December 5th, 2024

Team Number: 3

Students: Joe Kinney, Vivian Lam and Mario Stefanidis

Recommendation: BUY Goodyear 5.625% 2033 bonds
CUSIP: 382550BK6
Bond Rating: B+/B2/BB-
Current Price = $88.64 (as of 11/22/2024)
Yield to Worst = 7.46%
1-Year Price Target = $91.89
Total Spread Compression = 55bps
Annualized Total Return (Base Case) = 11.4%

Business Overview

Built on 125 years of experience, Goodyear is the #1 tire manufacturer in North America in terms of market share, scale and brands, with global and diverse end markets.

Market Share

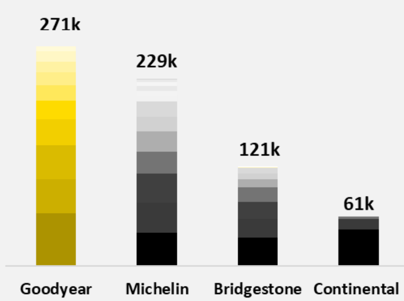
- **#1** tire manufacturer in the North America
- **#1** in both Original and replacement, across passenger cars, light trucks and buses

2023 NA OE Consumer Share

Brand	2023 Share	2022 Share
Goodyear	**21.9%**	**22.3%**
Michelin	18.7%	18.7%
Continental	14.5%	14.5%
Bridgestone	13.3%	13.3%
Hankook	7.7%	7.6%
Pirelli	3.9%	3.9%
Firestone	3.7%	3.7%
Falken	3.6%	3.5%
Kumho	2.5%	2.4%
General	2.4%	2.4%
Yokohama	2.1%	2.0%
BFGoodrich	1.8%	1.8%
Nexen	1.7%	1.6%
Toyo	1.2%	1.2%
Others	1.0%	1.1%

Scale

- **Scaled domestic capacity**, with the greatest plant capacity in North America
- **Leading R&D capabilities**, with 3 world class innovation centers and 6,000 patents (1,000 more pending)
- Expansive distribution network



Brand

- Portfolio of brands well-recognized by distributors and retailers
- Goodyear and Cooper Tire are the leading premium and mid-tier brands

Source: Company Information, Modern Tire Dealer

Industry Dynamics

Competitive Rivalry

- The tire industry is highly competitive, with major global players like Michelin and Bridgestone vying for market share.
- Other competitors include Continental, Hankook, Kumho, Pirelli, and various other regional tire manufacturers. There are also imports from countries such as Thailand, Mexico, Indonesia and Vietnam
- Goodyear holds the #1 spot for original equipment and replacement tire market share in North America, with 21% replacement volume share versus Michelin in second at 15%.

High

Barriers to Entry

- Barriers to creating a scaled tire manufacturer are significant, with high capital requirements due to the need for manufacturing plants, R&D, and distribution networks.
- Established tire brands have long-standing relationships with the entire value chain, making it very challenging for new entrants to build similar levels of recognition.
- Safety and environmental compliance standards in different countries create additional challenges for new entrants to comply with.

Moderate to High

Supplier Power

- The industry relies on five key inputs to produce tires; natural rubber, synthetic rubber, carbon black, steel, and polyester.
- Two-thirds of Goodyear’s raw materials are petroleum-linked and fluctuate with the price of oil.
- While subject to raw material price volatility, suppliers in the tire industry across inputs are numerous and themselves fiercely compete for business.

Low

Source: Company Information, Modern Tire Dealer

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Industry Dynamics

Buyer Power

- Goodyear's largest buyers are automakers, who have substantial bargaining power due to the volume of their purchases and their ability to switch suppliers.
- Retailers and wholesalers also have bargaining power, as they can choose to stock competitor products. Goodyear must negotiate favorable terms with them to maintain shelf space.
- Individuals have lower bargaining power as they generally purchase tires infrequently and are often guided by brand reputation, safety ratings (Consumer Reports), and recommendations.

Moderate to High

Threat of Substitutes

- There are few direct substitutes for tires. The only real substitute is innovation in transportation (e.g., airless tires, self-healing tires), but these are still in very early development.
- Indirect substitutes include public transportation, ride-sharing, or alternative mobility options that reduce the need for personal vehicle ownership.

Low

Goodyear operates in a competitive industry with moderate to high barriers to entry, balanced supplier and buyer power, and minimal threat from substitutes.

Goodyear today has ample ability to meet debt service and refinance near term maturities, and new management is on track to deliver 2.0-2.5x net leverage by Q4 2025

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Goodyear de-levering to occur through the **sale of underperforming operations related to Chemical (tbd), Dunlop (tbd) and "Off-the-Road" (announced $905mm all cash)** for a **cumulative $2.0bn** and **$1.5bn restructuring charges to improve Segment Operating Margin by 1000bps**

We view the 2033 notes to be the **most attractive position** on the capitalization table given the **more attractive yield** (and "yield-to-snapback" upon rerating) and **equal security** when compared to the 2029 senior notes and two tranches of 2031 senior notes

										Leverage	
Facility	**Out ($MM)**	**Guaranteed?**	**Secured?**	**Price**	**Market ($)**	**YTW**	**Coupon**	**Spread**	**S&P Rating**	**@Notional**	**@Market**
Pan-European accounts receivable facility	231.0	Y	Y		231.0		5.67%				
Mexican credit facility	200.0	Y	Y		200.0		7.37%				
Chinese credit facilities	189.0	Y	Y		189.0		2.50%				
Other foreign and domestic debt(1)	638.0	Y	Y		638.0		7.15%				
First lien revolving credit facility due 2026	1,140.0	Y	Y		1,140.0		6.20%				
European revolving credit facility due 2028	537.0	Y	Y		537.0		4.83%				
Total Secured Debt	**2,935.0**				**2,935.0**					**1.5x**	**1.5x**
9.5% due 2025	500.0	Y	N	100.59	503.0	n.m.	9.50%	n.m.	B+		
5% due 2026	900.0	Y	N	98.65	887.9	5.90%	5.00%	171.88	B+		
4.875% due 2027	700.0	Y	N	97.14	680.0	6.08%	4.88%	210.45	B+		
7.625% due 2027	125.0	N	N	101.69	127.1	6.54%	7.63%	270.06			
7% due 2028	150.0	N	N	100.53	150.8	6.62%	7.00%	277.00			
2.75% Euro Notes due 2028	448.0	Y	N	92.69	415.3	4.82%	2.75%	270.02	B+		
5% due 2029	850.0	Y	N	92.28	784.4	6.86%	5.00%	299.37	B+		
5.25% due April 2031	550.0	Y	N	90.14	495.8	7.14%	5.25%	324.58	B+		
5.25% due July 2031	600.0	Y	N	90.04	540.2	7.11%	5.25%	321.52	B+		
5.625% due 2033	450.0	Y	N	88.87	399.9	7.46%	5.65%	348.45	B+		
Finance Lease Obligations	267.0				267.0						
Total Debt	**8,475.0**			**94.52**	**8,186.2**					**4.3x**	**4.2x**
- Cash & Cash Equivalents	(905.0)				(905.0)						
- Restricted Cash	(35.0)				(35.0)						
+ Minority Interest	159.0				159.0						
+ Market Capitalization	2,786.8				2,786.8						
Enterprise Value	**10,480.8**				**10,192.0**					**5.4x**	**5.2x**
									LTM Adj. EBITDA	1956.0	
									LTM Int. Coverage	3.8x	

Source: Company Information, Bloomberg

Investment Thesis

Investment Recommendation:

✓ **Buy** Goodyear 5.625% 2033 Senior Unsecured Notes (B+/B2/BB-) trading at **$88.9** - 7.46% yield to worst and 348 bps spread (as of 11/24/2024)

✓ **Target Spread: 293 bps**, and base case target total return: **~11.4% p.a.**

- **Micro:** Goodyear is a leading global tire manufacturer (#1 Original Equipment ("OE") and #1 replacement tire market share in North America) that benefits from manufacturing scale advantage in the United States. The company has underperformed over the last decade with industry low operating margins due to failures to react to cost inflation. In 4Q23, the company launched an operational review and is executing on its plan to rationalize $1.5bn in excess spend (35% progress on original $1.3bn target Q425 cost savings in FY24).

- **Macro:** Both the consumer and commercial demand for tires has stabilized post-COVID after a reduction in driving miles. Subsequently, pent-up demand distorted macro conditions. Current pricing trends and a tailwind from electric vehicles and larger vehicles lead us to a constructive macro outlook.

- **Credit:** Stabilization of consumer and commercial tire unit sales and execution on operational review and non-core asset divestitures generate free cash flow, improve net leverage and lead to a credit ratings upgrade opportunity in the second half of 2025

Thesis #1: Management is proactively addressing structural issues to improve margins and selling non-core assets

New Senior Management in 2024 *Former CEO retired in November 2023 following 14 years of MIS-management*

Mark Stewart - CEO

- Mark Stewart has been President and CEO since January 2024, taking over from Richard Kramer following 24 years of service including 14 as CEO.
- Joins from Stellantis, where he was COO of North America for 5 years and oversaw 88,000 employees (1/3rd of company).
- Rich operational background with additional tenures at TRW Automotive and Amazon.

Ryan Waldron – NA Pres.

- Named President of Americas business unit reporting to Mark Stewart in April 2024.
- Joined Goodyear in 2003 and has served in leadership roles in finance and supply chain for multiple North American business areas.
- Extensive experience in supply chain management and procurement.

New Directors since 2023

Joseph R. Hinrichs
President & CEO
CSX Corporation

Max H. Mitchell
President & CEO
Crane Company

Roger J. Wood
Former Co-CEO
Tenneco

Part of Goodyear Forward Strategic and Operational Review Committee

Board Structure

a. Goodyear has a well-established Board of Directors, with a Lead/Presiding Director provision to ensure effective governance.
b. Laurette Koellner has been non-executive chairwoman of the board since management shakeup earlier this year.
c. Board Size can range from 9 to 15 members, with current size of 13. Five of 13 board members (38%) are women or diverse. 11 are independent.
d. Executive sessions without management held at least twice per year.

Executive Compensation

a. Multi-dimensional compensation plan based on market share, cost, FCF, EBIT, ESG, and other factors.
b. Long-term equity and cash awards based on net income, cash flow return on capital, and reduction in greenhouse gas emissions.
c. 90% of CEO primary compensation "at-risk" with 1.0x target modifier tied to above median (55%ile) TSR performance.

Shareholder Rights

a. Strong participatory rights, such as the ability to call special meetings with 25% of voting shares. Bylaws can be changed with a simple 50% majority.
b. Shareholders and Board share power to elect directors in case of vacancies.
c. Goodyear began shareholder engagement program in 2023 following involvement from Elliott which continues through 2024.

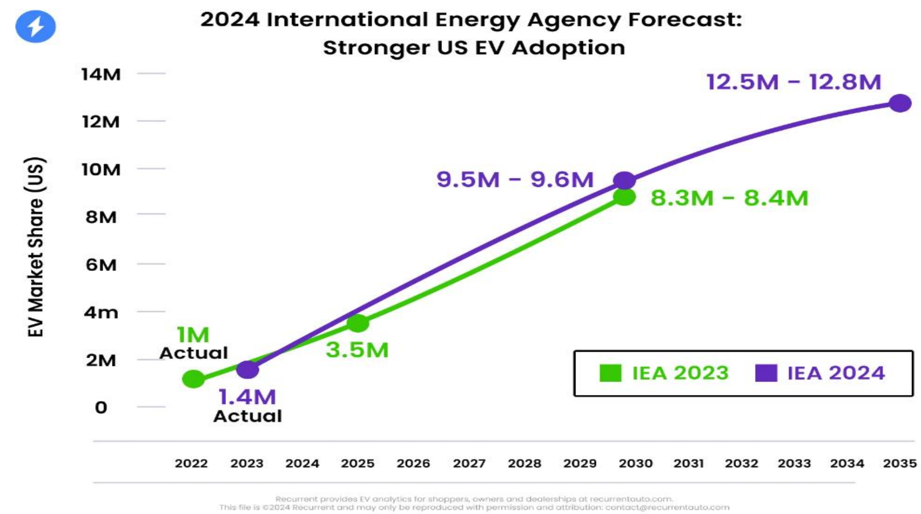
Mark brings extensive operational experience from previous roles at Stellantis, TRW, and Amazon. Combined with strong corporate governance and compensation policies, we believe current Goodyear excels in this dimension. New Directors were also onboarded.

Source: Company information

Thesis #2: Tailwinds to the Global Tire Industry

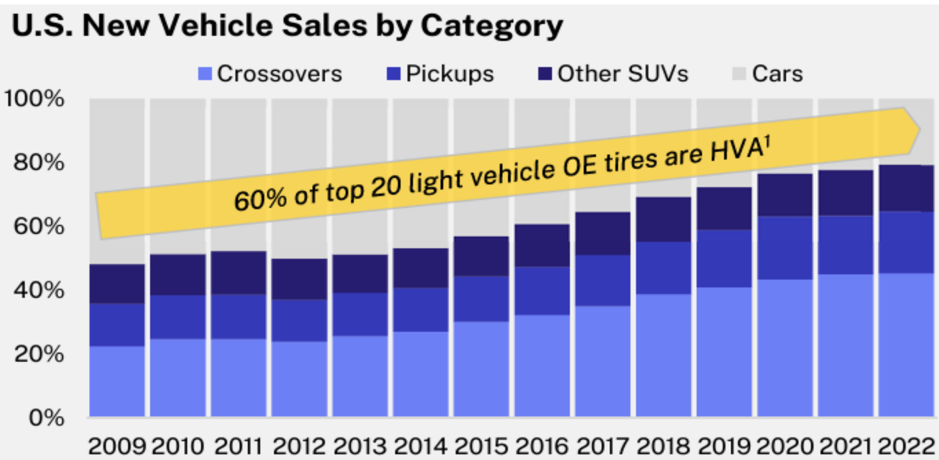
Growth of Electric Vehicle Adoption

- ✓ Goodyear is actively conducting consumer research to develop the best tires for the EV industry.
- ✓ Innovation labs in high-tech areas like Silicon Valley allow company to be leader in research efforts.
- ✓ Unveiled Goodyear ElectricDrive 2 in January at CES 2024 which features improved rolling resistance and long-lasting tread life.
- ✓ IEA revised 2024 EV adoption in U.S. upwards by 1mm vehicles in medium-term based on strength of 2023 sales.
- ✓ CEO, CDO, and CMO all joined from Stellantis in 2024 which currently manufactures 12 BEVs in five assembly plants.



Trend Towards Larger Cars

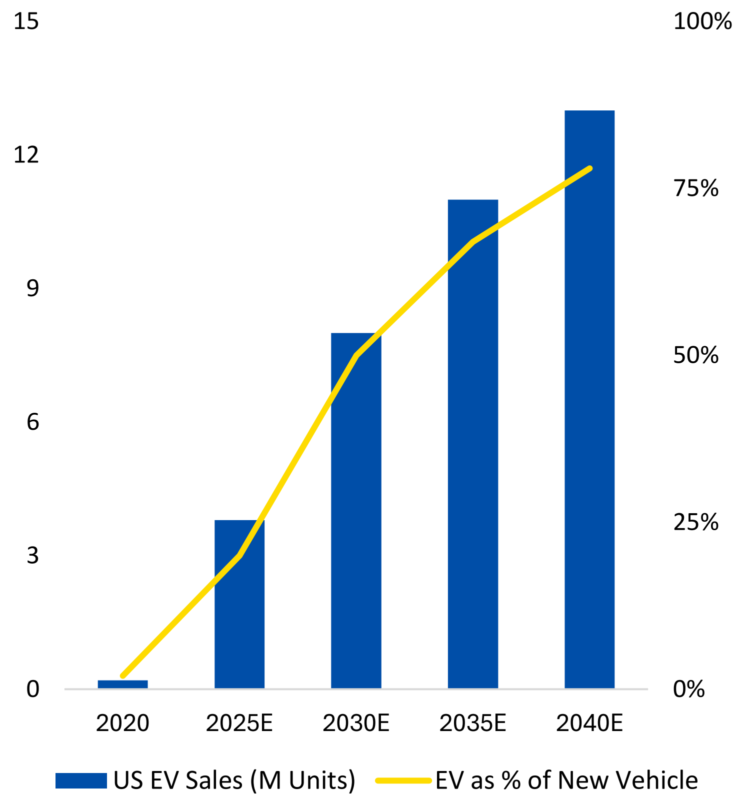
- ✓ High-value-added (HVA) tires, which are defined as ≥18 inch tires, generate >2x EBIT margins than standard tires.
- ✓ Foreign competitors such as those in China face significant barriers to entry in this segment, and consumers are more price inelastic than standard vehicles.
- ✓ Dual tailwind for HVA tires as a) the mix to larger cars has grown materially b) mix shift continues, benefitting OE tires.
- ✓ OE HVA proportion has grown every year since 2012 and now comprises 60% of light vehicle sales in the U.S.



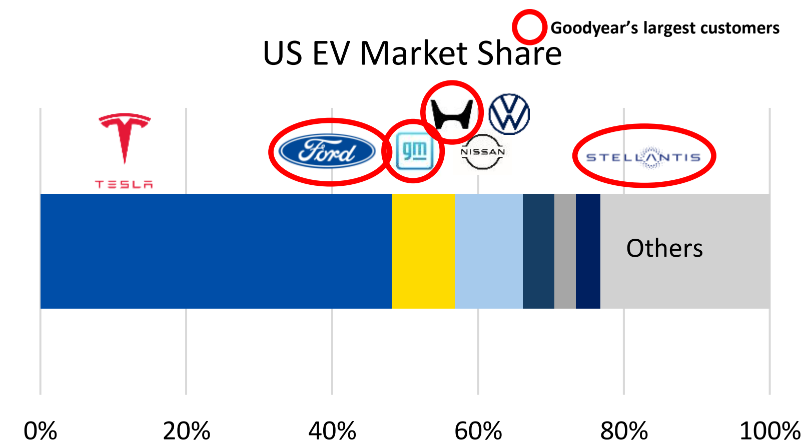
Source: International Energy Agency, USTMA 2023 Factbook

Thesis #2: Tailwinds to the Global Tire Industry

Strong Secular Growth in US EV Market



Goodyear is an Existing Supplier to All Top EV Manufacturers in the US



New Management Team has an EV Background

- Stewart was responsible for the EV transformation at Stellantis as COO of Stellantis North America.
- Stellantis will invest more than €50 billion in electrification over the next decade.
- 50% passenger car and light-duty truck BEV sales mix in U.S. by 2030.

The shift towards larger vehicles in the United States combined with accelerating electric vehicle adoption globally sets Goodyear up for market share growth and margin expansion beyond its planned cost cutting efforts.

Source: Goldman Sachs Equity Research, UBS Research, Cox Automotive, Company Information

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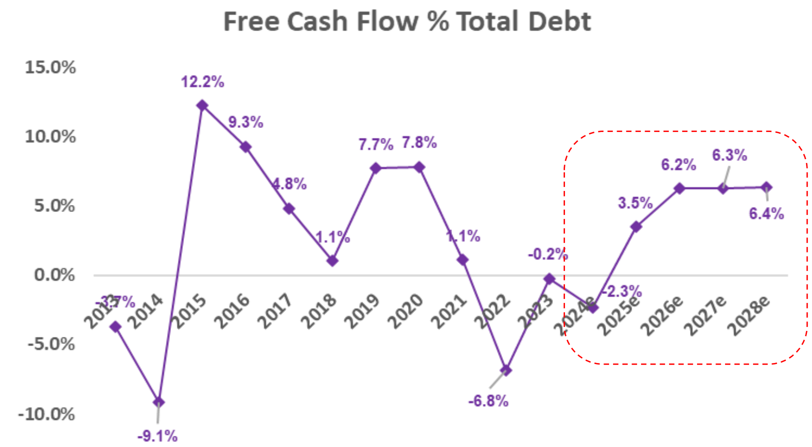
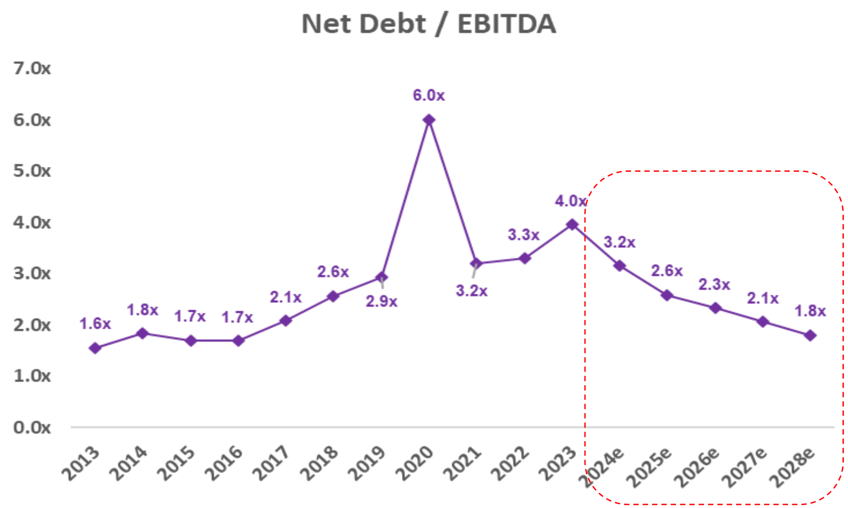
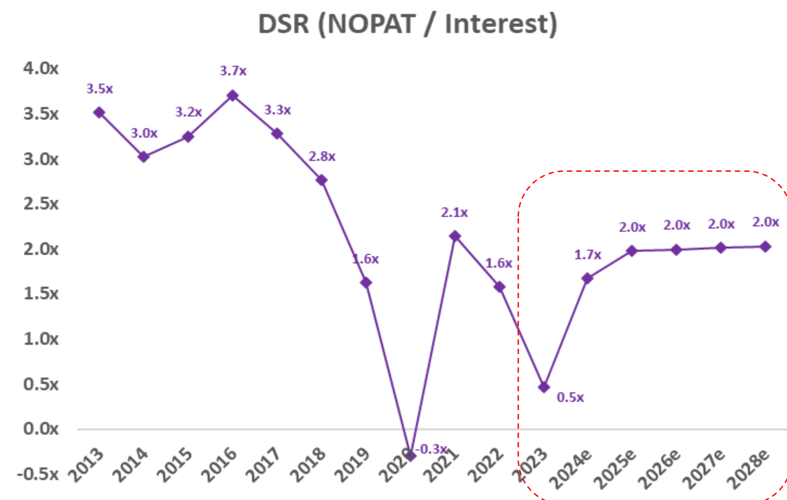
Thesis #3: Goodyear will reduce leverage over the NTM through Cost Rationalization + Asset Sales (2.0-2.5x target)

Base Case implies **2.6x Net Debt / EBITDA, 2.1x DSCR (NOPAT/Interest)** and **6.2% FCF / Total Debt** by **YE25:**

- ✓ Consumer Replacement, Commercial Original and Commercial Replacement sales stabilize + continued growth to Consumer OE
- ✓ Unit Pricing constant ($80.90 per consumer unit and $308.30 per commercial unit)
- ✓ Base case assumes only $1bn cost reduction (split 75% COGS and 25% SG&A), no benefit from change in product mix
- ✓ $1.0bn in cash from $108mm completed dispositions and announced sale of "Off-the-Road" for $905mm in cash (Goodyear targeting $2bn in asset sales)







Stabilized Commercial volumes, cost reduction and asset dispositions will lead to positive free cash flow and significant deleveraging in the medium-term, causing our bonds to compress in spread. We expect the bonds to be re-upgraded.

Relative Valuation

As Goodyear executes on its portfolio optimization and margin improvement initiatives and management's commitment to deleveraging, **we expect Goodyear to re-rate and trade amongst BB-rated peers, implying a spread tightening of 55bps or more within the next calendar year**.

Security	Coupon	Amt Out ($MM)	Maturity	Rank	YTW	Z-Spread	Price	Ratings	LTM EBITDA	Debt/EBITDA	Debt/ TEV
B+ rated											
Goodyear	5.625%	450	4/30/2033	Snr Unsecured	7.46%	348.5	88.87	B+/B2/BB-	1,956	4.3x	81%
American Axle & Manufacturing	5.000%	600	10/1/2029	Snr Unsecured	6.85%	288.1	92.47	B+/B2	741	4.0x	93%
BB rated											
Dana Inc	4.500%	350	2/15/2032	Snr Unsecured	6.94%	301.6	86.31	BB-/B1/BB	770	3.8x	74%
Dana Inc	4.250%	400	9/1/2030	Snr Unsecured	6.89%	294.8	87.59	BB-/B1/BB	770	3.8x	74%
Phinia	6.625%	450	10/15/2032	Snr Unsecured	6.52%	255.1	100.40	BB/Ba2	488	2.1x	37%
GM*	5.700%	500	Perp	Jnr Subordinated	6.21%	226.2	97.54	BB+/Ba1/BB+	18,371	7.0x	79%
Nissan*	2.450%	350	9/15/2028	Snr Unsecured	6.51%	249.2	86.51	BB+/Baa3/BBB-	4,345	12.2x	94%

Source: Bloomberg, CapitalIQ
*GM and Nissan debt includes significant amount of securitized auto loan financing.

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Risks & Mitigants

Execution of Goodyear Forward Plan	**Risks:** Asset disposition and margin improvements are not executed as planned in terms of timing, cost savings and sales proceeds. **Mitigants:** Our base case takes haircut on management guidance. Company has made progress on the plan execution. The disposal of the Off-the-Road business was announced in July 2023 and expected to close in early 2025. Strengthened leadership to drive execution.
Weak Industry Outlook	**Risks:** Lower OEM production/ inventory destocking and replacement market facing increased competition from low-cost imports will impact revenue. **Mitigants:** Tire manufacturing and consumer automobile demands are stabilizing. Goodyear is also shifting its focus towards the premium tire market where it is strong at. Flat/ low single digit growth is forecasted in our assumptions and by management.
Raw Materials Costs Headwinds	**Risks:** Increase in raw material costs and non-commodity supply chain costs may impact margins. **Mitigants:** General inflation impact is mitigated by cost savings due to supply chain and raw materials procurement optimization, with net impact of 3% per management estimate. Sales contracts with OE customers are indexed in raw materials prices.

Source: Company Information

APPENDIX

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S&P Ratings Trigger

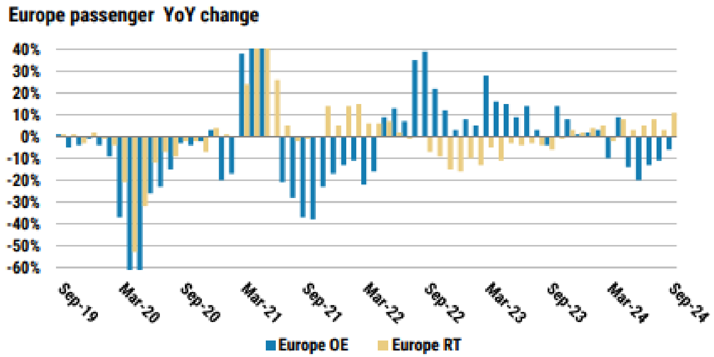
Upgrade (BB-)	Downgrade (CCC+)
• Debt to EBITDA at 4.5x or lower; and • FOCF to debt at least 5%	• Higher-than-expected FOCF deficits are likely, significantly weakening its liquidity position on a sustained basis; or • Debt to EBITDA increases above 6.5x on a sustained basis.

