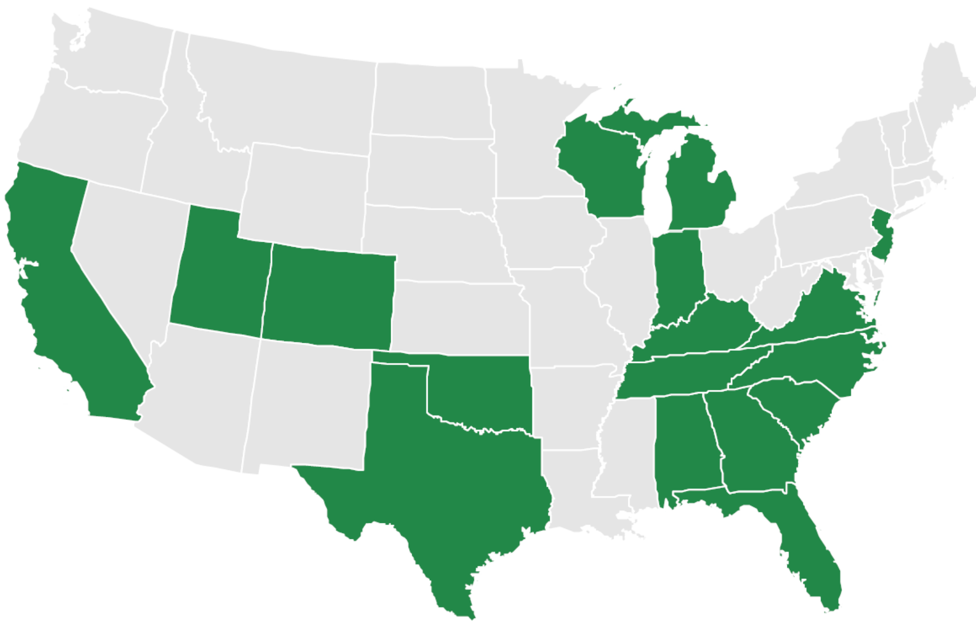
Company-Owned Fleet
700 Trucks & 1,250 Trailers

ADS also partners with 3,000+ distribution partners, including

Sources: Investor Presentations

Priority States

Winning in Priority States

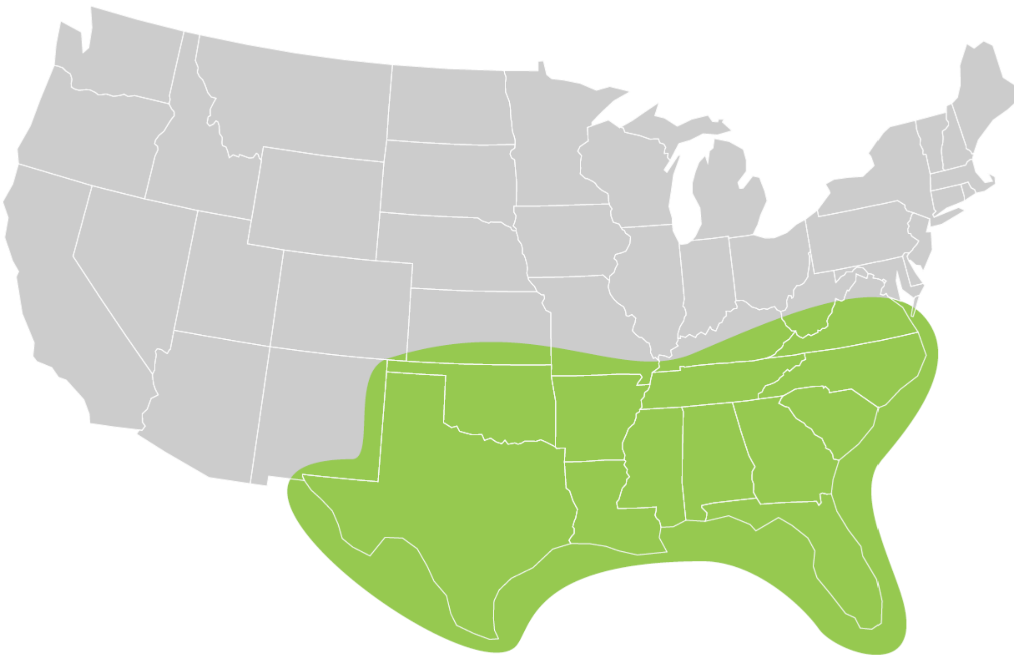


Market Context

- Priority states represent ~60% of construction activity in the U.S.
- Represent ~55% of non-residential activity
- ~70% of overall housing starts
- ~60% of streets & highways activity
- Construction activity forecasted to grow at 7% CAGR from CY21 to CY25

Sources: Investor Presentations

Geographical Spread of Onsite Septic Use



~1/3

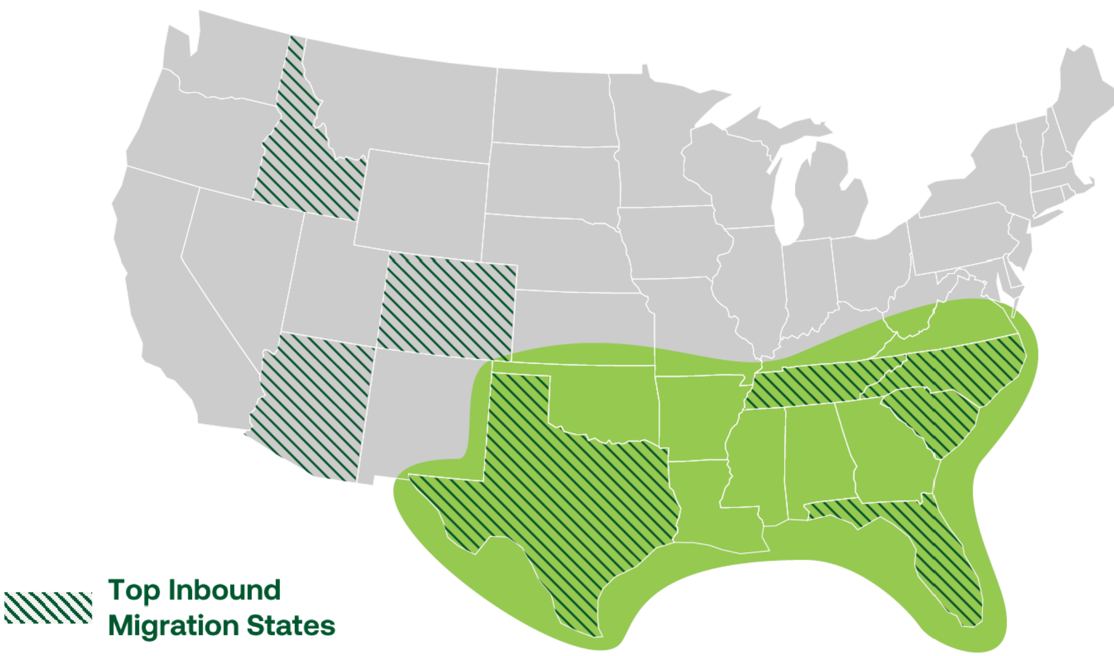
of new single-family homes built in the U.S. use onsite wastewater treatment systems

~54%

of Infiltrator onsite wastewater treatment system sales are in the southern crescent of the U.S.

Sources: Investor Presentations

Infiltrator Well Positioned For Growth
Benefits from Migration Shift



Demand for single-family homes has increased due to **population migration from high density areas to suburban and rural areas**.

These migration trends are particularly evident **in states along the southern crescent of the U.S.**

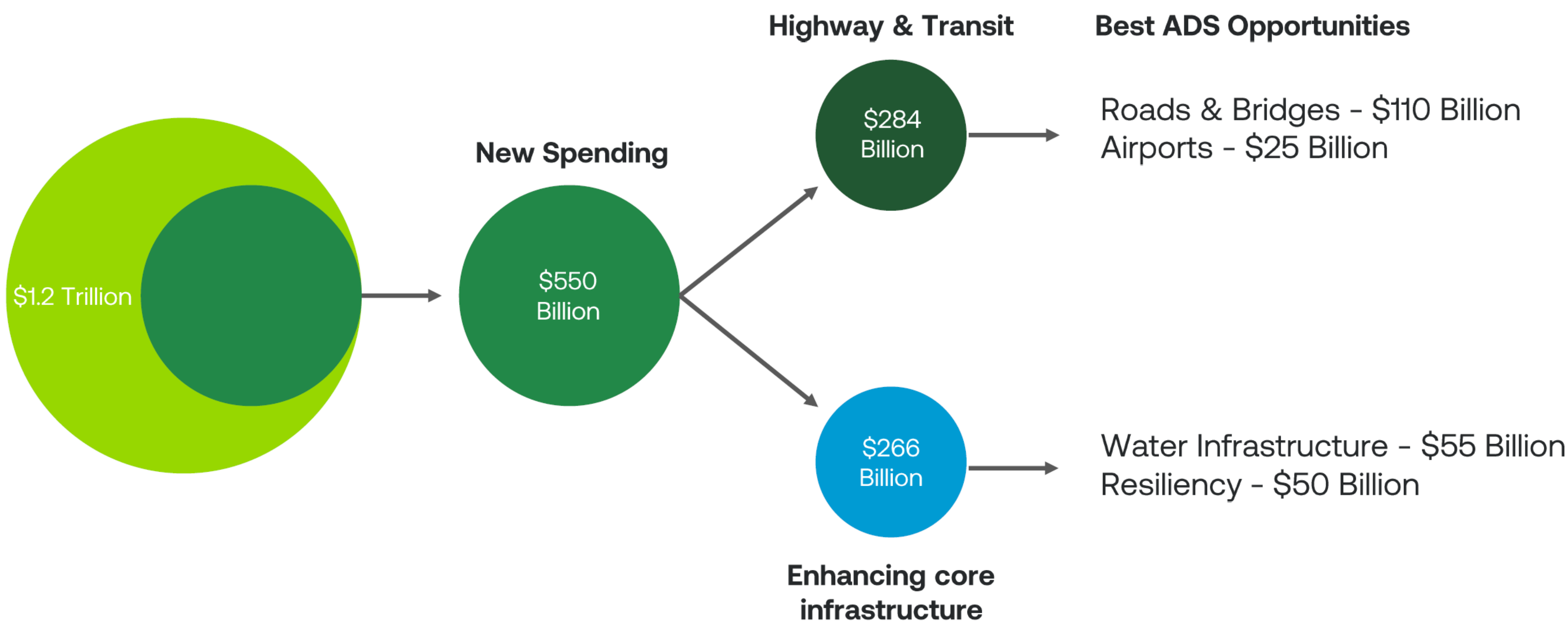
Wastewater management systems in these areas are **often served by septic systems.**

Sources: Investor Presentations

IIJA Stormwater Allocation

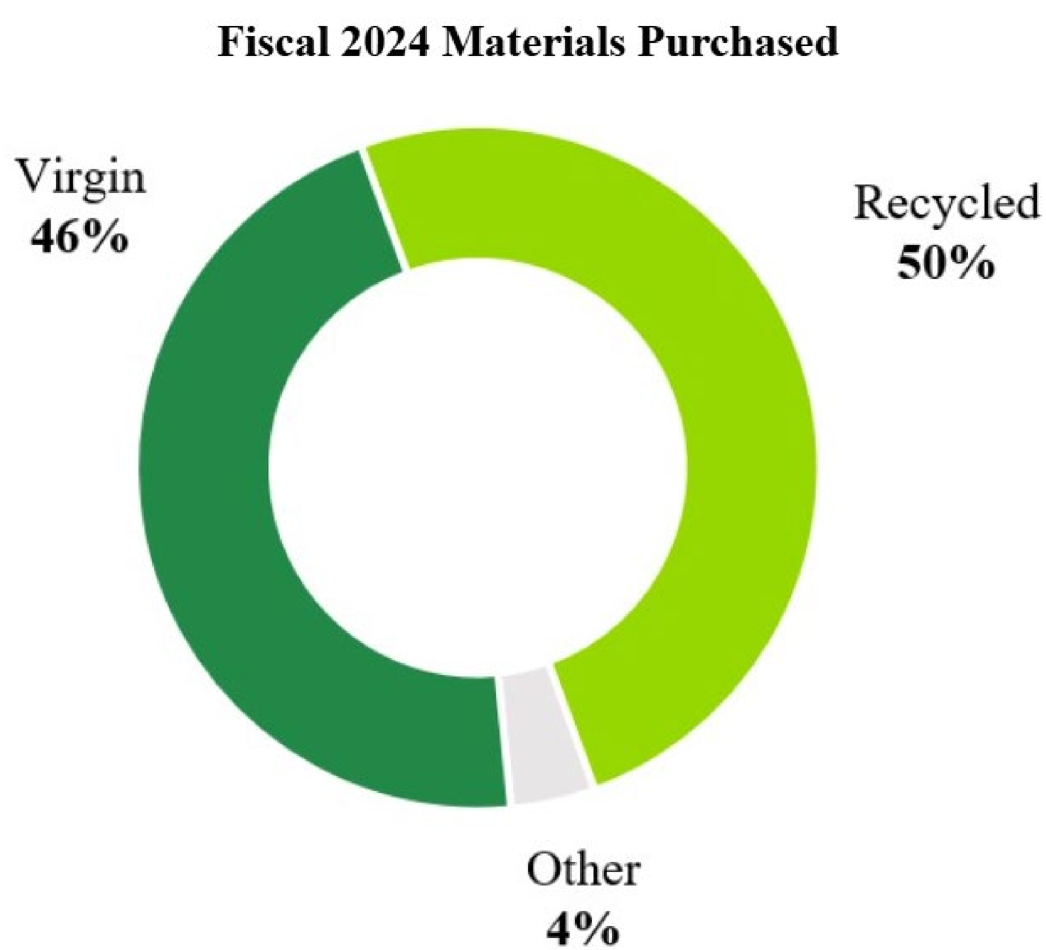
Infrastructure Investment & Jobs Act (IIJA)

$1.2T over 5 years, including $550B in incremental new funding



Sources: Investor Presentations

2024 Plastic Resin Supply Mix



Sources: Investor Presentations

Florida Growth Post Approval

Florida: Contractor and Municipal Acceptance Key to Continued Growth

PRIORITY STATES

FY18 – FY21 $ CAGR
15%

State Context

- Florida **is poised for continued rapid growth** given strong DOT approval and rapid gains in acceptance
- Primary **constraints are hold-out contractors and engineers** comfortable with concrete
- **Metro market focused team model** has experienced success

Major Initiatives

- **Improve contractor acceptance** with public concrete pipe loyalists through named account targeting strategy
- Build out **comprehensive metro-specific teams** with full complement of stakeholder coverage
- **Win approvals** in prioritized holdout municipalities

Key Enablers

- Incremental **resourcing** focused on filling gaps in metro market teams and providing support
- Streamline pre- and post-order **support functions**
- **Water quality offering** suited to FL environment
- Explore other **products for retention/detention**
- **Infrastructure focused** sales team to capitalize on market opportunity

ADS

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Sources: Investor Presentations

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The University of North Carolina

Texas Growth Post Approval

Texas: Gaining Public Approvals and "Winning" in Dallas Key to Unlocking Sales Potential

PRIORITY STATES

FY18 – FY21 $ CAGR
9%

State Context

- Texas is **low maturity**, with weaker approvals and mixed acceptance
- Houston private pipe market has driven historical sales, while **Dallas is underpenetrated, due to approvals and acceptance**
- Very competitive market with concrete pipe

Major Initiatives

- **Win approvals**, targeting suburban towns in key metro markets
- **Drive contractor and engineer acceptance in Dallas** by building deeper relationships
- Continue to make progress on program to obtain **TX DOT approval**

Key Enablers

- Incremental sales resources focused largely on driving **approvals and acceptance with engineers**
- Streamline pre- and post-order **support functions**
- Driving higher **Allied Product attachment,** focusing on the storage and treatment segments

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Sources: Investor Presentations

California Growth Post Approval

California: Improving Coverage, Product Solutions and Service to Drive Future Growth

PRIORITY STATES

FY18 – FY21 $ CAGR
7%

State Context	California is **lower maturity due to coverage and acceptance limitations**
	Unique storm pipe applications require fabricated fittings; fabrication presents **service level challenge**
	Water Quality market promising, owned by low impact solutions
Major Initiatives	Add coverage to improve **market and project visibility**
	Resolve **customer service challenges**
	Win approvals in prioritized municipalities (LA, San Diego, San Francisco)
	Capitalize on CalTrans approval by driving acceptance with engineers
	Improve existing **distributor engagement** in S. CA
Key Enablers	Incremental **resourcing** focused on improving coverage and engineer acceptance
	Redefine logistics to **improve service levels**
	Improve **curvilinear design** solution
	Develop **bio-filtration water quality** offering

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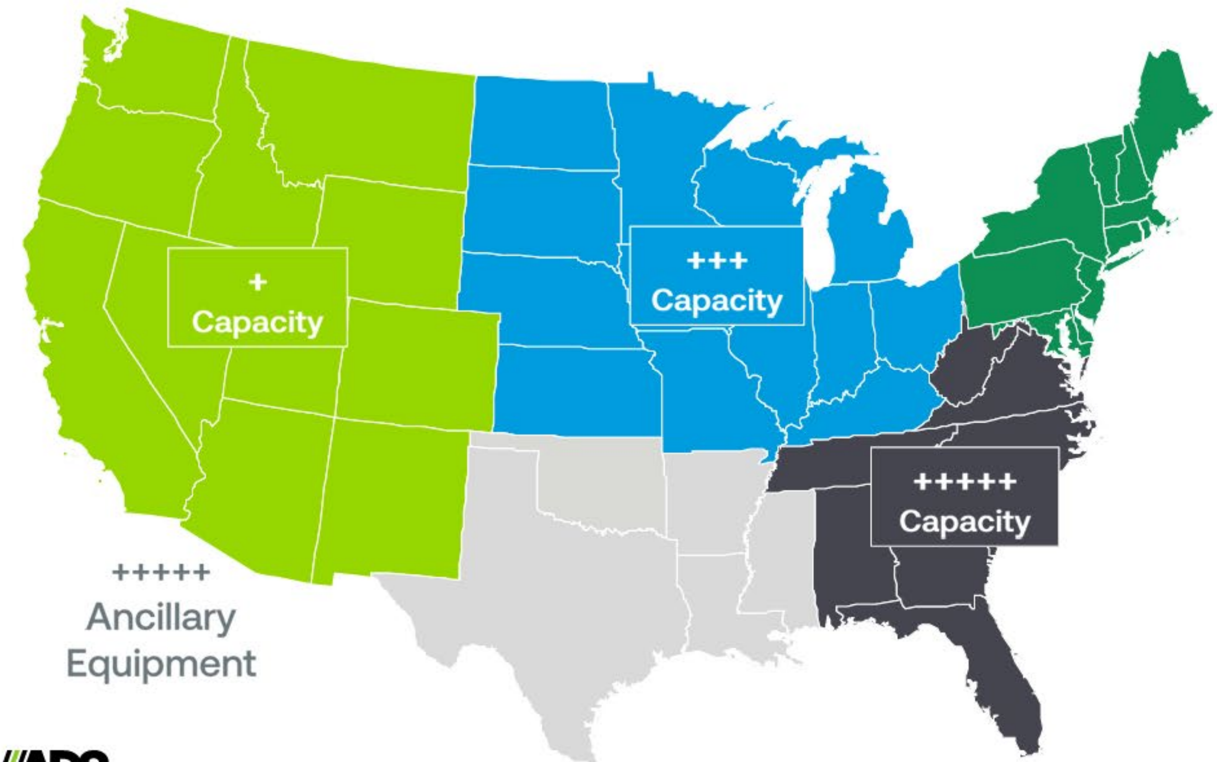
Sources: Investor Presentations

2022 Capacity Expansion Plans

New Production Capacity Investments

CAPACITY EXPANSION

Approved Investments Coming Through FY25



+++++
Ancillary
Equipment

~10%
Incremental
Capacity from
New Production
Lines

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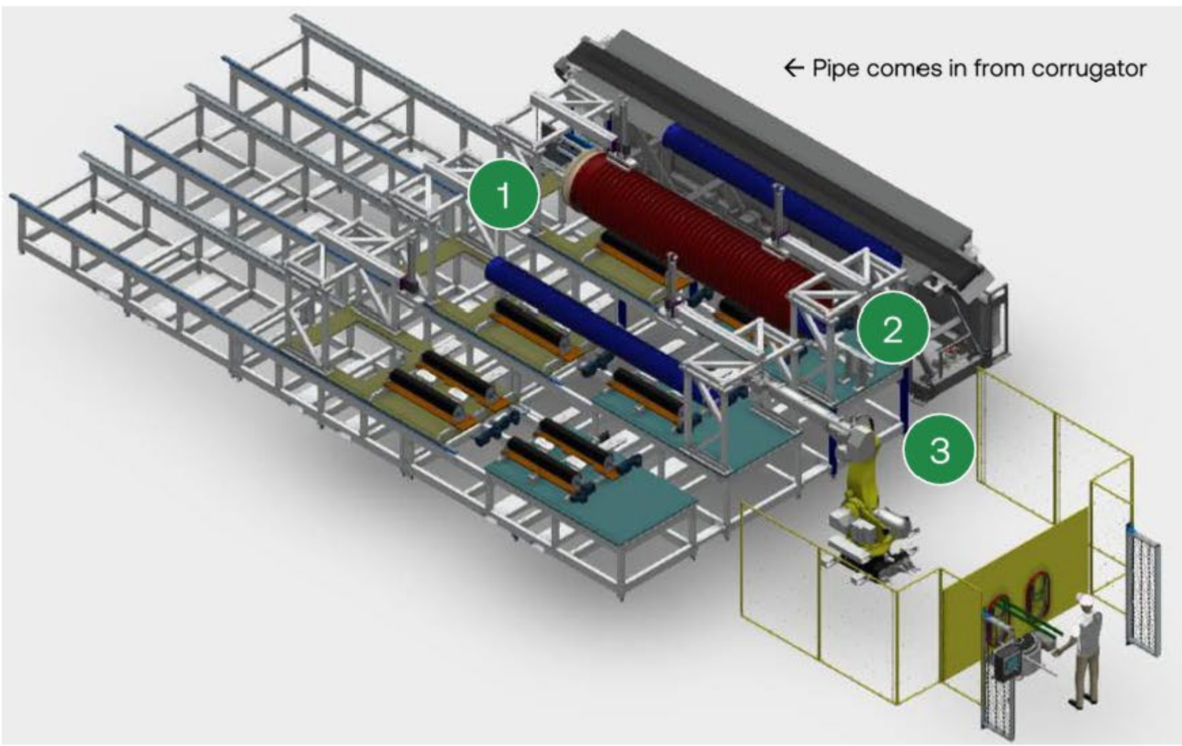
Sources: Investor Presentations

Automation

Automating Downstream Processes

AUTOMATION



Automation Points

1. Length Adjustment
2. Trimming
3. Gasket Application

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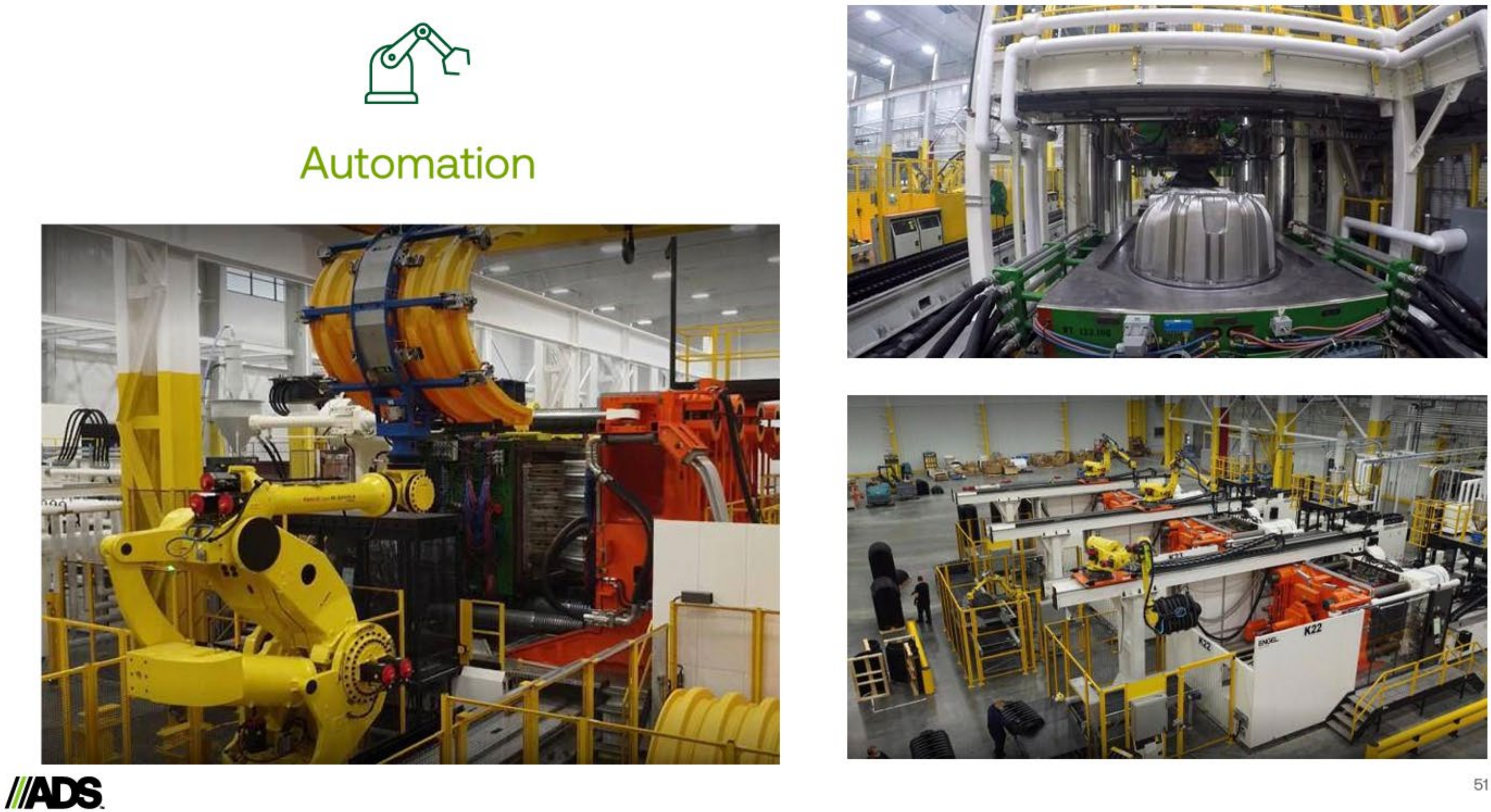
Sources: Investor Presentations

Automation Continued



Sources: Investor Presentations

Advanced Manufacturing

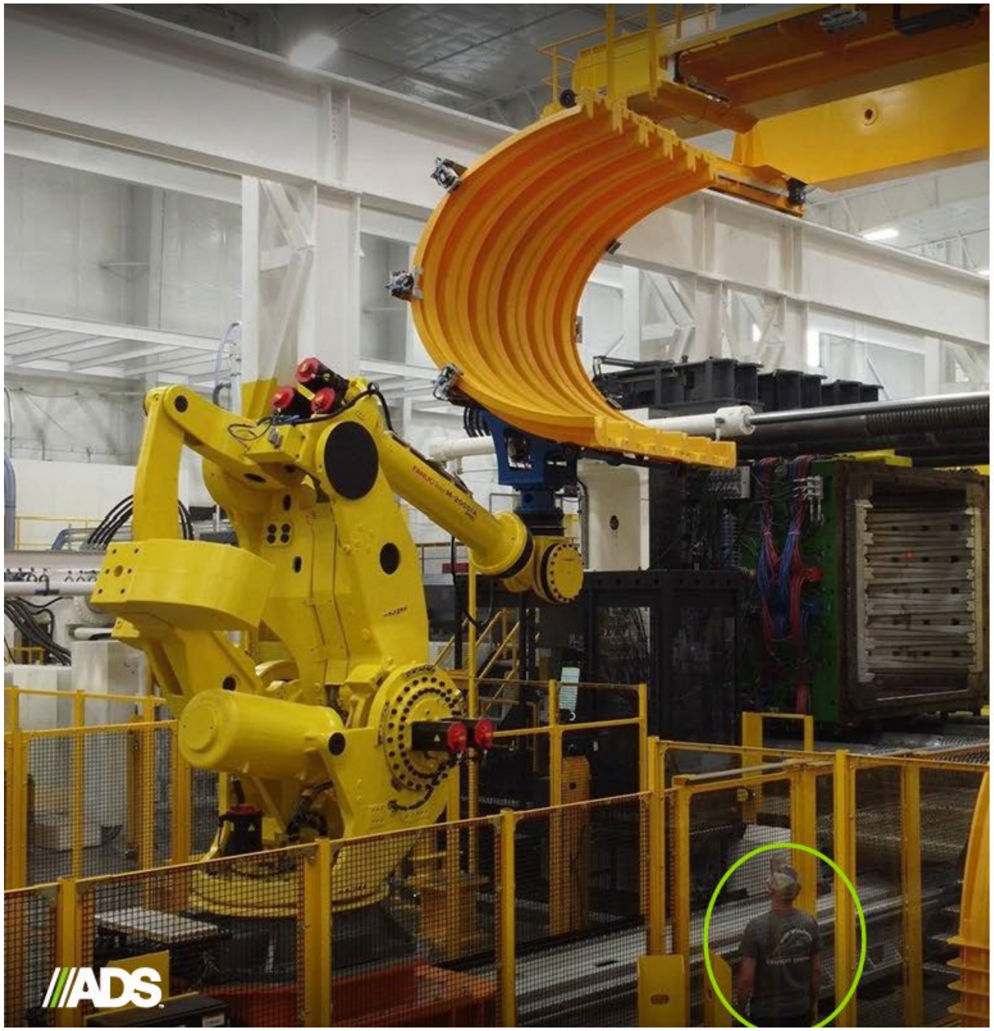
Centralized Production

- The Winchester, KY campus has ample room for continued expansion
- Advanced Molding Facility is a $155M capital investment that includes the world's largest presses and molds to meet strong demand in residential onsite septic market

