



**SIMPSON**

**Manufacturing  
COMPANY**

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

**December 5, 2024**

**Students:** Andrew Jacobe, Katherine Li, Tommy Rodriguez

**Long:** Simpson Manufacturing (NYSE:SSD)

**Current Price:** \$179 | **1Y Price Target:** \$221 (+24% Upside)

# Simpson Manufacturing (NYSE: SSD) Overview

## A Hidden Gem: Simpson Provides and Dominates Structural Solutions for Wood, Concrete and Steel Connections

### Company Description

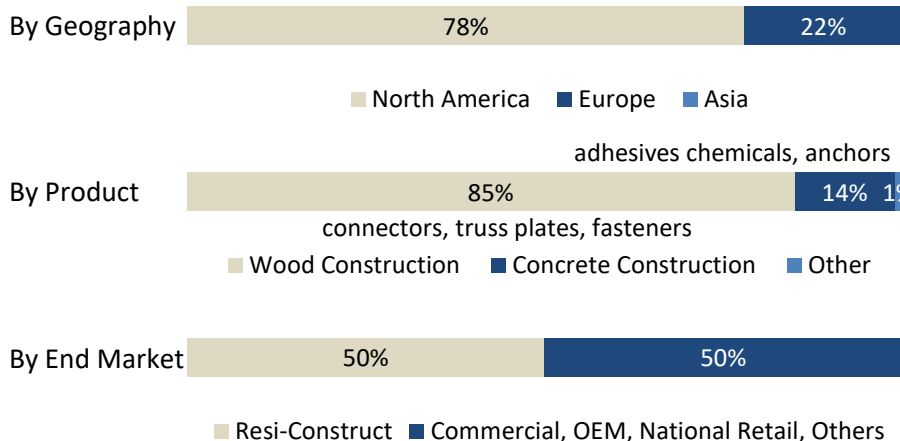
- Manufactures and sells structural solutions for **wood, concrete, and steel connections**
- Is a **category creator** in the building products space
- **75%** market share in the U.S. connectors market
- **The Simpson Strong Tie** brand is viewed by engineers as industry standard
- Founded in 1956, headquartered in Pleasanton, CA
- Acquired **ETANCO** in 2022, designer & manufacturer of fixing and fastening solutions, to bolster European market presence

### Key Financials and Trading Statistics

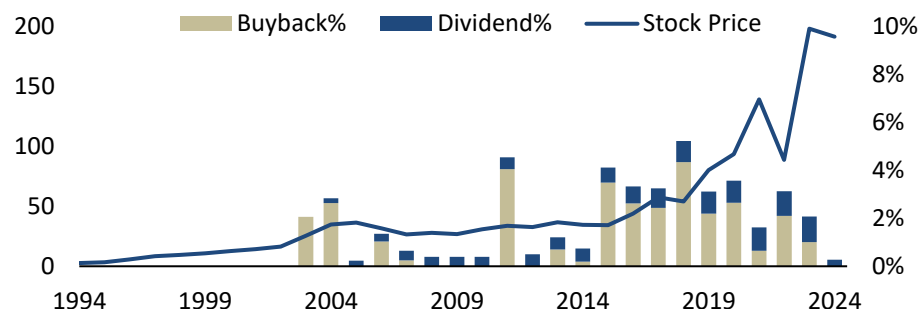
(\$ in millions, unless otherwise stated)

Current Price	\$179.0	52 Week Range	\$157.4-218.4
Market Cap	\$7,547	25 P/E (x)	21.2x
Enterprise Value	\$7,762	EV/25 EBITDA (x)	13.5x
25E Revenue	\$2,327	P/FCF (x)	30.3x
25E NI	\$353	Dividend Yield (%)	0.6%
ROE (%)	22.9%	Net Leverage (x)	0.4x
ROIC (%)	17.2%	Avg. Volume (mm)	0.22
25E GM (%)	46.5%	Float (%)	99.4%
EBITDA Margin (%)	24.7%	Short Interest (%)	24%

### Revenue Breakdown



### The Hidden Gem: A Compounder of 30 Years



### Performance Returns

	1M	3M	6M	YTD	1Y	3Y	5Y	10Y	20Y	IPO
SSD	5%	4%	8%	-6%	14%	17%	19%	20%	10%	15%
SP50	2%	8%	13%	27%	33%	11%	16%	13%	11%	11%

Source: Capital IQ, Company Materials, FactSet. Pricing as of 11/20/2024.

### Investment Theses

**Thesis 1: A Strong Moat Fueling +250bps Above Market Growth with Improving ROIC across Cycles**

- ✓ Pricing power from unique product nature of connectors
- ✓ A strong moat in channel though long-standing relationships with code officials, engineers, dealers and contractors

**Thesis 2: Accelerated Topline Growth under New Management Efforts**

- ✓ New CEO initiatives in 2022 to revitalize and accelerate long term growth
- ✓ Accelerated topline growth outperformance through sales reorganization and human capital investments
- ✓ Further enhanced moat from product and service excellency to boost core market growth

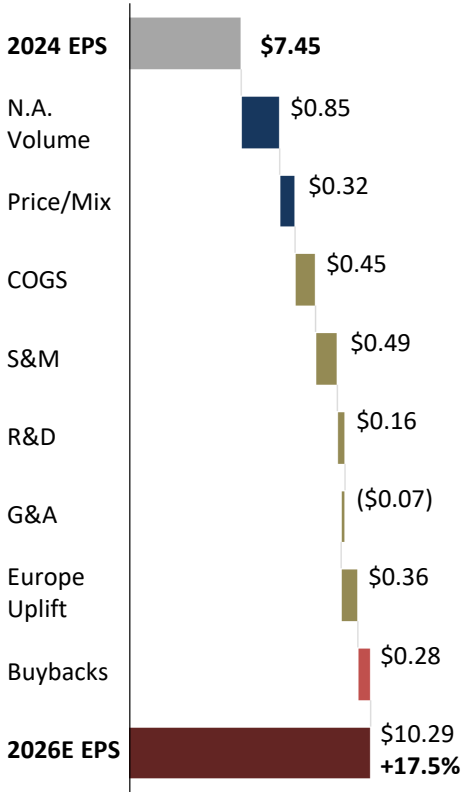
**We estimate +7.6% base case topline growth through 2026, slightly below previous normalized growth of 8.5% and ahead of consensus estimates of 6.0%**

**Thesis 3: Operational Margin Improvements**

- ✓ Historical gross margin gain not fully realized
- ✓ ...and operational potential through normalized Headcounts, Sales and R&D Expense and Etanco performance going forward

**We forecast \$150mm increase in operating income and 3.1% increase in OP margin going forward, beating street consensus of 2.3%**

### EPS Bridge

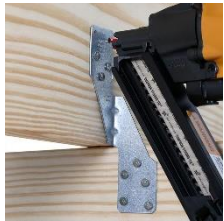


# Thesis 1: The Simpson Strong Tie Business Model

## A Strong Moat Fueling Continuous +250bps Above Market Growth with Improving ROIC across Cycles

### The Moat of Simpson Strong Tie

#### Pricing Power from Unique Connector Product Nature



SST Connector

**Essential Nature:** Rarely subject to project cost cut <1%, **Low Cost:** \$400,000 house = \$400 SST products  
**In-time Need:** ensures uninterrupted job site operations  
**15% SST Price Premium:** justified by market dominance, and typically passed through to the end customer:

*"You never really question their price... It's just not a component we go study. I think they got leverage."*

#### Unique Channel Strategy: Engineers, Dealers and Contractors

##### Front: Decision Makers

Building Code Officials  
 Engineers and architects

Long-standing relationships with code officials, agencies, engineers, and architects to design safer and include Simpson in blueprints.

##### Middle: Dealers

Lumberyard, Pro-dealers, distributors

excellent service, broad product range, and digital solutions to reduce inventory

##### Back: End Users

Homebuilders  
 Contractors

Relationships with top 26'30 builders, ~50% of U.S. housing starts; pull demand through the supply chain

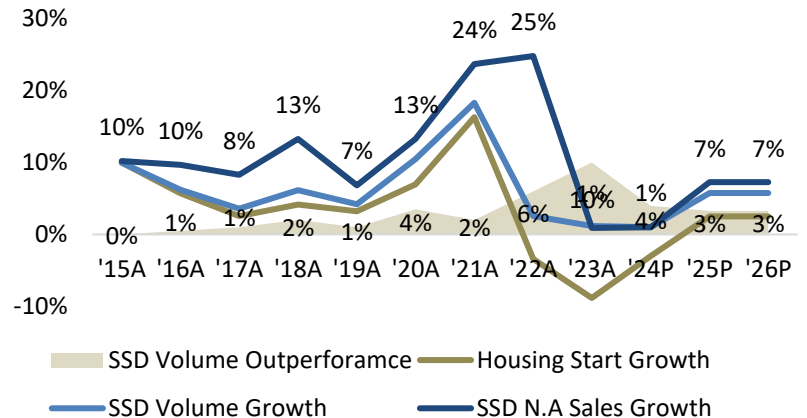
*"Quite frankly, a lot of the architects and engineers sit there with the Simpson product booked on their desk, and they refer to it like doctors refer to medical journals."*

*"The goal was to have the SST product directly specified in the drafting of blueprints, to provide engineers and builders with a load-bearing element that they could be sure wouldn't fail"*

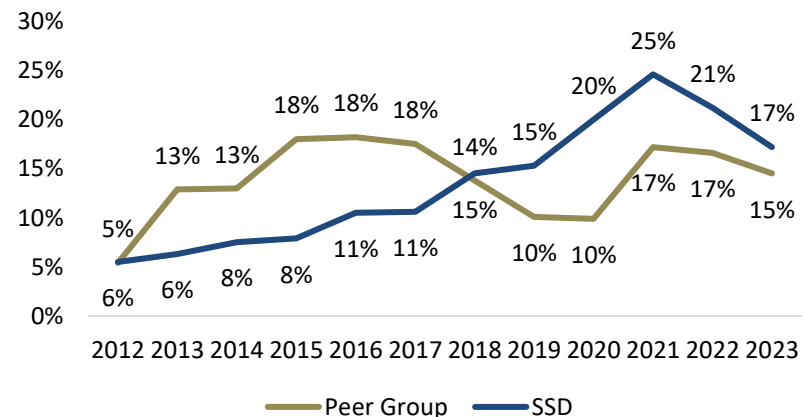
Source: Capital IQ, Company Materials, FactSet. See Appendix for peer group.

### Cross-Cycle Growth and ROIC

Simpson vs. Housing Market Growth



Steadily Improved ROIC across Cycles



## Thesis 2: Accelerated Topline Growth

# New CEO Initiatives in 2022 to Revitalize and Accelerate Long Term Growth

### The New CEO Appointment since 2022

- ✓ Joined Simpson as Chief Operating Officer in November 2020 and was promoted to President and Chief Operating Officer in January 2022.
- ✓ Had been leading the company through next phase of growth since joining but had not fully implemented organizational changes
- ✓ Prior to joining Simpson, Mr. Olosky spent more than 22 years in numerous leadership positions at Henkel, a global chemical and consumer goods company.



Michael Olosky



***“His strategic vision will be instrumental to achieving Company ambitions through continued innovation of our products, superior levels of customer service, technology, and our strong values and culture.”***

– Quote from old CEO

### Renewed focus on R&D, Go-To-Market, and Return on Investment

#### Renewed focus on R&D and Return on Investment

- ✓ “New CEO really did push hard for understanding the market segments and in understanding how to get focused committees into looking at what different areas of the market that we thought were going to be valuable and getting people to look at it from multiple directions.”

#### Go-To-Market Sales Strategy

- ✓ “Now it's much more focused on what is it that the customer really wants. What directions and which product are we going to move forward with is based on more extensive evaluation of return on investment, and then resources are allocated through that process.”
- ✓ “I'm not surprised [in regards to new reorg]. Just from an organizational standpoint that it would run smoother because there's always a gap between residential and commercial. And it is a different ballgame calling on those folks. But if you have products that can speak to every point of their construction, that would make sense to break it up.”
- ✓ Over the last two years SSD has outperformed housing market by 800bps compared to 250bps historically

## Thesis 2: Accelerated Topline Growth

# Accelerated Topline Growth Outperformance from Sales Team Reorganization and Human Capital Investments

### Cross-selling and Share Gain in Core and Adjacent Markets

Core



Wood truss



Wood Connector

**\$1.4 Bn**  
**56% of 2.5Bn market**

Adjacent



Fasteners

+



Concrete Solutions  
(truss plate & anchors)

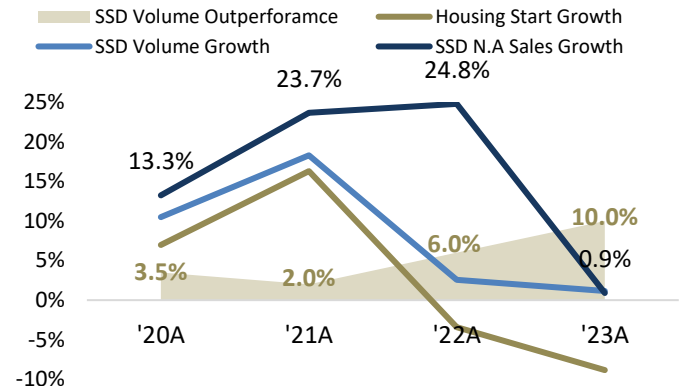


**\$0.5Bn**  
**29% of 1.7B addressable market**  
**5% of 10B total market**

**\$0.3Bn**  
**23% of 1.3B addressable market**  
**2% of 15B total market**

### Accelerating Market Outperformance

Simpson Growth versus Housing Start



Simpson grew **+800 basis points** faster than the market in two years; **Fasteners and anchors** are now top-growing products.

### Sales Team Reorganization towards A Market-Oriented in 2022 and Human Capital Investments

✓ **Before 2022**

Sales teams were split by product lines; Customers dealt with multiple reps; Fasteners and anchors were underrepresented

✓ **The Sales Team Reorganization**

One Rep for All Products: Customers now work with a single rep for better service;

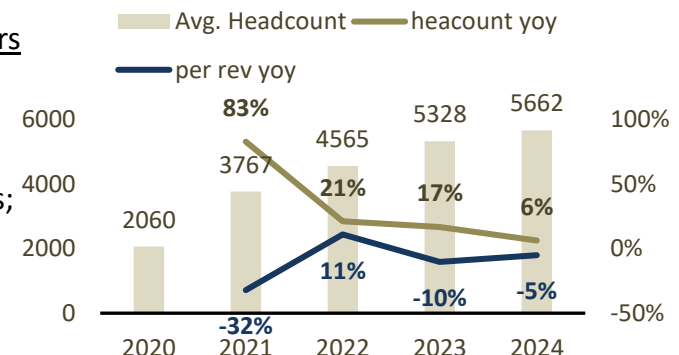
Cross-Selling Growth: Reps sell more fasteners and anchors, boosting these segments;

Go-to-Market: Teams now target OEM and commercial markets for growth.

✓ **Managing Change**

Training Reps learned the full product portfolio, relative

Customer Trust Customers now see the benefits of simpler, stronger relationships.



## Thesis 2: Accelerated Topline Growth

# Further Enhanced Moat from Product and Service Excellency to Boost Core Market Growth

### Product Advantage and New Offerings through R&D

#### Product Excellence as a Moat

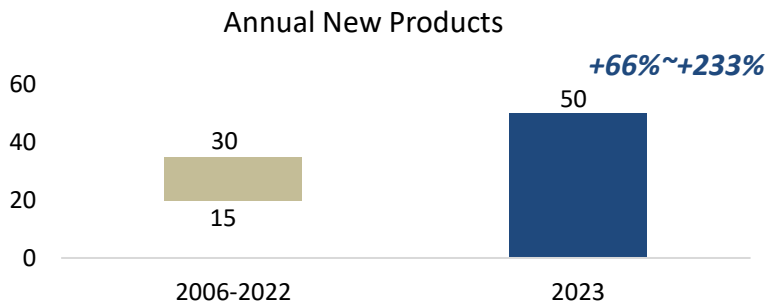


*“Simpson is the one that’s coming out with the new products all the time and other companies like MiTek are busy trying to copy and go around Simpson’s patents.”*

- ✓ Simpson’s **testing capabilities and engineering expertise** are key differentiators in an industry where **product safety and reliability is paramount**
- ✓ Uses **higher-grade steel**, contributing to the superior product
- ✓ Simpson is **proactive in developing new products** based on feedback from the field and evolving market needs

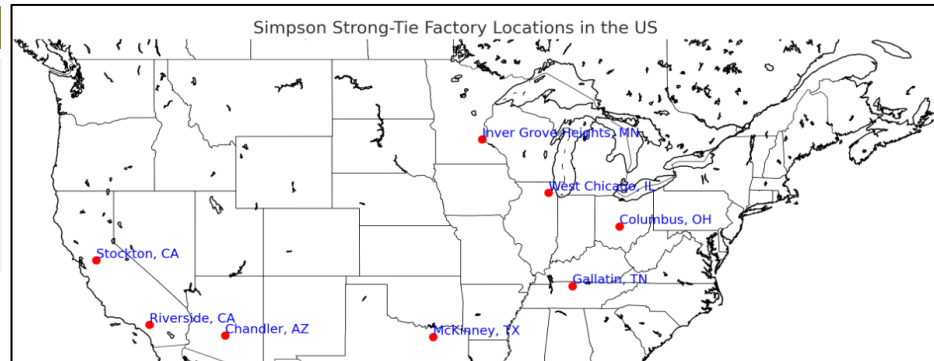
#### Accelerated R&D Efficiency for New Offerings

As a category creator, Simpson sell products mostly from internal research. In 2023, the output doubles with slightly higher investment



Source: Company Materials

### Best In Class Service, and Expanding to Fasteners



- ✓ **98% product fill rate** with a **24-48 hour typical delivery time**
- ✓ Strive to cover the **entire U.S. within a one-day** transit time, with **most regions** already achieving this
- ✓ Provides **extensive education and training** to **specifiers, architects, and end users**, maintaining market dominance
- ✓ **Carry significant inventory (173 days)** to avoid delays
- ✓ **4 regional hubs** and satellite warehouses across US
- ✓ **Greenfield construction** underway, expected to be operational by **late 2025 or early 2026**. Will produce **50% of Simpson’s fasteners**, reducing 17% reliance on imports from Taiwan.

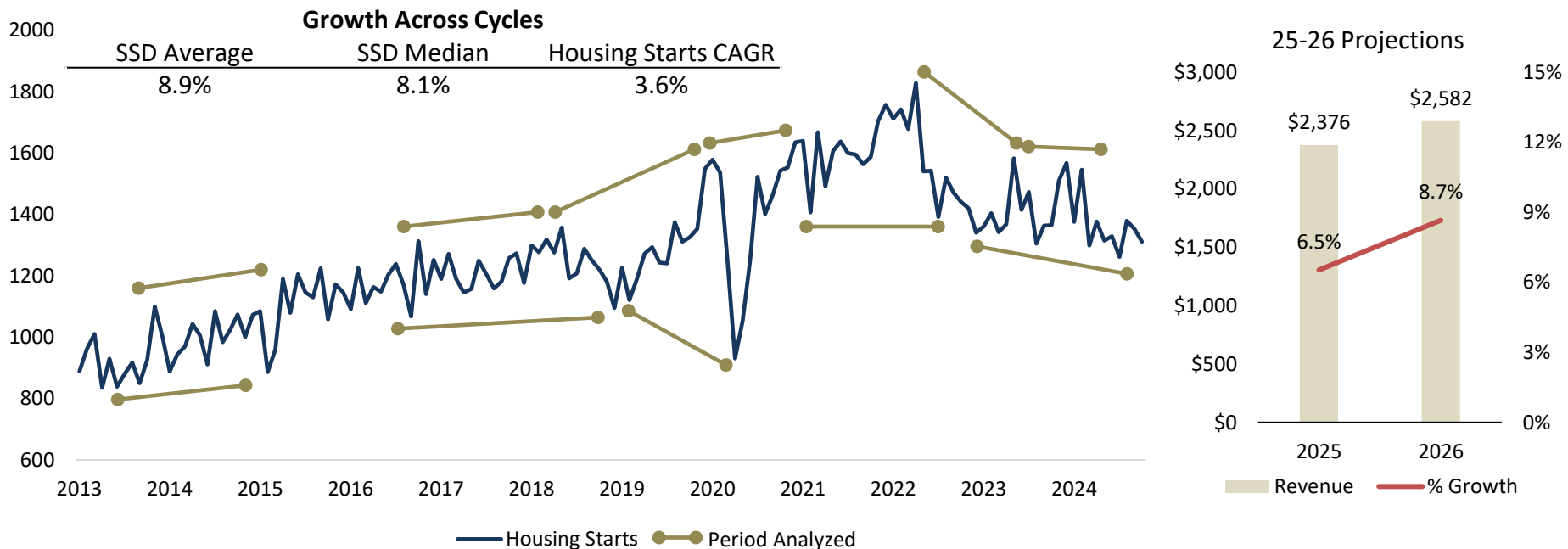
*“A huge differentiator where they’re adding value is that they would help solve structural issues and questions when it came up, the amount of architects that would reach out to Simpson to find out what product they could put in here that would solve their issue...”*

## Thesis 2: Accelerated Topline Growth

# We Estimate +7.6% Base Case Topline Growth through 2026, slightly below previous 8.5% Normalized Growth

- ✓ Historical normalized revenue growth of ~8.5%
- ✓ Analyzed various housing start cycles (peak to peak or trough to trough) to estimate “normalized” top-line growth for SSD in North America
- ✓ Company has increased share in core markets, expanded into adjacent markets and opportunistically increased prices to sustain above market growth

### Normalized Performance Analysis Shows 8% North America Growth



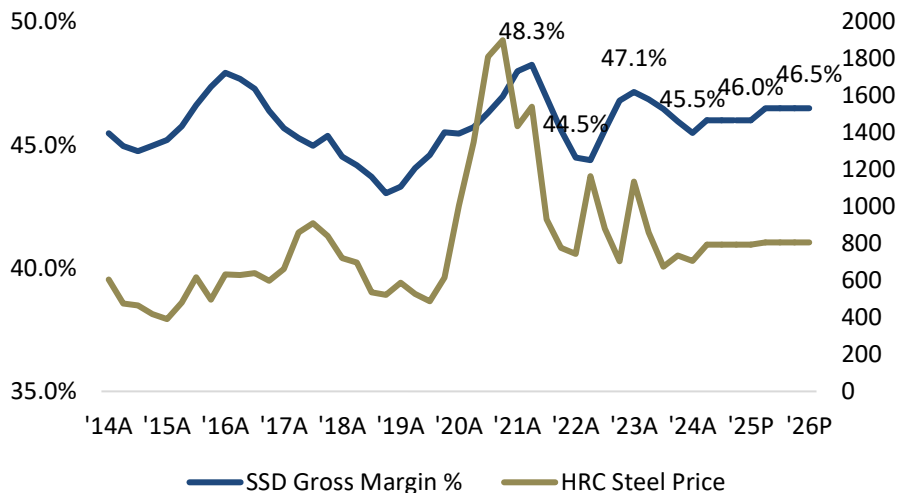


## Thesis 3: Operational Margin Improvements

# Gross Margin Rebound Not Fully Realized; New Facilities Ramping Up Contributing to Future Growth

Our Gross Margin Improvement Estimate of **1.0%** through 2026 slightly behind street consensus of **1.3%**

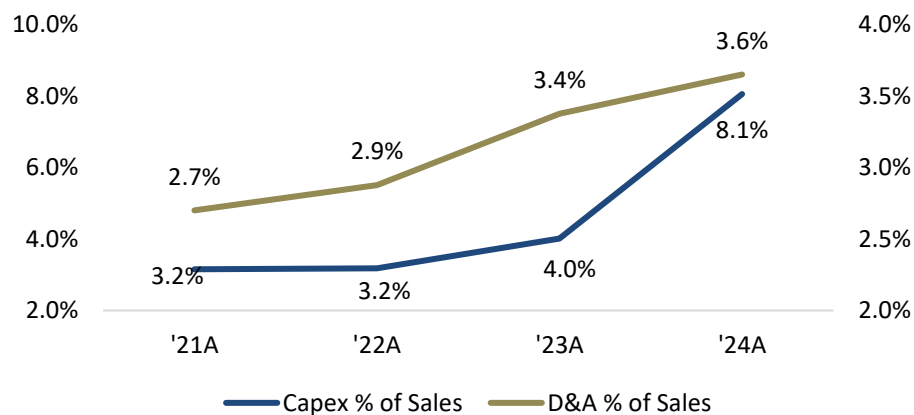
### Gross Margin Increase Not Fully Realized



### Gross Margins

- ✓ Historical margins **consistently between 43-48%**
- ✓ **Took significant price in 2022** in response to steel input increases – **have not given this back**
- ✓ Short term pressures due to **increased warehousing costs related to efforts to eliminate two-step distribution** and **D&A related** to bringing new equipment online

### Capex and D&A to Normalize



### Capital Expenditures

- ✓ Began **expansion of Ohio facility** to support future growth in east region – expected to become **fully operational in 2025**
- ✓ Began **new construction on Tennessee facility** to increase domestic fastener production and help facilitate two-step distribution transition – **expected late 2025/early 2026**
- ✓ **Total capex increase of ~\$250 million** over normal historical levels

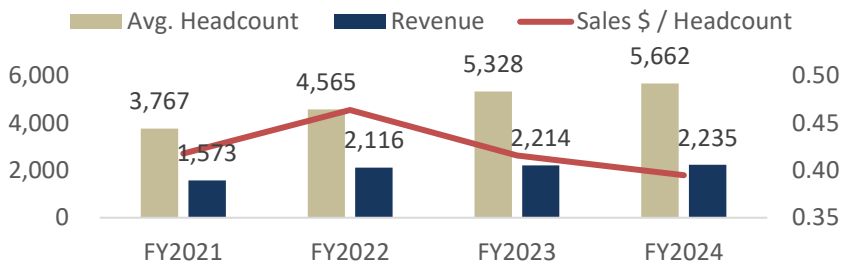
## Thesis 3: Operational Improvements, Normalized Margins

# ,...and Normalized Headcounts, Sales and R&D Expense Going Forward; Etanco rebound provides more upside

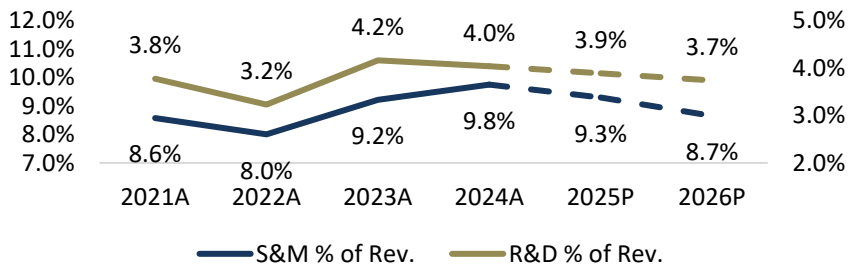
We forecast **\$150 mm** increase in operating income and **3.1%** increase in OP margin going forward because: SSD has invested ahead of growth to best position business moving forward, and is positioned for European recovery

### Opex Investments Ahead of Growth

- ✓ Increased salespeople to strengthen customer relationships
  - ✓ Increased engineers to develop new, innovative products for share gains in adjacent markets
  - ✓ Invested heavily in software to help builders and lumberyards improve efficiency while integrating products
- Revenue/Employee



### Sales & Marketing and R&D



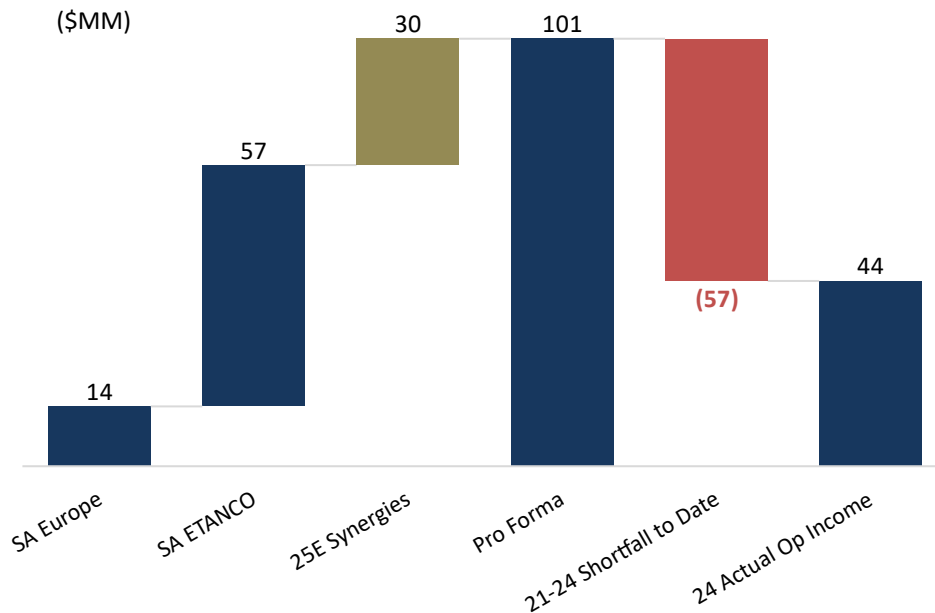
Source: Capital IQ, Tegus, Company Materials.

### ETANCO Underperformance

Acquired ETANCO in 2022 to bolster Europe presence

- ✓ Expected **\$30 million of operating income synergies** by 2025 – significantly delayed to date
- ✓ Despite underperformance due to market conditions, management remains committed to **15% margins**

### ETANCO Acquisition: Operating Income Impact



## Valuation Summary

# 12-Month Price Target of \$221.04 in Base Case with 24.1% Upside

### Valuation Summary: 2025 Target Price

		Base	Bull	Bear
PE Multiple	2026 EPS	\$10.29	\$11.73	\$7.97
	Forward P/E	21.5x	21.5x	19.0x
	<b>Target Price</b>	<b>\$221.14</b>	<b>\$252.30</b>	<b>\$151.44</b>
EV/EBITDA Multiple	2026 EBITDA	\$682	\$764	\$550
	Forward EV/EBITDA	13.5x	13.5x	12.0x
	Enterprise Value	\$9,204	\$10,312	\$6,596
	Debt	\$415	\$390	\$440
	Cash	\$416	\$336	\$507
	Market Cap	\$9,204	\$10,366	\$6,530
	FDSO	42	41	42
	<b>Target Price</b>	<b>\$220.94</b>	<b>\$250.29</b>	<b>\$155.39</b>
Returns	<b>Avg. Target Price</b>	<b>\$221.04</b>	<b>\$251.29</b>	<b>\$153.42</b>
	<b>Current Price</b>	<b>\$179.00</b>	<b>\$179.00</b>	<b>\$179.00</b>
	<b>Upside/(Downside)</b>	<b>23.5%</b>	<b>40.4%</b>	<b>(14.3%)</b>
	<b>(+) Dividends</b>	<b>\$1.14</b>	<b>\$1.17</b>	<b>\$1.12</b>
	<b>Total Return</b>	<b>24.1%</b>	<b>41.0%</b>	<b>(13.7%)</b>

- ✓ Two different valuation approaches and averaged the results to determine price targets across the three different cases
- ✓ Base/Bull P/E and EV/EBITDA multiples are based on current trading levels; Bear case reflects multiple compression
- ✓ Company is lightly covered, 2025 consensus reflects two brokers and 2026 consensus reflects one

### Comparison to Consensus

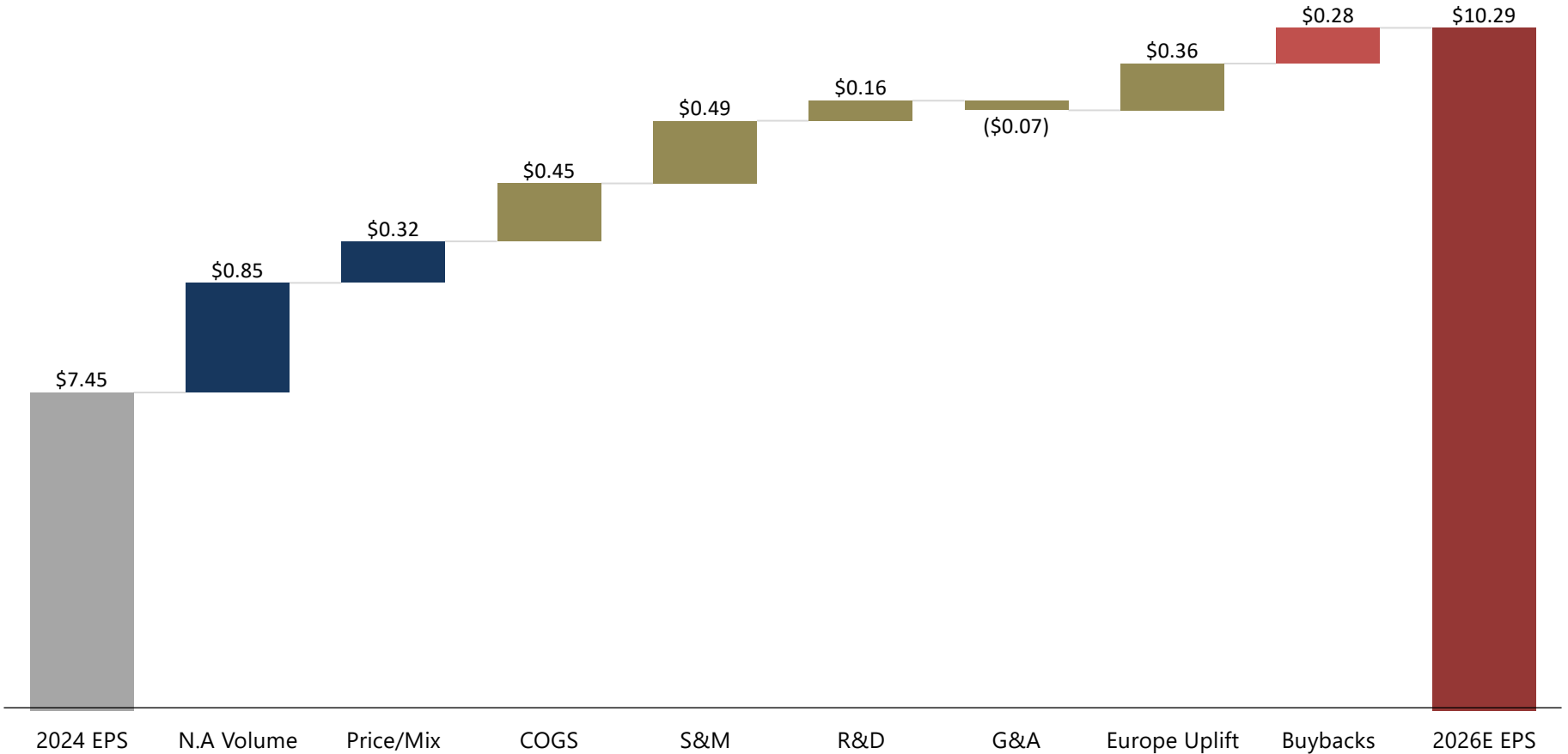
	2024			2025			2026		
	Forecast	Consensus	% Diff.	Forecast	Consensus	% Diff.	Forecast	Consensus	% Diff.
Revenue	\$2,231	\$2,213	0.8%	\$2,376	\$2,327	2.1%	\$2,582	\$2,485	3.9%
% Growth	0.8%	(0.0%)		6.5%	5.1%		8.7%	6.8%	
Gross Profit	\$1,014	\$1,018	(0.3%)	\$1,093	\$1,081	1.1%	\$1,200	\$1,175	2.1%
% Margin	45.5%	46.0%	(0.5%)	46.0%	46.5%	(0.5%)	46.5%	47.3%	(0.8%)
EBIT	\$425	\$425	0.2%	\$487	\$471	3.4%	\$572	\$535	6.9%
% Margin	19.1%	19.2%	(0.1%)	20.5%	20.2%	0.3%	22.2%	21.5%	0.6%
EBITDA	\$528	\$520	1.6%	\$588	\$574	2.5%	\$682	\$641	6.3%
% Margin	23.7%	23.5%	0.2%	24.8%	24.7%	0.1%	26.4%	25.8%	0.6%
EPS	\$7.45	\$7.55	(1.3%)	\$8.71	\$8.46	2.9%	\$10.29	\$9.60	7.1%

Note: Pricing as of 11/20/2024.

## Valuation Summary

**12-Month Price Target of \$221.04 in Base Case with 24.1% Upside**

### 2024 – 2026 EPS Bridge



## 1. Macro risk & continued underperformance of housing market (Moderate)

- ✓ **Mitigant:** Simpson's products are tied to housing, which is cyclical. The housing market has declined over the last three years and a continued decline would impact Simpson's ability to accelerate growth. Simpson has historically performed well above the housing market, continued to diversify their product offering, maintains strong margins, and has minimal leverage

## 2. Raw material / input disruptions (Moderate)

- ✓ **Mitigant:** Simpson's primary input material is steel, which is cyclical and subject to price fluctuations. While changes in steel price will impact gross margins, Simpson has historically passed through significant cost increases. Historical gross margins have trended in relatively tight band of 43.2% - 48.0%

## 3. Competitive Landscape (Low)

- ✓ **Mitigant:** The construction products industry has many players and is becoming increasingly more complex with building code requirements. As Simpson expands its product line and end-markets, there is additional competition. Simpson is the clear market leader with long-standing customer relationships and has premier R&D capabilities which allow it to consistently innovate its product line and remain ahead of the competition

# Questions



# Appendix

# Appendix – Forecast Detail

\$ in Millions	Base Case						Bull Case					Bear Case				
	2024	2025	2026	2027	2028	CAGR	2025	2026	2027	2028	CAGR	2025	2026	2027	2028	CAGR
Revenue	2,231	2,376	2,582	2,808	3,041	8.1%	2,484	2,818	3,199	3,615	12.8%	2,258	2,286	2,340	2,441	2.3%
% Growth	0.8%	6.5%	8.7%	8.8%	8.3%		11.3%	13.5%	13.5%	13.0%		1.2%	1.2%	2.4%	4.3%	
COGS	1,217	1,283	1,383	1,502	1,627	7.5%	1,341	1,509	1,711	1,934	12.3%	1,231	1,246	1,275	1,330	2.3%
Gross Profit	1,014	1,093	1,200	1,306	1,414	8.7%	1,143	1,309	1,487	1,681	13.5%	1,027	1,040	1,065	1,111	2.3%
% Margin	45.5%	46.0%	46.5%	46.5%	46.5%		46.0%	46.5%	46.5%	46.5%		45.5%	45.5%	45.5%	45.5%	
Opex	486	505	518	557	604	5.5%	518	545	614	694	9.3%	484	490	502	524	1.9%
EBITDA	528	588	682	748	810	11.3%	625	764	873	987	16.9%	543	550	563	587	2.7%
% Margin	23.7%	24.8%	26.4%	26.7%	26.7%		25.2%	27.1%	27.3%	27.3%		24.1%	24.1%	24.1%	24.1%	
D&A	102	101	110	119	129	6.0%	106	120	136	154	10.7%	96	97	99	104	0.4%
EBIT	425	487	572	629	681	12.5%	519	644	737	833	18.3%	447	453	463	483	3.2%
% Margin	19.1%	20.5%	22.2%	22.4%	22.4%		20.9%	22.9%	23.1%	23.1%		19.8%	19.8%	19.8%	19.8%	
Interest Exp.	(2)	7	6	5	4	na	6	5	4	3	na	7	6	6	6	na
Taxes	112	118	144	159	173	11.5%	131	163	187	212	17.3%	112	114	117	122	2.2%
Net Income	316	363	422	465	504	12.4%	382	476	546	618	18.3%	328	332	341	356	3.0%
% Margin	14.2%	15.3%	16.3%	16.6%	16.6%		15.4%	16.9%	17.1%	17.1%		14.5%	14.5%	14.6%	14.6%	
FDSO	42	42	41	40	40	(1.5%)	41	41	40	39	(2.0%)	42	42	41	41	(0.7%)
Diluted Eps	7.45	8.71	10.29	11.50	12.63	14.1%	9.22	11.73	13.73	15.82	20.7%	7.81	7.97	8.23	8.65	3.8%
Capex	180	150	85	92	105	(12.6%)	150	85	92	105	(12.6%)	150	85	92	105	(12.6%)
Free Cash Flow <sup>(1)</sup>	236	320	452	497	533	22.6%	344	516	594	670	29.8%	281	351	354	360	11.2%
% Conversion	44.7%	54.5%	66.4%	66.4%	65.7%		55.1%	67.5%	68.1%	67.9%		51.7%	63.8%	62.9%	61.4%	
Dividends	46	48	50	51	52	2.9%	49	51	53	55	4.4%	48	48	49	49	1.5%

(1) FCF equals EBITDA minus taxes minus capex.