Source: S&P Ratings

Passenger Car Volumes have Stabilized World-wide…

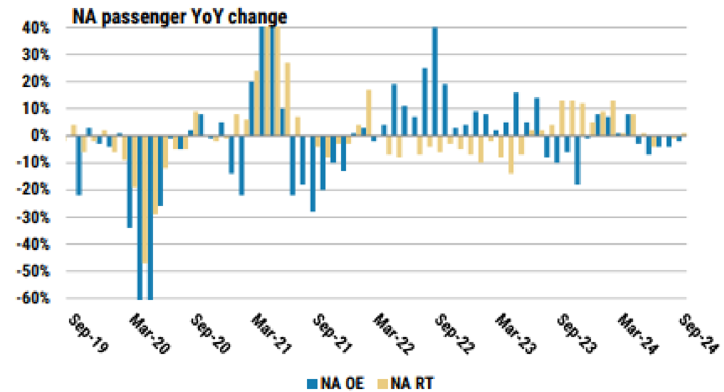
Passenger car volumes

Exhibit3: Europe passenger tyres YoY volume



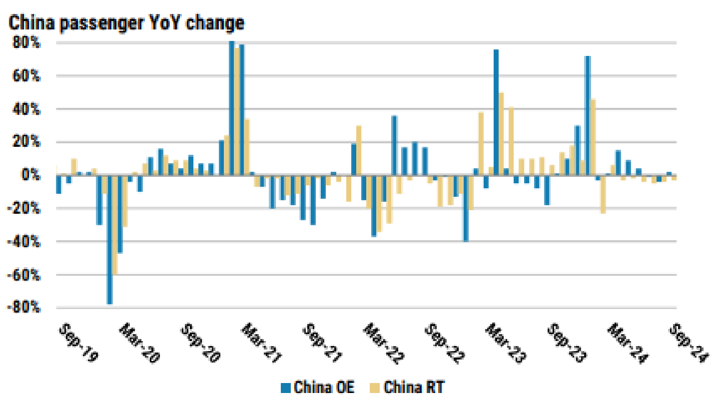
Source: Michelin, Morgan Stanley Research

Exhibit4: NA passenger tyres YoY volume



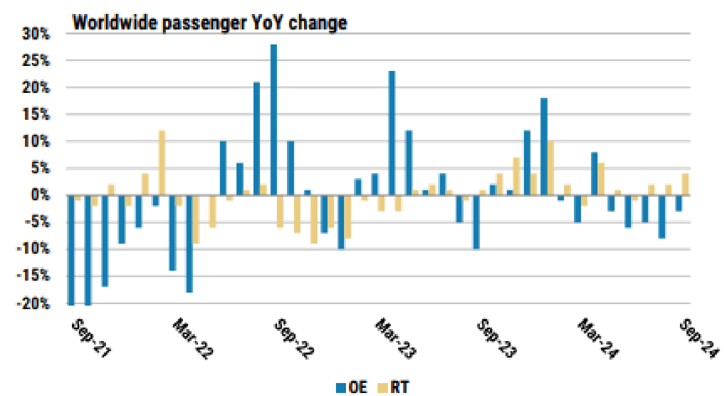
Source: Michelin, Morgan Stanley Research

Exhibit5: China passenger tyres YoY volume



Source: Michelin, Morgan Stanley Research

Exhibit 6: Global passenger tyres YoY volume



Source: Michelin, Morgan Stanley Research

Source: Morgan Stanley Research, Company Information

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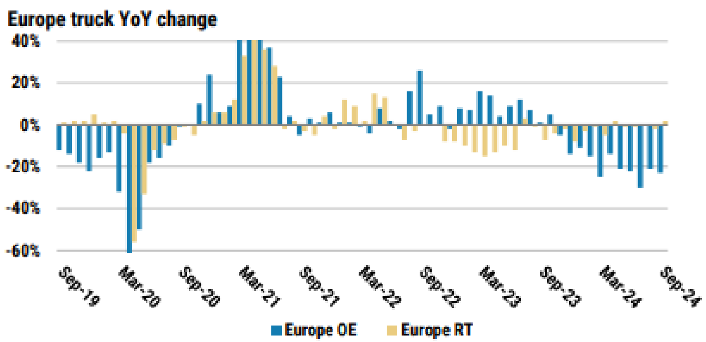
..and the same is True for Commercial Volumes...

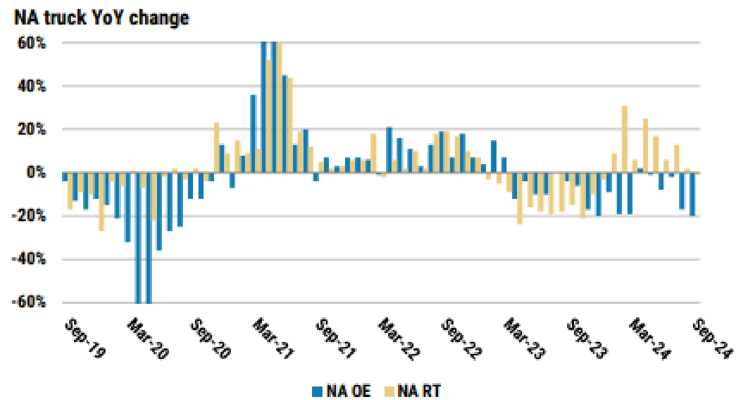
Truck tyre volumes

Exhibit7: Europe truck tyres YoY volume change



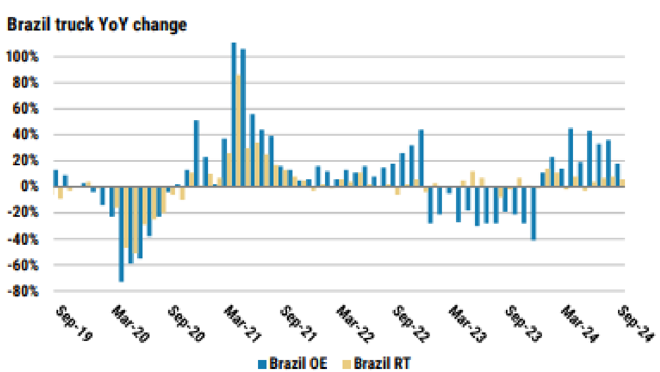
Source: Michelin, Morgan Stanley Research

Exhibit8: NA truck tyres YoY volume change



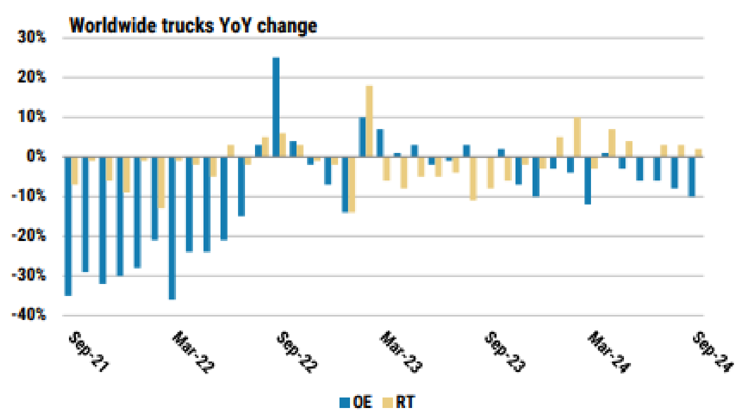
Source: Michelin, Morgan Stanley Research

Exhibit9: Brazil truck tyres YoY volume change



Source: Michelin, Morgan Stanley Research

Exhibit 10: Global trucks tyre YoY volume

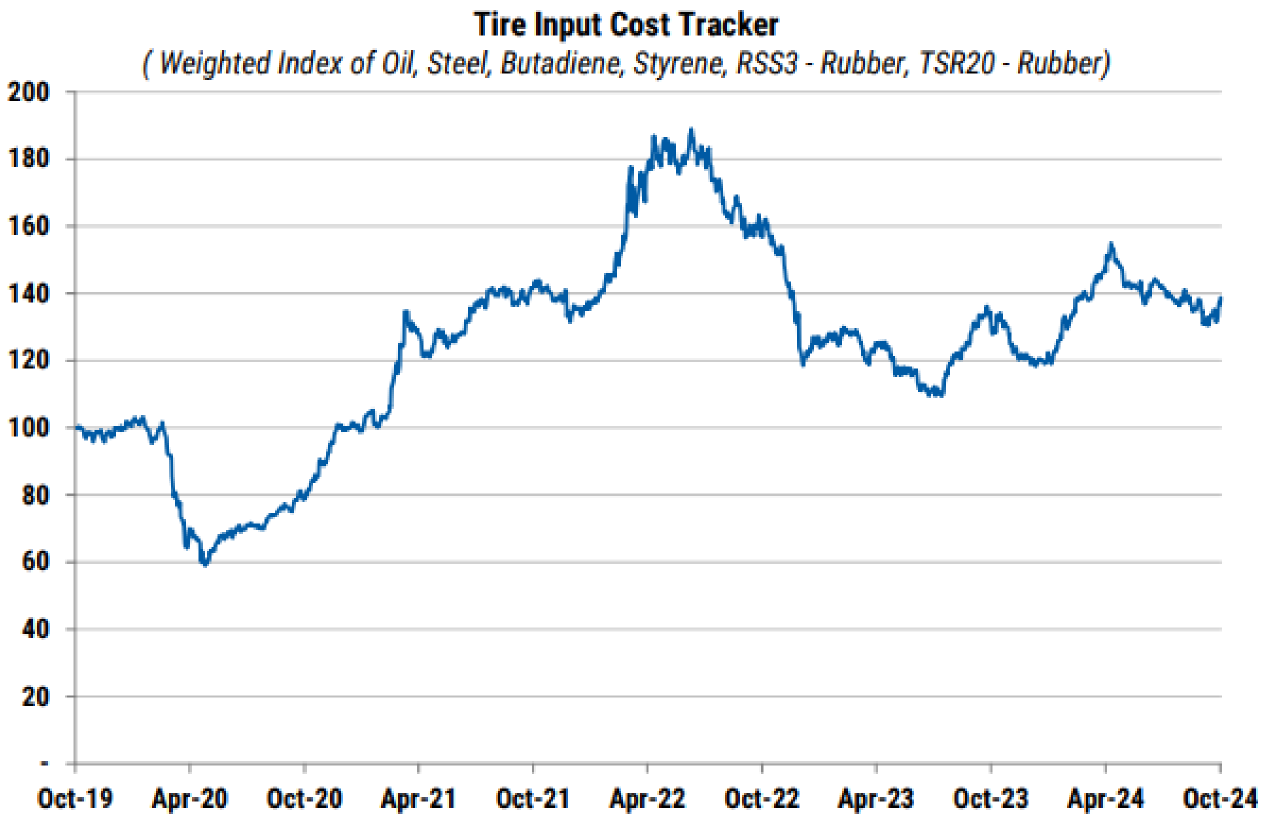


Source: Michelin, Morgan Stanley Research

Source: Morgan Stanley Research, Company Information

...and Raw Material Input Pricing has Stabilized also

Exhibit 13: Tyre input price index (last 5 years, €)



Source: Refinitiv, Morgan Stanley Research

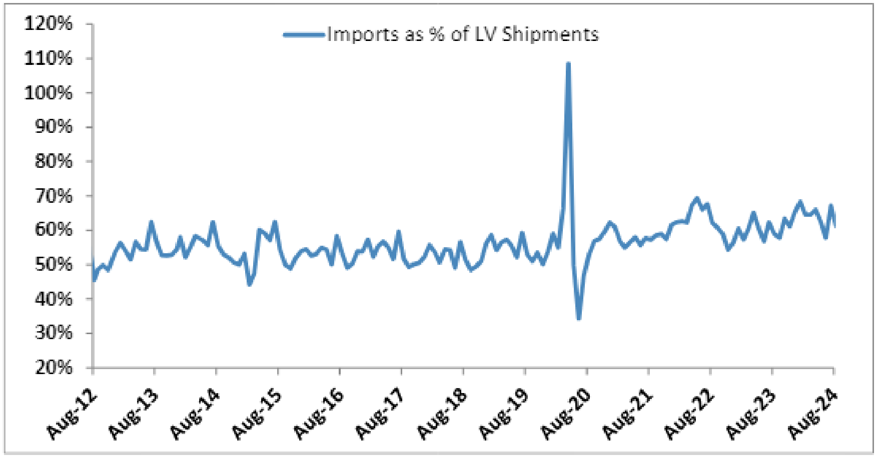
Source: Morgan Stanley Research, Refinitiv

Domestic Producers maintaining Market Share vs. Imports

U.S. Tire Imports

Figure 13: Imports as % of LV Shipments

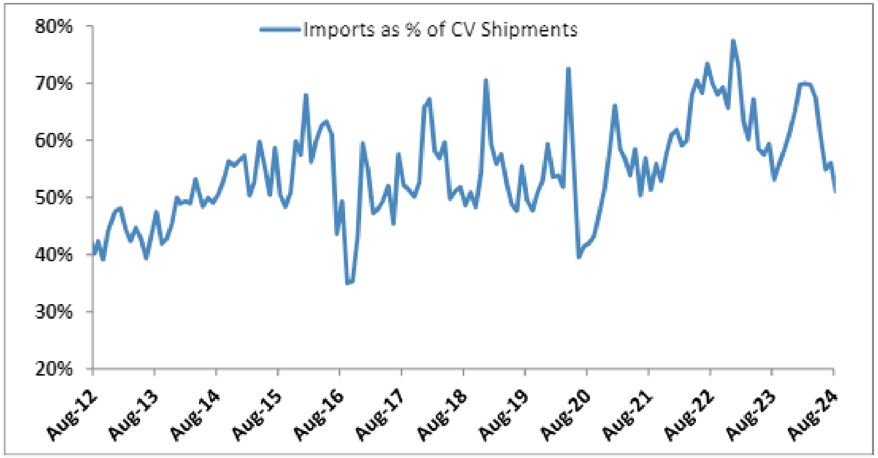
%



Source: Rubber Manufacturers Association (RMA). Note: Import data is available with a one-month lag.

Figure 14: Imports as % of CV Shipments

%

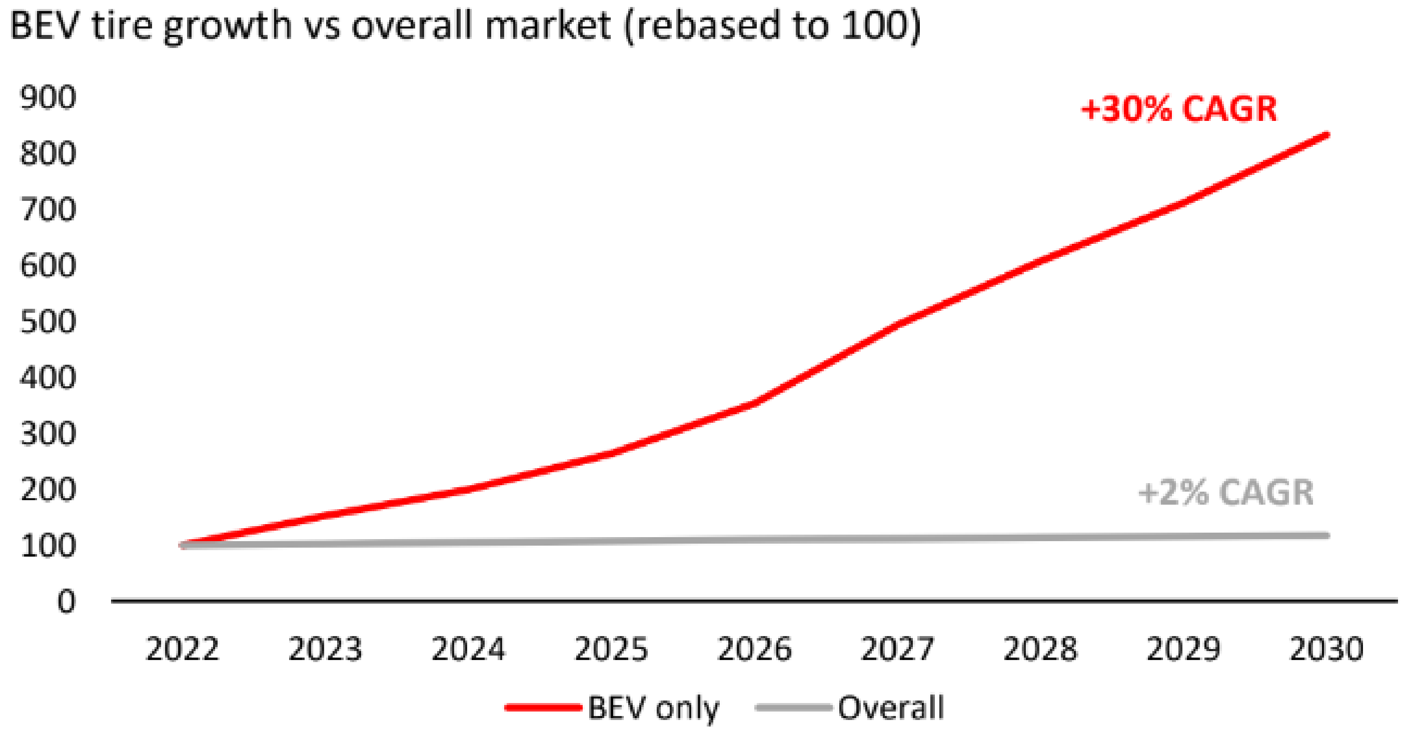


Source: Rubber Manufacturers Association (RMA). Note: Import data is available with a one-month lag.

Source: JP Morgan Research, Rubber Manufacturers Association

BEVs tires are poised for tremendous growth

Figure 2: BEV dedicated tires will grow at a strong annual run rate of c30% until 2030



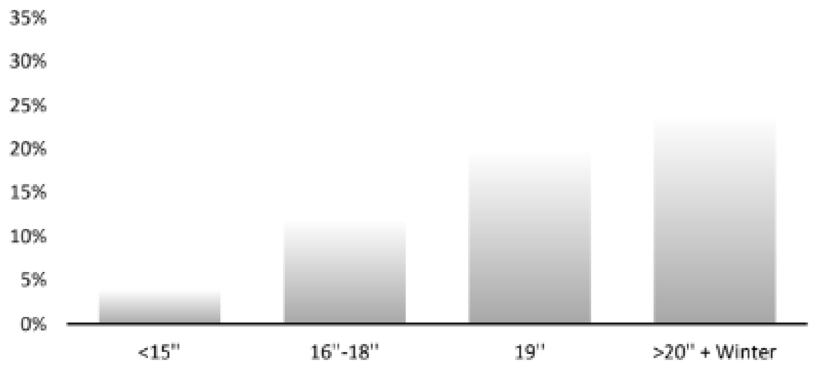
Source: UBS estimates

Source: UBS Research

EBIT margins for larger tires are 2-5x higher than <15"

Figure 28: ..., which are materially more profitable ...

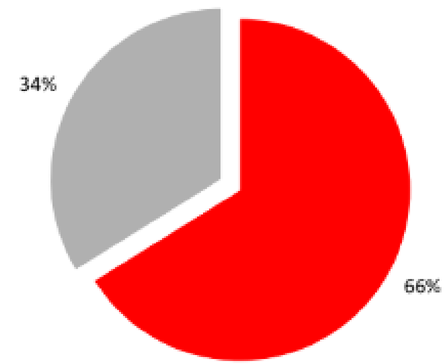
EBIT margin by rim size for premium tire makers



Source: UBS estimates for OE and RT channels combined

Figure 29: ... and correspond to c70% of premium tire makers profitability

% of group EBIT with >19'' for premium tire makers

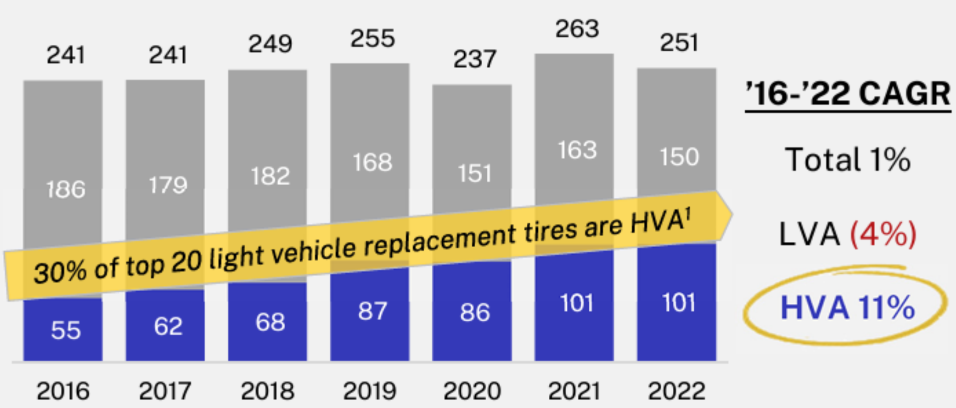


Source: UBS estimates for OE and RT channels combined

Source: UBS Research

Goodyear sells above industry average proportion of HVA tires

U.S. Replacement Tire Volume (millions)[2]



- **Higher barriers to entry in the HVA market with less pricing competition from foreign competitors**
  - *Given that HVA replacement tires are driven by OEM fittings, OE tire providers are better positioned to benefit from the mix shift*
  - ***Goodyear sells an above industry average proportion of HVA replacement tires*** *(Goodyear at 44% vs. U.S. industry average of 40%)[2]*

Source: Wolfe Research

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Base Case Summary Financials

OUTPUT	1	BASE	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e	2027e	2028e
Tire Units (mm)			162.3	162.0	166.2	166.2	159.2	159.2	155.3	126.0	169.3	184.5	173.3	169.3	171.8	174.3	176.4	178.6
% Consumer			91%	91%	92%	92%	92%	91%	91%	90%	91%	92%	92%	92%	92%	92%	93%	93%
% Commercial			8%	8%	7%	7%	7%	7%	8%	8%	8%	7%	7%	7%	7%	6%	6%	6%
% Other			1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Consumer revenue			10,946	10,510	9,907	9,414	9,285	9,167	8,835	7,190	11,118	13,163	12,894	12,634	12,839	13,039	13,209	13,383
Commercial revenue			4,113	3,849	3,342	2,806	2,928	3,002	2,953	2,636	3,702	4,205	3,731	3,488	3,488	3,488	3,488	3,488
Other			4,481	3,779	3,194	2,938	3,164	3,306	2,957	2,495	2,658	3,437	3,441	3,441	3,441	3,441	3,441	3,441
Total Revenue			**19,540**	**18,138**	**16,443**	**15,158**	**15,377**	**15,475**	**14,745**	**12,321**	**17,478**	**20,805**	**20,066**	**19,563**	**19,768**	**19,968**	**20,137**	**20,311**
COGS			15,408	13,850	12,067	10,912	11,656	12,008	11,600	10,247	13,692	16,953	16,557	15,807	15,972	16,134	16,271	16,412
Gross Profit			**4,132**	**4,288**	**4,376**	**4,246**	**3,721**	**3,467**	**3,145**	**2,074**	**3,786**	**3,852**	**3,509**	**3,756**	**3,795**	**3,834**	**3,866**	**3,900**
SG&A			2,758	2,720	2,561	2,404	2,275	2,312	2,323	2,192	2,699	2,798	2,814	2,564	2,591	2,617	2,639	2,662
Operating Income			**1,374**	**1,568**	**1,815**	**1,842**	**1,446**	**1,155**	**822**	**(118)**	**1,087**	**1,054**	**695**	**1,192**	**1,204**	**1,216**	**1,227**	**1,237**
D&A			717	732	698	727	804	778	795	859	883	964	1,001	1,001	1,001	1,001	1,001	1,001
EBITDA			**2,091**	**2,300**	**2,513**	**2,569**	**2,250**	**1,933**	**1,617**	**741**	**1,970**	**2,018**	**1,696**	**2,193**	**2,205**	**2,217**	**2,228**	**2,238**
NOPAT			1,374	1,312	1,358	1,339	1,078	886	553	(97)	829	713	247	894	903	912	920	928
Free Cash Flow (CFO - Capex)			(230)	(583)	704	508	277	61	437	468	81	(540)	(18)	(182)	271	485	490	496
Total Debt			6,249	6,394	5,756	5,479	5,729	5,763	5,663	5,990	7,397	7,890	7,624	7,783	7,783	7,783	7,783	7,783
Cash			2,996	2,161	1,476	1,132	1,043	801	908	1,539	1,088	1,227	902	860	2,081	2,626	3,183	3,751
Net Debt			3,253	4,233	4,280	4,347	4,686	4,962	4,755	4,451	6,309	6,663	6,722	6,923	5,702	5,157	4,600	4,032
Debt Service			391	434	418	361	329	321	340	324	387	451	532	534	457	457	457	457
Total Debt / EBITDA			3.0x	2.8x	2.3x	2.1x	2.5x	3.0x	3.5x	8.1x	3.8x	3.9x	4.5x	3.5x	3.5x	3.5x	3.5x	3.5x
Net Debt / EBITDA			1.6x	1.8x	1.7x	1.7x	2.1x	2.6x	2.9x	6.0x	3.2x	3.3x	4.0x	3.2x	2.6x	2.3x	2.1x	1.8x
Debt Service Ratio			3.5x	3.0x	3.2x	3.7x	3.3x	2.8x	1.6x	-0.3x	2.1x	1.6x	0.5x	1.7x	2.0x	2.0x	2.0x	2.0x
Free Cash Flow % Total Debt			-3.7%	-9.1%	12.2%	9.3%	4.8%	1.1%	7.7%	7.8%	1.1%	-6.8%	-0.2%	-2.3%	3.5%	6.2%	6.3%	6.4%