Winchester, KY
Manufacturing Operations

Sources: Investor Presentations

Advanced Manufacturing Continued



Advanced Manufacturing

- Worlds largest injection molding presses
- Worlds largest compression molding machine
- Robust patent portfolio including 190 patents
- Advanced automation moving towards no-touch operations

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Sources: Investor Presentations

Advanced Manufacturing Continued

Case Study – Infiltrator Advanced Molding Manufacturing Efficiency

Manufacturing engineering delivering capacity, cost reductions and high-quality product

- ***World's largest equipment*** designed by Infiltrator to manufacture compression molded septic tanks
- Revolutionizing molding & automation while competition utilizes rotomolding
- Integrated next generation product designs that improved structural integrity while reducing the material (weight)

Cycle Time Reduction **95%** | **23x** Capacity Expansion

Weight Reduction **17%** | Shipping Cost Reduction **72%**

6x
Improvement in Labor Efficiency

World-class manufacturing and engineering with proven track record to develop innovative products

Sources: Investor Presentations

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

December 5, 2024

Students: Casey Chen, Edward Wang, Lena Zhu

Long: Abercrombie & Fitch (ANF US)

Current Price: $152 | **1Y Target Price:** $235 (+66% Upside)

ANF's Journey: From Brand Aging to Repositioning

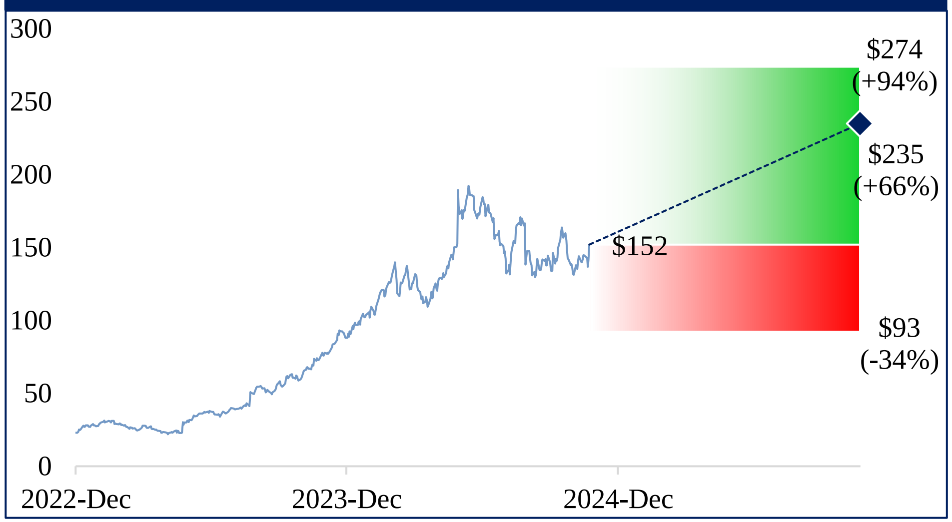
Investment Recommendation

Buy ANF with a 12-month DCF Target Price of $235, implying a 66% upside potential, and 16x 2025E P/E and 1.0x 2025E PEG ratio

Vs. Consensus

Our 2026E revenue and adjusted EPS are 11% and 26% ahead of street, driven by stronger-than-expected same-store-sales growth, sustained GPM recovery from cost optimization, and room for further channel diversification

Target Price



Investment Theses

1 Undervalued Brand Repositioning Efforts

We believe the market underestimates ANF's seven-year brand repositioning success, which established Abercrombie in the adult market, and the ongoing similar efforts for Hollister

2 Margin Expansion Driven by Pricing Power

ANF's improving GPM reflects strong pricing power among peers, supported by effective S&M initiatives to drive market penetration and efficiency gains

3 Growth in Digital and Int'l Expansion

Although at an early stage, ANF shows strong potential in int'l expansion and digital channels, with significant opportunities for long-term growth

Source: Company Data, Capital IQ, Broker Report, Bloomberg, Euromonitor, Expert Channel Check, Social Media. Time-sensitive data updated as of 2024-Nov-21.

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Company Overview

Company Description

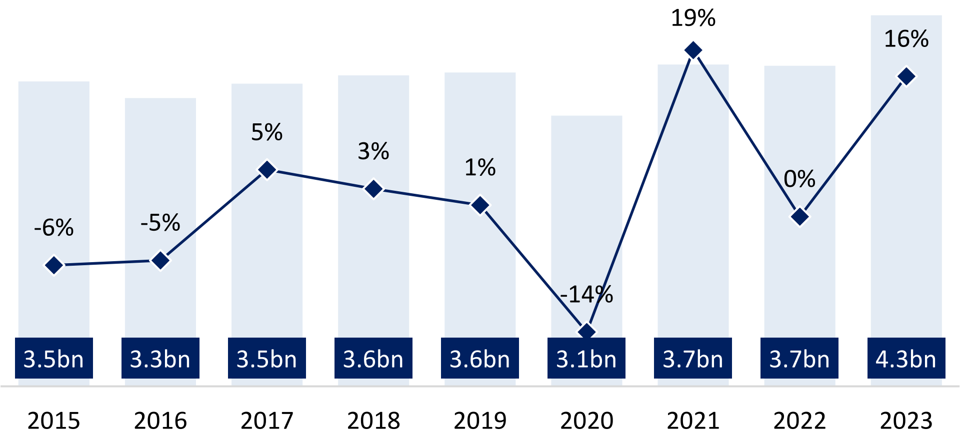
- Founded in 1892, ANF is a heritage specialty retailer positioned in the mid-range price segment
- Two core brand portfolios: Abercrombie & Fitch (for adults) and Hollister (for teenagers and Gen Z), with 765 stores worldwide
- Shifted from exclusive marketing to inclusivity & lifestyle branding to broaden user base under CEO Fran Horowitz since 2017
- Aims for $5bn rev and 10%+ OPM through global growth, digital transformation, and cost efficiency under Always Forward Plan
- Top investors are BlackRock (13%), Vanguard (11%), and FMR (11%)
- CEO Fran Horowitz earns $6mn in cash compensation and holds 1% ownership, valued at 12x pay, aligning with investor interests

Key Financial and Trading Data

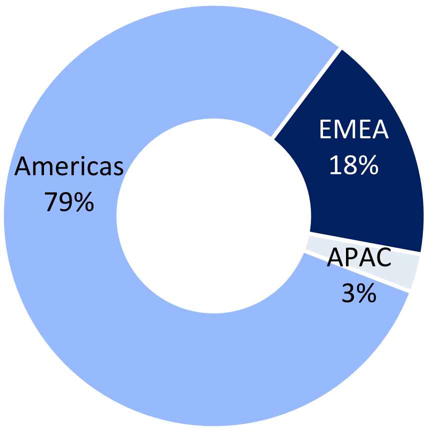
Revenue (2023A)	$4.3bn	Market Cap	$7.2bn
Rev 5-Yr CAGR (23A-28E)	9%	Enterprise Value	$7.4bn
EPS (2023A)	$6.3	52-week High/Low	$197 / $72
EPS 5-Yr CAGR (23A-28E)	20%	Avg. Volume	1.6mn
GPM (2023A)	63%	Outstanding Share	51.1mn
OPM (2023A)	11%	Float	98%
NPM (2023A)	8%	Short Interest	4%
PE (2026E)	16x	Dividend Yield	0%

Revenue Breakdown

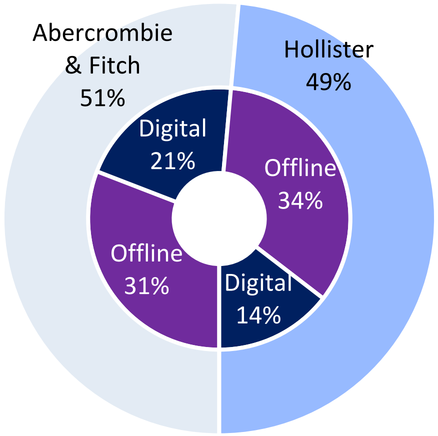
Revenue and YoY%



by Region (2023A)



by Brand & Channel (2023A)

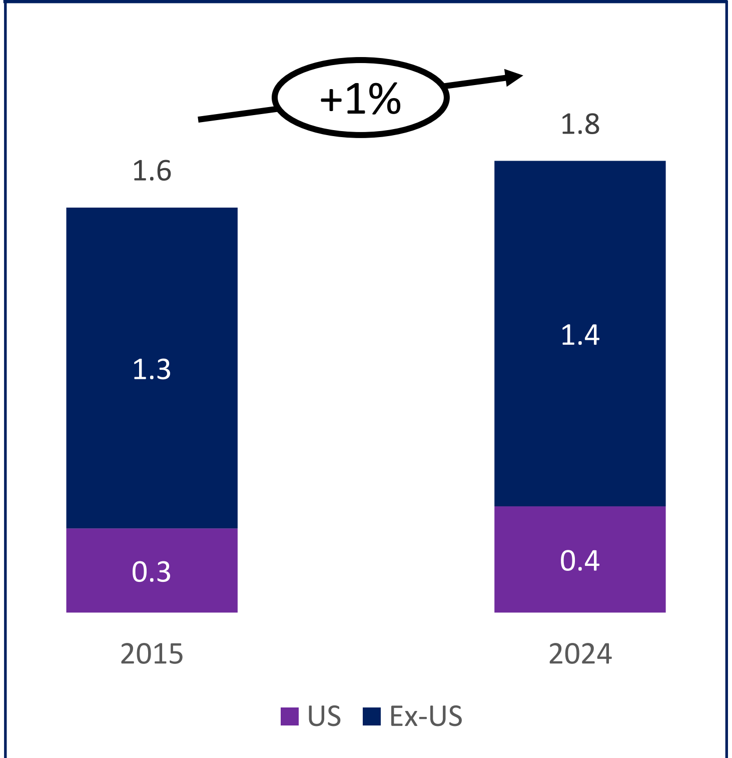


What Drives ANF's Market Valuation?

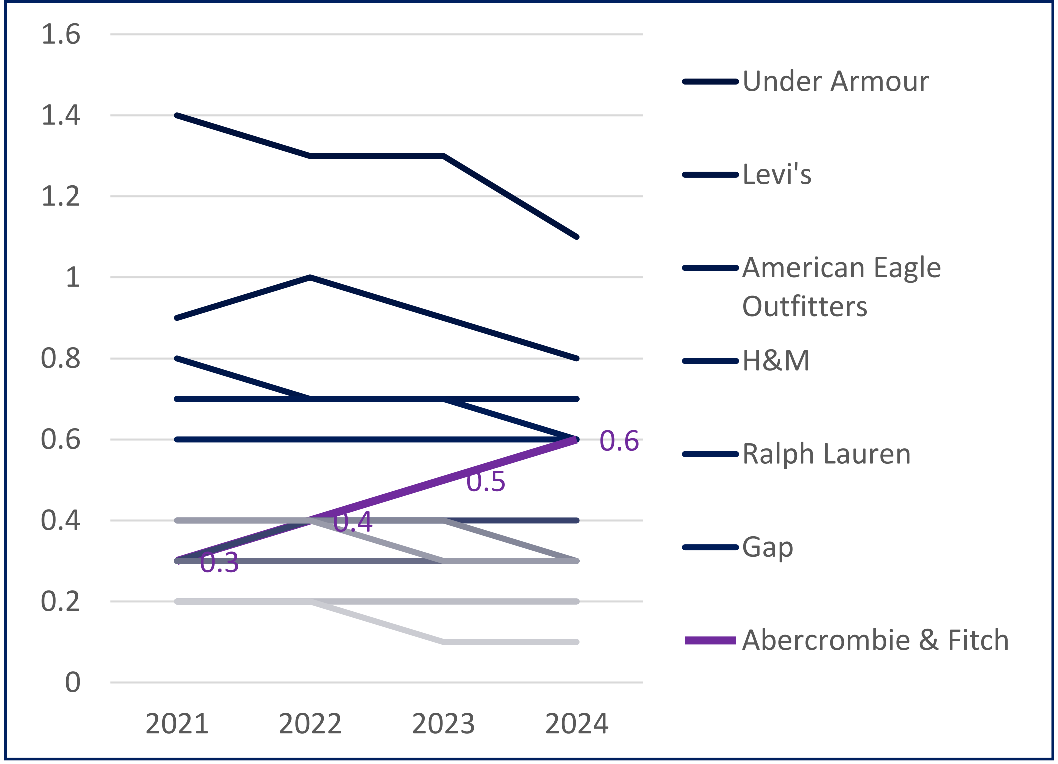
Industry Analysis

- ANF plays in the slow-growth $1.8T apparel and footwear market (+1% CAGR)
- It is the only brand in comps that increased market share (+26% CAGR)

Apparel and Footwear Market ($T)

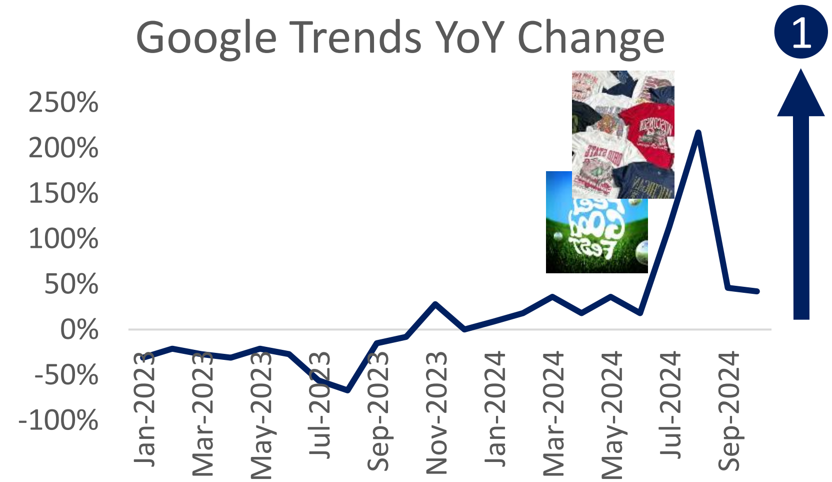


Brand Shares %



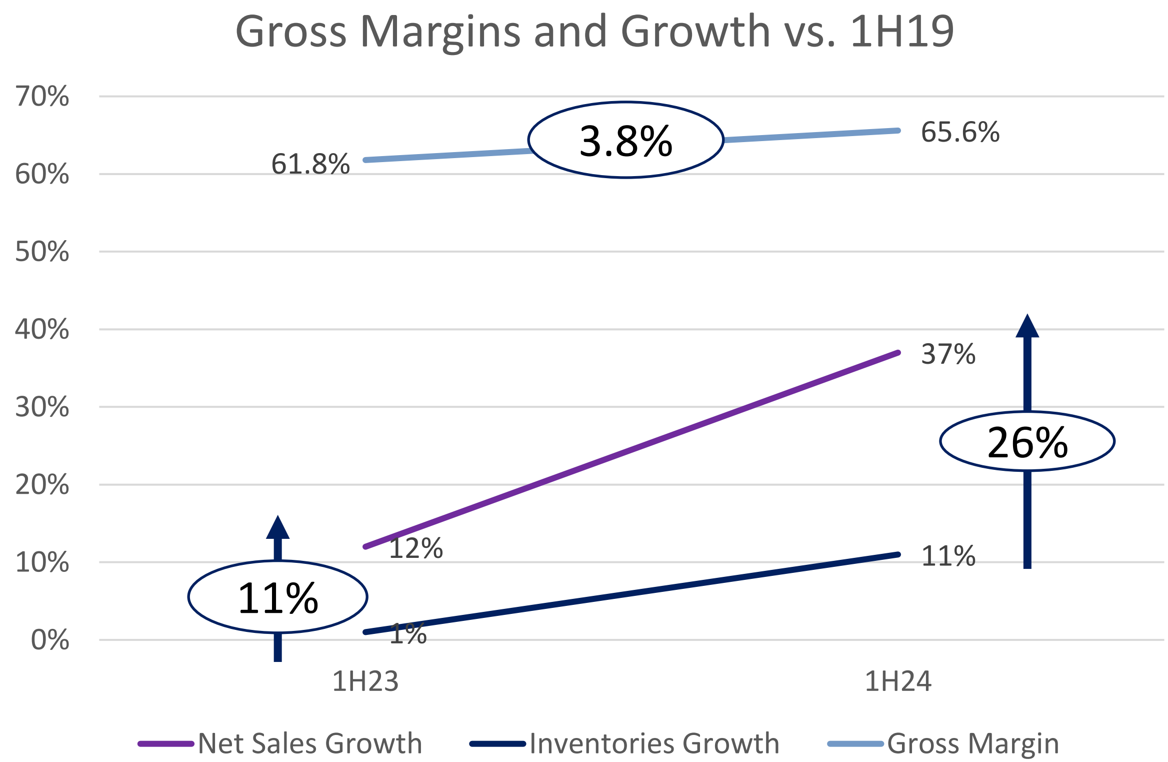
Thesis 1: Strengthened Brand Momentum

- ANF has successfully turned around the A&F brand, and is now applying the same playbook to Hollister
- The leadership overseeing Hollister today – Carey Krug (CMO) and Corey Robinson (CPO) – have direct experience running the proven playbook at Abercrombie over the last 4 years, and were promoted to their roles in Nov/Sep '22
- Google Trends show brand momentum as management launches new initiatives (e.g. Feel Good Fest, Collegiate Graphics Shop) to increase engagement & reintroduce Hollister to the target audience of 13-22 year old Gen Zs
- Hollister is only in the early innings of new customer acquisition, and has ample growth runway (<2% of SAM)



Thesis 2: Sustainable Margins

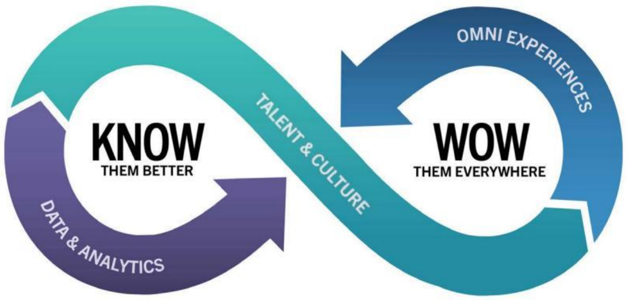
- **Favorable AURs**: Lower discount rates on promotions at Hollister (including during key back-to-school/August period) and lower to in-line promotional activity at Abercrombie
- **Disciplined inventory management**: 1H24 inventories grew by +11% relative to 1H19 while 1H24 net sales grew by +37% relative to 1H19 (-26 point spread of inventory growth vs. sales growth)
- **Operating leverage**: Management also noted appropriate LT investments have been made over the last few years (i.e. no catch-up required spend) across people, processes, and tools (i.e., ERP, tech upgrades, and marketing spend)



Thesis 3: Growth in Digital Channels and Int'l Expansion

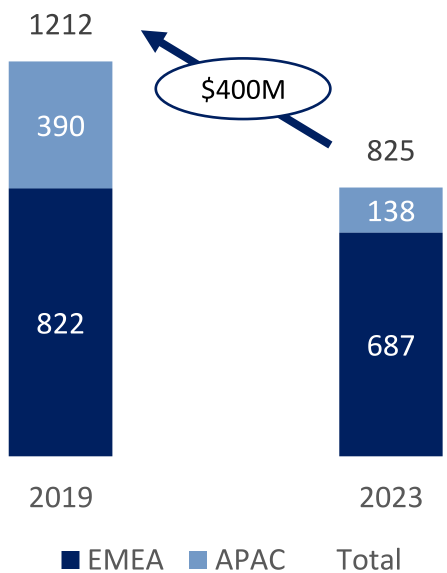
Growth in Digital Channels

- Combining advanced data analytics and omnichannel strategies
- Full-scale digital transformation



International Expansion

- Customers responding to marketing and localized assortment
- $400M rev recapture opportunity



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Valuation: Key Assumptions vs. Street

	2023	2024E	2025E	2026E	2027E
Total Revenue	**4,281**	**4,942**	**5,483**	**5,921**	**6,299**
YoY %	15.8%	15%	11%	8%	6%
vs. Street		*2%* 1	*7%*	*11%*	*20%*
Same-Store-Sales-Growth Rate	12.8%	16%	9%	7%	6%
vs. Street		*3pcts*	*5pcts*	*4pcts*	*4pcts*
Store Count	765	785	800	813	826
1. Abercrombie	**2,202**	**2,615**	**2,963**	**3,241**	**3,475**
YoY %		19% 1	13%	9%	7%
vs. Street		*1%*	*8%*	*11%*	
2. Hollister	**2,079**	**2,328**	**2,520**	**2,680**	**2,824**
YoY %		12% 1	8%	6%	5%
vs. Street		*3%*	*7%*	*11%*	
Gross Profit	**2,693**	**3,225**	**3,592**	**3,891**	**4,145**
vs. Street		*3%*	*9%*	*14%*	*22%*
GPM	62.9%	65.3%	65.5%	65.7%	65.8%
vs. Street		*1pcts* 2	*1pcts*	*1pcts*	*1pcts*
OPM	11.4%	14.9%	16.1%	16.5%	16.2%
vs. Street		*0pcts* 3	*1pcts*	*2pcts*	*1pcts*
Adjusted NPM	7.7%	11.6%	12.2%	12.4%	12.3%
vs. Street		*0pcts*	*1pcts*	*2pcts*	*2pcts*
Adjusted Diluted EPS	**6.3**	**10.8**	**12.4**	**14.4**	**15.4**
YoY %		71%	15%	16%	7%
vs. Street	*0%*	*3%*	*14%*	*26%*	*47%*

1

We are more bullish than consensus on the growth sustainability of Abercrombie, and potential outperformance of Hollister

2

GPM recovery momentum shall continue given the ongoing cost optimization

3

OPM is in line with street as we expect higher S&M expense to drive topline growth

Valuation: DCF Analysis

- We used DCF (9.9% WACC and 2.5% terminal growth rate) to value this company
- Our 12M DCF Target Price of $235, implying a 66% upside potential, and 16x 2025E P/E and 1.0x 2025E PEG ratio

DCF Valuation	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E	Terminal
Revenues	4,942	5,483	5,921	6,299	6,637	6,903	7,144	7,387	7,631	7,875	8,096	8,314	
GAAP EBIT	734	882	974	1,022	1,033	1,104	1,179	1,234	1,290	1,347	1,401	1,455	
Income Tax	174	231	255	267	271	287	306	321	335	350	364	378	
NOPAT	**560**	**651**	**719**	**755**	**762**	**817**	**872**	**913**	**954**	**997**	**1,036**	**1,077**	**1,104**
D&A	151	155	164	174	184	207	214	222	229	236	243	249	
CapEx	-178	-197	-213	-227	-239	-228	-221	-214	-206	-213	-219	-257	
D NWC	25	20	10	2	-3	-1	-1	-1	-1	-1	-1	-1	
FCF	**557**	**629**	**680**	**704**	**705**	**796**	**864**	**920**	**976**	**1,019**	**1,060**	**1,069**	**14,851**
% of revenue	11.3%	11.5%	11.5%	11.2%	10.6%	11.5%	12.1%	12.4%	12.8%	12.9%	13.1%	12.9%	
PV of FCF			619	583	531	546	540	523	505	480	454	417	5,791
% of total value			5.6%	5.3%	4.8%	5.0%	4.9%	4.8%	4.6%	4.4%	4.1%	3.8%	52.7%
Revenue Growth	15.5%	10.9%	8.0%	6.4%	5.4%	4.0%	3.5%	3.4%	3.3%	3.2%	2.8%	2.7%	
EBIT Margin	14.9%	16.1%	16.5%	16.2%	15.6%	16.0%	16.5%	16.7%	16.9%	17.1%	17.3%	17.5%	
Tax Rate	23.8%	26.2%	26.2%	26.1%	26.2%	26.0%	26.0%	26.0%	26.0%	26.0%	26.0%	26.0%	
D&A % Revenue	3.0%	2.8%	2.8%	2.8%	2.8%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
CapEx % Revenue	-3.6%	-3.6%	-3.6%	-3.6%	-3.6%	-3.3%	-3.1%	-2.9%	-2.7%	-2.7%	-2.7%	-3.1%	
D NWC % Revenue chg	3.7%	3.8%	2.2%	0.6%	-0.9%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	
Reinvestment Rate	-0.4%	-3.3%	-5.5%	-6.7%	-7.6%	-2.6%	-0.9%	0.7%	2.3%	2.3%	2.3%	-0.8%	

Valuation Output	
PV of FCF	5,198
PV of Terminal Value	5,791
Enterprise Value	**10,989**
Equity Value	12,662
Value/Share (T+12)	**$234.8**
Upside	66%

LT growth vs. WACC - Equity Value / Share

	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%
11.9%	176	179	182	186	189	194	199	204	210
10.9%	191	195	199	204	209	215	222	230	239
9.9%	210	215	221	228	**235**	243	253	264	278
8.9%	234	241	249	258	268	281	295	313	334
7.9%	264	274	285	298	314	333	357	386	425

Valuation: Scenario Analysis

	Base Case	Bull Case	Bear Case
Scenario Description	Whether Abercrombie and Hollister can beat/meet/miss expectations with strong/moderate/weak sales growth, driven by exceptional/consistent/underwhelming product innovation and brand resonance, alongside effective/stable/inefficient cost controls and high/moderate/limited operating scale driven by digital and international expansion efforts		
Rev 5-Yr CAGR (2023-2028)	9%	11%	6%
GPM (2026E)	65.7%	66.6%	61.5%
OPM (2026E)	16.5%	17.5%	10.2%
NPM (2026E)	12.4%	13.5%	7.6%
Multiples	16x	16x	12x
Target Price	$235	$274	$93
Upside	66%	94%	-34%

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Valuation: Comparable Analysis