# Valuation Summary – Multiples Today

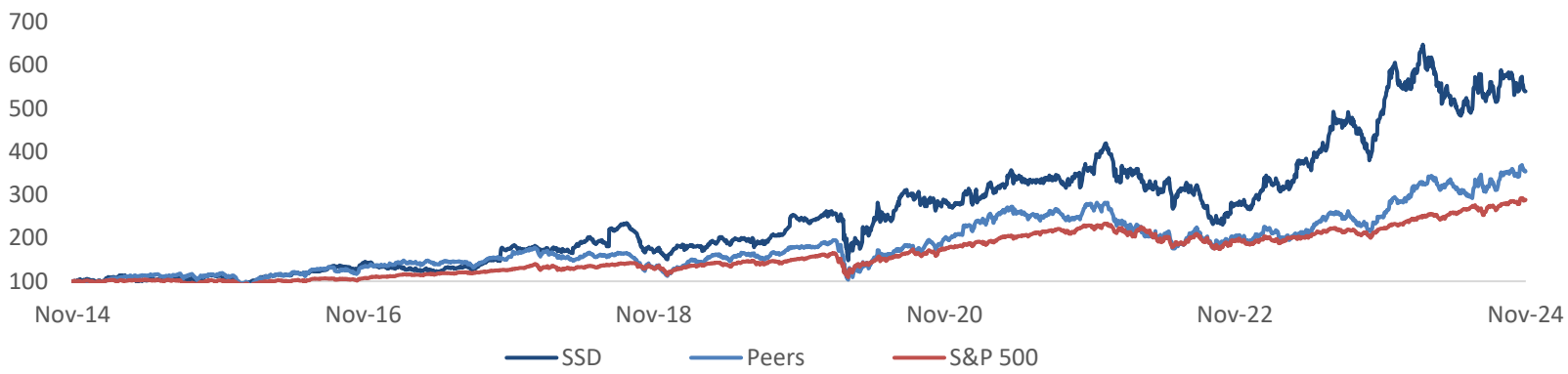
	Market Cap	Enterprise Value	Forward PE		Forward EV/EBITDA		Gross Margin	Operating Margin	ROIC	ROA	ROE	Hist 3yr Rev. Growth	FWD. 2yr EPS Growth	Net Leverage (x)
			2025	2026	2025	2026								
AAON, Inc.	10,733	10,805	44.8x	37.0x	27.0x	23.1x	35.7%	20.9%	21.2%	16.8%	27.4%	31.8%	25.9%	0.2x
Advanced Drainage Systems, Inc.	9,955	10,742	21.2x	19.4x	12.0x	11.1x	39.1%	24.3%	21.6%	16.3%	52.5%	12.6%	3.0%	1.5x
A. O. Smith Corporation	10,403	10,291	17.6x	16.4x	11.8x	10.9x	38.2%	18.7%	18.0%	14.1%	31.0%	3.0%	7.7%	0.2x
Allegion plc	12,121	13,800	17.9x	16.5x	14.1x	13.0x	44.0%	21.1%	11.5%	11.1%	47.8%	9.5%	6.8%	2.8x
American Woodmark Corporation	1,471	1,906	12.2x	9.5x	8.1x	7.2x	19.7%	8.5%	6.8%	5.5%	11.4%	1.7%	7.5%	2.1x
Apogee Enterprises, Inc.	1,784	1,840	16.0x	16.2x	9.5x	8.8x	27.8%	11.5%	13.9%	8.7%	26.6%	4.2%	3.8%	0.6x
Atkore Inc.	3,018	3,635	7.2x	6.6x	5.7x	5.4x	35.4%	21.7%	31.1%	20.2%	50.8%	2.6%	-6.3%	1.2x
Armstrong World Industries, Inc.	6,730	7,284	22.6x	20.2x	13.8x	12.8x	40.1%	19.9%	14.4%	9.3%	39.7%	8.9%	11.1%	1.3x
The AZEK Company Inc.	6,896	7,254	34.2x	29.1x	17.7x	16.0x	37.6%	14.9%	3.0%	3.4%	4.4%	6.8%	18.0%	1.4x
Eagle Materials Inc.	10,072	11,076	19.9x	17.8x	12.9x	12.0x	30.5%	27.6%	19.2%	13.7%	39.8%	11.8%	8.8%	1.3x
James Hardie Industries plc	15,273	16,072	23.4x	20.2x	15.0x	13.3x	40.2%	23.2%	15.2%	11.2%	34.8%	10.7%	3.5%	1.1x
Louisiana-Pacific Corporation	7,824	7,850	20.2x	17.6x	12.1x	10.8x	28.4%	18.6%	5.8%	9.0%	11.9%	-9.4%	6.6%	0.6x
Quanex Building Products Corporation	1,397	1,423	11.5x	11.5x	5.1x	5.1x	24.8%	8.0%	11.8%	8.4%	16.3%	6.0%	9.8%	0.7x
Patrick Industries, Inc.	2,929	4,475	16.6x	13.5x	8.8x	7.9x	22.7%	7.6%	4.3%	6.1%	14.3%	-3.3%	22.3%	3.5x
Gibraltar Industries, Inc.	2,091	1,893	14.5x	12.8x	8.5x	7.7x	27.7%	12.2%	11.6%	8.5%	12.7%	-0.6%	13.7%	0.2x
Summit Materials, Inc.	8,499	10,678	23.0x	18.8x	9.7x	8.9x	29.8%	12.6%	6.9%	4.4%	13.4%	18.3%	23.8%	3.0x
Trex Company, Inc.	7,380	7,474	31.5x	27.3x	19.5x	17.4x	42.5%	27.0%	27.0%	18.5%	33.3%	-1.5%	11.2%	0.3x
Peer Group Average.	6,975	7,559	20.8x	18.3x	12.4x	11.3x	33.2%	17.5%	14.3%	10.9%	27.5%	6.7%	10.4%	1.3x
Peer Group Median	7,380	7,474	19.9x	17.6x	12.0x	10.9x	35.4%	18.7%	13.9%	9.3%	27.4%	6.0%	8.8%	1.2x
Simpson Manufacturing Co., Inc.	7,547	7,762	21.2x	18.6x	13.5x	12.1x	46.0%	19.4%	17.2%	13.6%	22.9%	12.1%	12.3%	1.1x

**Simpson trades at a slight premium to peer group which is more than justified by a dominant market position, higher margins, stronger growth, and better operating metrics**

# Appendix – Trading History

Despite strong return performance, SSD is still trading slightly below historical levels vs. peers and market

Share Price Performance  
(Indexed to 100)



Forward Trading Multiples  
(P/EPS & EV/EBITDA)



	Price / NTM EPS					EV / NTM EBITDA				
	Current	LTM.	L3Y	L5Y	LY10	Current	LTM.	L3Y	L5Y	LY10
SSD	\$21.75	\$21.40	\$19.00	\$21.51	\$21.85	\$13.61	\$13.68	\$12.04	\$13.08	\$11.94
Peer Group	\$21.23	\$19.99	\$18.18	\$20.20	\$20.44	\$12.96	\$12.71	\$11.77	\$12.75	\$11.97
SSD Prem/(Disc)	2.4%	7.1%	4.6%	6.5%	6.9%	5.0%	7.6%	2.3%	2.7%	(0.3%)
S&P 500	\$22.78	\$21.43	\$19.62	\$20.55	\$18.94	\$15.13	\$14.21	\$12.94	\$13.22	\$11.81
SSD Prem/(Disc)	(4.5%)	(0.1%)	(3.1%)	4.7%	15.4%	(10.0%)	(3.7%)	(7.0%)	(1.0%)	1.1%

Source: Capital IQ, Pricing as of 11/20/2024.

# Appendix – Value Added Research Summary

## Expert Calls/Tegus

- **Founder/CEO – Global Executive Advisor to the Retail, Home Improvement & Smart Home Industries**
- **Operations Manager at StyleCraft Homes**
- **Former Territory Account Manager - Account Executive at Simpson Manufacturing**
- **Former National Account Manager at Simpson Manufacturing**
- **Former Manager Chemical Research and Development at Simpson Strong-Tie**
- **Former VP of Operations at Mattamy Homes**

## Channel Checks

- **Home Depot**
- **Homebuilding contractor (South Region)**



# Appendix – Key Management Overview

**Following retirement of longtime CEO at end of 2022, Simpson has repositioned executive leadership team for next phase of growth**



**Michael Olosky - CEO**

- Served as the President and Chief Executive Officer since January 2023
- Previously served as Chief Operating Officer from November 2020
- Prior to joining Simpson Manufacturing, Mr. Olosky spent more than 22 years in numerous leadership positions at Henkel



**Udit Mehta - CTO**

- Joined Simpson Manufacturing Co., Inc. as the Chief Technology Officer in May 2024
- Prior to joining Simpson, Mr. Mehta served as the Chief Digital & Information Officer, Fire & Security at Carrier Global Corporation from April 2020 to April 2024
- Previously, he served at Siemens Energy from 2011 to 2020 in progressive technology leadership roles



**Phillip Burton – EVP, NA**

- Served as the Executive Vice President, North America since January 2023
- Joined Simpson Strong-Tie in 1994 as a Sales Manager, and in 2004 he was promoted to Vice President, Branch Manager of the McKinney, Texas branch, and served in this position until January 2023



**Jeremy Gilstrap – EVP, Innovation**

- Served as the Executive Vice President, Innovation since January 2023
- Joined Simpson Strong-Tie in 2001 as a branch engineer and held various positions throughout the company before being promoted to Northwest Regional Vice President in 2020



**Michael Andersen – EVP, Europe**

- Served as the Executive Vice President, Europe since January 2023
- Joined Simpson Manufacturing’s subsidiary, Simpson Strong-Tie A/S (Denmark) in 2005 as Controller
- In 2018, Mr. Andersen was promoted to Vice President, European Operations of Simpson Strong-Tie Switzerland GmbH



**Jennifer Lutz – EVP, HR**

- Served as the Executive Vice President, Human Resources since January 2023
- Joined Simpson Strong-Tie in April 2013 as the Director, Human Resources, and was promoted to Vice President, Human Resources in December 2015

**New leadership has realigned go-to-market strategy to improve sales conversions and increase new market share gains**

# Appendix – Key Management Compensation Overview

Name and Principal Position	Year	Salary (\$)	Stock Awards (\$) <sup>(2)</sup>	Non-Equity Incentive Plan Compensation (\$) <sup>(3)</sup>	All Other Compensation (\$) <sup>(3)</sup>	Total (\$)
<b>Michael Olosky</b> President and Chief Executive Officer	2023	800,000	2,823,117	1,483,432	33,000	5,139,549
	2022	620,000	1,137,526	915,216	133,376	2,806,118
	2021	620,000	435,326	930,000	114,792	2,100,118
<b>Brian Magstadt</b> Chief Financial Officer and Treasurer	2023	551,668	897,897	719,838	33,500	2,202,903
	2022	530,450	691,010	522,017	31,000	1,774,478
	2021	530,450	334,859	515,000	30,500	1,410,809
<b>Michael Andersen</b> Executive Vice President – Europe <sup>(1)</sup>	2023	383,897	713,437	438,614	67,854	1,651,541
<b>Phil Burton</b> Executive Vice President – North America	2023	454,480	531,546	573,608	33,000	1,592,634
<b>Roger Dankel</b> Executive Vice President – North American Sales	2023	484,100	631,171	392,107	33,000	1,540,378
	2022	484,100	566,907	484,100	30,500	1,565,607
	2021	484,100	276,989	470,000	29,000	1,260,089

- Targets 80% performance based compensation for CEO and ~60% performance based compensation for other NEOs
- Management incentive plan based on – 1) one-year operating income 2) one-year MBO 3) 3-year revenue growth 4) 3-year ROIC
- Stock ownership guidelines for NEOs that mandate certain multiple of base salary (CEO 5x base salary, CFO 3x base salary, all other 2x base salary)
- ~55% of CEO compensation is stock awards

# Appendix – Products Overview

### Wood Connection Products



Wood connectors, shearwalls, connectors for cold-formed steel and structural steel

### Digital Solutions



50+ software and web applications for design, specification and estimating

### Fastening Systems



Fasteners for connectors, structural screws, decking screws, and productivity solutions

### Concrete Connection Products



Mechanical and adhesive anchors, injection epoxies, carbon fiber strengthening products

### Integrated Component Systems



Truss plates, engineered wood product connectors, truss and EWP design software

Market	Product Line Relevance				
	Connectors	Fastening	Concrete	Truss	Digital
Residential	✓	✓	✓	✓	✓
Commerical	✓	✓	✓	na	✓
OEM	✓	✓	✓	✓	✓
National Retail	✓	✓	✓	na	✓
Component Manu.	✓	✓	na	✓	✓

**Broad product offering with 18,000 standard and custom products allowing the Company to serve all five end markets and meet all complex building code requirements**

Source: Company materials.

# Appendix – Top Shareholders

Latest Holders														
Holder	Common Stock Equivalent Held	% Of CSO	Market Value (USD in mm)	Change in Shares	% Change	Position Date	Source	Portfolio Turnover Category	Portfolio Turnover (%)	Investment Orientation	Calculated Investment Style	Market Cap Emphasis	Owner Type	
Keyne Anderson Rudnick Investment Management, LLC	4,543,241	10.775	836.5	(74,241)	(1.61)	Jun-30-2024	13F	Very Low	14.13	Active	Growth	Multi cap	Traditional Investment Managers	
The Vanguard Group, Inc.	4,208,605	9.982	774.9	(278,490)	(6.21)	Jun-30-2024	13F	Very Low	2.69	Passive	Growth	Large cap	Traditional Investment Managers	
BlackRock, Inc. (NYSE:BLK)	3,938,829	9.342	725.2	38,182	0.98	Sep-30-2024	13G	Very Low	6.65	Passive	Growth	Large cap	Traditional Investment Managers	
JP Morgan Asset Management	1,703,308	4.040	313.6	(75,185)	(4.23)	Sep-30-2024	13F	Low	22.72	Active	Growth	Large cap	Traditional Investment Managers	
Conestoga Capital Advisors, LLC	1,421,930	3.372	261.8	24,253	1.74	Sep-30-2024	13F	Very Low	11.76	Active	Growth	Mid cap	Traditional Investment Managers	
FMR LLC	1,375,361	3.262	253.2	(312,020)	(18.49)	Jun-30-2024	13F	Very Low	18.88	Active	Growth	Large cap	Traditional Investment Managers	
Baker Avenue Asset Management, LP	1,337,753	3.173	246.3	(265,000)	(16.53)	Sep-30-2024	13F	Low	40.87	Active	Growth	Large cap	Traditional Investment Managers	
State Street Global Advisors, Inc.	1,236,416	2.932	227.6	(278,402)	(18.38)	Jun-30-2024	13F	Very Low	4.92	Passive	Growth	Large cap	Traditional Investment Managers	
Eaton Vance Management	1,235,382	2.930	227.5	-	0.00	Sep-30-2024	13F	Very Low	8.94	Active	Growth	Large cap	Traditional Investment Managers	
Capital Research and Management Company	1,004,999	2.384	185.0	(826)	(0.08)	Jun-30-2024	13F	Low	20.09	Active	Growth	Large cap	Traditional Investment Managers	
Fiduciary Management, Inc.	924,887	2.194	170.3	2,869	0.31	Jun-30-2024	13F	Low	21.55	Active	Growth	Large cap	Traditional Investment Managers	
Dimensional Fund Advisors LP	922,405	2.188	169.8	(23,016)	(2.43)	Sep-30-2024	13F	Very Low	10.13	Active	GARP	Large cap	Traditional Investment Managers	
Geode Capital Management, LLC	707,664	1.678	130.3	7,351	1.05	Sep-30-2024	13F	Very Low	2.66	Passive	Growth	Large cap	Traditional Investment Managers	
Goldman Sachs Group, Investment Banking and Securities Investments	707,313	1.678	130.2	583,218	469.98	Jun-30-2024	13F	Moderate	62.19	Active	Growth	Large cap	Traditional Investment Managers	
Northern Trust Global Investments	643,145	1.525	118.4	1,706	0.27	Jun-30-2024	13F	Very Low	5.42	Active	Growth	Large cap	Traditional Investment Managers	
Burgundy Asset Management Ltd.	619,496	1.469	114.1	14,690	2.43	Sep-30-2024	13F	Very Low	15.90	Active	Growth	Large cap	Traditional Investment Managers	
Wells Fargo & Company, Securities and Brokerage Investments	521,103	1.236	95.9	(6,197)	(1.18)	Jun-30-2024	13F	Very Low	12.00	Active	Growth	Large cap	Banks/Investment Banks	
T. Rowe Price Group, Inc. (NasdaqGS:TROW)	503,896	1.195	92.8	125,583	33.20	Jun-30-2024	Aggregated 13F	Low	21.58	Active	Growth	Large cap	Traditional Investment Managers	
Charles Schwab Investment Management, Inc.	487,118	1.155	89.7	6,585	1.37	Sep-30-2024	13F	Very Low	12.91	Passive	Growth	Large cap	Traditional Investment Managers	
Norges Bank Investment Management	445,591	1.057	82.0	36,109	8.82	Jun-30-2024	13F	-	-	Active	Growth	Large cap	Government Pension Sponsors	



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

**December 5, 2024**

**Team Number: 4**

**Students: Hannah Kimmel, Josh Baldwin, and Chris Coolidge**



# Executive Summary

*INSP faces new market threats, reducing ability to scale*



New competitors GLP-1s and Nyxoah will challenge Inspire's ability to remain top dog



Management's focus on scaling rather than product innovation will lead to weaker-than-expected gross margins

**SELL**

**PT: \$143**

**24.5%**

**Downside**

# Company Overview

*An alternative to traditional OSA treatment*



**Neurostimulation Technology Device for treatment of Obstructive Sleep Apnea (OSA)**



**Alternative to CPAP – requires minimally invasive implant surgery**



**Over 85,000 patients treated**

# Treatment Options

## Obstructive Sleep Apnea (OSA)

### Obstructive Sleep Apnea (OSA)



Normal Airway



Sleep Apnea

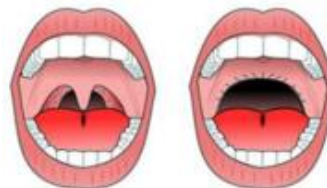
- OSA is caused by a blockage that prevents airflow to the lungs
- Results in repeated arousals and oxygen desaturations to the lungs
- Severity of sleep apnea is measured by frequency of apnea or hypopnea events per hour (AHI Index)

### CPAP is first-line treatment...

- Traditional treatment option
- Low patient compliance is major limitation (~50%)
- Uncomfortable, limits sleep positions, skin/nasal side effects



### ...with surgical alternatives



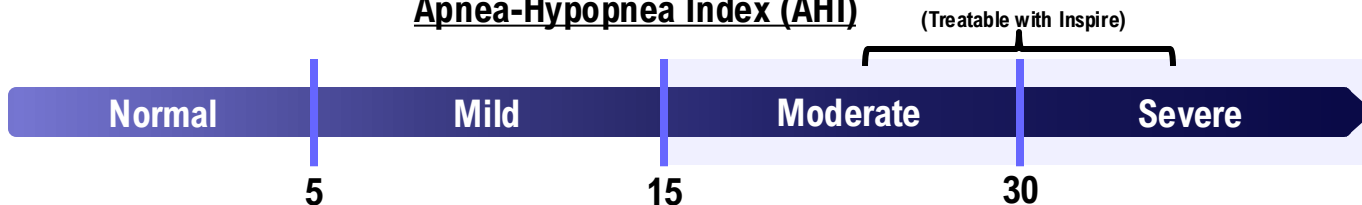
Uvulopalatopharyngoplasty (UPPP)



Maxillomandibular Advancement (MMA)

- Multiple variations of sleep surgery
- Success rates vary 30%-60%
- Highly invasive surgery with extended recovery
- Irreversible anatomy alteration

### Apnea-Hypopnea Index (AHI)

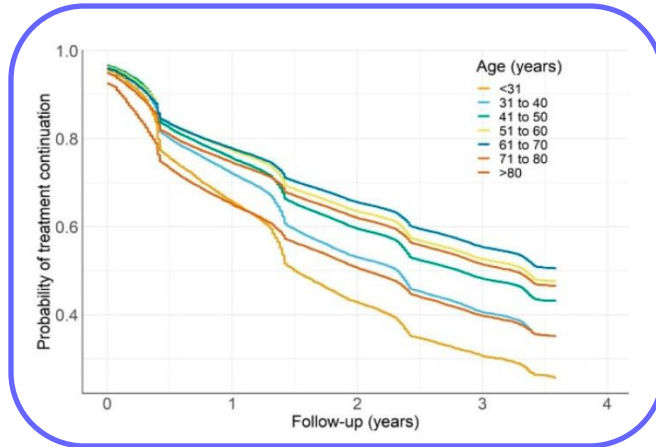


# Inspire Treatment vs. Alternatives



## Treatment options after CPAP

### CPAP Treatment Cycle

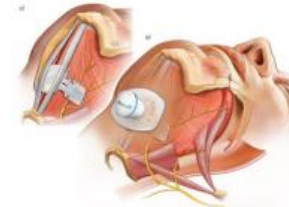


### *...Europe's leading treatment*

Nyxoah: Genio

- Single incision neurostimulator
- External battery/activation chip
- Positive effects on snoring

**GENIO**  
by Nyxoah



### *...Inspire IV and soon V*



### *...GLP-1 benefits for OSA*

GLP-1s can...

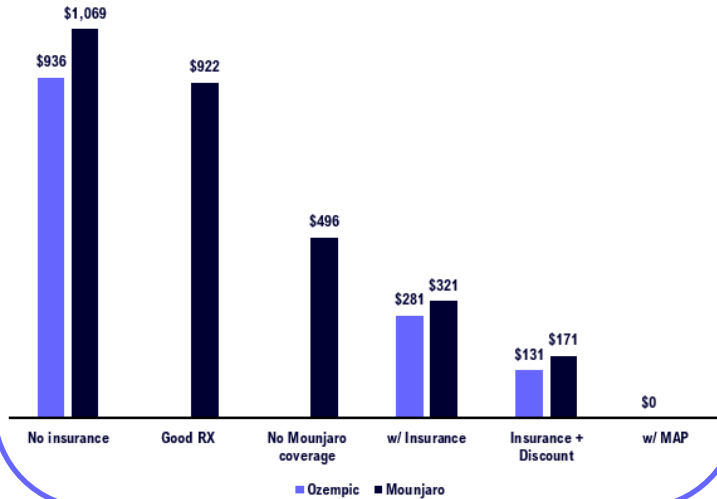
- Stabilize breathing patterns
- Reduce BMI, daytime sleepiness, and AHI



# GLP-1 Alternatives

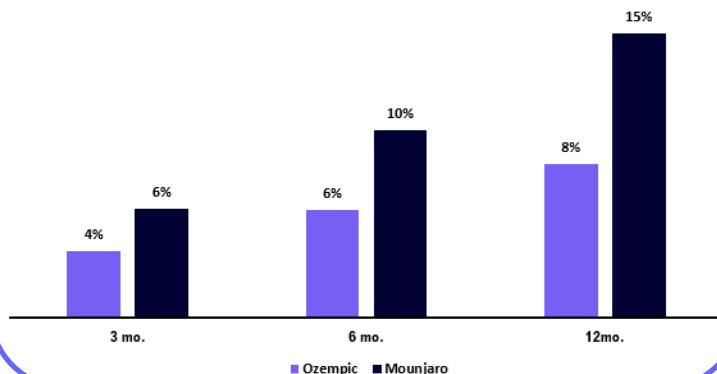
*Weight loss drugs to reduce the need for OSA treatment*

Ozempic vs Mounjaro Price



- End 2024 predicted FDA approval to prescribe Tirzepatide specifically for OSA (insurance coverage)
- Cost difference justification (quality of life)
- Comparable effectiveness

Weightloss Over Time



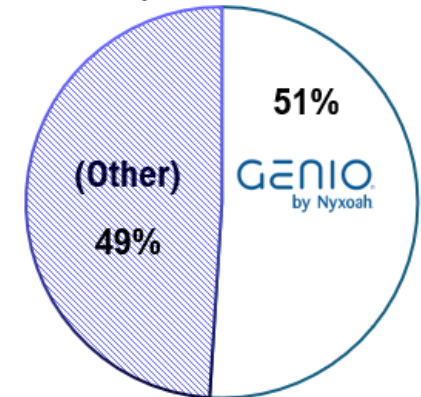
# Nyxoah to take market share

*Superior product to rollout in U.S. market upon FDA approval*

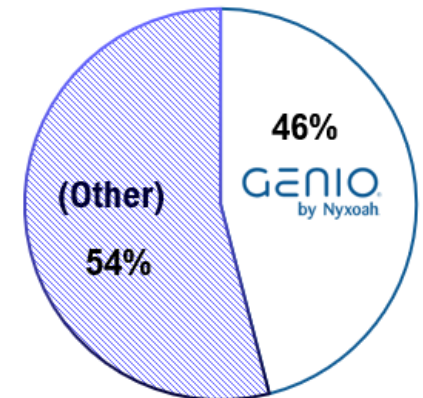


- FDA approval expected late 2024/early 2025
- Comparable price with superior technology
- Heavily invested in product salesforce

If Genio was available today, what percent of your HGNS implants would it represent?

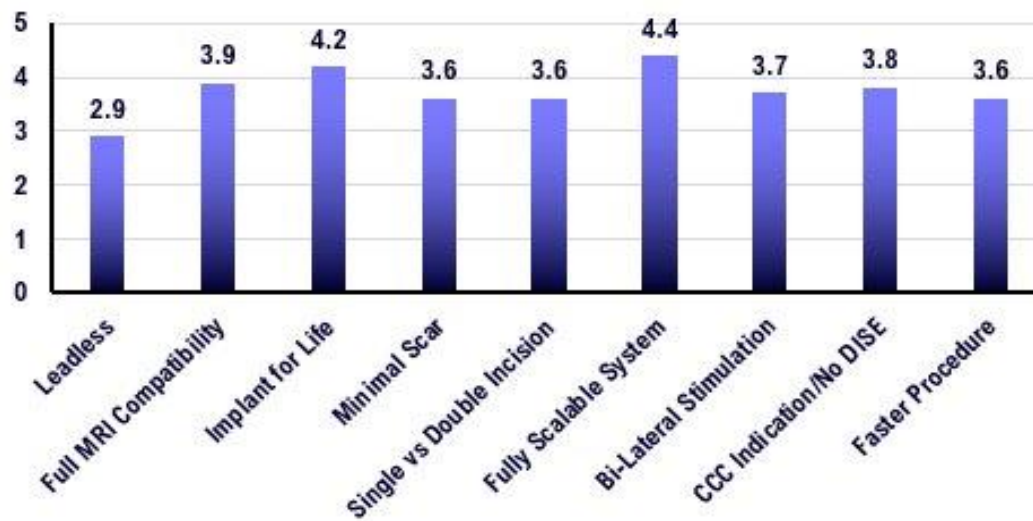


ENTs



Sleep Specialists

**Factor Importance for Clinicians (1-5 scale)**



# Misallocated Capital

*Focus on scaling over efficient R&D will have adverse effects on GMs*

# 1,371

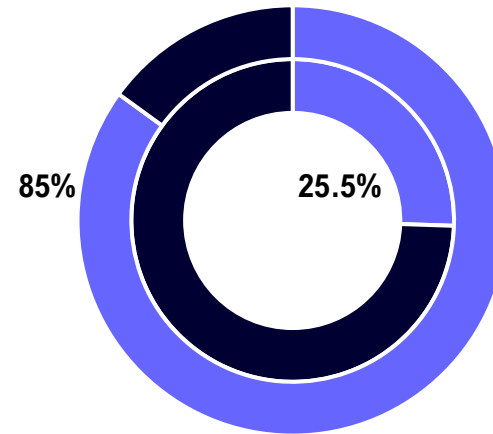
**Surgery Centers in the US**

**Out of efficient areas to scale**

**Cannibalizing existing centers**

**~4 Surgeries/year per center**

Revenue Concentration Amongst Clinics

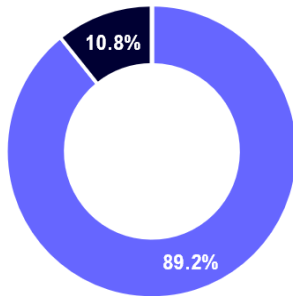


**Gross  
Margins  
(300) bps**

# Significant Threats Discounted

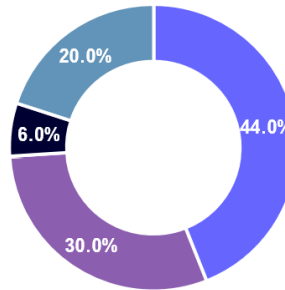
*Management is too optimistic in their product and positioning*

2024 Market Share



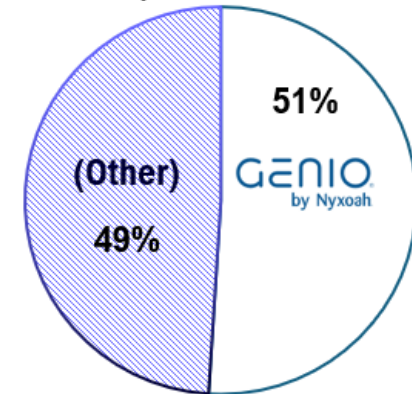
■ Inspire Market Share ■ Other Market Share

2027 Projected Market Share

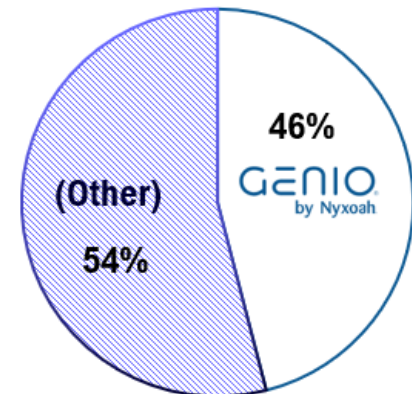


■ Inspire Market Share ■ GLP-1 Market Share  
■ Other Market Share ■ Nyxoah Market Share

If Genio was available today, what percent of your HGNS implants would it represent?



ENTs



Sleep Specialists

***"We believe GLP-1s to be a net positive"***

- *Management on Q3 '24 Earnings Call*



# Valuation

*Multiple compression, competition to slow sales*

## Bear Case

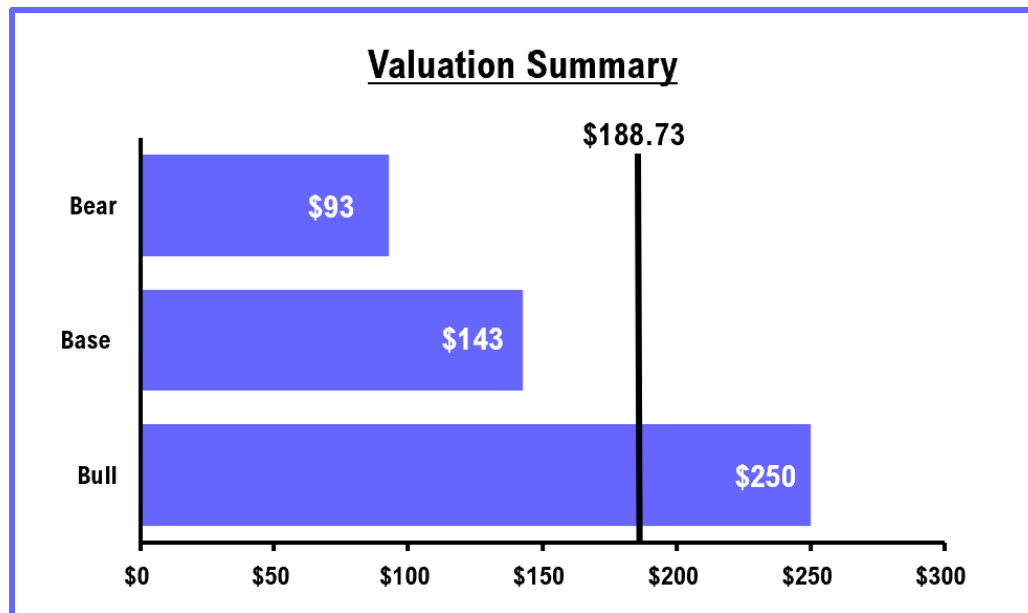
**3x EV/Sales**  
**900m FY25 Sales**  
**Target: \$93**  
**50.7% Return**

## Base Case

**4.5x EV/Sales**  
**935m FY25 Sales**  
**Target: \$143**  
**24.5% Return**

## Bull Case

**7.5x EV/Sales**  
**1,000m FY25 Sales**  
**Target: \$250**  
**(32.3%) Return**



Source: ASAP Estimates & Company Data

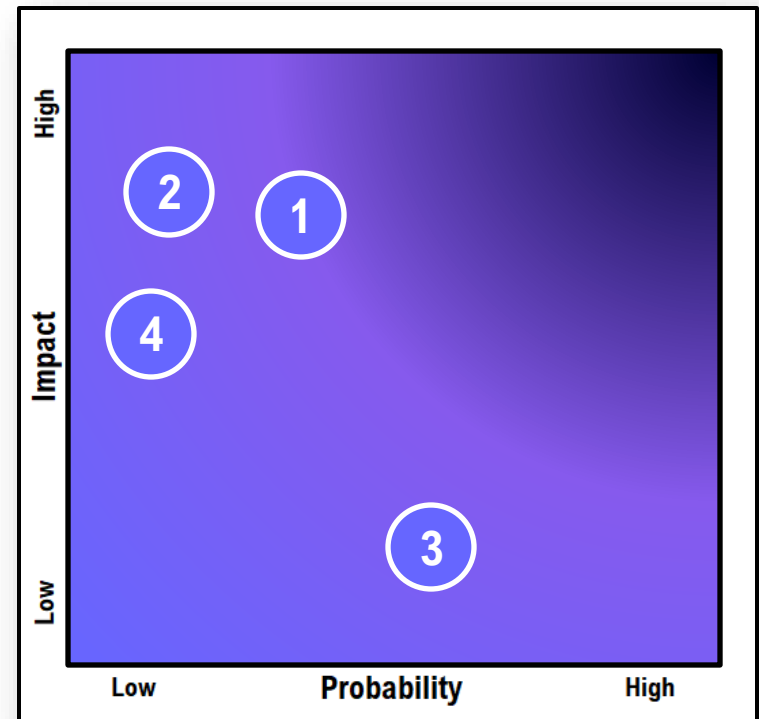
# Investment Risks

(1) Genio underperforming in U.S. market

(2) GLP-1s failing to take share from Inspire

(3) Insurance complications with GLP-1s

(4) Inspire V outperformance



# Investment Summary

*INSP faces new market threats, reducing ability to scale*



New competitors GLP-1s and Nyxoah will challenge Inspire's ability to remain top dog



Management's focus on scaling rather than product innovation will lead to weaker-than-expected gross margins

**SELL**

**PT: \$143**

**24.5%**

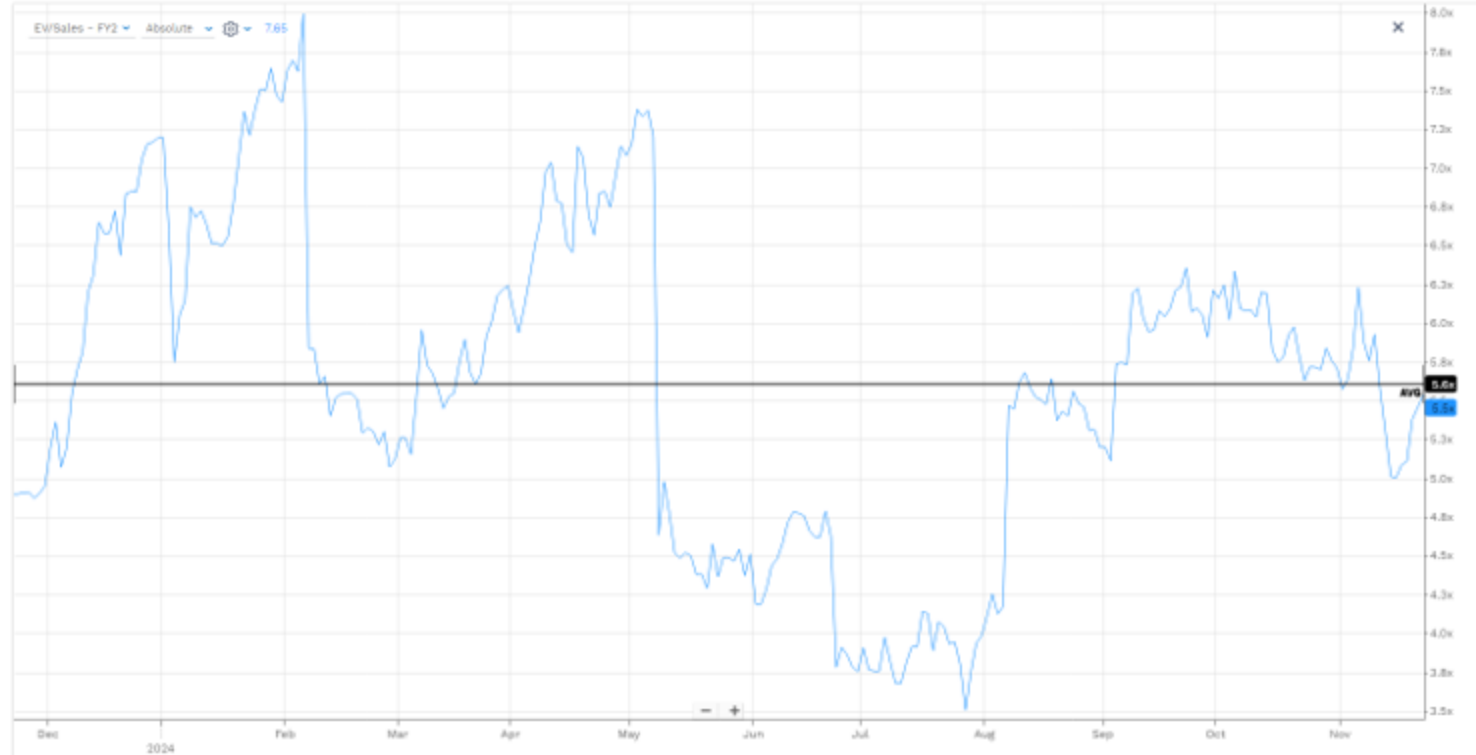
**Downside**

***Questions?***

# Appendix

Inspire Medical Systems, Inc.