Downside Case Summary Financials

OUTPUT 2 DOWNSID	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e	2027e	2028e
Tire Units (mm)	162.3	162.0	166.2	166.2	159.2	159.2	155.3	126.0	169.3	184.5	173.3	169.3	171.2	173.0	174.6	176.3
% Consumer	91%	91%	92%	92%	92%	91%	91%	90%	91%	92%	92%	92%	93%	93%	94%	94%
% Commercial	8%	8%	7%	7%	7%	7%	8%	8%	8%	7%	7%	7%	6%	6%	5%	5%
% Other	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Consumer revenue	10,946	10,510	9,907	9,414	9,285	9,167	8,835	7,190	11,118	13,163	12,894	12,634	12,839	13,039	13,209	13,383
Commercial revenue	4,113	3,849	3,342	2,806	2,928	3,002	2,953	2,636	3,702	4,205	3,731	3,488	3,279	3,099	2,943	2,805
Other	4,481	3,779	3,194	2,938	3,164	3,306	2,957	2,495	2,658	3,437	3,441	3,441	3,441	3,441	3,441	3,441
Total Revenue	**19,540**	**18,138**	**16,443**	**15,158**	**15,377**	**15,475**	**14,745**	**12,321**	**17,478**	**20,805**	**20,066**	**19,563**	**19,559**	**19,579**	**19,593**	**19,629**
COGS	15,408	13,850	12,067	10,912	11,656	12,008	11,600	10,247	13,692	16,953	16,557	16,257	16,254	16,271	16,282	16,312
Gross Profit	**4,132**	**4,288**	**4,376**	**4,246**	**3,721**	**3,467**	**3,145**	**2,074**	**3,786**	**3,852**	**3,509**	**3,306**	**3,305**	**3,309**	**3,311**	**3,317**
SG&A	2,758	2,720	2,561	2,404	2,275	2,312	2,323	2,192	2,699	2,798	2,814	2,714	2,714	2,716	2,718	2,723
Operating Income	**1,374**	**1,568**	**1,815**	**1,842**	**1,446**	**1,155**	**822**	**(118)**	**1,087**	**1,054**	**695**	**592**	**592**	**592**	**593**	**594**
D&A	717	732	698	727	804	778	795	859	883	964	1,001	1,001	1,001	1,001	1,001	1,001
EBITDA	**2,091**	**2,300**	**2,513**	**2,569**	**2,250**	**1,933**	**1,617**	**741**	**1,970**	**2,018**	**1,696**	**1,593**	**1,593**	**1,593**	**1,594**	**1,595**
NOPAT	1,374	1,312	1,358	1,339	1,078	886	553	(97)	829	713	247	444	444	444	445	445
Free Cash Flow (CFO - Capex)	(230)	(583)	704	508	277	61	437	468	81	(540)	(18)	(632)	(189)	16	14	13
Total Debt	6,249	6,394	5,756	5,479	5,729	5,763	5,663	5,990	7,397	7,890	7,624	7,783	7,783	7,783	7,783	7,783
Cash	2,996	2,161	1,476	1,132	1,043	801	908	1,539	1,088	1,227	902	410	272	349	430	515
Net Debt	3,253	4,233	4,280	4,347	4,686	4,962	4,755	4,451	6,309	6,663	6,722	7,373	7,511	7,434	7,353	7,268
Debt Service	391	434	418	361	329	321	340	324	387	451	532	534	457	457	457	457
Total Debt / EBITDA	3.0x	2.8x	2.3x	2.1x	2.5x	3.0x	3.5x	8.1x	3.8x	3.9x	4.5x	4.9x	4.9x	4.9x	4.9x	4.9x
Net Debt / EBITDA	1.6x	1.8x	1.7x	1.7x	2.1x	2.6x	2.9x	6.0x	3.2x	3.3x	4.0x	4.6x	4.7x	4.7x	4.6x	4.6x
Debt Service Ratio	3.5x	3.0x	3.2x	3.7x	3.3x	2.8x	1.6x	-0.3x	2.1x	1.6x	0.5x	0.8x	1.0x	1.0x	1.0x	1.0x
Free Cash Flow % Total Debt	-3.7%	-9.1%	12.2%	9.3%	4.8%	1.1%	7.7%	7.8%	1.1%	-6.8%	-0.2%	-8.1%	-2.4%	0.2%	0.2%	0.2%

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Base and Downside Case Assumptions

BASE	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e	2027e	2028e
% Change																
Commercial OE				-9.8%	-3.5%	-0.8%	-7.1%	-14.1%	4.4%	-0.9%	-0.8%	-20.0%	0.0%	0.0%	0.0%	0.0%
Commercial RT				-5.0%	0.2%	4.0%	1.6%	-7.8%	29.8%	5.1%	-13.6%	-2.7%	0.0%	0.0%	0.0%	0.0%
Unit Price ($)																
$ Consumer Revenue / Unit	$74.2	$71.3	$65.0	$61.5	$63.6	$63.0	$62.3	$63.2	$72.1	$77.9	$80.9	$80.9	$80.9	$80.9	$80.9	$80.9
$ Commercial Revenue / Unit	$323.9	$303.1	$269.5	$241.9	$254.6	$254.4	$252.4	$248.7	$282.6	$309.2	$308.3	308.3	308.3	308.3	308.3	308.3
$ Other / Unit	$2,133.8	$1,988.9	$2,281.4	$1,836.3	$1,757.8	$1,740.0	$1,739.4	$1,559.4	$1,329.0	$1,808.9	$1,911.7	1,911.7	1,911.7	1,911.7	1,911.7	1,911.7
Rationalization																
COGS Savings												100.0%				
SG&A Savings												100.0%				
Asset Dispositions/Acquisition																
Asset Dispositions/Acquisition												108	905			

DOWNSIDE	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e	2027e	2028e
% Change																
Commercial OE				-9.8%	-3.5%	-0.8%	-7.1%	-14.1%	4.4%	-0.9%	-0.8%	-20.0%	-20.0%	-20.0%	-20.0%	-20.0%
Commercial RT				-5.0%	0.2%	4.0%	1.6%	-7.8%	29.8%	5.1%	-13.6%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%
Unit Price ($)																
$ Consumer Revenue / Unit	$74.2	$71.3	$65.0	$61.5	$63.6	$63.0	$62.3	$63.2	$72.1	$77.9	$80.9	$80.9	$80.9	$80.9	$80.9	$80.9
$ Commercial Revenue / Unit	$323.9	$303.1	$269.5	$241.9	$254.6	$254.4	$252.4	$248.7	$282.6	$309.2	$308.3	308.3	308.3	308.3	308.3	308.3
$ Other / Unit	$2,133.8	$1,988.9	$2,281.4	$1,836.3	$1,757.8	$1,740.0	$1,739.4	$1,559.4	$1,329.0	$1,808.9	$1,911.7	1,911.7	1,911.7	1,911.7	1,911.7	1,911.7
Rationalization																
COGS Savings												40.0%				
SG&A Savings												40.0%				
Asset Dispositions/Acquisition																
Asset Dispositions/Acquisition												108	0			

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Income Statement

Income Statement ($MM)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e	2027e	2028e
Revenue	19,540	18,138	16,443	15,158	15,377	15,475	14,745	12,321	17,478	20,805	20,066	19,563	19,768	19,968	20,137	20,311
% Y / Y		-7.2%	-9.3%	-7.8%	1.4%	0.6%	-4.7%	-16.4%	41.9%	19.0%	-3.6%	-2.5%	1.0%	1.0%	0.9%	0.9%
COGS	15,408	13,850	12,067	10,912	11,656	12,008	11,600	10,247	13,692	16,953	16,557	15,807	15,972	16,134	16,271	16,412
Gross Profit	4,132	4,288	4,376	4,246	3,721	3,467	3,145	2,074	3,786	3,852	3,509	3,756	3,795	3,834	3,866	3,900
% Sales	78.9%	76.4%	73.4%	72.0%	75.8%	77.6%	78.7%	83.2%	78.3%	81.5%	82.5%	80.8%	80.8%	80.8%	80.8%	80.8%
% Margin	21.1%	23.6%	26.6%	28.0%	24.2%	22.4%	21.3%	16.8%	21.7%	18.5%	17.5%	19.2%	19.2%	19.2%	19.2%	19.2%
SG&A	2,758	2,720	2,561	2,404	2,275	2,312	2,323	2,192	2,699	2,798	2,814	2,564	2,591	2,617	2,639	2,662
% of Sales	14.1%	15.0%	15.6%	15.9%	14.8%	14.9%	15.8%	17.8%	15.4%	13.4%	14.0%	13.1%	13.1%	13.1%	13.1%	13.1%
Operating Income	1,374	1,568	1,815	1,842	1,446	1,155	822	(118)	1,087	1,054	695	1,192	1,204	1,216	1,227	1,237
% Margin	7.0%	8.6%	11.0%	12.2%	9.4%	7.5%	5.6%	-1.0%	6.2%	5.1%	3.5%	6.1%	6.1%	6.1%	6.1%	6.1%
+ D&A	717	732	698	727	804	778	795	859	883	964	1,001	1,001	1,001	1,001	1,001	1,001
EBITDA	2,091	2,300	2,513	2,569	2,250	1,933	1,617	741	1,970	2,018	1,696	2,193	2,205	2,217	2,228	2,238
% Margin	10.7%	12.7%	15.3%	16.9%	14.6%	12.5%	11.0%	6.0%	11.3%	9.7%	8.5%	11.2%	11.2%	11.1%	11.1%	11.0%
% Y / Y		10.0%	9.3%	2.2%	-12.4%	-14.1%	-16.3%	-54.2%	165.9%	2.4%	-16.0%	29.3%	0.6%	0.6%	0.5%	0.5%
Interest Expense	391	434	418	361	329	321	340	324	387	451	532	534	457	457	457	457
% Interest Rate	6.9%	6.9%	6.9%	6.4%	5.9%	5.6%	6.0%	5.6%	5.8%	5.9%	6.9%	7.0%	6.0%	6.0%	6.0%	6.0%
Other	4	(76)	(70)	20	(40)	(91)	(94)	(103)	37	(43)	23	0	0	0	0	0
Adj. Pre Tax Income	979	1,210	1,467	1,461	1,157	925	576	(339)	663	646	140	658	747	759	769	780
Summary Financials																
Revenue	19,540	18,138	16,443	15,158	15,377	15,475	14,745	12,321	17,478	20,805	20,066	19,563	19,768	19,968	20,137	20,311
Cost of Sales	15,408	13,850	12,067	10,912	11,656	12,008	11,600	10,247	13,692	16,953	16,557	15,807	15,972	16,134	16,271	16,412
EBITDA	2,091	2,300	2,513	2,569	2,250	1,933	1,617	741	1,970	2,018	1,696	2,193	2,205	2,217	2,228	2,238
NOPAT	1,374	1,312	1,358	1,339	1,078	886	553	(97)	829	713	247	894	903	912	920	928
Leverage																
Total Debt	6,249	6,394	5,756	5,479	5,729	5,763	5,663	5,990	7,397	7,890	7,624	7,783	7,783	7,783	7,783	7,783
Debt / EBITDA	3.0x	2.8x	2.3x	2.1x	2.5x	3.0x	3.5x	8.1x	3.8x	3.9x	4.5x	3.5x	3.5x	3.5x	3.5x	3.5x
Debt / Capital	82%	62%	58%	54%	54%	53%	55%	65%	59%	59%	61%	61%	59%	56%	54%	51%
Net Debt	3,253	4,233	4,280	4,347	4,686	4,962	4,755	4,451	6,309	6,663	6,722	6,923	5,702	5,157	4,600	4,032
Net Debt / EBITDA	1.6x	1.8x	1.7x	1.7x	2.1x	2.6x	2.9x	6.0x	3.2x	3.3x	4.0x	3.2x	2.6x	2.3x	2.1x	1.8x
ROIC	18.0%	12.8%	13.7%	13.1%	10.2%	8.2%	5.4%	-1.0%	6.6%	5.3%	2.0%	7.1%	6.9%	6.6%	6.3%	6.1%

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Balance Sheet

Balance Sheet	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e	2027e	2028e
Cash	2,996	2,161	1,476	1,132	1,043	801	908	1,539	1,088	1,227	902	860	2,081	2,626	3,183	3,751
Accounts Receivable	2,435	2,126	2,033	1,769	2,025	2,030	1,941	1,691	2,387	2,610	2,731	2,680	2,715	2,750	2,780	2,812
Raw Materials	592	535	419	436	466	569	530	517	958	1,191	785					
Work in Process	164	149	138	131	142	152	143	143	191	187	206					
Finished Products	2,060	1,987	1,907	2,060	2,179	2,135	2,178	1,493	2,445	3,193	2,707					
Inventories ($m)	2,816	2,671	2,464	2,627	2,787	2,856	2,851	2,153	3,594	4,571	3,698	3,560	3,584	3,608	3,625	3,666
Prepaid Expense & Other Curr	397	766	168	190	224	238	234	237	262	257	319	319	319	319	319	319
Total Current Assets	8,644	7,724	6,141	5,718	6,079	5,925	5,934	5,620	7,331	8,665	7,650	7,254	8,478	9,119	9,816	10,587
Goodwill	668	601	555	535	595	569	565	408	1,004	1,014	781	781	781	781	781	781
Intangible Assets	138	138	138	136	139	136	137	135	1,039	1,004	969	969	969	969	969	969
Deferred Income Tax	157	1,762	2,141	2,414	2,008	1,847	1,527	1,467	1,596	1,443	1,630	1,690	1,690	1,690	1,690	1,690
Prepaid & Deferred Pension (	600	731	687	668	792	1,136	1,814	1,803	2,087	2,011	2,060	1,940	1,040	1,040	1,040	1,040
Property, Plant & Equipment	7,320	7,153	6,777	7,040	7,451	7,259	7,208	7,073	8,345	8,294	8,492	8,770	8,933	8,992	9,056	9,125
Total Assets	**17,527**	**18,109**	**16,439**	**16,511**	**17,064**	**16,872**	**17,185**	**16,506**	**21,402**	**22,431**	**21,582**	**21,404**	**21,891**	**22,591**	**23,352**	**24,192**
Accounts Payable	3,097	2,878	2,769	2,589	2,807	2,920	2,908	2,945	4,148	4,803	4,326	4,124	4,153	4,179	4,200	4,247
Compensation & Benefits	758	724	666	584	539	471	536	540	689	643	663	663	663	663	663	663
Other Current Liabilities incl	1,083	956	886	963	1,026	737	933	1,063	1,026	1,071	1,365	1,365	1,365	1,365	1,365	1,365
Notes Payable	14	30	49	245	262	410	348	406	406	395	344	344	344	344	344	344
Current Portion of Long Term	73	148	587	436	391	243	562	152	343	228	449	449	449	449	449	449
Total Current Liabilities	5,025	4,736	4,957	4,817	5,025	4,781	5,287	5,106	6,612	7,140	7,147	6,945	6,974	7,000	7,021	7,068
Long Term Debt	6,162	6,216	5,120	4,798	5,076	5,110	4,753	5,432	6,648	7,267	6,831	6,831	6,831	6,831	6,831	6,831
Compensation & Benefits	2,673	1,676	1,468	1,460	1,515	1,345	1,334	1,470	1,445	998	974	934	924	914	904	894
Deferred Income Taxes	256	181	91	85	100	95	90	84	135	134	83	83	83	83	83	83
Other Long Term Liabilities in	966	873	661	626	498	471	1,176	1,155	1,378	1,426	1,710	1,725	1,740	1,755	1,770	1,785
Total Non-Current Liabilities	10,057	8,946	7,340	6,969	7,189	7,021	7,353	8,141	9,606	9,825	9,598	9,573	9,578	9,583	9,588	9,593
Common Stock	248	269	267	252	240	232	233	233	282	283	284	284	284	284	284	284
Capital Surplus	2,847	3,141	3,093	2,645	2,295	2,111	2,141	2,171	3,107	3,117	3,133	3,133	3,133	3,133	3,133	3,133
Retained Earnings	1,958	4,343	4,570	5,808	6,044	6,597	6,113	4,809	5,573	5,775	5,086	5,403	5,907	6,514	7,183	7,899
Accumulated Other Comprehe	(3,947)	(4,143)	(4,010)	(4,198)	(3,976)	(4,076)	(4,136)	(4,135)	(3,963)	(3,875)	(3,835)	(4,135)	(4,235)	(4,235)	(4,235)	(4,235)
Shareholders' Equity	1,106	3,610	3,920	4,507	4,603	4,864	4,351	3,078	4,999	5,300	4,668	4,685	5,089	5,696	6,365	7,081
Minority Shareholders' Equity	262	235	222	218	247	206	194	181	185	166	169	201	251	312	379	450
Total Liabilities & Shareholders'	**17,527**	**18,109**	**16,439**	**16,511**	**17,064**	**16,872**	**17,185**	**16,506**	**21,402**	**22,431**	**21,582**	**21,404**	**21,891**	**22,591**	**23,352**	**24,192**

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Cash Flow Statement

Cash Flow Statement	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e	2027e	2028e
Net Income	623	789	905	1,068	365	708	(297)	(1,250)	780	209	(687)	494	560	569	577	585
Depreciation & Amortization	722	732	698	727	781	778	795	859	883	964	1,001	994	1,026	1,045	1,052	1,060
Amortization of Debt Issuance Costs	18	14	23	29	21	15	15	11	14	15	15	15	15	15	15	15
Restructuring Charges	(14)	(131)	(30)	124	(19)	(174)	146	(27)	20	32	403	(300)	(100)			
Deferred Income Tax	0	(1,970)	79	(229)	385	131	323	23	(471)	28	(230)	(60)				
Gain on Asset Sales/ Asset impairment	(8)	(3)	(71)	(31)	(14)	(251)	(16)	332	(20)	(122)	(104)					
Pension / OPEB / Other	(1,162)	(1,338)	(103)	(89)	(90)	(74)	(48)	(20)	(31)	88	10	(40)	(10)	(10)	(10)	(10)
Others	176	257	630	17	19	0	0	0	0	0	230					
Minority Interest	53	1,732	(529)	216	0	0	0	0	0	0	0					
Accounts Receivable	79	75	(31)	211	(147)	(172)	71	132	(300)	(333)	(59)	51	(35)	(35)	(31)	(31)
Inventories	366	(35)	(89)	(172)	(44)	(171)	6	713	(982)	(1,042)	908	138	(24)	(23)	(17)	(41)
Accounts Payable	(30)	(41)	78	(156)	85	223	5	26	923	686	(550)	(202)	28	27	20	47
Compensation & Benefits	243	223	66	(50)	(65)	(26)	184	95	64	(107)	48					
Other Current Liabilities	(28)	(40)	(28)	(56)	(76)	(181)	(50)	26	(11)	(1)	158					
Other	(99)	76	89	(105)	(43)	66	73	195	193	104	(111)					
Change in Working Capital	531	258	85	(328)	(290)	(261)	289	1,187	(113)	(693)	394	(12)	(31)	(31)	(28)	(25)
Cash From Operating Activities	**938**	**340**	**1,687**	**1,504**	**1,158**	**872**	**1,207**	**1,115**	**1,062**	**521**	**1,032**	**1,090**	**1,460**	**1,589**	**1,606**	**1,625**
Capital Expenditures	(1,168)	(923)	(983)	(996)	(881)	(811)	(770)	(647)	(981)	(1,061)	(1,050)	(1,272)	(1,189)	(1,104)	(1,116)	(1,129)
Asset Dispositions/Acquisition	25	18	62	35	12	2	12	0	(1,842)	160	115	108	900			
Investments	(16)	23	(8)	(12)	0	0	(7)	0	7	32	(8)					
Others	9	26	(327)	(6)	(10)	(58)	(35)	(20)	23	(45)	(92)					
Cash From Investing Activities	**(1,136)**	**(851)**	**(1,262)**	**(973)**	**(879)**	**(867)**	**(800)**	**(667)**	**(2,793)**	**(914)**	**(1,035)**	**(1,164)**	**(289)**	**(1,104)**	**(1,116)**	**(1,129)**
Short Term Debt	31	46	103	417	1,054	1,944	1,880	1,651	1,095	1,321	954					
Short Term Debt Paid	(120)	(24)	(84)	(228)	(1,046)	(1,795)	(1,933)	(1,593)	(1,047)	(1,295)	(1,009)					
Long Term Debt	1,913	1,842	2,819	4,988	6,463	6,455	5,942	6,251	9,862	10,503	9,932					
Long Term Debt Paid	(681)	(1,555)	(3,315)	(5,433)	(6,342)	(6,469)	(6,008)	(6,059)	(8,504)	(9,947)	(10,220)					
Common Stock Issued	22	(195)	(127)	(487)	(386)	(216)	1	0	9	(6)	(2)					
Common Stock Dividend	(29)	(60)	(68)	(82)	(110)	(138)	(148)	(37)	0	0	0					
Minority Shareholders	(12)	(49)	(9)	(11)	(7)	(31)	(26)	(10)	(13)	(9)	(3)	32	50	61	67	72
Others	(42)	(16)	(304)	(24)	(51)	46	(9)	(19)	(84)	0	16					
Cash From Financing Activities	**1,082**	**(11)**	**(985)**	**(860)**	**(425)**	**(204)**	**(301)**	**184**	**1,318**	**567**	**(332)**	**32**	**50**	**61**	**67**	**72**
Exchange Rate	(169)	(313)	(125)	(15)	57	(43)	1	(1)	(38)	(35)	10					
Change in Cash	715	(835)	(685)	(344)	(89)	(242)	107	631	(451)	139	(325)	(42)	1,221	545	557	568
Cash Balance, Beginning	2,281	2,996	2,161	1,476	1,132	1,043	801	908	1,539	1,088	1,227	902	860	2,081	2,626	3,183
Cash Balance, Ending	2,996	2,161	1,476	1,132	1,043	801	908	1,539	1,088	1,227	902	860	2,081	2,626	3,183	3,751

Indenture Key Provisions

Term	Description
Notes	5.625% Senior Notes due 2033
Issuer	The Goodyear Tire & Rubber Company
Principal Amount	$450,000,000
Coupon Rate	5.625% paid semi-annually
Maturity Date	30th April 2033
Optional Redemption	The Company may redeem the Notes at any time, in whole or in part. If the Company elect to redeem the Notes prior to January 30, 2033, the Company will pay a redemption price in respect to the Notes to be redeemed equal to the greater of 100% of the aggregate principal amount of the Notes to be redeemed, and the sum of the of the present values of the remaining scheduled payments, plus in accrued and unpaid interest thereon to the redemption date. If the Company elect to redeem the Notes on or after January 30, 2033, the Company will pay a redemption price equal to 100% of the aggregate principal amount to be redeemed plus accrued and unpaid interest thereon to the redemption date
Covenants	1) Negative Pledge 2) Change of Control @ 101 3) Certain Sales of Assets 4) Restrictive Covenant 5) Merger Restrictions
Events of Default	An event of default with respect to the Notes is defined in the Indenture as being: 1) Default in any payment of interest on the Notes when due and payable, and such default continues for 30 days 2) Default in the payment of principal of the Notes when due and payable at its Stated Maturity, upon optional redemption or required repurchase, upon declaration of acceleration or otherwise 3) Certain events of bankruptcy, insolvency or reorganization of the Company 4) The rendering of final and nonappealable judgment or decree for the payment of money in excess of $150 million against the Company or a Significant Subsidiary and such final judgment or decree remains out-standing and is not satisfied, discharged or waved within a period of 60 days following such judgment 5) Other events of failure by the Company (and its Subsidiary where applicable) in relation to covenants under Merger and Consolidation, Change of Control, Payment of Indebtedness, and Subsidiary Guarantee

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Bond Holders

	Holder Name	Portfolio Name	Source	% Out	Opt	Position	Latest Chg	File Dt
			All		All			
1.	Vanguard Group Inc/The		ULT-AGG	10.37		46,643	12,116	11/20/24
2.	Blackrock Inc		ULT-AGG	10.20		45,908	5,282	11/22/24
3.	Robeco Schweiz AG	Multiple Portfolios	MF-AGG	5.87		26,417	0	09/30/24
4.	Aegon Ltd		ULT-AGG	1.94		8,750	0	10/31/24
5.	AllianceBernstein Holding LP		ULT-AGG	1.85		8,304	51	09/30/24
6.	T Rowe Price Group Inc		ULT-AGG	1.64		7,401	-4,384	09/30/24
7.	CHURCHILL ASSET MANAGEMENT LLC	Multiple Portfolios	Sch-D [De...	1.57		7,078	0	06/30/24
8.	Teachers Insurance & Annuity Association of America		ULT-AGG	1.47		6,603	-5,280	10/31/24
9.	Calamos Partners LLC		ULT-AGG	1.11		5,000	1,000	09/30/24
10.	Nuveen Alternatives Advisors LLC	Multiple Portfolios	Sch-D [De...	1.02		4,604	0	06/30/24
11.	JPMorgan Chase & Co		ULT-AGG	1.02		4,600	0	11/22/24
12.	State Street Corp		ULT-AGG	0.85		3,811	-1,000	11/22/24
13.	Neuberger Berman Group LLC	Multiple Portfolios	MF-AGG	0.84		3,790	430	10/31/24
14.	MetLife Inc		ULT-AGG	0.69		3,103	0	06/30/24
15.	Franklin Resources Inc		ULT-AGG	0.62		2,811	-95	08/31/24
16.	Allianz SE		ULT-AGG	0.57		2,562	0	06/30/24
17.	Antares Capital Advisers LLC	Multiple Portfolios	Sch-D [De...	0.55		2,475	0	06/30/24
18.	Apollo Global Management Inc		ULT-AGG	0.52		2,337	0	06/30/24
19.	Provident Investment Management LLC	Multiple Portfolios	Sch-D [De...	0.52		2,333	0	06/30/24
20.	Nomura Holdings Inc		ULT-AGG	0.50		2,250	0	06/28/24
21.	State of Wisconsin Investment Board		Research	0.47		2,100	0	09/30/22
22.	Deutsche Bank AG		ULT-AGG	0.42		1,897	0	11/22/24
23.	American Century Cos Inc	Multiple Portfolios	MF-AGG	0.41		1,850	0	09/30/24
24.	Power Corp of Canada		ULT-AGG	0.37		1,670	-930	08/30/24
25.	Pacific Life Fund Advisors LLC	Multiple Portfolios	MF-AGG	0.37		1,655	-105	06/30/24
26.	Security KAG - Leitbetriebe Austria Fonds	Multiple Portfolios	MF-AGG	0.33		1,500	1,500	09/30/24
27.	Generali		ULT-AGG	0.32		1,422	0	12/31/23
28.	Touchstone Advisors Inc	Multiple Portfolios	MF-AGG	0.30		1,357	1,357	09/30/24
29.	Bank of New York Mellon Corp/The		ULT-AGG	0.26		1,178	-270	11/22/24
30.	Lord Abbett & Co LLC	Multiple Portfolios	MF-AGG	0.22		1,007	1,007	06/07/24
31.	Timothy Partners Ltd	Multiple Portfolios	MF-AGG	0.22		1,000	0	06/30/24
32.	Bricktown Capital LLC	Multiple Portfolios	Sch-D [De...	0.12		529	0	06/30/24
33.	PERPETUAL US SERVICES LLC	Multiple Portfolios	MF-AGG	0.11		500	0	07/31/24

Source: Bloomberg

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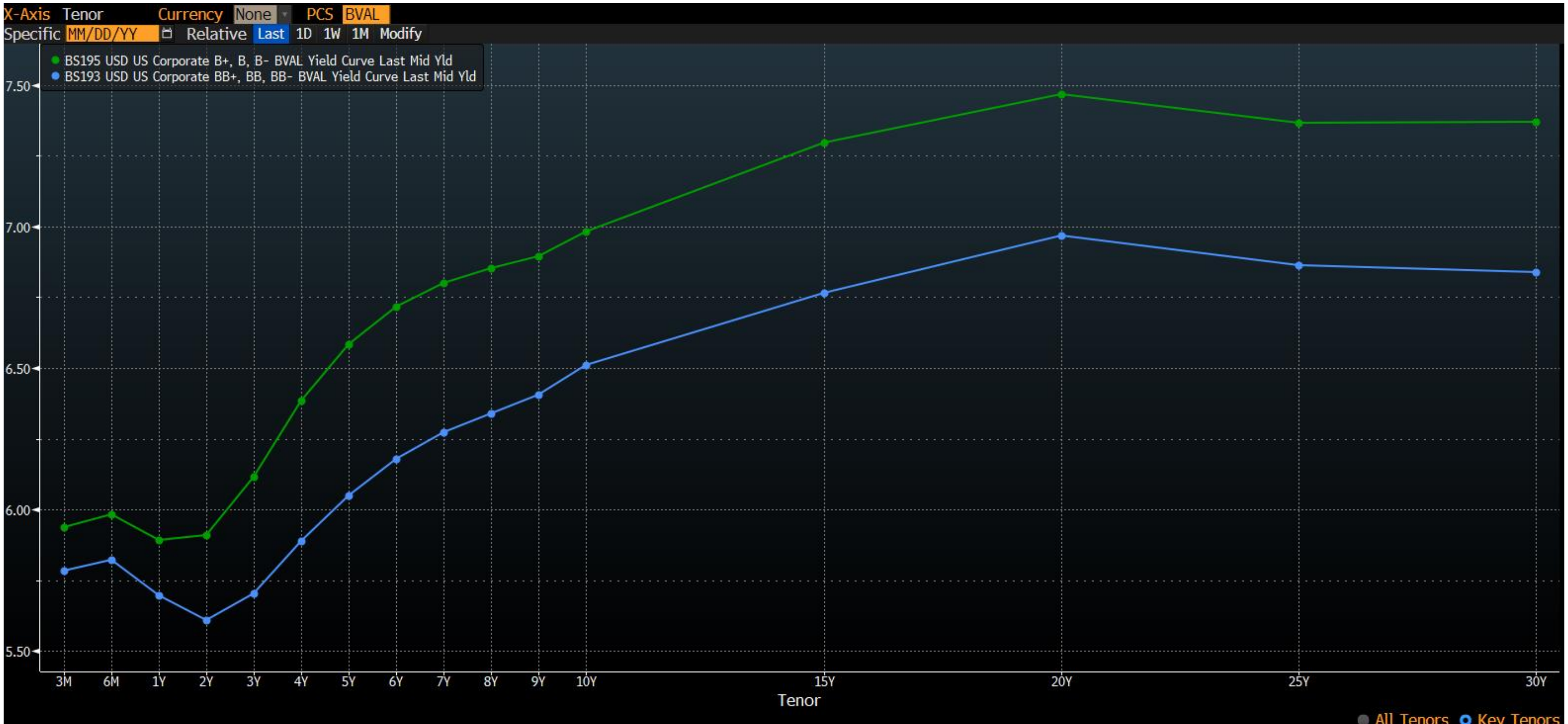
Equity Holders