1 Valuation in-line with domestic peers but cheaper than Int'l players

2 But with higher topline and bottom-line growth rate

3 Higher GPM (price premium & efficiency), ROA, and ROE

Company name	Mkt. cap US$bn	Upside %	Div yield %	Price change 3Y	PS 2025e	PE 2025e	Rev growth 2025e	EPS growth 2025e	GPM 2025e	NPM 2025e	ROA 2025e	ROE 2025e
Abercrombie & Fitch Co.	7.8	22%	0.0%	270%	1.6x	14.5x	14%	70%	65%	12%	18%	43%
						1	2			3		
US Listed Apparel Peers												
Ralph Lauren Corporation	13.2	9%	1.6%	71%	1.9x	18.1x	3%	14%	68%	11%	11%	30%
The Gap, Inc.	9.4	15%	2.7%	6%	0.6x	12.4x	1%	68%	41%	5%	7%	26%
Levi Strauss & Co.	6.5	37%	3.3%	-42%	1.0x	11.6x	5%	14%	60%	9%	9%	24%
PVH Corp.	5.8	20%	0.2%	-13%	0.7x	8.9x	-6%	12%	60%	8%	6%	13%
Kontoor Brands, Inc.	5.0	2%	2.3%	53%	1.9x	16.9x	3%	12%	46%	11%	0%	62%
Urban Outfitters, Inc.	3.6	6%	0.0%	15%	0.7x	10.6x	6%	12%	34%	6%	8%	15%
American Eagle Outfitters, Inc.	3.4	33%	2.9%	-39%	0.6x	9.9x	3%	27%	39%	7%	10%	20%
Guess?, Inc.	0.9	27%	7.2%	-20%	0.3x	6.8x	11%	-8%	44%	4%	0%	22%
The Children's Place, Inc.	0.2	6%	0.0%	-84%	0.1x	7.8x	-11%	-182%	34%	2%	0%	0%
Mkt cap. Weighted avg.					***1.2x***	***13.5x***						
Global Apparel Peers												
Industria de Diseño Textil, S.A.	171.5	-2%	3.0%	66%	4.2x	27.4x	8%	8%	58%	15%	18%	31%
Fast Retailing Co., Ltd.	97.1	7%	0.9%	98%	4.5x	38.8x	10%	3%	53%	0%	10%	18%
H & M Hennes & Mauritz AB (publ)	22.5	8%	4.2%	-9%	1.0x	17.3x	4%	20%	53%	6%	8%	31%
Mkt cap. Weighted avg.					***4.1x***	***30.4x***						

Risks & Mitigants

Growth Deceleration	➢ **Risk:** Top-line growth may slow after a period of exceptional performance ➢ **Mitigant:** Investments in brand repositioning and digital transformation continue to build consumer loyalty and engagement	**High**
Fashion Cyclicality	➢ **Risk:** Vulnerability to shifts in consumer preferences and fashion trends ➢ **Mitigant:** Ongoing brand momentum, driven by product innovation and customer acquisition, helps maintain relevance and demand	**High**
Margin Pressure	➢ **Risk:** Rising freight and input costs could compress margins ➢ **Mitigant:** Operational efficiency improvements, including better inventory management and strategic pricing, help offset rising costs	**Moderate**
Inventory Management	➢ **Risk:** Rising inventory levels could lead to overstocking or discounting ➢ **Mitigant:** Enhanced forecasting and inventory controls are mitigating risks of excessive stock	**Moderate**
Macro Headwinds	➢ **Risk:** Economic uncertainty and reduced consumer spending power ➢ **Mitigant:** Diversification into e-commerce and international markets reduces reliance on economically volatile regions	**Low**

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

December 5 , 2024

Team Number: 9

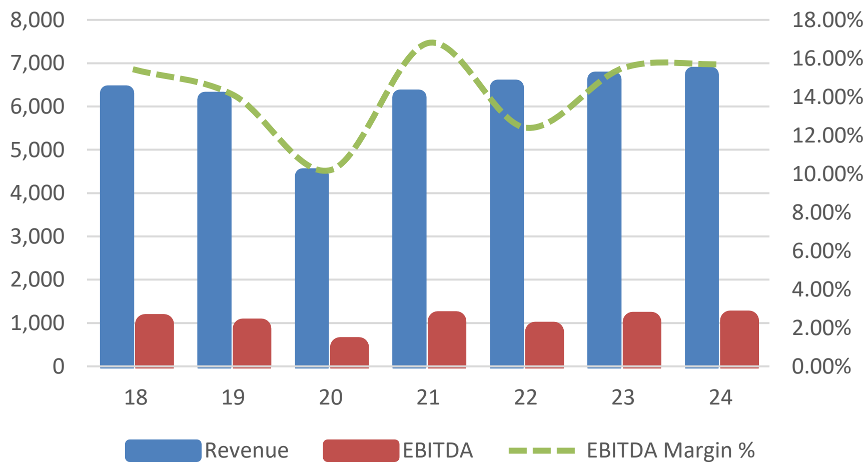
Students: Tom Alappat, Nate Ingram, Kyesha Robertson

Executive Summary

Business Overview

Founded 1967 | **$6.7B in Revenue** | **23,400 Employees** | **New York, NY**

- Ralph Lauren Corp. is a global leader in the design, marketing, and distribution of luxury lifestyle products, including apparel, footwear and accessories, home, fragrances, and hospitality categories
- It operates a variety of brands across North America, Europe, and Asia through retail, wholesale and licensing channels
- Ralph Lauren is a leading player in the fashion & retail industry and has grown to become a household name brand



Investment Thesis

The macroeconomic picture in the United States is revealing a **stronger consumer** than has been priced into the market

Broader macroeconomic recovery will support RL's mix to the Asian and European geographic markets, which are higher margin end markets than North America

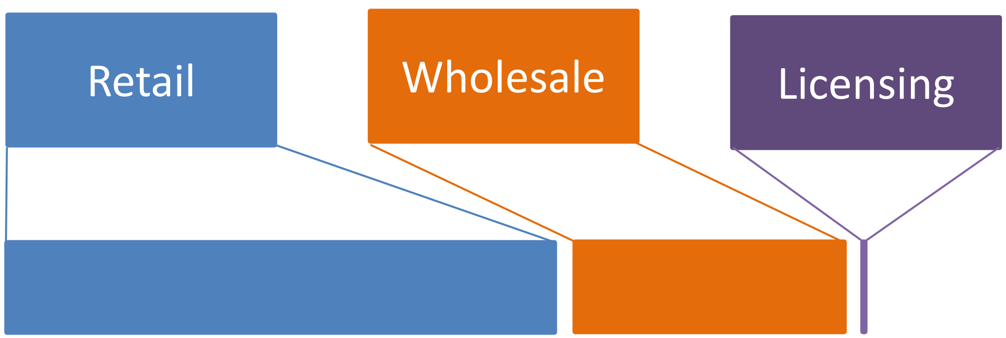
NGT Project Investment expected to shift go-to-market channels to DTC retail and ecommerce markets, bolstering brand strength in the premium category

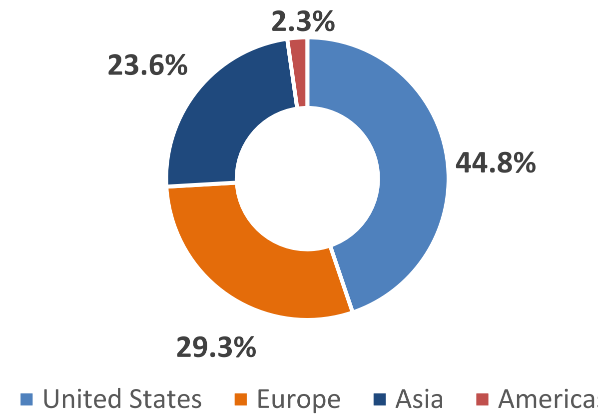
Ticker

Company Ticker	**NYSE: RL**
Recommendation	LONG
Target Price	$228.59
Current Price (11/22/24)	$212.15
52-Week Range	$117.07-$237.16
Market Cap	$13,174.2 (mm)
Enterprise Value	$14,152.4 (mm)

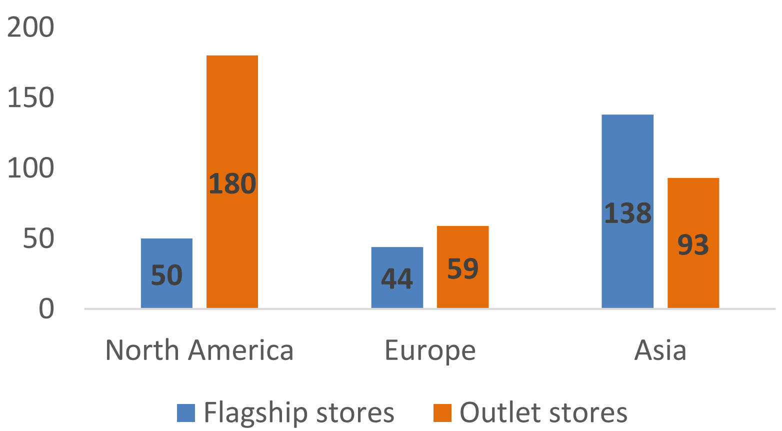
Company Overview

RL's revenue is spread across two main channels and four geographic segments





RL's Retail business is made up of its, DTC website, flagship stores, and outlet stores



- Outlet stores have a lower-end target demographic, and product sold is less premium
- Flagship stores sell premium products for higher prices
- Sales Direct-To-Consumer, online or through the flagship stores carry the highest margin, followed by outlet stores, and the wholesale business

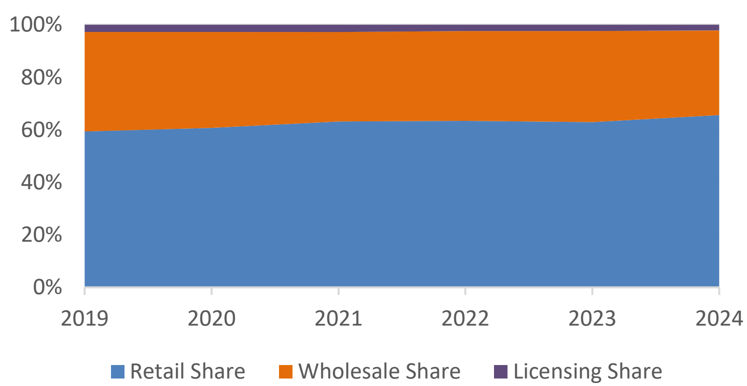
Source: CapIQ, FactSet, Company Reports

Company Overview

RL's revenue has fully recovered from the pandemic, and the business is focused on shifting its sales mix to drive higher margins

Go-To-Market Reach

560+ Retail Locations	Retail includes Ralph Lauren stores and Outlet stores
9.6k+ Wholesale Doors	Wholesale includes major department stores and specialty stores
~12 Partners Licensing	Seek out licensing partners who are leaders in their respective markets
Digital Ecosystem	Key area of investment and includes direct platforms and wholesale partner websites



Margin Growth Drivers

NGT Project

Physical store mix

Raised brand equity

- The NGT Project is a strategic investment that aims to position Ralph Lauren for long-term growth and success in the competitive fashion industry
- Beginning in 2021, set to complete by the end of next year, RL is modernizing its technology and operational systems to drive DTC sales and better corporate adaptability
- Ralph Lauren is strategically shifting its mix of physical locations, focusing on closing outlet locations in favor of flagship stores
- RL brands are trending favorably, and these strategies create a virtuous cycle, driving consumer brand preference

Source: CapIQ, FactSet, Company Reports

Transforming Strategic Positioning

RL's brand traits are trending positively

"Why Is Gen Z So Obsessed With 'Old Money Style'?" - GQ

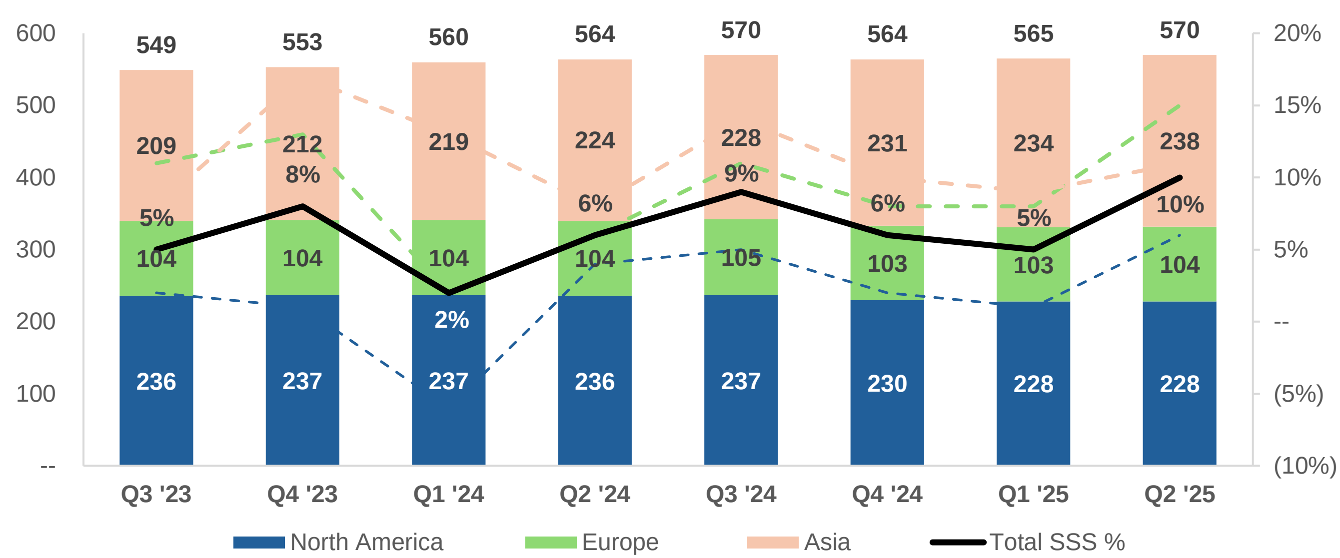
"Hermès, Ralph Lauren beat rivals riding China's appetite for quiet luxury" – Jing Daily

"Can Beyoncé & Pharrell Lasso Cowboycore Back Into Relevance?" - HIGHSNOBIETY

Longer term consumer shifts are favorable

- Across all categories consumers are seeking **timeless** styles
- RL's sporty styles allow it to capitalize on the secular growth of the athleisure segment, but sales of its iconic styles like the polo shirt, cashmere sweater, and button downs should grow as consumers refresh their wardrobe as WFH continues to fade

Freestanding Stores Rationalization

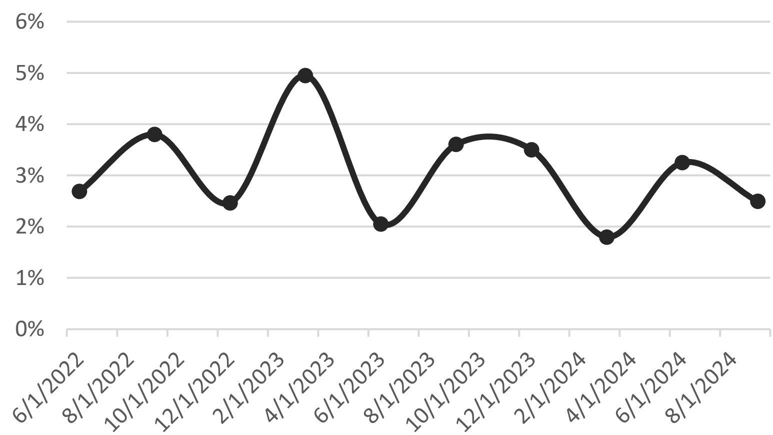


Strategic store closures in North America offset by new openings in Asia. Accelerating SSS growth in international markets is driving margin expansion

Investment Thesis

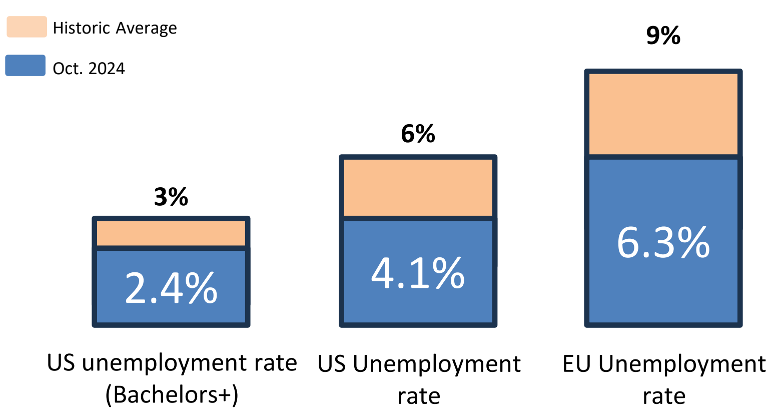
Consumer spending in RL's Core Categories has shown consistent growth

US clothing and Footwear PCE YoY Growth



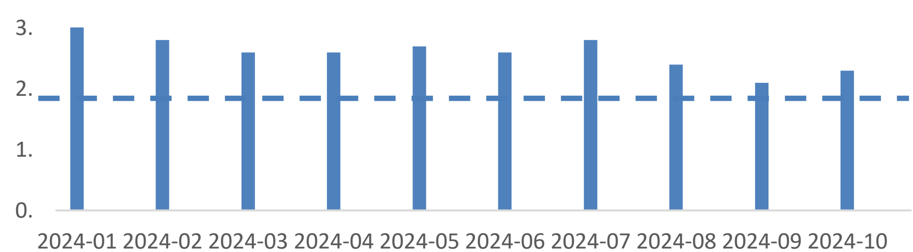
- Domestic spending on clothing and footwear will continue to be propped up by persistent GDP growth and post-pandemic spending shifts
- The Fed, ECB, and central banks around the world are expecting cuts which will further support growth
- Normalizing Eurozone YoY Harmonized Index of Consumer Prices frees ECB to cut rates as many as five times in the next 14 months and provides room for fiscal stimulus

Unemployment remains low by historic standards



Green shoots of a global economic recovery emerge

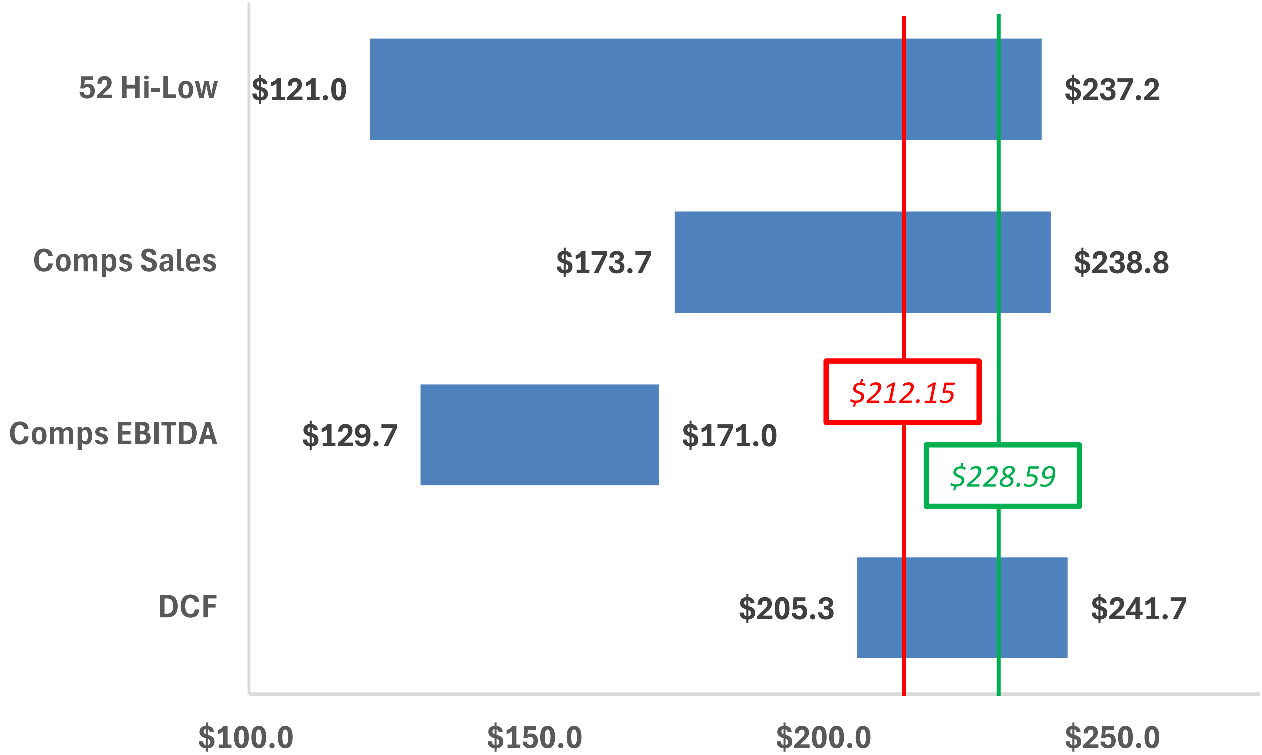
Eurozone YoY Change in HICP



4.9% **Projected East Asia Pacific GDP Growth**

Source: FactSet, FRED, World Bank

Valuation



Target intrinsic value of Ralph Lauren Stock ranges from $205.3 - $241.7 per share. Currently trading at $212.15, there is 7.5%+ upside to the target price of $228.59 per share

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DCF – Base Case Projections

RALPH LAUREN

DCF Analysis	2024	1H 2025	2H 2025	2026	2027	2028	2029	2030
Revenue	**$6,631**	**$3,238**	**$3,658**	**$7,173**	**$7,459**	**$7,758**	**$8,068**	**$8,391**
% Growth				*4.0%*	*4.0%*	*4.0%*	*4.0%*	*4.0%*
COGS	**971**	**1,017**	**1,207**	**2,331**	**2,406**	**2,482**	**2,562**	**2,643**
Gross Profit	**$4,427**	**$2,222**	**$2,452**	**$4,841**	**$5,054**	**$5,275**	**$5,506**	**$5,748**
GP %	*66.8%*	*68.6%*	*67.0%*	*67.5%*	*67.8%*	*68.0%*	*68.3%*	*68.5%*
SG&A	2,755	1,439	1,626	3,166	3,293	3,425	3,562	3,704
SG&A % of Sales	*41.5%*	*44.4%*	*44.4%*	*44.1%*	*44.1%*	*44.1%*	*44.1%*	*44.1%*
Other	19.1	7	8	14	15	16	16	17
Other % of Sales	*0.3%*	*0.2%*	*0.2%*	*0.2%*	*0.2%*	*0.2%*	*0.2%*	*0.2%*
EBITDAR	**$1,653**	**$775**	**$818**	**$1,661**	**$1,746**	**$1,835**	**$1,929**	**$2,027**
EBITDA Margin %		*23.9%*	*22.4%*	*23.2%*	*23.4%*	*23.7%*	*23.9%*	*24.2%*
D&A	34	53	60	117	121	126	131	137
D&A % of Sales	0.5%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
EBIT	**$1,619**	**$722**	**$758**	**$1,544**	**$1,624**	**$1,709**	**$1,797**	**$1,890**
EBIT % Margin	24.4%	22.3%	20.7%	21.5%	21.8%	22.0%	22.3%	22.5%
Taxes			167	340	357	376	395	416
Tax Rate %			*22.0%*	*22.0%*	*22.0%*	*22.0%*	*22.0%*	*22.0%*
Δ in NWC			(8)	22	5	(2)	(15)	(9)
- Capex			(128)	(251)	(149)	(78)	(56)	(59)
Unlevered FCF			**$515**	**$1,092**	**$1,244**	**$1,380**	**$1,461**	**$1,544**

DCF – Base Case Projections

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RALPH LAUREN

Valuation – Base Case

PV of Unlevered Cash Flows	$5,107
Enterprise Value	$13,647
Net Debt	$548
Equity Value	$14,195
Shares Outstanding	62.1 (mm)
Price Per Share	*$228.59*

		Terminal Growth				
		1.50%	1.75%	2.00%	2.25%	2.50%
WACC	11.11%	$244.14	$248.55	$253.20	$258.12	$263.32
	11.61%	$232.24	$236.14	$240.25	$244.58	$249.14
	12.11%	$221.47	$224.94	**$228.59**	$232.42	$236.45
	12.61%	$211.67	$214.78	$218.03	$221.44	$225.02
	13.11%	$202.72	$205.51	$208.43	$211.48	$214.67

WACC Calculation

Market Value of Debt	$1,142
Market Capitalization	$13,132
Debt %	8.00%
Equity %	92.00%
LT YTM	4.75%
Kd	4.75%
Tax Rate	22%
After-Tax Kd	3.70%
RF	4.50%
MRP	6.52%
Beta	1.28
Ke	12.846%
WACC	**12.11%**

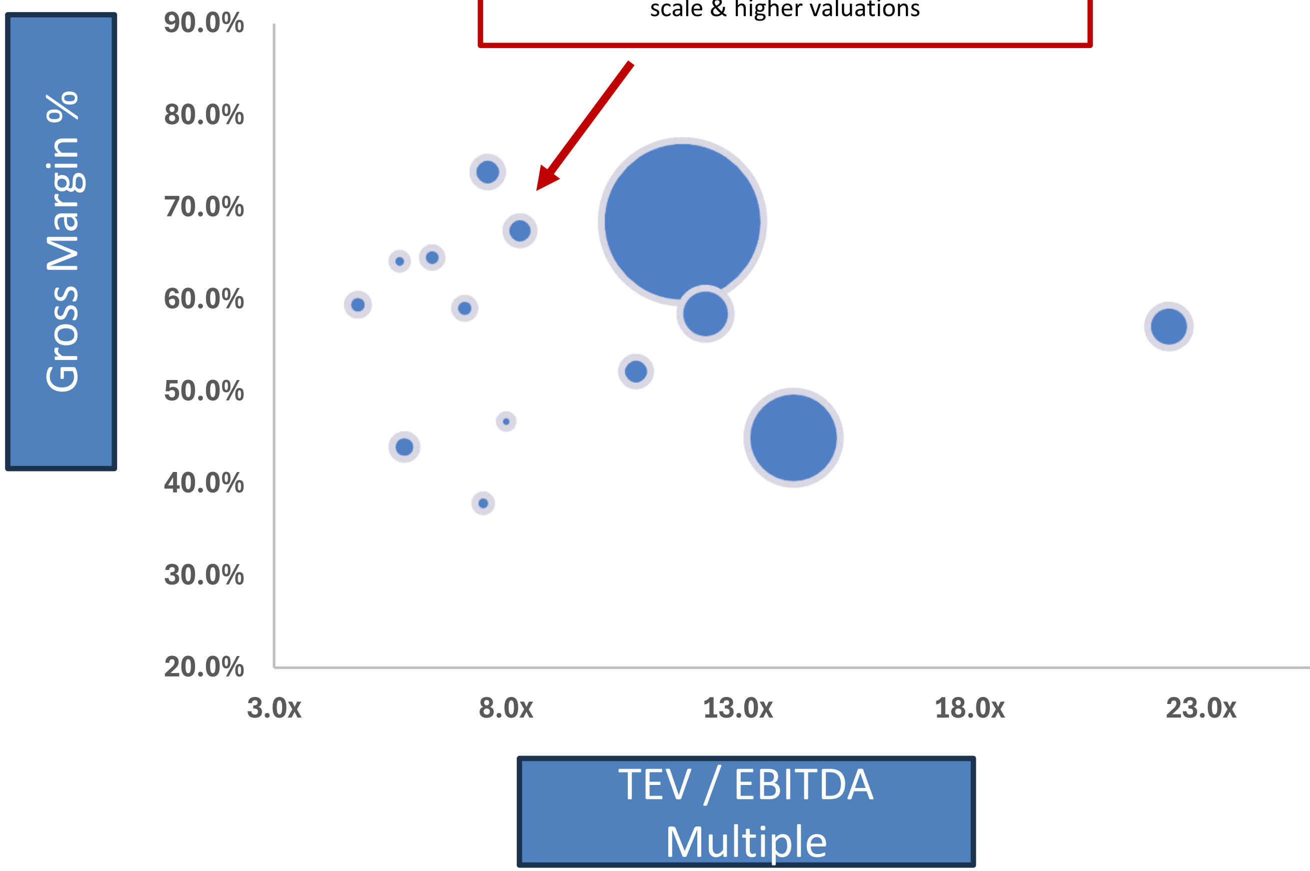
Valuation Range

Company	TEV	Revenue	Gross Profit	EBITDA	Gross Margin %	EBITDA Margin %	Rev Mult	EBITDA Mult
LVMH	$335,409	$88,971	$60,945	$25,266	68.5%	28.4%	3.8x	11.8x
Nike	117,042	50,012	22,505	7,201	45.0%	14.4%	2.3x	14.2x
Lululemon	38,782	9,989	5,844	2,700	58.5%	27.0%	3.9x	12.3x
Deckers	28,225	4,657	2,659	1,145	57.1%	24.6%	6.1x	22.3x
Tapestry	15,231	6,666	4,926	1,440	73.9%	21.6%	2.3x	7.6x
VF Corp	14,571	10,094	5,269	787	52.2%	7.8%	1.4x	10.8x
Bath & Body	11,580	7,384	3,249	1,568	44.0%	21.2%	1.6x	5.8x
PVH	8,755	8,879	5,283	1,211	59.5%	13.6%	1.0x	4.8x
Levi	8,149	6,158	3,639	758	59.1%	12.3%	1.3x	7.1x
Abercrombie	7,931	4,664	3,013	817	64.6%	17.5%	1.7x	6.4x
Hanesbrands	6,266	5,467	2,072	600	37.9%	11.0%	1.1x	7.5x
Capri	5,707	4,796	3,079	390	64.2%	8.1%	1.2x	5.7x
Under Armour	$4,750	$5,401	$2,528	$350	46.8%	6.5%	0.9x	8.0x