<11/23/23> - <11/23/24> , Daily



# Revenue Build

	2024	2025	2026	2027	2028
TAM	14,986,510,000	15,885,700,600	16,838,842,636	17,849,173,194	18,920,123,586
TAM Growth Rate		6.0%	6.0%	6.0%	6.0%
% of TAM going back on CPAP/Nothing	94.0%	91.0%	89.0%	86.0%	84.5%
Total Taking Action	35,968	57,189	74,091	99,955	117,305
Inspire Market Share	89.2%	63.0%	54.5%	44.0%	40.0%
GLP-1 Market Share	0.0%	22.0%	25.0%	30.0%	30.0%
Other Market Share	10.8%	10.0%	8.0%	6.0%	5.0%
Nyxoah Market Share	0.0%	5.0%	12.5%	20.0%	25.0%
Inspire Customers	32,086	36,029	40,380	43,980	46,922
Inspire ASP	24,812	25,000	25,000	25,000	25,000
Inspire US Revenue	796.1	900.7	1009.5	1099.5	1173.0

# Relative Valuation

INSP Comps													
Company Name	Ticker	Fiscal Period	Price	Market Value	Sales FY1	Sales FY2	Sales Growth %	Gross Mgn FY2 (%)	EBITDA Mgn FY2 (%)	EBITDA FY2	EV/SALES FY2 (x)	EV/EBITDA FY2 (x)	
Inspire Med Sys Rg	INSP-US	9/30/2024	188.73	5,655.70	796.1	951.5	19.5%	84.60%	19.50%	185.2	5.76x	29.60x	
Insulet	PODD-US	9/30/2024	262.93	18,443.20	2,054.70	2,429.50	18.2%	69.60%	21.30%	518.7	7.90x	36.99x	
Penumbra	PEN-US	9/30/2024	244.84	9,396.80	1,190.60	1,362.80	14.5%	67.10%	15.70%	213.9	6.85x	43.67x	
Inari Medical	NARI-US	9/30/2024	49.66	2,907.30	603	713.2	18.3%	86.70%	4.30%	30.6	4.10x	95.59x	
iRhythm Technologies	IRTC-US	9/30/2024	73.99	2,315.70	584.5	679.7	16.3%	70.40%	8.10%	54.9	3.86x	47.87x	
RxSight	RXST-US	9/30/2024	44.83	1,806.80	140	187.6	34.0%	71.20%	-10.40%	-19.5	9.25x	-	
Treace Medical Concepts	TMCI-US	9/30/2024	7.83	487.8	207.6	224.9	8.3%	80.50%	-0.30%	-0.6	2.23x	-	
Glaukos	GKOS-US	9/30/2024	144	7,939.80	378.5	473.4	25.1%	83.20%	-6.50%	-30.6	18.01x	-	
DexCom	DXCM-US	9/30/2024	72.83	28,447.10	4,015.70	4,611.10	14.8%	64.60%	30.80%	1,418.70	6.18x	20.10x	
<b>Average</b>							<b>18.8%</b>	<b>75.30%</b>	<b>9.20%</b>		<b>7.13x</b>	<b>45.64x</b>	
<b>Median</b>							<b>18.2%</b>	<b>71.20%</b>	<b>8.10%</b>		<b>6.18x</b>	<b>40.33x</b>	

12-month price target Bear Case	
Target multiple =	<b>3</b>
FY2 sales =	\$900
Target EV =	\$2,700
Net debt =	(\$148)
Target Equity Value =	\$2,848
Shares Outstanding =	30.634
Target Price per share =	<b>\$92.95</b>
Upside/(Downside) =	<b>50.7%</b>

12-month price target Base Case	
Target multiple =	<b>4.5</b>
FY2 sales =	\$935
Target EV =	\$4,209
Net debt =	(\$148)
Target Equity Value =	\$4,356
Shares Outstanding =	30.634
Target Price per share =	<b>\$142.20</b>
Upside/(Downside) =	<b>24.7%</b>

12-month price target Bull Case	
Target multiple =	<b>7.5</b>
FY2 sales =	\$1,000
Target EV =	\$7,500
Net debt =	(\$148)
Target Equity Value =	\$7,648
Shares Outstanding =	30.634
Target Price per share =	<b>\$249.64</b>
Upside/(Downside) =	<b>(32.3%)</b>



# Base

## Unlevered FCF Calculation (FCFF)

In \$millions	20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec	30-Dec	31-Dec	Dec-32	Dec-33
Revenues	115.4	233.4	407.9	624.8	796.1	935.2	1047.5	1141.3	1219.0	1279.9	1331.1	1377.7	1419.0	1454.5
% Growth		102.3%	74.7%	53.2%	27.42%	17.48%	12.00%	8.96%	6.81%	5.0%	4.0%	3.5%	3.0%	2.5%
Gross Revenue	97.8	200.1	341.7	528.2	671.8	782.4	869.4	941.5	999.6	1049.5	1091.5	1129.7	1163.6	1192.7
Gross Margin	84.7%	85.7%	83.8%	84.5%	84.4%	83.7%	83.0%	82.5%	82.0%	82.0%	82.0%	82.0%	82.0%	82.0%
EBIT	(56.2)	(39.9)	(47.6)	(40.3)	20.5	48.7	83.8	119.8	146.3	172.8	199.7	234.2	269.6	320.0
EBIT Margin	(48.7%)	(17.1%)	(11.7%)	(6.4%)	2.6%	5.2%	8.0%	10.5%	12.0%	13.5%	15.0%	17.0%	19.0%	22.0%
Pretax Income	(57.1)	(42.0)	(44.3)	(19.9)	44.0	72.2	107.4	143.4	169.8	192.0	219.6	254.9	290.9	341.8
Pretax Margin	(49.5%)	(18.0%)	(10.9%)	(3.2%)	5.5%	7.7%	10.2%	12.6%	13.9%	15.0%	16.5%	18.5%	20.5%	23.5%
Income Taxes	0.1	0.1	0.6	1.2	5.8	7.9	17.2	28.7	34.0	38.4	43.9	51.0	58.2	68.4
Tax Rate (% of Pretax)	0.2%	0.2%	1.4%	6.3%	13.1%	11.0%	16.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
<b>NOPAT = EBIT*(1-tax rate)</b>	<b>(56.1)</b>	<b>(39.8)</b>	<b>(46.9)</b>	<b>(37.7)</b>	<b>17.8</b>	<b>43.3</b>	<b>70.4</b>	<b>95.9</b>	<b>117.0</b>	<b>138.2</b>	<b>159.7</b>	<b>187.4</b>	<b>215.7</b>	<b>256.0</b>
% Growth		29.1%	(18.0%)	19.6%		142.9%	62.5%	36.2%	22.1%	18.1%	15.6%	17.3%	15.1%	18.7%
Depreciation & Amortization	0.8	1.2	1.9	2.8	6.5	12.5	14.4	16.6	18.2	12.8	13.3	13.8	14.2	14.5
D&A % of Sales	0.73%	0.52%	0.46%	0.46%	0.81%	1.34%	1.37%	1.45%	1.49%	1.00%	1.00%	1.00%	1.00%	1.00%
Stock Based Compensation	12.8	26.2	52.0	82.5	114.8	121.6	125.7	137.0	146.3	153.6	159.7	165.3	170.3	174.5
SBC % of Sales	11.11%	11.22%	12.74%	13.20%	14.42%	13.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
Capital Expenditures	(2.5)	(4.7)	(9.1)	(23.6)	(41.7)	(50.1)	(57.6)	(66.2)	(72.9)	(76.5)	(80.3)	(84.3)	(88.6)	(93.0)
YoY % Growth		90.14%	94.86%	159.77%	76.63%	20.00%	15.00%	15.00%	10.00%	5.00%	5.00%	5.00%	5.00%	5.00%
<b>Change in Operating Working Capital (excludes cash, mkt securities and current debt)</b>														
Accounts Receivable	(11.8)	(9.2)	(27.0)	(30.2)	(2.1)	(20.1)	(17.6)	(11.7)	(9.7)	(9.7)	(9.7)	(9.7)	(9.7)	(9.7)
Inventories	(2.6)	(8.8)	5.3	(22.0)	(36.9)	(15.3)	(44.9)	(6.5)	(6.9)	(6.9)	(6.9)	(6.9)	(6.9)	(6.9)
Prepaid Expenses and Other Assets	0.4	(0.7)	(2.8)	(4.8)	(4.5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accounts Payable	2.0	4.8	14.4	9.3	8.3	10.0	2.7	7.2	6.6	6.6	6.6	6.6	6.6	6.6
Accrued Expenses and Other Liabilities	1.1	7.1	11.9	6.9	(0.8)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net change in operating working cap	(10.9)	(6.9)	1.8	(40.8)	(36.0)	(25.3)	(59.8)	(11.1)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)
<b>Unlevered FCF (FCFF)</b>	<b>(34.0)</b>	<b>(10.2)</b>	<b>(4.0)</b>	<b>64.7</b>	<b>133.4</b>	<b>152.6</b>	<b>212.7</b>	<b>194.2</b>	<b>218.7</b>	<b>238.1</b>	<b>262.5</b>	<b>292.2</b>	<b>321.6</b>	<b>362.1</b>
YoY % Growth		70.02%	60.67%	1713.57%	106.1%	14.4%	39.3%	(8.7%)	12.6%	8.9%	10.2%	11.3%	10.1%	12.6%

DCF Valuation In \$millions	STAGE 1					STAGE 2				
	31-Dec-24	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec	30-Dec	31-Dec	Dec-32	Dec-33
LT Growth Rate (Terminal)	2.00%									
Discount Rate (WACC)	8.50%									
Unlevered FCF	133.4	152.6	212.7	194.2	218.7	238.1	262.5	292.2	321.6	362.1
Years from the date of calculation (timing adjustment factor)	0.10	1.10	2.10	3.10	4.10	5.10	6.10	7.10	8.10	9.10
Discount Factor (denominator)	1.01	1.09	1.19	1.29	1.40	1.52	1.65	1.79	1.94	2.10
Present Value of FCF	132.3	139.5	179.2	150.8	156.5	157.1	159.5	163.7	166.1	172.3
<b>DCF Valuation</b>										
PV of FCF (1.5 yrs) - Stage 1	758.2	18%								
PV of FCF (6-10 yrs) - Stage 2	818.7	19%								
Terminal Value - Stage 3	2,650.6	63%								
<b>Implied Enterprise Value (EV) from DCF</b>	<b>4,227.4</b>	<b>100%</b>								
Implied EV/FY26 EBITDA multiple										
Total Debt	0.0									
Cash and cash equivalents	147.5									
<b>Net Debt (total debt - cash)</b>	<b>(147.5)</b>									
Implied Equity Value	4,375									
Diluted shares outstanding	30.63									
<b>Implied Equity Value per Share</b>	<b>\$142.81</b>									
<b>Actual Stock price (today)</b>	<b>\$188.73</b>									
<b>% upside (downside) implied by DCF model =</b>	<b>(24.3%)</b>									

WACC CALCULATION			
MKT Cap	5,655.65	100.00%	
Total Debt	0.00	0.00%	
Total Cap	5,656	100.00%	
Cost of Equi R <sub>e</sub> +	Beta x	ERP - (E <sub>S&amp;P500</sub> - R <sub>f</sub> )	
	4.42%	1.14	3.58%
			<b>8.50%</b>
Cost of Debt weighted average cost of debt =			<b>0.00%</b>
WACC =	(W <sub>e</sub> *R <sub>e</sub> ) +	(W <sub>d</sub> *R <sub>d</sub> )*(1 tax rate)	
	8.50%	0.00%	= <b>8.50%</b>

# Consensus

## Unlevered FCF Calculation (FCFF)

In \$Millions	20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec	30-Dec	31-Dec	Dec-32	Dec-33
Revenues	115.4	233.4	407.9	624.8	796.1	951.5	1123.5	1312.8	1528.0	1734.2	1942.3	2136.6	2339.6	2526.7
% Growth		102.3%	74.7%	53.2%	27.4%	19.5%	18.1%	16.8%	16.4%	13.5%	12.0%	10.0%	9.5%	8.0%
Gross Revenue	97.8	200.1	341.7	528.2	672.3	804.9	952.9	1117.7	1303.0	1479.3	1656.8	1822.5	1995.6	2155.3
Gross Margin	84.7%	85.7%	83.8%	84.5%	84.5%	84.6%	84.8%	85.1%	85.3%	85.3%	85.3%	85.3%	85.3%	85.3%
EBIT	(56.2)	(39.9)	(47.6)	(40.3)	23.1	49.1	89.1	137.3	201.9	260.1	369.0	470.0	573.2	669.6
EBIT Margin	(48.7%)	(17.1%)	(11.7%)	(6.4%)	2.9%	5.2%	7.9%	10.5%	13.2%	15.0%	19.0%	22.0%	24.5%	26.5%
Pretax Income	(57.1)	(42.0)	(44.3)	(19.9)	47.8	82.6	116.6	163.6	232.5	286.1	398.2	502.1	608.3	707.5
Pretax Margin	(49.5%)	(18.0%)	(10.9%)	(3.2%)	6.0%	8.7%	10.4%	12.5%	15.2%	16.5%	20.5%	23.5%	26.0%	28.0%
Income Taxes	0.1	0.1	0.6	1.2	5.4	9.5	19.9	29.1	45.3	60.1	83.6	105.4	127.7	148.6
Tax Rate (% of Pretax)	0.2%	0.2%	1.4%	6.3%	11.3%	11.4%	17.0%	17.8%	19.5%	21.0%	21.0%	21.0%	21.0%	21.0%
NOPAT = EBIT*(1-tax rate)	(56.1)	(39.8)	(46.9)	(37.7)	20.5	43.4	73.9	112.9	162.6	205.5	291.5	371.3	452.8	529.0
% Growth		29.1%	(18.0%)	19.6%	154.3%	111.9%	70.2%	52.7%	44.0%					
Depreciation & Amortization	0.8	1.2	1.9	2.8	4.8	7.6	11.2	15.8	22.9	29.5	38.8	47.0	53.8	63.2
D&A % of Sales	0.73%	0.52%	0.46%	0.46%	0.60%	0.80%	1.00%	1.20%	1.50%	1.70%	2.00%	2.20%	2.30%	2.50%
Stock Based Compensation	12.8	26.2	52.0	82.5	119.4	123.7	134.8	144.4	152.8	138.7	116.5	106.8	93.6	75.8
SBC % of Sales	11.11%	11.22%	12.74%	13.20%	15.00%	13.00%	12.00%	11.00%	10.00%	8.00%	6.00%	5.00%	4.00%	3.00%
Capital Expenditures	(2.5)	(4.7)	(9.1)	(23.6)	(33.7)	(40.2)	(47.2)	(54.3)	(60.8)	(66.8)	(72.2)	(77.2)	(81.9)	(86.0)
YoY % Growth		90.14%	94.86%	159.77%	42.55%	19.47%	17.23%	15.00%	12.00%	10.00%	8.00%	7.00%	6.00%	5.00%
<b>Change in Operating Working Capital (excludes cash, mkt securities and current debt)</b>														
Accounts Receivable	(11.8)	(9.2)	(27.0)	(30.2)										
Inventories	(2.6)	(8.8)	5.3	(22.0)										
Prepaid Expenses and Other Assets	0.4	(0.7)	(2.8)	(4.8)										
Accounts Payable	2.0	4.8	14.4	9.3										
Accrued Expenses and Other Liabilities	1.1	7.1	11.9	6.9										
Net change in operating working cap	(10.9)	(6.9)	1.8	(40.8)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)
<b>Unlevered FCF (FCFF)</b>	<b>(34.0)</b>	<b>(10.2)</b>	<b>(4.0)</b>	<b>64.7</b>	<b>121.0</b>	<b>144.5</b>	<b>182.8</b>	<b>228.8</b>	<b>287.5</b>	<b>316.9</b>	<b>384.7</b>	<b>457.9</b>	<b>528.3</b>	<b>592.0</b>
YoY % Growth		70.02%	60.67%	1713.57%										

DCF Valuation in Millions	STAGE 1					STAGE 2				
	31-Dec-24	31-Dec-25	31-Dec-26	31-Dec-27	31-Dec-28	31-Dec-29	31-Dec-30	31-Dec-31	31-Dec-32	31-Dec-33
LT Growth Rate (Terminal)	3.00%									
Discount Rate (WACC)	9.00%									
Unlevered FCF	121.01	144.51	182.83	228.82	287.53	316.89	384.75	457.93	528.34	591.97
Years from the date of calculation (timing adjustment factor)	0.10	1.10	2.10	3.10	4.10	5.10	6.10	7.10	8.10	9.10
Discount Factor (denominator)	1.01	1.10	1.20	1.31	1.42	1.55	1.69	1.84	2.01	2.19
Present Value of FCF	119.96	131.42	152.54	175.15	201.92	204.16566	227.4178511	248.32654	262.85017	270.18996
<b>DCF Valuation</b>										
PV of FCF (1-5 yrs) - Stage 1	781	12%								
PV of FCF (6-10 yrs) - Stage 2	1,213	18%								
Terminal Value - Stage 3	4,638	70%								
<b>Implied Enterprise Value (EV) from DCF</b>	<b>6,632</b>									
Implied EV/Sales multiple										
Total Debt	0									
Cash and cash equivalents	148									
<b>Net Debt (total debt - cash)</b>	<b>(148)</b>									
Implied Equity Value	6,780									
Diluted shares outstanding	30.63									
<b>Implied Equity Value per Share</b>	<b>\$221.31</b>									
<b>Actual Stock price (today)</b>	<b>\$184.77</b>									
<b>% upside (downside) implied by DCF model =</b>	<b>19.8%</b>									

WACC CALCULATION			
MKT Cap	5,536.98	100.00%	
Total Debt	0.00	0.00%	
Total Cap	5,537	100.00%	
Cost of Equity	$R_f + \text{Beta} \times \text{ERP} = (E_{\text{STP000}} - R_f)$		
	4.41%	1.27	3.59%
			<b>8.96%</b>
Cost of Debt = weighted average cost of debt =			<b>0.00%</b>
WACC =	$(W_E \times R_E) + (W_D \times R_D) \times (1 - \text{tax rate})$		
	8.96%	0.00%	<b>8.96%</b>

in millions									
				<b>Weight Group with Moderate to Severe Diagnosi</b>	<b>15%</b>				
<b>US Adult Population</b>		<b>258.3</b>		Normal (BMI<25)				<b>0.9</b>	
				Overweight (BMI 25-30)				<b>2.3</b>	
<b>Obesity Metrics</b>				Obese (BMI 30-40)				<b>4.4</b>	
				Mobidly Obese (BMI 40+)				<b>1.7</b>	
Normal (BMI<25)	20%	<b>51.66</b>							
Overweight (BMI 25-30)	30%	<b>77.49</b>		<b>Weight Group Percent Opting into CPAP Use</b>	<b>72%</b>				
Obese (BMI 30-40)	40%	<b>103.32</b>		Normal (BMI<25)				<b>0.6</b>	
Mobidly Obese (BMI 40+)	10%	<b>25.83</b>		Overweight (BMI 25-30)				<b>1.7</b>	
				Obese (BMI 30-40)				<b>3.2</b>	
				Mobidly Obese (BMI 40+)				<b>1.2</b>	
<b>Weight Group with OSA</b>									
Normal (BMI<25)	11%	<b>5.7</b>		<b>Number of People Diagnosed with Moderate to Severe OSA using CPAP</b>				<b>6.7 million</b>	
Overweight (BMI 25-30)	20%	<b>15.5</b>							
Obese (BMI 30-40)	32%	<b>33.1</b>		<b>Annual US CPAP Market Revenue</b>				<b>2,200.00</b>	
Mobidly Obese (BMI 40+)	50%	<b>12.9</b>		Average CPAP Cost				\$ 0.001	
				<b>CPAPs Sold Per Year</b>				<b>2,200</b>	
<b>Weight Group Already Taking GLP-1</b>									
Normal (BMI<25)	Negligible	-		<b>CPAP Termination Rate by Time Interval</b>					
Overweight (BMI 25-30)	Negligible	-			CPAP Users	Termination %	Potential Customers		
Obese (BMI 30-40)	22%	<b>7.3</b>		<1 Year	2.2	22%	0.48		
Mobidly Obese (BMI 40+)	22%	<b>2.8</b>		1-2 Year	1.7	13%	0.22		
				2-3 Year	1.5	10%	0.15		
				>3 Year	1.3	0%	0.00		
<b>Weight Group GLP-1Sleep Apnea Resolution Per</b>	<b>50%</b>			<b>Total (in thousands)</b>				<b>856.4</b>	
Normal (BMI<25)	-								
Overweight (BMI 25-30)	-			<b>Percent of Potential Customers That Reach BMI Requirement</b>				<b>70%</b>	
Obese (BMI 30-40)		<b>3.6</b>		INSPIRE TAM (in thousands)				<b>599.5</b>	
Mobidly Obese (BMI 40+)		<b>1.4</b>							
<b>Weight Group With OSA Untreated by GLP-1</b>									
Normal (BMI<25)		<b>5.7</b>		People on CPAP					
Overweight (BMI 25-30)		<b>15.5</b>		number		% off	inspire		
Obese (BMI 30-40)		<b>29.4</b>		<1 yr	2,200,000	22%	484,000		
Mobidly Obese (BMI 40+)		<b>11.5</b>		1-2 yr	1,716,000	13%	223,080		
				2-3 yr	1,492,920	10%	149,292		
				>3	1,343,628	0%	-		
				potential CPAPS	6,752,548	potential inspire	856,372		
						total pot	599,460		
							514,460		
							11,832,589,200		

Fiscal Period	4Q24 E	FY24 E	1Q25 E	2Q25 E	3Q25 E	4Q25 E	FY25 E	FY26 E	FY27 E	FY28 E
Fiscal Period End Date	12/31/24	12/31/24	3/31/25	6/30/25	9/30/25	12/31/25	12/31/25	12/31/26	12/31/27	12/31/28
Financial Statement Model for Inspire										
Numbers in \$mm except per share										
Ticker: INSP										
Most Recent Fiscal Year End: 12/31/2023										
<b>Income Statement</b>										
<b>Revenue</b>										
United States	225.3	764.7	183.6	221.2	230.6	265.3	900.7	1009.5	1099.5	1173.0
Other	7.7	31.4	9.1	8.9	8.1	8.5	34.5	38.0	41.8	45.9
<b>Total Revenue</b>	<b>233.0</b>	<b>796.1</b>	<b>192.7</b>	<b>230.1</b>	<b>238.7</b>	<b>273.7</b>	<b>935.2</b>	<b>1047.5</b>	<b>1141.3</b>	<b>1219.0</b>
Cost of Goods Sold	37.3	124.3	30.8	37.4	38.8	45.9	152.9	178.1	199.7	219.4
<b>Gross Profits</b>	<b>195.7</b>	<b>671.8</b>	<b>161.8</b>	<b>192.7</b>	<b>199.9</b>	<b>227.9</b>	<b>782.4</b>	<b>869.4</b>	<b>941.5</b>	<b>999.6</b>
Research and Development	39.6	123.4	32.8	39.1	38.2	43.8	153.9	157.1	171.2	182.8
Selling, General, and Administrative	139.8	527.9	119.5	142.7	148.0	169.7	579.8	628.5	650.5	670.4
<b>Operating income (EBIT)</b>	<b>16.3</b>	<b>20.5</b>	<b>9.6</b>	<b>10.9</b>	<b>13.7</b>	<b>14.4</b>	<b>48.7</b>	<b>83.8</b>	<b>119.8</b>	<b>146.3</b>
<b>Other (Income) Expense</b>										
Interest Income	(5.9)	(23.6)	(5.9)	(5.9)	(5.9)	(5.9)	(23.6)	(23.6)	(23.6)	(23.6)
Interest Expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other (Income) Expense, net	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Income Before Income Taxes</b>	<b>22.2</b>	<b>44.0</b>	<b>15.5</b>	<b>16.8</b>	<b>19.6</b>	<b>20.3</b>	<b>72.2</b>	<b>107.4</b>	<b>143.4</b>	<b>169.8</b>
Income Taxes	2.2	5.8	1.7	1.9	2.2	2.2	7.9	17.2	28.7	34.0
<i>Tax Rate</i>	<i>10.0%</i>		<i>11.0%</i>	<i>11.0%</i>	<i>11.0%</i>	<i>11.0%</i>	<i>11.0%</i>	<i>16.0%</i>	<i>20.0%</i>	<i>20.0%</i>
<b>Net Income Attributable to Shareholders</b>	<b>20.0</b>	<b>38.3</b>	<b>13.8</b>	<b>15.0</b>	<b>17.5</b>	<b>18.0</b>	<b>64.3</b>	<b>90.2</b>	<b>114.7</b>	<b>135.9</b>
<b>Other Comprehensive Loss</b>										
Unrealized Gain (Loss) on Investments	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Comprehensive Loss</b>	<b>20.0</b>	<b>39.3</b>	<b>13.8</b>	<b>15.0</b>	<b>17.5</b>	<b>18.0</b>	<b>64.3</b>	<b>90.2</b>	<b>114.7</b>	<b>135.9</b>
<b>EPS</b>										
Net Loss Per Share, Basic	0.67	1.28	0.46	0.50	0.58	0.60	2.15	3.02	3.84	4.55
Net Loss Per Share, Diluted	0.65	1.25	0.45	0.49	0.57	0.59	2.10	2.94	3.74	4.44
Shares Outstanding, Basic	29.879	29.9	29.879	29.879	29.879	29.879	29.879	29.879	29.879	29.879
Shares Outstanding, Diluted	30.63	30.6	30.63	30.63	30.63	30.63	30.63	30.63	30.63	30.63
<b>EBITDA</b>		8.3								
<b>Assumptions</b>										
United States Revenue Growth YoY %	30.00%		10.00%	10.00%	10.00%	10.00%		10.00%	10.00%	10.00%
Rest of World (Other) Revenue Growth YoY %	150.00%		10.00%	10.00%	10.00%	10.00%		10.00%	10.00%	10.00%
<b>Total Revenue Growth YoY %</b>	<b>121.04%</b>									
Cost of Revenue %	16.00%		16.00%	16.25%	16.25%	16.75%	16.34%	17.00%	17.50%	18.00%
Gross Margin %	84.0%									
SG&A % Total Revenue	60.0%		62.0%	62.0%	62.0%	62.0%		60.0%	57.0%	55.0%
R&D % Total Revenue	17.0%		17.0%	17.0%	16.0%	16.0%	16.5%	15.0%	15.0%	15.0%
G&A % Total Revenue										
Operating (EBIT) margin	7.0%									
D&A % Total Revenue										
EBITDA margin										
Pretax margin										
Tax rate	10.00%		11.00%	11.00%	11.00%	11.00%		16.00%	20.00%	20.00%
Net margin										
Payout Ratio										

**Balance Sheet****Current Assets**

Cash and Cash Equivalents	193.1	193.1	215.5	243.1	277.9	316.1	316.1	428.9	619.9	837.4
Investments, Short-Term	263.5	263.5	263.5	263.5	263.5	263.5	263.5	263.5	263.5	263.5
Accounts Receivable, net	93.2	93.2	97.9	102.8	107.9	113.3	113.3	130.9	142.7	152.4
Inventories	70.8	70.8	74.3	78.1	82.0	86.1	86.1	130.9	137.5	144.4
Prepaid Expenses and Other Current Assets	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4

<b>Total Current Assets</b>	<b>634.9</b>	<b>634.9</b>	<b>665.6</b>	<b>701.8</b>	<b>745.6</b>	<b>793.2</b>	<b>793.2</b>	<b>968.6</b>	<b>1,177.8</b>	<b>1,411.9</b>
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**Other Assets**

Investments, Long-Term	113.4	113.4	113.4	113.4	113.4	113.4	113.4	113.4	113.4	113.4
Property and Equipment, net	74.7	74.7	85.2	96.4	103.6	112.2	112.2	155.4	205.1	259.8
Operating Lease Right-of-Use Assets	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
Other Non-Current Assets	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0

<b>Total Assets</b>	<b>855.8</b>	<b>855.8</b>	<b>897.0</b>	<b>944.3</b>	<b>995.4</b>	<b>1,051.7</b>	<b>1,051.7</b>	<b>1,270.3</b>	<b>1,529.2</b>	<b>1,817.9</b>
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**Liabilities and Stockholders' Equity****Current Liabilities**

Accounts Payable	46.6	46.6	48.9	51.4	53.9	56.6	56.6	59.4	66.6	73.1
Accrued Expenses	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3
Notes Payable, Current Portion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

<b>Total Current Liabilities</b>	<b>85.9</b>	<b>85.9</b>	<b>88.3</b>	<b>90.7</b>	<b>93.3</b>	<b>96.0</b>	<b>96.0</b>	<b>98.7</b>	<b>105.9</b>	<b>112.5</b>
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**Other Liabilities**

Notes Payable, Non-Current Portion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating Lease Liability, Non-Current Portion	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2
Other Non-Current Liabilities	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

<b>Total Liabilities</b>	<b>111.3</b>	<b>111.3</b>	<b>113.6</b>	<b>116.1</b>	<b>118.7</b>	<b>121.4</b>	<b>121.4</b>	<b>124.1</b>	<b>131.3</b>	<b>137.8</b>
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**Stockholders' Equity**

Common Stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Additional Paid-In Capital	1,049.9	1,049.9	1,075.0	1,104.9	1,135.9	1,171.5	1,171.5	1,297.2	1,434.2	1,580.4
Accumulated Other Comprehensive Income (Loss)	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Accumulated Deficit	(307.2)	(307.2)	(293.3)	(278.4)	(260.9)	(242.9)	(242.9)	(152.7)	(38.0)	97.9

<b>Total Stockholders' Equity</b>	<b>744.5</b>	<b>744.5</b>	<b>783.4</b>	<b>828.3</b>	<b>876.7</b>	<b>930.4</b>	<b>930.4</b>	<b>1,146.2</b>	<b>1,397.9</b>	<b>1,680.0</b>
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<b>Total Liabilities and Stockholders' Equity</b>	<b>855.8</b>	<b>855.8</b>	<b>897.0</b>	<b>944.3</b>	<b>995.4</b>	<b>1,051.7</b>	<b>1,051.7</b>	<b>1,270.3</b>	<b>1,529.2</b>	<b>1,817.9</b>
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**Inventory Turnover**

AR Turnover	2.50		2.50	2.50	2.50	2.50		8.00	8.00	8.00
AP Turnover	0.80		0.80	0.80	0.80	0.80		3.00	3.00	3.00

<b>Statement of Cash Flows</b>										
<b>Cash Flows From Operating Activities</b>										
Net income including NCI	20.0	38.3	13.8	15.0	17.5	18.0	64.3	90.2	114.7	135.9
<b>Adjustments to reconcile NI to NCO:</b>										
Depreciation and Amortization	2.4	6.5	3.5	3.7	2.4	2.9	12.5	14.4	16.6	18.2
Accretion of Investment Discount										
Accretion of Debt Discount										
Non-Cash Lease Expense										
Stock-Based Compensation Expense	28.0	114.8	25.0	29.9	31.0	35.6	121.6	125.7	137.0	146.3
Non-Cash Stock Issuance for Services Rendered										
Change in the Fair Value of Preferred Stock Warrants										
Other, net										
<b>Changes in Operating Assets and Liabilities:</b>										
Accounts Receivable	(3.5)	(2.1)	(4.7)	(4.9)	(5.1)	(5.4)	(20.1)	(17.6)	(11.7)	(9.7)
Inventories	(3.4)	(36.9)	(3.5)	(3.7)	(3.9)	(4.1)	(15.3)	(44.9)	(6.5)	(6.9)
Prepaid Expenses and Other Assets	0.0	(4.5)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accounts Payable	11.7	8.3	2.3	2.4	2.6	2.7	10.0	2.7	7.2	6.6
Accrued Expenses and Other Liabilities	0.0	(0.8)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net Cash Provided by Operating Activities</b>	<b>55.2</b>	<b>123.6</b>	<b>36.5</b>	<b>42.4</b>	<b>44.4</b>	<b>49.7</b>	<b>173.1</b>	<b>170.5</b>	<b>257.2</b>	<b>290.3</b>
<b>Cash Flows From Investing Activities</b>										
Purchases of Property and Equipment	(9.6)	(41.7)	(14.0)	(14.9)	(9.6)	(11.6)	(50.1)	(57.6)	(66.2)	(72.9)
Purchases of Investments	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Proceeds from Sales or Maturities of Investments	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Purchases of Strategic Investments	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
<b>Net Cash Provided by Investing Activities</b>	<b>(9.6)</b>		<b>(14.0)</b>	<b>(14.9)</b>	<b>(9.6)</b>	<b>(11.6)</b>		<b>(57.6)</b>	<b>(66.2)</b>	<b>(72.9)</b>
<b>Cash Flows From Financing Activities</b>										
Proceeds from Issuance of Notes Payable										
Payments on Long-Term Debt Obligations										
Payment of Debt Fees										
Proceeds From the Exercise of Stock Options and Warrants										
Taxes Paid on Net Share Settlement of Restricted Stock Units										
Proceeds From the Sale of Common Stock										
Proceeds From the Issuance of Common Stock from ESPP										
Proceeds From Sale of Preferred Stock										
<b>Net Cash Provided By Financing Activities</b>	<b>0.0</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Effect of Exchange Rates on Cash										
<b>(Decrease) Increase in Cash and Cash Equivalents</b>	<b>45.6</b>		<b>22.5</b>	<b>27.6</b>	<b>34.8</b>	<b>38.1</b>		<b>112.9</b>	<b>190.9</b>	<b>217.5</b>
<b>Cash and Cash Equivalents at Beginning of Period</b>	<b>147.5</b>		<b>193.1</b>	<b>215.5</b>	<b>243.1</b>	<b>277.9</b>		<b>316.1</b>	<b>428.9</b>	<b>619.9</b>
<b>Cash and Cash Equivalents at End of Period</b>	<b>193.1</b>		<b>215.5</b>	<b>243.1</b>	<b>277.9</b>	<b>316.1</b>		<b>428.9</b>	<b>619.9</b>	<b>837.4</b>
<b>D&amp;A as % of Rev</b>										
D&A y/y Growth Rate										
SBC as % of Rev	12.00%	14.42%	13.00%	13.00%	13.00%	13.00%	13.00%	12.00%	12.00%	12.00%
Tax withholdings as % of Rev										
Capex Growth Rate	20.0%	76.6%	20.0%	20.0%	20.0%	20.0%	20.0%	15.0%	15.0%	10.0%
<b>CapEx &amp; Amortization Schedule</b>										
Beginning of period	67.4	40.0	74.7	85.2	96.4	103.6	74.7	112.2	155.4	205.1
Plus: Purchases of PPE	9.6	41.7	14.0	14.9	9.6	11.6	50.1	57.6	66.2	72.9
Less: Depreciation	(2.4)	(7.0)	(3.5)	(3.7)	(2.4)	(2.9)	(12.5)	(14.4)	(16.6)	(18.2)
End of period	74.7	74.7	85.2	96.4	103.6	112.2	112.2	155.4	205.1	259.8
Depreciation related to PP&E as a % of Capex	25.0%		25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%





**December 5<sup>th</sup>, 2024**

**Team Number: 7**

**Students: Cheney Chen, Annika Ulrich, Helen Wu**

**Current Price: \$130.3 (11/14/2024) | 1Y Price Target: \$176 (35% Upside)**

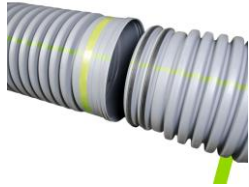
# Advanced Drainage Systems (NYSE: WMS) Overview

#1 and the only national player in manufacturing water management solutions in the stormwater and onsite septic wastewater industries

## Company Description

- ✓ Leading stormwater management company in US, providing **one-stop solution** with products serving key steps from capture, conveyance, storage to treatment
- ✓ By product type: pipe (54% of revenue), allied products (23%), infiltrator (16%) and international (7%)
- ✓ By end-market exposure: residential (36%), non-residential (44%), infrastructure (7%) and agriculture (6%)
- ✓ The **only** national player with majority of sales made through exclusive national waterworks distributors

### PP/HDPE Pipe



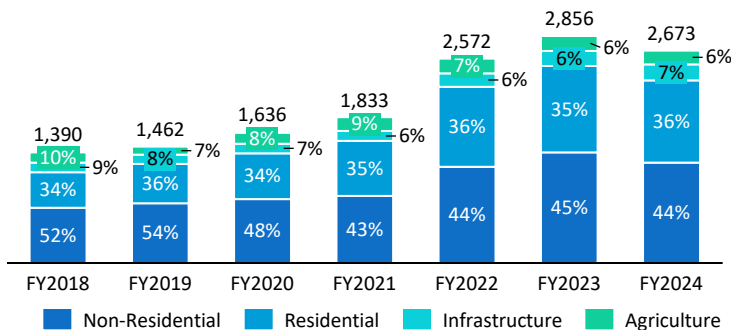
### Infiltrator



### Allied Products



## Net Sales by Domestic End Market, \$Mn



## Financials and Trading Statistics

Company name	Advanced Drriage System		
Ticker	NYSE: WMS		
<b>Market stats (\$mn)</b>			
Market cap	\$10,100	Float %	91.41%
+ Total debt (LTM)	\$1,383	Short interest %	2.64%
- Cash (LTM)	\$613	CY25 EV/EBITDA	11.4x
+ NCI	\$18	CY25 P/E	20.1x
<b>TEV</b>	<b>\$10,887</b>		
Shares out. (mn)	78		
Share price (\$)	\$130.3		
52-week high/low (\$)	\$184.3/\$118.0		
3-month ADTV	\$58.0		
Dividend yield	0.5 %		

<i>mn USD, unless noted</i>	Actual				CAGR
FYE	FY2021A	FY2022A	FY2023A	FY2024A	FY21-24A
	31/03/2021	31/03/2022	31/03/2023	31/03/2024	
<b>Total revenue</b>	<b>1,983</b>	<b>2,769</b>	<b>3,071</b>	<b>2,874</b>	<b>13.2%</b>
yoy %	18.5%	39.7%	10.9%	(6.4%)	
<b>Total gross profit</b>	<b>690</b>	<b>847</b>	<b>1,118</b>	<b>1,146</b>	<b>18.4%</b>
GPM %	34.8%	30.6%	36.4%	39.9%	
yoy %	118.0%	22.8%	32.0%	2.5%	
- SG&A	268	293	340	371	11.5%
% of revenue	13.5%	10.6%	11.1%	12.9%	
EBIT	345	487	719	732	28.6%
Margin %	17.4%	17.6%	23.4%	25.5%	
<b>EBITDA (adjusted)</b>	<b>609</b>	<b>693</b>	<b>920</b>	<b>939</b>	<b>15.5%</b>
Margin %	30.7%	25.0%	29.9%	32.6%	
FCF	373	126	541	534	12.7%
Margin %	18.8%	4.5%	17.6%	18.6%	
<b>Net income</b>	<b>269</b>	<b>345</b>	<b>507</b>	<b>510</b>	<b>23.7%</b>
Margin %	13.6%	12.4%	16.5%	17.7%	

## Investment Thesis

**Recommendation:** Long ADS, with Mar-26 target price of \$176/202/124 across base/bull/bear case, equal to 35%/55%/-5% share price upside/downside

### Intersection of Multiple Long-term Secular Tailwinds

- **Non-residential:** Positive signal for 2025 non-residential construction recovery driven by low rise retail, data center and warehouse
- **Residential:** Single-family housing starts have surged since Sep 24
- **Infrastructure:** Higher frequency of extreme weather conditions calls for more constructing capex
- **Material Conversion and DOT Approval:** Plastic takes 1-2% market share annually from concrete, DOT approval accelerating

### Strong Moat Drive Market Share Expansion

Expect market share to **further expand to 25%** (vs. current 20%), given:

- **Continuing material conversion story and lobbying investment**
- **Unique position as the only national one-stop shop, only recycling manufacturer, only bonding relationships with national distributors**
- **Also, the only player with organic cash flow generation capability**

### Sustainable High Margin

- **Product mix improvement: higher-margin infiltrator to grow faster than pipe**
- **Capex-driven business model requires less opex**
- **Proven cost pass-through capability through raw material cycles**

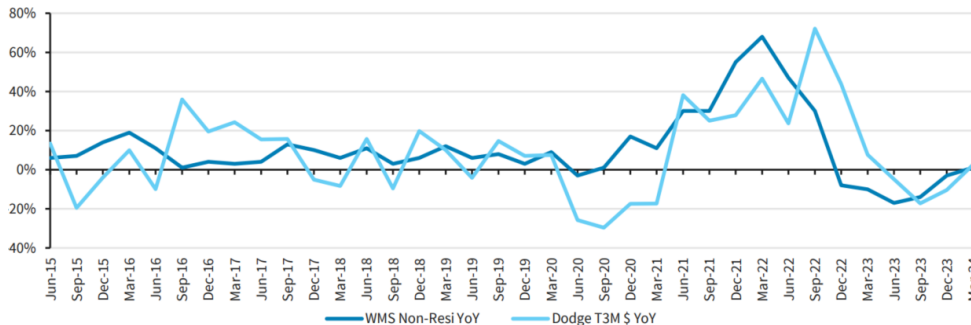
# Thesis #1 – Intersection of Multiple Long-term Secular Tailwinds

Since 1980, the U.S. has seen ~380 major climate disasters, with extreme precipitation days up 18%, emphasizing the need for stormwater resilience

## Positive Signal for 2025 Non-Resi Recovery

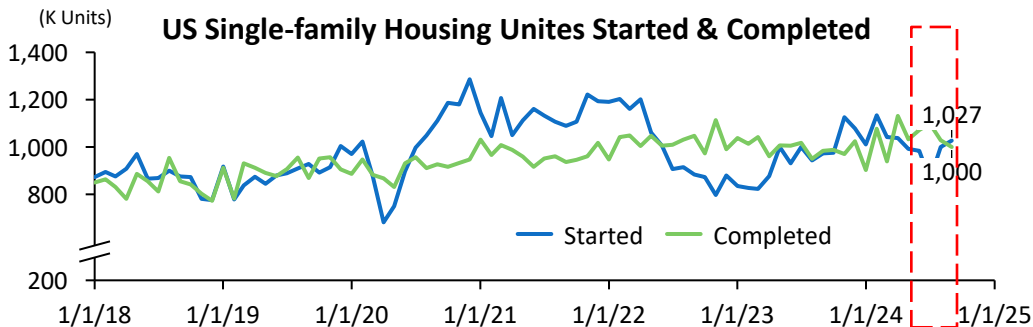
- ✓ Non-residential construction is projected to reach \$467B (6% YoY), with commercial construction at \$170B (7% YoY)
- ✓ Growth primarily driven by retail construction benefiting from the **residential recovery**, strong **data center demand**, and a new investment cycle in **warehouse construction**

## ADS Non-Resi Volumes Track Closely With Dodge Construction Starts



## US Single-family Homebuilding Surges

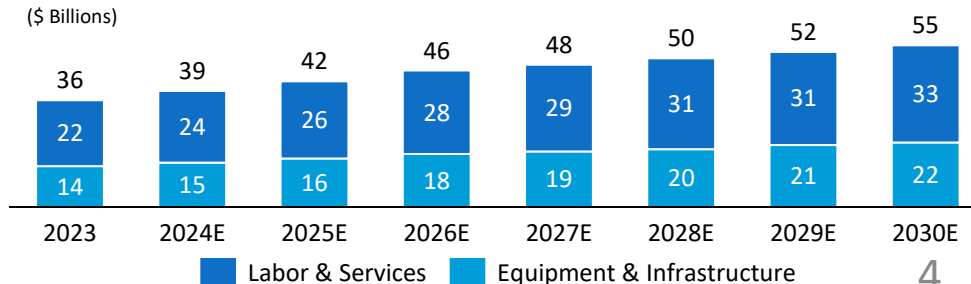
- ✓ **US single-family housing starts have surged** since September 2024
- ✓ Both front-end land development (legacy WMS) and back-end septic for housing completions (Infiltrator) are strengthening



## Higher Stormwater-related Capex

- ✓ Facilitated by IJA and industrial policy, stormwater capex is expected to grow at a 6.10% CAGR 23-30E, boosting both Labor & Services and Equipment & Infrastructure growth