	Holder Name	Portfolio Name	Source	% Out	Opt	Position	Latest Chg	File Dt
			All		All			
1.	Blackrock Inc		ULT-AGG	12.86		36,632,093	1,421,009	09/30/24
2.	Vanguard Group Inc/The		ULT-AGG	10.76		30,648,479	933,594	09/30/24
3.	Wellington Management Group LLP		13G	8.86		25,253,689	0	09/30/24
4.	Hagan Dan		13G	7.02		20,000,000	20,000,000	10/08/24
5.	Dimensional Fund Advisors LP	Dimensional Fund Advisors LP	13F	5.52		15,732,129	-1,050,456	09/30/24
6.	State Street Corp		ULT-AGG	3.68		10,493,414	24,888	09/30/24
7.	American Century Cos Inc	American Century Cos Inc	13F	3.07		8,754,866	1,497,101	09/30/24
8.	Geode Capital Management LLC	Geode Capital Management LLC	13F	2.48		7,053,829	86,227	09/30/24
9.	LSV Asset Management	LSV Asset Management	13F	2.01		5,737,330	-630,611	09/30/24
10.	Norges Bank	Norges Bank	13F	1.89		5,380,954	713,235	06/30/24
11.	Goldman Sachs Group Inc/The		ULT-AGG	1.88		5,353,345	-666,733	09/30/24
12.	Morgan Stanley		ULT-AGG	1.67		4,763,908	1,027,314	09/30/24
13.	Victory Capital Management Inc	Victory Capital Management Inc	13F	1.67		4,751,514	4,633,368	09/30/24
14.	CI Financial Corp		ULT-AGG	1.45		4,141,490	493,976	09/30/24
15.	Newport Trust Co	Newport Trust Co	13F	1.41		4,008,229	473,062	09/30/24
16.	Jacobs Levy Equity Management Inc	Jacobs Levy Equity Management Inc	13F	1.29		3,670,923	-363,406	09/30/24
17.	Charles Schwab Corp/The		ULT-AGG	1.24		3,532,990	252,960	09/30/24
18.	Northern Trust Corp	Northern Trust Corp	13F	1.18		3,367,837	-304,813	09/30/24
19.	Teachers Insurance & Annuity Association of America		ULT-AGG	0.80		2,288,894	1,460,745	09/30/24
20.	Bank of New York Mellon Corp/The		ULT-AGG	0.77		2,203,948	-511,201	09/30/24
21.	IPG Investment Advisors LLC	IPG Investment Advisors LLC	13F	0.70		1,996,360	1,591,115	09/30/24
22.	Invesco Ltd		ULT-AGG	0.70		1,988,742	216,069	09/30/24
23.	SEI Investments Co		ULT-AGG	0.61		1,750,959	-68,454	10/31/24
24.	Hartford Financial Services Group Inc/The		ULT-AGG	0.61		1,743,673	-936,965	09/30/24
25.	Ameriprise Financial Inc		ULT-AGG	0.55		1,577,083	25,982	09/30/24
26.	UBS AG		ULT-AGG	0.55		1,571,607	-31,958	09/30/24
27.	Towle & Co	Towle & Co	13F	0.54		1,551,846	-32,375	09/30/24
28.	Bank of America Corp	Bank of America Corp	13F	0.51	Y	1,442,317	409,551	09/30/24
29.	Equitable Holdings Inc	Multiple Portfolios	MF-AGG	0.43		1,216,825	-24,421	06/30/24
30.	Jane Street Group LLC	Jane Street Group LLC	13F	0.41	Y	1,163,947	550,367	09/30/24
31.	KLCM Advisors Inc	KLCM Advisors Inc	13F	0.39		1,110,795	252,150	09/30/24
32.	American International Group Inc		ULT-AGG	0.39		1,104,401	-70,101	09/30/24
33.	Actinver SOFI SA de CV/Mexico	Multiple Portfolios	MF-AGG	0.38		1,088,400	0	10/31/24

Source: Bloomberg

USD US Corporate Bond Yield Curves



	Curve Id	3M	1Y	2Y	3Y	5Y	10Y	15Y	30Y
11)	BS195	5.938	5.891	5.911	6.115	6.583	6.983	7.295	7.371
12)	BS193	5.783	5.698	5.610	5.704	6.051	6.512	6.766	6.840
13)	BS193 - BS195	-15.4	-19.3	-30.1	-41.1	-53.2	-47.2	-52.9	-53.1

Source: Bloomberg

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Goodyear Forward – Strategy Transformation

Portfolio Optimization: Sharpening our Focus | *Margin Expansion: Creating Fuel for Growth* | *Addressing Leverage: Strengthening our Profile*

OUR PLAN: GOODYEAR FORWARD

RAISING THE BAR AND DRIVING SHAREHOLDER VALUE

Portfolio Optimization
Sharpening our Focus

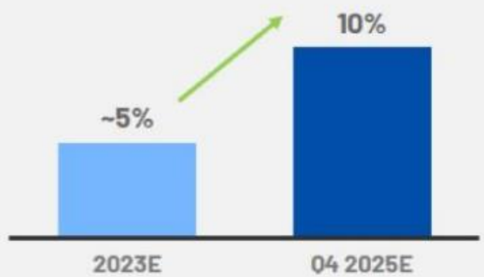
✓ *Three Major Assets Selected for Strategic Review*

- Chemical
- DUNLOP BRAND
- Off-the-Road[1]

Targeting gross proceeds in excess of $2.0B

Margin Expansion
Creating Fuel for Growth

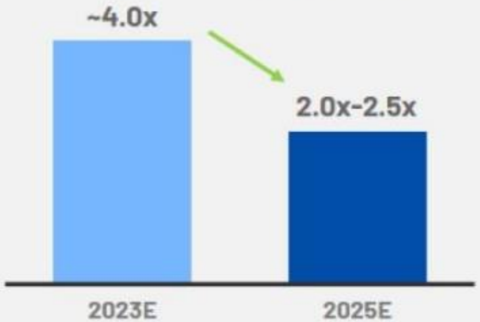
SOI Margin



Driven by $1.3B of margin improvement projects[2]

Addressing Net Leverage
Strengthening our Profile

Net Debt / Adjusted EBITDA



Gross debt reduction of ~$1.5B

1 Off-the-Road equipment tire business provides specialized tires for the mining and construction industries.
2 Enabled by ~$1.1B of restructuring inclusive of ~$400 million of previously announced rationalization programs.

Source: Company Information

Goodyear Forward – Strategy Transformation

MARGIN EXPANSION: INITIATIVES FOR ~$300M ANNUAL INCREMENTAL SOI

CLEAR PATH TO CAPTURE SIGNIFICANT MARGIN OPPORTUNITIES PRIMARILY VIA PRICE-MIX IN NORTH AMERICA

Optimize Brand Portfolio
- **Pricing**
- **SKU Rationalization**

- Optimize brand/tier positioning (Goodyear premium, Cooper mid-tier)
- Capitalize on product strengths to drive premium pricing
- Rationalize lower-tier SKU portfolio

Address Low Margin Business
- **Fix or Exit**

- Reduce exposure to lower-tier products and low-margin customers
- Use price and/or mix to increase customer / channel profitability
- Exit product lines where margin potential is structurally limited

Expand Premium Volume
- **Capture Market Opportunities**

- Enhance market coverage in Goodyear premium product lines
- Build on leadership position in All Terrain
- Capture disproportionate share of growth in high-value premium segments (>=18"; All-Season, UHP, SUV, and EV)

Source: Company Information

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Goodyear Forward – Strategy Transformation

MARGIN EXPANSION: $1B COST REDUCTION

WORKSTREAMS WITH CLEAR LINE-OF-SIGHT TO 100% OF THE COST SAVINGS BY 2025
ENABLED BY ~$1.1 BILLION OF RESTRUCTURING TO ACHIEVE THE COST REDUCTION

Footprint Actions and Plant Optimization

- Initiatives driving component simplification, increased product standardization and fewer changeovers, enhanced predictive maintenance, labor productivity and ongoing footprint actions
- SKU rationalization to reduce complexity and enable increased plant efficiency

40%

Purchasing

- Reduction in raw materials costs via "clean sheet" approach to identify and negotiate best-in-class prices
- Vendor + spend consolidation
- Rigorous data-driven negotiations
- Material substitution and consolidation

35%

SAG

- Growth in low cost / off-shore shared service centers
- Lean / best-in-class organizational structure for lower cost and increased efficiency
- Increased automation of transactions via IT / AI
- Refined marketing and other non-FTE spend

20%

Supply Chain and R&D

- Digital inventory and logistics planning, virtual R&D prototyping and increased efficiency
- Optimize logistics to reduce less-than-truckload shipments
- Establish offshore product development centers

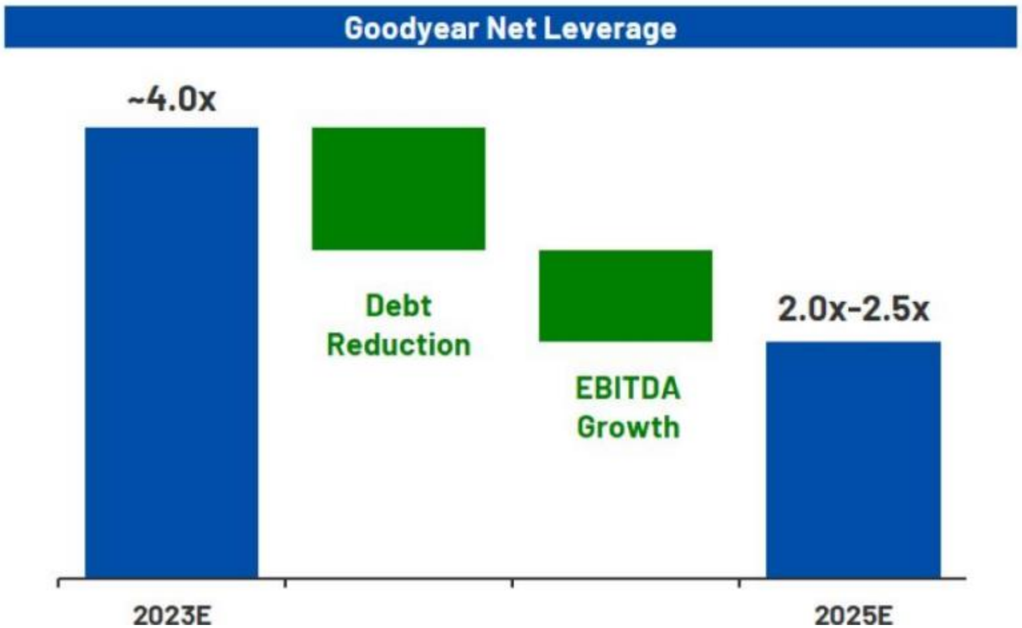
5%

Source: Company Information

Goodyear Forward – Strategy Transformation

ADDRESSING LEVERAGE: STRENGTHENING OUR PROFILE

THE COMBINATION OF DEBT REDUCTION AND EBITDA GROWTH WILL BRING OUR NET LEVERAGE IN-LINE WITH U.S. AUTO SUPPLIERS



- 2.0x - 2.5x net leverage by 2025, in-line with leverage profile of publicly listed U.S. auto suppliers
- ~$1.5B reduction[1] in debt by 2025; targeting investment grade balance sheet

Source: Company Information

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Goodyear Forward – Strategy Transformation

- In November 2023, Goodyear announced a transformation plan titled "Goodyear Forward" to deliver significant margin expansion and reduce leverage to 2.0x – 2.5x by the end of FY2025
- **Run-rate savings have been revised up from $1bn at plan announcement to $1.3bn as of 2Q24 and $1.5bn as of 3Q24.**
- Plan is underway with $450mm segment operating income improvement achieved to date.
- Sold Off-the-Road (OTR) tire business to Yokohama in July 2024 for $905mm in cash with proceeds in 1Q25 used to reduce leverage.
- Further $2.0 billion in proceeds targeted through strategic alternatives for global tire brand Dunlop, chemical and other businesses.

YOY BENEFITS:
+$450MM in 2024
+$750MM in 2025

Workstream	2Q24 Estimate		3Q24 Estimate	
$MM	Annualized Run Rate by 4Q25	FY24 SOI Estimate	Annualized Run Rate by 4Q25	FY24 SOI Estimate
Footprint & Plant Optimization	~400	85	~500	100
Purchasing	~350	145	~390	145
SAG	~200	75	~200	75
Supply Chain and R&D	~50	70	~150	80
Margin Expansion	~300	50	260	50
Total	~1,300	425	~1,500	450

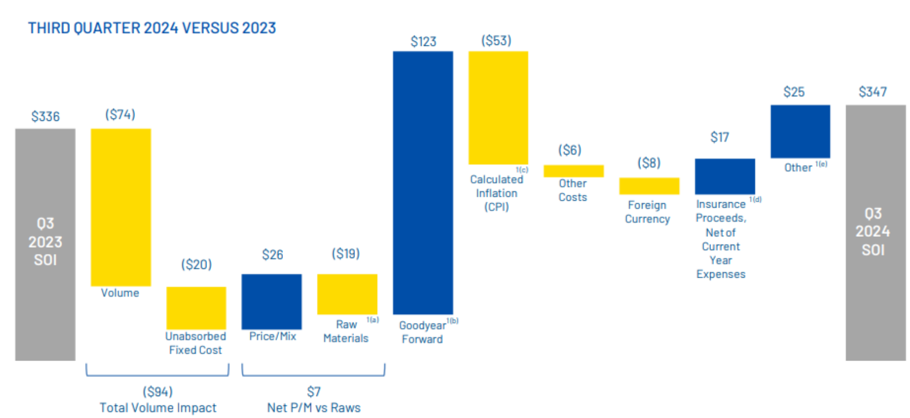
PORTFOLIO OPTIMIZATION

CHEMICAL | DUNLOP BRAND | OFF-THE-ROAD

TARGETING GROSS PROCEEDS IN EXCESS OF $2B

DEFINITIVE AGREEMENT SIGNED; ~$905 million of expected gross cash proceeds

SEGMENT OPERATING RESULTS



Source: Company Information

Management Overview

	Name	Title	Board	Age	Tenure	Start
1)	Mark W Stewart	President/CEO	✓	57	0.8	01/29/2024
2)	Christina L Zamarro	Exec VP/CFO		52 *	1.8	01/01/2023
3)	Christopher P Helsel "Chris"	Senior VP:Global Ops/CTO		58 *	7.2	09/01/2017
4)	Laura P Duda	Senior VP/Chief Communications Officer		54 *	5.8	01/01/2019
5)	Mamatha Chamarthi	Senior VP/Chief Digital Officer		54 *	0.3	08/01/2024
6)	Nicole J Gray	Senior VP/Chief Human Resources Officer			0.3	07/01/2024
7)	David E Phillips "Dave"	Senior VP/General Counsel		48 *	5.4	06/04/2019
8)	Christopher R Delaney "Chris"	Pres:EMEA		62 *	8.8	01/01/2016
9)	Nathaniel Madarang "Nat"	Pres:Asia Pacific		53 *	3.7	03/04/2021
10)	Ryan Waldron	President:Americas			1.6	04/13/2023
11)	Jordan Coughlin	VP/Treasurer		43 *	1.8	01/01/2023
12)	Daniel T Young "Dan"	Secy/Associate Gen Cnsl		56 *	8.8	01/01/2016
13)	Gregory T Shank "Greg"	Senior Dir:Investor Relations			0.8	02/01/2024

Source: Bloomberg

We estimate that Goodyear's Senior Unsecured Notes would have >85% recovery in a liquidation

28% of Goodyear's debt is secured, but the company has ample asset value to cover nearly all of the unsecured claims. Furthermore, significant portions of the secured / unsecured notes are to international subsidiaries and therefore do not have claim on all of the business assets.

Balance Sheet as of:	Q3 2024	%	Recovery
ASSETS			
Cash	905	100.0%	905
Restricted Cash	35	100.0%	35
Total Cash	**940**		**940**
Accounts Receivable	3,380	75.0%	2,535
Inventory - Raw Materials	796	50.0%	398
Inventory - Work in Progress	212	50.0%	106
Inventory - Finished Products	2,804	60.0%	1,682
Prepaid Expenses + Other	309	30.0%	93
Total Current Assets	**8,441**		**5,754**
Net Property, Plant & Equipment	8,285	25.0%	2,071
Other Long-Term Assets	1,147	25.0%	287
Goodwill	759	0.0%	0
Other Intangibles	814	0.0%	0
Deferred Income Taxes	1,662	0.0%	0
Operating Lease RoU	981	0.0%	0
Total Assets	**22,089**	**36.7%**	**8,112**

Total Recovery	8,112
Liquidiation Cost	(406)
Proceeds Available	**7,706**
1L Secured Claims	2,935
1L Secured Recovery	**100.0%**
Senior Unsecured Claims	5,540
Senior Unsecured Recovery	**86.1%**

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Geographic breakdown of Goodyear revenue and tire mix

Tire Unit Sales	Year Ended December 31, 2023	2022	2021
Americas	84%	84%	82%
Europe, Middle East and Africa	88	88	89
Asia Pacific	95	94	93

Each segment exports tires to other segments. The financial results of each segment exclude sales of tires exported to other segments, but include operating income derived from such transactions.

Goodyear does not include motorcycle, aviation or race tires in reported tire unit sales.

Tire unit sales for each segment during the periods indicated were:

GOODYEAR'S ANNUAL TIRE UNIT SALES — SEGMENT

(In millions of tires)	Year Ended December 31, 2023	2022	2021
Americas	87.3	95.0	85.9
Europe, Middle East and Africa	49.9	55.1	52.7
Asia Pacific	36.1	34.4	30.7
Goodyear worldwide tire units	**173.3**	**184.5**	**169.3**

Our replacement and OE tire unit sales during the periods indicated were:

GOODYEAR'S ANNUAL TIRE UNIT SALES — REPLACEMENT AND OE

(In millions of tires)	Year Ended December 31, 2023	2022	2021
Replacement tire units	130.2	143.9	134.1
OE tire units	43.1	40.6	35.2
Goodyear worldwide tire units	**173.3**	**184.5**	**169.3**

Bath & Body Works®

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December 5, 2024

Team Number: 4

Students: Caden Kalinowski, Emma Paine, Mathian Vali

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Investment Summary

Proposal

Investment Recommendation

- **Buy** Bath & Body Works Inc. - BBWI 6.625% 2030 Senior Unsecured Notes (BB/Ba3) trading at **$101.18** – 6.38% yield to maturity and ~179bps OAS (as of 11/19/2024)
- **Target spread: 165bps**, and base-case target total return: **~6.2% p.a**

Rationale

Supply Chain Flexibility

- "Beauty Park" near its Ohio headquarters cuts production time from three months to 21 days, transforming a 13,000-mile supply chain into a few local steps. This agility allows the company to launch 7,000 new scented products annually, staying ahead of consumer trends.

Post-Covid Business Normalization

- Candles and sanitizer categories are normalizing from a sales boom during the pandemic. Macro pressures that impacted margins are moderating. Management's cost-cutting plan to address inflationary cost pressures is outpacing expectations.

Deleveraging from Principal Redemption

- Management has paid down $2.8Bn of principal since 2021. It intends to retire the $314M 2025 Senior Notes at maturity. Continued redemption of Senior Notes due over the next three years will help management achieve its targeted 2.5x leverage ratio.

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1. Company Overview

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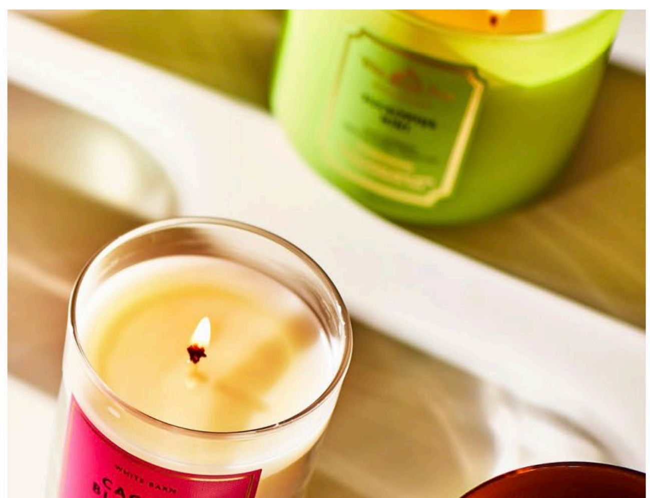
Bath & Body Works is a specialty retailer of home fragrance, body care, and soap and sanitizer products within the "affordable luxury" segment of the market

- BBWI was founded in Columbus, OH in 1963 and was spun-off from L Brands in 2021
- They operate 1,850 stores in North America and have 485 international partner operated stores
- They are the #**1 in market share for Home Fragrance and Soaps & Sanitizers**, and the **#2 in Body Care**
- They generate **$7.4Bn** in revenues as of 2023, 74% comes from NA retail stores, 21% from online sales, and 5% from international franchised stores
- Q4 accounts for 40% of net sales
- The business is vertically integrated, enabling **17% operating margins**



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Bath & Body Works operates a moderately leveraged capital structure, with large debt maturities relatively far out

- We view the 2030 notes as an attractive place in the capital structure given a healthy yield and lower debt wall than longer maturity notes
- There is no secured debt senior to the 2030 notes
- 44% of outstanding unsecured notes mature after the 2030 Unsecured Notes
- Most recent capital market transactions was the issuance of the 6.625% 2030 Unsecured Notes

Facility	Out ($MM)	Coupon	Maturity	Price	YTM	OAS	Ratings	Leverage as Multiple of EBITDA	Loan-to-Value
$750mm Revolver	-	S + 135	8/1/26	100%					
Total Secured Debt	-								
2025 Notes	313	9.38%	7/1/25	102.51	5.13%	73	Ba2/BB		
2027 Notes	275	6.69%	1/15/27	102.24	5.56%	149	Ba2/BB		
2028 Notes	443	5.25%	2/1/28	98.99	5.60%	159	Ba2/BB		
2029 Notes	475	7.50%	6/15/29	103.32	6.63%	112	Ba2/BB		
2030 Notes	838	6.63%	10/1/30	101.18	6.38%	179	Ba2/BB		
2035 Notes	796	6.88%	11/1/35	102.61	6.54%	261	Ba2/BB		
2036 Notes	571	6.75%	7/1/36	101.90	6.51%	258	Ba2/BB		
Total Senior Debt with Subsidiary Guarantee	3,711							2.0x	28.8%
2033 Notes	283	6.95%	3/1/33	100.48	6.88%	296	B1/B+		
2037 Notes	200	7.60%	7/15/37	99.43	7.67%	373	B1/B+		
Operating Leases	2,354								
Total Senior Debt	6,548							3.6x	50.8%
Total Debt	6,548							3.6x	50.8%
Less: Cash	(514)								
Net Debt	6,034							3.3x	46.8%
Equity Market Cap	6,865								
Total Enterprise Value	12,899							7.1x	100.0%

2. Investment Thesis

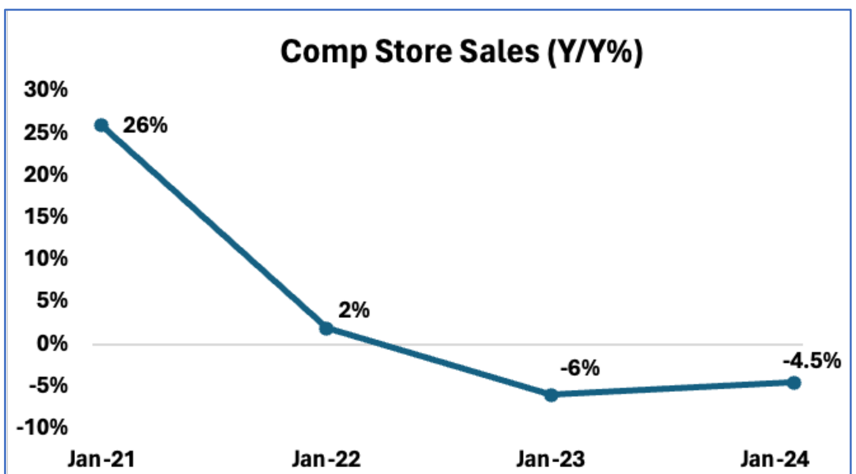
Thesis #1: Vertically integrated supply chain management

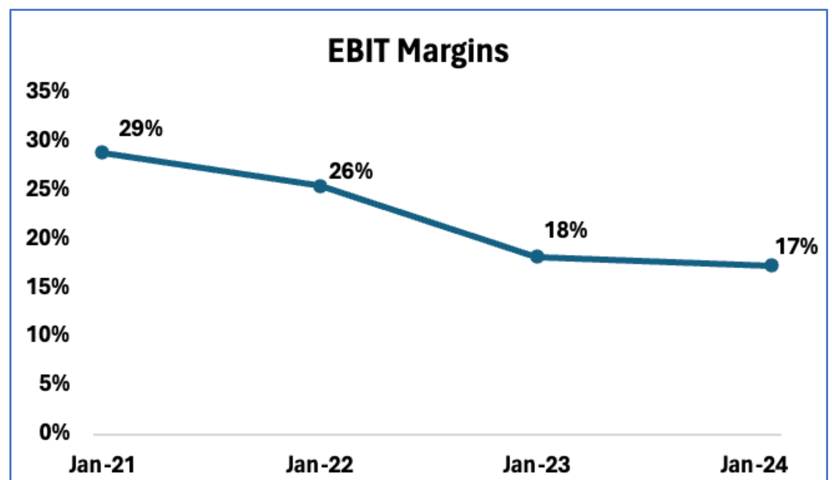
Supply Chain Flexibility

- The "Beauty Park" facility integrates production, packaging, and distribution in a single location, reducing lead times and allowing them to quickly respond to market demand
- In 2023, Beauty Park was responsible for ~55% of finished goods
- Demonstrated industry-leading speed in product development with more than 7,000 new products released each year
- By consolidating operations, it reduces dependency on external suppliers, lowers transportation costs, and improves control over quality

Thesis #2: Business is stabilizing post-COVID

- The candle and sanitizers categories experienced accelerated growth in 2020 and 2021 due to COVID and WFH trends
- Normalization as well as macro pressures have resulted in category declines, which are moderating
- BBWI has entered new markets: Men's, Lip, Laundry, Hair, Pet
- This is a replenishment category, with **37M loyalty members** (up 8%y/y)
- Loyalty members drove **>80% of sales YTD**
- Cost cutting plan has exceeded expectations, and they expect to realize **$280m** in annualized savings





Thesis #3: Creditor-friendly capital allocation policy drives deleveraging

History of Early Principal Redemption

- Since the spin-off from Victoria's Secret in 2021, BBWI has repaid $2.8Bn of Senior Notes. These have been funded from a combination of proceeds from the transaction and high historical cash balances.