	Rev Mult	EBITDA Mult
Mean	**2.2x**	**9.6x**
Median	**1.6x**	**7.6x**

Market Positioning

Ralph Lauren has superior gross margins in the industry, however average EBITDA margins and niche market position represents an opportunity for scale & higher valuations



Value Proposition

Growth in China luxury consumer goods space, enhanced by strong "old money" style reputational image

Ralph Lauren continues to work to drive customers to DTC channels such as retail and ecommerce, and less reliant on wholesale channels

Ralph Lauren Corporation faces several risks, but is well positioned to respond

Regulatory risk: Factors such as deglobalization, policies under the Trump administration affecting trade, and tariffs pose an unknown risk to RL's sales
→ **Mitigation:** RL has a sophisticated global operation

Execution risk: an organizational transformation affecting supply chains and go-to-market strategy could result in growing pains
→ **Mitigation**: some positive effects are already visible, and management is confident about the project's success

Competition risk: Retail is a competitive industry with low margins, and luxury brands are susceptible to swings in favor among consumers
→ **Mitigation**: RL's timeless brand and wide variety of designs allow it to adapt to changing trend environments

Macroeconomic risk: if global economic growth stalls and consumers have lower discretionary spending RL's sales would be negatively affected
→ **Mitigation**: Luxury segment has shown robust sales in downturns

Impact	Likelihood
High	Unknown
High	Low
Medium	Unknown
High	Medium

APPENDIX

Alpha Challenge — Kenan-Flagler Business School, The University of North Carolina

Revenue Outlook by Geography – Base Case

RALPH LAUREN

($ in millions) Net Revenue	2022	2023	2024	Q1 2025	Q2 2025	Q3 - Q4 2025E	Forecast 2025	Forecast 2026	Forecast 2027	Forecast 2028	Forecast 2029	Forecast 2030
North America	$2,968	$3,021	$2,951	$608	$740	$1,523	$2,870	$2,941	$3,058	$3,181	$3,308	$3,440
Europe	1,781	1,839	1,968	479	566	1,181	2,226	2,367	2,462	2,560	2,662	2,769
Asia	1,287	1,427	1,567	391	380	871	1,642	1,793	1,865	1,939	2,017	2,098
Non-Reportable	183	157	146	34	40	84	158	72	75	78	81	84
Total	**$6,219**	**$6,444**	**$6,631**	**$1,512**	**$1,726**	**$3,658**	**$6,897**	**$7,173**	**$7,459**	**$7,758**	**$8,068**	**$8,391**
% of Total												
North America	48%	47%	44%	40%	43%	42%	42%	41%	41%	41%	41%	41%
Europe	29%	29%	30%	32%	33%	32%	32%	33%	33%	33%	33%	33%
Asia	21%	22%	24%	26%	22%	24%	24%	25%	25%	25%	25%	25%
Non-Reportable	3%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
% of Growth (YoY)												
North America		1.8%	(2.3%)	(3.7%)	3.0%		(2.7%)	2.5%	4.0%	4.0%	4.0%	4.0%
Europe		3.3%	7.0%	6.3%	7.4%		13.1%	6.3%	4.0%	4.0%	4.0%	4.0%
Asia		10.9%	9.8%	3.5%	9.1%		4.8%	9.2%	4.0%	4.0%	4.0%	4.0%
Non-Reportable		(14.0%)	(6.9%)	(7.6%)	1.0%		8.3%	(54.7%)	4.0%	4.0%	4.0%	4.0%
Total		3.6%	2.9%	1.0%	14.1%		4.0%	4.0%	4.0%	4.0%	4.0%	4.0%

DCF– Bear Case

DCF Analysis	2024	1H 2025	2H 2025	2026	2027	2028	2029	2030
Revenue	**$6,631**	**$3,238**	**$3,658**	**$7,035**	**$7,175**	**$7,319**	**$7,465**	**$7,614**
% Growth				*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*
COGS	**971**	**1,017**	**1,207**	**2,268**	**2,313**	**2,359**	**2,407**	**2,455**
Gross Profit	**$4,427**	**$2,222**	**$2,452**	**$4,767**	**$4,862**	**$4,959**	**$5,059**	**$5,160**
GP %	*66.8%*	*68.6%*	*67.0%*	*67.8%*	*67.8%*	*67.8%*	*67.8%*	*67.8%*
SG&A	2,755	1,439	1,626	3,127	3,189	3,253	3,318	3,384
SG&A % of Sales	*41.5%*	*44.4%*	*44.4%*	*44.4%*	*44.4%*	*44.4%*	*44.4%*	*44.4%*
Other	19.1	7	8	35	36	37	37	38
Other % of Sales	*0.3%*	*0.2%*	*0.2%*	*0.5%*	*0.5%*	*0.5%*	*0.5%*	*0.5%*
EBITDAR	**$1,653**	**$775**	**$818**	**$1,605**	**$1,637**	**$1,670**	**$1,703**	**$1,737**
EBITDA Margin %		*23.9%*	*22.4%*	*22.8%*	*22.8%*	*22.8%*	*22.8%*	*22.8%*
D&A	34	53	60	114	117	119	121	124
D&A % of Sales	0.5%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
EBIT	**$1,619**	**$722**	**$758**	**$1,491**	**$1,520**	**$1,551**	**$1,582**	**$1,613**
EBIT % Margin	24.4%	22.3%	20.7%	21.2%	21.2%	21.2%	21.2%	21.2%
Taxes			167	328	334	341	348	355
Tax Rate %			*22.0%*	*22.0%*	*22.0%*	*22.0%*	*22.0%*	*22.0%*
- Δ in NWC			(8)	38	10	3	(10)	(3)
- Capex			(37)	(70)	(72)	(73)	(75)	(76)
Unlevered FCF			**$607**	**$1,244**	**$1,241**	**$1,259**	**$1,271**	**$1,303**
Dicsount Factor			0.9718	0.8668	0.7731	0.6896	0.6151	0.5486
PV of Unlevered FCF			**$590**	**$1,079**	**$959**	**$868**	**$782**	**$715**

DCF– Bear Case

Enterprise Value at Terminal Growth Rates	2%	3%
	$12,200	$12,881

Enterprise Value at Terminal EBITDA Multiples	8.0x	9.5x
	$12,617	$14,047

Enterprise Value	**$12,200**
Less: Debt	(1,142)
Plus Cash	1,690
Implied Equity Value	**$12,748**
Shares Outs.	62,100,000
Price per Share	**$205.29**

		Terminal Growth				
		1.50%	**1.75%**	**2.00%**	**2.25%**	**2.50%**
WACC	**11.11%**	$218.57	$222.29	$226.22	$230.36	$234.75
	11.61%	$208.45	$211.74	$215.21	$218.86	$222.71
	12.11%	$199.28	$202.21	**$205.29**	$208.52	$211.92
	12.61%	$190.94	$193.56	$196.30	$199.18	$202.20
	13.11%	$183.31	$185.67	$188.13	$190.70	$193.39

Ralph Lauren's Management Team is full of seasoned executives who know how to drive value

Patrice Louvet
President & CEO

- Joined RL in 2017
- Nearly three decades at P&G

Chris Conrad
Chief Digital and Technology Officer

- Joined RL in 2024
- Three-decade industry veteran
- Led technology transformation at Levi's

Stefon Burns
CEO Chief of Staff and Head of Global Strategy & Business Development

- Joined RL in 2022 to oversee their NGT project
- Former McKinsey Partner

Halide Alagöz
Chief Product Officer

- Joined RL in 2016
- She leads Polo, RRL and Lauren brand teams
- 18 years at H&M

DCF– Bull Case

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RALPH LAUREN

DCF Analysis	2024	1H 2025	2H 2025	2026	2027	2028	2029	2030
Revenue	**$6,631**	**$3,238**	**$3,658**	**$7,241**	**$7,604**	**$7,984**	**$8,383**	**$8,802**
% Growth				*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*
COGS	**971**	**1,017**	**1,207**	**2,353**	**2,433**	**2,515**	**2,599**	**2,685**
Gross Profit	**$4,427**	**$2,222**	**$2,452**	**$4,888**	**$5,170**	**$5,469**	**$5,784**	**$6,117**
GP %	*66.8%*	*68.6%*	*67.0%*	*67.5%*	*68.0%*	*68.5%*	*69.0%*	*69.5%*
SG&A	2,755	1,439	1,626	3,182	3,303	3,469	3,642	3,824
SG&A % of Sales	*41.5%*	*44.4%*	*44.4%*	*43.9%*	*43.4%*	*43.4%*	*43.4%*	*43.4%*
Other	19.1	7	8	7	8	8	8	9
Other % of Sales	*0.3%*	*0.2%*	*0.2%*	*0.1%*	*0.1%*	*0.1%*	*0.1%*	*0.1%*
EBITDAR	**$1,653**	**$775**	**$818**	**$1,698**	**$1,859**	**$1,992**	**$2,134**	**$2,284**
EBITDA Margin %		*23.9%*	*22.4%*	*23.5%*	*24.5%*	*25.0%*	*25.5%*	*26.0%*
D&A	34	53	60	118	124	130	136	143
D&A % of Sales	0.5%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
EBIT	**$1,619**	**$722**	**$758**	**$1,581**	**$1,736**	**$1,862**	**$1,997**	**$2,141**
EBIT % Margin	24.4%	22.3%	20.7%	21.8%	22.8%	23.3%	23.8%	24.3%
Taxes			167	348	382	410	439	471
Tax Rate %			*22.0%*	*22.0%*	*22.0%*	*22.0%*	*22.0%*	*22.0%*
- Δ in NWC			(8)	17	5	(1)	(15)	(8)
- Capex			(73)	(145)	(152)	(160)	(168)	(176)
Unlevered FCF			**$570**	**$1,223**	**$1,331**	**$1,422**	**$1,512**	**$1,630**
Dicsount Factor			0.9718	0.8668	0.7731	0.6896	0.6151	0.5486
PV of Unlevered FCF			**$554**	**$1,060**	**$1,029**	**$980**	**$930**	**$894**

DCF– Bull Case

Enterprise Value at Terminal Growth Rates	2%	3%
	$14,464	$15,315

Enterprise Value at Terminal EBITDA Multiples	8.0x	9.5x
	$15,474	$17,354

Enterprise Value	**$14,464**
Less: Debt	(1,142)
Plus Cash	1,690
Implied Equity Value	**$15,012**
Shares Outs.	62,100,000
Price per Share	**$241.74**

		Terminal Growth				
		1.50%	**1.75%**	**2.00%**	**2.25%**	**2.50%**
WACC	**11.11%**	$258.15	$262.81	$267.72	$272.91	$278.40
	11.61%	$245.59	$249.71	$254.05	$258.62	$263.44
	12.11%	$234.22	$237.89	**$241.74**	$245.78	$250.04
	12.61%	$223.88	$227.16	$230.60	$234.20	$237.97
	13.11%	$214.44	$217.39	$220.46	$223.68	$227.05

Income Statement

($ in mm) FYE 03/31	2020	2021	2022	2023	2024	LTM Sep-25	FY 2025E
Revenue	**$6,159.8**	**$4,400.8**	**$6,218.5**	**$6,443.6**	**$6,631.4**	**$6,740.1**	**$6,896.7**
% Growth		(28.6%)	41.3%	3.6%	2.9%		4.0%
GP	**$3,812.8**	**$2,890.7**	**$4,134.2**	**$4,181.2**	**$4,427.3**	**$4,550.3**	**$4,673.4**
GP Margin %	61.9%	65.7%	66.5%	64.9%	66.8%	67.5%	67.8%
SG&A	3,210.7	2,691.3	3,321.2	3,600.0	3,631.4	3,705.3	3,806.0
EBIT	**$602.1**	**$199.4**	**$813.0**	**$581.2**	**$795.9**	**$845.0**	**$867.3**
EBIT Margin %	9.8%	4.5%	13.1%	9.0%	12.0%	12.5%	12.6%
Net Interest	16.8	(38.8)	(48.5)	(8.2)	30.8	35.0	
Other	(0.3)	7.6	4.5	161.4	1.5	6.2	
Unusual Items	-292.2	-243	-14.4	-42.5	-50.8	-40.2	
EBT	$326.4	($74.8)	$754.6	$691.9	$777.4	$846.0	
Taxes	(57.9)	46.3	154.5	169.2	131.1	162.2	
Tax %	17.7%	61.9%	(20.5%)	(24.5%)	(16.9%)	(19.2%)	
Net Income	**$384.3**	**($121.1)**	**$600.1**	**$522.7**	**$646.3**	**$683.8**	
NI %	6.2%	(2.8%)	9.7%	8.1%	9.7%	10.1%	
EBITDA	**$871.6**	**$447.0**	**$1,042.7**	**$801.7**	**$1,024.9**	**$1,067.5**	**$964.2**
EBITDA Margin %	14.1%	10.2%	16.8%	12.4%	15.5%	15.8%	14.0%
EBITDAR	**$1,494.2**	**$998.3**	**$1,633.0**	**$1,401.9**	**$1,653.4**	**$1,696.0**	**$1,592.7**
EBITDAR Margin %	24.3%	22.7%	26.3%	21.8%	24.9%	25.2%	23.1%

Industry Drivers

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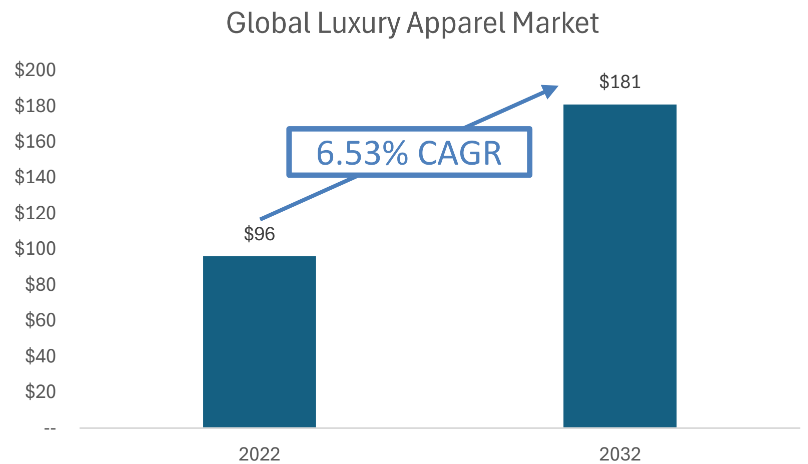
RALPH LAUREN

Global Luxury Apparel Market

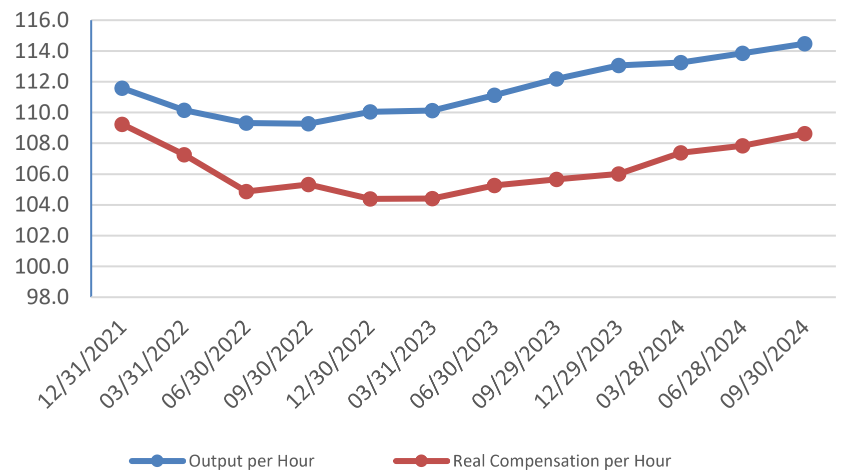


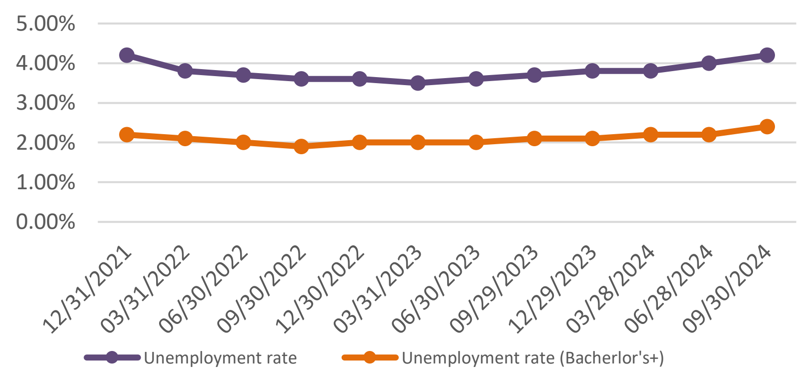
Brand Identity and Drivers

Exclusivity and Rarity

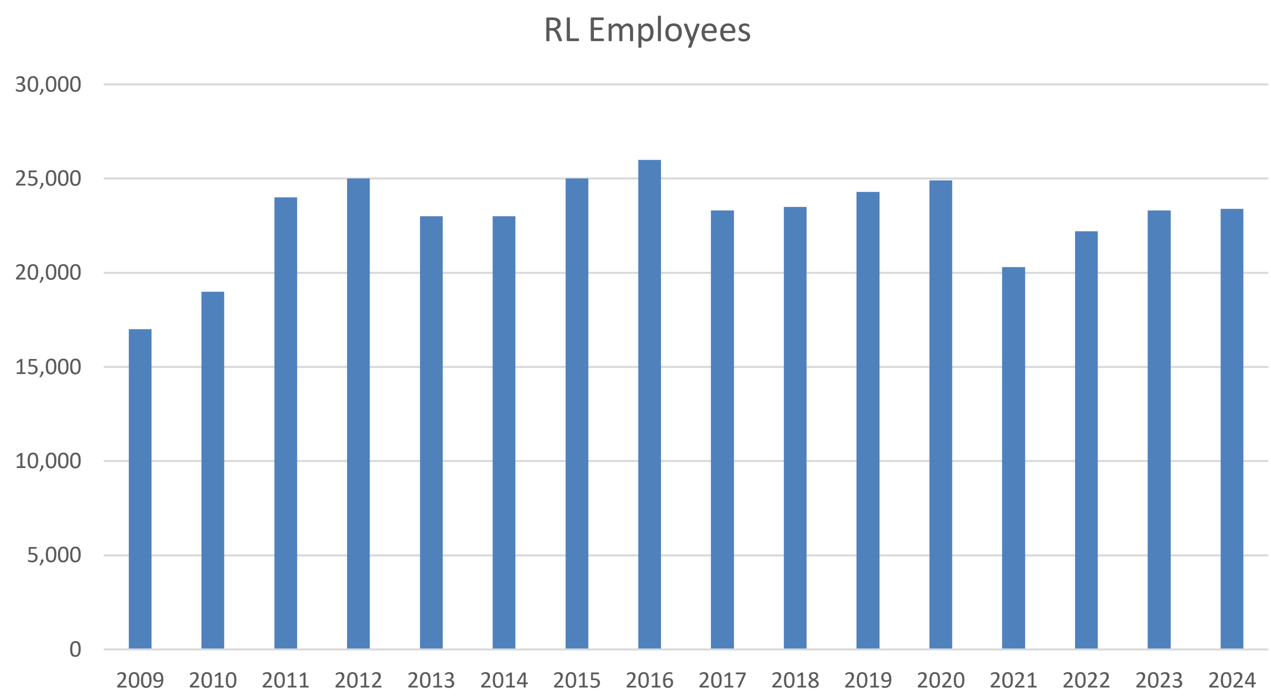
Consumer Aspirations and Status Symbol

Productivity and real wages are trending favorably for discretionary spending





Company Name	Ticker	Fiscal Period	Price	Market Cap (mm)	EV (mm)	Shares out	Shares out diluted	sales (mm)	Ebit (mm)	EBITDA (mm)	EV/EBIT	EV/EBITDA
Ralph Lauren A	RL-US	9/28/2024	$ 208.38	$ 13,274.03	$ 12,728.83	40.21707	63.9	$ 6,740.10	$ 858.20	$ 1,080.70	14.83201	11.77832
Capri Holdings	CPRI-US	9/28/2024	$ 21.00	$ 2,548.65	$ 4,067.65	117.8944	118.7777	$ 4,796.00	$ 168.00	$ 359.00	24.21222	11.33051
Hermes International	RMS-FR	6/30/2024	$ 2,142.82	$ 225,149.90	$ 214,981.37	105.5694	104.8807	$ 15,389.44	$ 6,420.47	$ 7,193.56	33.48377	29.88526
LVMH Moet Hennessy Louis Vuitton	MC-FR	6/30/2024	$ 617.67	$ 308,671.49	$ 322,701.94	500.1417	499.8317	$ 92,544.23	$ 23,652.36	$ 30,448.02	13.64354	10.59846
Levi Strauss	LEVI-US	8/25/2024	$ 16.57	$ 6,729.31	$ 7,209.51	104.7248	402.3981	$ 6,162.80	$ 623.10	$ 805.00	11.57039	8.95591
VF	VFC-US	9/28/2024	$ 20.16	$ 8,199.12	$ 13,948.80	389.3187	390.945	$ 10,017.10	$ 441.74	$ 831.35	31.57667	16.77842
lululemon athletica	LULU-US	7/28/2024	$ 320.01	$ 39,437.22	$ 37,827.11	117.6606	124.857	$ 9,989.29	$ 2,422.77	$ 2,823.36	15.61317	13.3979
Tapestry	TPR-US	9/28/2024	$ 57.23	$ 13,883.73	$ 13,890.23	233.0358	235.9	$ 6,665.50	$ 1,374.70	$ 1,600.30	10.10419	8.679768
Abercrombie & Fitch	ANF-US	8/3/2024	$ 144.64	$ 7,658.84	$ 6,941.77	51.07866	53.279	$ 4,664.04	$ 662.21	$ 807.94	10.48277	8.59189
Average											18.39	13.33
Median											14.83	11.33


RL Employees
30,000
25,000
20,000
15,000
10,000
5,000
0
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024

	April 1, 2023	April 2, 2022
North America		
Ralph Lauren Stores	48	46
Polo Outlet Stores	189	193
Total Directly Operated Stores	**237**	**239**
Concessions	1	1
Europe		
Ralph Lauren Stores	43	36
Polo Outlet Stores	61	59
Total Directly Operated Stores	**104**	**95**
Concessions	29	29
Asia		
Ralph Lauren Stores	118	93
Polo Outlet Stores	94	77
Total Directly Operated Stores	**212**	**170**
Concessions	692	654
Global Directly Operated Stores and Concessions		
Ralph Lauren Stores	209	175
Polo Outlet Stores	344	329
Total Directly Operated Stores	**553**	**504**
Concessions	722	684
Global Licensed Stores		
Total Licensed Stores	182	148

Geographic Segments (M)

	Mar '23	Mar '24	Jun '24 Q1	Sep '24 Q2	Dec '24E Q3	Mar '25E Q4	Mar '25E	Jun '25E Q1	Sep '25E Q2	Dec '25E Q3	Mar '26E Q4	Mar '26E	Mar '27E
Sales	6,444	6,631	1,512	1,726	2,010	1,619	6,868	1,592	1,800	2,102	1,691	7,177	7,493
North America	3,021	2,951	608	740	940	674	2,957	627	753	966	690	3,035	3,179
Growth (YoY%)	1.8	-2.3	-3.7	3.0	0.7	0.9	0.2	3.1	1.8	2.7	2.4	2.6	4.7
Europe	1,839	1,968	479	566	543	489	2,075	504	590	555	504	2,164	2,265
Growth (YoY%)	3.3	7.0	6.3	7.4	4.1	4.1	5.4	5.2	4.3	2.2	3.1	4.3	4.6
Asia	1,427	1,567	391	380	484	427	1,681	438	422	517	454	1,809	2,056
Growth (YoY%)	10.9	9.8	3.5	9.1	8.3	8.2	7.3	11.9	10.9	6.9	6.3	7.6	13.6
Other	157	146	34	40	33	34	142	34	40	33	37	140	144
Growth (YoY%)	-14.0	-6.9	-7.6	1.0	0.5	-6.9	-3.2	0.0	-0.5	-0.5	7.4	-1.2	2.9
Operating Income	770	826	216	197	360	162	933	243	226	385	176	1,035	1,152
Margin (%)	12.0	12.5	14.3	11.4	17.9	10.0	13.6	15.2	12.6	18.3	10.4	14.4	15.4
North America	543	549	120	122	-	-	-	-	-	-	-	-	-
Growth (YoY%)	-19.7	1.0	-4.4	10.6	-	-	-	-	-	-	-	-	-
Europe	407	465	121	146	-	-	-	-	-	-	-	-	-
Growth (YoY%)	-8.4	14.3	24.1	10.2	-	-	-	-	-	-	-	-	-
Asia	290	336	107	86	-	-	-	-	-	-	-	-	-
Growth (YoY%)	26.6	16.0	14.9	26.2	-	-	-	-	-	-	-	-	-
Other	146	129	30	34	-	-	-	-	-	-	-	-	-
Growth (YoY%)	5.8	-12.0	-12.4	-1.8	-	-	-	-	-	-	-	-	-

Less

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The University of North Carolina

November 24, 2024

Team Number: 10

Students:

Mauricio Meza

Karishma Solanki

Jiahao Zhang

Executive Summary

Security Details

Stock	**Lantheus Holdings, Inc. (LNTH)**
Recommendation	**BUY**
Price at 20/11/2024	$84.54
52 Week High	$126.89
52 Week Low	$50.20
Enterprise Value	**$5.6B**
EPS (ttm)	$4.29
Beta (3Y)	1.08
Shares Outstanding	69.5M

Company Overview

Founded in 1956, Lantheus is a global innovator in precision medicine, specializing in the development of cutting-edge **diagnostic imaging agents** and **therapeutics**. With a strong focus on oncology, cardiology, and neurology, the company is dedicated to transforming patient care through advanced technologies that enable early disease detection, accurate diagnosis, and personalized treatment strategies.

Investment Thesis

Promising Industry

The precision medicine and diagnostic imaging industry is set for strong growth, driven by innovation in molecular technologies. Lantheus is well-positioned to capitalize on this trend, with its cutting-edge solutions in oncology, cardiology, and neurology.

Strong Company Fundamentals

Lantheus is well-positioned for sustained growth, supported by strong fundamentals, a robust pipeline, and its leadership in precision medicine. With continued innovation in key therapeutic areas, the company is primed for long-term success and expanding market presence.

Valuation

DCF analysis yields a target price of $144 per share, implying a 71% upside potential. With a WACC of 10%, the model suggests the stock is undervalued at current levels. Given the company's strong market position and the favorable industry growth outlook we believe the stock will outperform its current market price. The significant upside potential, coupled with the company's solid financial footing, makes it an attractive investment opportunity.

Source: Company Report, CapIQ, BBG, Statista

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Lantheus' Products

Lantheus **manufactures and distributes specialized drugs** and **medicines** that help medical professionals **diagnose diseases, especially cancer and heart problems**, using medical imaging machines like PET scans and ultra sounds.

Radiopharmaceutical Oncology (Comprise 66% of Lantheus's total revenue):
Lantheus manufactures and distributes ***radioactive drugs*** that ***act both as a "tracer" to identify cancer and a therapeutic agent to treat it.***

The products offered by Lantheus under this category are **PYLARIFY** and **AZEDRA** injections:

- **PYLARIFY** (piflufolastat F-18) injection used with PET scan and CT scan to help detect and monitor prostate cancer. ***This product has exclusivity license rights from FDA and Johns Hopkins University till 2037.***

- **AZEDRA** (iobenguane I 131) is an injection for treatment of rare tumors of the adrenal gland that cannot be surgically removed. ***This is the first and only FDA-approved drug for this use.***

Precision Diagnostics (Comprise 30% of Lantheus's total revenue):
Lantheus makes drugs used for improving diagnostic imaging to diagnose and treat diseases in nearly every organ of the body.

The products offered by Lantheus under this category are **DEFINITY** and **TECHNELITE** injections.