## Top-Line US Stormwater Forecast (2023-2030E)

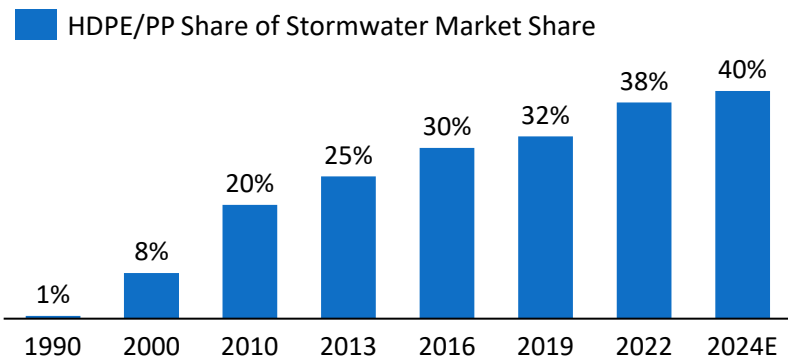


# Thesis #1 – 1-2% Annual Material Conversion from Concrete; DOT Accelerating Approvals with \$4B TAM for Expansion

## Plastic continuing take share from concrete

- ✓ Plastic has gained 1-2% market share annually, representing 40% market share now
- ✓ Compared to concrete, contractor reduces **20+% installed cost, 30% cheaper shipment cost, and less maintenance cost**
- ✓ Material conversion drives ADS gain consistent above-market growth

## PP and HDPE Represent ~40% of Stormwater Market Today



## State DOT Approvals Accelerate Market Expansion

Storm Material Approvals by State



- ✓ One of the biggest obstacles the industry faced in the past was the State Departments of Transportation (DOT) **not approving** the use of thermoplastic pipes in storm sewers
- ✓ ADS **spent the most on lobbying state DOTs** to gain government support for PP/HDPE pipes and Infiltrator products, , **with a \$4 billion TAM still left to expand**
- ✓ Benefiting from favorable government lobbying tailwinds while serving **both public and private sector participants**

## One-stop Shop Product Solution



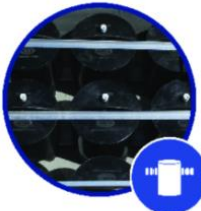
Capture



Conveyance



Storage

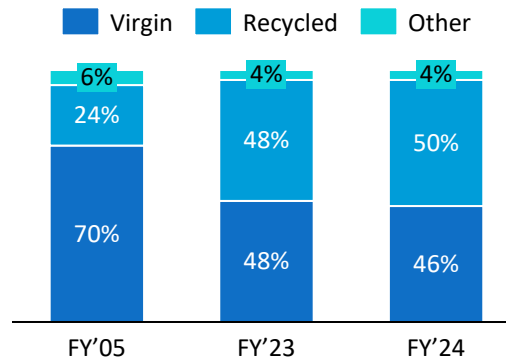


Treatment

- ✓ The only water management company that handles stormwater from the moment rain **hits the ground** until it **returns to lakes** and streams
- ✓ The only company employing engineering professionals to help clients achieve on-site **solution objectives**

## Recycling Expertise Reduces Costs

Recycled vs. Virgin Resin



- ✓ Regulations impose strict performance requirements for recycled materials
- ✓ ADS acquired Jet Polymer, establishing the **industry's only capability** to manufacture pipes and Infiltrator products using recycled materials
- ✓ The use of recycled material being **15% to 20% cheaper** than it is to use virgin resin

## Distributors Relationship

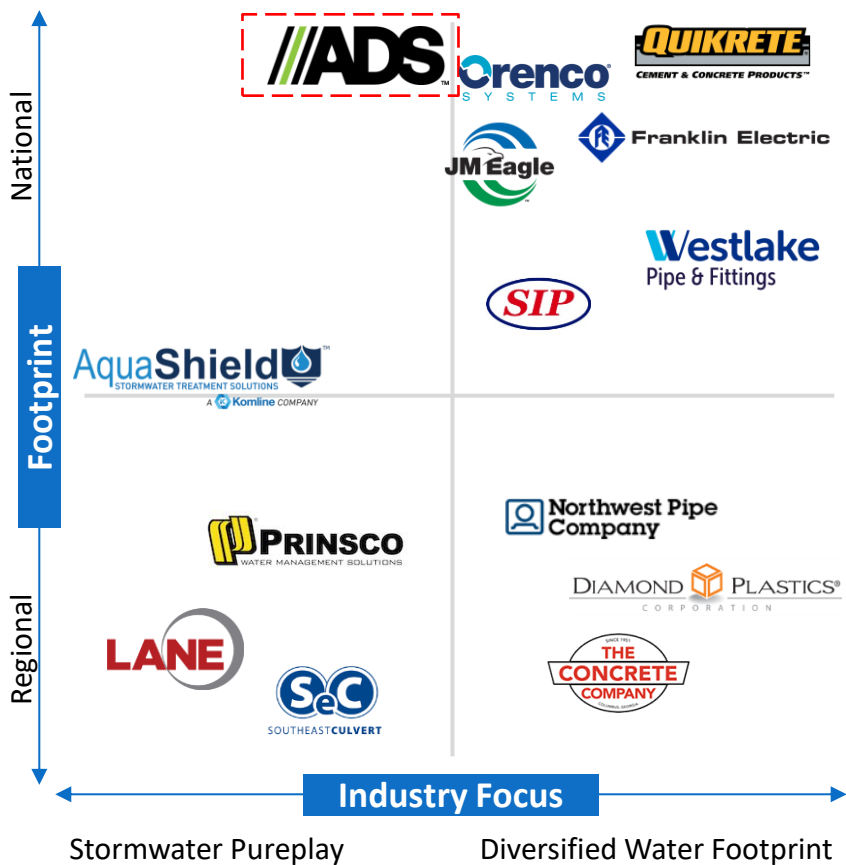
- ✓ Nationwide supply capability, making it the **sole choice** for national distributors
- ✓ Smaller players find it difficult to enter the market due to ADS's long-term exclusive contracts



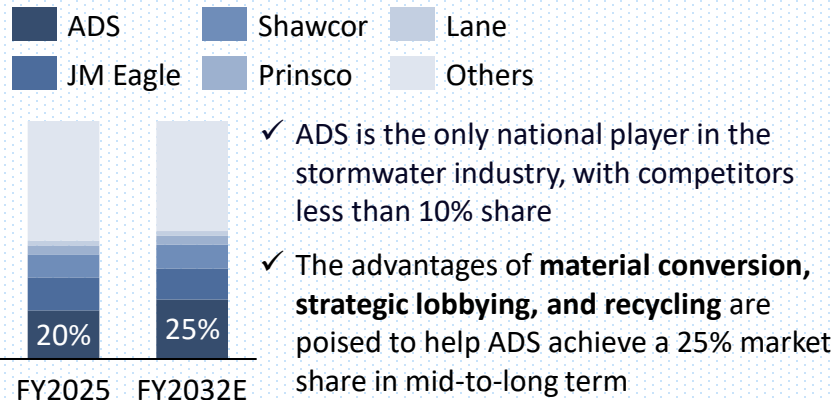
*ADS's hold on distribution is what makes them very formidable, I don't see much changing in five years' time.*  
-- Expert Interview

# Thesis #2 – The Only National Players on Track to Achieve 25% Market Share by FY2032

## Stormwater Players by Industry Focus and Geographic Footprint



## ADS to Target 25% Market Share by FY2032



## Continuous Leadership Supported by Strong FCF

- ADS drives growth through organic FCF generation (30%+/15%+ EBITDA/FCF margin), **translating into ~\$500mn FCF generation p.a.**, enabling expansion during headwinds and make bolt-on M&As when needed
- In comparison, competitors remain small (<\$100mn), as they usually lack organic expansion capital (e.g., AquaShield acquired by strategic conglomerate)

From expert interviews: Lane operates in the Northeast; Southeast Culvert focuses on South Carolina, Georgia, and Florida; Prinsco plays in the Gulf Coast and Midwest. There's no other competitor that can go coast to coast.

# Thesis #3 – High Margin Level Should be Sustainable

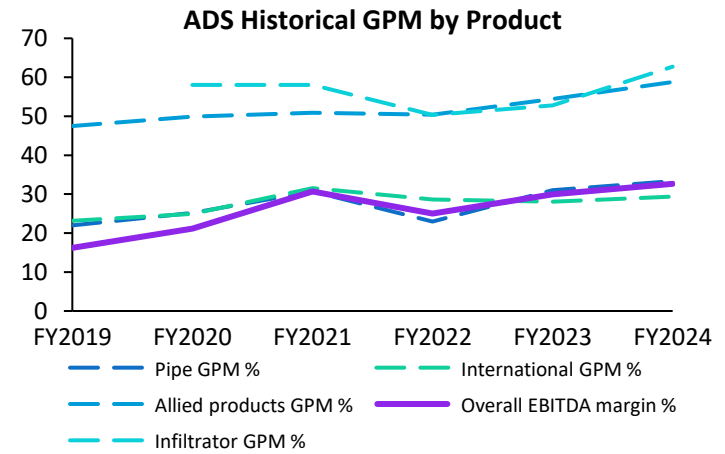
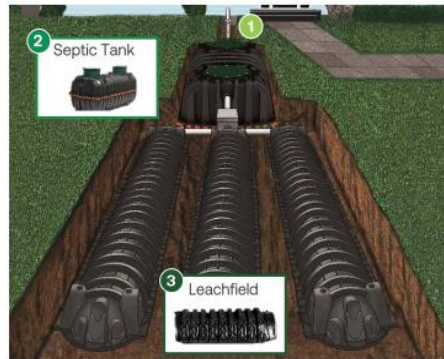
As market has under-estimated the following factors:

- ✓ **Product mix improvement:** Infiltrator (60%+ GPM, protected by patent) is growing faster (~10% p.a.) than traditional pipe (~30%+ GPM, 5-10% p.a.). Infiltrator business' high GPM is further reinforced by bolt-on acquisitions along the value chain, continuous new product launch and dynamic pricing across regions
- ✓ **ADS's business model requires heavy capex but less opex,** leading to further operating leverage and margin expansion
- ✓ **Proven capability to steadily enhance margin through raw material cycles,** given that 50% recycled material contribution smoothens price fluctuations. In addition, latest monthly resin price has begun to decline

Acquisition of Infiltrator Water Technologies ("IWT"), inventor of plastic chamber and only national supplier

Successful integration and synergy realization

Beneficiary of single-family home construction surge



### NTM Key raw material (Polypropylene) price trend



*You make a slight change and you declare that it has some functional improvement, then you can get it patent-protected so that no one will come in and be able to copy it... The other thing is that Infiltrator has the scale to produce it – their low unit cost makes it risky for new entrants.*

-- Expert Interview



Key drivers of model (also differences across base/bull/bear case) are listed below. **Mar-26 target price adopting NTM EV/EBITDA multiple method is \$176/202/124** across 3 cases respectively, equivalent to **35%/55%/-5% share price upside/downside**

**1 Top-line growth (8%/10%/1% CAGR), with key difference coming from pipe/allied products/infiltrator.**

**2 EBITDA margin**

- Overall GPM level is assumed to be largely flat in base/bull case (with margin deterioration in pipe offset by mix improvement from infiltrator/allied products), and ~5ppt deterioration in bear case in coming 4-5 years (but offset by product mix benefit)
- This is offset by slight reduction in opex % of revenue (~1ppt in base/bull case)
- Our earnings forecast is ~5% higher than consensus

**3 Exit multiple (forward EV/EBITDA), assumed to be 12x/13x/10x across base/bull/bear cases, referencing:**

- ADS's own historical level of 7-16x, 4-year (post IWT acquisition) average of 12-13x
- Listed peers (along value chain) average level of 12-13x. Note that ADS has much better ROIC and EBITDA margin profile than most

<i>mn USD, unless noted</i>		Base	Bull	Bear	Base	Bull	Bear
	Current	FY2026E	FY2026E	FY2026E	FY2028E	FY2028E	FY2028E
NTM (FY+1) revenue	2,933	<b>3,440</b>	<b>3,577</b>	<b>2,991</b>	<b>4,062</b>	<b>4,372</b>	<b>3,237</b>
CAGR %		8%	10%	1%	8%	10%	2%
NTM (FY+1) EBITDA	939	1,147	1,213	973	1,366	1,525	961
Margin %	32.0%	33.4%	33.9%	32.5%	33.6%	34.9%	29.7%
CAGR %		11%	14%	2%	10%	13%	1%
NTM EV/EBITDA		12.0x	13.0x	10.0x	12.0x	13.0x	10.0x
TEV		13,768	15,774	9,729	16,386	19,820	9,610
- Net debt		131	126	140	(963)	(1,052)	(749)
Equity value	10,100	13,637	15,648	9,589	17,349	20,872	10,359
SO (mn)		77.6	77.6	77.6	77.6	77.6	77.6
<b>Implied share price</b>	<b>\$130</b>	<b>\$176</b>	<b>\$202</b>	<b>\$124</b>	<b>\$224</b>	<b>\$269</b>	<b>\$134</b>
NTM (FY+1) earnings		612	661	483	774	891	476
Implied NTM P/E		22.3x	23.7x	19.9x	22.4x	23.4x	21.8x
NTM (FY+1) FCF		576	608	500	737	833	478
Implied FCF yield		5.7%	6.0%	4.9%	7.3%	8.2%	4.7%
<b>Implied share price upside</b>		<b>35%</b>	<b>55%</b>	<b>(5%)</b>	<b>72%</b>	<b>107%</b>	<b>2%</b>
<b>XIRR (annualized)</b>		<b>25%</b>	<b>38%</b>	<b>(3%)</b>	<b>18%</b>	<b>24%</b>	<b>1%</b>

Name	Market cap (US\$ bn)	EV (US\$ bn)	Share price (LCY)	P/E		EV/EBITDA		CAGR (CY24-26E)		EBITDA margin CY25	ROIC LTM	EBITDA/interest LTM	Net debt/EBITDA LTM
				CY25	CY26	CY25	CY26	EPS	EBITDA				
ADS	\$10	\$11	\$130	20.1 x	17.8 x	11.4 x	10.6 x	8%	7%	31%	20.1%	9.4 x	0.9 x
<u>Pipe</u>													
Valmont	\$7	\$8	\$340	19.0 x	17.2 x	11.9 x	11.2 x	8%	5%	16%	15.0%	9.7 x	1.4 x
Lindsay	\$1	\$1	\$124	20.4 x	19.0 x	12.6 x	11.5 x	4%	9%	15%	10.3%	30.1 x	(0.6 x)
Northwest Pipe	\$1	\$1	\$53	15.2 x	14.1 x	9.3 x	6.8 x	7%	21%	15%	6.7%	11.0 x	2.5 x
<u>Distribution</u>													
Ferguson	\$41	\$46	\$203	19.9 x	17.3 x	14.3 x	12.9 x	10%	9%	10%	17.2%	16.6 x	1.7 x
Core & Main	\$8	\$11	\$42	17.5 x	15.6 x	11.2 x	10.0 x	11%	9%	13%	13.0%	7.9 x	3.0 x
<u>Water treatment</u>													
Xylem	\$30	\$31	\$122	25.6 x	22.8 x	16.0 x	14.6 x	12%	10%	21%	8.2%	34.5 x	0.7 x
American Water Works	\$26	\$39	\$132	23.1 x	21.5 x	14.2 x	12.8 x	8%	11%	57%	5.7%	4.8 x	5.5 x
Veolia	\$22	\$45	\$28	12.7 x	11.6 x	6.3 x	6.0 x	9%	6%	15%	5.2%	5.6 x	3.8 x
Tetra Tech	\$11	\$12	\$41	27.0 x	24.0 x	17.8 x	16.4 x	14%	9%	13%	13.4%	13.1 x	1.3 x
<b>Average (all peers)</b>				<b>20.0 x</b>	<b>18.1 x</b>	<b>12.6 x</b>	<b>11.3 x</b>	<b>9%</b>	<b>10%</b>	<b>19%</b>	<b>10.5%</b>	<b>14.8 x</b>	<b>2.1 x</b>
<b>Median (all peers)</b>				<b>19.9 x</b>	<b>17.3 x</b>	<b>12.6 x</b>	<b>11.5 x</b>	<b>9%</b>	<b>9%</b>	<b>15%</b>	<b>10.3%</b>	<b>11.0 x</b>	<b>1.7 x</b>

# Risks & Mitigation

Risks	Mitigation	Impact
<b>End sector demand growth temporary deceleration risk</b>	<ul style="list-style-type: none"><li>• Diversified exposure</li><li>• Interest rate easing environment</li></ul>	<b>Low</b>
<b>Competition risk</b>	<ul style="list-style-type: none"><li>• Competitors lag behind ADS in patent, technology, product offering, national scale and capital</li></ul>	<b>Moderate</b>
<b>Raw material price risk</b>	<ul style="list-style-type: none"><li>• Showing signs of easing</li><li>• This will hurt competitors more than ADS</li><li>• Historical capability to pass through cost</li></ul>	<b>Low</b>

# Appendix

### Primary Contact

- Plumbing Category Sales Manager, Home Depot
- Portfolio Manager of one of ADS's Top 3 Institutional Shareholders
- Property development industry practitioner

### Tegus & Third Bridge Interview Transcript

- Former Executive Vice President and COO
- Former GM, Senior Vice President International Operations
- Former Territory Manager
- Former Engineering Manager
- Senior Director, Sourcing and Purchasing at Building Material Distributors
- Regional Engineer at Prinsco, Inc.
- Former Director of Technical Marketing at Forterra

### Media

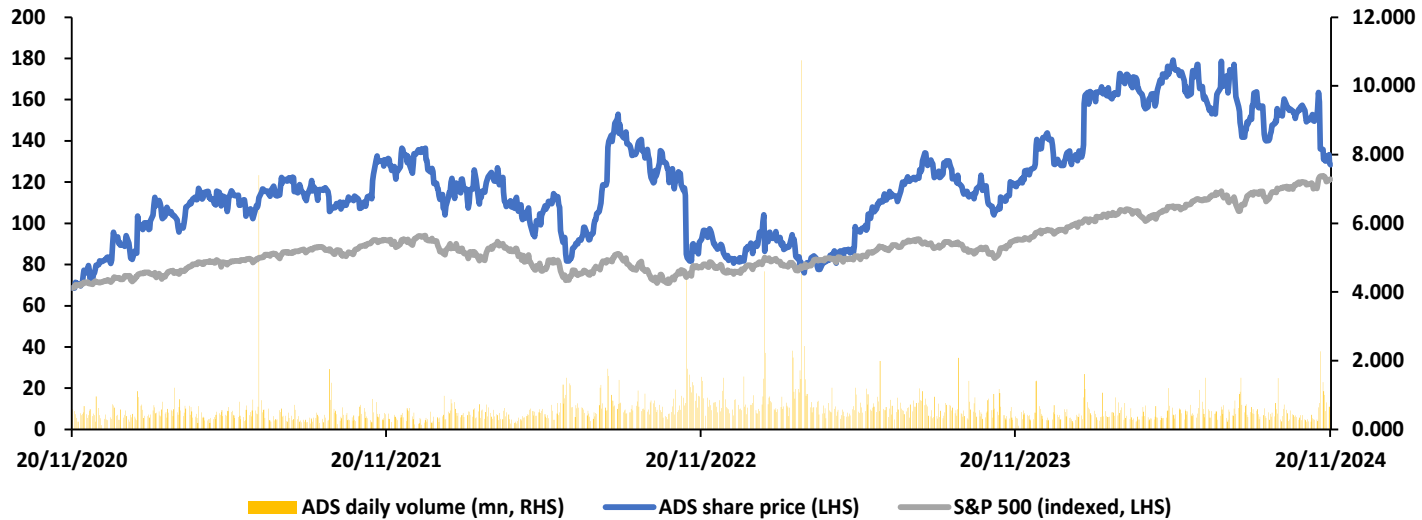
- Browsing and researching through 5+ social networking sites and media (e.g., 20+ YouTube videos on ADS/IWT services/installation, Home Depot customer review)

### Home Depot Site Visit

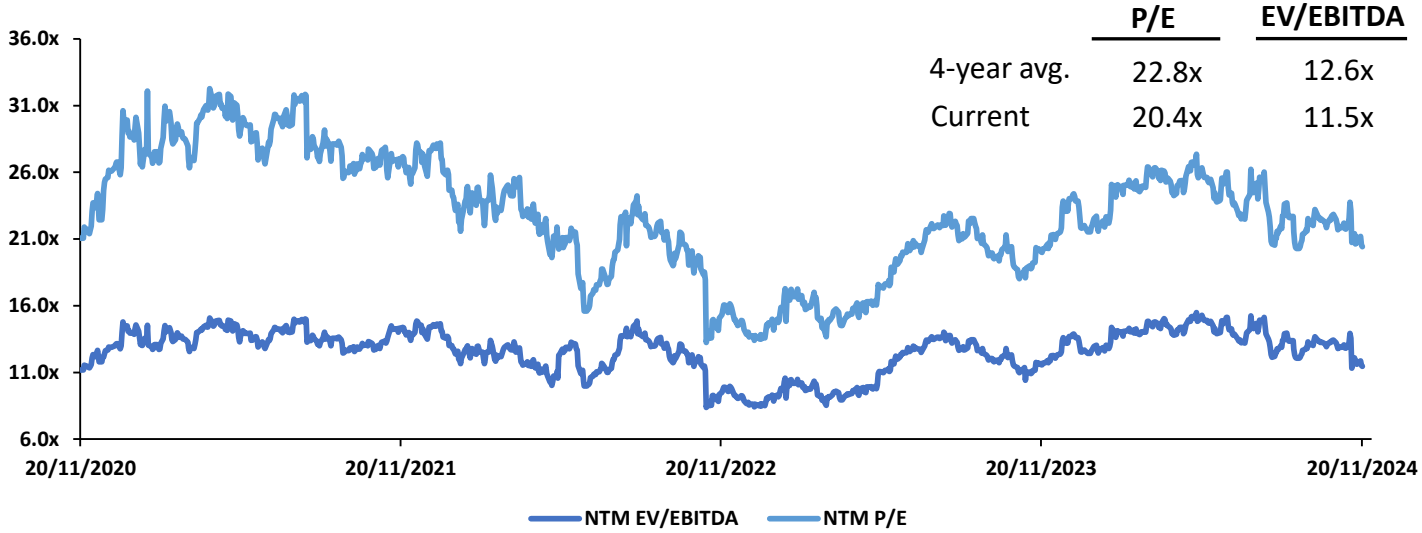


# Appendix: Stock Prices and Trading History

Stock Prices & Trading Volume



Forward P/E & EV/EBITDA



# Appendix: Base Case Income Statement

mn USD, unless noted FYE	Actual				Est.	Forecast				CAGR	
	FY2021A 31/03/2021	FY2022A 31/03/2022	FY2023A 31/03/2023	FY2024A 31/03/2024	FY2025E 31/03/2025	FY2026E 31/03/2026	FY2027E 31/03/2027	FY2028E 31/03/2028	FY2029E 31/03/2029	FY18-25E	FY25-29E
<b>Revenue</b>											
Pipe	1,053	1,539	1,717	1,546	1,539	1,616	1,777	1,920	2,073	8.9%	7.7%
yoy %	10.5%	46.2%	11.5%	(10.0%)	(0.5%)	5.0%	10.0%	8.0%	8.0%		
Allied products	442	564	692	666	708	765	842	926	1,018	11.6%	9.5%
yoy %	9.7%	27.5%	22.6%	(3.7%)	6.3%	8.0%	10.0%	10.0%	10.0%		
Infiltrator	329	461	442	449	479	551	606	667	733	n.a.	11.2%
yoy %	94.4%	39.9%	(4.0%)	1.5%	6.7%	15.0%	10.0%	10.0%	10.0%		
International	158	205	220	213	207	208	215	226	237	4.1%	3.5%
yoy %	6.5%	29.7%	7.1%	(3.1%)	(3.0%)	0.7%	3.2%	5.0%	5.0%		
<b>Total revenue</b>	<b>1,983</b>	<b>2,769</b>	<b>3,071</b>	<b>2,874</b>	<b>2,933</b>	<b>3,140</b>	<b>3,440</b>	<b>3,738</b>	<b>4,062</b>	<b>12.0%</b>	<b>8.5%</b>
yoy %	18.5%	39.7%	10.9%	(6.4%)	2.0%	7.1%	9.6%	8.7%	8.7%		
Total revenue (CIQ consensus)					2,935	3,125	3,333				
Delta vs. CIQ consensus					(0.1%)	0.5%	3.2%				
<b>Gross profit</b>											
Pipe	323	353	533	515	481	501	542	576	622	n.a.	6.6%
GPM %	30.7%	22.9%	31.0%	33.3%	31.3%	31.0%	30.5%	30.0%	30.0%		
Allied products	225	284	376	392	407	432	476	523	575	n.a.	9.0%
GPM %	50.9%	50.4%	54.4%	58.8%	57.5%	56.5%	56.5%	56.5%	56.5%		
Infiltrator	191	232	234	282	313	357	395	437	485	n.a.	11.5%
GPM %	58.1%	50.3%	52.8%	62.7%	65.3%	64.8%	65.1%	65.6%	66.1%		
International	50	59	62	63	62	61	63	65	68	n.a.	2.4%
GPM %	31.5%	28.7%	28.1%	29.4%	29.9%	29.4%	29.2%	28.9%	28.7%		
Internal eliminations	(99)	(80)	(86)	(106)	(117)	(119)	(125)	(130)	(134)		
<b>Total gross profit</b>	<b>690</b>	<b>847</b>	<b>1,118</b>	<b>1,146</b>	<b>1,147</b>	<b>1,233</b>	<b>1,350</b>	<b>1,472</b>	<b>1,616</b>	<b>n.a.</b>	<b>9.0%</b>
GPM %	34.8%	30.6%	36.4%	39.9%	39.1%	39.3%	39.3%	39.4%	39.8%		
yoy %	118.0%	22.8%	32.0%	2.5%	0.1%	7.6%	9.5%	9.0%	9.8%		
<b>Profitability</b>											
- SG&A	268	293	340	371	384	405	430	460	487	10.5%	6.1%
% of revenue	13.5%	10.6%	11.1%	12.9%	13.1%	12.9%	12.5%	12.3%	12.0%		
EBIT	345	487	719	732	718	789	886	982	1,103	34.9%	11.3%
Margin %	17.4%	17.6%	23.4%	25.5%	24.5%	25.1%	25.8%	26.3%	27.2%		
<b>EBITDA (adjusted)</b>	<b>609</b>	<b>693</b>	<b>920</b>	<b>939</b>	<b>939</b>	<b>1,049</b>	<b>1,147</b>	<b>1,244</b>	<b>1,366</b>	<b>26.3%</b>	<b>9.8%</b>
Margin %	30.7%	25.0%	29.9%	32.6%	32.0%	33.4%	33.4%	33.3%	33.6%		
FCF	373	126	541	534	445	516	576	650	737	24.6%	13.4%
Margin %	18.8%	4.5%	17.6%	18.6%	15.2%	16.4%	16.7%	17.4%	18.2%		
<b>Net income</b>	<b>269</b>	<b>345</b>	<b>507</b>	<b>510</b>	<b>475</b>	<b>534</b>	<b>612</b>	<b>684</b>	<b>774</b>	<b>30.5%</b>	<b>13.0%</b>
Margin %	13.6%	12.4%	16.5%	17.7%	16.2%	17.0%	17.8%	18.3%	19.1%		
Net income (CIQ consensus)					476	519	581				
Delta vs. CIQ consensus					(0.1%)	2.9%	5.3%				

# Appendix: Advanced Drainage System Solutions



# Appendix: One-stop Shop for Water Management Solutions

Comprehensive portfolio of products for storm water and on-site septic wastewater management industries, driving conversion and selling the whole package

Capture	Conveyance	Storage	Treatment
<p>Filters work to remove sediment and debris</p>	<p>The pipe directs water away from parking lots, freeways and fields so areas stay dry and neighborhoods stay safe</p>	<p>Chambers ensure water flow is managed appropriately, guarding against flooding</p>	<p>Water quality products clean water before returning it to lakes and streams</p>
<div></div> <p>Nyloplast</p> <div></div> <p>Duraslot</p>	<div></div> <p>N-12</p> <div></div> <p>Single Wall</p> <div></div> <p>HP</p> <div></div> <p>InsertaTee</p> <div></div> <p>Fittings</p> <div></div> <p>Triple Wall</p> <div></div> <p>PolyFlex</p>	<div></div> <p>StormTech</p> <div></div> <p>HP</p> <div></div> <p>N-12</p>	<div></div> <p>Water Quality</p> <div></div> <p>Arc Chambers</p> <div></div> <p>Quick4 Chambers</p> <div></div> <p>Tanks</p> <div></div> <p>EZFlow</p> <div></div> <p>Delta</p>



# Appendix: Recent M&A Activities (2018-2024)

July 2019

**Infiltrator Water Technologies**



- Leader in onsite septic wastewater
- Extends ADS' addressable opportunity into the attractive and related on-site septic business

December 2021

**Jet Polymer Recycling**



- The largest supplier of recycled polypropylene plastic for Infiltrator Water Technologies
- Secure high-quality recycled plastic

August 2024

**Orenco Systems, Inc**



- A leading manufacturer of advanced onsite septic wastewater treatment products serving residential and non-residential end markets
- The transaction is expected to close in the FY3Q25

## Appendix: Management Compensation Overview

Name and Principal Position	Fiscal Year	Salary \$ <sup>(1)</sup>	Bonus \$	2 Stock Awards \$ <sup>(2)</sup>	3 Option Awards \$ <sup>(3)</sup>	4 Non-Equity Incentive Plan Compensation \$ <sup>(4)</sup>	All Other Compensation \$ <sup>(5)</sup>	1 Total \$
D. Scott Barbour President & Chief Executive Officer	2024	975,000	—	3,694,885	1,251,457	2,310,048	83,832	8,315,222
	2023	930,000	—	3,149,677	1,051,160	1,715,000	130,936	6,976,773
	2022	900,000	—	2,842,748	947,194	1,548,336	150,422	6,388,700
Scott A. Cottrill Chief Financial Officer, Executive Vice President, and Secretary	2024	588,000	—	1,175,685	398,234	986,805	74,965	3,223,688
	2023	565,000	—	902,745	301,249	747,279	80,650	2,596,923
	2022	550,000	—	710,793	236,799	714,497	139,534	2,351,623
Darin S. Harvey Executive Vice President, Supply Chain	2024	456,000	—	587,939	199,139	630,228	57,203	1,930,509
	2023	438,000	—	480,166	160,263	476,463	48,331	1,603,223
	2022	425,000	—	348,254	116,062	414,468	113,322	1,417,106
Michael G. Huebert Executive Vice President, Sales	2024	430,000	—	587,939	199,139	594,295	39,160	1,850,533
Kevin C. Talley Executive Vice President and Chief Administrative Officer	2024	475,000	—	629,921	213,328	656,488	80,437	2,055,174
	2023	428,000	—	476,294	158,978	466,184	85,618	1,615,074
	2022	415,000	—	337,672	112,505	404,716	130,325	1,400,218

1 In FY 2024, ~90% of CEO's pay is from Stock Awards, Option Awards, and Non-Equity Incentive Plan Compensation.

2 3 Stock Awards and Option Awards are the part of ADS's Long-Term Incentive Plan, spanning April 1, 2021 to March 31, 2024. **Cash Flow from Operations** and **Return on Invested Capital** are two major performance measures. FY22-24 results are below (000's).

Business Performance Measures	Measure Weighting	Threshold	Target	Max	FY22-24	Payout % of Target
Cash Flow from Operations	50%	\$1,400,000	\$1,549,723	\$1,700,000	\$1,700,626	200%
Return on Invested Capital <sup>(1)</sup>	50%	21.0%	23.4%	25.5%	25.4%	198%
	<b>Payout %'s</b>	<b>50%</b>	<b>100%</b>	<b>200%</b>		

4 The annual incentive is tied to the financial measures of net sales (20%) and adjusted EBITDA (80%).

Business Performance Measures	Measure Weighting	Threshold	Target	Max	Fiscal Year 2024	Payout % of Target
Adjusted EBITDA	80%	\$675,000	\$775,000	\$875,000	\$922,947	200%
Net Sales	20%	\$2,500,000	\$2,700,000	\$2,900,000	\$2,874,473	187%
	<b>Payout %'s</b>	<b>50%</b>	<b>100%</b>	<b>200%</b>		

# Appendix: Key Management Overview



**Scott Barbour**

President, CEO



**Scott Cottrill**

EVP, CFO and Secretary



**Darin Harvey**

EVP, Supply Chain



**Brain King**

EVP, Product Management and Marketing



**Craig Taylor**

EVP, Infiltrator Water Technologies



**Kevin Talley**

EVP, Chief Administrative Officer



**Thomas Waun**

EVP, International, Material Sciences

7 years at ADS

9 years at ADS

6 years at ADS

4 years at ADS

4 years at ADS (IWT)

13 years at ADS

4 years at ADS

- President and CEO since 2017
- From 1989 to 2016, Emerson Electric Co., including as President and CEO of its Network Power business

- Extensive financial reporting, accounting and corporate finance experience
- Oversees finance, business development, and information technology functions

- with over 20 years of experience in leading complex global supply chains
- Drive lean manufacturing and delivering change management

- Over 25 years of product management and marketing experience
- Exposure in both consumer and commercial businesses

- Extensive experience in the finance field, P&L ownership, merger and acquisitions, product development and operations
- Spent 16 years at Stanley Black and Decker, Inc.

- Overall leadership to compensation, benefit, and talent management programs
- Spent 17 years at The Scotts Miracle-Gro Company in human resources leadership positions

- Over 30 years of management experience
- Previously served as Senior Vice President, International from June 2020 to June 2022

## Top 15 Institutional Shareholders

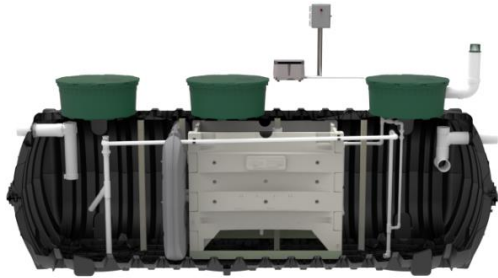
Rank	Type	%OS	Position (000)	Pos Chg (000) [Recent]	Mkt Val (MM)	% Port	Activism	Report Date	Source
-	Institutions	45.97	35,634	1,019	4,698	-	-	-	-
1	The Vanguard Group, Inc.	9.25	7,173	-9	946	0.01	Very Low	09/30/2024	13F Form
2	BlackRock Fund Advisors	7.83	6,073	248	801	0.02	Medium	09/30/2024	13F Form
3	Pictet Asset Management SA	4.17	3,229	655	426	0.27	Very Low	09/30/2024	13F Form
4	Baillie Gifford & Co.	3.92	3,039	-86	401	0.19	Medium	09/30/2024	13F Form
5	SSgA Funds Management, Inc.	3.28	2,542	206	335	0.01	Very Low	09/30/2024	13F Form
6	Impax Asset Management Ltd.	2.42	1,880	-196	248	0.73	Very Low	09/30/2024	13F Form
7	Invesco Capital Management LLC	2.17	1,681	191	222	0.06	Very Low	09/30/2024	13F Form
8	Boston Partners Global Investors, Inc.	1.84	1,427	-220	188	0.20	Very Low	09/30/2024	13F Form
9	American Century Investment Management, Inc.	1.79	1,386	31	183	0.07	Very Low	09/30/2024	13F Form
10	Swedbank Robur Fonder AB	1.79	1,384	75	183	0.11	Very Low	09/30/2024	13F Form
11	Thrivent Asset Management LLC	1.67	1,295	-88	171	0.25	Very Low	09/30/2024	13F Form
12	First Trust Advisors LP	1.53	1,189	442	157	0.11	High	09/30/2024	13F Form
13	Geode Capital Management LLC	1.53	1,187	59	156	0.01	Very Low	09/30/2024	13F Form
14	William Blair Investment Management LLC	1.48	1,148	-288	151	0.18	Very Low	09/30/2024	13F Form
15	UBS Asset Management (Americas) LLC	1.29	1,002	0	132	0.09	Low	09/30/2024	13F Form

# Material Comparison: HDPE vs. PVC vs. Concrete/Metal

Category	HDPE Pipes	PVC Pipes	Concrete/Metal Pipes
<b>Flexibility</b>	Highly flexible, adapts to uneven terrain and settlements.	Rigid, prone to cracking under soil movement or settlement.	Lower flexibility, prone to cracking under movement or uneven terrain.
<b>Durability</b>	High resistance to chemicals, pollutants, and abrasions.	Good resistance but less effective in long-term exposure to harsh chemicals.	Less durable esp. metal. Lifespan usually around 50 years.
<b>Connection Method</b>	Heat-fused joints provide seamless, leak-proof connections.	Glue or mechanical joints, which may weaken over time and risk leakage.	Connected with gaskets, mortar, or mechanical couplings, which are prone to leakage over time.
<b>Impact Resistance</b>	Excellent impact resistance, even in low temperatures.	Susceptible to brittle failure in low-temperature environments.	Lower impact resistance, susceptible to cracking under heavy loads or impacts.
<b>Weight and Handling</b>	Lightweight, easy to transport and install, especially for large-scale projects.	Heavier, more difficult to handle and requires additional support for installation.	Heavy (e.g., rigid concrete is 20-30x heavier than HDPE/PVC), much harder and slower to install
<b>Cost Effectiveness</b>	Lower overall project cost due to long lifespan and reduced maintenance.	Lower initial cost but higher long-term maintenance expenses.	20-30x higher cost of installation and transportation
<b>Temperature Adaptability</b>	Performs well in both high and low-temperature environments.	Prone to performance degradation in extreme temperature conditions.	Concrete can crack in freezing conditions, and metal expands or contracts significantly.
<b>Stormwater Suitability</b>	Designed specifically for high-volume stormwater applications.	Primarily used for static or less dynamic water systems.	Old stormwater management solutions.

January 24, 2024 / 2 minute read

## Infiltrator Launches New Advanced Treatment Solution and Expands Tank Offering



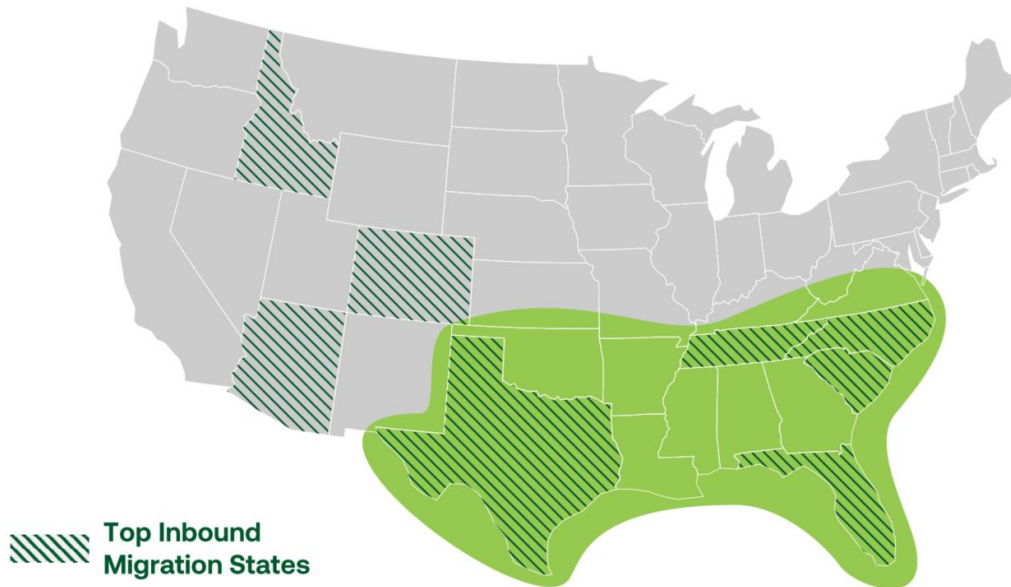
### New Advanced Treatment Solution

Infiltrator has launched the ECOPOD-NX, a new model in the ECOPOD series for advanced wastewater treatment in residential applications. The ECOPOD-NX technology recirculates wastewater to achieve 80% Total Nitrogen reduction, addressing the needs of contractors in markets with more strict treatment regulations. The ECOPOD-NX also provides contractors with increased flexibility, as it can be installed in a single tank to treat wastewater flows of up to 500 gallons per day.

### Expansion of Tank Offerings

Infiltrator has also expanded its plastic tank offering to include two new sizes, the IM-1250 and the IM-300. The IM-1250 is designed for use as a single or in-series septic tank with a design volume capacity of approximately 1,270 gallons. This tank size complements the current offering of 1,000-gallon and 1,500-gallon capacity tanks, providing contractors with additional installation flexibility. The IM-300 is designed for use in pump tank applications with a total volume capacity of approximately 300 gallons.

Both tanks are manufactured using Infiltrator's unique two-piece design technology, which allows for increased transportation efficiency and ease of installation compared to other products on the market today, such as concrete or one-piece plastic tanks. Like other Infiltrator products, the new tanks are manufactured using recycled plastic material, supporting the Company's commitment to reducing its environmental impact and creating a circular economy for plastics.