Management's Targeted Leverage Ratio

- Deleveraging has been driven by management's goal to reach a 2.5x Debt/EBITDAR leverage ratio. It reported 2.7x Debt/EBITDAR on a TTM basis in Q2 2024.

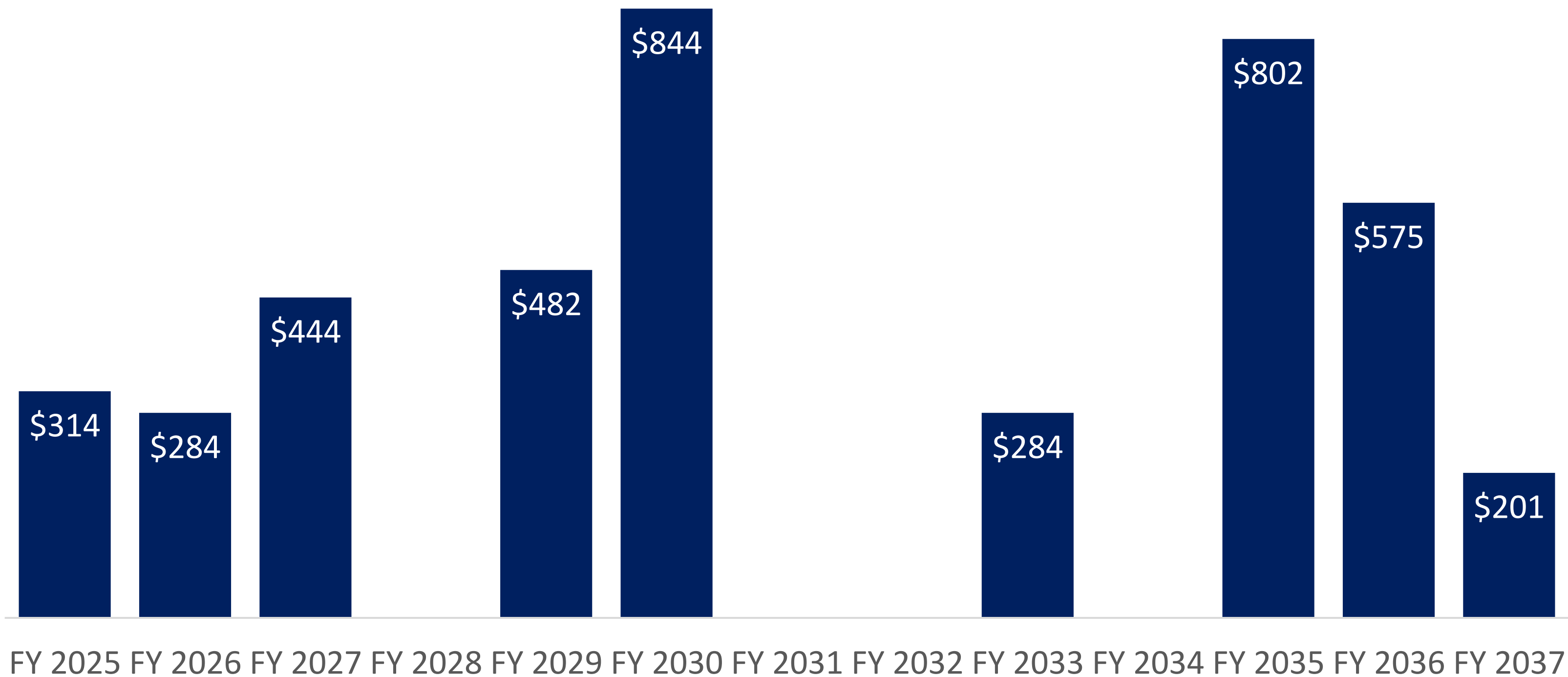
Forecasted Principal Redemption

- Management intends to pay down the $314M 2025 Senior Notes on the 7/1/25 maturity. Continuing this policy for the $284M 2027 Senior Notes due 1/15/27 and $444M 2028 Senior Notes due 2/1/28 would sustainably achieve the targeted 2.5x leverage ratio.

Thesis #3: Creditor-friendly capital allocation policy drives deleveraging

Forecasted Principal Redemption

- Management intends to pay down the $314M 2025 Senior Notes on the 7/1/25 maturity. Continuing this policy for the $284M 2027 Senior Notes due 1/15/27 and $444M 2028 Senior Notes due 2/1/28 would sustainably achieve the targeted 2.5x leverage ratio.



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Above-peer margins and favorable FCF growth permit BBWI to execute on deleveraging its capital structure

Key Assumptions

Base	**Bear**	**Bull**
➢ Revenue growth at ~3% CAGR ➢ Sales per square foot remains flat ➢ EBITDA margin grows to 23% in 2027	➢ Revenue growth at ~1% CAGR ➢ Sales per square foot shrinks at -2% CAGR ➢ EBITDA margin shrinks to 20% in 2027	➢ Revenue growth at ~4% CAGR ➢ Sales per square foot grows at ~1% CAGR ➢ EBITDA margin grows to 24% in 2027

Financial Projections

$M	2023A	2024E	2025E	2026E	2027E	2027 Bear	2027 Bull
Revenue	7,429	7,244	7,589	7,930	8,254	7,770	8,753
EBITDA	1,554	1,500	1,611	1,739	1,867	1,560	2,117
FCF	598	740	854	968	1,089	737	1,356
Cash	1,084	1,029	1,040	1,120	1,103	670	1,661

Leverage Ratios

$M	2023A	2024E	2025E	2026E	2027E	2027 Bear	2027 Bull
Debt	6,757	6,556	6,324	6,105	5,723	6,205	5,717
Debt / EBITDAR	3.5x	3.4x	3.1x	2.8x	2.5x	3.1x	2.2x
Net Debt / EBITDAR	2.9x	2.9x	2.6x	2.3x	2.0x	2.8x	1.6x
FCF / Debt	8.9%	11.3%	13.5%	15.9%	19.0%	11.9%	23.7%
EBITDAR / Interest	2.6x	2.7x	2.9x	3.1x	3.4x	2.9x	3.7x
EBITDAX / Interest	3.6x	4.1x	4.5x	5.4x	6.5x	5.0x	7.5x

Source: Company fillings

3. Valuation

Our base case valuation calls for 165bps target spread over three years, for a total annualized return of 6.2%

Bear – Trades wider to 300 bps for **5.7% total return p.a.**

Base –Tightens to 165 bps for **6.2% total return p.a.**

Bull – Tightens to 'BB+' low level of 150bps for **6.3% return p.a.**

	Moody's	S&P	Base	Bear	Bull
Upgrade Trigger	➢ Consistent improvement in margins ➢ Debt/EBITDA falls below 2.5x ➢ Interest coverage sustained above 4.0x	➢ Sustained improvement in margins ➢ Debt/EBITDA falls below 2.5x	Met	Not Met	Met
Downgrade Trigger	➢ Stagnant operating margins ➢ Debt/EBITDA rises above 3.5x ➢ Interest coverage falls below 3.0x	➢ Revenue and profitability weaken ➢ Debt/EBITDA rises above 3x	Not Met	Near trigger	Not Met

Bath & Body Works Relative Value Analysis

	Bond	Coupon	Maturity	YTM	OAS	Leverage	Ratings
BBWI 6 ⅝ Senior Unsecured Bond due 2030 (recommend buy)	BBWI 6 ⅝ 10/30	6.63%	Oct 2030	6.38%	179	3.3x	Ba2/BB
Retail Comparables							
Coty Inc	COTY 6 ⅝ 07/30	6.63%	Jul 2030	6.17%	157	3.7x	Ba2/BBB-
Nordstrom Inc	JWN 4 03/27	4.00%	Mar 2027	5.74%	168	3.2x	Ba2/BB+
Levi Strauss & Co.	LEVI 3 ½ 03/31	3.50%	Mar 2031	5.72%	170	4.3x	Ba2/BB+
Neiman Marcus Group	NMG 8 ½ 10/28	8.50%	Oct 2028	7.88%	322	NA	Caa1/B-
Fixed-income indices:							
Bloomberg BB Index		5.75%	5 years	6.27%	162	NA	BB
Bloomberg HY Retail Index		6.56%	6 years	7.61%	310	NA	Ba3/B1

Source: Bloomberg, Capital IQ, Moody's Investor Service, S&P Global Ratings

We estimate that BBWI's Senior Unsecured Bonds with Subsidiary Guarantees have a recovery value of ~68%.

Bath & Body Works has no secured debt outstanding. The 2030 Senior Notes benefit from a guarantee from BBWI's operating subsidiaries, thus granting it contractual seniority over other unsecured debt.

Liquidation Analysis

$M			
Balance Sheet as of:	FY 2024	Recovery %	Recovery ($)
Assets	Book Value		
Cash	1,084	100%	1,084
Total Cash	**1,084**		**1,084**
Accounts Receivable	224	90%	202
Total Receivables	**224**		**202**
Inventory	710	65%	462
Other Current Assets	97	10%	10
Total Current Assets	**2,115**		**1,757**
Net Property, Plant & Equipment	1,220	45%	553
Goodwill	628	10%	63
Trade Name	165	35%	58
Other Long-Term Assets	135	70%	95
Total Liquidation Value	**4,263**	**59%**	**2,525**

Waterfall Analysis

$M	**Estimated $ Recovery**
Total Liquidation Value	2,525
Less: Secured Debt	-
Distributable Value to Unsecured Claims	**2,525**
Senior Notes with Subsidiary Guarantee	3,711
Total Senior Claims	**3,711**
Recovery to Unsecured Claims (%)	**68%**

Financial Strategy Details

- Bath & Body Works can flex its annual share repurchases of $300mm-$400mm
- Dividends have been held at $180mm per year. Management intends to increase the dividend once sustainable earnings growth has been achieved.

Key Covenants and Callability

- A debt incurrence test requires a 2.0x Debt Service Coverage Ratio. Restricted payments are prohibited if the leverage ratio rises above 4.0x
- Standard covenant on negative pledge, sales of assets, restricted payment, etc.
- The 2030 Notes are callable starting 10/1/25 @ $103.313. Amortizes to par call on 10/1/28.

Source: Company fillings

Risks and Mitigants

Risks	Mitigants
This is a discretionary purchase that is sensitive to macro	Though there is a degree of macro exposure, this is largely a replenishment purchase. Additionally, BBWI offers products across a wide range of price points: from a $2 pocketbac to a $60 perfume or $100+ gift set.
BBWI opens too many stores	North American store growth has been modest at 3% per year attributable to 5% growth for new stores and 2% reduction from in-mall closures. There has been a focus on international store growth with new stores in UK and South Korea outperforming expectations. Additionally, these international stores are operated under franchises or licenses, reducing operational risk for BBWI.
Mass retailers can compete more aggressively and capture market share	BBWI provides a store experience that is more luxurious and personalized than competitors, uses a higher concentration of fragrance to deliver more value to customers, and benefits from a strong loyalty member base that accounts for 80% of sales. The company has legacy scents that are fan favorites and utilizes its flex model to be on trend.

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Appendix

Dynamic management team of industry leaders and tenured executives drive BBWI's flexible business model

CEO: Gina Boswell

- Joined BBWI as CEO in Dec 2022
- Prior to this she served as a Senior Executive at Unilever managing a portfolio of personal care, beauty, home care, and F&B products

CFO: Eva Boratto

- Joined BBWI as CFO in Aug 2023
- Prior to this she served as CFO at Opentrons Labworks
- CFO at CVS Health from 2018 to 2021

Chief Supply Chain Officer: Tom Mazurek

- Joined BBWI in 2000
- Appointed CSCO in May 2022
- Key contributor to Beauty Park

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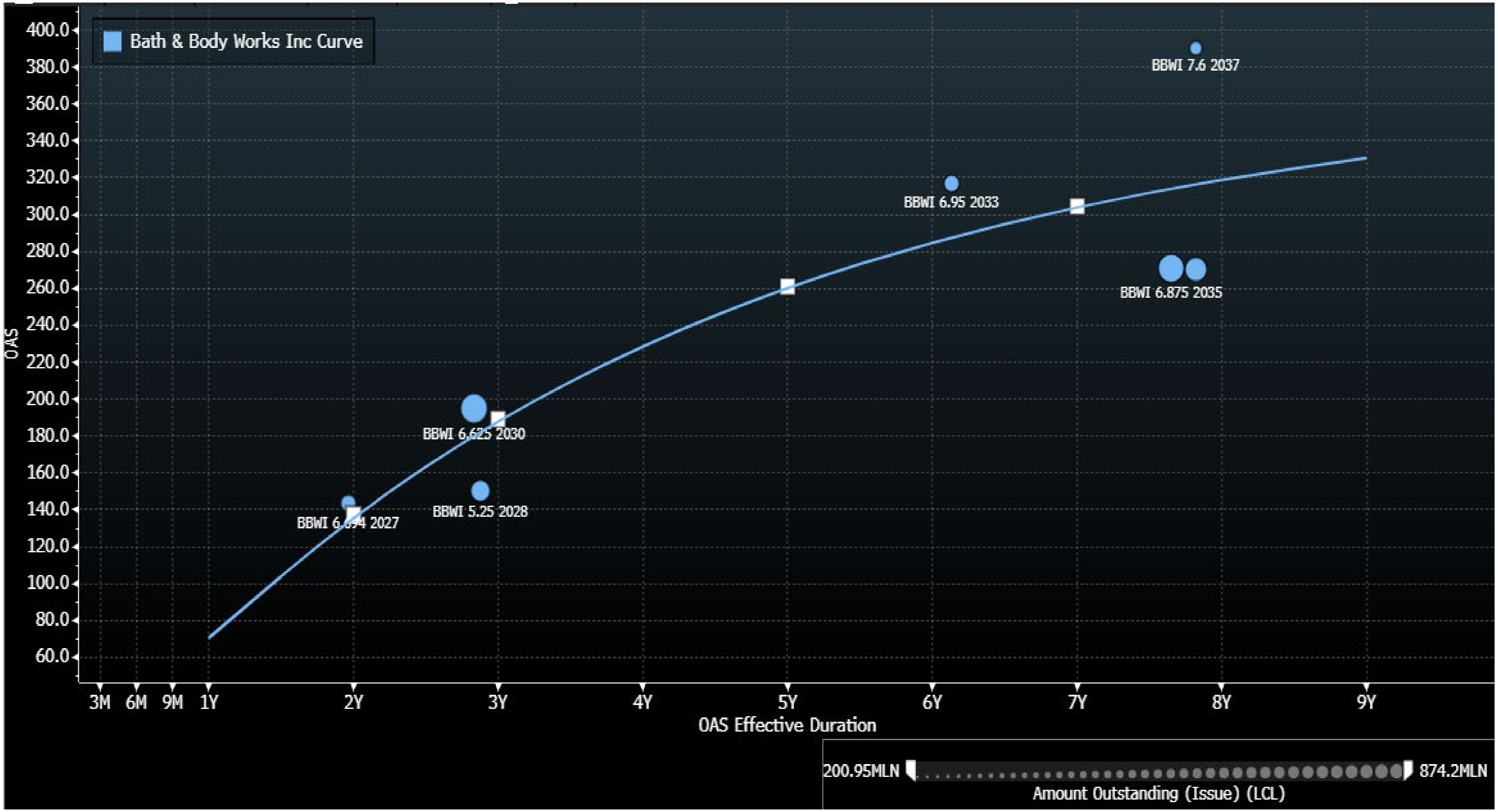
	Bath & Body Works	Ulta	Coty	Sally Beauty
Issuer Ratings	Ba2/BB	N/A	Ba2/BB	Ba1/BB-
Revenue ($M)	$7,403	$11,546	$6,134	$3,712
Ebitda	1,579	1,878	1,092	434
Margin (%)	*21.3%*	*16.3%*	*17.8%*	*11.7%*
FCF	670	1,050	373	152
FCF/Sales (%)	*9.0%*	*9.1%*	*6.1%*	*4.1%*
FCF/Debt	*12.3%*	*55.5%*	*8.9%*	*9.3%*
Adj. Gross Debt	5,458	1,893	4,198	1,640
Moody's Outlook	STABLE	N/A	POS	STABLE
S&P Outlook	STABLE	N/A	POS	STABLE

BBWI's 2030 Senior Notes Trade Cheap within the Capital Structure



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Model Output: Income Statement and FCF

Fiscal Year	2021A	2022A	2023A	Q1	Q2	Q3E	Q4E	2024E	2025E	2026E	2027E
Fiscal year end date	01/29/22	01/28/23	02/03/24	05/04/24	08/03/24	11/02/24	02/01/25	02/01/25	01/31/26	01/31/27	01/31/28
Revenue	7,882	7,560	7,429	1,384	1,526	1,539	2,811	7,244	7,589	7,930	8,254
Stores - North America	5,709	5,476	5,507	1,065	1,140	1,167	2,139	5,496	5,755	5,986	6,228
Direct - North America	1,890	1,745	1,582	261	297	299	582	1,440	1,440	1,483	1,512
International	283	339	340	58	89	72	89	309	395	460	514
COGS	(4,027)	(4,305)	(4,193)	(778)	(900)	(869)	(1,509)	(4,057)	(4,231)	(4,401)	(4,560)
Gross Profit	3,855	3,255	3,236	606	626	669	1,302	3,187	3,358	3,529	3,694
SG&A	(1,846)	(1,879)	(1,951)	(419)	(443)	(469)	(624)	(1,956)	(2,011)	(2,062)	(2,105)
Operating Income (EBIT)	2,009	1,376	1,285	187	183	200	677	1,231	1,347	1,467	1,589
Depreciation & Amortization	363	221	269	71	71	71	71	268	264	272	278
Operating Lease Expense	216	238	254	64	64	64	64	259	264	269	276
Variable Lease Cost	108	107	107	27	27	27	27	145	152	159	165
Short-term Lease Cost	34	37	41	10	10	10	10				
EBITDAR	2,730	1,979	1,956	359	355	372	849	1,904	2,027	2,167	2,308
EBITDAR Margin	34.6%	26.2%	26.3%	25.9%	23.2%	24.1%	30.2%	26.3%	26.7%	27.3%	28.0%
Less: Capex	(270)	(328)	(298)	(46)	(55)	(75)	(75)	(250)	(300)	(300)	(300)
EBITDAX	2,460	1,651	1,658	313	300	297	774	1,654	1,727	1,867	2,008
Less: Interest Expense	(388)	(348)	(345)	(82)	(77)	(72)	(72)	(303)	(289)	(264)	(243)
Less: Lease Expense	(358)	(382)	(402)	(101)	(101)	(101)	(101)	(404)	(416)	(428)	(441)
Less: Cash taxes paid	(487)	(188)	(231)	(58)	(58)	(58)	(58)	(231)	(231)	(231)	(231)
FCF b/f change in NWC	1,227	733	680	72	64	67	544	716	792	944	1,094
Less: Net Changes in Net Working Capital	(490)	68	(82)	(95)	(140)	(240)	390	25	62	24	(5)
FCF - Levered	737	801	598	(23)	(76)	(173)	934	740	854	968	1,089
EBITDA Conversion	27.0%	40.5%	30.6%	(6.3)%	(21.4)%	(46.6)%	110.0%	38.9%	42.1%	44.7%	47.2%

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Model Forecast Assumptions

Fiscal Year	2021A	2022A	2023A	2024E	2025E	2026E	2027E
Revenue Growth	22.5%	(4.1)%	(1.7)%	(2.5)%	4.8%	4.5%	4.1%
North American Store Sales Growth	35.7%	(4.1)%	0.6%	(0.2)%	4.7%	4.0%	4.0%
Retail Square Footage Growth	3.2%	5.1%	4.3%	3.5%	3.0%	3.0%	3.0%
Sales per Square Footage Growth	33.2%	(8.2)%	(4.1)%	(3.5)%	1.3%	1.0%	1.0%
North American Online Sales Growth	(5.6)%	(7.7)%	(9.3)%	(9.0)%	-	3.0%	2.0%
International Sales Growth	26.3%	19.8%	0.3%	(9.2)%	27.9%	16.6%	11.6%
International Net New Store Growth	17.4%	26.3%	13.6%	10.3%	9.3%	8.5%	7.9%

- BBWI operated 1,850 retail stores in North America as of FY23. ~45% are located in malls (~833 stores)
- 30+ store, primarily in malls are closed annually in North America
- BBWI opens 45-50 net new stores in North America annually, resulting in ~3% of incremental retail square footage. BBWI had a North American footprint of 5.2msf
- There are 485 international stores operated under a license or franchise agreement
- 50+ net new international stores open annually. International stores comprise the majority of net new store for BBWI

Model Output: Credit Metrics

Credit Metrics

Fiscal Year	2021A	2022A	2023A	2024E	2025E	2026E	2027E
Fiscal year end date	01/29/22	01/28/23	02/03/24	02/01/25	01/31/26	01/31/27	01/31/28
Leverage							
Debt	7,149	7,205	6,757	6,556	6,324	6,105	5,723
Less: Cash	(1,979)	(1,232)	(1,084)	(1,029)	(1,040)	(1,120)	(1,103)
Net Debt	5,170	5,973	5,673	5,527	5,284	4,985	4,620
EBITDAR	2,730	1,979	1,956	1,904	2,027	2,167	2,308
Debt/EBITDAR	2.6x	3.6x	3.5x	3.4x	3.1x	2.8x	2.5x
Net Debt/EBITDAR	1.9x	3.0x	2.9x	2.9x	2.6x	2.3x	2.0x
Enterprise Value	22,191	15,507	14,028	13,706	14,596	15,603	16,620
EV/EBITDAR	8.1x	7.8x	7.2x	7.2x	7.2x	7.2x	7.2x
Net Debt/EBITDAR	1.9x	3.0x	2.9x	2.9x	2.6x	2.3x	2.0x
EV Cushion	4.3x	2.6x	2.5x	2.5x	2.8x	3.1x	3.6x
FCF/Net Debt	14.3%	13.4%	10.5%	13.4%	16.2%	19.4%	23.6%
Interest Coverage							
Interest Expense	388	348	345	303	289	264	243
Lease Expense	358	382	402	404	416	428	441
Total Interest Expense	746	730	747	707	704	692	684
EBITDAX	2,460	1,651	1,658	1,654	1,727	1,867	2,008
EBITDAX Interest Coverage	3.30x	2.26x	2.22x	2.34x	2.45x	2.70x	2.94x

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The University of North Carolina

Oct 20, 2024

Team Number: 5

Students: Eric Zhu, Wanlin Huang, Szu Han Chen

Executive Summary

Security Detail

Bond	**BLDR 4.25 02/01/32 CORP** (US08985AL42)
Recommendation	**Buy**
Rank	Sr Unsecured
Coupon	4.2500%
Type	Fixed
Bond Ratings	Moody's **Ba2** | S&P **BB-**
Company Ratings	Moody's **Ba2** | S&P **BB**
Aggregated Amount Issued/Out	USD 1,300,000,000
Price	$91.5 | Spread 155bps | Yield to Maturity: 5.7%
Target	$98 | Spread **130bps** | 3 Year Expected Return: **7% p.a.**

Company Overview

Formed in 1998 and publicly traded on the NYSE (BLDR), Builders FirstSource is a **leading supplier and manufacturer** with a wide product portfolio of **building materials**, manufactured components and construction services, **to professional contractors** and consumers in the U.S.