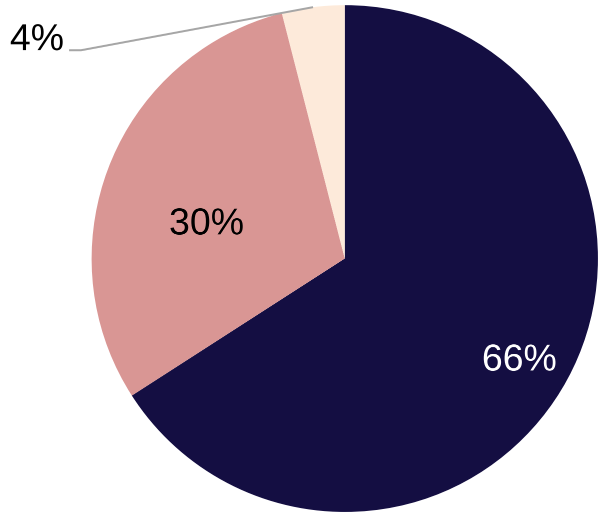
- **DEFINITY** Injection is used to brighten and clarify images of the heart during echocardiograms. ***Market-leading contrast agent used in >70% of U.S. echo labs.***

- **TECHNELITE** is FDA-approved drug for diagnostic imaging of various organs of the human body, which include the brain, bone, lungs, kidneys, thyroid, heart, gall bladder, liver, etc. ***This product has patented manufacturing rights and protection till 2029, efforts are being made to seek extension till 2040.***

Strategic Partnerships and Other Revenue (Comprise 30% of Lantheus's total revenue): Lantheus' Strategic Partnerships and Other Revenue segment primarily consists of licensing income and royalties from partnerships with other pharmaceutical companies.

Source: Company Report, CapIQ, BBG, Statista

Business Description



Revenue Share

- Radiopharmaceutical Oncology
  a. PYLARIFY
  b. AZEDRA
- Precision Diagnostics
  a. DEFINITY
  b. TechneLite
- Strategic Partnerships and Other Revenues

Key Operating Metrics

Corporate Highlights (2023)	
Revenue	$1.3B
Gross Margin	$710M
Operating Margin	$450M
EBITDA	$513M
EBITDA Margin	$40M
Total Debt	$835M

Key Financial Ratios (2023)	
ROCE	51.73%
ROA	21.98%
ROC	27.74%
ROIC	23.47%
Dividend Payout	N/A

Source: Company Report, CapIQ, BBG, Statista

Lantheus' History & Current Projects

Lantheus' History:

- **1956** — **Founded** as New England Nuclear Corporation.
- **1981** — The medical imaging diagnostic business was **purchased by** E.I. du Pont de Nemours andCompany ("**DuPont**")
- **2001** — Bristol Myers Squibb ("**BMS**") **acquired** the diagnostic medical imaging business as part of its acquisition of DuPont
- **2008** — Avista Group entities and ACP-Lantern Co-Invest, LLC **formed Lantheus Holdings** and acquired our medical imaging business from BMS.
- **2015** — Lantheus completed **IPO** of its common stock
- **2020** — Lantheus acquired **Progenics**
- **2023** — Lantheus acquired **Cerveau Technologies**, Inc.

Investors / shareholders

Vanguard
BlackRock
OrbiMed Healthcare Fund Management
JHI
FARALLON ESTABLISHED 1986
ELLIOTT
SANDLER Capital Management

Expansion Projects

Lantheus is advancing its portfolio with following key projects:

1.Oncology Imaging & Therapies: PyL (PET imaging for prostate cancer, FDA-approved 2021) and Pluvicto (radiotherapy for metastatic prostate cancer, FDA-approved 2022) are expanding in clinical use and trials.

2. Cardiology: TechneLite and Cardiogen-82 are radiopharmaceuticals used in heart disease diagnostics, with efforts to expand availability globally.

3. Neurology: Flurpiridaz is a developing PET imaging agent for early-stage diagnosis of neurodegenerative diseases like Alzheimer's.

4. Radioligand Therapy (RLT): Lantheus is growing its RLT capabilities, targeting cancer cells with radioactive isotopes for both diagnostics and treatment, while exploring new opportunities in oncology.

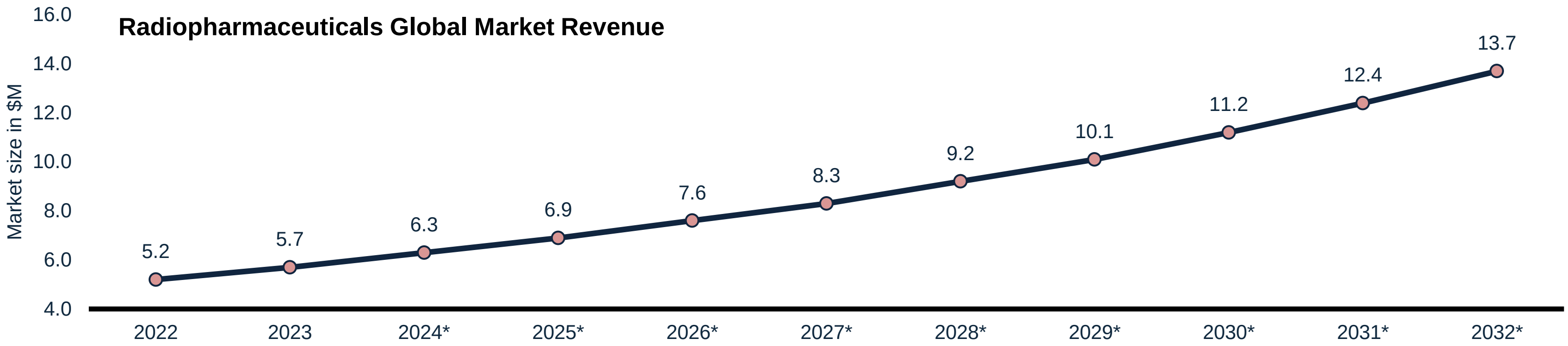
5. Collaborations & Acquisitions: In 2023, Lantheus partnered with Fusion Pharmaceuticals to advance targeted radiopharmaceutical therapies for cancer.

Source: Company Report, CapIQ, BBG, Statista

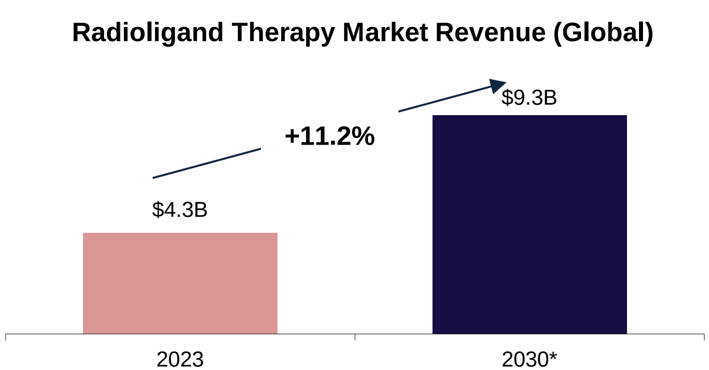
Investment Thesis 1: High Growth Industry

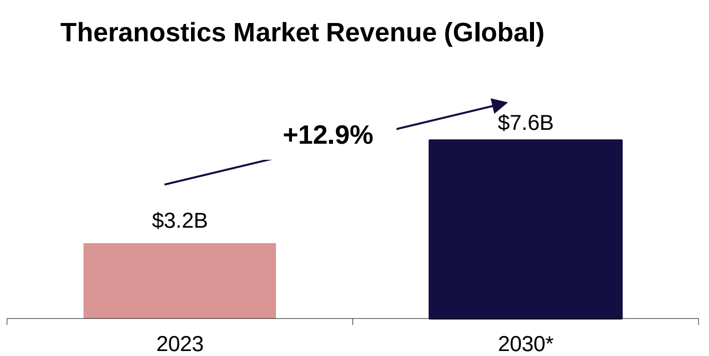
Expected growth of Radiopharmaceutical Oncology – Comprising 66% of Lantheus' total revenue for 2024

The global market for Radiopharmaceutical Oncology (which comprises 66% of Lantheus' total revenue for 2024 is expected to grow at the **CAGR of 8%** from 2022 to 2032.



Global markets for Radioligand therapy (RLT) and Theranostics which comprise major offerings of radiopharmaceutical oncology segment of Lantheus, are expected to grow at **CAGR of 11% and 13%** respectively.





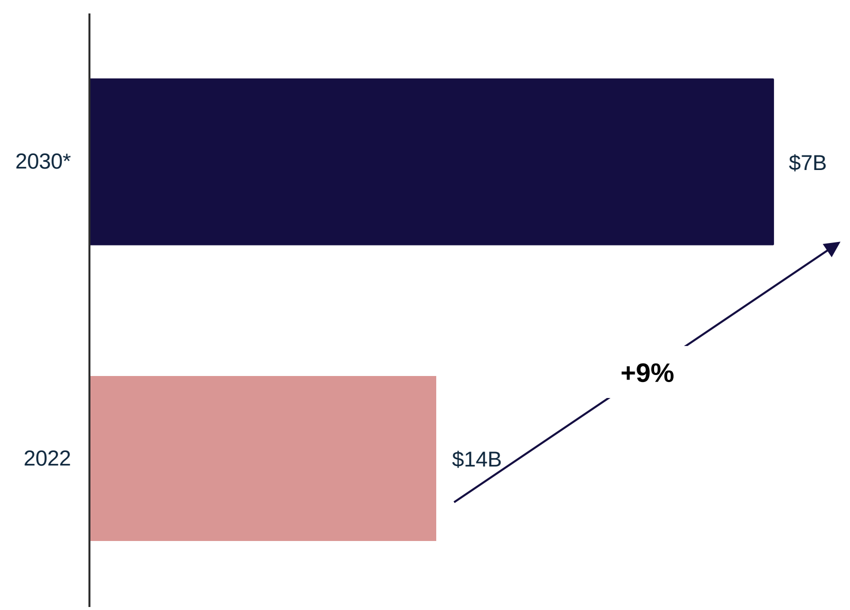
Source: Company Report, CapIQ, BBG, Statista

Investment Thesis 1: High Growth Industry

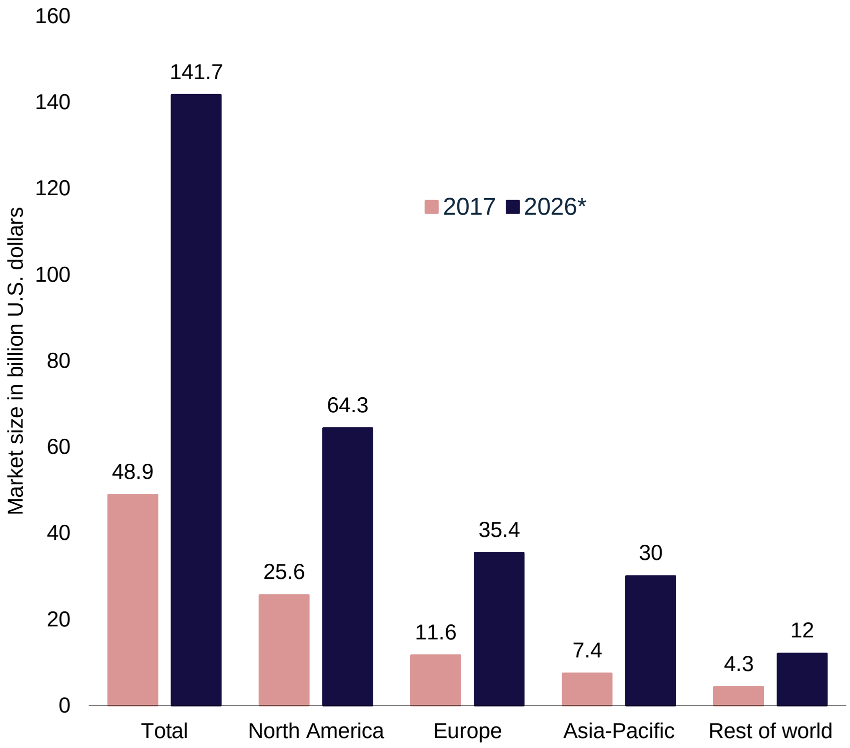
Expected growth of Precision Diagnostics (Molecular Imaging) – Comprising 30% of Lantheus' revenue

The global market for Precision Diagnostics - Molecular Imaging (which comprises 30% of Lantheus' total revenue for 2024) is expected to grow at the **CAGR of 9%** from 2022 to 2032.

Molecular Imaging Market Revenue (Global)



Precision Medicine Market Size (Global)

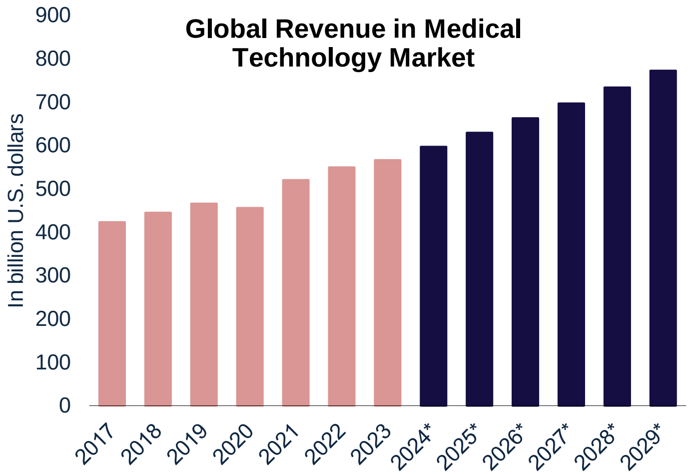


Source: Company Report, CapIQ, BBG, Statista

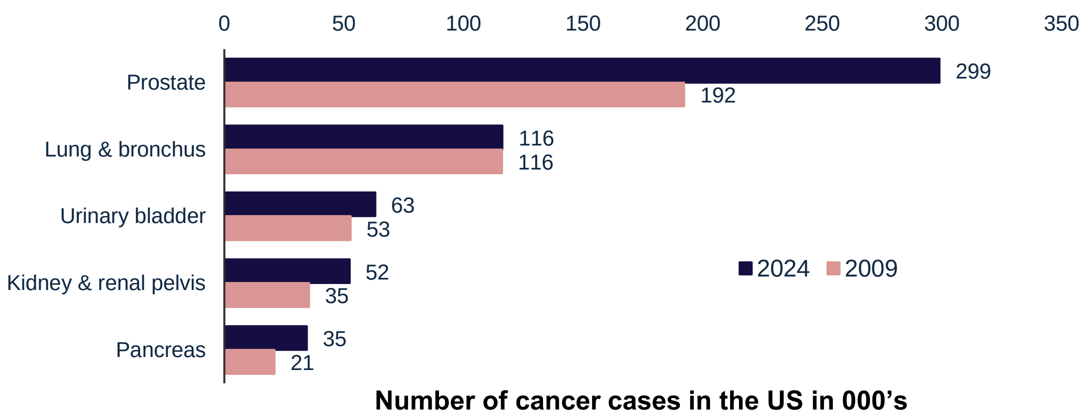
Investment Thesis 1: Key Drivers of Growth

Key Drivers of Growth in Radiopharmaceutical Oncology and Precision Diagnostics

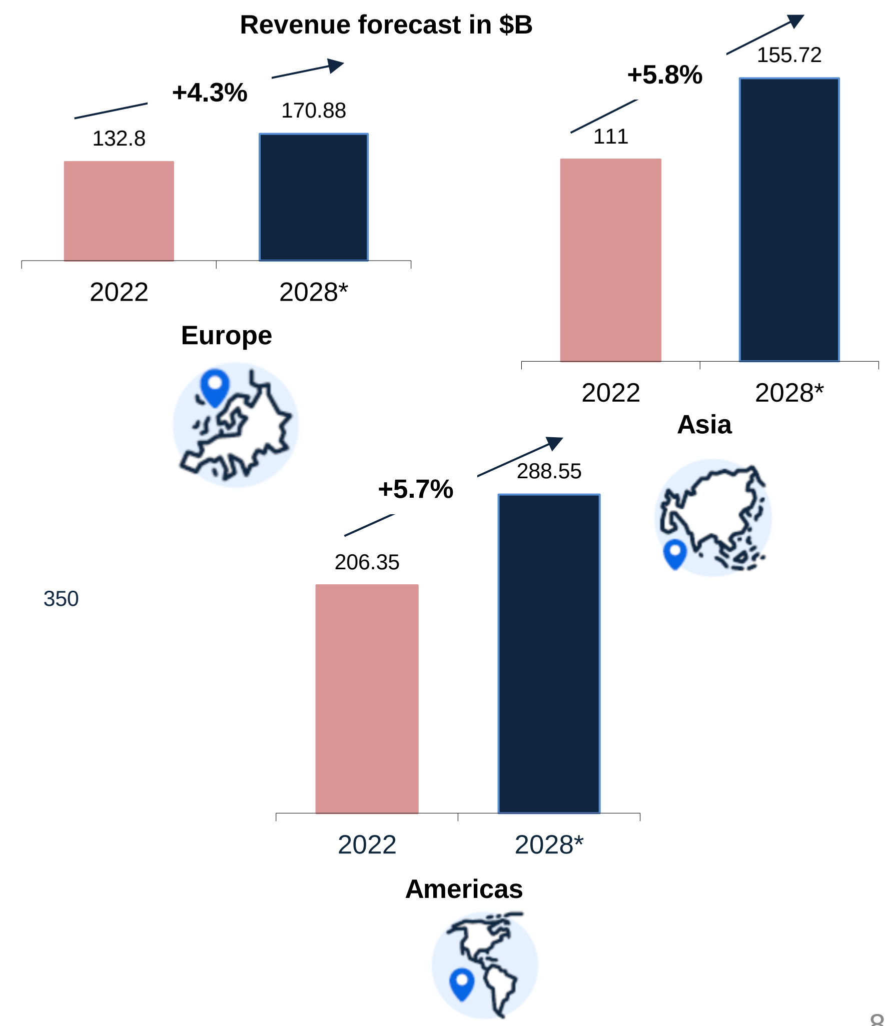
Advancement of Medical Technology



Rising cancer cases requiring targeted diagnosis and therapy



Growth of Diagnostic Imaging Devices Market

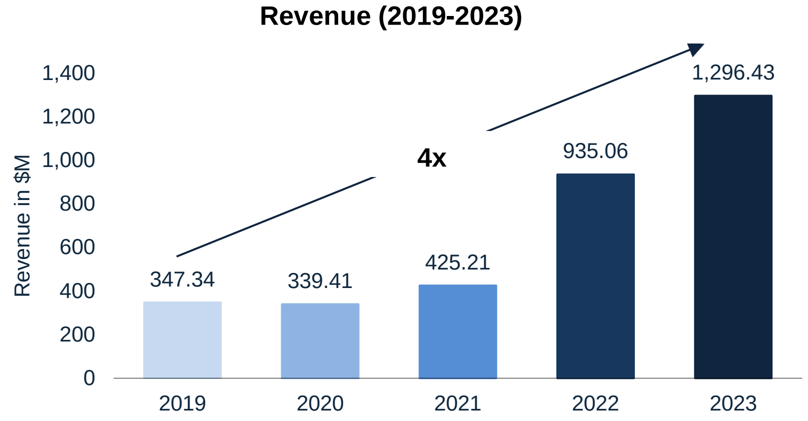


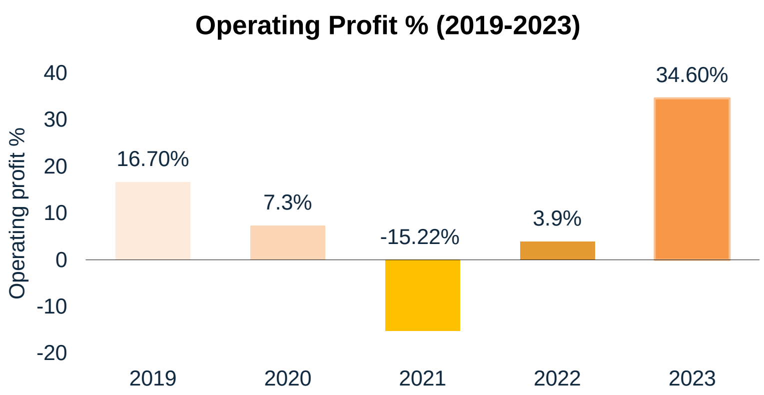
Source: Company Report, CapIQ, BBG, Statista

Investment Thesis 2: Strong company fundaments coupled with sustainable revenue and profit growth

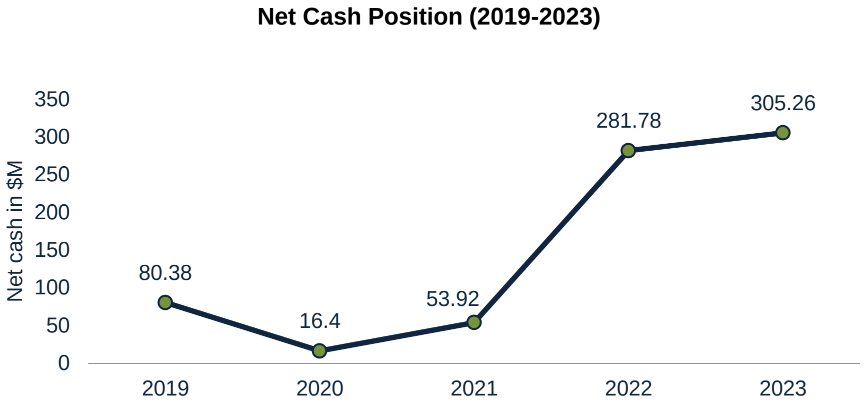
Lantheus continues to grow its revenue through consistent investment in capital assets and R&D expenditure.

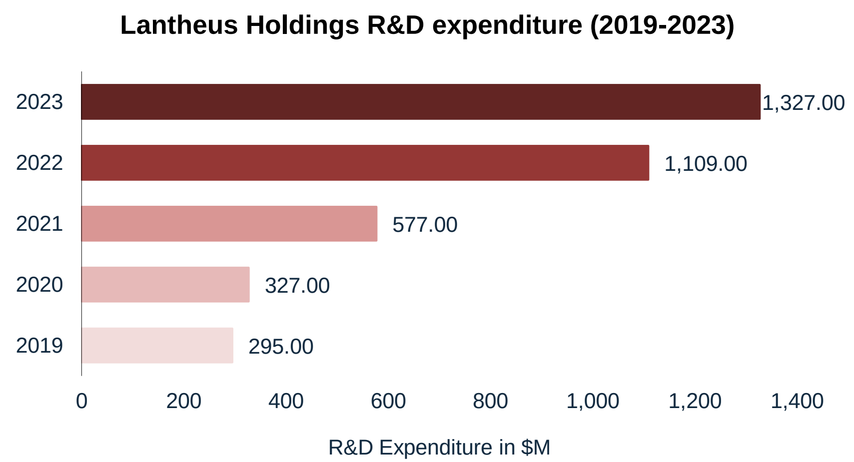
Strong Revenue & Profitability





Strong Cash Flow Generation and R&D Expenditure





Source: Company Report, CapIQ, BBG, Statista

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Investment Thesis 2 - Strategic Partnerships Enabling Business Growth

Strong Partnerships:

Lantheus acquired Avid in 2012, adding Amyvid for Alzheimer's imaging to its portfolio. This expanded its presence in neuroimaging and diversified its focus beyond oncology and cardiology.

In 2019, Lantheus partnered with Novartis for radiopharmaceuticals, with focus on targeted imaging agents for cancer diagnostics, expanding Lantheus' oncology diagnostics portfolio and global reach.

Lantheus acquired Progenics in 2020, enhancing its oncology portfolio and expanding into theranostics combining diagnostics and therapeutics for personalized cancer treatment.

Recent Collaborations:

- In July 2024, Lantheus acquired global rights to RM2, a radiopharmaceutical targeting GRPR in cancers like prostate and breast, strengthening its oncology diagnostics portfolio.
- The company also partnered with POINT Biopharma, paying $260 million upfront to develop radiopharmaceutical therapies for prostate cancer, boosting its radioligand therapy capabilities.
- In July 2024, Lantheus acquired NAV-4694, a beta-amyloid imaging agent for Alzheimer's diagnosis, enhancing its neurology and molecular imaging portfolio for early detection of neurodegenerative diseases.

Source: Company Report, CapIQ, BBG, Statista

Investment Thesis 3: Moat for Lantheus' Business

Exclusive Product Portfolio and IPs:

PYLARIFY (generates ~66% of company's total revenue):

- Exclusive license from Johns Hopkins University for the PSMA-targeted PET imaging agent
- Patent protection for composition and manufacturing process
- **This product has exclusivity license rights from FDA and Johns Hopkins University till 2037.**
- Leading PSMA-PET imaging agent with 2,300+ sites nationwide.

DEFINITY(generates ~66% of company's total revenue):

- **Market-leading contrast agent used in >70% of U.S. echo labs**
- **Protected manufacturing process for lipid-based microspheres exclusively till 2037**
- Multiple patents covering formulation and methods of use

AZEDRA:

- **This is the first and only FDA-approved drug for this use.**
- Proprietary technology for high-specific-activity radiotherapy
- Protected drug development platform for targeted radiotherapy
- Manufacturing process patents

TechneLite:

- Key nuclear medicine generator for diagnostic imaging
- Patents on technetium-99m generator technology
- **This product has patented manufacturing rights and protection till 2029, efforts are being made to seek extension till 2040.**

Source: Company Report, CapIQ, BBG, Statista

Investment Thesis 3: Moat for Lantheus' Business

Dominant Market Position:

- Lantheus has the largest independent radiopharmacy networks not tied to a big pharma company with decades of direct relationships with top cancer centres, hospitals and imaging centres rather than through distributors.
- Lantheus has built their network specifically for radiopharmaceuticals over decades, while many competitors either came through acquisition (Novartis/AAA) or have it as a side business to their main focus (Cardinal, GE).
- Established reimbursement pathways with insurance companies (Medicare coverage for key products like PYLARIFY and DEFINITY; Commercial coverage with major insurers including UnitedHealth, Aetna, Humana)

Technical and Manufacturing Expertise:

- Operates FDA / EMA-approved specialized manufacturing infrastructure in Massachusetts, **one of the longest-running radiopharmaceutical manufacturing sites in North America**
- **60+ years of experience** in radiopharmaceutical production. Some key competitors like Novartis and Cardinal Health have 20 and 50 years of experience, respectively, in radiopharmaceutical industry. Some competitors like Curium have similar tenure (100 years of experience) through acquisitions and mergers; however, Lantheus has **maintained consistent operations by being invested in its core facilities.**

Source: Company Report, CapIQ, BBG, Statista

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Investment Thesis 3: Moat for Lantheus' Business

Expanding Radioligand Therapy (RLT) portfolio:

- Lantheus is enhancing its Radioligand Therapy (RLT) capabilities by utilizing targeted radioactive isotopes for cancer treatment. This strategic focus positions the company to capitalize on the expanding opportunities within the rapidly evolving theranostics market.

Current RLT portfolio including newly launched radio isotope products

F-18	Tc-99m	Lu-177	I-131
Mo-99	Cu-64	Pb-212	Pb-203
Xe-133	Ga-67	Tl-201	Sm-153

Platform expansion and partnerships:

- Lantheus is poised to capitalize on the growing neurological diagnostics market through its innovative Flurpiridaz PET imaging agent, which, alongside its expanding Alzheimer's portfolio, is set to drive future growth as diagnosis and treatment evolve. Additionally, the company's strategic 2023 partnership with Fusion Pharmaceuticals strengthens its radiopharmaceutical pipeline for cancer, enhancing its portfolio and accelerating development in high-demand therapeutic areas.