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.**



**POST HOLDINGS, INC.**

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

**December 5, 2024**

**Team Number: 8**

**Students:** Ashley Johnson, Chidinma Okoro, Muskan Uprety



# EXECUTIVE SUMMARY

**Post Holdings, Inc. is a diversified consumer-packaged goods company operating across multiple food categories, including cereals, eggs, refrigerated products, and pet food.**

## Investment Highlights

### 1.Strategic Expansion into Pet Food:

- **Acquisitions:** Post's \$1.2B acquisition of Smucker's pet food brands (Nutrish, Nature's Recipe, 9Lives, etc.) has delivered exceptional returns, with **pet food net sales increasing from \$0.68B in FY 2023 to \$1.15B in FY 2024.**
- **Operational Efficiency:** Improved case fill rates from 70% to 90%, enhancing reliability and profitability.
- **Growth Potential:** The recent acquisition of **Perfection Pet Foods** has expanded capacity, strengthened private-label capabilities, and opened doors to co-manufacturing opportunities.
- **Industry Tailwinds:** Pet ownership and premiumization trends are driving sustained demand, with the global pet market projected to reach **\$500B by 2030.**

### 2.Effective Capital Allocation:

- **Focus on Cash Flow:** Post prioritizes free cash flow over dividends, reinvesting in growth areas with strong ROI potential.
- **Successful M&A Execution:** Demonstrated value creation through strategic deals like **BellRing Brands** (>\$2B distributed to shareholders) and **8th Avenue** (fully monetized net investment of \$875M while retaining 60% equity).
- **Debt Reduction:** Cash flow has enabled significant deleveraging, improving financial flexibility.

**3.Foodservice Opportunities:** With over 50% market share in the value-added egg products, Post is poised to grow alongside increased restaurant demand for pre-cooked efficiency products.

## Why Invest in Post Holdings?

- Proven track record of value creation through strategic acquisitions and operational efficiency.
- Strong positioning in high-growth markets, particularly pet food and premium packaged goods.
- Resilient, diversified business model supported by robust financial performance and market leadership.
- Attractive long-term growth prospects driven by consumer trends, industry tailwinds, and disciplined capital allocation.

**Conclusion-** BUY with a price target of \$135.

**Current Price:** \$115.80 (11/22/2024) | **1Y Price Target:** \$135 (16.6% upside)

## Post Holdings, Inc. (NYSE: POST) Overview

Post Holdings, Inc. is a consumer-packaged goods company that operates across multiple food categories, including cereals, eggs, and refrigerated products

### Company Description

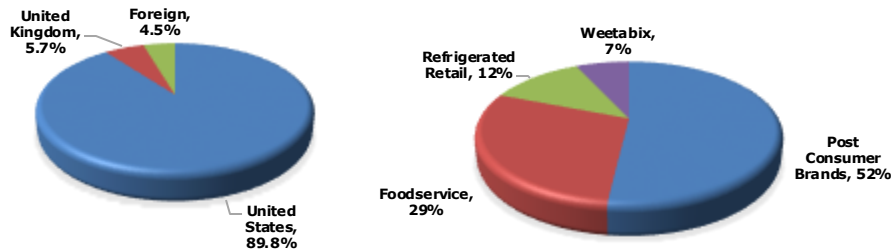
- **Diversified Consumer Packaged Goods:** Post Holdings operates in various food categories, including center-of-the-store, refrigerated, foodservice, food ingredient, active nutrition, and private brands.
- **Segmented Operations:** The company has four main segments—Post Consumer Brands, Weetabix, Foodservice, and Refrigerated Retail—each focused on specific types of food products.
- The company was founded by Charles William Post in 1895 and is headquartered in St Louis, Missouri

### Financial Overview & Market Metrics

	Sep '24	Sep '23	Sep '22
Revenue (Millions of USD)	7922.7	6991	5851
EBIT (Millions of USD)	835	696	384
EBITDA (Millions of USD)	1312	1103	765
Net Income (Millions)	366.7	301.3	756.6

Primary Ticker	POST-US
First Trading Date	Jan 27, 2012
52 Week Range	\$83.73 - 118.96
Market Cap (bn)	7.587
Current Price	115.80
Annual Dividend	\$0.00
Dividend Yield	0.00%

### Revenue By Geography & Segment '24



### Select Brands



**Post Holdings, Reportable Segment**

**POST Consumer Brands**

- RTE Cereal**

  - Ranked #3 with a 20% dollar-market-share
  - leads in the value segment and private-label cereals
- Peanut Butter**

  - Peter Pan acquisition in 2021
  - Slow growth stable cash flow segment
- PET Food**

  - #3 U.S. manufacturer by volume
  - Growing category with leading brands like Nutrish and 9Lives

**Refrigerated Retail**

- Potatoes**

  - Acquired Bob Evans for a pure retail play
  - Attractive 'heat and eat' side dish alternatives
- Eggs and Cheese**

  - Retail eggs and processed egg products through brands like Crystal Farms, Egg beaters

**Food Services**

- Value-add Eggs**

  - Over 50% market share in this segment
  - High value proposition and a growth vehicle for POST
- Potatoes**

  - Most popular side dish
  - Diminished food safety risk and increased value prop by removing labor from kitchen

**Weetabix**

- RTE UK**

  - Predominantly UK and Europe focus
  - Strong brand positioning in the region with 11% volume-market-share

**Unleashing Potential: Post Holdings'  
Foray into the Pet Food Sector**

**01**

**Effective Capital Allocation will enable  
equity value creation for investors.**

**02**

**Volume in packaged food plus margin  
expansion through mix moving to value  
add will improve organic growth**

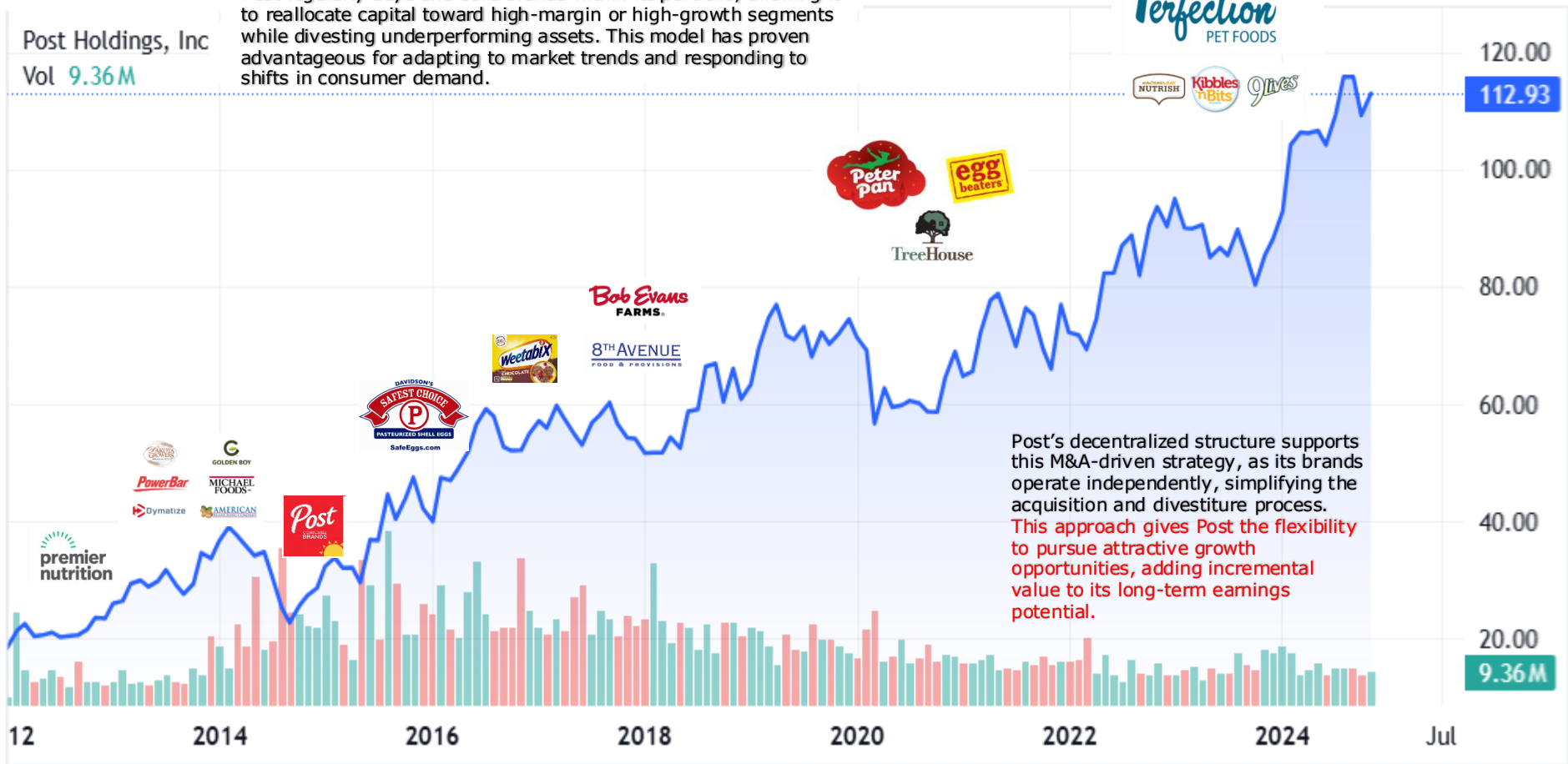
**03**

# Investment Thesis #1

## Unleashing Potential: Post Holdings' Foray into the Pet Food Sector

A distinctive aspect of Post Holdings is its operating model, which resembles that of a private equity firm. As a holding company, Post regularly buys and sells brands within its portfolio, allowing it to reallocate capital toward high-margin or high-growth segments while divesting underperforming assets. This model has proven advantageous for adapting to market trends and responding to shifts in consumer demand.

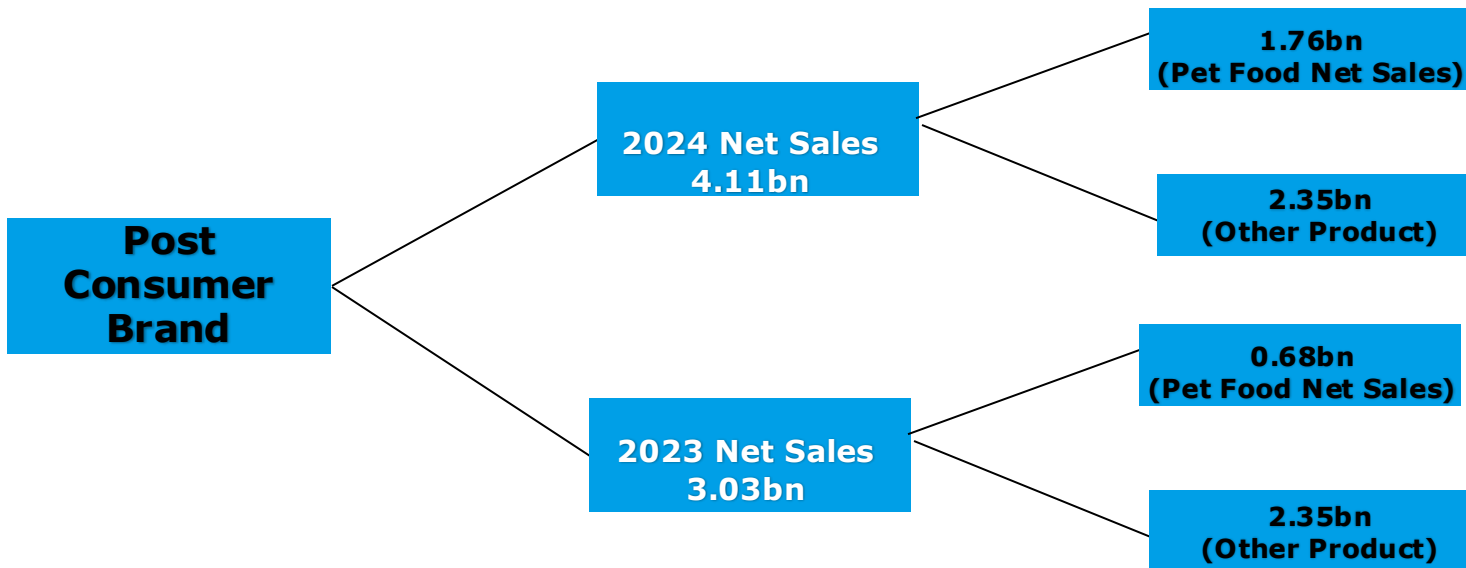
Post Holdings, Inc  
 Vol 9.36M



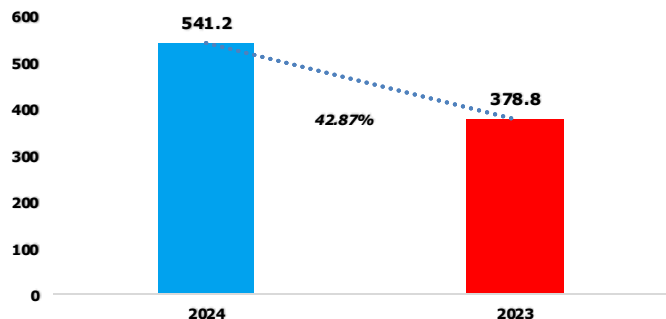
# Investment Thesis #1

## Unleashing Potential: Post Holdings' Foray into the Pet Food Sector

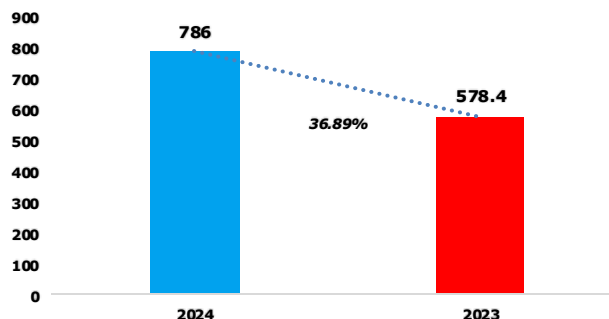
Post Holdings has strategically positioned its pet food segment as a significant growth driver. With strong acquisitions, operational improvements, and market expansion, the segment is poised to deliver sustained profitability and long-term shareholder value.



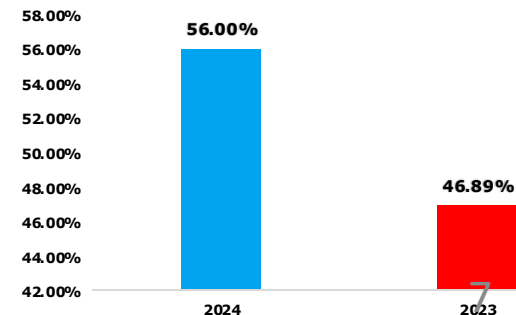
**POST CONSUMER BRAND SEGMENT PROFIT \$MM**



**POST CONSUMER BRAND ADJUSTED EBITA \$MM**



**% OF TOTAL EBITDA**



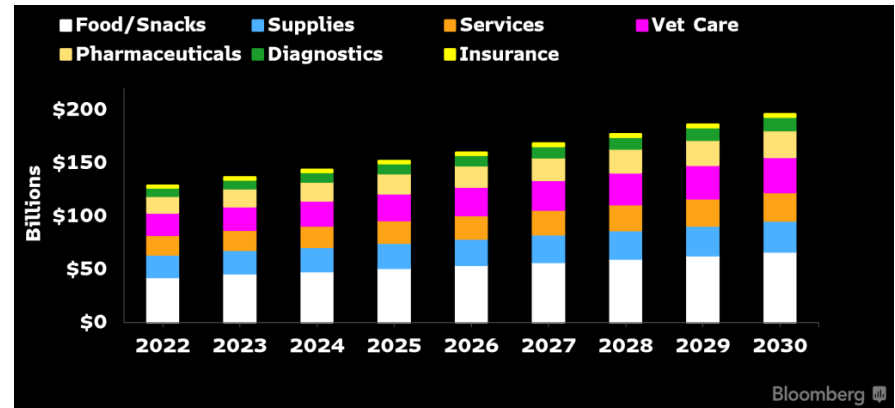
**Unleashing Potential: Post Holdings' Foray into the Pet Food Sector**

**The global pet industry is poised for significant expansion, with projections indicating growth from \$320 billion in 2023 to nearly \$500 billion by 2030. This surge is driven by several key factors:**

*Increasing Pet Ownership:* A growing global pet population is contributing to higher demand for pet-related products and services.

*Humanization of Pets:* Owners are increasingly treating pets as family members, leading to greater spending on premium food and services.

*Advancements in Pet Healthcare:* Improved veterinary care and pharmaceuticals are extending pet lifespans, necessitating more comprehensive and prolonged care.



**Strategic Focus on Premium Brands  
 Rebranding and Relaunch Initiatives:**

Post is relaunching premium brands like Nutrish in FY 2025, with a meaningful investment already planned in its guidance.

This focus on premium positioning aims to capture higher-margin segments of the pet food market.

**Private label and co-manufacturing**

**opportunities:** The Perfection Pet Foods acquisition was noted as an entry into private label and co-manufacturing markets, diversifying revenue sources and addressing consumer demand for affordability

# Investment Thesis #2

## Effective Capital Allocation will enable equity value creation for investors.

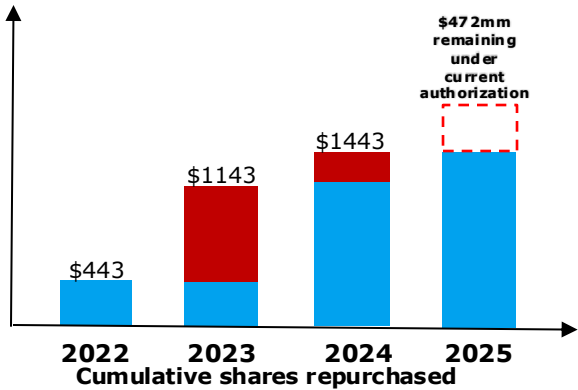
### HISTORY



- **Acquired** brands like *Premier Protein, Dymatize, and PowerBar* for **~\$700mm**
- **Generated \$250mm** in 5yrs over the **cost of capital** bringing down net investment
- Took Bellring Public through **IPO** and later spun it off, **distributing ~\$2bn to POST shareholders** (>30% IRR)

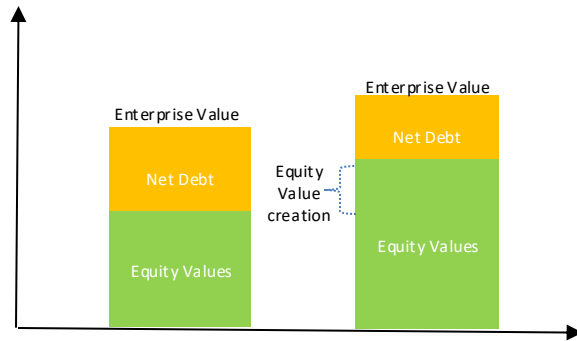


- **Acquired** *nut butter, healthy snacks and pasta brands* for **~\$950mm**
- **Generated \$100mm** in 6 yrs over the **cost of capital + capex** bringing down net investment
- **Capitalized** 8th Ave receiving **\$875mm** in proceeds, **fully monetizing its net investment** while retaining 60% equity.



### FUTURE

- POST management is focused on cash flow and not GAAP earnings. They do not pay dividends
- Recent purchase of PET is cash flow positive.
- Ability to utilize FCF for debt reduction will allow POST to generate equity value



	Debt Paydown	Share Repurchase
2025 EBITDA (Expected)	\$1,365	\$1,365
Multiple	10.1	10.1
EV	\$13,787	\$13,787
Debt	\$6,022	\$6,022
Dil Shares Outstanding	66.9	66.9
FCF	\$745	\$745
Debt after Paydown	\$5,277	\$6,022
Shares Out after Repurchase	66.90	60.69
Implied Equity Value	\$8,510	\$7,765
Implied Share Price	\$127.20	\$127.93
Current Share Price	\$115.80	\$115.80
Delta	9.84%	10.48%



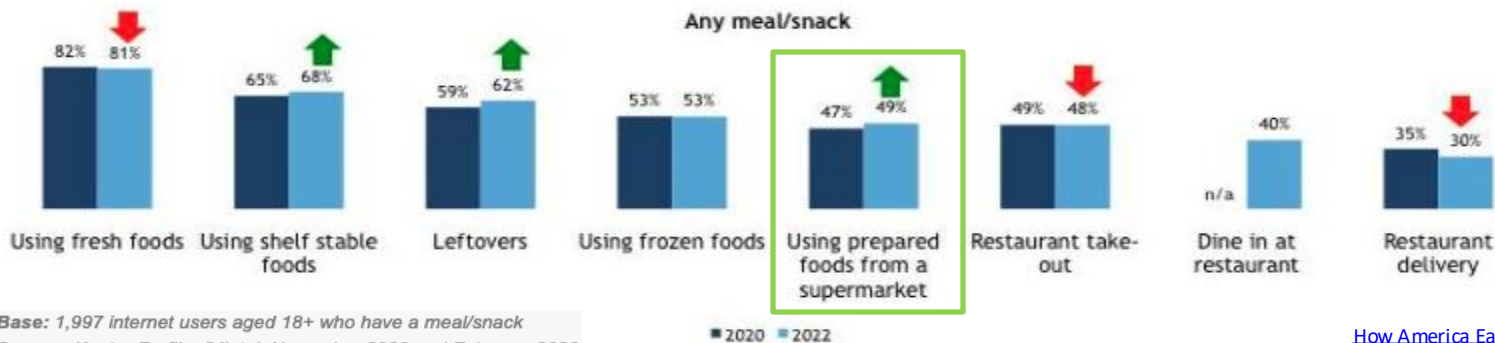
## Investment Thesis #3

**Volume in packaged food plus margin expansion through mix moving to value add will improve organic growth**



- POST is a leader in refrigerated side dishes. Household penetration of the category is at 30% and post has managed to capture 14% through well-known brands like Bob Evans and Simply Potatoes
- While volume pressures exists for cheese and retail eggs, side dishes saw a 6% volume increase.
- Consumers' preference for convenience when preparing meals is rising, which should further grow volume in this segment

- Clean label products with natural ingredients leans on the health-conscious shopper.
- POST products have attractive store placement in retail and its supply chain superiority creates barriers to entry against competitors
- With inflation trending down, and POST's cost leadership, they are well positioned to take advantage of strong consumer tailwinds.

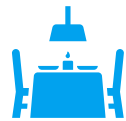


## Investment Thesis #3

# Volume in packaged food plus margin expansion through mix moving to value add will improve organic growth



Outside of Retail, POST has strong positioning in Foodservice segment, with over 50% market share for value-added egg products



Expected increase from volume will improve topline in this segment (historical category growth rate of ~4%)



Over 40% foodservice providers still use shell eggs in their operation. POST offers convenient alternatives and food safety benefits. Creates options for tailwinds created by removing labor from the kitchen, especially in a strong labor market environment.

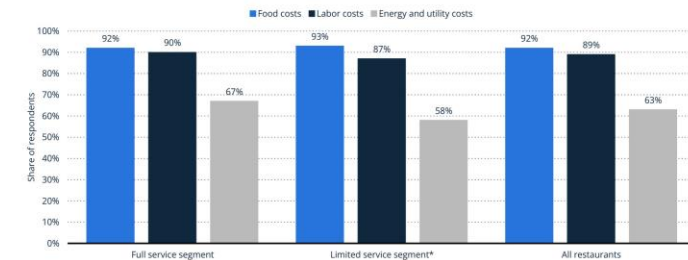


POST is poised to shift volume up the value chain in terms of their product mix. Shifting volume from dried eggs/ extended shelf-life eggs to pre-cooked can increase profits by 5x.



Issues that are causing a significant challenges to restaurants in the United States as of November 2022, by restaurant type

Leading problems for restaurants in the U.S. 2022, by restaurant type



Over 80% of respondents in November 2022, the leading issue causing a significant challenge to both full service and limited service restaurant operators in the United States was food costs, with 92 percent and 93 percent of respondents respectively reporting so. Meanwhile, a higher share of full service restaurant operators listed labor costs as a significant challenge, with 90 percent of those participants citing this issue for their business. [Download](#)

Potential Risk	Mitigants
<p>Volatility in raw material, energy, and packaging costs due to inflation, climatic conditions, and geopolitical tensions</p>	<ul style="list-style-type: none"> <li>• Use hedging strategies to lock in raw material prices and mitigate cost volatility. Increase focus on operational efficiencies and waste reduction.</li> </ul>
<p>High levels of debt can increase financial risk, especially in volatile economic conditions.</p>	<ul style="list-style-type: none"> <li>• Post actively manages its capital structure, focusing on maintaining a balanced debt-to-equity ratio and ensuring sufficient liquidity to meet obligations. The company regularly reviews its financial strategies to adapt to changing market conditions.</li> </ul>
<p>Entering new segments, such as pet food manufacturing, subjects Post to additional regulations and oversight specific to that industry.</p>	<ul style="list-style-type: none"> <li>• Post ensures compliance by adhering to industry-specific standards and regulations, conducting regular audits, and implementing robust quality control measures.</li> </ul>

## VALUATION SUMMARY

We used 3 different approaches for valuation: DCF, Comp Multiples and Sum-of-Parts. We considered all of the approaches, but weighted the DCF as this is the most applicable approach to price targets across our Bear, Base, and Bull cases.

### DCF

	Bull	Base	Bear
Projected 2029 EBITDA	1,594.94	1,535.38	1,358.69
Selected TTM Multiple	10.2x	10.2x	10.2x
Discount Factor	0.720	0.720	0.720
Implied Terminal Value	11,754.83	11,315.86	10,013.60
Sum of Discounted Cash Flows	3,510.21	3,400.96	3,119.38
Implied Terminal Value	11,754.82	11,315.86	10,013.60
Total Enterprise Valuation	15,265.03	14,716.82	13,132.98
Less: Debt	6,022.00	6,022.00	6,022.00
Less: Noncontrolling Interest	10.7	10.7	10.7
Plus: Cash & ST Investments	344	344	344
<b>Total Equity Valuation</b>	<b>9,576.33</b>	<b>9,028.12</b>	<b>7,444.28</b>
<b>Implied Value Per Share</b>	<b>143.14</b>	<b>134.95</b>	<b>111.27</b>
<i>Premium to Current Stock Price</i>	<b>23.61%</b>	<b>16.54%</b>	<b>-3.91%</b>

### SUM-OF-PARTS

	2025E	Multiple (EV/ Sales)	Implied EV
PET	\$1,832	4.46	\$8,172
RTE (Post Consumer + Weetabix)	\$2,874	2.59	\$7,451
Refrigerated + Food Service	\$3,414	1.04	\$3,554
		Implied Total EV	\$19,177
		Less Debt	\$6,355
		Implied Share P.	<b>\$192</b>
		Our Target P.	<b>\$135</b>
		Control Premium	42%

### COMP MULTIPLES

	Bull	Base	Bear
Selected Multiple	12.00	11.5	10.5
EBITDA LTM	1,312.00	1,312.00	1,312.00
EV	15,744.00	15,088	13,776
Less: Net Debt	6355	6355	6355
Equity Value	9,389	8,733	7,421
Shares Outstanding	66.90	66.90	66.90
Implied Share Price	141	130.5	102.6



**POST HOLDINGS, INC.**

**Questions ??**



**POST HOLDINGS, INC.**



POST HOLDINGS, INC.

# Appendix



POST HOLDINGS, INC.

# DCF-BASE CASE

All figures in millions of except per share items:	2023	2024	2025	2026	2027	2028	2029		
<b>Free Cash Flow Calculation:</b>									
Total Revenue	6,991.00	7,922.00	8,120.05	8,363.65	8,614.56	8,873.00	9,139.19	Growth Rate>>	2.9%
Post Consumer (Ex Pet)	3,033.00	2,351.00	2,303.98	2,257.90	2,212.74	2,168.49	2,125.12		-2.0%
Pet Foods		1,758.00	1,831.68	1,922.14	2,009.03	2,092.08	2,171.02		4.3%
Food Service	2,426.00	2,307.00	2,422.35	2,543.47	2,670.64	2,804.17	2,944.38		5.0%
Refrigerated	1,020.00	963.00	991.89	1,041.48	1,093.56	1,148.24	1,205.65		4.6%
Weetabix	512.00	543.00	570.15	598.66	628.59	660.02	693.02		5.0%
Total Revenue Growth Rate		13.32%	2.50%	3.00%	3.00%	3.00%	3.00%		
EBITDA	1,102.00	1,312.00	1,364.17	1,405.09	1,447.25	1,490.66	1,535.38		3.2%
EBITDA Margin	15.76%	16.56%	16.80%	16.80%	16.80%	16.80%	16.80%		0.3%
Depreciation & Amortization	407.00	466.00	480.00	500.00	500.00	500.00	500.00		1.4%
Net Operating Profit After-Tax	542.10	659.88	689.65	705.97	738.85	772.72	807.60		4.1%
Plus: Depreciation & Amortization	407.00	466.00	480.00	500.00	500.00	500.00	500.00		1.4%
Less: Capital Expenditures	303.00	391.00	406.00	418.18	430.73	443.65	456.96		3.2%
Capital Expenditures % of Revenue	4.3%	4.9%	5.0%	5.0%	5.0%	5.0%	5.0%		
Less: Incremental Working Capital	9.5	13.4	20	20	20	20	20		
Unlevered Free Cash Flow	655.60	748.28	783.65	807.79	828.12	849.07	870.64		3.08%
Discount Rate			6.80%	6.80%	6.80%	6.80%	6.80%		
Discount Factor			0.936	0.877	0.821	0.769	0.720		
Discounted Free Cash Flow			733.75	708.20	679.80	652.62	626.59		

PV Calculation w/ EV/EBITDA Exit Multiple	
Projected 2029 EBITDA	1,535.38
Selected TTM Multiple	10.2x
Discount Factor	0.720
Implied Terminal Value	11,315.86
Sum of Discounted Cash Flows	3,400.96
Implied Terminal Value	11,315.86
Total Enterprise Valuation	14,716.82
Less: Debt	6,022.00
Less: Noncontrolling Interest	10.7
Plus: Cash & ST Investments	344
<b>Total Equity Valuation</b>	<b>9,028.12</b>
<b>Implied Value Per Share</b>	<b>134.95</b>
<i>Premium to Current Stock Price</i>	<b>16.54%</b>

	2024
Dil Shares Outstanding (mm)	66.9
Current Stock Price	115.8
Current EV	13,435.72
LTM EBITDA	1,312.00
<b>EV/LTM EBITDA</b>	<b>10.2x</b>

# DCF-BULL CASE

All figures in millions of except per share items.	2023	2024	2025	2026	2027	2028	2029		
<b>Free Cash Flow Calculation:</b>									
Total Revenue	6,991.00	7,922.00	8,120.05	8,363.65	8,656.38	8,959.35	9,272.93	Growth Rate>>	3.2%
Post Consumer (Ex Pet)	3,033.00	2,351.00	2,327.49	2,304.22	2,281.17	2,258.36	2,235.78		-1.0%
Pet Foods		1,758.00	1,831.24	1,924.04	2,058.00	2,193.87	2,331.66		5.8%
Food Service	2,426.00	2,307.00	2,399.28	2,495.25	2,595.06	2,698.86	2,806.82		4.0%
Refrigerated	1,020.00	963.00	991.89	1,041.48	1,093.56	1,148.24	1,205.65		4.6%
Weetabix	512.00	543.00	570.15	598.66	628.59	660.02	693.02		5.0%
Total Revenue Growth Rate		13.32%	2.50%	3.00%	3.50%	3.50%	3.50%		
EBITDA	1,102.00	1,312.00	1,372.29	1,438.55	1,488.90	1,541.01	1,594.94		4.0%
EBITDA Margin	15.76%	16.56%	16.90%	17.20%	17.20%	17.20%	17.20%		0.8%
Depreciation & Amortization	407.00	466.00	480.00	500.00	500.00	500.00	500.00		1.4%
Net Operating Profit After-Tax	542.10	659.88	695.98	732.07	771.34	811.99	854.06		5.3%
Plus: Depreciation & Amortization	407.00	466.00	480.00	500.00	500.00	500.00	500.00		1.4%
Less: Capital Expenditures	303.00	391.00	406.00	418.18	432.82	447.97	463.65		3.5%
Capital Expenditures % of Revenue	4.3%	4.9%	5.0%	5.0%	5.0%	5.0%	5.0%		
Less: Incremental Working Capital	9.5	13.4	20	20	20	20	20		
Unlevered Free Cash Flow	655.60	748.28	789.98	833.88	858.52	884.02	910.41		4.00%
Discount Rate			6.80%	6.80%	6.80%	6.80%	6.80%		
Discount Factor			0.936	0.877	0.821	0.769	0.720		
Discounted Free Cash Flow			739.68	731.08	704.75	679.48	655.21		

PV Calculation w/ EV/EBITDA Exit Multiple	
Projected 2029 EBITDA	1,594.94
Selected TTM Multiple	10.2x
Discount Factor	0.720
Implied Terminal Value	11,754.83
Sum of Discounted Cash Flows	3,510.21
Implied Terminal Value	11,754.83
Total Enterprise Valuation	15,265.03
Less: Debt	6,022.00
Less: Noncontrolling Interest	10.7
Plus: Cash & ST Investments	344
<b>Total Equity Valuation</b>	<b>9,576.33</b>
<b>Implied Value Per Share</b>	<b>143.14</b>
<i>Premium to Current Stock Price</i>	<b>23.61%</b>



# DCF-BEAR CASE

All figures in millions of except per share items	2023	2024	2025	2026	2027	2028	2029		
<b>Free Cash Flow Calculation:</b>									
Total Revenue	6,991.00	7,922.00	8,080.44	8,242.05	8,324.47	8,407.71	8,491.79	Growth Rate>>	1.4%
Post Consumer (Ex Pet)	3,033.00	2,351.00	2,280.47	2,212.06	2,145.69	2,081.32	2,018.88		-3.0%
Pet Foods		1,758.00	1,861.72	1,962.19	1,976.97	1,985.96	1,989.06		2.5%
Food Service	2,426.00	2,307.00	2,376.21	2,447.50	2,520.92	2,596.55	2,674.45		3.0%
Refrigerated	1,020.00	963.00	991.89	1,021.65	1,052.30	1,083.86	1,116.38		3.0%
Weetabix	512.00	543.00	570.15	598.66	628.59	660.02	693.02		5.0%
Total Revenue Growth Rate		13.32%	2.00%	2.00%	1.00%	1.00%	1.00%		
EBITDA	1,102.00	1,312.00	1,333.27	1,318.73	1,331.92	1,345.23	1,358.69		0.7%
EBITDA Margin	15.76%	16.56%	16.50%	16.00%	16.00%	16.00%	16.00%		-0.7%
Depreciation & Amortization	407.00	466.00	480.00	500.00	500.00	500.00	500.00		1.4%
Net Operating Profit After-Tax	542.10	659.88	665.55	638.61	648.89	659.28	669.78		0.3%
Plus: Depreciation & Amortization	407.00	466.00	480.00	500.00	500.00	500.00	500.00		1.4%
Less: Capital Expenditures	303.00	391.00	404.02	412.10	416.22	420.39	424.59		1.7%
Capital Expenditures % of Revenue	4.3%	4.9%	5.0%	5.0%	5.0%	5.0%	5.0%		
Less: Incremental Working Capital	9.5	13.4	20	20	20	20	20		
Unlevered Free Cash Flow	655.60	748.28	761.53	746.51	752.67	758.90	765.19		0.45%
Discount Rate			6.80%	6.80%	6.80%	6.80%	6.80%		
Discount Factor			0.936	0.877	0.821	0.769	0.720		
Discounted Free Cash Flow			713.04	654.47	617.86	583.31	550.69		

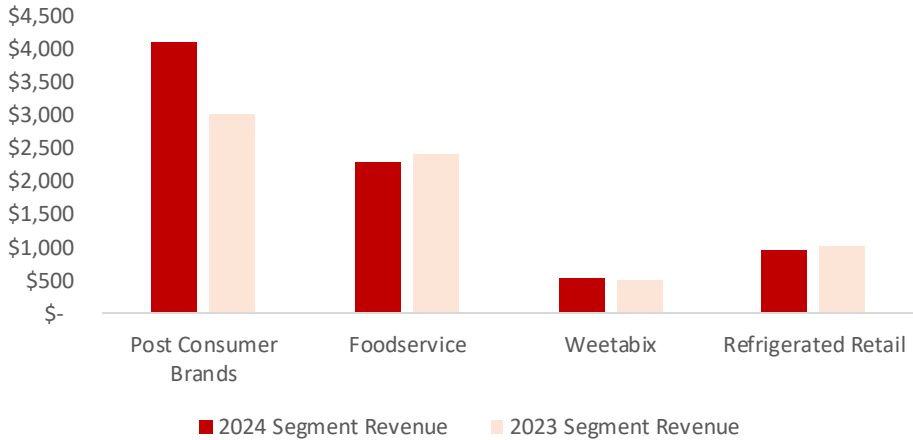
PV Calculation w/ EV/EBITDA Exit Multiple	
Projected 2029 EBITDA	1,358.69
Selected TTM Multiple	10.2x
Discount Factor	0.720
Implied Terminal Value	10,013.60
Sum of Discounted Cash Flows	3,119.38
Implied Terminal Value	10,013.60
Total Enterprise Valuation	13,132.98
Less: Debt	6,022.00
Less: Noncontrolling Interest	10.7
Plus: Cash & ST Investments	344
<b>Total Equity Valuation</b>	<b>7,444.28</b>
<b>Implied Value Per Share</b>	<b>111.27</b>
<i>Premium to Current Stock Price</i>	<b>-3.91%</b>

# Public Comparables

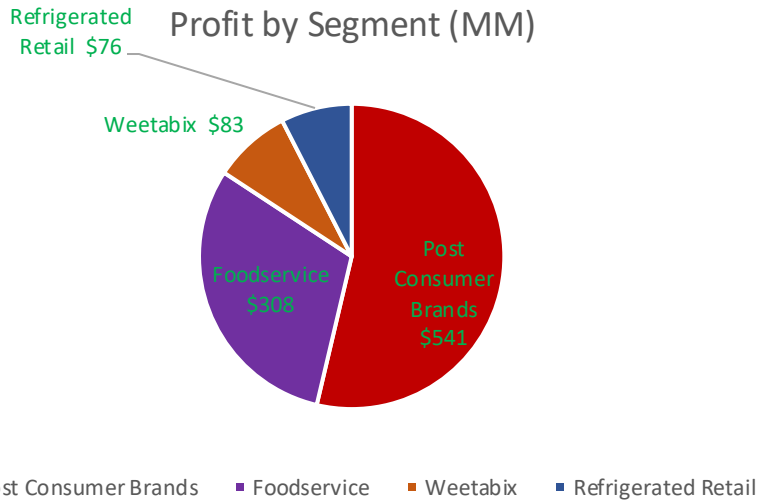
Company Name	Ticker	Fiscal Period	Market Data (\$)			Shares Out			Financial (\$)			Valuation (x)	
			Price	Mkt Cap (M)	EV (M)	(M)	Diluted (M)	Sales (M)	EBIT (M)	EBITDA (M)	EV/EBIT	EV/EBITDA	
J.M. Smucker	SJM-US	7/31/2024	113.3	12,125.00	20,620.20	106.4	106.3	8,498.60	1,547.60	2,017.40	13.32x	10.22x	
Herbalife	HLF-US	9/30/2024	8.42	910.1	2,758.50	100.8	101.9	5,000.70	378.4	499	7.29x	5.53x	
Kellanova	K-US	9/28/2024	81.17	28,535.10	34,283.10	344.7	347	12,799.00	1,738.00	2,039.00	19.73x	16.81x	
Darling Ingredients	DAR-US	9/28/2024	40.13	6,491.30	8,351.20	159	161	5,892.70	333.3	846.9	25.06x	9.86x	
Conagra Brands	CAG-US	8/25/2024	27.42	13,320.70	21,964.20	477.3	480.3	11,941.80	1,829.80	2,233.20	12.00x	9.84x	
General Mills	GIS-US	8/25/2024	65	36,458.20	50,052.50	555.2	563.8	19,800.60	3,461.20	4,016.30	14.46x	12.46x	
Average											15.35x	10.67x	
Median											14.46x	9.94x	

# Segment Sales

Net Annual Sales per Segment



Profit by Segment (MM)



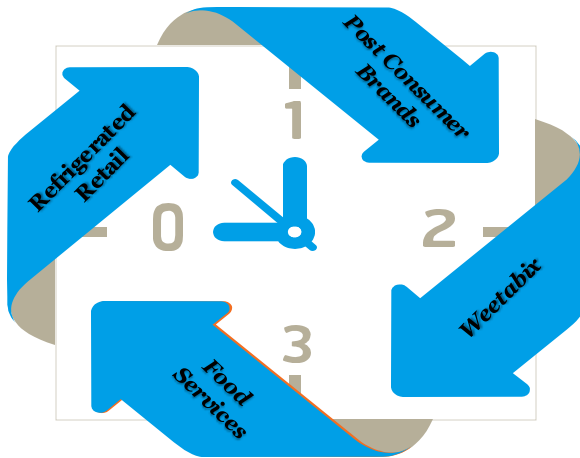
	Q3 2024	Q3 2023	2024	2023
<b>Segment Revenue</b>				
Post Consumer Brands	\$1,047	\$1,008	\$4,110	\$3,033
Foodservice	\$596	\$570	\$2,307	\$2,426
Weetabix	\$140	\$135	\$543	\$512
Refrigerated Retail	\$227	\$233	\$962	\$1,020
<b>Total</b>	<b>\$2,010</b>	<b>\$1,945</b>	<b>\$7,923</b>	<b>\$6,991</b>
<b>Segment Profit</b>				
Post Consumer Brands	\$140	\$141	\$541	\$379
Foodservice	\$78	\$85	\$308	\$350
Weetabix	\$20	\$15	\$83	\$74
Refrigerated Retail	\$13	\$12	\$76	\$69
<b>Total</b>	<b>\$251</b>	<b>\$253</b>	<b>\$1,008</b>	<b>\$871</b>
<b>Segment Margin</b>				
Post Consumer Brands	13.39%	13.99%	13.17%	12.49%
Foodservice	13.14%	14.86%	13.35%	14.41%
Weetabix	14.07%	11.19%	15.26%	14.43%
Refrigerated Retail	5.65%	5.14%	7.89%	6.79%
<b>Total</b>	<b>12.49%</b>	<b>12.99%</b>	<b>12.72%</b>	<b>12.46%</b>

# Post Holdings, Reportable Segment

## REPORTABLE SEGMENT

*Offers branded and private label ready-to-eat (RTE) cereals through Post Foods, MOM Brands (acquired in 2015), Weetabix North America (acquired in 2017), and private label RTE cereals (acquired in 2021). Also includes Peter Pan peanut butter (acquired in 2021) and pet food brands (acquired in 2023).*

Provides refrigerated products, such as side dishes, eggs, sausage, cheese, and dairy items. Key acquisitions include Bob Evans, Michael Foods with Crystal Farms (2014), NPE, Almark, and the Egg Beaters brand (acquired in 2021).