Investment Thesis

Macro	Revenue benefits from recovering U.S. new home construction
Cashflow	Sound profit margin as cash generator, from both • Value-added products expansion through investments in capacity and digital capabilities • Operating excellence in incremental productivity savings and SG&A leverage
Capital Deployment	Credit cushion remains strong with undeployed repurchase and acquisitions targets

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Investment Thesis #1 - End Market Overview

BLDR has tremendous exposure to U.S. housing starts, which we expect to improve

U.S. Housing Market Breakdown

Supply

- Inventories
- New Construction
  - Multi Family Housing (Materials of Add-on and strength)
  - Single Family Housing (Mostly Wood Framed)

Permits, Regulations

Demand

- Residence
- Investment
- Vacation

Demographics

Affordability

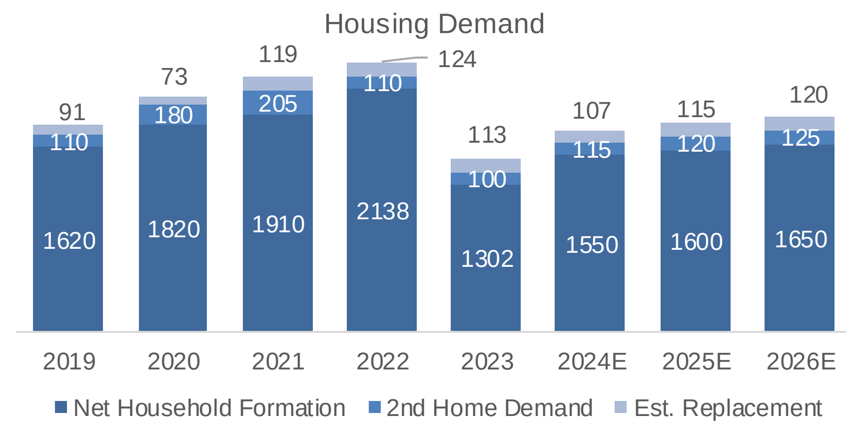
Geographics

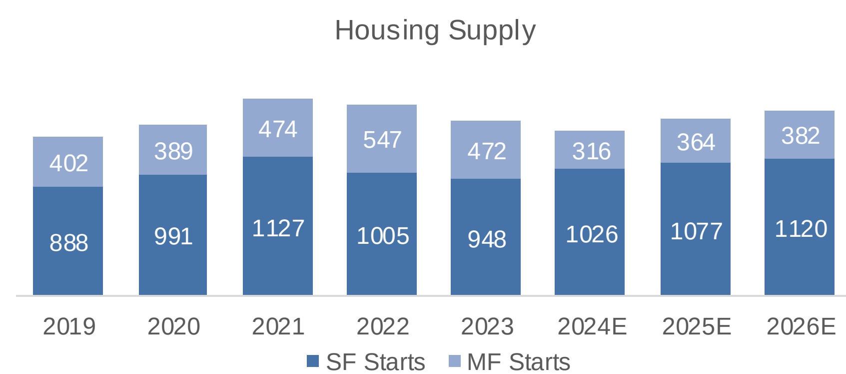
Consumer Balance Sheets

Upstream Costs and Labor Supply

Where BLDR Is At: Value generation for a **supply chain sensitive, labor extensive, localized** industry

We Expect 8.3% Growth in SF starts in 2024





Excess Supply (Deficit)

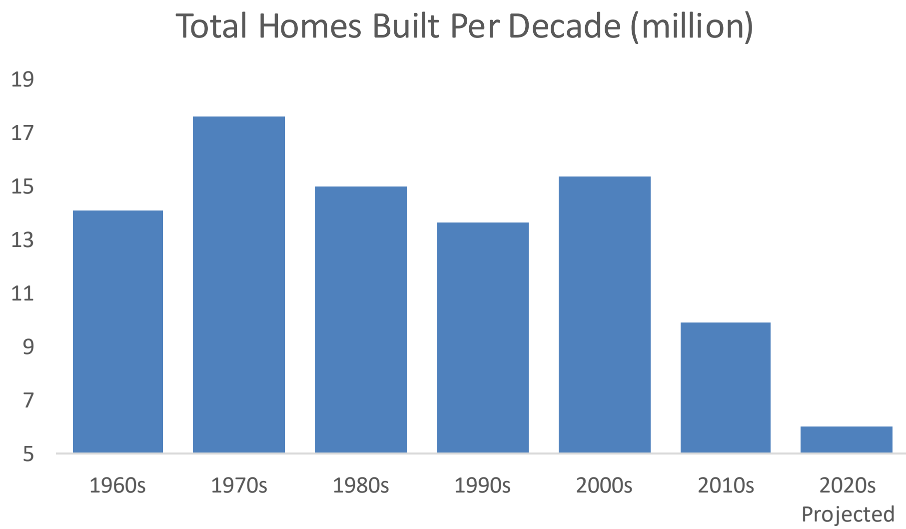
2019	2020	2021	2022	2023	2024E	2025E	2026E
(38)	(479)	(482)	(496)	262	(63)	(39)	(50)

Source: Company Report, CapIQ, BBG

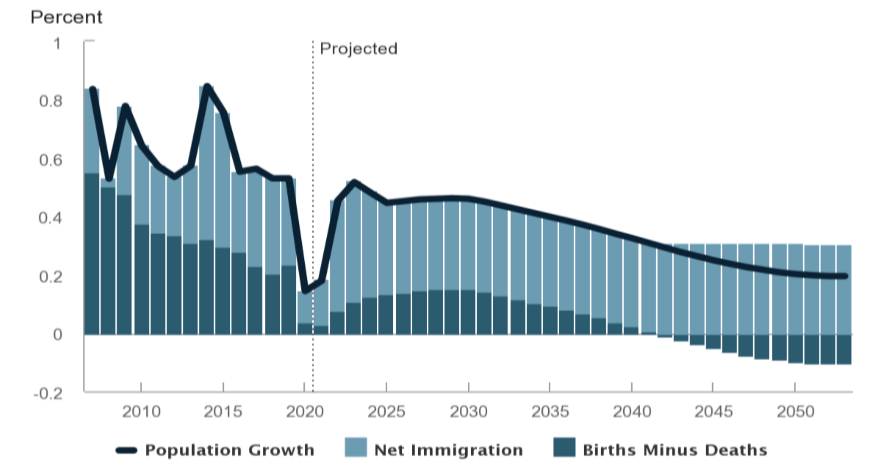
Investment Thesis #1 - Revenue Recovery

Housing fundamentals support long-term growth and revenue recovery.

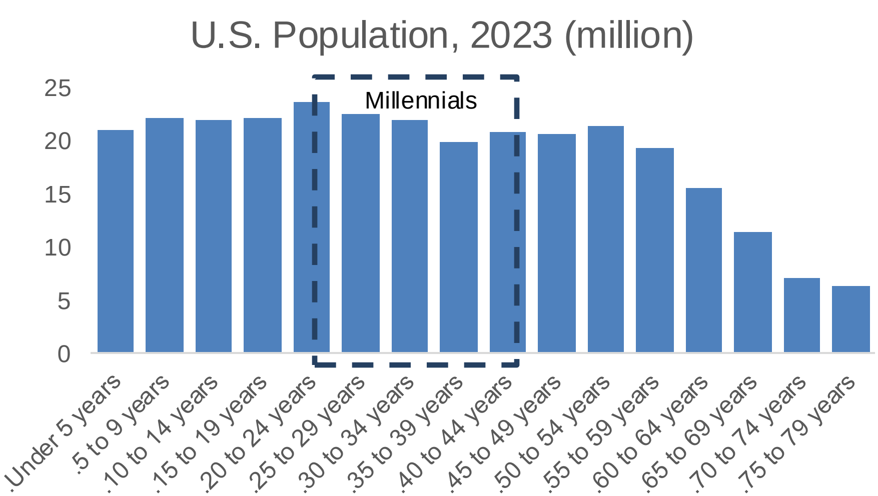
Built Housing At Historical Low Level Since 1960s



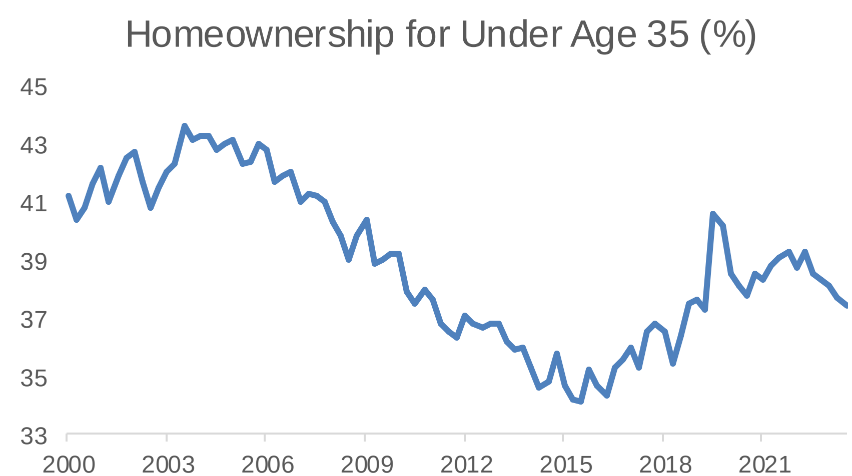
Population Growth Projected To Continue



With Millennials Being the Biggest Cohort...



… And Home Ownership Under Age 35 Recovered Since 2016, Despite Affordability Pressures

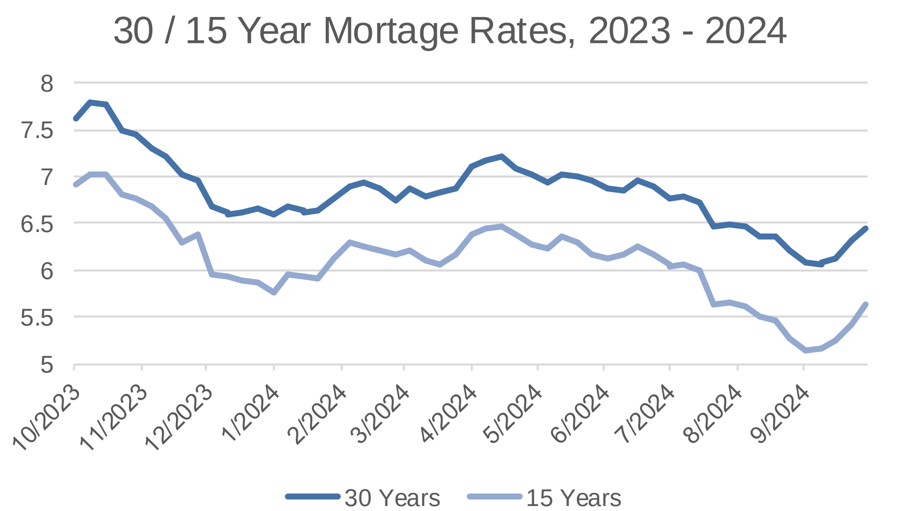


Source: Company Report, CapIQ, BBG

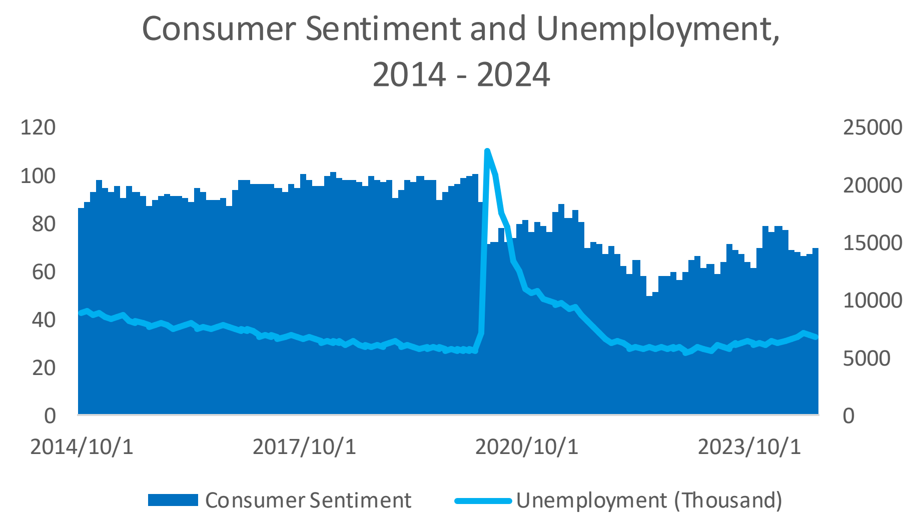
Investment Thesis #1 - Revenue Recovery

We expect housing starts to show resilience on a three-year horizon due to mortgage easing and demand support, with single family housing construction bottoms out.

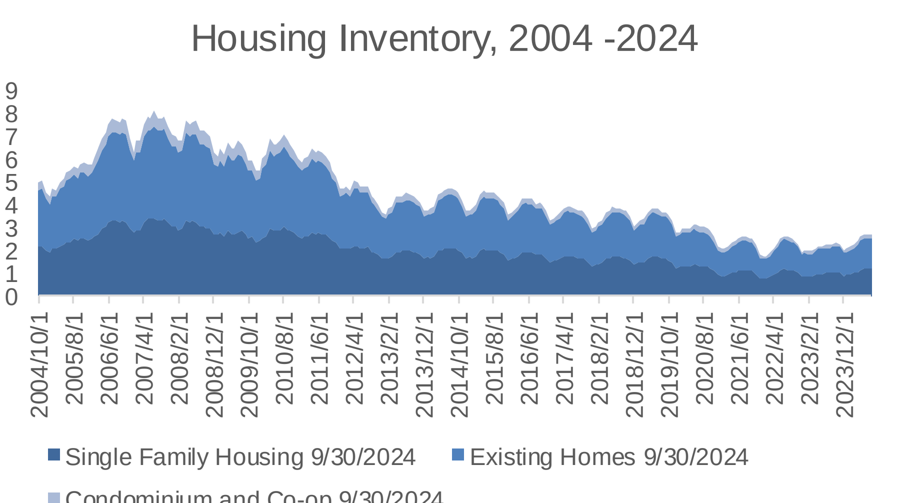
Mortgage Rate Falls Over 200bps Since Oct 2023



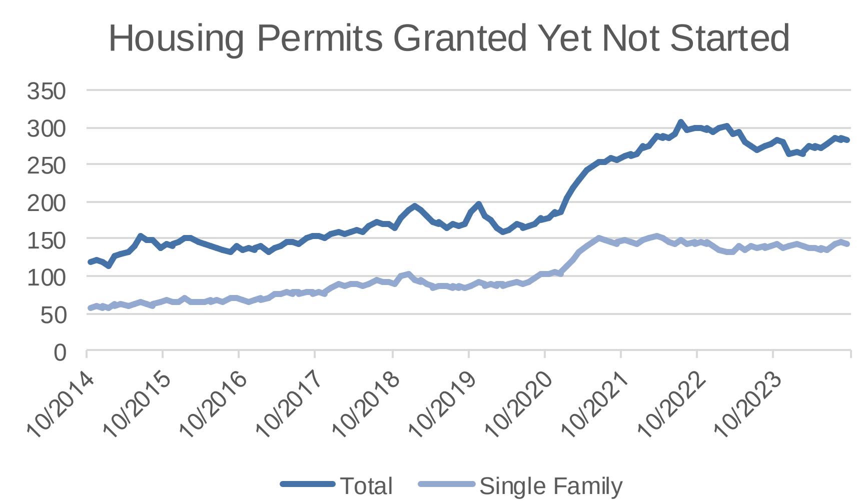
Macro Indicators Support Soft-Landing



New Construction Absorbs Major Demands As Inventory Is Low



Tremendous Permitted Construction Underway, Mostly SF



Source: Company Report, CapIQ, BBG

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Investment Thesis #2 – Stable Cash Flow

Focusing on compounding value creation with industry leading product offering, execution, and value-add services.

Organic Growth

Organic growth with a focus on value added products and services

- BLDR's value add product mix grew 16% and increased mix from 39% to 53% from 2021 to 2023. Value added products helped BLDR to increase their gross margins and ensure price competitiveness.

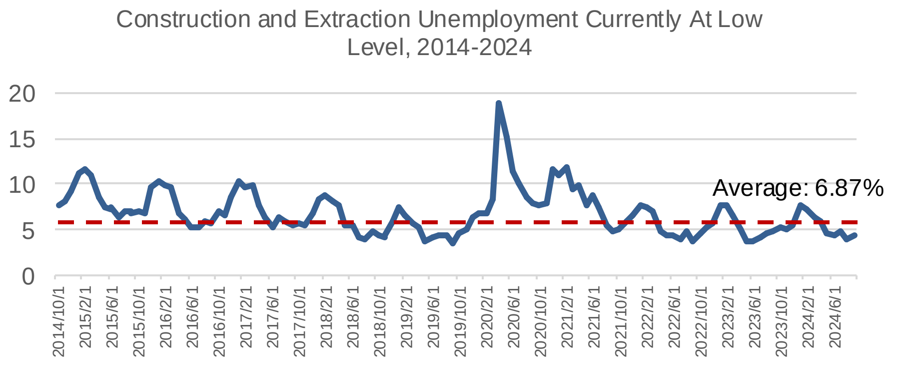
Drive Operational excellence and invest in digital and innovation

- Driving customer adoption of industry-leading digital platform with $45 million of incremental sales and $250 million of sales transacted through the digital tool YTD. This creates new momentum in sales and customer stickiness.
- YTD productivity savings of $77M driven by more efficient manufacturing and procurement initiatives. (e.g., reducing factory shifts to 1.)

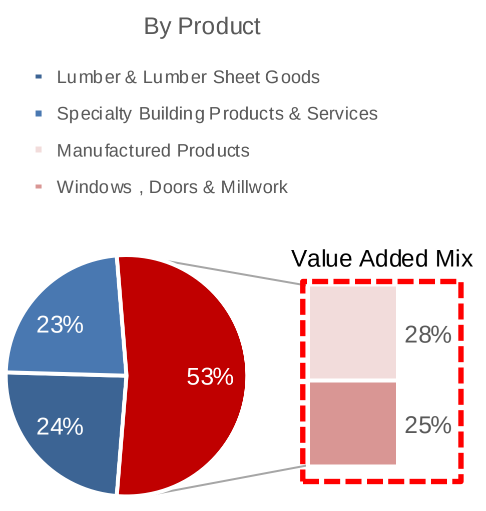
Increasing TAM, share, and margins through upselling with value added products and digital platforms.

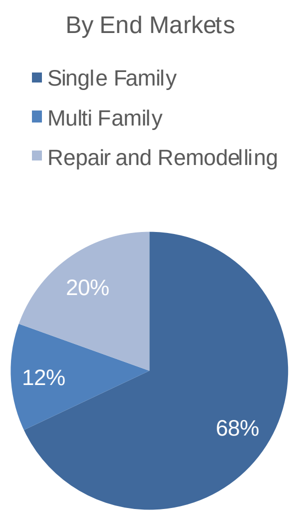
Value-Add Solutions Makes Sense to Builders

Builders are increasingly seeing a tight labor market that increases their cost of construction. Value-add (and turnkey) solutions at BLDR created one more reason for buying from BLDR.

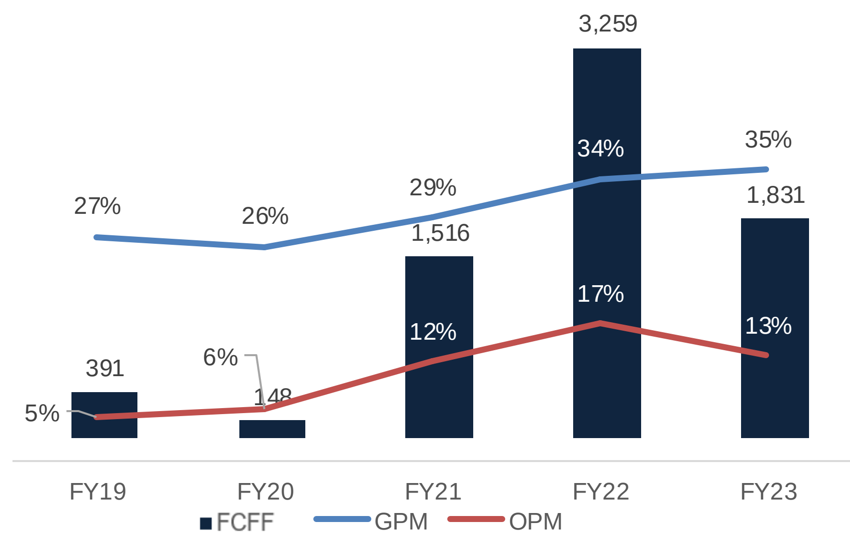


Key Revenue Segments





Value Add Services Contributed to Strong Margin



Source: Company Report, CapIQ, BBG

Investment Thesis #2 – Stable Cash Flow

BLDR's regional distribution and focus on expanding untapped areas through acquisitions positions it well for the recovery.

Acquisitions to Expand to Untapped Regions

Builders FirstSource (BLDR) has been highly active in inorganic growth through strategic acquisitions. This strategy allows BLDR to expand its footprint, diversify its product offerings, and gain market share across various regions.

Mergers

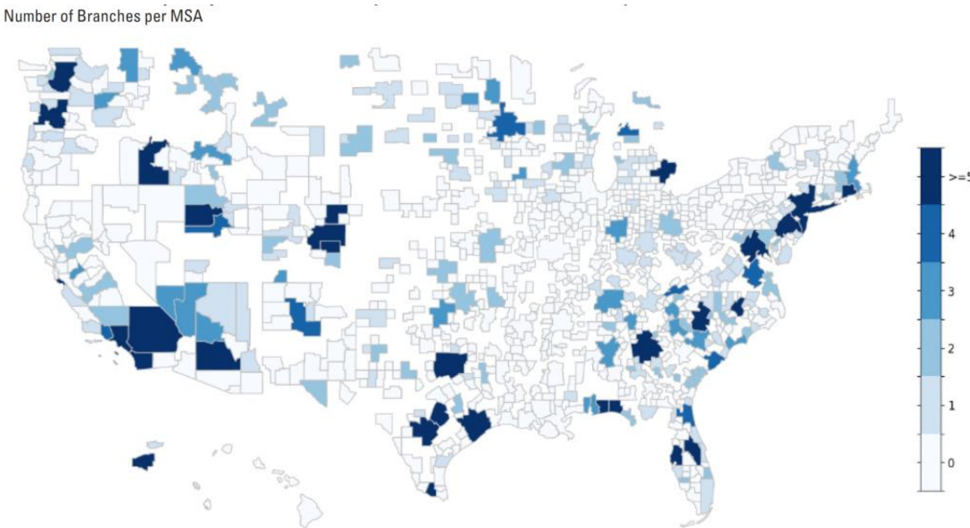
- Recent merger with BMC Stock Holdings (2021) – Formed the largest distributor of building products, leading to additional scale benefits and geographical diversification. The merger increased BLDR's centers by 150 locations and added 48 windows, doors & millwork facilities and 53 pre-fabricated trusses and component facilities.
    - Since the 2021 Merger, BLDR has cut shipping and handling cost % by half, from 4.1% of sales to 2.6% of sales

Acquisitions

- By 2Q24, BLDR closed 5 acquisitions with aggregate 2023 sales of ~$108M.
- These acquisitions contributed to the growth in value-add product mix, and thus margin improvement.

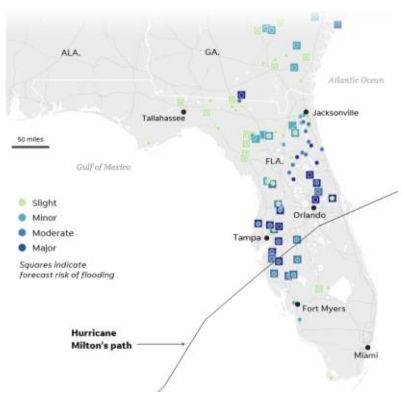
BLDR completed 60+ acquisitions since 1998.

BLDR's Strong Presence In Strategically Profitable Regions



BLDR's footprint spans across the country. With greater concentration in key builder markets. Currently operates in 89 of the top 100 MSAs (Metropolitan Statistical Area) as ranked by SF permits in 2023.

Recent Hurricane Also brings R&R Demand



Left: Hurricane Milton's flooding in Florida

- We expect recent weather events would increase demand in home repair and remodeling in the southeastern US. This could provide additional runway to BLDR's performance this year and 1H25, offsetting the lukewarm MF demand.

SOURCE © Mapcreator.io | © OSM.org, NOAA, gauges as of. 11 a.m. EDT, Oct. 10; Milton path as of 11 a.m. EDT, GRAPHIC Janet Loehrke/USA TODAY

Top 50 MSA Faces Sound Demand From Qualified Renters Given New Home Appreciation and Mortgage Rate Assumption

		New Home Appreciation				
		-6%	-3%	0%	3%	6%
30 Yr Mortgage Rate	4.5%	7,277,350	9,669,349	6,657,885	6,319,962	5,964,755
	5%	6,846,086	6,503,871	6,160,473	5,791,493	4,541,616
	5.5%	6,382,383	5,980,757	5,647,373	5,151,961	4,481,693
	6%	5,867,210	5,463,403	5,024,814	4,707,888	4,241,667
	6.5%	5,347,393	4,905,870	4,588,917	4,279,088	3,655,472
	7%	4,799,181	4,481,264	4,161,775	3,888,172	3,377,191
	7.5%	4,380,264	4,065,656	3,800,883	3,574,769	3,377,911

Source: Company Report, CapIQ, BBG

Investment Thesis #2 – Stable Cash Flow

BLDR is the #1 player with most diversified business profile and strongest margin discipline during a down market.

In USD (MM) Numbers are rounded	Builders FirstSource	BEACON	IBP Installed Building Products	GMS Gypsum Management & Supply, Inc.	Boise Cascade
Categories	Lumber, Manufactured products, Windows & Doors	Roofing, Windows & Doors	Insulation	Wall board, Steel framing	Wood product
Positioning	B to B, One stop shop, Speciality building products	Roofing specialist, repair and remodel	Insulation specialist, New single family	One stop shop	Wood product, Sustainability
Sales Contribution	Lumber(24%), Manufactured Products(28%), Windows & Doors(25%), Specialty Building Products(23%)	Residential Roofing(51%), Commercial Roofing(26%), Complementary(23%)	Insulation(64%), Shower doors, Shelving & Mirrors(7%)	Wallboard(41%), Ceilings(13%), Steel Framing(16%)	Engineered wood products(23%), Plywood& OSB(36%),General Line(41%)
Geographic Distribution	State-wide	State-wide	East coast, Southeast	State-wide, Canada	WA, OR,ID,CO,FL,AL,LA
Bond Spread OAS	155	162	Not in universe	Not in universe	135
Debt Rating	BB / Ba2	BB- / B1	BB- / Ba2	BB-	BB / Ba2
Market Cap	22,705	5,917	7,141	3,758	5,516
Revenue	17,100	9,120	2,778	5,501	6,830
Revenue Growth (FY23)	(24.8%)	8.1%	4.1%	2.8%	(3%)
Gross Margin (FY23)	35.2%	25.7%	33.5%	31.2%	20%
Net Income Margin (FY23)	9%	4.8%	8.8%	5%	6.7%

Source: Company Report, CapIQ, BBG

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Investment Thesis #2 – Stable Cash Flow

BLDR outperforms related commodity due to market power over downstream and diverse upstream provider and operating efficiency.

BLDR has Leverage Against Suppliers

While BLDR largest single supplier only represented 8.3% of our total materials purchases for the year ended December 31, 2023, **BLDR is one of the largest customers for many suppliers, and therefore have significant purchasing leverage.**

Boise Cascade® Weyerhaeuser West Fraser SBP Specialty Building Products LP Building Solutions

BLDR has Diverse Downstream

For the year ended December 31, 2023, BLDR's top 10 customers accounted for 14.7% of net sales, with **the largest customer accounting for 4.5% of net sales**.

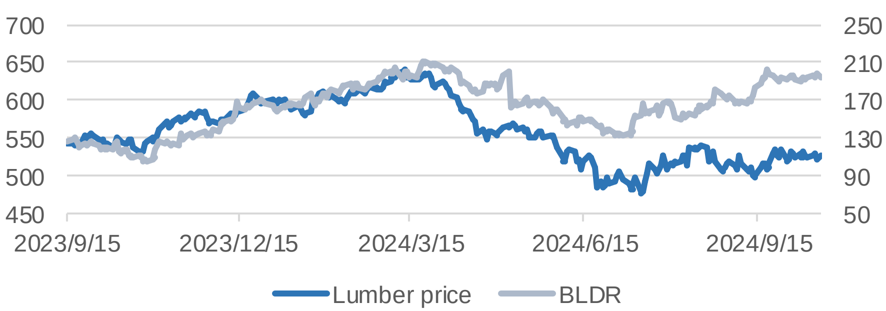
LENNAR® D·R·HORTON® America's Builder taylor morrison HOME FUNDING Dream Finders Homes HOMES BUILT TO FIT YOUR LIFESTYLE PULTE GROUP

Fragmented upstream and downstream ensures BLDR's pricing power.

Material

The key materials BLDR purchase include dimensional lumber, OSB and plywood, engineered wood, windows, doors, millwork, and siding.

BLDR Outperforms Lumber due Pricing Power and Operational Efficiency



Products

- **Lumber and Lumber Sheet Goods**: Dimensional lumber, plywood and oriented strand board ("OSB"), Highly sensitive to fluctuations in market prices for such commodities.
- **Manufactured Products**: Wood floor and roof trusses, wall panels, Ready-Frame, reduces downstream labor cost, sensitive to commodity price.
- **Windows, Doors and Millwork**: Windows, Doors, Millwork and Synboard, require installation knowledge and training.
- **Specialty Building Products and Services**: Installation services program, helps homebuilders realize efficiencies through improved scheduling, resulting in reduced cycle time and better cost controls, has strong pricing power.