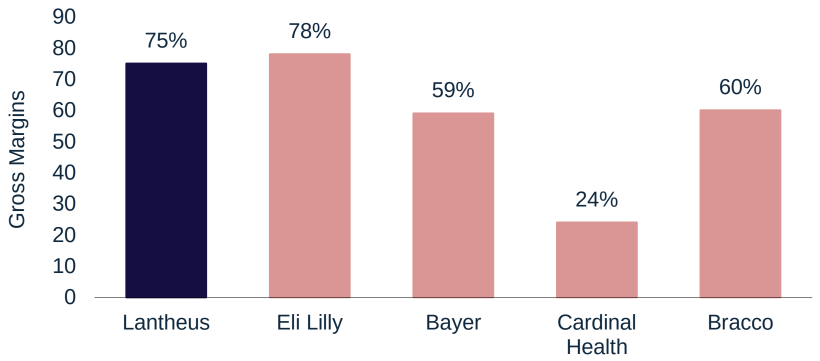
Future growth fueled by platform expansion

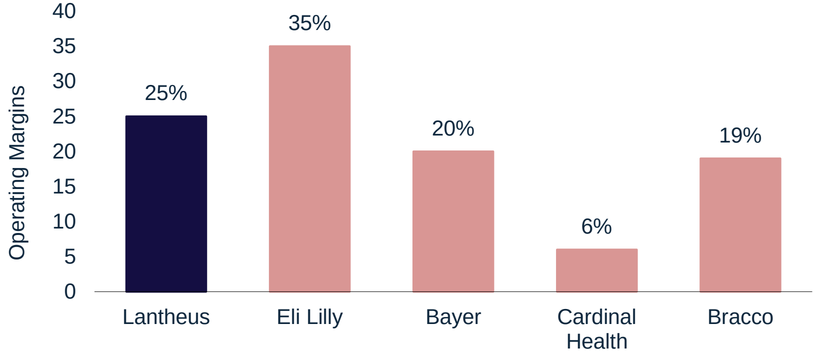
PNT2002	PNT2003
MK-6240	LNTH-1363S

Source: Company Report, CapIQ, BBG, Statista

Investment Thesis 4: Competitive Analysis

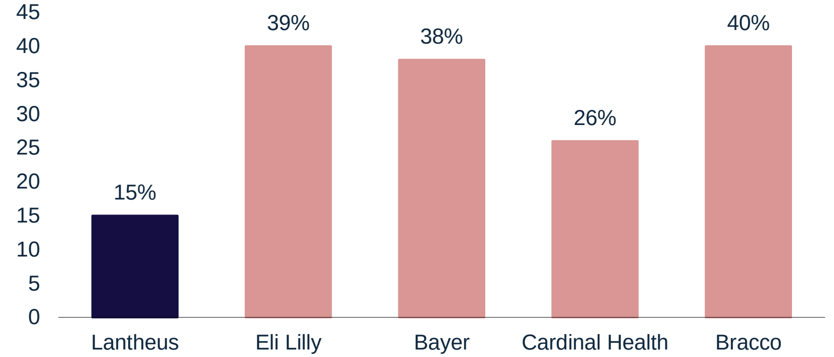
Profitability (2023)



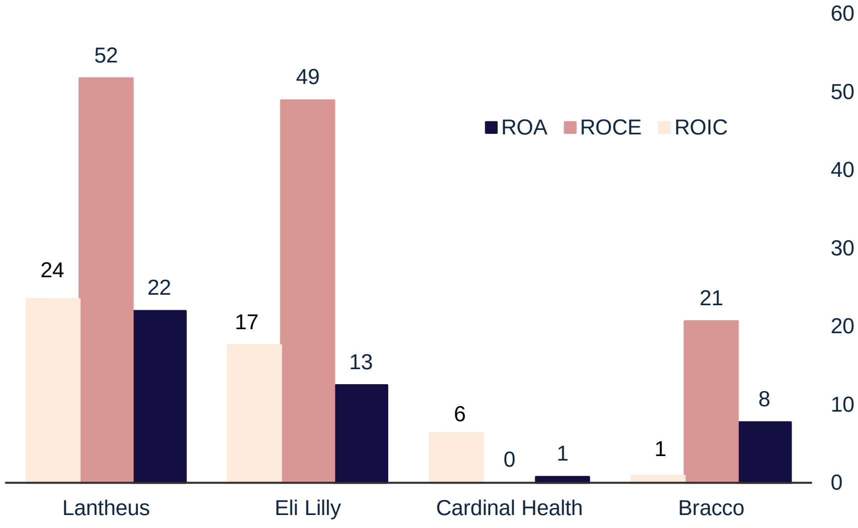


While the gross margins and operating margins of Eli Lilly are higher than those of Lantheus, what differentiates Lantheus is its pure-play radiopharmaceutical focus specializing nuclear medicine manufacturing and distribution, whereas Eli Lilly is a broad pharmaceutical company where radiopharmaceuticals are just one division, with less specialization in nuclear medicine

Debt to Asset Ratio (2023)



Returns Ratios (2023)



Source: Company Report, CapIQ, BBG, Statista

Investment Thesis 4: Competitive Analysis

	Lantheus	Lilly	Bayer	Cardinal Health	Bracco
Revenue & Profitability (2023)	Revenue: $1.3B **Gross Margin: 75%** **Operating Margin: 25%** Net Margin: 15%	Revenue: $33.5B **Gross Margin: 78%** **Operating Margin: 35%** Net Margin: 26%	Revenue: $49.47B **Gross Margin: 59%** **Operating Margin: 20%** Net Margin: 10%	Revenue: $181.7B **Gross Margin: 24%** **Operating Margin: 6%** Net Margin: 4%	Revenue: $1.75B **Gross Margin: 60%** **Operating Margin: 19%** Net Margin: 11%
Debt/ Asset Ratio (2023)	**Debt/Assets: 0.15**	**Debt/Assets: 0.39**	**Debt/Assets: 0.38**	**Debt/Assets: 0.26**	**Debt/Assets: 0.4**
Return Ratios (2023)	**ROA: 21.98%** **ROCE: 51.73%** **ROIC: 23.48%**	**ROA: 12.5%** **ROCE: 48.93** **ROIC: 17.61**	**ROA: -2.44%** **ROCE: -8.20%** **ROIC: -1.64%**	**ROA: 0.76** **ROCE: N/A** **ROIC: 6.36**	**ROA: 7.74%** **ROCE: 20.66%** **ROIC: 0.91%**
Dividend Payout	N/A	80.55%	NA	45%	50%
R&D Expense as % of Revenue (2023)	**12.5%** (focused on radiopharmaceuticals)	**24.8%** (significant R&D investment for new drug development)	**11.4%** (substantial R&D spending across pharmaceuticals and agriculture)	**0.3%** (low R&D spending due to focus on healthcare distribution)	**8.3%** (reasonable investment in diagnostics and imaging)

Source: Company Report, CapIQ, BBG, Statista

Strong Management Team

Management team & expertise

Brian Markison joined the Lantheus Board in 2012, became Chairperson in 2013, and **CEO** in March 2024. He brings over 30 years of experience in the pharmaceutical industry, having held senior roles at Avista Capital Partners, Fougera Pharmaceuticals, King Pharmaceuticals, and Bristol-Myers Squibb.

Paul Blanchfield, **President** of Lantheus since March 2023, oversees commercial, manufacturing, medical, and quality functions. He joined in 2020 as Chief Commercial Officer and has held leadership roles at Takeda, Shire, and McKinsey, with expertise in sales, marketing, strategy, and operations.

Dr. Jeff Humphrey joined Lantheus as **Chief Medical Officer** in May 2024, bringing 30+ years of experience in oncology, neuroscience, and drug development from senior roles at Bayer, Bristol-Myers Squibb, Pfizer, and biotech companies.

Robert J. Marshall Jr. became Lantheus **CFO** in 2018, bringing 30+ years of finance experience from roles at Zimmer Biomet and Brown & Williamson. He specializes in M&A, capital markets, and investor relations.

Source: Company Report, CapIQ, BBG, Statista

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Valuation Assumptions

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	CAGR 2019 - 2023	CAGR 2023 - 2030
Revenue	347	339	425	935	1,296	1,520	1,672	1,823	1,969	2,087	2,212	2,345	*39.0%*	*7.5%*
YoY	0%	-2%	25%	120%	39%	17%	10%	9%	8%	6%	6%	6%		
Gross profit	175	139	188	582	710	974	1,003	1,112	1,220	1,315	1,416	1,501	*41.9%*	*7.5%*
GM	50%	41%	44%	62%	55%	64%	60%	61%	62%	63%	64%	64%		
EBITDA	72	51	-20	87	513	571	585	656	728	793	863	914	*63.6%*	*8.2%*
EBITDA Margin	21%	15%	-5%	9%	40%	38%	35%	36%	37%	38%	39%	39%		
EBIT Margin	18%	11%	-8%	8%	39%	36%	33%	34%	35%	36%	37%	37%		
NIM	19%	11%	-7%	8%	32%	27%	25%	26%	26%	27%	28%	28%		
FCFF	**59**	**3**	**21**	**335**	**692**	**360**	**349**	**375**	**442**	**509**	**578**	**612**	***85.0%***	***9.2%***

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	CAGR 2019 - 2023	CAGR 2023 - 2030
Revenue	347	339	425	935	1,296	1,520	1,703	1,873	2,023	2,164	2,294	2,432	*39.0%*	*8.1%*
YoY	0%	-2%	25%	120%	39%	17%	12%	10%	8%	7%	6%	6%		
Gross profit	175	139	188	582	710	974	1,056	1,161	1,254	1,364	1,468	1,556	*41.9%*	*8.1%*
GM	50%	41%	44%	62%	55%	64%	62%	62%	62%	63%	64%	64%		
EBITDA	72	51	-20	87	513	571	647	730	809	866	918	973	*63.6%*	*9.3%*
EBITDA Margin	21%	15%	-5%	9%	40%	38%	38%	39%	40%	40%	40%	40%		
EBIT Margin	18%	11%	-8%	8%	39%	36%	36%	37%	38%	38%	38%	38%		
NIM	19%	11%	-7%	8%	32%	27%	27%	28%	29%	29%	29%	29%		
FCFF	**59**	**3**	**21**	**335**	**692**	**360**	**393**	**428**	**500**	**561**	**618**	**654**	***85.0%***	***10.5%***

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	CAGR 2019 - 2023	CAGR 2023 - 2030
Revenue	347	339	425	935	1,296	1,520	1,627	1,740	1,845	1,937	2,015	2,095	*39.0%*	*5.5%*
YoY	0%	-2%	25%	120%	39%	17%	7%	7%	6%	5%	4%	4%		
Gross profit	175	139	188	582	710	974	927	992	1,070	1,143	1,209	1,257	*41.9%*	*4.3%*
GM	50%	41%	44%	62%	55%	64%	57%	57%	58%	59%	60%	60%		
EBITDA	72	51	-20	87	513	571	521	557	609	659	685	712	*63.6%*	*3.8%*
EBITDA Margin	21%	15%	-5%	9%	40%	38%	32%	32%	33%	34%	34%	34%		
EBIT Margin	18%	11%	-8%	8%	39%	36%	30%	30%	31%	32%	32%	32%		
NIM	19%	11%	-7%	8%	32%	27%	23%	23%	23%	24%	24%	24%		
FCFF	**59**	**3**	**21**	**335**	**692**	**360**	**303**	**305**	**358**	**414**	**450**	**467**	***85.0%***	***4.4%***

Source: Company Report, CapIQ, BBG, Statista

Valuation Outcome Summary Table

	Base case	Upside case	Downside case
Cumulative free cashflows	1,694	1,865	1,347
Terminal Year EBITDA	914	973	712
Exit Multiple	**10x**	**11x**	**9x**
Terminal Value	**9,144**	**10,214**	**6,055**
Present Value of Terminal Value	**5,678**	**6,342**	**3,760**
% of Enterprise Value	*77%*	*77%*	*74%*
Enterprise Value	**7,372**	**8,207**	**5,106**
Less: Total Debt	-616	-616	-616
Plus: Cash and Cash Equivalents	713	713	713
Implied Equity Value	**7,469**	**8,304**	**5,205**
Implied share price	**144**	**160**	**100**
Percentage return	**71%**	**90%**	**19%**

Source: Company Report, CapIQ, BBG, Statista

Scenario Analysis

Share Price					
	Exit Multiple				
WACC	9.0x	9.5x	10.0x	10.5x	11.0x
9.0%	139	144	150	156	161
9.5%	136	141	147	152	158
10.0%	133	138	**144**	149	155
10.5%	130	135	141	146	151
11.0%	127	132	138	143	148

Percentage return					
	Exit Multiple				
WACC	9.0x	9.5x	10.0x	10.5x	11.0x
9.0%	65%	72%	79%	85%	92%
9.5%	61%	68%	75%	81%	88%
10.0%	58%	65%	**71%**	77%	84%
10.5%	55%	61%	67%	74%	80%
11.0%	52%	58%	64%	70%	76%

Source: Company Report, CapIQ, BBG, Statista

Drivers of Current Low Valuation and Counter Market View

Capital Allocation / Dividend Policy

Risk

The firm is pausing dividends and share repurchases to invest heavily in R&D, a move that some market players may view as a weak strategy.

Counterview

Reinvestment in Growth:
Lantheus retains earnings to reinvest in R&D, acquisitions, and portfolio expansion, fueling long-term growth.
Focus on Value Creation:
The no dividend policy prioritizes high return initiatives, potentially leading to higher stock value for shareholders.
Strengthening Financial Position:
By not paying dividends, Lantheus can strengthen its balance sheet, maintaining a solid cash position to support future investments, navigate market volatility, and fuel strategic expansion

Competition Risk

Risk

Lantheus faces strong competition from several key players in the fields of radiopharmaceuticals, molecular imaging, and oncology diagnostics, such as Eli Lilly, Bayer, Cardinal, Bracco, etc

Counterview

Innovative Product Portfolio: Lantheus' leading radiopharmaceutical products like Pylarify and Pluvicto provide a competitive edge in oncology diagnostics and therapy, with differentiated technologies that are hard to replicate.
Leadership in Niche Markets: Lantheus has established a strong presence in niche markets like Alzheimer's diagnostics and targeted radioligand therapies, positioning itself ahead of emerging competitors.
Strategic Partnerships: Collaborations with Fusion Pharmaceuticals, POINT Biopharma, and acquisitions like RM2 and NAV-4694 enhance Lantheus' market position and technology.

Regulatory Risk

Risk

Lantheus depends on the regulatory approval of its products. Delays or failures in FDA or global regulatory approvals could negatively impact Lantheus' business and stock performance. Changes in Regulations: Shifts in regulatory policies could disrupt approval timelines, market access

Counterview

Successful FDA Approval Track Record:
Lantheus has already demonstrated success in getting regulatory approvals for some of its key products (e.g., *PyL*, a prostate cancer imaging agent). In addition to this track record, Lantheus has a deep understanding of regulatory processes, which can help expedite approval timelines for future products.
Increasing Focus on Diagnostics:
The growing emphasis on precision medicine and diagnostic tools, particularly in oncology and cardiology, could lead to more favorable regulatory environments for companies like Lantheus that are focused on innovative diagnostic solutions.

Heavy R&D expenditure

Risk

Recently, Lantheus' stock price declined due to concerns over heavy R&D expenses, as the company invests significantly in expanding its pipeline of radiopharmaceuticals and targeted therapies. While crucial for long-term growth, these high costs raise concerns about short-term profitability, especially if pipeline candidates face delays or failures.

Counterview

Market Leadership: By investing heavily in radiopharmaceuticals and precision diagnostics, Lantheus is solidifying its leadership in the rapidly growing field of targeted therapies, which can provide substantial competitive advantages and higher margins in the future.
Proven Track Record of Success: Lantheus has a history of successfully bringing products to market, such as PyL and Pluvicto, and its ongoing R&D investments increase the likelihood of replicating past successes, thereby enhancing long-term investor confidence despite short-term cost concerns.
Long-term Growth Potential: Lantheus' significant R&D investments are aimed at expanding its pipeline of innovative products, which positions it for strong growth in high-demand markets over the long term.

Source: Company Report, CapIQ, BBG, Statista

Appendix

Appendix 1: Key Drivers of Industry Growth

Radiopharmaceuticals

Clinical Needs and Disease Trends:
- Rising cancer cases requiring targeted therapy
- Growing need for precision medicine
- Increasing adoption of theranostic approach
- Expansion into new disease areas beyond cancer

Treatment Advantages:
- Higher precision in targeting diseased cells
- Reduced side effects compared to traditional treatments
- Ability to treat metastatic diseases
- Dual diagnostic-therapeutic capabilities

Market Development:
- Expanding reimbursement coverage
- Growing number of nuclear medicine facilities
- Increasing physician adoption
- Rising healthcare expenditure

Infrastructure Growth:
- Expansion of radiopharmacy networks
- Investment in production facilities
- Development of distribution systems
- Growing nuclear medicine expertise

Regulatory Environment:
- Supportive FDA approval pathway
- Increasing clinical trial activity
- Growing acceptance as standard of care
- Patent protection for new developments

Precision Diagnostics

Demographics & Disease Patterns:
- Aging population requiring more diagnostic procedures
- Rising cancer incidence rates globally
- Increasing chronic disease prevalence
- Growing emphasis on early detection

Technological Advancement:
- Improved imaging technologies (PET/CT, SPECT)
- Better radiotracer development
- More precise targeting mechanisms
- Advanced data analytics and AI integration

Healthcare Trends:
- Shift toward personalized medicine
- Focus on early diagnosis to reduce treatment costs
- Growing adoption of molecular imaging
- Increasing preference for non-invasive diagnostics

Market Access:
- Expanding insurance coverage
- Growing number of imaging centers
- Increased Medicare/Medicaid reimbursement
- Rising healthcare spending in emerging markets

Clinical Practice Evolution:
- Guidelines favoring advanced diagnostic tools
- Integration of diagnostics in treatment planning
- Growing acceptance of theranostics approach
- Increased use in treatment monitoring

Source: Company Report, CapIQ, BBG, Statista

Appendix 2: Business Expansion

Market Leadership and Sustainable growth

Leadership in Oncology Imaging & Radiopharmaceuticals:

- Pylarify and Pluvicto are driving growth in prostate cancer diagnostics and radioligand therapy. As demand for precision oncology rises, expanded clinical uses and combination therapies will boost their market reach and revenue.

Expansion of Radioligand Therapy (RLT):

- Lantheus is expanding its RLT capabilities, using radioactive isotopes for targeted cancer treatment. With this rapidly growing field, Lantheus is well-positioned to capitalize on new theranostic opportunities.

Global Market Expansion:

- Lantheus is expanding globally, focusing on high-growth markets like China, Japan, and Latin America. With products like Pylarify®, Pluvicto™, and Definity® gaining regulatory approval, strategic partnerships will drive increased international revenue.

Innovative neurology diagnostics:

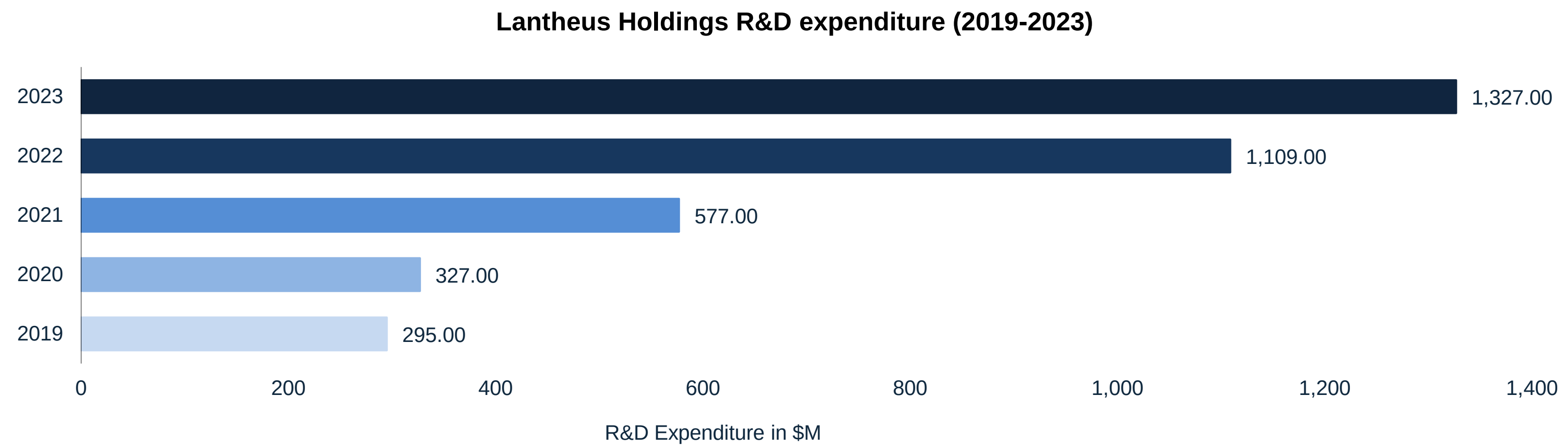
- Lantheus' Flurpiridaz PET imaging agent positions it to capitalize on the growing neurological diagnostics market, with its Alzheimer's portfolio driving future growth as diagnosis and treatment evolve.

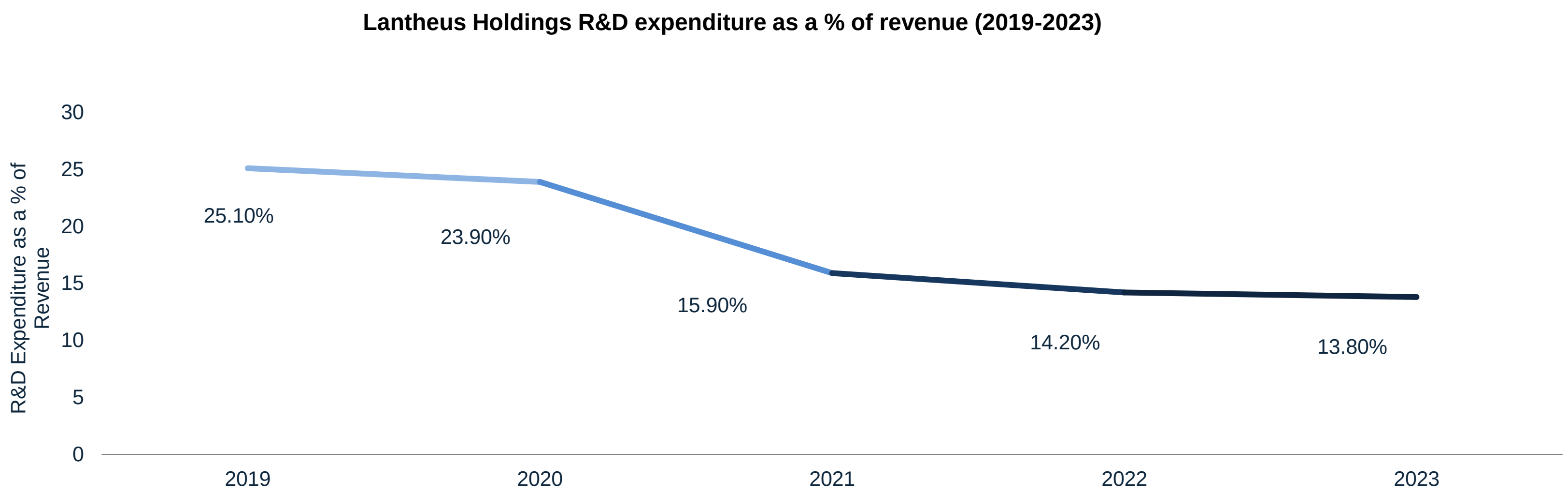
Strategic Partnerships:

- Lantheus' 2023 partnership with Fusion Pharmaceuticals expands its radiopharmaceutical pipeline for cancer, enhancing its portfolio and accelerating development in high-demand therapeutic areas.

Source: Company Report, CapIQ, BBG, Statista

Appendix 3: R&D Expenditure





Source: Company Report, CapIQ, BBG, Statista

Appendix 4: Lantheus' Patents

In addition to the patents mentioned in the aforesaid slides, Lantheus also owns the below patents:

- PYLARIFY AI: U.S. Patents and pending patent applications worldwide relating to automated medical image analysis, have expiration ranging from2037 to 2041.
- Other Nuclear Products: Neither CARDIOLITE nor NEUROLITE is covered any longer by patent protection in either the U.S. or the rest of the world. Lantheus has patent protection in the U.S. that expires in October 2035 for an improved container for Xenon, and is pursuing similar patent protection outside the U.S.
- aBSI: Lantheus owns patents relating to automated detection of bone cancer metastases. The patents on this technology expire in the U.S. in 2032 and outside of the U.S. in 2028. Further, it owns a U.S. patent and has patent applications that are pending in the U.S. and worldwide relating to aBSI improvements which have expiration ranging from 2040 to 2041.
- Flurpiridaz: Lantheus owns patents and patent applications in numerous jurisdictions covering composition, use, formulation and manufacturing, including in the U.S. a composition of matter patent expiring in 2026, a formulation patent expiring in 2032, a method-of-use patent expiring in 2028, and manufacturing-related patents expiring in 2031 and 2033, and various patent applications, some of which, if granted, will expire in 2033.
- PNT2002: Lantheus owns license granted U.S. patents and pending U.S. patent applications as well as pending patent applications in jurisdictions outside of the U.S. directed to formulations, use and manufacturing of PNT2002. The granted U.S. patents expire in 2041.
- PNT2003: Lantheus owns license pending U.S. patent applications as well as pending patent applications in jurisdictions outside of the U.S. directed to formulations, use and manufacturing of PNT2003 which, if granted, would expire in 2041.
- MK-6240: Lantheus owns license patents directed to composition of matter and methods of use of MK-6240 which expire in 2035.
- 1095: Lantheus owns patents relating to 1095, with the composition of matter patent as well as radiolabeled forms patent in the U.S. and Europe expiring in 2027. Additional U.S. patents that we own for stable compositions and radiolabeling processes expire, respectively, in 2030 and 2031.
- LNTH-1363S: Lantheus owns license patent applications directed to compositions of matter and methods of use of LNTH-1363S. If granted, the last patent will expire in 2043.

Source: Company Report, CapIQ, BBG, Statista

Thank You

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

December 5th, 2024

Universe Pitch

Team Number: 13

Students: Chad Pinter, Jiajin (Fiona) Sun, Jonathan Morales

NYSE: TPR

LONG – TP $73.9

(48.6% upside)

Table of Contents

Executive Summary

Recommendation: Long Tapestry (NYSE: TPR), mother company of Coach, Kate Spade and Stuart Weitzman based on its great demand from younger generation, consistent operating margin expansion and relative low PE compared with peers (FY24 P/E 10.0x vs industry average above 18x). FY25E revenue of $6.8 billion and EBITDA of 1.4 billion.

Core Thesis:

Thesis #1: Accelerating Growth

The market undervalues TPR's (Coach's) growth potential, which is fueled by **its ability to reinvent classic bags for younger consumers** and its successful **digital transformation**. Coach has leveraged its iconic Tabby bag to become a must-have among Gen Z and Millennials, evidenced by surging search trends, increased consumer engagement, and strong pricing power.

Thesis #2: Margin Expansion

TPR achieved a record 32.4% operating margin in FY24, driven by **Coach's leadership (75% of revenue and 95% of segment income) and a 15-year-high gross margin of 76.1% (+330bps Y/Y)**. The company has clear whitespace for further margin expansion, supported by AUR growth of 30-40% versus pre-pandemic levels, compared to luxury's +50% on higher absolute prices.

Thesis #3: Capital Allocation

TPR's **$2.8B share repurchase program** accelerates value creation, supported by a strong FCF conversion of ~75%, far exceeding industry peers (~45%). Terminating the Capri acquisition frees up resources, allowing TPR to redeem $6.1B in senior notes while maintaining leverage below 2.5x. Additionally, TPR is considering selling Stuart Weitzman (4% of revenue), which has struggled with declining revenues and operating losses, to focus on core brands like Coach and Kate Spade.

Modeling/Valuation:

Base Case Assumptions: Revenue grows **2.5% Y/Y** in FY25 (+1.6% vs. consensus), primarily driven by Coach's strong demand and continued brand/new product momentum. Operating margin expands to **17.6%,** supported by AUR growth potential, which enhances pricing power and stable SG&A expenses as major transformations (e.g., digital upgrades) are complete. Assumes a P/E of **13.2x** to align with the industry average (18.4x). This results in an implied share price target of **$73.9** for an upside of **48.6%.**

Conclusion:

Our Analysis projects stronger-than-expected EPS growth in 2025-2027. Base case: **3-year price target of $97.6 (96% upside), implying ~25% IRR from current share price of $49.76.**

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Industry and Competition

Handbags and SLGs Industry: A over $100Billion Resilient Market with 8.6% CAGR Over Two Decades

Industry TAM and CAGR

- The global handbags, small leather goods (SLGs), and footwear market is a resilient and durable industry **($105B in 2023),** consistently growing at a mid-single-digit **CAGR (+5%)** over the past 23 years (2000–2023), even through economic downturns. Within this, the core category of **handbags and SLGs** has outpaced the broader market, achieving an impressive **+8.6% CAGR over the same period.**

Growth Driver and TPR Performance

- The handbags and SLGs category fulfills both **emotional and functional needs** for consumers, catering to diverse use cases such as travel, work, events, and daily activities. While near-term growth has softened to low-single-digits in FY24, partly due to regional challenges like Greater China, **Coach outperformed the industry with +4% c/c revenue growth**. This success was driven by **product innovation, compelling brand storytelling, and strong execution**, positioning it as a leader in the accessible luxury space.