Comprises Weetabix Limited (acquired in 2017), producing branded and private label RTE cereals, hot cereals, and other cereal-based products outside North America. Also includes Lacka Foods, distributor of UFIT protein shakes in the UK (acquired in 2022).

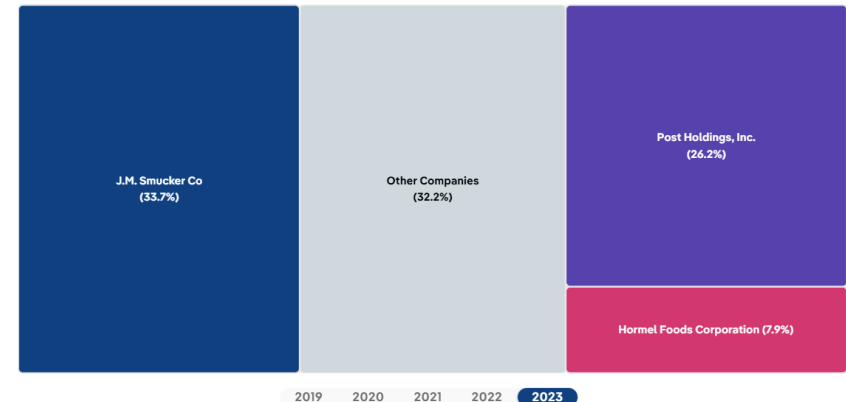
Focuses on egg and potato products for foodservice and ingredient channels, including Michael Foods (acquired in 2014), National Pasteurized Eggs (acquired in 2016), Bob Evans Farms (acquired in 2018), Henningsen Foods (acquired in 2020), and Almark Foods (acquired in 2021).

## Market Share (Cereals & Peanut Butter)

Cereal Production in the US  
**Industry Market Share by Company**  
Industry-specific company revenue as a share of total industry revenue

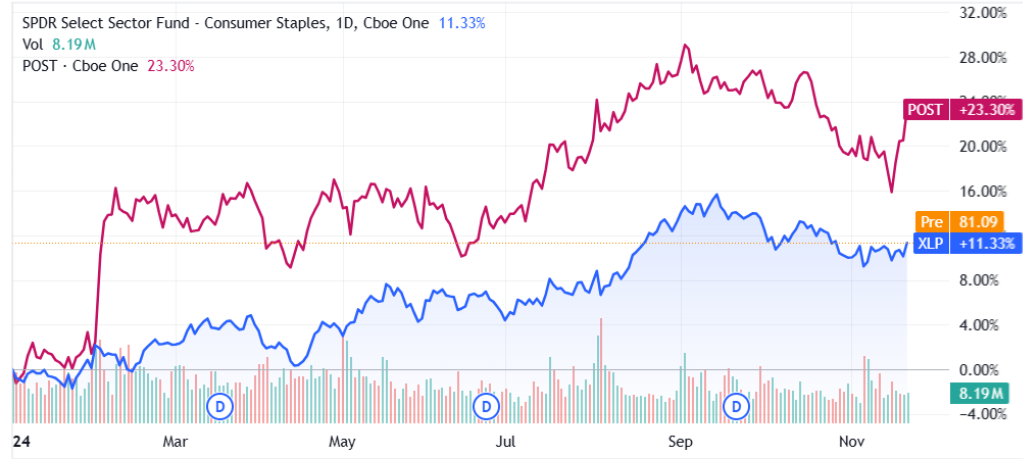


Peanut Butter Production in the US  
**Industry Market Share by Company**  
Industry-specific company revenue as a share of total industry revenue



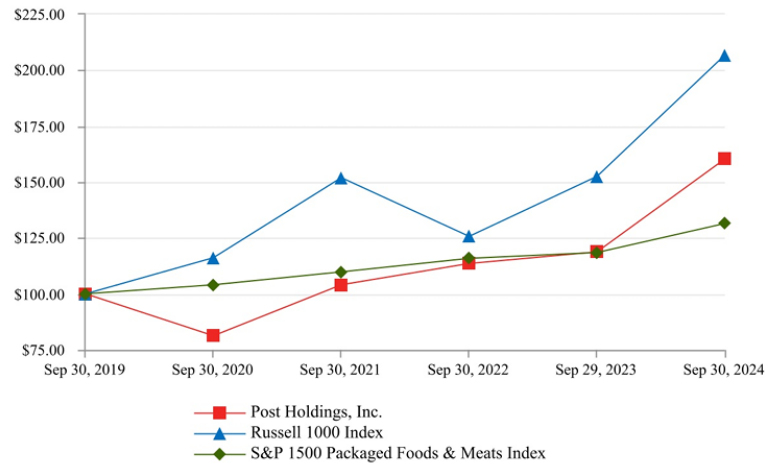
# Market Performance

Published on TradingView.com, Nov 22, 2024 07:09 UTC-5



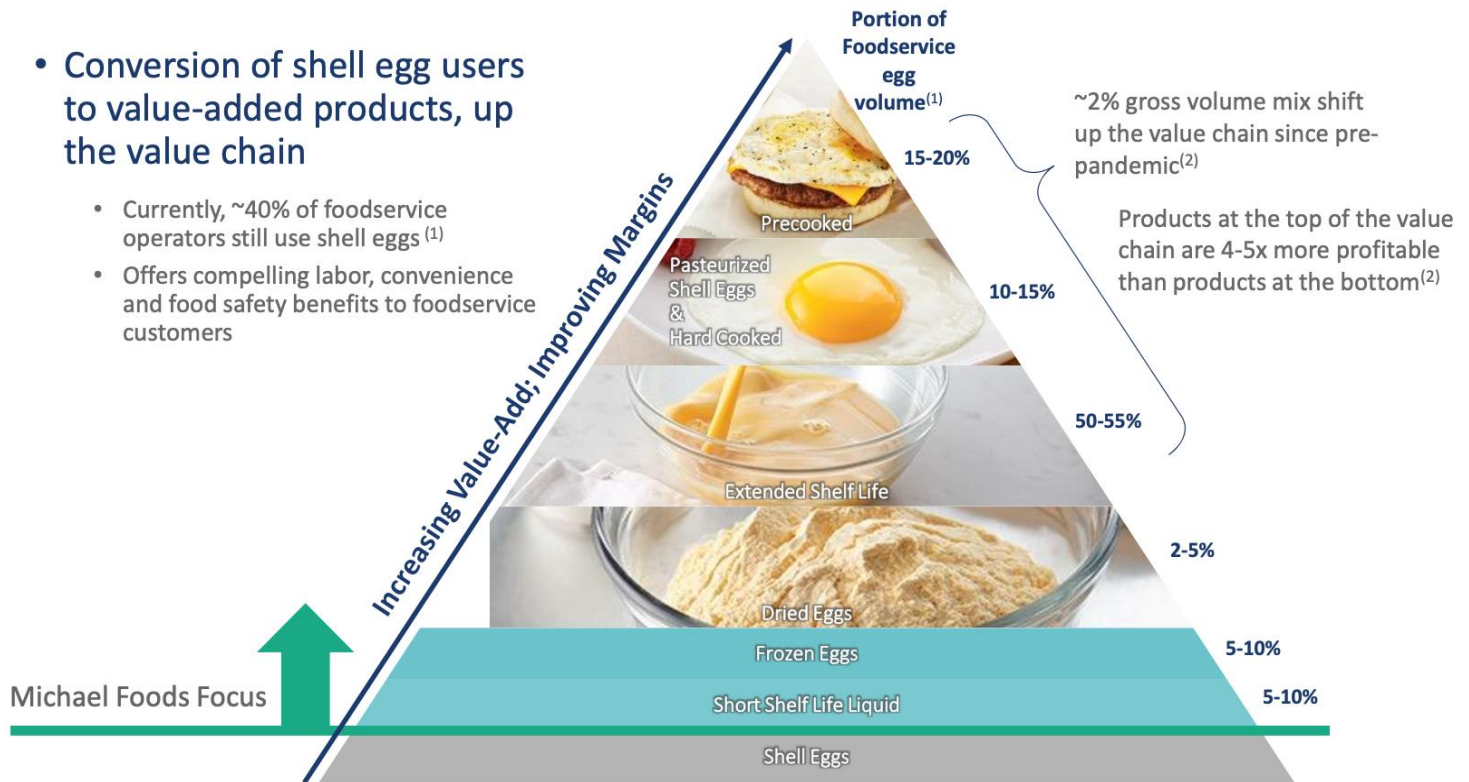
TradingView

**COMPARISON OF CUMULATIVE TOTAL RETURN \***  
 Among Post Holdings, Inc., the Russell 1000 Index and the S&P 1500 Packaged Foods & Meats Index



**Foodservice: Margin Expansion Via Mix Improvement**

- Conversion of shell egg users to value-added products, up the value chain
  - Currently, ~40% of foodservice operators still use shell eggs<sup>(1)</sup>
  - Offers compelling labor, convenience and food safety benefits to foodservice customers



1. Per Circana SupplyTrack as of July 8, 2023  
 2. Management estimate.

## Grocery Retailing – US – 2024 - Mintel

### Product-oriented opportunities

#### Capitalize on the shift towards healthier eating

This can be accomplished by offering more health-centered products and services such as a wider range of fresh, organic, and sustainable products; providing educational resources on nutrition; promoting local foods and other partnerships; and enhancing the store and digital platforms for personalized health-led shopping experiences.

#### Expand natural/organic options

The natural and organic food market continues to grow rapidly: three in four consumers purchase such items, with most buying from traditional grocers versus natural food stores. Sub-categories garnering interest include plant-based, functional, and clean label. Offering more natural and organic items could bring in new shoppers.

#### Expand private label offerings

Consumers are buying more store brands after realizing they don't have to sacrifice quality to do so *and* they save money. Private label will evolve in the future as retailers explore tiered offerings, promote sustainability and ethical practices and place more emphasis on quality and unique product features.

### Product-oriented opportunities, cont'd

#### Explore and enhance foodservice options

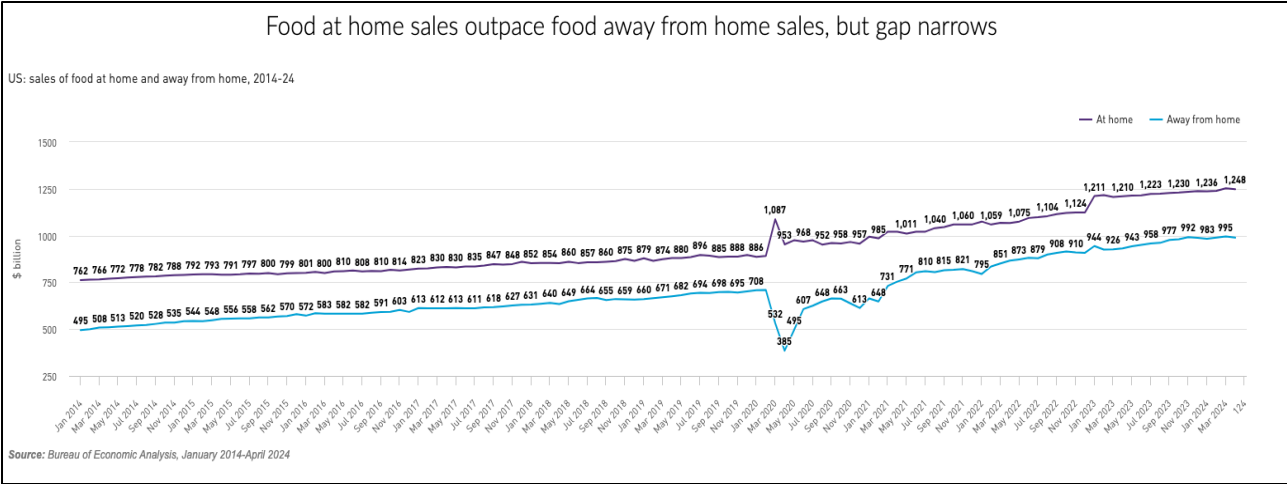
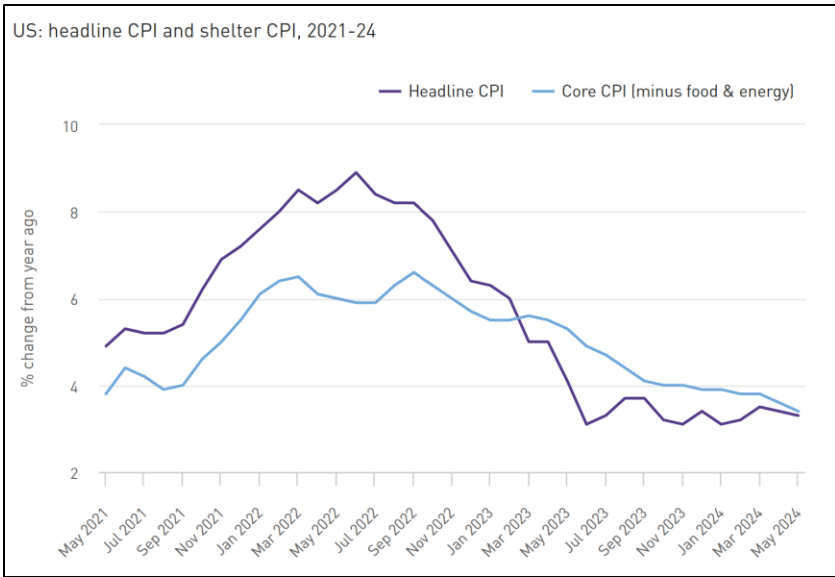
Grocers can compete with restaurants and takeout options by offering ready-to-eat meals, in-store dining, cooking classes, meal kits, and local chef collaborations, to name a few ideas. Providing convenient, high-quality food options can attract customers seeking quick, tasty alternatives to dining out, especially those on a budget.

#### Remind consumers of non-food product assortments

Supermarkets are losing market share to other retailers, especially in food and beverage. About 30% of grocery sales are from non-food categories where supermarkets fall behind. To draw in consumers purchasing non-food items elsewhere, supermarkets need to push BPC and household goods more competitively, focusing on price advantages.

# Grocery Retailing Market

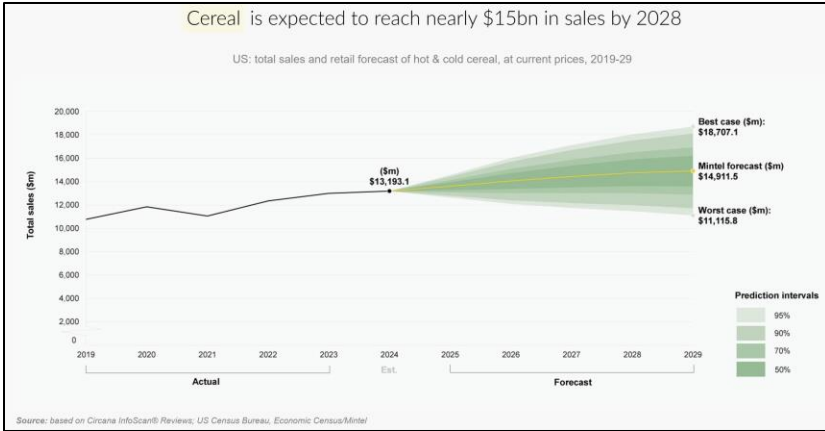
## Grocery Retailing – US – 2024 - Mintel





# Post Holding Market Share, Cereal

## Hot & Cold Cereal – US – 2024, Mintel Hot & Cold Cereal – US – 2024 - Mintel



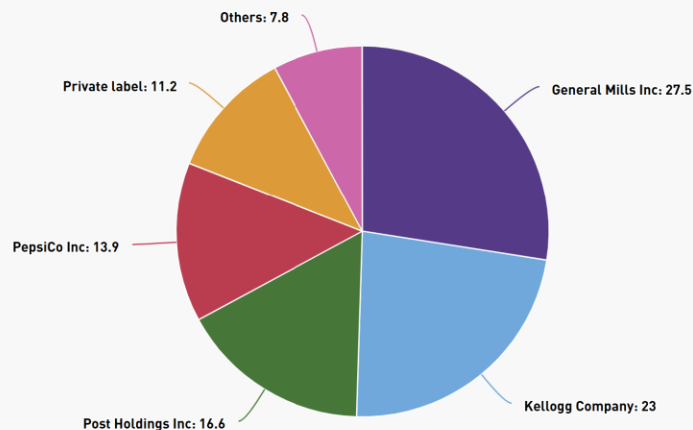
Top brands: General Mills, Kellogg, & PepsiCo post sales declines despite overall category growth

US: multi-outlet sales of hot and cold cereal, by leading companies, rolling 52 weeks 2023 and 2024

Company	52 weeks ending April 23, 2023	Market share	52 weeks ending April 21, 2024	Market share	Sales change 2023-2024	Share change
	\$million	%	\$million	%	%	% point
<b>Total</b>	<b>11,891.5</b>	<b>100.0</b>	<b>12,035.7</b>	<b>100.0</b>	<b>1.2</b>	<b>-</b>
General Mills Inc	3,330.4	28.0	3,309.3	27.5	-0.6	-0.5
Kellogg Company	2,776.4	23.3	2,769.4	23.0	-0.3	-0.3
Post Holdings Inc	1,945.1	16.4	1,997.8	16.6	2.7	0.2
PepsiCo Inc	1,780.6	15.0	1,671.2	13.9	-6.1	-1.1
<b>Subtotal</b>	<b>9,773.9</b>	<b>82.2</b>	<b>9,774.2</b>	<b>81.2</b>	<b>0.0</b>	<b>-1.0</b>
Private label	1,203.7	10.1	1,350.1	11.2	12.2	1.1
Others	855.3	7.2	937.9	7.8	9.7	0.6

Note: values shown in this section encompass only sales through Circana's Multi-Outlet channels, while sales data shown in The Market and Market Breakdown sections of this Report cover the entire retail market; data may not equal totals due to rounding  
Source: Circana InfoScan® Reviews/Mintel

US: market share of hot and cold cereal, by leading brands, 2024



### Legacy companies experience sluggish performance

General Mills Inc. and Kellogg Company have long been leaders in the category, together holding over half of the market share. However, both companies struggle to keep pace with the overall market trends.

**General Mills**, despite being the market leader, has seen a greater downward trend compared to the market, with a 1.2% drop in sales and a 1.1% decrease in share. Popular brands like Cheerios and Chex have shown growth, but the company's overall performance has been negatively impacted by the decline of their other brands.

**Kellogg's**, the second largest holder, also falls behind the market's change in sales. Legacy brands such as Special K, Kashi and Rice Krispies post meager sales growth between 2023-24, indicating that purchases remain habitual for trusted brands.

While a smaller share of the market, **Post** saw a 3.4% increase in sales and a 0.2% increase in share. Post gets a boost from their top three selling brands Cocoa Pebbles (+11), Fruity Pebbles (+2%), and Honey Bunches of Oats (+2%).

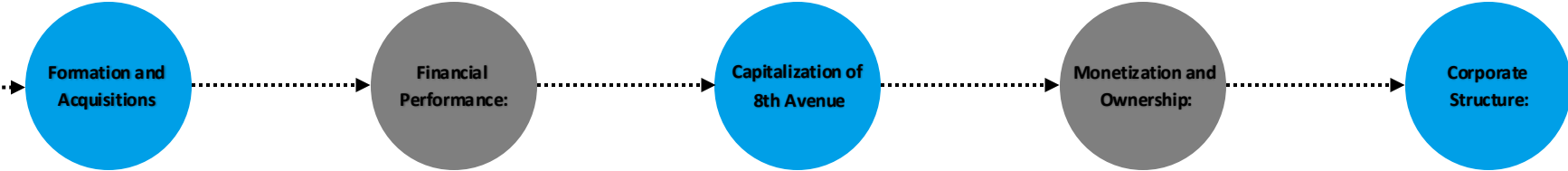
While legacy brands primarily maintain their share, the massive amounts of continuous innovation may well be doing more harm than good in an already crowded category.

Source: Circana InfoScan® Reviews/Mintel

## CASE STUDY

# Strategic M&A-Driven Growth and Decentralized Operational Structure

### 8th Avenue Food & Provisions



Post Holdings invested ~\$950 million between 2012 and 2018 to acquire nut butter, healthy snacks (granola and dried fruit and nut), and pasta businesses. These acquisitions were consolidated into Post's Private Brands segment, which later became known as 8th Avenue.

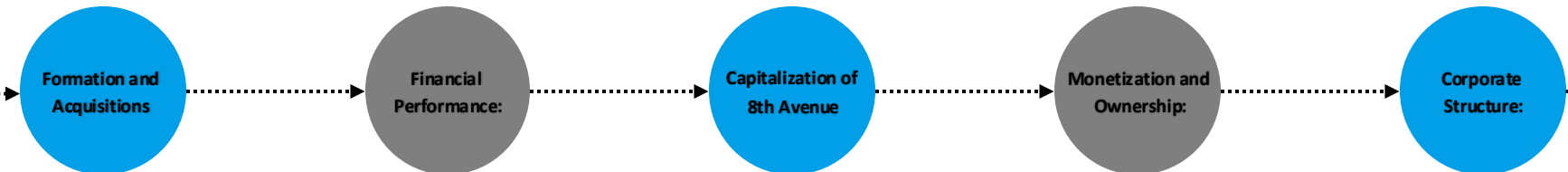
From 2012 to 2018, the Private Brands business generated approximately \$100 million in returns over its cost of capital (debt service) and capital expenditures. This performance reduced Post's net investment to approximately \$850 million.

Post partnered with Thomas H. Lee Partners, Inc. to capitalize 8th Avenue with the goal of consolidating the private brands category.

Post Holdings received \$875 million in total proceeds, fully recovering its net investment in 8th Avenue. Despite monetizing its investment, Post retained 60.5% ownership of 8th Avenue's common equity.

Following this transaction, 8th Avenue and its subsidiaries became unrestricted subsidiaries of Post Holdings, providing flexibility in their operations and financial strategies.

### Pet Food



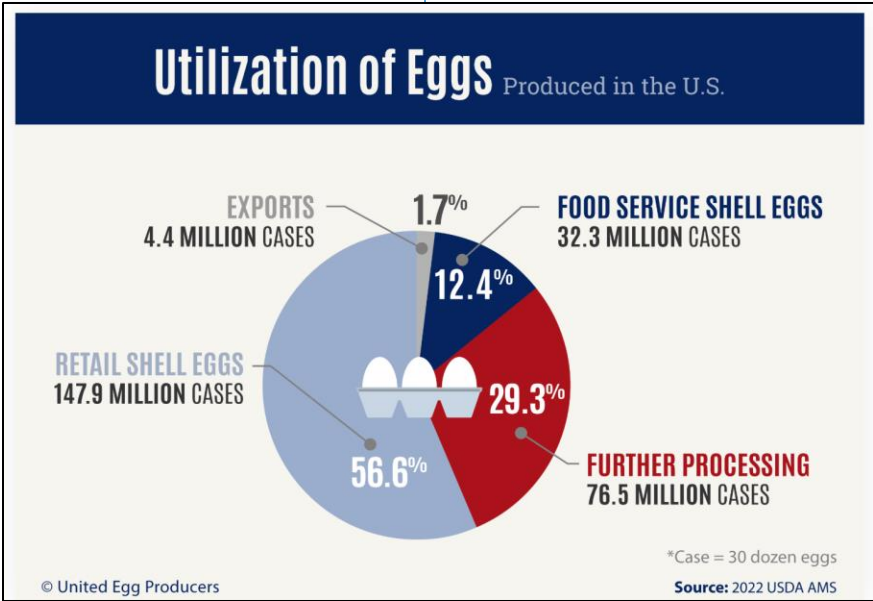
Post Holdings acquired a portfolio of pet food brands, including Nutrish, Nature's Recipe, 9Lives, Kibbles 'n Bits, and Gravy Train, for \$1.2 billion from Smucker.

At the time of the acquisition, Post projected \$100 million in Adjusted EBITDA contribution from the pet food business within the first 12 months post-closing.

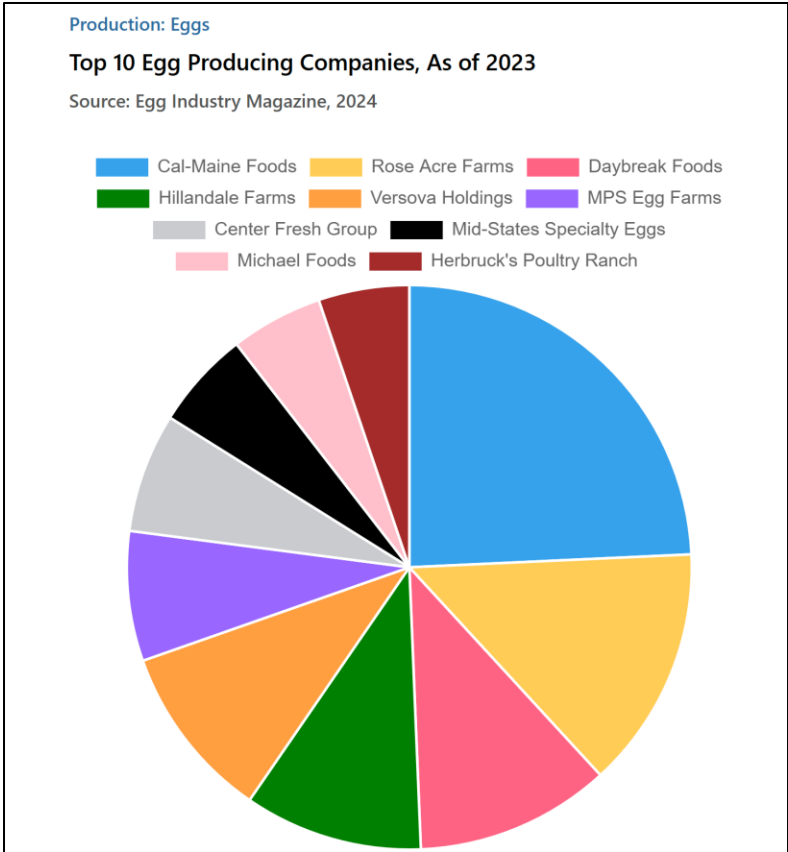
Post implemented significant changes to improve brand performance, manufacturing efficiency, and supply chain reliability: Case fill rates increased from approximately 70% to 90% within the first year of ownership. Enhanced manufacturing performance resulted in improved operational capacity and reliability.

In 2024, the pet food segment was contributing at around double the forecasted acquisition case, underscoring its profitability and value creation.

Post acquired additional assets from Perfection, further expanding its pet food operations. This added manufacturing capacity, co-manufacturing capabilities, and private label exposure, enabling broader market reach and diversification.

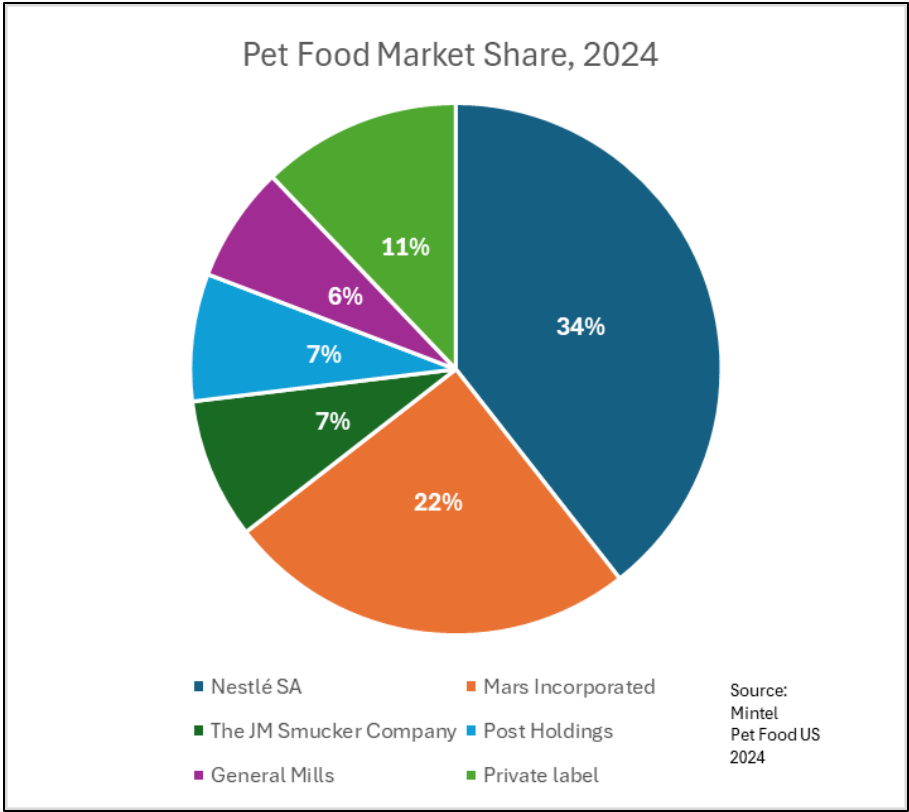
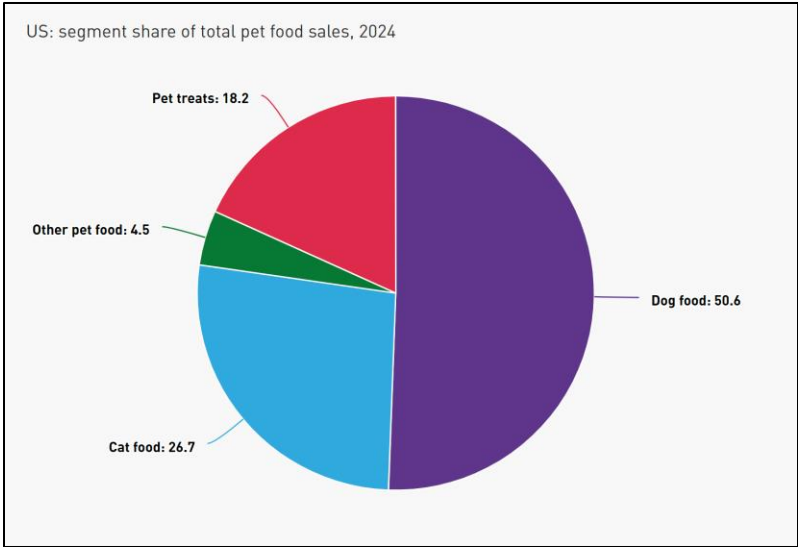


[Facts & Stats - United Egg Producers](#)



[U.S. Poultry & Egg Association Economic Data | www.uspoultry.org](#)

# Pet Food





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

**December 4-6, 2024**

**Team Number: 15**

**BJ's Wholesale Club Holdings, Inc. (NYSE: BJ) BUY**

**Current Price: \$96 (11/24/2024)**

**1-Year Price Target: \$119 (+23%)**

**Students: Vincent Chiu, Nikhita Ganesh, Jessica Liu**

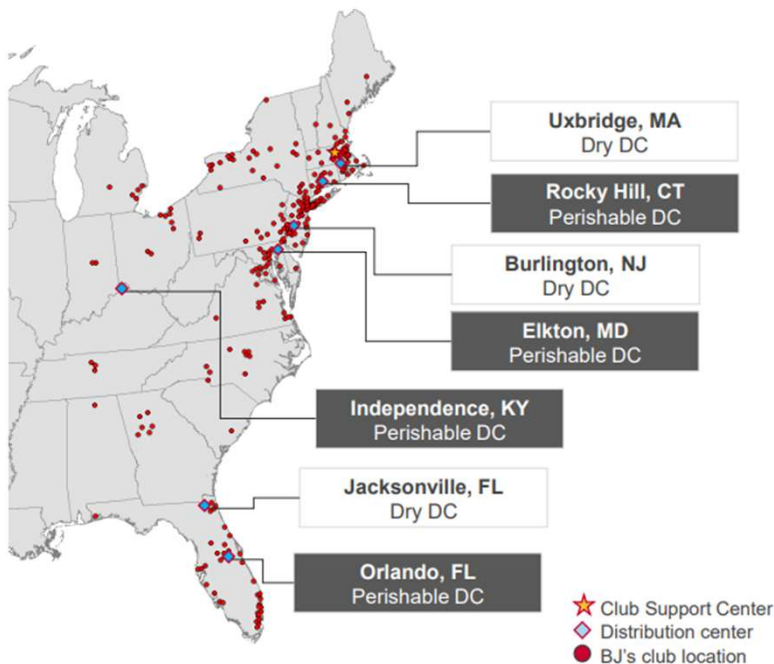
1. Company Overview
2. Industry Overview
3. Investment Thesis 1
4. Investment Thesis 2
5. Investment Thesis 3
6. Valuation
7. Risks
8. Appendix



## Company Overview

- BJs Wholesale Club is a membership-only warehouse club chain
  - The company offers two membership tiers (Inner Circle and BJ's Perks Rewards)
- The club operates over 240 warehouse in 20 states, primarily in the East Coast of USA

### Club Locations



### How does BJs Make Money?

- Merchandise Sales ~ 85% of Total Revenue
  - Groceries (food, bevg, produce)
  - Non-food items (electronics, home goods, health, wellness, clothing)
  - Gasoline
- Membership Fees ~15% of Total Revenue

*Even though membership fees are not the largest revenue source in terms of total dollars, they are critical for BJ's profitability due to their high-margin nature and recurring nature. They represent an important part of BJ's financial strategy and growth model and offer a strong competitive advantage in terms of customer loyalty and predictable cash flow.*

# Industry

- **Wholesale Club Industry:** BJ's operates in the membership-based wholesale club segment of the retail industry, offering a wide range of products, including groceries, electronics, home goods, and more, typically in bulk quantities at lower prices. Competitors include Costco and Sam's Club (Walmart).
- **Market Size & Growth:** This industry benefits from economies of scale and has shown resilience due to its focus on value and bulk purchasing. Recent market trends show continued growth driven by price-conscious consumers seeking savings amid inflationary pressures.

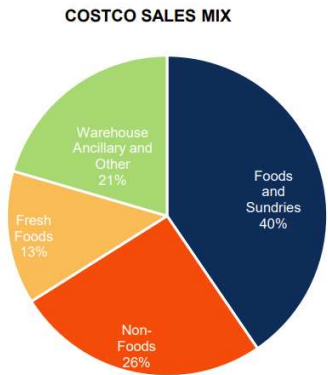
## Warehouse Clubs



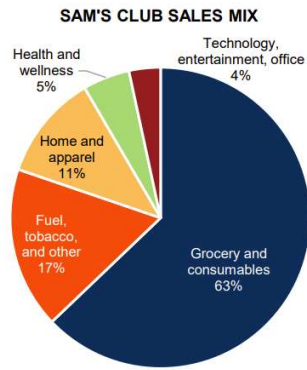
**599** Warehouses  
**44 States** in the US & Puerto Rico.



**614** Warehouses  
**51 States** in the US & Puerto Rico.  
(73% margin on membership)

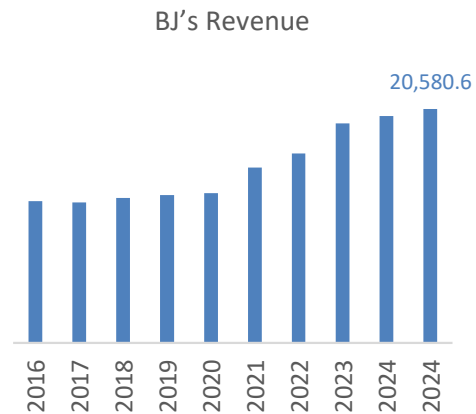
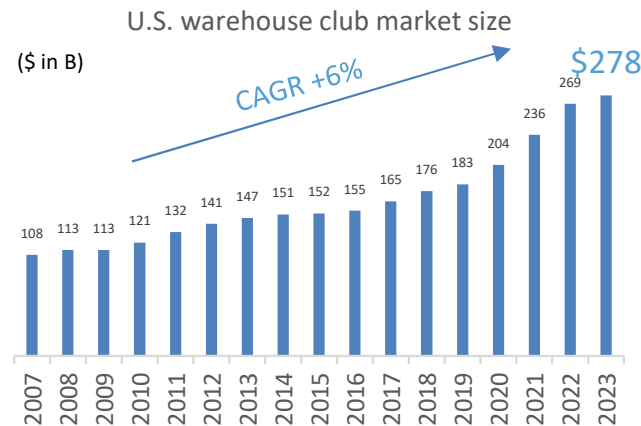


Source: Company Filings (FY 23).



Source: Company filings (FY 23).

## General Retail





# Thesis 1: Growth Potential through Geographic Expansion

BJ's Wholesale Club (BJ's) has substantial growth potential driven by its strategic geographic expansion and underpenetrated markets.

- The company has significant opportunity to expand into areas their competitors are less established
- Both Costco and Sam's Club lack locations in North Dakota, South Dakota, and Nebraska, which are key areas of opportunity for future expansion a potential for new store openings to capture market share.

**We have an industry leading footprint on the east coast and are expanding**

**247**

Clubs<sup>1</sup>

**182**

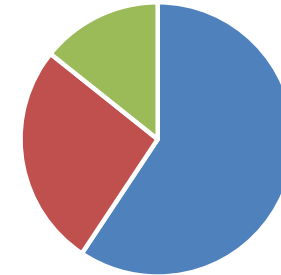
Gas stations<sup>1</sup>

**20**

States<sup>1</sup>

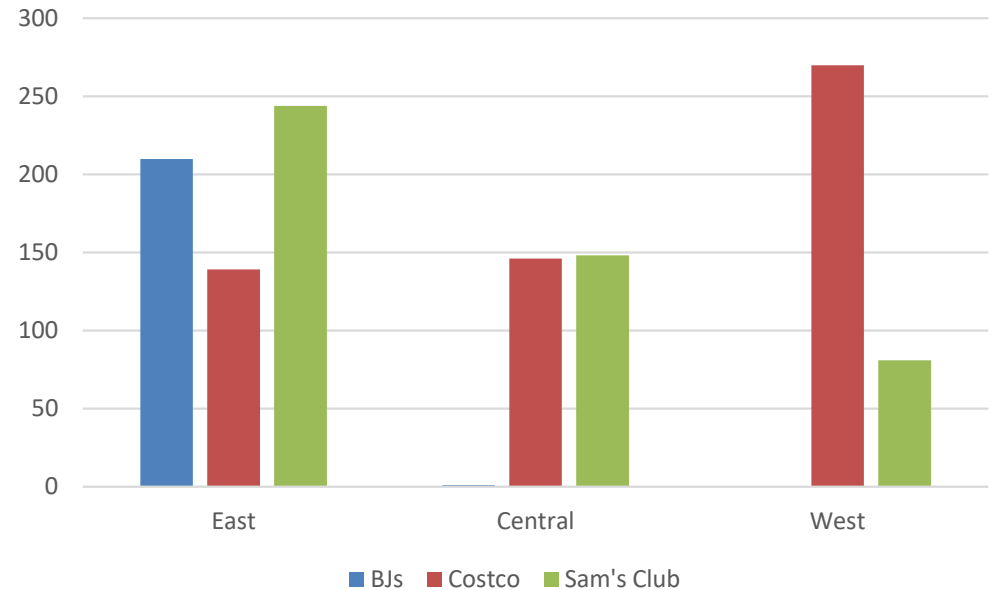
- > Leading positions in core Eastern U.S. markets
- > ~3x clubs vs. next largest competitor in New England<sup>2</sup>
- > Accelerated new unit growth in recent years
- > Expect to open ~10 new units per year for the foreseeable future

Locations in New England



■ BJ's ■ Costco ■ Sam's Club

U.S. Locations

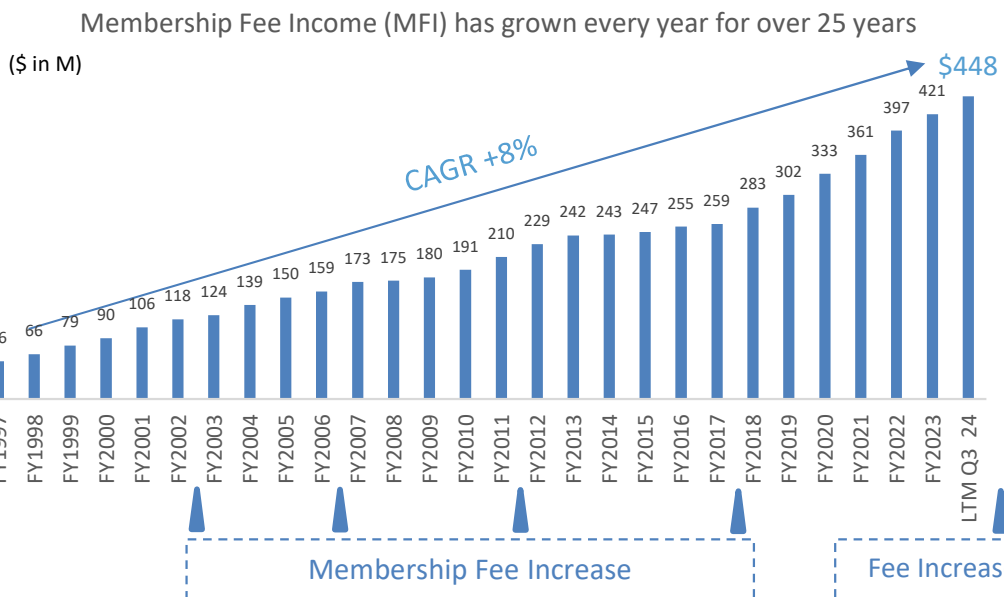


In March 2024, the company announced plans to open its first club in Louisville, KY. This would be the company's first location in the central U.S.