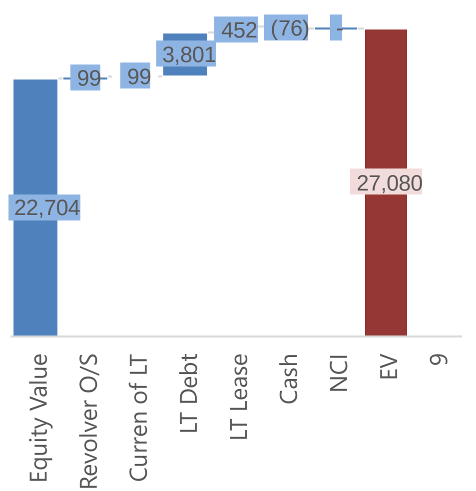
Source: Company Report, CapIQ, BBG

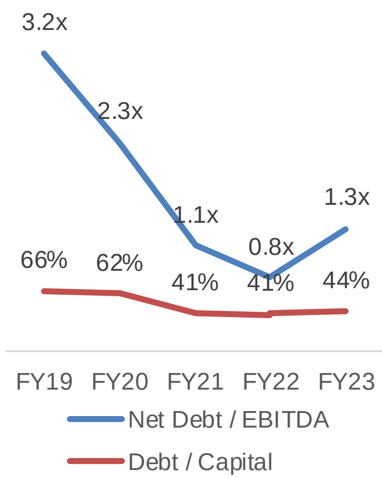
Investment Thesis #3 – Disciplined Capital Structure

Disciplined capital deployment framework has kept business thrive.
BLDR has shown great ROIC and execution in tucking in acquisitions.

Capital Structure

Total Debt/Cap	43.98%	EBITDA/Int.	14.99x
Net Debt/EBITDA	1.27	EBIT/Int.	11.33x





Source: Current as of 2Q24

Capital Allocation

BLDR has deployed ~$1.3B USD YTD and has guided for another $1B share buyback.

BLDR's guide for 2024 -2026 capital deployment target was $5.5B - $8.5B, which means that there are ~$4.2B to $7.2B left to be deployed.

We liked this outlook as we saw the additional capital as a discretionary cushion for BLDR in case of a weaker than expected market.

In September 2024, S&P Global Ratings revised BLDR's **credit outlook from "stable" to "positive"**, reflecting sustained improvement in the company's profitability and credit measures.

Liquidity is strong based on these observations and estimates:

- Liquidity sources should exceed uses by about 3x in the next two years;
- Liquidity sources would exceed uses even if EBITDA declines 30%; and
- The company should continue to exceed the availability threshold under its ABL, even considering a 30% drop in EBITDA.

Debt Outstanding

Issuer	CUSIP	Maturity Date	Seniority	Security Type	Coupon Rate (%)	Original Issue Date	Issue Currency	Amount Out ($000)	Price (%)	Current Issue Rating
Revolver										
Builders FirstSource, Inc.	12008RAN7	12/17/2026	First Lien	Revolving Credit	-	7/31/2015	USD	1,800,000	-	-
Builders FirstSource, Inc.	-	1/17/2028	Senior Secured	Revolving Credit	Variable	-	USD	99,000	-	-
Notes										
Builders FirstSource, Inc.	12008RAP2	3/1/2030	Senior Unsecured	Corporate Note	5	2/11/2020	USD	550,000	97.054	BB-
Builders FirstSource, Inc.	12008RAR8	2/1/2032	Senior Unsecured	Corporate Note	4.25	7/23/2021	USD	1,300,000	91.327	BB-
Builders FirstSource, Inc.	-	6/15/2032	Senior Unsecured	Corporate Note	6.375	6/15/2022	USD	700,000	102.507	BB-
Builders FirstSource, Inc.	12008RAS6	3/1/2034	Senior Unsecured	Corporate Note	6.375	2/29/2024	USD	1,000,000	102.509	BB-

Source: Company Report, CapIQ, BBG

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Scenario Test – Assumptions

We assumed 3 scenarios to test the company's limits.

Assumptions Summary

Assumptions	Base	Realistic Bear	Stress Test
Revenue CAGR (10Y)	5.5%	1.5%	-12.9%
Gross Margin	31.4%-33.0%	30.4%-32.0%	28.4%-30.0%
SG&A Margin	20.5%-22.4%	20.5%-22.4%	20.5%-22.4%
Debt Financing Assumption	Normal Pace	2/3 of Base	1/4 of Base
LT Debt Interest Rate	5.6%	5.6%	6.6%
Beta (Levered)	1.56	1.56	1.56
WACC	9.1%	9.1%	9.1%
Exit EV/EBITDA	7x	7x	7x
Terminal Growth Rate	2%	2%	2%
Equity Price	$188.02 (-4%)	$126.57 (-35%)	$20.08 (-90%)

Note: Current as of Oct 17, 2024

Source: Company Report, CapIQ, BBG

Methodology

We used a DCF analysis to forecast the company's future performances, so that we can gauge:

- If the company is in breach of any covenants, giving its current operational and financing trends.
- If the housing market underperform, how can we make sure the company will be able to pay us back? (Realistic Bear)
- If the housing market collapse in the US, what will happen? (Stress Test)

Base

- We assume the company's fundamental does not change (i.e. keep securing market share, maintain its margins).
- **Our valuation proves to align well with market consensus and current price.**

Realistic Bear

- **This is assumed for situations when the housing market suffers longer than expected trough in the US, as well as the industry under stronger price competition (margin compression of 100bps).**
- We further assumed the company having issues borrowing, by decreasing assumed new issuance from 2026 and onwards by 2/3.

Stress Test

- **We assumed the absolute worse in this case, effectively suggesting a total collapse of US housing market. ~30% broad-based YoY decline in SF, MF, and R&R for the next 5 years. (assume some normalization in the 5-10Y horizon)**
- **The goal of the stress test is to effectively wipe out 90%+ of equity value and assess the company's performances.**
- Additionally, we assumed another 100bps reduction in gross margin on top of the Realistic Bear case. As well as decreasing the assumed new issuance from 2026 and onwards by 1/2 compared to the base case.
- We have also assumed an increase in company's effective interest rate by 100bps.

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Scenario Test – Results

We assumed 3 scenarios to test the company's limits.

Base Case

In Millions of USD	FY2024 E	FY2025 E	FY2026 E	FY2027 E	FY2028 E
Revenue	16,910	18,175	18,726	20,178	21,743
Revenue Growth	-1.1%	7.5%	3.0%	7.8%	7.8%
COGS	(11,482)	(12,468)	(12,771)	(13,721)	(14,785)
COGS as a % of Revenue	67.9%	68.6%	68.2%	68.0%	68.0%
Gross Profit	5,428	5,707	5,955	6,457	6,958
GP Margin	32.1%	31.4%	31.8%	32.0%	32.0%
EBIT	1,640	1,836	2,060	2,268	2,453
EBIT Margin	9.7%	10.1%	11.0%	11.2%	11.3%
EBITDA	2,170	2,317	2,526	2,713	2,898
EBITDA Margin	12.8%	12.7%	13.5%	13.4%	13.3%
Tax	(345)	(362)	(436)	(480)	(525)
NOPAT	1,295	1,474	1,624	1,788	1,928
FCFF	1,130	1,303	1,523	1,544	1,629

Leverage	FY2024 E	FY2025 E	FY2026 E	FY2027 E	FY2028 E
Debt / EBITDA	1.70x	1.85x	1.62x	1.47x	1.60x
Net Debt / EBITDA	1.69x	1.67x	1.06x	0.68x	0.33x
Debt / Capital	44%	48%	42%	37%	37%
Debt / Equity	79%	94%	72%	59%	59%
Current Ratio	1.92x	2.14x	2.65x	2.95x	3.55x
Quick Ratio	1.19x	1.39x	1.90x	2.20x	2.80x
EBITDA / Interest Expense	10.79x	7.04x	10.32x	10.06x	10.88x

- **Under the Base case, company's Net Debt to EBITDA aligns well with mgmt. guidance of 1-2x.**
- 2026 and 2028 anomaly are due to new issuance assumptions. Removing it does not materially affect our conclusion.

Realistic Bear Case

In Millions of USD	FY2024 E	FY2025 E	FY2026 E	FY2027 E	FY2028 E
Revenue	15,707	16,066	16,069	16,593	17,134
Revenue Growth	-8.1%	2.3%	0.0%	3.3%	3.3%
COGS	(10,822)	(11,182)	(11,120)	(11,449)	(11,823)
COGS as a % of Revenue	68.9%	69.6%	69.2%	69.0%	69.0%
Gross Profit	4,885	4,884	4,949	5,144	5,312
GP Margin	31.1%	30.4%	30.8%	31.0%	31.0%
EBIT	1,367	1,462	1,607	1,699	1,761
EBIT Margin	8.7%	9.1%	10.0%	10.2%	10.3%
EBITDA	1,896	1,923	2,037	2,100	2,146
EBITDA Margin	12.1%	12.0%	12.7%	12.7%	12.5%
Tax	(281)	(276)	(330)	(349)	(366)
NOPAT	1,086	1,186	1,277	1,350	1,396
FCFF	1,052	1,136	1,263	1,243	1,255

Leverage	FY2024 E	FY2025 E	FY2026 E	FY2027 E	FY2028 E
Debt / EBITDA	1.92x	2.15x	1.87x	1.75x	1.88x
Net Debt / EBITDA	1.95x	2.07x	1.47x	1.09x	0.75x
Debt / Capital	46%	51%	44%	40%	39%
Debt / Equity	84%	104%	79%	67%	65%
Current Ratio	1.87x	2.00x	2.41x	2.71x	3.28x
Quick Ratio	1.13x	1.25x	1.66x	1.96x	2.52x
EBITDA / Interest Expense	9.60x	6.19x	8.73x	8.57x	9.03x

- **Under the Realistic Bear case, 2025 Net Debt to EBITDA could exceed target, but will recover following (assumed) issuance of $1b. This pace is in-line with historical trends.**

Stress Test Case

In Millions of USD	FY2024 E	FY2025 E	FY2026 E	FY2027 E	FY2028 E
Revenue	10,635	7,356	5,098	3,787	2,776
Revenue Growth	-37.8%	-30.8%	-30.7%	-25.7%	-26.7%
COGS	(7,540)	(5,267)	(3,630)	(2,689)	(1,971)
COGS as a % of Revenue	70.9%	71.6%	71.2%	71.0%	71.0%
Gross Profit	3,095	2,089	1,468	1,098	805
GP Margin	29.1%	28.4%	28.8%	29.0%	29.0%
EBIT	713	522	408	312	230
EBIT Margin	6.7%	7.1%	8.0%	8.2%	8.3%
EBITDA	1,242	898	692	528	400
EBITDA Margin	11.7%	12.2%	13.6%	13.9%	14.4%
Tax	(127)	(69)	(53)	(31)	(14)
NOPAT	585	454	355	282	216
FCFF	1,127	899	701	510	399

Leverage	FY2024 E	FY2025 E	FY2026 E	FY2027 E	FY2028 E
Debt / EBITDA	2.79x	3.87x	4.69x	5.71x	7.98x
Net Debt / EBITDA	2.78x	4.04x	4.16x	4.61x	5.21x
Debt / Capital	50%	59%	56%	54%	56%
Debt / Equity	99%	144%	129%	119%	125%
Current Ratio	1.91x	1.72x	2.57x	3.34x	5.60x
Quick Ratio	1.15x	0.96x	1.81x	2.58x	4.85x
EBITDA / Interest Expense	6.80x	3.80x	3.72x	2.85x	2.33x

- **Even as equity are 90% wiped out, company still have enough operating profits for interest and debt servicing.**

Source: Company Report, CapIQ, BBG

Credit Analysis (1/2) – Scenario Test

We tested three most likely macroeconomic scenario to test its resilience toward macro change.

Scenario Assumptions

Base Case: Soft-Landing

- Unemployment rates stay low, with businesses possibly reducing hiring but not engaging in mass layoffs.
- Inflation rates decline to reasonable levels, while prices for construction materials stabilize
- As the economy slows, demand for residential and commercial construction may remain steady, particularly in areas with housing shortages.
- With slower demand growth, construction firms may face heightened competition, which could impact profit margins.

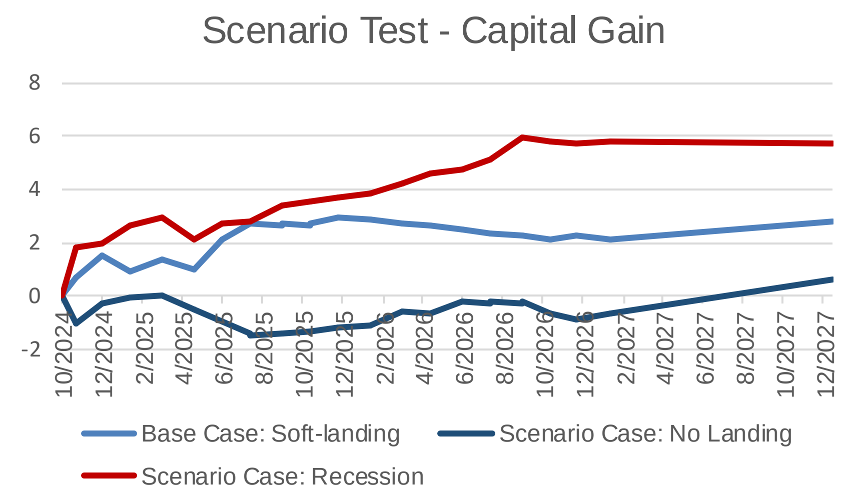
Scenario Case: No Landing

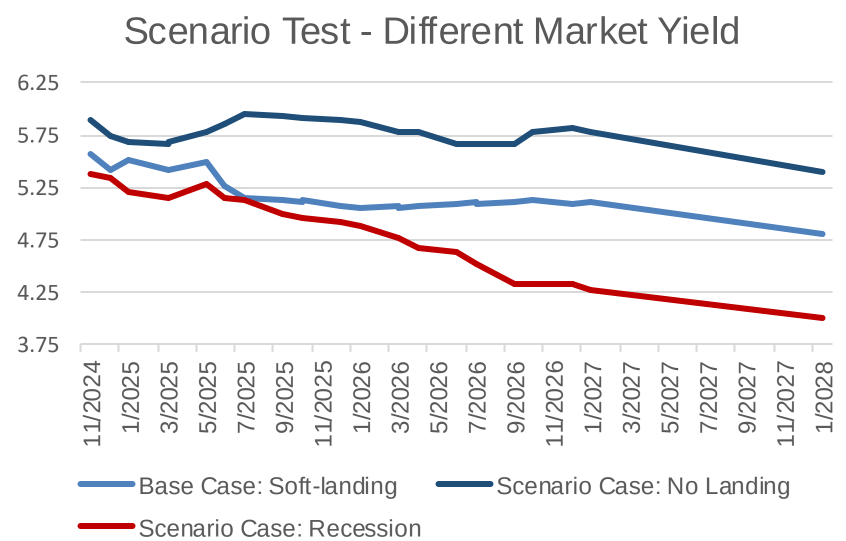
- Demand for new construction may remain flat, as consumers and businesses are hesitant to make large investments without clear economic growth.
- Developers may adopt a wait-and-see approach, cautiously pursuing projects while closely monitoring economic indicators.
- Without significant economic changes, material costs may stabilize, allowing construction firms to plan and budget more effectively.

Scenario Case: Recession

- Unemployment rates sky-rocketed, with businesses possibly engaging in mass layoffs.
- While some material costs may decrease due to lower demand, others could remain high due to supply chain issues or tariffs, impacting project budgets.
- With slower demand growth, construction firms may face heightened competition, which could impact profit margins.
- In response to a recession, governments may increase infrastructure spending as a way to stimulate the economy, which can provide some support for the construction industry.

Scenario Results





Credit Analysis (2/2) – Scenario Test

The bond thrive in both soft-landing and recession scenarios.

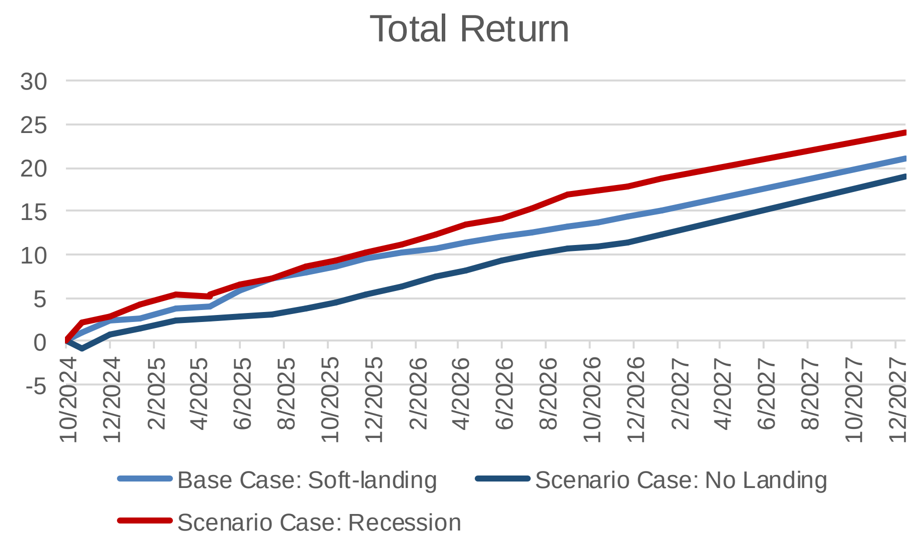
Scenario Assumptions

Base Case: Soft-Landing
- BLDR demonstrates resilience to market volatility, supported by strong cash flow. This stability allows it to navigate fluctuations in demand without significant disruptions.
- With a lower net debt-to-EBITDA ratio, the BLDR is better positioned to pursue mergers with smaller local businesses. This strategic move enables the acquisition of additional customers, enhancing market reach and operational efficiency.

Scenario Case: No Landing
- In this scenario, the economy remains robust, leading to a significant reduction in default risks for BLDR.
- Higher interest rate kept bond price low.
- The rise in single-family orders stimulates sales across all product lines, indicating strong consumer demand and confidence in the housing market.
- BLDR capitalizes on this favorable environment by continuing its organic M&A strategy, which involves integrating smaller firms to expand its market share and reinforce its dominance in the U.S. market.

Scenario Case: Recession
- Initially, the BLDR faces challenges due to a decline in orders as economic uncertainty takes hold.
- Despite this downturn, BLDR's strong pricing power allows it to maintain profit margins, demonstrating its ability to adapt and manage costs effectively.
- In response to economic pressures, the Federal Reserve acts quickly to lower interest rates, which reduces the weighted average cost of capital (WACC) and tightens credit spreads. This move facilitates access to financing for both the builder and potential homebuyers.
- As a result, new housing orders begin to rebound from their lows, indicating a potential recovery and renewed interest in the housing market.

Scenario Results



Target Valuation

Weatherproof investment with 6~8% return p.a

Scenario Results

Macro

Revenue benefits from recovering U.S. new home construction

Cash Flow

Sound profit margin as cash generator, from both:
- Value-added products expansion through investments in capacity and digital capabilities
- Operating excellence in incremental productivity savings and SG&A leverage

Capital Deployment

Credit cushion remains strong despite announced repurchase and acquisitions

Base Case: Soft-Landing
- Recovery of housing market and rate cuts. Bonds will be trading **around ~130bps for ~7% total return p.a**

Scenario Case: No Landing
- Stagnated housing market keep the sales low.
- Company maintained its profit margin and held potential acquisitions.
- Bonds will still tighten but at a lower pace to **~140bps and yield 6.3% total return p.a**

Scenario Case: Recession
- Initially, the Builder faces challenges due to a decline in orders recovery and renewed interest in the housing market, causing its spread to widen along with others in the industry.
- Builder soon recovery from the downturn and start benefit from the housing market rebloom, tightening back to prerecession level **~150bps and yield 8% total return p.a**

Annualized Total Return (%)	1Y	2Y	3Y
Base Case: Soft-Landing	7.05	6.85	7.02
Scenario Case: No Landing	4.58	5.45	6.30
Scenario Case: Recession	9.40	8.69	8.00

Spread (bps)	1Y	2Y	3Y
Base Case: Soft-Landing	140	135	130
Scenario Case: No Landing	160	140	140
Scenario Case: Recession	210	155	150

Risk Evaluation

There are 4 potential risks to this investment.

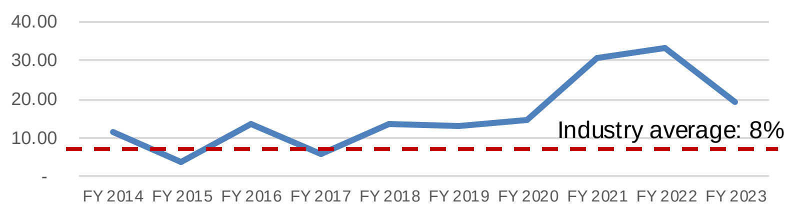
Inability to Intergrade Acquisitions / Mergers

Issue

BLDR has historically sought acquisitive growth to expand into underserved markets. As BLDR expands, finding synergies between different organizations can become harder to execute

Mitigants

We are not worried about the risk as BLDR continues to acquire smaller targets (closed 5 acquisitions YTD). Historically BLDR is not a stranger to tuck in acquisitions as well as larger mergers. See their ROIC below:



Deteriorating Markets Leads to Pricing Competition

Issue

Longer than expected market downturn might lead to players resorting to price competition. We see some possibility of margin compression due to a weaker housing market, and higher commodity price

Mitigants

BLDR is diversified: BLDR is the most diversified player in home constriction market, when one segment under performs, other segments in the mix might offset the downturn. For example, recently when MF underperformed, R&R and SF picked up.

BLDR has pricing power: We liked how value-added products helped BLDR to pass on commodity costs to customers in 2023 and 1H24.

We tested for these scenarios: In all 3 cases, we took these risks into consideration. As shown above, our models show the note is covered.

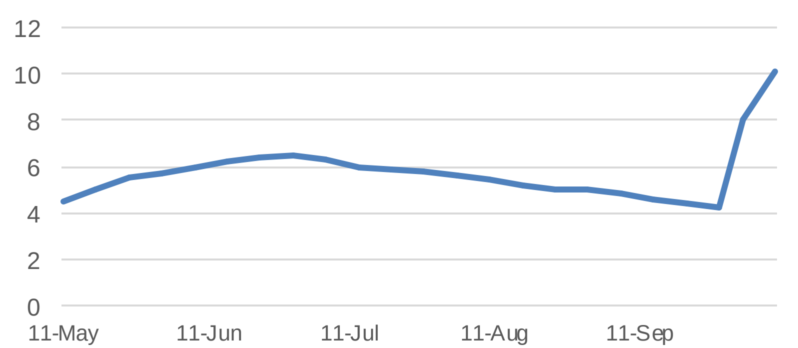
Low Liquidity of the Note

Issue

The bond we have selected might face liquidity related issues, making it harder to enter and exit, as well as widen the spread. This could undermine the thesis.

Mitigants

Expected daily volume (in millions) seemed healthy.



Upcoming CEO Change

Issue

BLDR will be replacing its CEO with its current CFO by November 6, 2024. Execution of the transition under a challenging macro condition can become a risk.

Mitigants

Positive Market Reaction: Oppenheimer upgraded BLDR's target price following the announcement, suggesting confidence in the leadership change. Other analysts have followed up with notes stating their support / neutral stance over the change.

> **Barclays**: "*in the back of our minds we always worried about the reaction if Peter Jackson were to ever leave BLDR, but getting the opposite - elevation to CEO - is a strong positive, in our view*"

Smooth Transition: The new CEO is an internal candidate with extensive experience in the organization, ensuring continuity and minimizing disruptions during the transition.

Financial and M&A Expertise: As former CFO, he brings strong financial and M&A expertise, which is crucial for navigating interest rate changes and strengthening BLDR's capital structure.

Source: Company Report, CapIQ, BBG

Executive Summary

Security Detail

Bond	**BLDR 4.25 02/01/32 CORP** (US08985AL42)
Recommendation	**Buy**
Rank	Sr Unsecured
Coupon	4.2500%
Type	Fixed
Bond Ratings	Moody's **Ba2** | S&P **BB-**
Company Ratings	Moody's **Ba2** | S&P **BB**
Aggregated Amount Issued/Out	USD 1,300,000,000
Price	$91.5 | Spread 155bps | Yield to Maturity: 5.7%
Target	$98 | Spread **130bps** | 3 Year Expected Return: **7% p.a.**

Company Overview

Formed in 1998 and publicly traded on the NYSE (BLDR), Builders FirstSource is a **leading supplier and manufacturer** with a wide product portfolio of **building materials**, manufactured components and construction services, **to professional contractors** and consumers in the U.S.

Investment Thesis

Macro	Revenue benefits from recovering U.S. new home construction
Cashflow	Sound profit margin as cash generator, from both • Value-added products expansion through investments in capacity and digital capabilities • Operating excellence in incremental productivity savings and SG&A leverage
Capital Deployment	Credit cushion remains strong with undeployed repurchase and acquisitions targets

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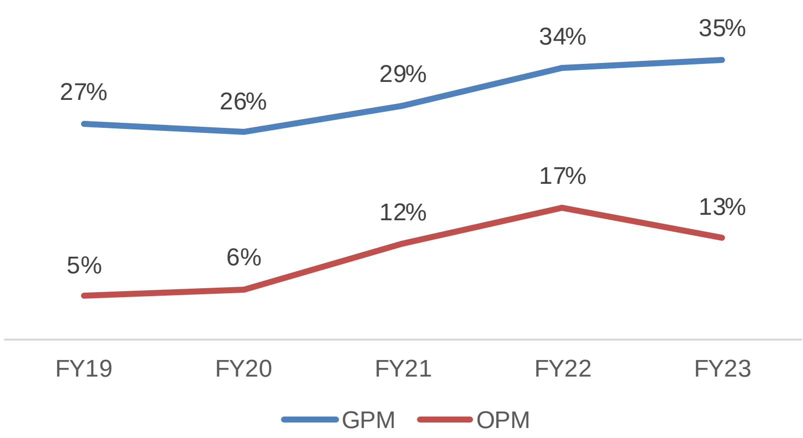
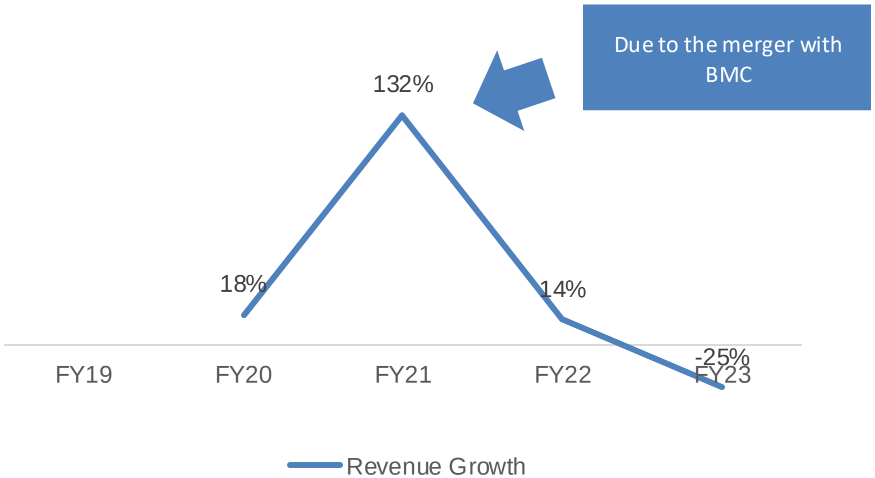
Appendix IV: Debt and Liquidity

Appendix IV: Valuation

Appendix I – Historical Financials

Strong historical track record.