TPR: Industry Leader with Better Margin

Global Handbags, SLGs & Footwear Market Growth of 5% Over Past 20+ Years

11/22/24	Market Data		Financial Data					
	Market Cap	EV	Sales	Gross Margin	EBITDA	EBITDA	Net Margin
Company Name	($M)	($M)	($M)	Margin (%)	($M)	Margin (%)	Margin (%)
Tapestry	14,302	14,308	6,666	71.5%	1,600	24.0%	12.1%
Apparel and Accessory Products							
Ralph Lauren A	13,514	12,969	6,740	64.1%	1,081	16.0%	10.1%
Capri Holdings	2,486	4,005	4,796	60.2%	359	7.5%	-7.4%
lululemon athletica	39,077	37,467	9,989	58.5%	2,823	28.3%	16.3%
Skechers	9,510	9,225	8,718	50.8%	1,073	12.3%	7.2%
VF	8,023	13,773	10,017	52.4%	831	8.3%	-5.2%
Deckers Outdoor	29,362	28,137	4,661	55.7%	1,151	24.7%	18.8%
Crocs	6,293	7,529	4,072	58.1%	1,106	27.2%	20.5%
PVH	5,961	7,563	8,879	59.4%	1,279	14.4%	8.4%
Kontoor Brands	5,244	5,723	2,580	43.9%	377	14.6%	9.7%
Average				57.5%		17.7%	9.1%
Median				58.3%		15.3%	9.9%

Source: Factset, Tegus, Company Materials

Tapestry (NYSE: TPR) Company Overview

Tapestry, Inc. (TPR) is a global leader in accessible luxury, bringing together brands like Coach, Kate Spade, and Stuart Weitzman to deliver stylish, high-quality products loved by consumers worldwide

Company Description

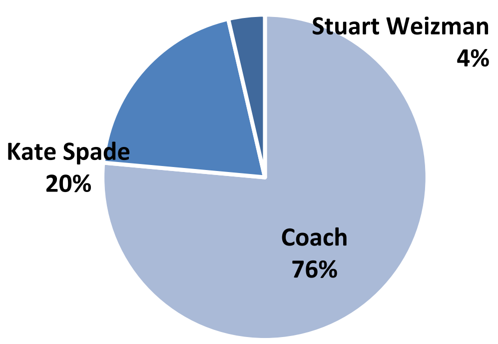
- Tapestry, Inc. (TPR) is a global leader in accessible luxury, driven by its flagship **Coach** brand **(76% of revenue),** alongside Kate Spade and Stuart Weitzman.
- The company generates 58% of its revenue from stores (1429 stores globally) and **29%** from digital channels (growth from 10% in 2019), with a strong geographic presence in North America (65%) and Greater China (15%).
- With FY24 revenue of $**6.1 billion, a 17.1% operating margin**, and a low **P/E ratio of 10.0**x, TPR demonstrates operational efficiency and significant growth potential in key markets.

Key Financials and Trading Statistics

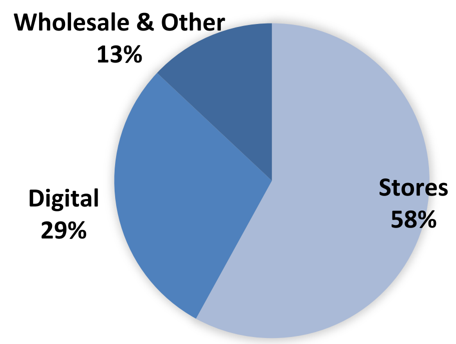
Data as of 11/24/2024				
Ticker	TPR			
Current Price ($)	58.92		52W High/Low ($)	59.69/30.2
Fully Diluted Shares (mm)	235.9		Average Volume (mm)	4.08
Market Capitalization (mm)	14,301.90		Beta	1.09
Enterprise Value (mm)	14,308.40		Float (%)	99.64%
FY24 GM (%)	73%		Short Interest (%)	2.19%
FY24 EBITDA (mm)	1,509.90		EV/24 EBITDA (X)	9.5x
FY24 Operating Margin (%)	17.09%		FY24 PE (X)	10.0x
FY24 EPS ($)	4.29		FY24 ROE (%)	38.7%

Revenue Segmentation

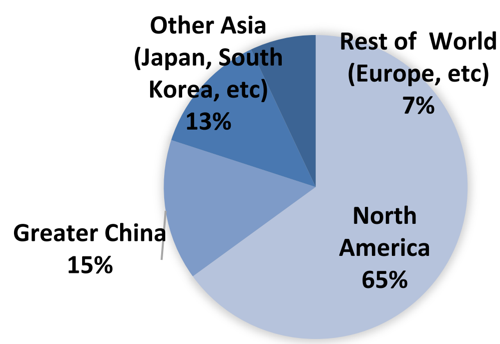
Revenue by Brand



Revenue by Channel



Revenue by Geography



Source: Tegus, Coach website

Base Case Financials vs Consensus

The base case assumes stronger revenue growth, margin expansion, and EPS growth driven by stock buybacks, supported by TPR's solid fundamentals and robust consumer demand

Data as of 11/7/2024	
Ticker	TPR
Share Price	49.76
Fully Diluted Shares (mm)	235.9
Market Capitalization	11718
Enterprise Value	12414
Average Trading Volume (mm)	2.83
Free Float (mm)	220
Short Interest	2.18%

Commentary:

- **Revenue Growth:** The base case projects revenue growth **exceeding consensus expectations (+1.6% to +3.1%)**, driven by coach's refreshed brand image and strong consumer momentum, particularly among Gen Z.
- **Margin Expansion:** The base case operating margin surpasses consensus by **18-43bps**, reflecting TPR's focus on **maximizing AUR growth potential** while maintaining **relatively flat SG&A expenses**. This efficiency is enabled by completing major transformations, including digital upgrades and product launches, allowing the company to scale without significant cost increases.
- **EPS Growth:** EPS projections in the base case outperform **consensus by 62-110bps**, supported by **TPR's $2.8 billion share repurchase plan**, which reduces outstanding shares, and the potential for a **dividend increase**, signaling confidence in the company's cash flow strength.

	Historical				Base Case			Consensus			% Delta vs Consensus		
FY	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2025**	**2026**	**2027**	**2025**	**2026**	**2027**
Total Revenue	5746.3	6684.5	6660.9	6671.2	6838.0	7248.3	7683.2	6728.5	7018.4	7399.5			
% growth	15.8%	16.3%	-0.4%	0.2%	**2.5%**	**6.0%**	**8.5%**	0.9%	4.3%	5.4%	**1.6%**	**1.7%**	**3.1%**
Gross Profit	4081.9	4650.4	4714.9	4889.5	4967.1	5180.8	5473.3	4967.1	5180.8	5473.3	bps vs Consensus		
% of Revenue	71.0%	69.6%	70.8%	73.3%	**74.0%**	**74.2%**	**74.4%**	73.8%	73.8%	74.0%	**18bps**	**38bps**	**43bps**
Total SG&A	3113.9	3474.6	3542.5	3749.4	3842.9	4088.0	4333.3	3785.3	3974.8	4193.7	bps vs Consensus		
% of Revenue	54.2%	52.0%	53.2%	56.2%	**56.2%**	**56.4%**	**56.4%**	56.3%	56.6%	56.7%	**(6bps)**	**(23bps)**	**(28bps)**
Operating Income	968.0	1175.8	1172.4	1140.1	1203.5	1275.7	1367.6	1181.8	1206.0	1279.5	bps vs Consensus		
% of Revenue	16.8%	17.6%	17.6%	17.1%	**17.6%**	**17.6%**	**17.8%**	17.6%	17.2%	17.3%	**0bps**	**42bps**	**51bps**
FCF	1207.7	759.3	791.0	1146.7	1230.8	652.3	691.5	1143.4	623.3	798.1			
% of Revenue	21.0%	11.4%	11.9%	17.2%	**18.0%**	**9.0%**	**9.0%**	17.0%	8.9%	10.8%	**1.0%**	**0.1%**	**-1.8%**
EPS	2.97	3.47	3.88	4.29	**4.90**	**5.30**	**5.60**	4.28	4.20	4.50	**62bps**	**110bps**	**110bps**

Source: Tegus, Coach website

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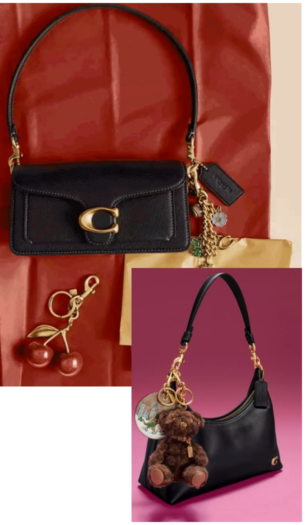
Investment Thesis – Accelerating Growth

Thesis #1: The market undervalues TPR (Coach)'s growth potential, indicated by its ability to reinvent a series of classic bags for younger consumers and its successful digital transformation.



Coach's climb to become the favourite handbag brand of US female teens

Female respondents who named the handbag brand as their favourite

FALL 2020			FALL 2021			FALL 2022			FALL 2023		
1	Louis Vuitton	19%	1	Michael Kors	18%	1	Coach	18%	1	Coach	19%
2	Michael Kors	18%	2	Louis Vuitton	16%	2	Michael Kors	13%	2	Louis Vuitton	11%
3	Coach	13%	3	Coach	14%	3	Louis Vuitton	13%	3	Kate Spade	10%
4	Kate Spade	12%	4	Kate Spade	12%	4	Kate Spade	11%	4	Michael Kors	8%
5	Gucci	6%	5	Gucci	6%	5	Chanel	5%	5	Chanel	6%
6	Chanel	5%	6	Chanel	5%	6	Gucci	5%	6	Lululemon	5%
7	Vera Bradley	3%	7	Prada	3%	7	Prada	4%	7	Marc Jacobs	4%
8	Prada	3%	8	Vera Bradley	2%	8	Marc Jacobs	3%	8	Gucci	4%
9	Steve Madden	1%	9	Nike	2%	9	Lululemon	2%	9	Prada	3%
10	Target	1%	10	Dior	1%	10	Vera Bradley	2%	10	Dior	3%

($ in millions)	2021F	2022F	2023F	2024F	CAGR ('21-'24)	2025FE (Street)	2026FE (Street)
Coach Sales	$4253	$4921	$4960	$5095		*$5140*	*$5273*
Sales Growth, %	20.6%	15.7%	0.8%	2.7%	***7.5%***	***0.9%***	***2.6%***
Coach Op. Income	$1346	$1481	$1530	$1651		*$1657*	*$1710*
Operating Income, %	*31.6%*	*30.1%*	*30.8%*	*32.4%*	*31.2%*	*32.2%*	*32.4%*

($ in millions)	2019A	2020A	2021A	2022A
TPR Online Sales	**$602.7**	**$744.2**	**$1715.8**	**$2005.9**
Online Sales, %	**10.0%**	**15.0%**	**29.9%**	**30.0%**
Online Sales Growth,%		**23.5%**	**130.6%**	**16.9%**

<u>From 'Mom's Bag' to Must-Have: Coach's Tabby Becomes the Ultimate IT Bag:</u>

- **Relaunch of Classics:** The Tabby bag has become a cult favorite since its official relaunch in 2019. The #CoachTabby hashtag has garnered over **23 million views** on TikTok. Searches for Coach's Tabby bag in the U.S. soared after its push in 2021, with average monthly search volumes increasing from under **5,000 in early 2021 to over 15,000 by 2023, peaking at nearly 20,000 in 2024.**
- **Most wanted brand among Genz**: By mid-2022, Coach became **the number one favorite handbag brand among U.S. female teens**, maintaining this position through 2023 with a growing share of preference. In FY2025 Q1, TPR acquired over **1.4M** new customers in North America across all brands (w/ **over 50% Millennials & Gen-Z** = high LTV potential).

<u>Coach's Playbook: From Tabby to Triumph – Replicating Success Across Collections and Eyeing Kate Spade's Transformation Next</u>

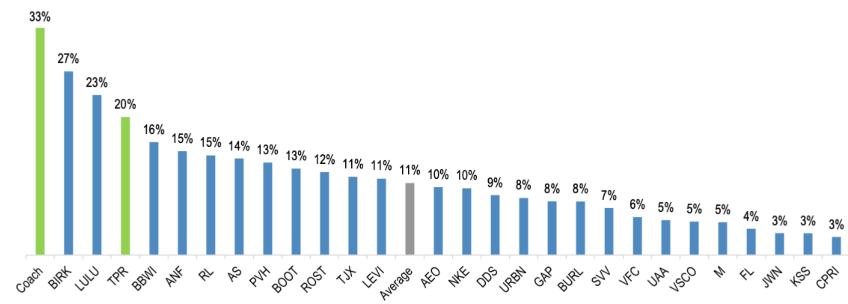
- **New York Series' early success signals:** Coach President & CEO T. Khan stated "in my almost 17 years at Coach, I have never seen consumer demand for a new collection as I've seen for the New York (Brooklyn & Empire) collection, with **literally tens of thousands of clients registering at stores and online** to quote notify them when a particular color wave or size is back in stock. And the best part is we are not seeing the New York collection cannibalize the demand for our Tabby family."
- **Digital Transformation:** TPR's digital sales surged from **10% in 2019 to 30% by 2021**, driven by its strategic investments in data, digital marketing, and social media, solidifying its appeal to younger, digital-savvy consumers.

Source: Tegus, Coach website, Trendalytics

Investment Thesis – Margin Expansion

Thesis #2: Coach Achieves Record 32.4% Operating Margin in FY24, Poised for Further Expansion with AUR Growth Momentum

Figure 1: Operating Margin Profiles Across Our Coverage



Source: J.P. Morgan estimates, Company data.

($ in millions)	2021F	2022F	2023F	2024F	CAGR ('21-'24)	2025FE (Street)	2026FE (Street)
Coach GPM, %	73.8%	72.2%	73.5%	76.1%		*76.8%*	*77.0%*
Change Y/Y, bps	369	(164)	141	253	*94*	***75***	***20***
Coach Operating Margin, %	31.7%	30.1%	30.8%	32.4%		*32.2%*	*32.4%*
Change Y/Y, bps	*933*	*(157)*	*76*	*156*	*82*	*(17)*	*19*
Average Sales per store	*$4460*	*$5199*	*$5252*	*$5436*		*$5571*	*$5676*
Change YOY, %	*24%*	*16.4%*	*1.0%*	*3.5%*	*8.3%*	*2.5%*	*1.9%*

<u>Consistent Margin Expansion and achieved Record-breaking margins in FY2024</u>

- **Operating Margin Ranked No.1 among peers:** TPR's portfolio is led by Coach brand (at ~75% of segment revenue & **~95% of segment operating income**), with Coach growing revenues +4% c/c in FY24, outpacing softer industry growth TTM on adj. operating margins of **32.4%** (more than **double the average ~15%** Global Brands' margin, ranked **No.1** among peers.
- **Record-breaking GPM exceeding street's estimate:** In FY2024, coach achieved a 15-year high gross margin of 76.1%, reflecting **a +253bps** expansion, significantly surpassing the Street's **+120bps Y/Y estimate**.

<u>Clear White Space to Further improve GPM and Operating margin:</u>

- **AUR Growth Potential:** Coach has a clear whitespace to grow further, leveraging its **widened pricing gap** relative to traditional luxury brands, with AURs up **30-40%** versus pre-pandemic levels compared to luxury's **+50%** on higher absolute price bases.
- **Operating Margin Growth Potential:** Coach's FY25 guidance projects a **+60-80bps Y/Y gros**s margin expansion, reflecting management's prudent and conservative planning. However, with **+180bps Y/Y** of operational gross margin expansion already realized in **1Q**, there is clear upside potential beyond the current guidance.
- **Conservative SG&A plan:** Digital transformation, including infrastructure and platform investments, is largely complete, with 30% digital revenue and data analytics driving efficiency. SG&A growth is expected to align with revenue growth. Importantly, management expects 2H EBIT margin expansion to be primarily driven by SG&A leverage because their proactive investment continuously contributes to **share growth** globally.

Source: Tegus, Coach website, JPM report

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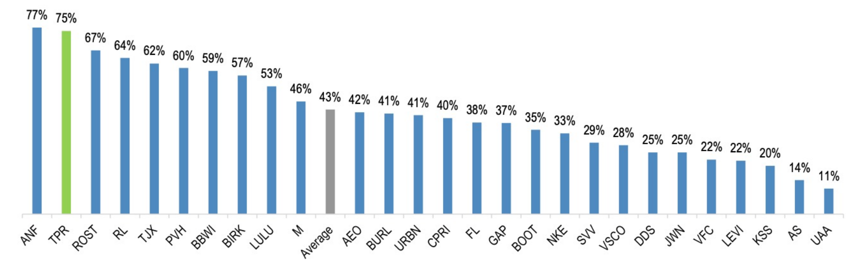
Investment Thesis – Capital Allocation

Thesis #3: TPR's $2B buyback accelerates value creation, driven by strong FCF, EPS accretion

Figure 2: FCF Conversion Profiles Across Our Coverage



Source: J.P. Morgan estimates, Company data.

($ in millions)	2021F	2022F	2023F	2024F	2025F (Street)	2026FE (Street)
Adj. EBITDA	$1378.1	$1486.1	$1433.4	$1509.9	*$1439.7*	*$1458.5*
Adj. Net Income	$841.1	$936.5	$936 $	1000.2	*$1008.6*	*989.8*
Adj EPS	$2.97	$3.47	$3.88	$4.29	*$4.28*	*$4.2*
Operating Cash Flow after WC	$1323.7	$853.2	$975.2	$1255.6	*$1334*	*$1023.3*
FCF	*$1207.7*	*$759.3*	*$791.0*	*$1146.7*	*$1143.3*	*$623.3*
Dividend	-	*264.4*	*283.3*	*321.4*	*326.1*	*326.4*
Dividend per share	-	*$1.0*	*$1.2*	*$1.4*	*$1.4*	*$1.4*
P/E- EOP	*14.4X*	*8.9X*	*11.0X*	*10.0X*	*11.6X*	*11.8X*
Net Debt/ EBITDA	*1.0X*	*1.6X*	*1.8X*	*1.0X*	*0.5X*	*0.3X*
ROE	*30.4%*	*33.8%*	*41.0%*	*38.7%*	*30.9%*	*24.8%*

Balance Sheet:

- **Strong FCF Conversion:** TPR **FCF reached 1.1 Billion in FY2024.** TPR's outstanding ~**75% FCF conversion**, ranking second only to ANF and **far exceeding peers (~45%**).
- **M&A and Leverage:**

1. **Terminate acquisition agreement with CPRI:** On Nov. 14th, 2024, TPR announced the termination of the $8.5 billion acquisition of Capri (Michael Kors' Parent company) due to **antitrust concerns** by the Federal Trade Commission. The company will **redeem $6.1 billion** in senior notes tied to the planned acquisition at **101% of their principal and control leverage ratio below 2.5x.**
2. **Potential Sale of Stuart Weitzman to focus on handbags:** Stuart Weitzman accounts for **4% of TPR revenue**. Its CEO departed in October. Acquired for $530M in 2015, Stuart Weitzman's revenue declined from $313M in 2014 to $242M in FY24, and it had an operating loss of $21M.

Share Repurchase Program:

- **Accelerated Share Repurchase Program:** On November 14, 2024, TPR announced an additional **$2 billion share repurchase** authorization in response to the terminated acquisition, bringing the total available for buybacks to **$2.8 billi**on, including $800 million from the prior approval. If TPR executes a **$1 billion ASR in F2Q**, we estimate EPS accretion of **~$0.60-0.62 for FY25 ($4.85-4.90 vs. current consensus of $4.28 and management's $4.50-4.55 guidance).** Additionally, every incremental $1 billion in annual buybacks could add ~$0.40-0.45 to EPS, supported by $1.3 billion in average FCF generation over FY25-27, leaving ~$900 million in excess cash after dividends.
- **Dividend:** TPR has consistently paid dividends since 2010, except in 2021 due to COVID. From FY2017 to FY2020, it averaged **$383M** annually in dividends, equivalent to **$1.35/share**. In FY2024, TPR paid **$321M in dividends at $1.40/share**. For FY2025, the company plans to maintain its **$1.40/share.** But possibility of issuing dividend back to historical 380M **($1.6/Share)** is supported by its strong FCF.

Source: Tegus, Coach website, JPM report

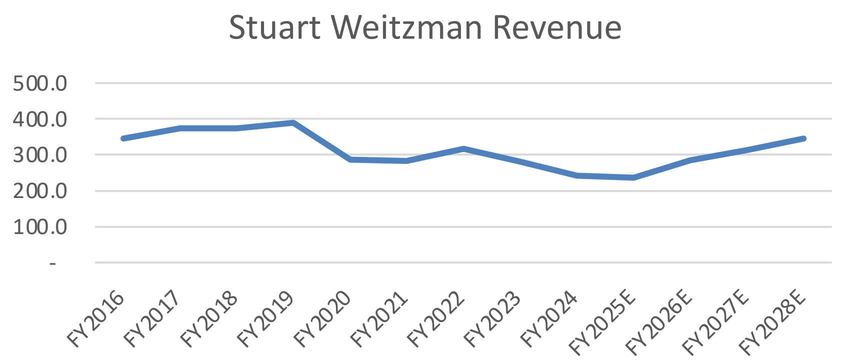
Investment Thesis – Capital Allocation

Thesis #3: Strategic Divestiture possibility: Tapestry focuses on core segments and target market recovery, deciding to divest the underperforming Stuart Weitzman brand

Stuart Weitzman Backdrop

Performance Challenges

- Giorgio Sarné, who served as CEO of Stuart Weitzman for four years, departed the company in September 2024. His tenure at Stuart Weitzman was marked by challenges, including efforts to integrate the brand within Tapestry's portfolio and to revitalize its market performance. Despite these efforts, **the brand continued to underperform**, leading to strategic considerations by Tapestry regarding its future.
- Consensus expects revenues to only reach 2016 levels by 2028.



Potential Divestment

Capital Allocation

- Recently authorized a $2.8 billion share repurchase program, including a $2.0 billion Accelerated Share Repurchase (ASR) agreement. **Divesting underperforming assets like Stuart Weitzman could provide additional capital** to further support and potentially expand these buyback initiatives, enhancing shareholder value.

Multiples Expansion

- Divestment provides analysts with a clearer and more focused growth narrative for its core brands, potentially driving multiple expansion through increased confidence in consistent performance and profitability.

Future Simplification

- The divestiture simplifies Tapestry's business model, potentially aiding future regulatory approvals if acquisitions are pursued.

Source: Tegus, Company Press Release, Yahoo Finance

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Financials: Case Summary

Base Case assumes Steady Growth and Margin Expansion, with a 1-year % upside reaching 48.6%

	Historical				Base Case			CAGR
FY	2021	2022	2023	2024	2025	2026	2027	25-27
Total Revenue	5746.3	6684.5	6660.9	6671.2	6838.0	7248.3	7683.2	
% growth	15.8%	16.3%	-0.4%	0.2%	**2.5%**	**6.0%**	**8.5%**	**5.7%**
Gross Profit	4081.9	4650.4	4714.9	4889.5	4967.1	5180.8	5473.3	
% of Revenue	71.0%	69.6%	70.8%	73.3%	**74.0%**	**74.2%**	**74.4%**	**74.2%**
Total SG&A	3113.9	3474.6	3542.5	3749.4	3842.9	4088.0	4333.3	
% of Revenue	54.2%	52.0%	53.2%	56.2%	**56.2%**	**56.4%**	**56.4%**	**56.3%**
Operating Income	968.0	1175.8	1172.4	1140.1	1203.5	1275.7	1367.6	
% of Revenue	16.8%	17.6%	17.6%	17.1%	**17.6%**	**17.6%**	**17.8%**	**17.7%**
FCF	1207.7	759.3	791.0	1146.7	1230.8	652.3	691.5	
% of Revenue	21.0%	11.4%	11.9%	17.2%	**18.0%**	**9.0%**	**9.0%**	**12.0%**
EPS	2.97	3.47	3.88	4.29	**4.90**	**5.60**	**6.10**	

	Bull	Base	Bear
FY 25-27 Revenue CAGR	8.5%	5.7%	3.0%
FY 21-27 Revenue CAGR	8.2%	7.0%	5.9%
Operating Margin FY25	18.0%	17.6%	17.2%
Operating Margin FY27	18.4%	17.8%	17.2%
FY25 EPS	5.3	4.9	4.5
FY26 EPS	6.1	5.6	5.2
FY27 EPS	6.5	6.1	5.6
Exit NTM EPS Multiple	14x	13.2x	10.0x
1-year Share Price Target	91.0	73.9	51.0
Implied % Upside	82.9%	48.6%	2.4%
3-year Share Price Target	117.0	97.6	67.2
Implied % Upside	135%	96%	35%
3-year IRR	33%	25%	10.60%

Key Drivers	Bull Case	Base Case	Bear Case
Revenue	Revenue grows **8.5% Y/Y**, supported by a faster recovery in international markets (China, South Korea, and Europe) and Kate Spade's momentum.	Revenue grows **2.5% Y/Y** in FY25 (+1.6% vs. consensus) , primarily driven by Coach's strong demand and continued brand/new products momentum.	Revenue grows **3% Y/Y** in coming 3 years, reflecting weaker consumer demand and slower recovery in key markets.
Cost	Operating margin improves to **18.0% (+0.4% vs. consensus)**, driven by higher AUR growth and enhanced marketing efficiency through data analytics and digital transformation.	Operating margin expands to **17.6% (flat vs. consensus) ,** supported by AUR growth potential, which enhances pricing power and stable SG&A expenses as major transformations (e.g., digital upgrades) are complete.	Operating margin **remains flat** at 17.2% through FY2027, assuming no further cost improvements or efficiency gains.
Multiple	Assumes a P/E of **14.0x**, below the pre-pandemic 7-year average of 17.0x, reflecting optimism in TPR's growth trajectory. This results in an implied share price target of **$91** for a 1-year IRR of **82.9%.**	Assumes a P/E of **13.2x** (13.7% increase from the current **11.6x**) to align with pre-covid historical average. This results in an implied share price target of **$73.9** for a 1-year IRR of **48.6%.**	P/E multiple declines to 10.0x, reflecting a historically low valuation amid weaker growth prospects. This results in a 1-year share price target of $51.0, with limited upside and a 1-year IRR of 2.4%.

Source: Tegus, Coach website

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Comparables

11/22/24	Market Data		Financial Data					Valuation			
	Market Cap	EV	Sales	Gross Margin	EBITDA	EBITDA	Net Margin	EV/Sales	EV/EBITDA	P/E	FWD P/E
Company Name	($M)	($M)	($M)	Margin (%)	($M)	Margin (%)	Margin (%)	X	X	X	X
Tapestry	14,302	14,308	6,666	71.5%	1,600	24.0%	12.1%	2.1x	8.9x	17.0x	12.8x
Apparel and Accessory Products											
Ralph Lauren A	13,514	12,969	6,740	64.1%	1,081	16.0%	10.1%	1.9x	12.0x	20.2x	18.1x
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lululemon athletica	39,077	37,467	9,989	58.5%	2,823	28.3%	16.3%	3.8x	13.3x	24.5x	22.7x
Skechers	9,510	9,225	8,718	50.8%	1,073	12.3%	7.2%	1.1x	8.6x	15.2x	14.5x
VF	8,023	13,773	10,017	52.4%	831	8.3%	-5.2%	1.4x	16.6x	-	42.7x
Deckers Outdoor	29,362	28,137	4,661	55.7%	1,151	24.7%	18.8%	6.0x	24.5x	33.8x	34.6x
Crocs	6,293	7,529	4,072	58.1%	1,106	27.2%	20.5%	1.8x	6.8x	7.7x	8.2x
PVH	5,961	7,563	8,879	59.4%	1,279	14.4%	8.4%	0.9x	5.9x	8.2x	8.9x
Kontoor Brands	5,244	5,723	2,580	43.9%	377	14.6%	9.7%	2.2x	15.2x	20.6x	18.9x
Average				**57.5%**		**17.7%**	**9.1%**	**2.2x**	**12.3x**	**18.4x**	**19.4x**
Median				**58.3%**		**15.3%**	**9.9%**	**1.9x**	**11.6x**	**18.6x**	**16.3x**

Pricing Power

- A higher gross margin compared to peers indicates Tapestry's ability to command premium prices for its products, reflecting strong brand equity and consumer demand.

Undervalue

- TPR currently trades below its peers P/E ratio on a current and forward basis. This disparity suggests that the market may be undervaluing Tapestry relative to its peers. As the company continues to execute its strategic initiatives and demonstrates consistent financial performance, investor confidence could increase, leading to a re-rating of the stock and potential multiple expansion.