## Thesis 2: Flexible and Affordable Membership Model Driving Revenue Growth


BJ's more flexible and affordable membership model, featuring lower fees and the ability to stack coupons, attracts a broader, price-sensitive customer base and drives recurring revenue growth through increased membership penetration and customer spending.

- **Lower Membership Fees:**
  - Attracts cost-conscious consumers with a lower barrier to entry than Costco & Sam's Club's fee structure.
  - Leads to increased membership base, which boosts recurring revenue.
- **Stackable Coupons:**
  - Unlike Costco and Sam's Club, BJ's allows the use of both store and manufacturer coupons, driving higher average transaction value (ATV) and encouraging more frequent purchases.
- **Broader Demographic Appeal:**
  - Appeals to diverse customers, including young shoppers and families, enhancing retention and long-term revenue stability.



Limited-time membership offer – Valid thru 1/4/25 – Join TODAY


**\$15' The Club Card**  
1-year membership with BJ's Easy Renewal®



1-year The Club Card Membership

[Join Now](#)

**\$45' The Club+ Card**  
1-year membership with BJ's Easy Renewal®



Receive 5c off/gal.¹ at BJ's Gas® and earn 2% back¹ in rewards² on most BJ's purchases.

1-year The Club+ Card Membership

[Join Now](#)

- How it Drives Revenue Growth:**
- Increased Membership Base
  - Higher Customer Spending
  - Retention & Diversification

## Thesis 3: Private Label Growth and Product Differentiation Will Drive Profit Margins

BJ's growing focus on private-label products and exclusive partnerships will strengthen its profit margins, reduce reliance on third-party suppliers, and bolster its competitive position against rivals such as Costco

- Consumer spending behavior trends indicate growing demand for such products, for example Wellsley Farms and Berkley Jensen brands gained loyal consumers (high-quality alternatives to national brands), representing \$4.1 billion in annual sales
  - Per President and CEO, Bob Eddy: 25% of BJ's net sales consist of private-label products as of 2024, up from 10% in 2012 and 20% in 2018 (projected expansion to 30% in 2025, leveraging value proposition from sustainable and organic options)
  - Unlike Costco's Kirkland brand, sourcing BJ's private label items in-house maximizes high quality at lower pricing, enhances supply chain efficiency, and creates exclusivity alongside brand loyalty
  - Investors will see opportunity and gain confidence, given less exposure to commodity price fluctuations as BJ's controls more product sourcing, increasing revenue growth, profitability, and shareholder returns

## DCF Summary

	Downside	Base	Upside
Year 5 Revenue (CAGR)	▪ \$22,047 M (2.0%)	▪ \$24,884 M (4.5%)	▪ \$694 M (6.5%)
Year 5 EBITDA (CAGR)	▪ \$1,631 M (3.0%)	▪ \$1,839 M (5.5%)	▪ \$345 M (7.1%)
WACC	▪ 7%	▪ 8.0%	▪ 8.0%
EV/Revenue Multiple	▪ 11x	▪ 12x	▪ 13x
Implied Share Price	▪ ~\$98	▪ ~\$119	▪ ~\$140

## **Financial, Liquidity, Credit, Macroeconomic, Microeconomic Risks/Considerations, etc:**

- Inflation/Recession, consumer spending behavior changes could affect BJ's membership sales and development
- Federal Reserve cut rates which could impact
- BJ's is expected to report a year-over-year decline in earnings for the quarter ending October 2024 – risk with projected estimates, in the event they miss the mark



**BJ's**  
**Questions?**

# Appendix

## Appendix: Key Management Overview

Name	Title	Years at BJs / In Industry	Experience
<b>Bob Eddy</b>	<i>CEO</i>	17.5	<ul style="list-style-type: none"> <li>- Joined the company in 2007, became a BOD member in April 2021, President and CEO since April 2021, appointed Chairman of the Board June 2023</li> <li>- During his tenure served in various executive financial roles for the company including as senior vice president finance, executive vice president, chief financial officer, and executive vice president, chief financial and administrative officer</li> <li>- Currently serves as a member of the board of directors of DICK's Sporting Goods, Inc</li> <li>- Senior Manager at PWC (~ 12 years)</li> </ul>
<b>Laura Felice</b>	<i>Executive VP, CFO</i>	8	<ul style="list-style-type: none"> <li>- Served as Executive VP, CFO of the company since April 2021</li> <li>- November 2016 to April 2021, served as Senior VP, Controller</li> <li>- Before joining BJ's, worked at Clarks Americas, Inc., a British shoe manufacturer and retailer from 2008 to 2016 in various roles of increasing responsibility, including serving as the senior vice president of finance from November 2015 to November 2016</li> <li>- PWC auditor for retail and consumer product companies for ~5 years</li> <li>- Certified Public Accountant</li> </ul>
<b>Paul Cichocki</b>	<i>Executive VP, CCO</i>	4.5	<ul style="list-style-type: none"> <li>- Chief Commercial Officer of the company since April 2021 and oversees merchandising, membership, marketing and analytics</li> <li>- 1 year as Executive VP, membership, analytics and business transformation and was responsible for the strategy and vision for the company's membership, marketing and analytics divisions</li> <li>- 23 years at Bain &amp; Company across various industries including: retail, consumer products, financial services and food and beverage</li> <li>- Harvard Business School MBA</li> </ul>
<b>Jeff Desroches</b>	<i>Executive VP, COO</i>	24 / 32	<ul style="list-style-type: none"> <li>- Executive VP and COO since April 2018</li> <li>- 24 years of experience at BJs serving in various roles for the company including loss prevention, asset protection, and supply chain and logistics</li> <li>- 7 years of experience at Service Merchandise in Operations &amp; Warehousing division</li> </ul>
<b>Bill Werner</b>	<i>Executive VP, Strategy and Development</i>	12 / 25	<ul style="list-style-type: none"> <li>- Executive VP, strategy and development of the company since April 2021 and is responsible for building the company's market expansion and key strategic initiatives</li> <li>- Served in several other roles throughout his tenure at BJ's, including as SVP Strategic Planning and Investor Relations, SVP Finance and VP Accounting and Financial Reporting</li> <li>- Director in deals practice at PWC for ~5 years</li> </ul>

Source: Company Proxy, Company Website, LinkedIn



## Appendix: Management Compensation Overview

Fiscal year	Salary (\$) <sup>(1)</sup>	Bonus (\$)	Stock Awards (\$) <sup>(2)</sup>	Non-equity incentive plan compensation (\$) <sup>(3)</sup>	All other Compensation (\$) <sup>(4)</sup>	Total (\$)
<b>Bob Eddy<sup>(5)</sup></b> President and Chief Executive Officer						
2023	1,350,005	—	7,999,978	1,215,000	293,569	10,858,552
2022	1,200,014	933,333 <sup>(7)</sup>	6,999,976	2,844,001	271,840	12,249,164
2021	1,116,355	466,667 <sup>(8)</sup>	10,999,934	3,600,000	157,590	16,340,546
<b>Laura Felice<sup>(10)</sup></b> Executive Vice President, Chief Financial Officer						
2023	751,448	125,000 <sup>(9)</sup>	1,699,860	382,500	76,769	3,035,577
2022	660,582	62,500 <sup>(6)</sup>	1,499,898	746,550	62,216	3,031,746
2021	550,780	—	1,199,873	840,000	43,275	2,633,928
<b>Paul Cichocki<sup>(11)</sup></b> Executive Vice President, Chief Commercial Officer						
2023	908,670	—	2,699,876	540,000	24,183	4,172,729
2022	850,013	—	2,499,875	1,343,001	13,669	4,706,558
2021	829,816	—	2,499,941	1,700,000	7,825	5,037,582
<b>Jeff Desroches</b> Executive Vice President, Chief Operations Officer						
2023	658,176	—	1,499,948	292,500	91,004	2,541,628
2022	620,211	466,667 <sup>(7)</sup>	1,399,941	691,250	90,675	3,268,744
2021	591,357	233,333 <sup>(8)</sup>	1,399,997	840,000	78,084	3,142,771
<b>Bill Werner<sup>(12)</sup></b> Executive Vice President, Strategy and Development						
2023	579,850	125,000 <sup>(9)</sup>	1,299,884	258,750	73,963	2,337,447
2022	534,007	62,500 <sup>(6)</sup>	1,099,934	596,183	74,802	2,367,426
2021	500,484	—	2,599,845	742,000	69,267	3,911,596

### Stock Awards are ~74% of CEO pay

- 2020 PSU awards paid out in fiscal year 2023 which were paid out at **200%** of Target Earned
- The grant date fair value of the restricted stock awards granted during each respective year was calculated as **the closing price per share of common stock** on the NYSE on the applicable date of grant multiplied by the number of shares granted. The grant date fair value of PSUs is reported based on the probable outcome of the performance conditions (target) on the grant date.
- Includes performance stock units (“PSUs”). Performance condition are deemed achieved at target, irrespective of actual achievement of the performance condition, and a pro rata portion of the PSUs vest based on the total number of PSUs multiplied by a fraction, the numerator of which is the number of calendar days from the first day of the performance period to the date of such change in control and the denominator of which is the total number of days in the performance period. The value was calculated by multiplying the number of pro-rate shares of stock by **\$64.51, the closing price** of common stock on the NYSE on **February 2, 2024** (the last trading day prior to February 3, 2024).

## Appendix: Comps Analysis

<b>High</b>	964.01	8,038.3	726,979.4	51,700.0
<b>Low</b>	19.37	30.1	821.0	(1,195.0)
<b>Mean</b>	168.46	1,213.7	146,265.0	14,212.9
<b>Median</b>	74.93	443.1	19,226.5	13,905.6

<b>Company Comp Set</b>				
<b>Company Name</b>	<b>Day Close Price Latest</b>	<b>Shares Outstanding Latest</b>	<b>Market Capitalization Latest</b>	<b>LTM Net Debt</b>
<b>BJ's Wholesale Club Holdings, Inc. (NYSE:BJ)</b>	<b>96.74</b>	<b>132.6</b>	<b>12,826.3</b>	<b>2,797.8</b>
Costco Wholesale Corporation (NasdaqGS:COST)	964.01	443.1	427,127.3	(1,195.0)
Dollar Tree, Inc. (NasdaqGS:DLTR)	66.4	215.0	14,275.5	10,227.3
Dollar General Corporation (NYSE:DG)	74.93	219.9	16,478.2	16,991.3
Walmart Inc. (NYSE:WMT)	90.44	8,038.3	726,979.4	51,700.0
Target Corporation (NYSE:TGT)	125.01	459.2	57,410.2	16,313.0
The Kroger Co. (NYSE:KR)	59.22	723.5	42,844.9	16,595.0
Best Buy Co., Inc. (NYSE:BBY)	89.54	214.7	19,226.5	2,513.0
Albertsons Companies, Inc. (NYSE:ACI)	19.37	579.3	11,222.0	13,905.6
The ODP Corporation (NasdaqGS:ODP)	27.26	30.1	821.0	866.0

Source: S&P Capital IQ as of 11/24/24

## Appendix: Comps Analysis

# TRADING MULTIPLES

Currency USD  
Date 11/24/2024

<b>High</b>	1.7x	35.6x	45.9x	58.2x	18.9x	1.56x	33.34x	54.03x
<b>Low</b>	0.2x	2.7x	11.8x	11.3x	2.2x	0.25x	5.60x	7.19x
<b>Mean</b>	0.7x	10.3x	18.2x	25.1x	8.3x	0.72x	11.88x	18.74x
<b>Median</b>	0.7x	6.4x	12.3x	15.5x	7.2x	0.68x	8.47x	13.01x

### Company Comp Set

Company Name	TEV/Total Revenues LTM-Latest	TEV/EBITDA LTM-Latest	TEV/EBIT LTM-Latest	P/Diluted EPS Before Extra LTM-Latest	P/TangBV LTM-Latest	NTM TEV/Forward Total Revenue	NTM TEV/Forward EBITDA	NTM Forward P/E
<b>BJ's Wholesale Club Holdings, Inc. (NYSE:BJ)</b>	0.8x	9.1x	19.0x	23.2x	19.6x	0.73x	13.83x	23.41x
Costco Wholesale Corporation (NasdaqGS:COST)	1.7x	35.6x	45.9x	58.2x	18.9x	1.56x	33.34x	54.03x
Dollar Tree, Inc. (NasdaqGS:DLTR)	0.8x	5.1x	14.6x	NM	3.3x	0.79x	8.88x	11.58x
Dollar General Corporation (NYSE:DG)	0.8x	6.4x	15.8x	11.7x	9.6x	0.81x	11.26x	12.53x
Walmart Inc. (NYSE:WMT)	1.2x	17.4x	27.1x	37.4x	12.1x	1.13x	17.51x	34.18x
Target Corporation (NYSE:TGT)	0.7x	7.6x	12.0x	13.3x	4.0x	0.68x	8.47x	13.85x
The Kroger Co. (NYSE:KR)	0.4x	6.6x	12.3x	15.5x	4.8x	0.40x	7.46x	13.01x
Best Buy Co., Inc. (NYSE:BBY)	0.5x	5.9x	12.1x	15.5x	11.9x	0.52x	8.09x	13.68x
Albertsons Companies, Inc. (NYSE:ACI)	0.3x	5.2x	11.8x	11.3x	NM	0.31x	6.29x	8.61x
The ODP Corporation (NasdaqGS:ODP)	0.2x	2.7x	12.3x	37.7x	2.2x	0.25x	5.60x	7.19x

Source: S&P Capital IQ as of 11/24/24

## Appendix: DCF

**PROJECTED CASH FLOWS**  
(USD in millions, except per share data)

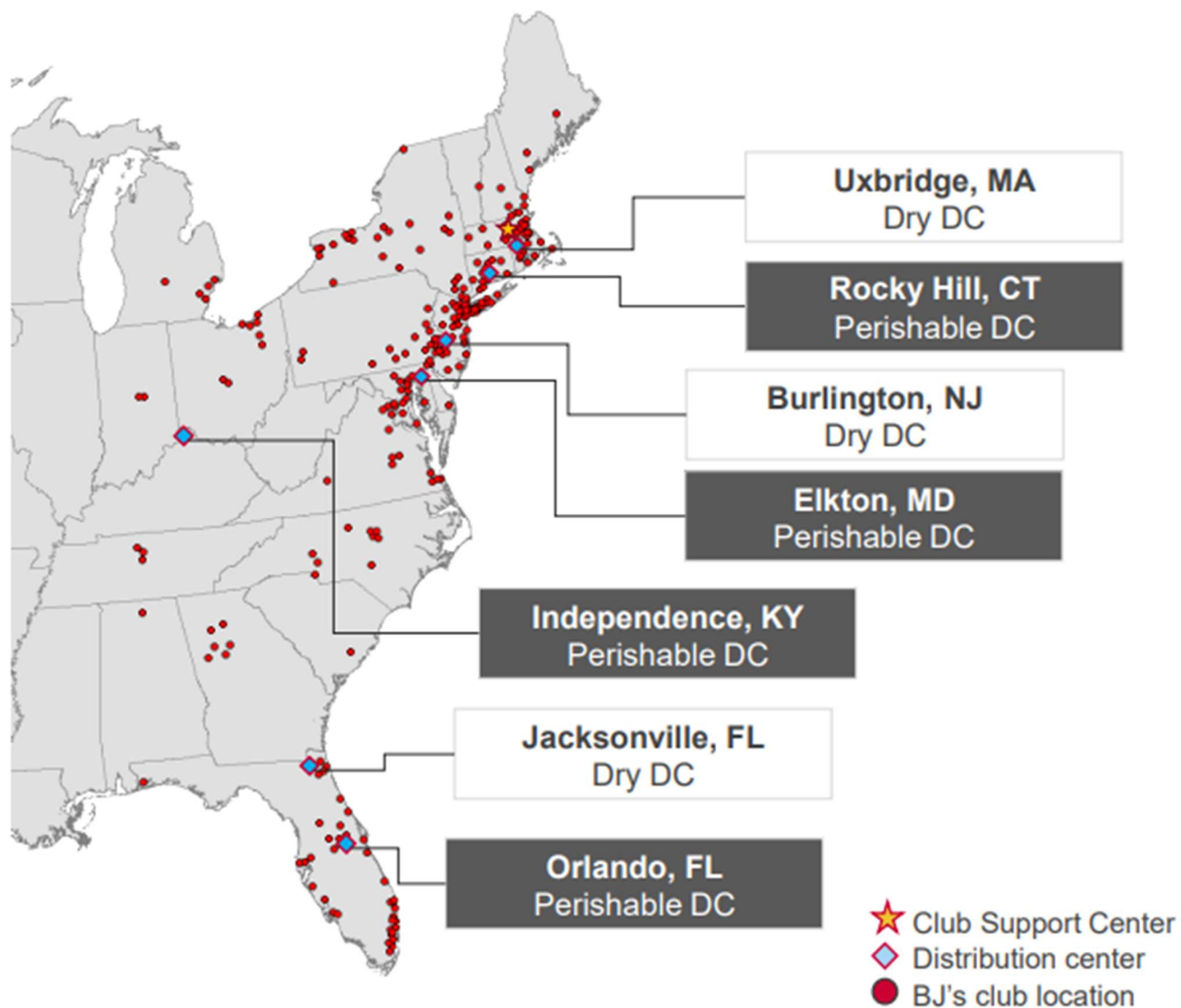
	Fiscal Year Ending February										CAGR 2025-2029
	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	
Total Revenue	13,190.7	15,430.0	16,667.3	19,315.2	19,968.7	20,867.3	21,806.3	22,787.6	23,813.0	24,884.6	4.5%
Annual Growth		17.0%	8.0%	15.9%	3.4%	4.5%	4.5%	4.5%	4.5%	4.5%	
Cost of Revenue	10,763.9	12,451.1	13,588.6	15,883.7	16,326.1	17,060.8	17,828.5	18,630.8	19,469.2	20,345.3	
Margin	81.6%	80.7%	81.5%	82.2%	81.8%	81.8%	81.8%	81.8%	81.8%	81.8%	
EBITDA, Lease Adjusted	831.6	1,137.2	1,150.6	1,314.7	1,407.1	1,484.5	1,566.1	1,652.3	1,743.1	1,839.0	5.5%
Annual Growth		36.7%	1.2%	14.3%	7.0%	5.5%	5.5%	5.5%	5.5%	5.5%	
Margin	6.3%	7.4%	6.9%	6.8%	7.0%	7.1%	7.2%	7.3%	7.3%	7.4%	
Less: Depreciation and Amortization	479.4	494.8	515.7	564.4	592.7	592.6	591.3	588.7	584.6	579.0	(0.6%)
% of Capital Expenditure	243.5%	94.8%	559.7%	138.1%	127.6%	122.1%	116.5%	111.0%	105.5%	100.0%	
EBIT	352.2	642.4	634.8	750.3	814.4	891.8	974.8	1,063.6	1,158.5	1,260.0	9.0%
Annual Growth		82.4%	(1.2%)	18.2%	8.5%	9.5%	9.3%	9.1%	8.9%	8.8%	
Margin	2.7%	4.2%	3.8%	3.9%	4.1%	4.3%	4.5%	4.7%	4.9%	5.1%	
Less: Income Taxes	(88.4)	(161.2)	(159.3)	(188.2)	(204.3)	(223.7)	(244.5)	(266.8)	(290.6)	(316.1)	
Unlevered Net Income	263.8	481.2	475.6	562.1	610.1	668.1	730.3	796.8	867.9	943.9	9.0%
Plus: Depreciation and Amortization	479.4	494.8	515.7	564.4	592.7	592.6	591.3	588.7	584.6	579.0	
Less: Capital Expenditures and Additional Lease	(196.9)	(521.7)	(92.1)	(408.7)	(464.6)	(485.5)	(507.4)	(530.2)	(554.1)	(579.0)	4.5%
Margin	(1.5%)	(3.4%)	(0.6%)	(2.1%)	(2.3%)	(2.3%)	(2.3%)	(2.3%)	(2.3%)	(2.3%)	
Less: Additions to Intangibles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Less: Increase in Working Capital	(40.7)	239.3	157.9	(0.4)	(78.6)	(82.1)	(85.8)	(89.7)	(93.7)	(97.9)	4.5%
Margin	(0.3%)	1.6%	0.9%	(0.0%)	(0.4%)	(0.4%)	(0.4%)	(0.4%)	(0.4%)	(0.4%)	
Unlevered Free Cash Flow	505.6	693.6	1,057.0	717.3	659.6	693.1	728.4	765.6	804.7	846.0	5.1%
Annual Growth		37.2%	52.4%	(32.1%)	(8.0%)	5.1%	5.1%	5.1%	5.1%	5.1%	
Discount Factor - End-of-Period Convention						0.19	1.19	2.19	3.19	4.19	
PV of Yearly Cash Flows						131.0	664.6	646.7	629.5	612.7	

**Present Value of Equity at 11/24/2024**

		% of TEV	% of MVE
PV of 2025 Free Cash Flow Stub(1)	131.0	0.7%	0.8%
PV of 2026-2029 Free Cash Flows(1)	2,553.5	13.7%	16.1%
PV of Terminal Value(1)	15,983.1	85.6%	100.7%
Enterprise Value	18,667.6	100.0%	117.6%
Less:			
Total Debt	(2,836.4)		(17.9%)
Preferred Stock	0.0		0.0%
Minority Interest	0.0		0.0%
Plus:			
Cash and Equivalents	38.1		0.2%
Equity Value	15,869.3		100.0%
Shares Outstanding	132.6		
Implied Per Share Value	119.69		
Current Price	96.74		
Premium/(Discount) to Current Price	23.7%		

**DCF Assumptions**

Weighted Average Cost of Capital	8.00%
Terminal EBITDA Multiple	12.0x
Implied Perp. Growth Rate of Unlevered Free Cash Flow(2)	4.0%
Tax Rate	25.1%



# Appendix: Income Statement

BJ's Wholesale Club Holdings, Inc. (BJ) \$ 96.74

Last Rpt Date: 21 Nov '24

Key Statistics

FactSet Fundamentals

Standardized As-Reported Search for an item Q

GAAP/IFRS Non-GAAP Supplemental Growth Common Size

## GAAP/IFRS Income Statement

☰ ▾ ↕ ↻

	OCT '24 LTM Preliminary	JAN '24	JAN '23	JAN '22	JAN '21	JAN '20	JAN '19	JAN '18	JAN '17	JAN '16
✓ Sales	20,581	19,969	19,315	16,667	15,430	13,191	13,007	12,755	12,351	12,468
> Cost of Goods Sold (COGS) incl. ...	16,810	16,334	15,893	13,599	12,463	10,777	10,668	10,539	10,252	10,508
✓ Gross Income	3,771	3,635	3,422	3,068	2,967	2,413	2,339	2,215	2,099	1,959
> SG&A Expense	2,939	2,815	2,647	2,434	2,315	2,033	2,026	1,992	1,880	1,766
✓ EBIT (Operating Income)	832	820	775	635	652	381	314	223	219	193
> Nonoperating Income - Net	-23	-19	-25	-21	-10	-15	-6	-3	-3	-6
> Interest Expense	56	63	44	52	80	104	165	197	143	148
> Unusual Expense - Net	-	2	16	3	4	17	4	0	0	2
✓ Pretax Income	753	736	691	558	558	244	139	24	73	37
> Income Taxes	195	212	176	131	137	56	12	-28	28	12
Consolidated Net Income	558	524	514	427	421	188	127	52	45	25
✓ Net Income	558	524	514	427	421	188	127	52	45	25
Discontinued Operations	0	0	-1	-0	-0	-1	0	-2	-0	-1
Net Income available to Common	558	524	513	427	421	187	127	50	44	24
✓ Per Share										
EPS (recurring)	-	3.89	3.84	3.11	3.05	1.43	1.07	0.38	0.34	0.19
✓ EPS (basic)	4.21	3.94	3.83	3.15	3.09	1.37	1.09	0.38	0.34	0.18
Basic Shares Outstanding	132.08	133.05	134.02	135.39	136.11	136.17	116.60	131.93	131.93	131.93
Total Shares Outstanding	-	132.77	133.90	135.51	137.19	137.30	137.32	131.93	131.93	131.93
✓ EPS (diluted)	4.16	3.88	3.76	3.09	3.03	1.35	1.05	0.38	0.34	0.18
Diluted Shares Outstanding	133.33	135.12	136.47	138.04	138.88	139.11	121.14	131.93	131.93	131.93
Total Shares Outstanding	-	132.77	133.90	135.51	137.19	137.30	137.32	131.93	131.93	131.93
Earnings Persistence	-	87.39	81.69	92.70	87.36	68.42	84.99	95.05	-	-
✓ EBITDA										
✓ EBITDA	1,087.4	1,047.7	976.2	815.1	819.7	537.7	475.8	387.3	397.1	370.7
EBIT	831.9	820.0	775.2	634.5	652.2	380.7	313.5	223.3	218.8	193.3
Depreciation & Amortization Exp...	255.5	227.7	200.9	180.5	167.5	157.0	162.2	164.1	178.3	177.5

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

# Appendix: Balance Sheet

BJ's Wholesale Club Holdings, Inc. (BJ)

\$ 96.74

Last Rpt Date: 21 Nov '24

Key Statistics

FactSet Fundamentals

Standardized As-Reported Search for an item

GAAP/IFRS Supplemental Growth Common Size

## GAAP/IFRS Balance Sheet



	JAN '24	JAN '23	JAN '22	JAN '21	JAN '20	JAN '19	JAN '18	JAN '17
<b>Assets</b>								
Cash & Short-Term Investments	36.0	33.9	45.4	43.5	30.2	27.1	35.0	32.0
Short-Term Receivables	234.8	239.7	174.0	172.7	206.4	194.3	190.8	166.2
Inventories	1,454.8	1,378.6	1,242.9	1,205.7	1,081.5	1,052.3	1,019.1	1,031.8
Other Current Assets	68.4	51.0	54.7	48.6	42.0	63.5	91.8	34.3
<b>Total Current Assets</b>	<b>1,794.0</b>	<b>1,703.2</b>	<b>1,517.1</b>	<b>1,470.6</b>	<b>1,360.0</b>	<b>1,337.2</b>	<b>1,336.6</b>	<b>1,264.4</b>
Net Property, Plant & Equipment	3,719.3	3,480.0	3,074.3	2,856.6	2,820.3	748.8	758.8	763.6
Intangible Assets	1,116.4	1,124.3	1,048.8	1,059.3	1,071.1	1,125.0	1,149.0	1,177.3
Deferred Tax Assets	4.1	11.5	5.5	5.7	-	-	-	-
Other Assets	43.8	30.9	23.2	19.4	18.4	28.3	29.5	26.9
<b>Total Assets</b>	<b>6,677.6</b>	<b>6,350.0</b>	<b>5,668.9</b>	<b>5,411.5</b>	<b>5,269.8</b>	<b>3,239.3</b>	<b>3,273.9</b>	<b>3,232.2</b>
<b>Liabilities &amp; Shareholders' Equity</b>								
<b>Current</b>								
ST Debt & Curr. Portion LT Debt	479.7	582.2	141.5	391.5	470.5	254.4	253.8	41.7
Accounts Payable	1,183.3	1,195.7	1,112.8	988.1	786.4	816.9	751.9	720.6
Income Tax Payable	-	11.0	10.9	0.8	6.7	0.9	-	-
Other Current Liabilities	805.1	756.5	737.4	650.8	537.8	505.6	463.9	438.0
<b>Total Current Liabilities</b>	<b>2,468.0</b>	<b>2,545.3</b>	<b>2,002.5</b>	<b>2,031.2</b>	<b>1,801.4</b>	<b>1,577.7</b>	<b>1,469.6</b>	<b>1,200.3</b>
<b>Long-Term</b>								
Long-Term Debt	2,512	2,534	2,823	2,849	3,339	1,575	2,528	2,036
Provision for Risks & Charges	26	23	21	19	33	32	35	42
Deferred Tax Liabilities	75	57	53	45	46	37	57	93
Other Liabilities	138	143	121	147	104	219	204	200
<b>Total Liabilities</b>	<b>5,219</b>	<b>5,303</b>	<b>5,021</b>	<b>5,092</b>	<b>5,324</b>	<b>3,441</b>	<b>4,293</b>	<b>3,571</b>
<b>Equity</b>								
Preferred Stock (Carrying Value)	0.0	0.0	0.0	0.0	0.0	0.0	10.4	8.1
Common Equity	1,458.9	1,046.8	648.1	319.3	-54.3	-202.1	-1,029.9	-347.2
<b>Total Shareholders' Equity</b>	<b>1,458.9</b>	<b>1,046.8</b>	<b>648.1</b>	<b>319.3</b>	<b>-54.3</b>	<b>-202.1</b>	<b>-1,019.4</b>	<b>-339.1</b>
<b>Total Equity</b>	<b>1,458.9</b>	<b>1,046.8</b>	<b>648.1</b>	<b>319.3</b>	<b>-54.3</b>	<b>-202.1</b>	<b>-1,019.4</b>	<b>-339.1</b>
<b>Total Liabilities &amp; Shareholders' Equity</b>	<b>6,677.6</b>	<b>6,350.0</b>	<b>5,668.9</b>	<b>5,411.5</b>	<b>5,269.8</b>	<b>3,239.3</b>	<b>3,273.9</b>	<b>3,232.2</b>
<b>Per Share</b>								
Book Value per Share	10.99	7.82	4.78	2.33	-0.40	-1.47	-7.81	-2.63
Tangible Book Value per Share	2.58	-0.58	-2.96	-5.39	-8.20	-9.66	-16.51	-11.56

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

# Appendix: Cash Flow

BJ's Wholesale Club Holdings, Inc. (BJ)

\$ 96.74

Last Rpt Date: 21 Nov '24

Key Statistics

FactSet Fundamentals

Standardized As-Reported Search for an item

GAAP/IFRS Supplemental Growth

## GAAP/IFRS Cash Flow



	OCT '24 LTM Preliminary	JAN '24	JAN '23	JAN '22	JAN '21	JAN '20	JAN '19	JAN '18	JAN '17	JAN '16
<b>Operating Activities</b>										
Net Income / Starting Line	557.6	523.7	513.2	426.7	421.0	187.2	127.3	50.3	44.2	24.1
> Depreciation, Depletion & Amorti...	255.5	227.7	200.9	180.5	167.5	157.0	162.2	164.1	178.3	177.5
> Deferred Taxes & Investment Tax ...	3.2	25.6	-1.9	-0.5	-9.2	10.2	-12.3	-35.6	-23.5	-21.4
Other Funds	26.3	20.4	76.4	67.1	50.0	41.5	93.9	34.0	29.8	15.5
Funds from Operations	842.7	797.4	788.5	673.8	629.3	395.9	371.1	212.8	228.8	195.7
> Changes in Working Capital	60.6	-78.6	-0.4	157.9	239.3	-40.7	75.8	-10.2	111.4	-16.2
Net Operating Cash Flow	903.3	718.9	788.2	831.7	868.5	355.1	446.9	202.6	340.2	179.4
<b>Investing Activities</b>										
> Capital Expenditures	-546.7	-467.1	-397.8	-323.6	-218.3	-196.9	-145.9	-137.5	-114.8	-112.4
Net Assets from Acquisitions	-	0.0	-376.5	0.0	0.0	0.0	-	-	-	-
> Other Funds	-	12.3	27.3	19.1	25.9	21.6	0.0	0.0	0.0	0.0
Net Investing Cash Flow	-546.7	-454.8	-747.1	-304.5	-192.4	-175.3	-145.9	-137.5	-114.8	-112.4
<b>Financing Activities</b>										
> Cash Dividends Paid	-	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-735.5	-0.0	-0.0
> Change in Capital Stock	-192.7	-146.3	-159.0	-171.8	-85.5	-54.5	652.5	-1.1	-1.1	0.2
> Issuance/Reduction of Debt, Net	-159.1	-111.1	112.6	-353.4	-577.2	-122.3	-961.2	677.3	-230.2	-67.4
> Other Funds	-4.5	-4.6	-6.1	0.0	0.0	0.0	-0.0	-2.8	0.4	0.9
Net Financing Cash Flow	-356.3	-262.0	-52.6	-525.2	-662.8	-176.8	-308.8	-62.1	-230.9	-66.3
<b>All Activities</b>										
Net Change in Cash	0.3	2.1	-11.5	1.9	13.3	3.1	-7.8	3.0	-5.4	0.8
<b>Free Cash Flow</b>										
Free Cash Flow per Share	2.7	1.9	2.9	3.7	4.7	1.1	2.5	0.5	1.7	0.5
Free Cash Flow Yield (%)	3.12	2.89	4.10	6.35	11.13	5.54	9.39	-	-	-

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





**December 5th, 2024**

**Team Number: 18**

**Students: Jim Zhang, Thage Claesson, Vanessa Quon**

# Lithia Motors, Inc. (NYSE: LAD) Overview

Leading automotive retailer focusing on consumer convenience

## Company Overview

- Operating 467 stores across US, Canada, UK
- Offers products and services fulfilling the entire vehicle ownership lifecycle including new and used vehicles, finance and insurance products and automotive repair and maintenance~~



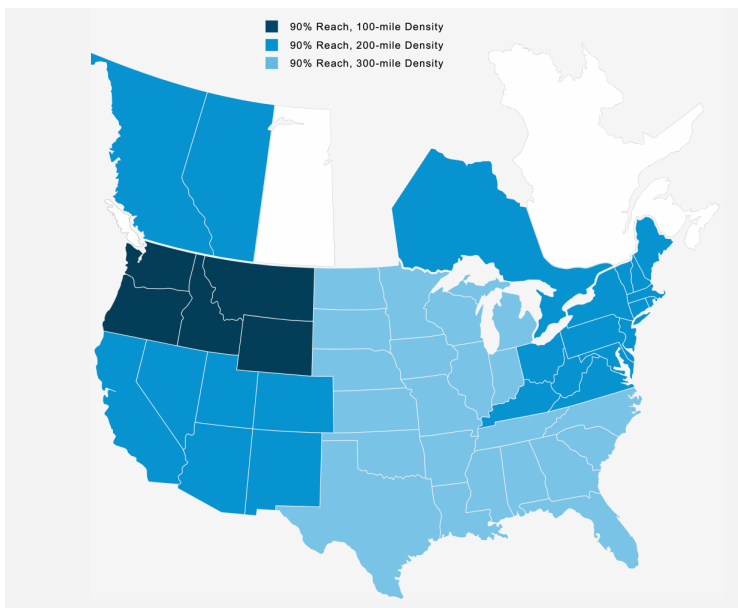
Retail dealerships



E-commerce



Financing



## Key Financials and Trading Statistics

Revenue	\$31.00	Price	\$390.8
EBITDA	\$1.98	Shares (M)	26.6
Operating Margin	4.60%	Market Cap	\$10.41
Profit Margin	2.30%	Enterprise Value	\$19.01
		P/E (TTM)	13.35

\*all values in billions unless otherwise stated

## Vehicle Operations

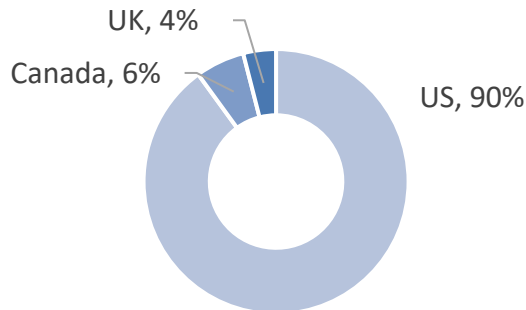
- Auto merchandising
- Aftersales operations
- Financing and insurance excluding financing provided by financing operations

## Financing & Operations

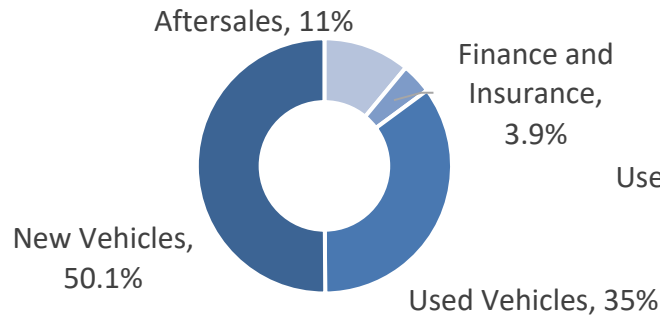
- Captive lender originating loans from stores and Driveway
- Financing to customers buying and leasing vehicles
- Leasing vehicles from fleet management service provides

## Vehicle Operations Breakdown

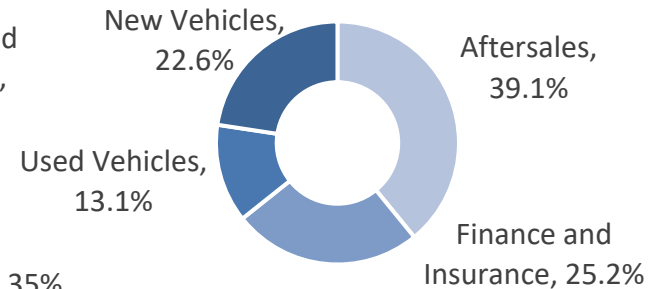
**2023 Geographic Mix**



**2024 Revenue Mix**



**2024 Gross Profit Mix**



# Automotive Retail

Highly fragmented industry experiencing margin compression

## Industry Overview

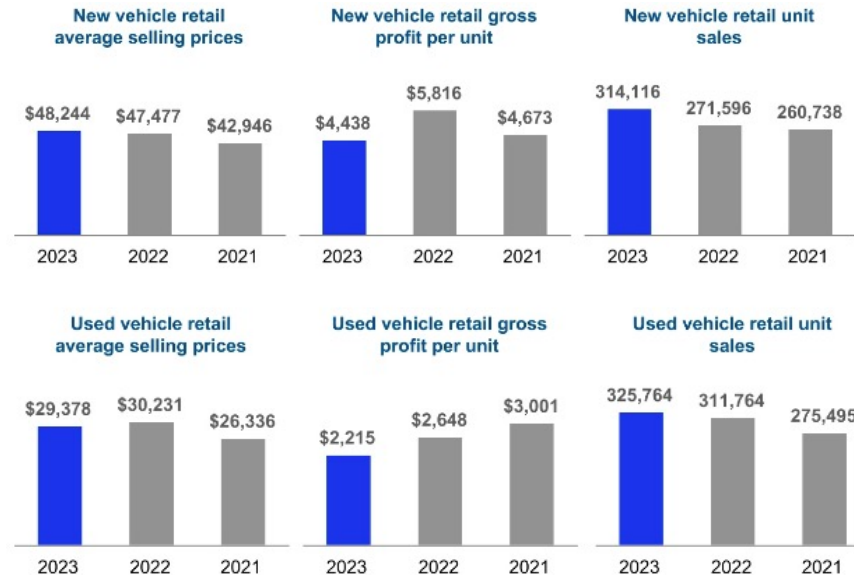
- >16,500 new vehicle franchise dealers in the United States, 4,500 in the UK, and 3,400 in Canada
- Many dealers are independent stores managed by individuals, families or small retail groups