Source: Factset

Appendix

Management

Joanne Crevoiserat was appointed CEO of Tapestry in **October 2020**, after serving as Interim CEO since July 2020. She joined the company as Chief Financial Officer in August 2019. Prior to Tapestry, she held senior roles at Abercrombie & Fitch Co., including Executive Vice President and Chief Operating Officer, and at Kohl's Inc. Ms. Crevoiserat also serves on the Board of Directors of General Motors Co. Joanne owns approximately 0.14% of outstanding shares valued at ~$19M.

Todd Kahn leads the Coach brand, overseeing global brand strategies. He joined Tapestry in January 2008 as Senior Vice President, General Counsel, and Secretary, and has held various senior positions, including Chief Legal Officer and President & Chief Administrative Officer. Before Tapestry, Mr. Kahn held leadership roles at several public and private companies. Todd owns approximately 0.07% of outstanding shares valued at ~$10M.

Eva Erdmann **was appointed CEO & Brand President of Kate Spade in August 2024**, joining the brand in October 2024. She previously served as Global President of Urban Decay Cosmetics at L'Oréal, where she led the brand's transformation and growth. Ms. Erdmann has also held senior management positions at Lancôme France and Yves Saint Laurent Beauté

Source: FactSet, Company Website

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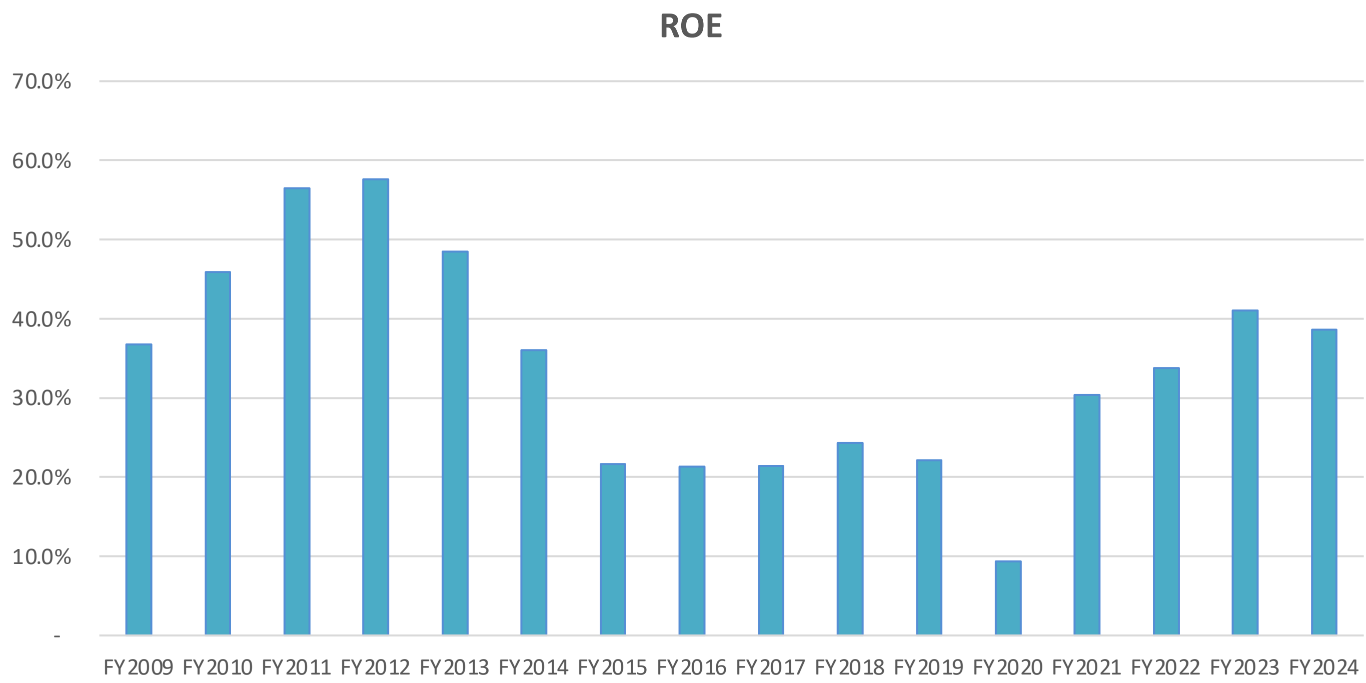
Financial Performance



Over the past 15 years, Tapestry, Inc. (TPR) has demonstrated a robust return on equity (ROE), reflecting its effective management and profitability. The company's ROE has consistently outperformed industry averages, indicating strong operational efficiency and a solid ability to generate returns for shareholders. This sustained performance underscores Tapestry's strategic acumen in navigating market dynamics and capitalizing on growth opportunities. Such a track record of high ROE is a testament to the company's commitment to delivering value to its investors

Source: Tegus

Highlight: Gross Margin Improvement

TPR has demonstrated a notable improvement in its gross margin over recent years, reflecting enhanced operational efficiency and effective cost management. This upward trend underscores Tapestry's strategic initiatives in optimizing its supply chain and product mix, contributing to increased profitability

Source: Tegus

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The University of North Carolina

December 4, 2024

Team Number: 16

Students: Zachary Wright, Shikha Garg, Tashi Goenka

Investment Summary

Recommendation	Valuation	Key Thesis Points
BUY Graphic Packaging Holding (GPK)	3-yr Price Target: $58 25.7% IRR in Base Case 1.2% IRR in Bear Case 34.1% IRR in Bull Case	• Benefits from Structural & Cyclical Growth • Vertically Integrated – margin headwinds • Marker leader with Attractive Valuation

Key Statistics *as on 11/22*

Price	Current P/E	Forward P/E	Market Cap	ROE	EBITDA Margin
29.28	11.93	11.5	8,509	29.32%	20.24%

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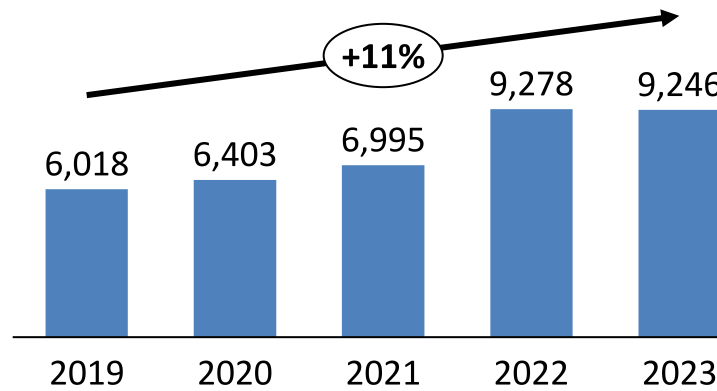
Company Overview:
Graphic Packaging Holding Company

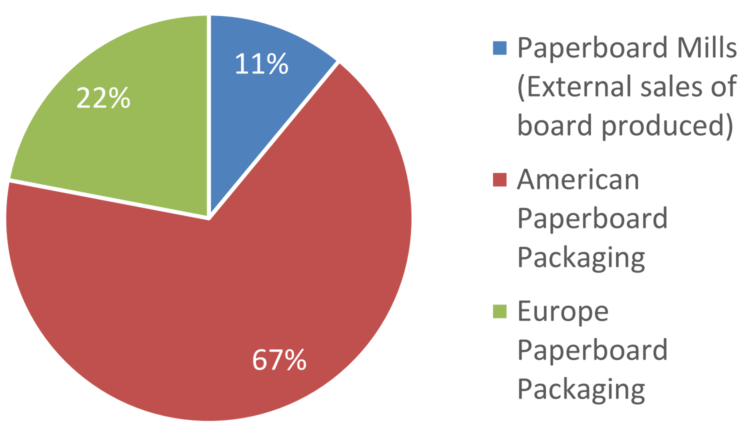
Graphic Packaging INTERNATIONAL

- Graphic Packaging is a leading US supplier of paperboard consumer packaging, mainly folding cartons and paper based foodservice products.
- GPK's customers are some of the leading food and beverage brand owners as well as Quick Service Restaurants.
- GPK operates a system of 7 US mills and 105 converting facilities globally.

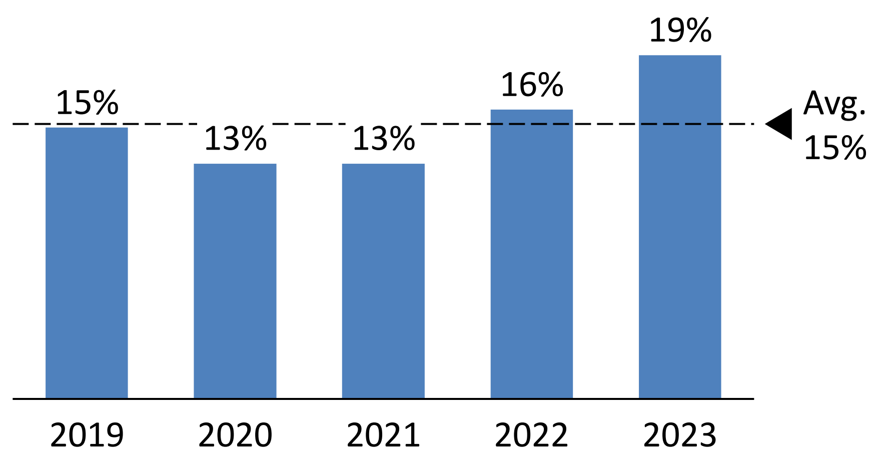
Revenue (in $ Mil)



Revenue Breakdown



EBITDA Margin



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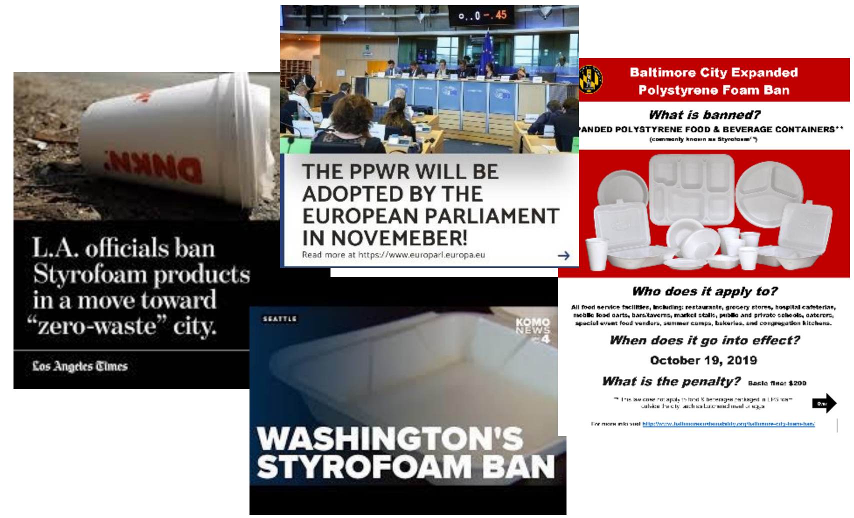
Thesis #1

Graphic Packaging INTERNATIONAL

Benefits from Structural trend of Plastic → Paper packaging and Cyclical Growth in Consumer Spending

- Plastic to Paper replacement, supported by **legislation** in US and Europe, present an addressable market of USD 15 Billion – 1.7x the company's existing revenue
- After macroeconomic and **destocking** related setback in 2023, we expect packaging volumes to increase going forward, and pricing to remain at elevated levels supported by price hikes announced by major players
- We expect revenues growing faster than consensus, owing to GPK's innovative product offering (including Pacesetter Rainier CRB), and its superior sustainability metrics against peers
- We expect revenue growth to outpace consensus



Thesis #2

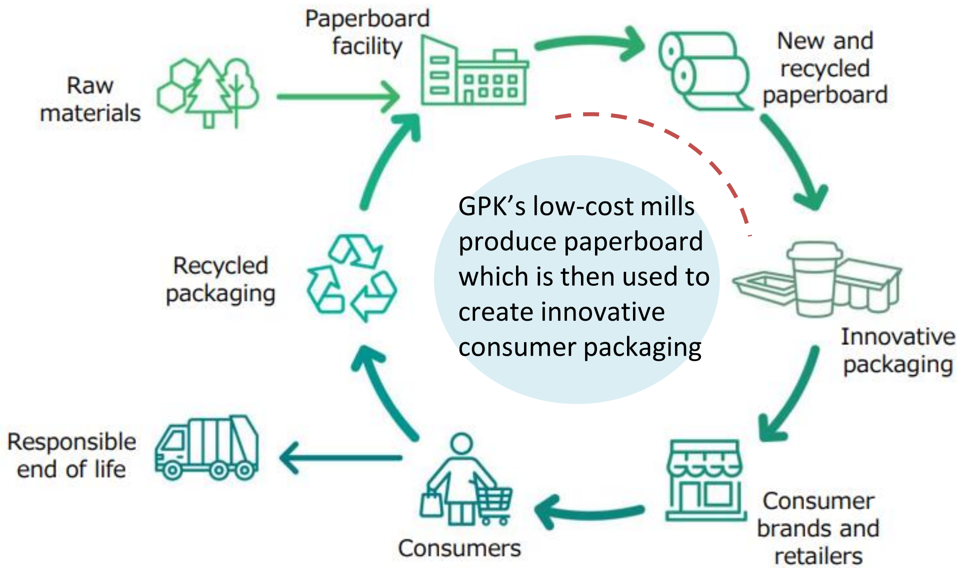
90% Vertical Integration by 2026 – Margin Headwinds

- Vertically integrated business model ensures effective utilization and efficiency, and less volatility

- **Increase in exposure to secular trends**:
  - GPK's sale of Augusta mill producing virgin-grade board
  - Development of a new, low-cost greenfield mill, Waco, producing recycled board

- Once Waco mill is operational, GPK will own **two lowest cost recycled board mills** in North America.

- We expect margins expansion above consensus, reaching 27% by 2028



Thesis #3

Market Leader in Sustainable Packaging with Attractive Valuation

- **Industry leadership** in market share, profitability, ROIC, and sustainability focus
- Trading at discount to its peers and history.
- GPK is going through a major capex cycle: once Waco mill gets completed in 2026, management's focus is to **achieve investment grade in debt**
- We expect upside as revenues grow, margins expand, and investment grade debt enhances shareholder appeal

Partners with Leading Consumer Brands

GPK Comparables					
Name	Mkt Cap (USD, M)	EV (USD, M)	EV/EBITDA FY1	P/E	P/E FY1
Graphic Packaging Holding Co	$8,730	$14,009	8.26	11.93	11.52
Industry Average	$15,711	$20,604	10.98	26.12	25.22

Ahead of its US peers in Sustainability

	Consumer Packaging		American Box Makers		
	Graphic Packaging	Huhtamaki	WestRock	International Paper	Packaging Corp. of America
Ecovadis	Gold	Gold	N/A	N/A	N/A
SBTi status	Validated	Validated	Validated	Validated	Not submitted
SBTi targets	50.4% Scope 1 & Scope 1 and 2 by 2032 va 2021	Scope 1 & 2 reduction by 27.5% by 2030 vs 2019	TBD. (< 2 degrees)	30% scope 1-3 reduction 2030 vs 2019	35% scope 1 & 2 by 2030
SBTitargets	30% Scope 3 by 2023 vs 2021	Scope 3 reduction of 13.5% by 2030 vs 2019	No long term or net zero	No long term or net zero	Net zero by 2050

Risks and Mitigants

Risk	Mitigant
Delay in ramping up of Waco mill	• Proven Track record: Completed similar greenfield project at Kalamazoo • Phased Transition Plan: Plans to decommission older, less efficient mills like Middletown and East Angus in a phased manner - reduces the pressure for immediate full ramp-up.
High debt – poor follow through on plans to reduce debt	• The planned sale of the Augusta mill for $700 million is expected to directly contribute to debt reduction • Leverage metrics projected to be on a downward trajectory - net debt/EBITDA projected to decrease to 2.5x in 2025 and 1.9x in 2028. • With EBITDA margins forecasted to improve and capex needs decreasing after Waco's completion, GPK is positioned to generate strong free cash flows.
Macro downturn in Europe	• Diversification across end markets: With exposure to consumer health, food, and beverage markets, demand for GPK's products is tied to non-cyclical sectors, providing a buffer against broader macroeconomic slowdowns. • Limited Exposure to Europe: GPK derives 77% of its sales from North America, reducing dependence on the European market.

Valuation: Bull/Base/Bear Case

Base case analysis indicates a 3-yr price target of $58, with an IRR of 25.7%

- Valuation analysis is anchored in a relative valuation approach using forward PE multiple
- DCF is used to triangulate the valuation

Base Case: Valuation Methods ($s in 000s)			
Multiples Method		**Terminal Value**	
2028 Net Income	1,284	WACC	6.25%
		Terminal Growth Rate	1.00%
Implied EPS	4.2		
		Discounted Terminal Value	20,101
P/E Multiple	14	Discounted Cumulative Unlevered FCF	3,776
		Implied Enterprise Value	**23,877**
		- Debt	5,403
		+ Cash	2,696
		Equity Value	**21,170**
Shares Outstanding	309.1	Shares Outstanding	309.1
Price per Share	$58	Price per Share	$68
Implied 3-yr Annual Upside	25.7%	Implied 3-yr Annual Upside	32.7%

Key valuation assumptions:

Bull Case	Base Case	Bear Case
Price Target: $71	Price Target: $58	Price Target: $30
3-yr Annual Upside: 34.1%	3-yr Annual Upside: 25.7%	3-yr Annual Upside: 1.2%
• Revenue growth accelerates over base case to ~9% over the near term • COGS reduction remains consistent with base case (27%) • Multiple expansion extends to a P/E of 16	• ~6% revenue growth in near term • COGS reduction rendering an increase in 5% of operating margin (settling at 27%) • Multiple expansion to 14 as debt becomes investment grade	• Revenue growth of only 4% as demand is delayed • COGS reduction (~1%) leading to operating margin of 24% • No multiple expansion: P/E remains at 12

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Appendix: Comps Analysis

Graphic Packaging INTERNATIONAL

GPK Comparables					
Name	Mkt Cap (USD, M)	EV (USD, M)	EV/EBITDA FY1	P/E	P/E FY1
Graphic Packaging Holding Co	**$8,730**	**$14,009**	**8.26**	**11.93**	**11.52**
Packaging Corp Of America	$21,980	$23,893	14.39	27.92	26.93
International Paper Co	$20,629	$25,485	12.83	55.85	49.57
Huhtamaki Oyj	$3,770	$5,253	7.93	14.08	13.88
Smurfit Westrock Plc	$29,014	$42,009	11.91	N/A	28.2
Ds Smith Plc	$10,141	$12,973	10.58	20.83	21.2
Industry Average	**$15,711**	**$20,604**	**10.98**	**26.12**	**25.22**

Appendix: Revenue Build

Revenue Build								
Fiscal Year	**2021A**	**2022A**	**2023A**	**2024P**	**2025P**	**2026P**	**2027P**	**2028P**
Paperboard Mill	1,007	1,290	1,022	715	744	774	890	925
%YoY	*2%*	*28%*	*-21%*	*-30%*	*4%*	*4%*	*15%*	*4%*
Americas Paperboard Packaging	4,996	6,015	6,200	6,078	6,321	6,669	7,536	7,950
%YoY	*7%*	*20%*	*3%*	*-2%*	*4%*	*6%*	*13%*	*6%*
Europe Paperboard Packaging	992	1,973	2,024	1,874	1,921	1,989	2,058	2,130
%YoY	*30%*	*99%*	*3%*	*-7%*	*3%*	*4%*	*4%*	*4%*
Other Revenues	161	162	182	163	169	174	180	186
%YoY	*2%*	*1%*	*12%*	*-10%*	*3%*	*3%*	*3%*	*3%*
Total Revenue	**7,156**	**9,440**	**9,428**	**8,831**	**9,155**	**9,606**	**10,664**	**11,192**

Appendix: Income Statement

Income Statement								
Fiscal Year	**2021A**	**2022A**	**2023A**	**2024P**	**2025P**	**2026P**	**2027P**	**2028P**
Revenue	7,156	9,440	9,428	8,862	9,155	9,606	10,664	11,192
COGS	6,085	7,610	7,311	6,629	6,865	7,108	7,785	8,170
Gross Profit	**1,071**	**1,830**	**2,117**	**2,233**	**2,290**	**2,497**	**2,879**	**3,022**
SG&A (incl. Depreciation/Amortization)	528	774	805	788	761	798	886	930
Operating Profit	**543**	**1,056**	**1,312**	**1,445**	**1,529**	**1,699**	**1,993**	**2,092**
Interst Expense	123	197	239	240	240	240	240	240
Tax Expense	74	194	210	231	245	272	319	335
Other Expense	142	143	140	204	191	200	222	233
Net Income	**204**	**522**	**723**	**770**	**854**	**987**	**1,212**	**1,284**
Depreciation/Amortization	497	553	619	251	532	558	589	615
EBITDA	**1,040**	**1,609**	**1,931**	**1,696**	**2,061**	**2,257**	**2,583**	**2,707**

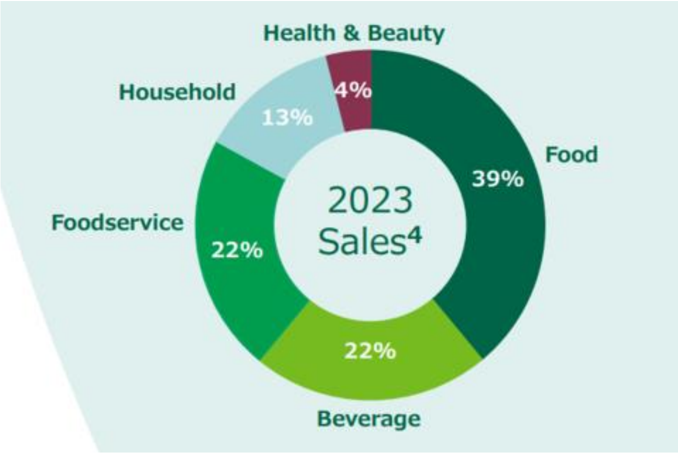
Appendix: Balance Sheet

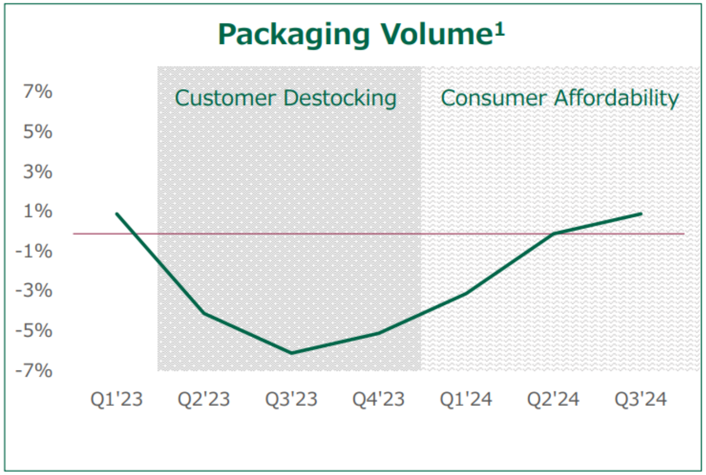
Balance Sheet								
Fiscal Year	**2021A**	**2022A**	**2023A**	**2024P**	**2025P**	**2026P**	**2027P**	**2028P**
Cash and Cash Equivalents	172	150	162	217	906	1,626	2,696	3,679
Accounts and Notes Receivable	859	879	835	868	897	941	1,045	1,096
Inventory	1,387	1,606	1,754	1,578	1,630	1,710	1,898	1,992
Other Current Assets	84	71	94	95	98	103	114	120
Current Assets	**2,502**	**2,706**	**2,845**	**2,758**	**3,531**	**4,380**	**5,753**	**6,888**
Property, Plant, and Equipment (net)	4,677	4,579	4,992	5,717	5,700	5,778	5,703	5,810
Intangibles	2,883	2,696	2,923	2,923	2,923	2,923	2,923	2,923
Other Long Term Assets	395	347	415	415	415	415	415	415
Total Assets	**10,457**	**10,328**	**11,175**	**11,813**	**12,569**	**13,496**	**14,794**	**16,036**
Accounts Payable and Accruals	1,741	1,880	1,825	1,740	1,798	1,886	2,094	2,198
Current Debt	279	53	764	-	-	-	-	-
Other Current Liabilities	29	-	-	-	-	-	-	-
Current Liabilities	**2,049**	**1,933**	**2,589**	**1,740**	**1,798**	**1,886**	**2,094**	**2,198**
Long-Term Debt	5,515	5,030	4,448	5,403	5,403	5,403	5,403	5,403
Long-Term Lease	-	170	161	161	161	161	161	161
Deferred Income Taxes	579	668	731	731	731	731	731	731
Other Non-Current Liabilities	421	377	464	394	408	428	475	498
Total Liabilities	**8,564**	**8,178**	**8,393**	**8,430**	**8,500**	**8,609**	**8,864**	**8,991**
Common Stock	3	3	3	3	3	3	3	3
Retained Earnings	66	469	1,029	1,630	2,315	3,134	4,177	5,292
Additional Paid in Capital	2,046	2,054	2,062	2,062	2,062	2,062	2,062	2,062
Other Equity	(224)	(377)	(313)	(313)	(313)	(313)	(313)	(313)
Minority Interests	2	1	1	1	1	1	1	1
Total Equity	**1,893**	**2,150**	**2,782**	**3,383**	**4,068**	**4,887**	**5,930**	**7,045**

Appendix: Cash Flows

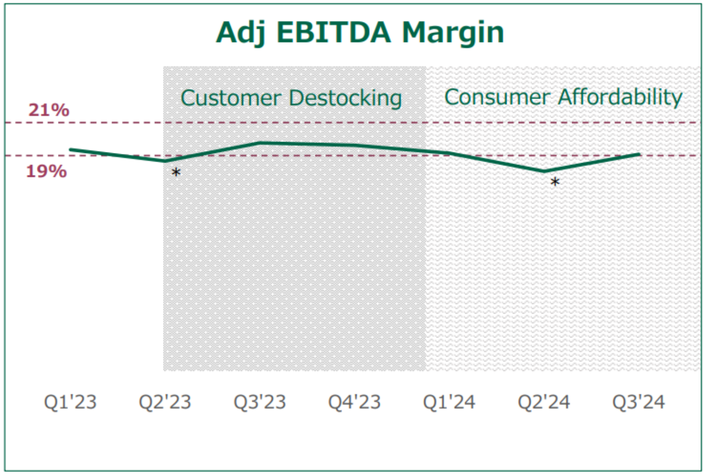
Cash Flows								
Fiscal Year	**2021A**	**2022A**	**2023A**	**2024P**	**2025P**	**2026P**	**2027P**	**2028P**
Net Income	204	522	723	770	854	987	1,212	1,284
Depreciation/Amortization	489	553	619	251	532	558	589	615
Change in Accounts Payable	77	132	(140)	(85)	58	88	208	104
Changes in Accounts Receivable	(106)	(184)	(39)	(33)	(29)	(44)	(104)	(52)
Changes in Other Assets (incl. Inventories)	(94)	(178)	(145)	175	(55)	(85)	(200)	(100)
Change in Non-Cash Other	39	245	126	-	-	-	-	-
Cash Provided by (Used from) Operations	**609**	**1,090**	**1,144**	**1,078**	**1,359**	**1,504**	**1,706**	**1,851**
Capital Expenditure	(802)	(549)	(804)	(976)	(514)	(635)	(514)	(723)
Net Cash from Acquisitions	(1,704)	-	(361)	-	-	-	-	-
Other Investing Activities	114	114	140	-	-	-	-	-
Cash Provided by (Used from) Investing	**(2,392)**	**(435)**	**(1,025)**	**(976)**	**(514)**	**(635)**	**(514)**	**(723)**
Cash from (Repayment) of Debt	2,159	(530)	109	191	-	-	-	-
Issuance/Repurchase of Stock	(15)	(46)	(76)	(46)	(46)	(46)	(46)	(46)
Dividend	(92)	(92)	(123)	(123)	(123)	(123)	(123)	(123)
Other financing activities	(274)	(3)	(16)	(70)	13	20	47	24
Cash Provided by (Used from) Financing	**1,778**	**(671)**	**(106)**	**(47)**	**(156)**	**(149)**	**(122)**	**(145)**
Exchange Rate and Other Misc. Impact	(2)	(6)	(1)	-	-	-	-	-
Net Change in Cash Over Period	**(7)**	**(22)**	**12**	**55**	**689**	**720**	**1,070**	**983**

Appendix: Additional Management Detail





1 Organic volume/mix YoY



* Planned maintenance quarters