## Major Players



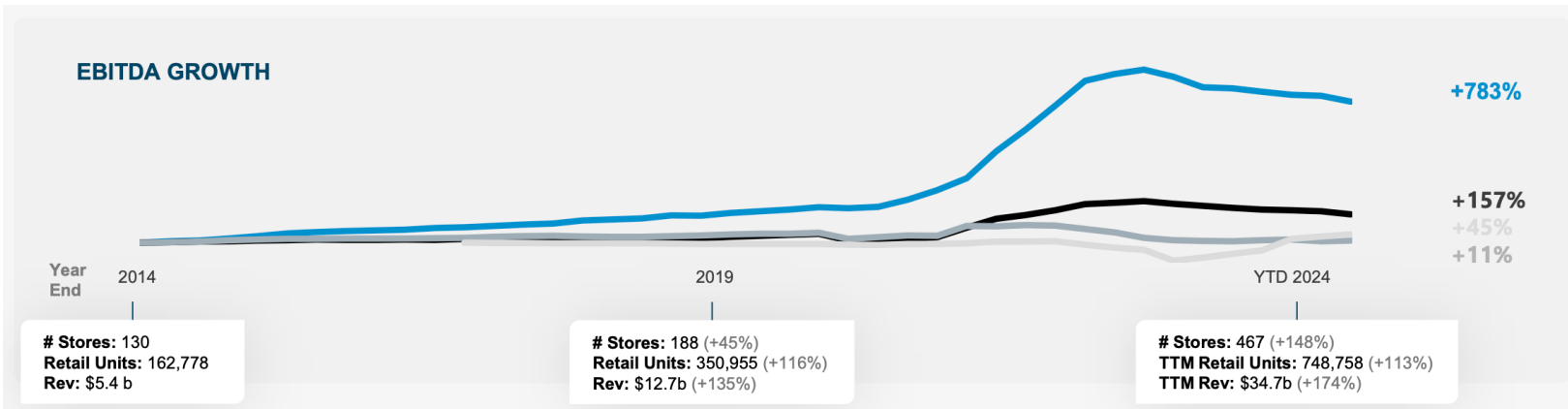
## Industry Trends

- Downtrend since peak in 2021 due to inventory shortages
- Average transaction price down 2.3%
- Retailer profit per unit down 2.3% since 2023 (\$2471/unit)
- Average day on lot up 5% (40 days)
- All figures better than pre-pandemic levels
- Vehicle sales projected to increase by 2-3% over 2024 and 2025



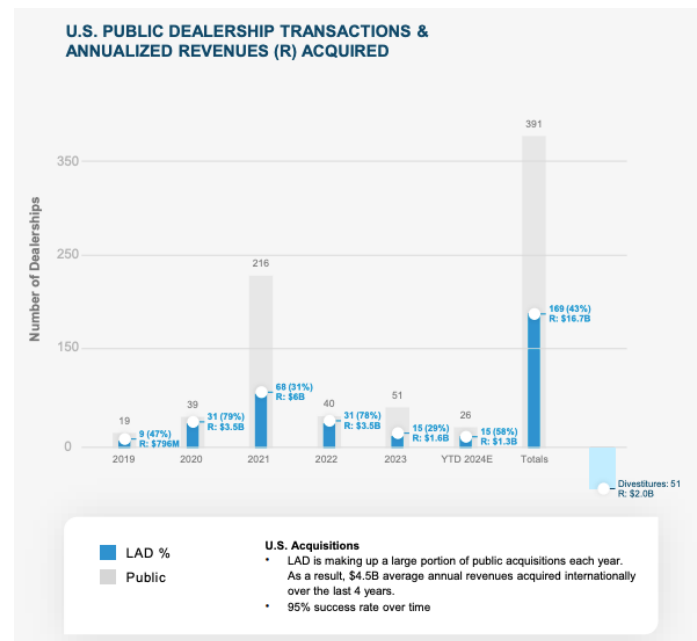
# Thesis 1: Acquisition Strategy

Market does not believe growth can continue



## Acquisition Strategy

- Acquired 56 stores in 2023 vs 20 of most acquisitions among competitors
- Past rapid growth strongly tied to strategic acquisition
- Acquires stores with a 90% SGA to gross profit ratio and improves performance through consolidation of back-office functions



# Thesis 1: Acquisition Strategy

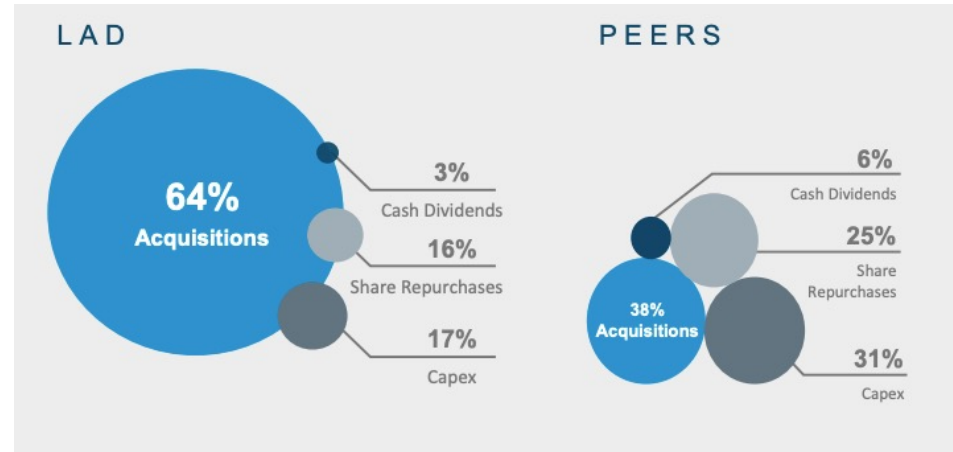
Lithia has plans and ample resources to continue expanding

## Acquisition Resources

- Lithia has more financial resources than most private automotive retailers and major players
- Finance through cash flows from operations, borrowings, and proceeds from notes and stock issuance
- As of December 31, 2023, had available liquidity of \$1.7 billion, which was comprised of \$0.8 billion in cash and \$0.9 billion availability on our credit facilities
- Competitors have low cash liquidity (<\$100m)

### Additional benefits

- Diversification in products, services, brands, and locations
- Increased reach to consumers, build brand loyalty, provide high profit margin services



## Proven High Success Rate

- **Low Risk** – Highly fragmented market; decentralized culture empowers local leadership
- **Track-Record** – Consistent history of acquiring and integrating stores
- **Valuation Discipline** – Consistent hurdle rate framework; cash flow accretive
- **Returns** – Consistently achieving over 25% return rate

## Thesis 2: Newly Profitable Segments

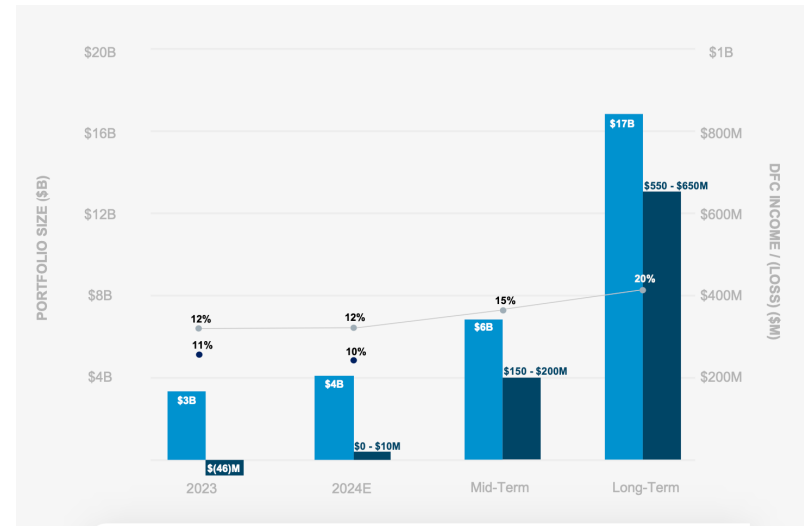
Financing Operations showing high potential for growth

### DFC is Breaking Even

- Financing segment previously making losses of -\$46m annually
- 2024 Q1/Q2: first two profitable quarters for DFC with total income \$8 million
- Increasing volume of originations, improving credit quality and penetration rates
- DFC loans are ~3X profitable vs. third-party loans
- Targeting penetration rate of 15-20% of retail units sold

#### DFC Key Statistics

	2023	2022	2021
Loans originated	\$2118	\$1933	\$703
Vehicles financed	70,154	59,604	21,357
Penetration rate	11.0%	10.2%	4.0%
Weighted average credit score	732	718	674
		P/E (TTM)	13.35



■ Portfolio Size (\$B)      ● US Penetration Rate  
■ DFC Income / (Loss) (\$M)      ● Global Penetration Rate

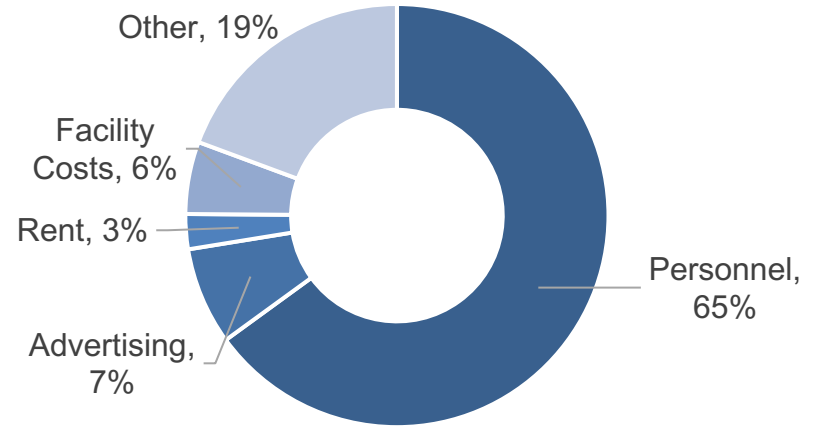
## Thesis 3: Cost Reduction

Cost cutting plans will continue through 2025

### SG&A Competitor Comparison

Firm	SG&A as % of profit 2023
Penske	68.9%
Group 1	63.8%
Asbury	65.2%
Autonation	63.4%
CarMax	88.8%
Lithia	63%

### SG&A Breakdown



### Efficiency Continues to Improve

- SG&A was 66% of gross profit as of Q3 2024
- Launched initiative in 2024 to shed \$150 million, saved \$200 million
- Centralized administrative functions, productivity enhancements in areas like marketing, vendor contracts, and staffing, targeted layoffs
- Expects lower interest rates on the floorplan debt used to finance inventory
- Anticipates saving an additional \$100 million in 2025



# Valuation

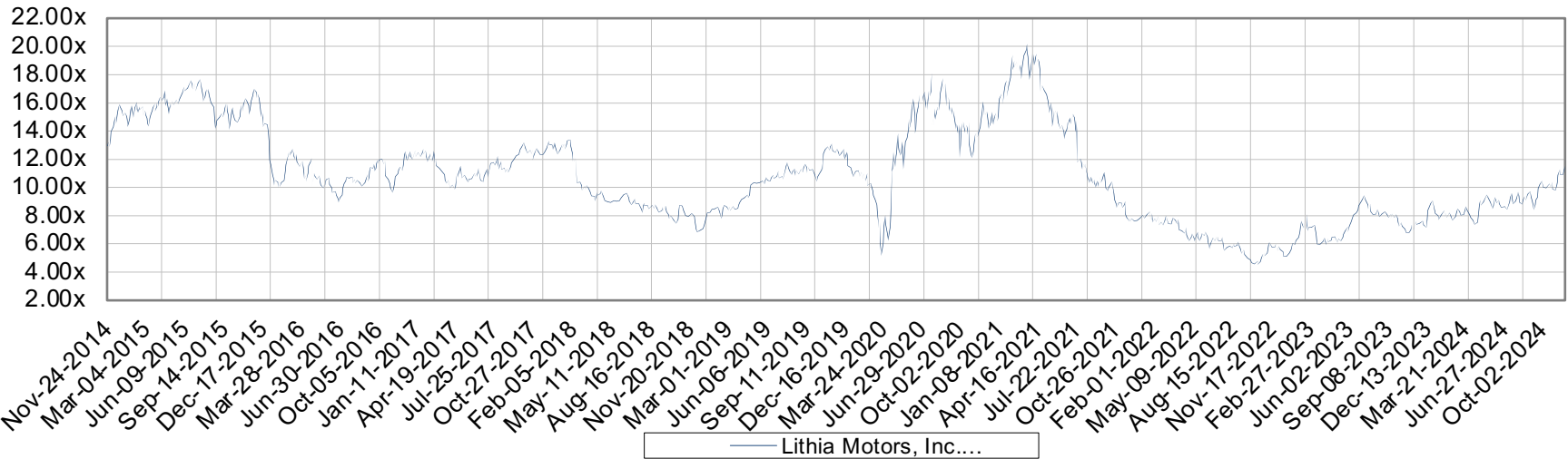
	Historical				Forecast		
	2020	2021	2022	2023	2024E	2025E	2026E
<b>Total revenue</b>	<b>13,124,300</b>	<b>22,831,700</b>	<b>28,187,800</b>	<b>31,042,300</b>	<b>36,132,690</b>	<b>40,566,047</b>	<b>45,464,943</b>
<i>New vehicles</i>	6,773,900	11,197,700	12,894,500	15,154,200	17,406,609	19,466,483	22,121,291
<i>Used vehicles</i>	4,307,100	8,212,400	10,850,200	10,895,500	12,689,899	14,034,883	15,369,797
<i>Parts and services</i>	1,348,700	2,110,900	2,738,800	3,197,100	3,848,023	4,342,790	4,830,708
<i>Finance and insuranc</i>	579,800	1,051,300	1,285,400	1,337,000	1,416,755	1,715,965	1,892,206
<i>Fleet &amp; other</i>	114,800	259,400	418,900	458,500	771,404	1,005,925	1,250,940
<b>Gross profit</b>	<b>2,225,600</b>	<b>4,259,000</b>	<b>5,152,400</b>	<b>5,228,900</b>	<b>5,577,624</b>	<b>6,176,778</b>	<b>6,845,575</b>
<i>New vehicles</i>	460,900	1,218,500	1,579,700	1,394,100	1,218,823	1,129,056	1,216,671
<i>Used vehicles</i>	458,000	870,100	810,000	703,000	752,681	961,502	1,120,995
<i>Parts and services</i>	716,800	1,110,500	1,463,000	1,751,400	2,125,648	2,345,107	2,584,429
<i>Finance and insuranc</i>	579,800	1,051,300	1,285,400	1,337,000	1,416,755	1,715,965	1,892,206
<i>Fleet &amp; other</i>	10,100	8,600	14,300	43,400	63,718	25,148	31,273
<b>Net Income</b>	<b>\$438,100</b>	<b>\$1,161,400</b>	<b>\$1,257,900</b>	<b>\$1,016,200</b>	<b>\$829,531</b>	<b>\$951,057</b>	<b>\$1,085,655</b>

- **Vehicle retail CAGR:** assumed 13% for new vehicle retail, 10% for used vehicle retail taking into account acquisition growth and downtrend in industry
- **Financing CAGR:** assumed 16% with growth of DFC and stronghold in financing and insurance segment
- **Profit margin:** 4% and 5% profit margin for new vehicles following margin compression across industry, predicted improvement in economic conditions 2025
- **SG&A:** market expects 67% of profit, we forecast 65% due to cost cutting initiatives (UPDATE EXCEL)

# Valuation

Price target implies 14% upside

### Lithia Motors, Inc. (NYSE:LAD) - Forward P/E

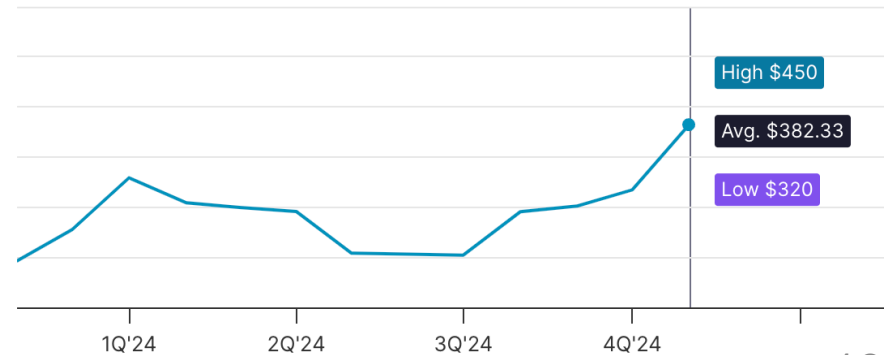


**Average P/E: 10.81x**

Bear/bull cases 1 std. dev. from average

	P/E	Price	Upside
Bear P/E	7.47	307.16	-21%
Base P/E	10.81	444.49	14%
Bull P/E	14.14	581.41	49%

### Market Forecast



## **Macroeconomic headwinds disrupting consumer spending**

- Downtrend continues in automobile industry
- Mitigant: Lithia motors is diversified geographically, strategic locations with limited competitors nearby giving pricing power
- Mitigant: Offers aftersales services that have proved to be more resilient in economic downturns

**Low**

## **Increasing competition reduces profit margins**

- Lithia does not have cost advantage in purchasing vehicles, may not have lowest prices with more competitors
- Mitigant: Larger stores operate more efficiently with lower SG&A as a % of gross profit with experienced personnel

**Moderate**

## **Credit losses in DFC's portfolio**

- Lithia does not have cost advantage in purchasing vehicles, may not have lowest prices with more competitors
- Mitigant: Increasing down payment requirements and credit scores, close monitoring, continued improvement of credit model

**Moderate**

# Appendix: Revenue Forecast

	2018	2019	2020	2021	2022	2023	2024E	2025E	2026E
<b>REVENUES:</b>	120.8%	112.3%	112.5%	190.7%	132.1%	100.4%			
New vehicles - retail	\$6,602,800	\$6,799,100	\$6,773,900	\$11,197,700	\$12,894,500	\$15,154,200	\$17,406,609	\$19,466,483	\$22,121,291
Used vehicle - total	3,410,300	3,828,400	4,307,100	8,212,400	10,850,200	10,895,500	12,689,899	14,034,883	15,369,797
Parts and services	1,222,300	1,325,100	1,348,700	2,110,900	2,738,800	3,197,100	3,848,023	4,342,790	4,830,708
Finance and insurance - total	454,800	518,600	579,800	1,051,300	1,285,400	1,337,000	1,416,755	1,715,965	1,892,206
Fleet & Other	131,200	201,500	114,800	259,400	418,900	458,500	771,404	1,005,925	1,250,940
<b>Total revenues</b>	<b>11,821,400</b>	<b>12,672,700</b>	<b>13,124,300</b>	<b>22,831,700</b>	<b>28,187,800</b>	<b>31,042,300</b>	<b>36,132,690</b>	<b>40,566,046</b>	<b>45,464,942</b>
<b>Revenue Composition</b>									
New vehicles - retail	55.9%	53.7%	51.6%	49.0%	45.7%	48.8%	48.2%	48.0%	48.7%
Used vehicle - total	28.8%	30.2%	32.8%	36.0%	38.5%	35.1%	35.1%	34.6%	33.8%
Parts and services	10.3%	10.5%	10.3%	9.2%	9.7%	10.3%	10.6%	10.7%	10.6%
Finance and insurance - total	3.8%	4.1%	4.4%	4.6%	4.6%	4.3%	3.9%	4.2%	4.2%
Fleet & Other	1.1%	1.6%	0.9%	1.1%	1.5%	1.5%	2.1%	2.5%	2.8%
<b>Total revenues</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>COST OF SALES:</b>									
New vehicles - retail	6,217,700	6,413,500	6,313,000	9,979,200	11,314,800	13,760,100	16,187,787	18,337,427	20,904,620
Used vehicle - total	3,081,900	3,457,000	3,849,100	7,342,300	10,040,200	10,192,500	11,937,218	13,073,381	14,248,802
Parts and services	621,600	657,500	631,900	1,000,400	1,275,800	1,445,700	1,722,375	1,997,683	2,246,279
Finance and insurance - total									
Fleet & other	123,200	190,900	104,700	250,800	404,600	415,100	707,686	980,776	1,219,666
<b>Total cost of sales</b>	<b>10,044,400</b>	<b>10,718,900</b>	<b>10,898,700</b>	<b>18,572,700</b>	<b>23,035,400</b>	<b>25,813,400</b>	<b>30,555,066</b>	<b>34,389,268</b>	<b>38,619,367</b>
<b>GROSS PROFIT:</b>		5%	7%	8%	6%	5%	4%	5%	5%
New vehicles - retail	385,100	385,600	460,900	1,218,500	1,579,700	1,394,100	1,218,823	1,129,056	1,216,671
Used vehicle - total	328,400	371,400	458,000	870,100	810,000	703,000	752,681	961,502	1,120,995
Parts and services	600,700	667,600	716,800	1,110,500	1,463,000	1,751,400	2,125,648	2,345,107	2,584,429
Finance and insurance - total	454,800	518,600	579,800	1,051,300	1,285,400	1,337,000	1,416,755	1,715,965	1,892,206
Fleet & other	8,000	10,600	10,100	8,600	14,300	43,400	63,718	25,148	31,273
<b>Total gross profit</b>	<b>1,777,000</b>	<b>1,953,800</b>	<b>2,225,600</b>	<b>4,259,000</b>	<b>5,152,400</b>	<b>5,228,900</b>	<b>5,577,624</b>	<b>6,176,778</b>	<b>6,845,575</b>
<b>Gross Profit Composition:</b>									
New vehicles - retail	21.7%	19.7%	20.7%	28.6%	30.7%	26.7%	21.9%	18.3%	17.8%
Used vehicle - total	18.5%	19.0%	20.6%	20.4%	15.7%	13.4%	13.5%	15.6%	16.4%
Parts and services	33.8%	34.2%	32.2%	26.1%	28.4%	33.5%	38.1%	38.0%	37.8%
Finance and insurance - total	25.6%	26.5%	26.1%	24.7%	24.9%	25.6%	25.4%	27.8%	27.6%
Fleet & other	0.5%	0.5%	0.5%	0.2%	0.3%	0.8%	1.1%	0.4%	0.5%
<b>Total gross profit</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

## Appendix: Income Statement

\$M	YTD 2024	Q4 2024	Q3 2024	Q2 2024	Q1 2024	FY2023	Q4 2023	Q3 2023	Q2 2023	Q1 2023
New vehicle retail	\$12,847.9		\$4,430.0	\$4,403.7	\$4,014.1	\$15,154.2	\$3,974.8	\$3,885.8	\$4,014.7	\$3,278.9
Used vehicle retail	8,630.1		2,843.3	2,986.0	2,800.8	9,570.2	2,267.5	2,620.2	2,455.1	2,227.5
Used vehicle wholesale	1,018.1		390.9	289.5	337.7	1,325.3	242.9	316.1	403.9	362.4
Finance and insurance	1,061.9		360.4	360.9	340.6	1,337.0	331.5	349.4	337.9	318.3
Aftersales	2,876.3		1,012.8	950.7	912.8	3,197.1	818.3	838.0	804.4	736.3
Fleet and other	580.4		183.6	241.0	155.8	458.5	39.4	267.5	95.4	56.0
<b>Total Revenues</b>	<b>\$27,014.7</b>		<b>\$9,221.0</b>	<b>\$9,231.8</b>	<b>\$8,561.8</b>	<b>\$31,042.3</b>	<b>\$7,674.4</b>	<b>\$8,277.0</b>	<b>\$8,111.4</b>	<b>\$6,979.5</b>
New vehicle retail	\$922.5		\$306.4	\$320.8	\$295.3	\$1,394.1	\$314.3	\$358.9	\$387.2	\$333.8
Used vehicle retail	567.2		188.9	195.6	182.7	721.4	154.1	189.0	212.8	165.7
Used vehicle wholesale	(2.6)		(2.1)	0.5	(1.0)	(18.4)	(8.9)	(6.0)	(0.7)	(2.8)
Finance and insurance	1,061.9		360.4	360.9	340.6	1,337.0	331.5	349.4	337.9	318.3
Aftersales	1,591.2		559.8	529.4	502.0	1,751.4	450.3	462.8	443.9	394.4
Fleet and other	49.3		17.0	16.7	15.6	43.4	19.5	17.3	4.2	2.1
<b>Gross Profit</b>	<b>\$4,189.5</b>		<b>\$1,430.4</b>	<b>\$1,423.9</b>	<b>\$1,335.2</b>	<b>\$5,228.9</b>	<b>\$1,260.8</b>	<b>\$1,371.3</b>	<b>\$1,385.3</b>	<b>\$1,211.5</b>
Finance operations Income	6.4		0.9	7.2	(1.7)	(45.9)	(2.1)	(4.4)	(18.6)	(20.8)
Selling, general, and administrative	2,853.0		943.6	975.2	934.3	3,294.8	836.8	850.8	842.0	765.2
Depreciations and Amortization	183.6		63.5	62.3	57.8	195.8	49.4	50.8	49.1	46.6
<b>Operating Income</b>	<b>\$1,159.3</b>		<b>\$424.2</b>	<b>\$393.6</b>	<b>\$341.4</b>	<b>\$1,692.4</b>	<b>\$372.5</b>	<b>\$465.3</b>	<b>\$475.7</b>	<b>\$378.9</b>
Floor Plan Interest Expense	(214.0)		(76.6)	(76.6)	(60.7)	150.9	48.3	40.2	34.7	27.7
Other Interest Expense	(189.3)		(64.5)	(61.2)	(63.6)	201.2	59.7	58.5	43.8	39.1
Other Income (expense) net	35.4		5.1	27.0	3.5	22.0	15.2	(5.3)	9.8	2.2
<b>Income before income taxes</b>	<b>\$791.4</b>		<b>\$288.2</b>	<b>\$282.8</b>	<b>\$220.6</b>	<b>\$1,362.3</b>	<b>\$279.7</b>	<b>\$361.3</b>	<b>\$407.0</b>	<b>\$314.3</b>
Income tax provision	(187.0)		(65.3)	(66.2)	(55.6)	350.6	63.5	96.4	105.9	84.7
<b>Net Income</b>	<b>604.4</b>		<b>222.9</b>	<b>216.6</b>	<b>165.0</b>	<b>1,011.7</b>	<b>216.2</b>	<b>264.9</b>	<b>301.0</b>	<b>229.6</b>
Net Income attributable to non-controlling interests	(18.6)		(13.8)	(2.4)	(2.4)	(10.9)	(2.7)	(3.4)	(3.9)	(0.9)
<b>Net Income attributable to LAD</b>	<b>\$585.8</b>		<b>\$209.1</b>	<b>\$214.2</b>	<b>\$162.6</b>	<b>\$1,000.8</b>	<b>\$213.5</b>	<b>\$261.5</b>	<b>\$297.2</b>	<b>\$228.7</b>

## Appendix: Balance Sheet

(\$ in millions)	December 31,	
	2023	2022
<b>Assets</b>		
Current assets:		
Cash and restricted cash	\$ 941.4	\$ 246.7
Accounts receivable, net of allowance for doubtful accounts of \$7.1 and \$3.1	1,123.1	813.1
Inventories, net	4,753.9	3,409.4
Other current assets	136.8	161.7
Total current assets	6,955.2	4,630.9
Property and equipment, net of accumulated depreciation of \$646.7 and \$526.8	3,981.4	3,574.6
Operating lease right-of-use assets	478.8	381.9
Finance receivables, net of allowance for estimated losses of \$106.4 and \$69.3	3,242.3	2,187.6
Goodwill	1,930.6	1,460.7
Franchise value	2,402.2	1,856.2
Other non-current assets	642.0	914.7
Total assets	\$ 19,632.5	\$ 15,006.6
<b>Liabilities and equity</b>		
Current liabilities:		
Floor plan notes payable	\$ 1,347.0	\$ 627.2
Floor plan notes payable: non-trade	2,288.5	1,489.4
Current maturities of long-term debt	75.7	20.5
Current maturities of non-recourse notes payable	33.9	—
Trade payables	288.0	258.4
Accrued liabilities	899.1	782.7
Total current liabilities	4,932.2	3,178.2
Long-term debt, less current maturities	5,483.7	5,088.3
Non-recourse notes payable, less current maturities	1,671.7	422.2
Deferred revenue	264.1	226.7
Deferred income taxes	349.3	286.3
Non-current operating lease liabilities	427.9	346.6
Other long-term liabilities	220.7	207.2
Total liabilities	13,349.6	9,755.5
Redeemable non-controlling interest	44.0	40.7
Equity:		
Preferred stock - no par value; authorized 15.0 shares; none outstanding	—	—
Common stock - no par value; authorized 125.0 shares; issued and outstanding 27.4 and 27.3	1,100.6	1,082.1
Additional paid-in capital	79.9	76.8
Accumulated other comprehensive income (loss)	20.1	(18.0)
Retained earnings	5,013.3	4,065.3
Total stockholders' equity - Lithia Motors, Inc.	6,213.9	5,206.2
Non-controlling interest	25.0	4.2
Total equity	6,238.9	5,210.4
Total liabilities, redeemable non-controlling interest and equity	\$ 19,632.5	\$ 15,006.6

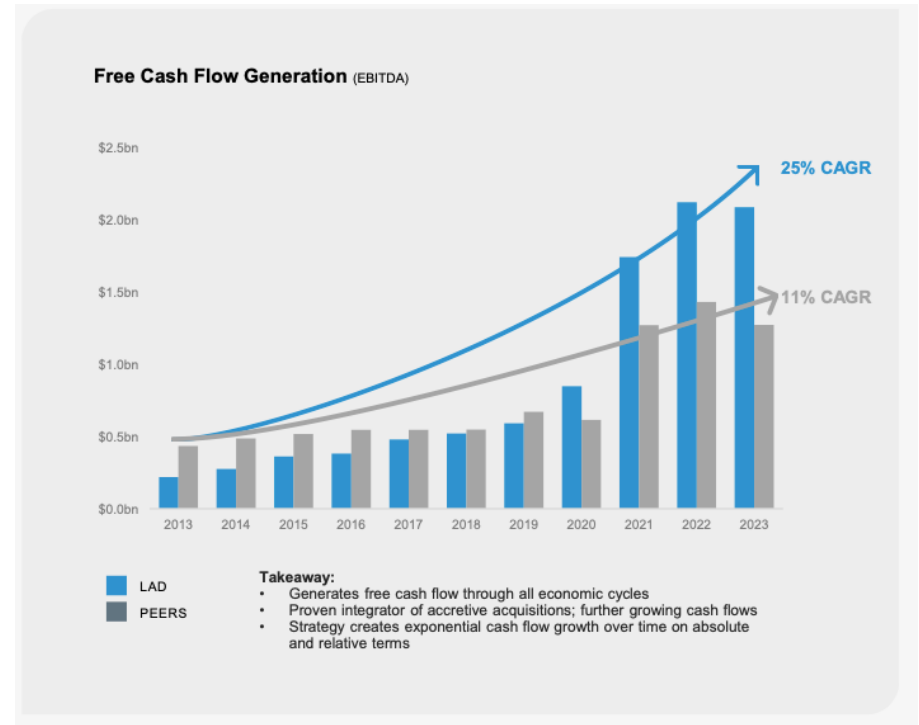
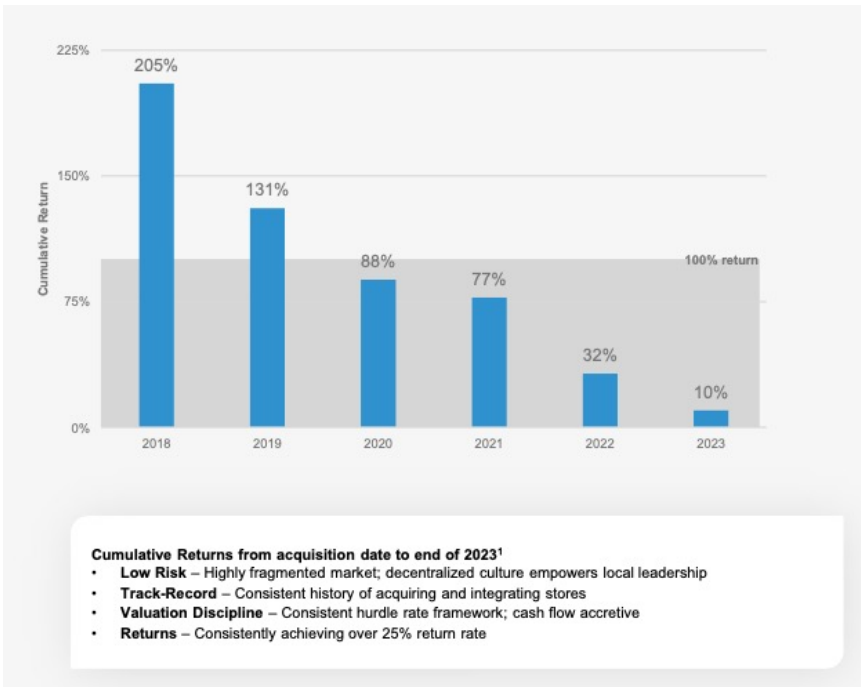
## Appendix: Cash Flow Statement

(\$ in millions)	Year Ended December 31,		
	2023	2022	2021
<b>Cash flows from operating activities:</b>			
Net income	\$ 1,011.7	\$ 1,261.6	\$ 1,062.7
Adjustments to reconcile net income to net cash (used in) provided by operating activities:			
Asset impairments	—	—	1.9
Depreciation and amortization	204.1	172.7	127.3
Share-based compensation	40.8	41.1	34.7
Loss on redemption of senior notes	—	—	10.3
Gain on disposal of other assets	(3.8)	(0.1)	(2.5)
Net disposal gain on sale of stores	(31.2)	(66.0)	—
Investment loss	—	39.2	66.4
Deferred income taxes	58.7	95.2	43.1
Amortization of operating lease right-of-use assets	60.5	55.4	39.0
(Increase) decrease (net of acquisitions and dispositions):			
Trade receivables, net	(228.6)	(131.6)	(147.1)
Inventories	(863.5)	(923.0)	674.6
Finance receivables, net	(1,045.5)	(1,363.0)	(640.8)
Other assets	(59.2)	(138.3)	61.0
Increase (decrease) (net of acquisitions and dispositions):			
Floor plan notes payable	363.7	273.3	116.1
Trade payables	(19.9)	25.3	78.4
Accrued liabilities	21.2	(2.3)	233.0
Other long-term liabilities and deferred revenue	18.6	50.4	39.1
<b>Net cash (used in) provided by operating activities</b>	<b>(472.4)</b>	<b>(610.1)</b>	<b>1,797.2</b>
<b>Cash flows from investing activities:</b>			
Capital expenditures	(230.2)	(303.1)	(260.4)
Proceeds from sales of assets	13.2	16.6	3.3
Cash paid for other investments	(11.1)	(11.8)	(10.3)
Cash paid for acquisitions, net of cash acquired	(1,185.1)	(1,243.6)	(2,699.3)
Proceeds from sales of stores	142.9	212.1	76.3
<b>Net cash used in investing activities</b>	<b>(1,270.3)</b>	<b>(1,329.8)</b>	<b>(2,890.4)</b>
<b>Cash flows from financing activities:</b>			
Borrowings (repayments) on floor plan notes payable: non-trade, net	878.7	737.9	(685.3)
Borrowings on lines of credit	12,738.1	12,160.8	2,830.6
Repayments on lines of credit	(12,413.8)	(10,137.0)	(2,505.2)
Principal payments on long-term debt and finance lease liabilities, scheduled	(35.2)	(51.2)	(32.5)
Principal payments on long-term debt and finance lease liabilities, other	(10.6)	(171.7)	(486.5)
Proceeds from issuance of long-term debt	79.8	113.3	817.4
Principal payments on non-recourse notes payable	(589.5)	(193.5)	(26.8)
Proceeds from issuance of non-recourse notes payable	1,872.9	298.1	344.4
Payment of debt issuance costs	(16.7)	(11.8)	(14.7)
Proceeds from issuance of common stock	29.7	36.1	1,136.2
Repurchase of common stock	(48.9)	(688.3)	(230.7)
Dividends paid	(52.8)	(45.2)	(38.8)
Payments of contingent consideration related to acquisitions	(14.0)	(7.2)	(1.4)
Other financing activities	(7.9)	(4.4)	—
<b>Net cash provided by financing activities</b>	<b>2,409.8</b>	<b>2,035.9</b>	<b>1,106.7</b>
<b>Effect of exchange rate changes on cash and restricted cash</b>	<b>33.4</b>	<b>(3.0)</b>	<b>2.5</b>
<b>Increase in cash and restricted cash</b>	<b>700.5</b>	<b>93.0</b>	<b>16.0</b>
<b>Cash and restricted cash at beginning of year</b>	<b>271.5</b>	<b>178.5</b>	<b>162.5</b>
<b>Cash and restricted cash at end of year</b>	<b>\$ 972.0</b>	<b>\$ 271.5</b>	<b>\$ 178.5</b>

# Appendix: Acquisitions

(\$ in millions)

	Year Ended December 31,		
	2023	2022	2021
Number of stores acquired	56	31	77
Number of stores opened	—	1	1
Cash paid for acquisitions, net of cash acquired	\$ (1,185.1)	\$ (1,243.6)	\$ (2,699.3)
Add: Borrowings on floor plan notes payable: non-trade associated with acquired new vehicle inventory	109.2	116.5	355.5
Cash paid for acquisitions, net of cash acquired – adjusted	\$ (1,075.9)	\$ (1,127.1)	\$ (2,343.8)





## Appendix: Financing Operations

### Selected Financing Operations Financial Information

(\$ in millions)	Year Ended December 31,					
	2023	% <sup>(1)</sup>	2022	% <sup>(1)</sup>	2021	% <sup>(1)</sup>
<b>Interest margin:</b>						
Interest, fee, and lease income	\$ 268.5	9.6	\$ 134.1	8.7	\$ 45.9	9.2
Interest expense	(170.5)	(6.1)	(52.2)	(3.4)	(4.8)	(1.0)
Total interest margin	\$ 98.0	3.5	\$ 81.9	5.3	\$ 41.1	8.2
Provision for loan and lease losses	\$ (98.8)	(3.5)	\$ (44.4)	(2.9)	\$ (9.4)	(1.9)
Financing operations (loss) income	\$ (45.9)	(1.6)	\$ (4.0)	(0.3)	\$ 11.0	2.2
Total average managed finance receivables	\$ 2,802.8		\$ 1,542.6		\$ 501.5	

<sup>(1)</sup> Percent of total average managed finance receivables.

### Portfolio Information<sup>(1)</sup>

(\$ in millions)	Year Ended December 31,		
	2023	2022	2021
<b>Loan origination information</b>			
Net loans originated	\$ 2,118.5	\$ 1,933.9	\$ 703.7
Vehicle units financed	70,154	59,604	21,357
Total penetration rate <sup>(2)</sup>	11.0 %	10.2 %	4.0 %
Weighted average contract rate	9.6 %	7.7 %	8.4 %
Weighted average credit score <sup>(3)</sup>	732	718	674
Weighted average FELTV <sup>(4)</sup>	95.5 %	99.4 %	104.9 %
Weighted average term (in months)	73	73	73
<b>Loan performance information</b>			
Total ending managed receivables	\$ 3,177.6	\$ 2,109.4	\$ 724.9
Total average managed receivables	\$ 2,643.5	\$ 1,417.2	\$ 449.8
Allowance for loan losses	\$ 102.2	\$ 65.1	\$ 22.5
Allowance for loan losses as a percentage of ending managed receivables	3.2 %	3.1 %	3.1 %
Net credit losses on managed receivables	62.0	42.9	7.8
Net credit losses as a percentage of total average managed receivables	2.3 %	3.0 %	1.7 %
Past due accounts as a percentage of ending managed receivables <sup>(5)</sup>	4.6 %	5.4 %	4.9 %
Average recovery rate <sup>(6)</sup>	49.8 %	59.3 %	74.9 %

## Appendix: Operating Expenses

### Operating Expenses

#### **Selling, General, and Administrative (SG&A)**

SG&A includes salaries and related personnel expenses, advertising (net of manufacturer cooperative advertising credits), rent, facility costs, and other general corporate expenses.

(\$ in millions)	Year Ended December 31,							
			2023 vs. 2022				2022 vs. 2021	
	2023	2022	Change	%	2021	Change	%	
Personnel	\$ 2,163.1	\$ 2,086.3	\$ 76.8	3.7 %	\$ 1,737.9	\$ 348.4	20.0 %	
Advertising	248.2	253.6	(5.4)	(2.1)	162.2	91.4	56.4	
Rent	89.3	72.6	16.7	23.0	54.0	18.6	34.4	
Facility costs	183.9	150.3	33.6	22.4	116.8	33.5	28.7	
Gain on sale of assets	(34.1)	(66.0)	31.9	NM	(2.3)	(63.7)	NM	
Other	644.4	547.3	97.1	17.7	412.2	135.1	32.8	
<b>Total SG&amp;A</b>	<b>\$ 3,294.8</b>	<b>\$ 3,044.1</b>	<b>\$ 250.7</b>	<b>8.2 %</b>	<b>\$ 2,480.8</b>	<b>\$ 563.3</b>	<b>22.7 %</b>	

NM - Not meaningful

As a % of gross profit	Year Ended December 31,							
			2023 vs. 2022				2022 vs. 2021	
	2023	2022	Change		2021	Change		
Personnel	41.4 %	40.5 %	90 bps		40.8 %	(30) bps		
Advertising	4.7	4.9	(20)		3.8	110		
Rent	1.7	1.4	30		1.3	10		
Facility costs	3.5	2.9	60		2.7	20		
Gain on sale of assets	(0.7)	(1.3)	60		(0.1)	(120)		
Other	12.4	10.7	170		9.7	100		
<b>Total SG&amp;A</b>	<b>63.0 %</b>	<b>59.1 %</b>	<b>390 bps</b>		<b>58.1 %</b>	<b>100 bps</b>		