In Millions of USD	FY2019	FY2020	FY2021	FY2022	FY2023
Revenue	7,280	8,559	19,894	22,726	17,097
Revenue Growth	0.0%	17.6%	132.4%	14.2%	-24.8%
COGS	(5,304)	(6,336)	(14,043)	(14,982)	(11,085)
COGS as a % of Revenue	72.8%	74.0%	70.6%	65.9%	64.8%
Gross Profit	1,977	2,223	5,851	7,744	6,012
GP Margin	27.2%	26.0%	29.4%	34.1%	35.2%
EBIT	392	544	2,387	3,770	2,176
EBIT Margin	5.4%	6.4%	12.0%	16.6%	12.7%
EBITDA	492	660	2,935	4,267	2,735
EBITDA Margin	6.8%	7.7%	14.8%	18.8%	16.0%
Tax	(61)	(95)	(526)	(822)	(444)
NOPAT	331	449	1,861	2,948	1,733
FCFF	425	197	(499)	3,148	1,891
Capital Intensity					
Capex / EBITDA	23%	17%	8%	8%	17%
Capex / Assets	3%	3%	2%	3%	5%
Changes in NWC / Sales	1%	-3%	-3%	1%	2%
Leverage					
Debt / EBITDA	3.25x	2.90x	1.16x	0.82x	1.36x
Net Debt / EBITDA	3.22x	2.26x	1.15x	0.80x	1.33x
Debt / Capital	66%	62%	41%	41%	44%
Debt / Equity	194%	166%	71%	70%	78%
Current Ratio	1.59x	2.07x	1.86x	1.90x	1.77x
Quick Ratio	0.91x	1.34x	1.10x	1.12x	1.11x
EBITDA / Interest Expense	4.49x	4.87x	21.60x	21.51x	14.23x
Debt Schedule					
Current Portion of LT Debt	86	101	102	109	103
LT Debt	1,514	1,816	3,301	3,382	3,611
DEBT	1,600	1,917	3,403	3,492	3,715
Share Buybacks					
Weighted Average Number of Shares	116	117	202	162	119
Diluted Weighted Avearge Shares	117	118	204	164	120
Working Capital					
Inventory turnover		9x	12x	10x	8x
Days inventory outstanding		39	31	37	44
A/R turnover		11x	15x	14x	12x
Days sales outstanding		32	24	25	31
A/P turnover		-12x	-17x	-16x	-13x
Days payable outstanding		(30)	(22)	(23)	(28)
Cash Conversion cycle		**41**	**33**	**39**	**47**
ROIC	**13%**	**14%**	**21%**	**33%**	**20%**
ROE	**27%**	**27%**	**36%**	**55%**	**33%**
ROA	**7%**	**8%**	**16%**	**26%**	**15%**

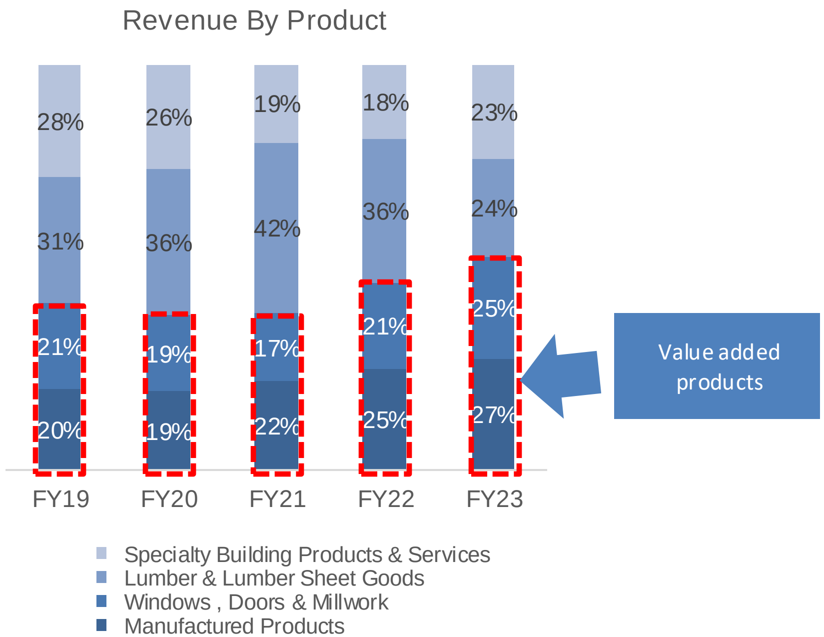
Appendix I – Historical Financials

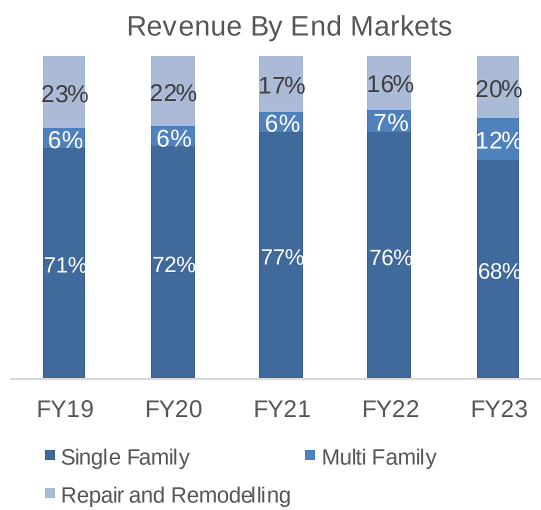
Strong historical track record.

In Millions of USD

By Product	FY2019	FY2020	FY2021	FY2022	FY2023
Revenue					
Manufactured Products	1,449.6	1,640.5	4,333.3	5,692.4	4,700.7
Windows , Doors & Millwork	1,542.9	1,629.2	3,332.0	4,790.8	4,289.1
Value Added Products	**2,992.5**	**3,269.6**	**7,665.3**	**10,483.2**	**8,989.8**
Lumber & Lumber Sheet Goods	2,251.6	3,076.4	8,412.2	8,088.1	4,128.9
Specialty Building Products & Services	2036.4	2212.9	3816.4	4,155.1	3,978.6
Total	**7,280.5**	**8,558.9**	**19,893.9**	**22,726.4**	**17,097.3**
Check	0.0	0.0	0.0	0.0	0.0
YoY Change					
Manufactured Products		13%	164%	31%	-17%
Windows , Doors & Millwork		6%	105%	44%	-10%
Value Added Products		**9%**	**134%**	**37%**	**-14%**
Lumber & Lumber Sheet Goods		37%	173%	-4%	-49%
Specialty Building Products & Services		9%	72%	9%	-4%
Total		**18%**	**132%**	**14%**	**-25%**
Mix					
Manufactured Products	20%	19%	22%	25%	27%
Windows , Doors & Millwork	21%	19%	17%	21%	25%
Value Added Products	**41%**	**38%**	**39%**	**46%**	**53%**
Lumber & Lumber Sheet Goods	31%	36%	42%	36%	24%
Specialty Building Products & Services	28%	26%	19%	18%	23%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

By End Markets	FY2019	FY2020	FY2021	FY2022	FY2023
Revenue					
Single Family	5,204.4	6,147.6	15,225.6	17,342.9	11,625.1
Multi Family	436.8	531.4	1,235.4	1,639.1	2,135.8
Repair and Remodel and Other	1,639.1	1,879.8	3,432.9	3,744.5	3,336.4
Total	**7,280.5**	**8,558.9**	**19,893.9**	**22,726.4**	**17,097.3**
Check					
YoY Change - Blended					
Single Family		18%	148%	14%	-33%
Multi Family		22%	132%	33%	30%
Repair and Remodel and Other		15%	83%	9%	-11%
Total		**18%**	**132%**	**14%**	**-25%**
Mix					
Single Family	71%	72%	77%	76%	68%
Multi Family	6%	6%	6%	7%	12%
Repair and Remodel and Other	23%	22%	17%	16%	20%
Total	**100%**	**100%**	**100%**	**100%**	**100%**



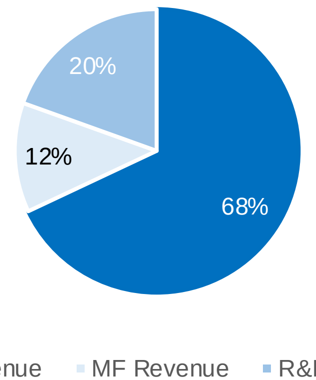


Appendix II – Market Outlook

BLDR has a high exposure to the market recovery.

BLDR Revenue Breakdown by End Market, 2023

80% of LTM sales from the new home construction channel



BLDR's End Market Size and Market Share

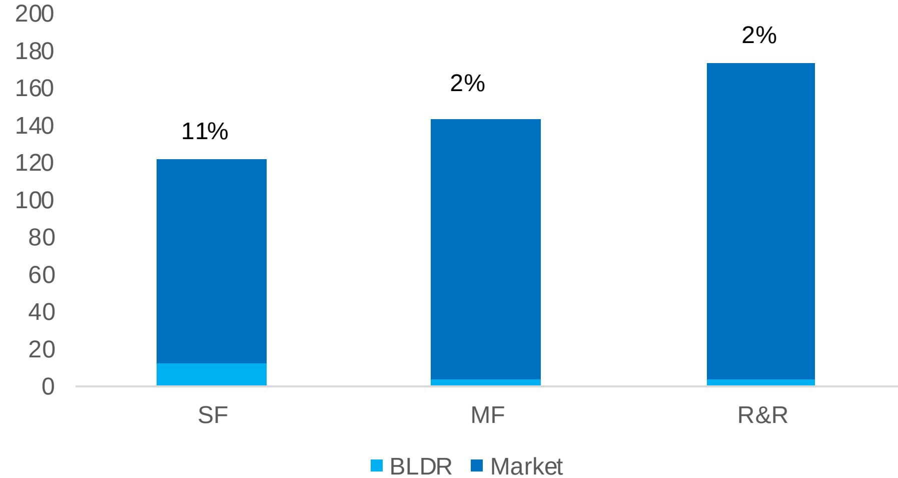
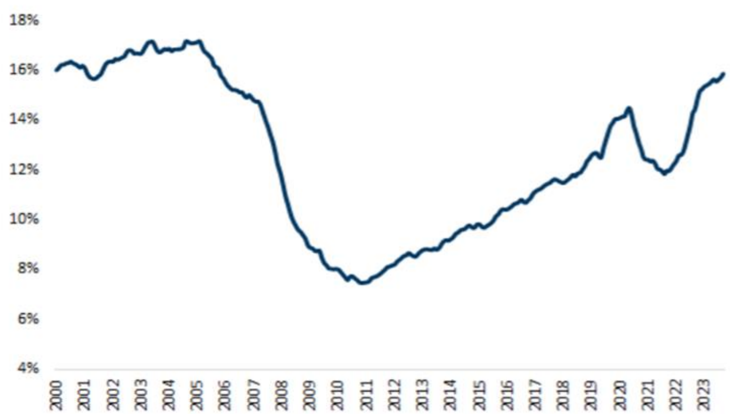


Exhibit 33: Share of New Home Sales Is The Highest Since 2006

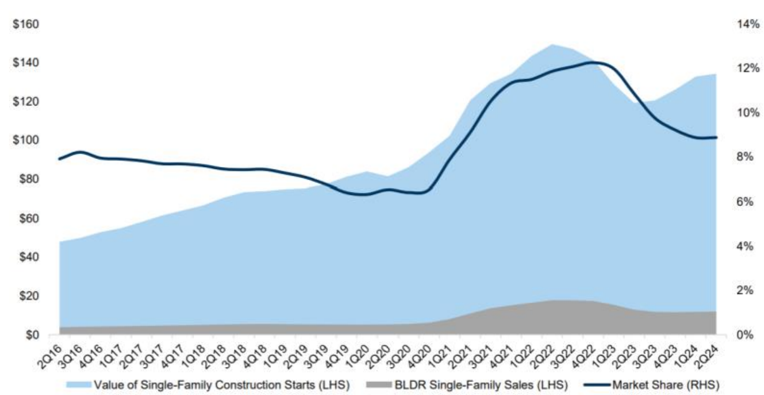
Share of New SF Home Sales as % of Total SF Home Sales (LTM)



Source: National Association of Realtors (NAR), Census Bureau

Exhibit 20: We Estimate BLDR Captures ~9% Share of the New Single-Family Construction Materials Market

Total Addressable Market (LTM, $bn)



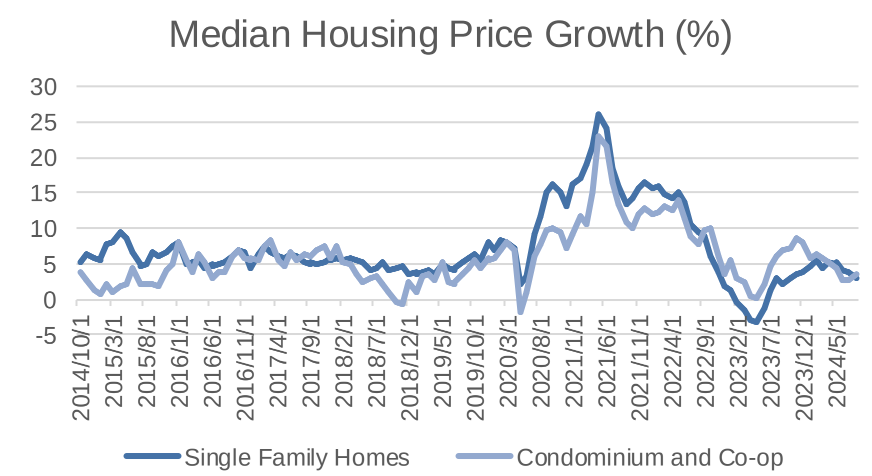
Assumes Cost of Materials of ~$134K/Home in 2023; Adjusted for Inflation in other periods

Source: Census Bureau, US Bureau of Labor Statistics, Company reports, Goldman Sachs Global Investment Research

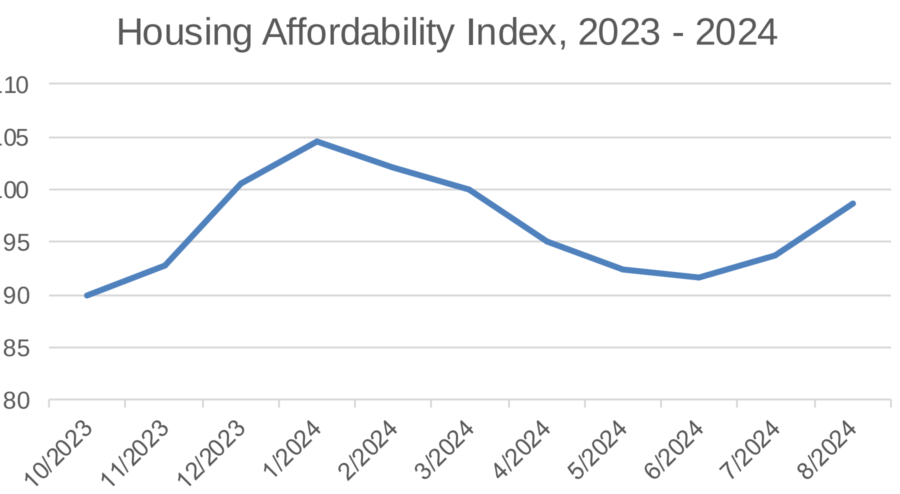
Appendix II – Market Outlook

Housing market going through positive change.

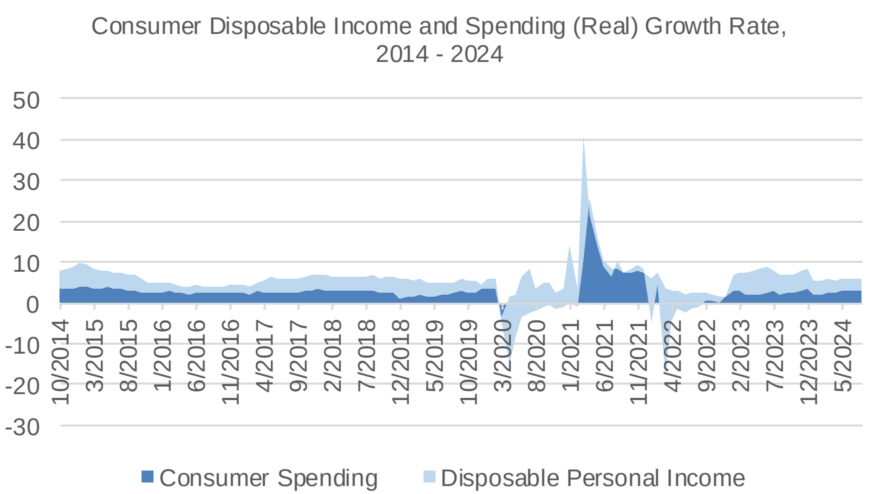
Housing Price Surge Slows Down



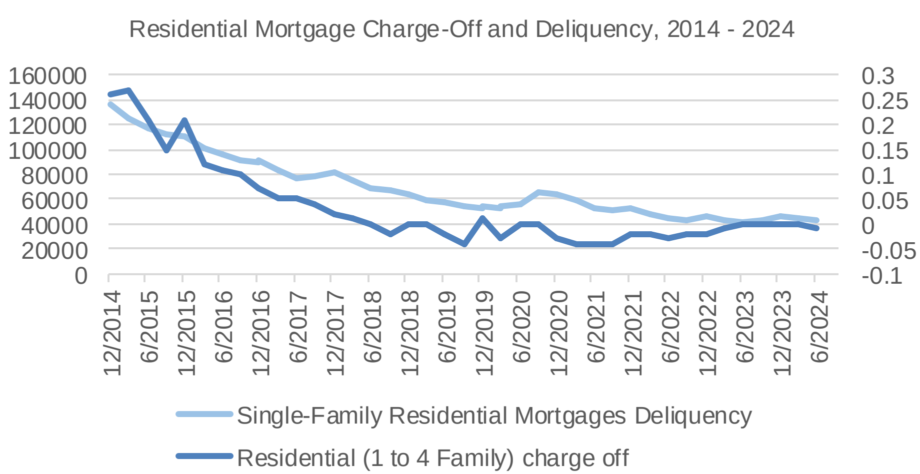
Housing Affordability Bounce Back



Consumer Balance Sheet Remains Healthy...



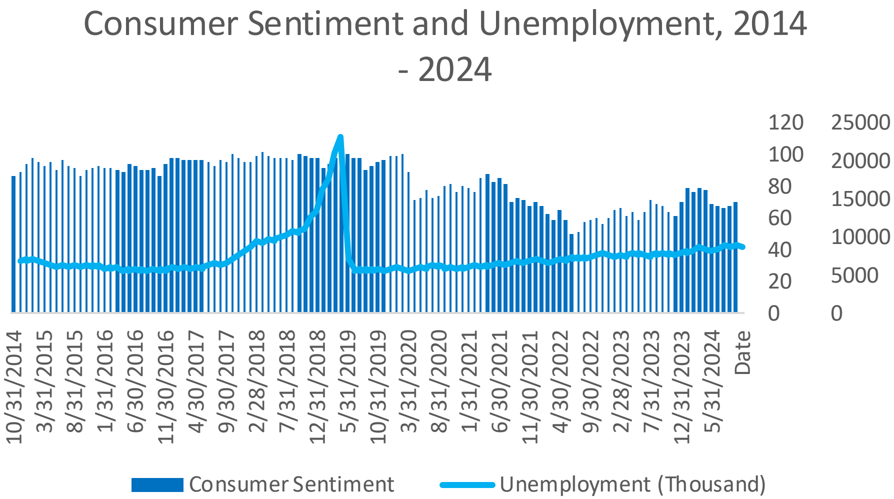
… And Is Demonstrated in Mortgage Data



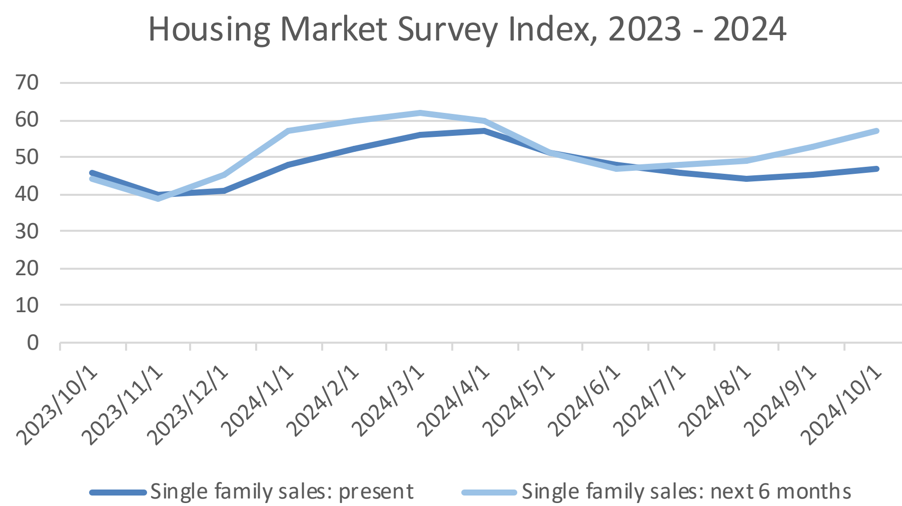
Appendix II – Market Outlook

We expect new construction absorbs major demand, single family housing has bottomed out due to demand support and we expect multi family housing normalizes.

Consumer Confidence And Unemployment Stay Stable



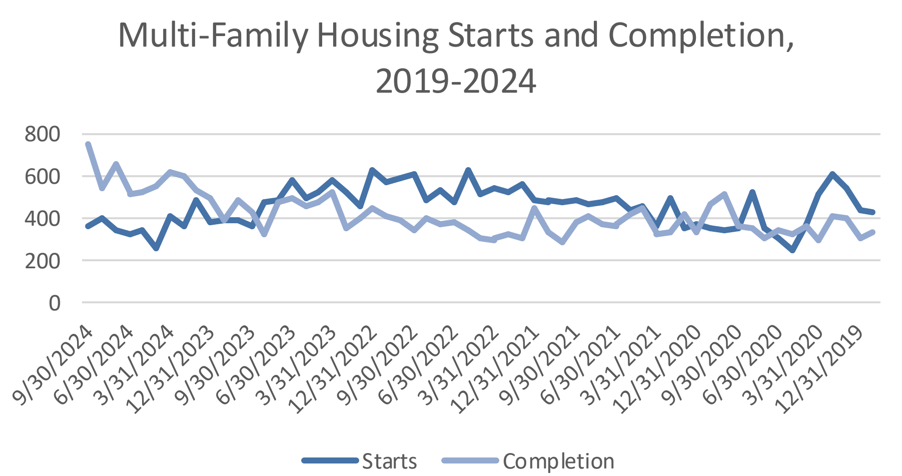
Expectations Beat Current Sales In Housing Market



Single Family Recovery

We expect BLDR to benefit from the anticipated recovery in housing starts in the second half of 2024 and 2025. This should support both increased volumes and a higher proportion of value-added products. **BLDR's quarterly core organic single-family sales have shown a strong correlation (86% R-squared) with a regression model that factors in year-over-year changes in: 1) average starts/homes under construction, 2) the Producer Price Index (PPI) for single-family residential construction, and 3) median new home square footage.**

Multi-Family Rebalances Into Normal Level



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

Appendix III: ESG Evaluation

We would also highlight the company's strong background in ESG factors among peers.

Environmental

- Passive attitude toward environmental transition, as well as the rest in this industry
- Possible improvement ahead as the need for capital intensify
- Constant improvement in waste disposal
- No decarbonization target yet, promise to have emission reduction target

Social

- Provide innovative solutions that customers to operate more sustainably
- Attention to labor safety
- Make a positive impact in the local community

Governance

- Strong governance
- Business ethic-oriented and inclusive culture
- Racial diversity within company
- Leadership development program and management training

Catching up in ESG Areas

	BLDR	Beacon	BCC	GMS
Sustainalytics Risk score	26.7	22	25.7	26.6
MSCI ESG	A	Not rated	Not rated	Not rated
Bloomberg ESG Disclosure Score	46.74	49.01	40.35	41.7
Carbon Reduction Target	No (Will announce before 2025)	50% by 2030	No	No

Recent Improvements

Improved safety performance with a recordable incident rate (RIR) reduction of 12% through June 2024

Source: Company Report, CapIQ, BBG, MSCI, Susainalyitcs

Appendix III – Past M&A Overview

BLDR has completed 60+ acquisitions since inception.

Major Acquisitions

- **ProBuild Holdings (2015):** This $1.6 billion acquisition was a transformative deal for BLDR, creating the largest building materials supplier in the U.S. and significantly expanding its national footprint.
- **BMC Stock Holdings (2021):** BLDR's all-stock merger with BMC Stock Holdings, valued at $2.5 billion, solidified its leadership in the building materials market by combining two of the largest suppliers in the industry.
- **WTS Paradigm (2021):** BLDR acquired this software solutions provider for $450 million to bolster its digital and design capabilities.
- **National Lumber (2022):** The acquisition of New England's largest independent building materials supplier allowed BLDR to expand its reach into the Northeast
- **Trussway (2022):** A $340 million acquisition that enhanced BLDR's value-added truss offerings, particularly in the multifamily housing sector.
- **John's Lumber (2021):** Acquired to increase BLDR's presence in the Michigan market, further strengthening its position in the Midwest.
- **Raney Components & Raney Construction (2019):** These Florida-based companies were acquired to strengthen BLDR's off-site manufacturing and value-added product capabilities

Smaller or Regional Acquisitions

- **High Mountain Door & Trim (2023):** This acquisition helped expand BLDR's millwork and finish carpentry capabilities in Nevada.
- **Valley Truss (2022):** Acquired to grow BLDR's truss manufacturing capacity in Idaho.
- **California TrusFrame (2021):** A $180 million deal that expanded BLDR's presence in the West Coast market.

Appendix III - Management Overview

BLDR has strong and experienced management that can weather through financial volatility

Dave Rush

- Dave Rush is the president and chief executive officer of Builders FirstSource. Prior to his appointment, Mr. Rush served as executive vice president of the Strategic Management Office (SMO) responsible for developing processes to prioritize, coordinate and manage corporate and field initiatives to help deliver the company's long-term strategy and provide better value to our team members and other stakeholders.
- Mr. Rush started his career with BFS in 1999 with the acquisition of Pelican Companies, where he was vice president of finance.

Peter Jackson

- Jackson has ~30 years of leadership experience, including 17 years in building products and 7 years with BLDR. He has played an integral role in transforming the company, including:
  - Overseeing debt reduction and improved financial health through key transactions from 2017 to 2019.
  - Driving industry-leading profitability, M&A consolidation, and shareholder returns, including a 40%+ share buyback since August 2021.
  - Leading BLDR's digital transformation, particularly following the acquisition of Paradigm in 2021, which we expect to remain a priority.
- We do not expect significant changes to BLDR's strategy under Jackson's leadership, as much of the company's direction was already driven by him. His deep commitment to BLDR is reflected in his substantial shareholding (201,856 shares compared to Dave Rush's 147,331 shares, per Bloomberg), further reinforcing confidence in his long-term vision for the company.

Pete Beckmann

- Beckmann takes on the role of CFO, transitioning from his current position as SVP FP&A.
- Beckmann has been with BLDR and its legacy companies since 1999, offering deep institutional knowledge and a long track record of overseeing the business.

Steve Herron

- Steve Herron is chief operating officer of Builders FirstSource. He is responsible for overseeing the performance and day-to-day operational and administrative functions of the company.
- Prior to this appointment, Mr. Herron served as president of Builders FirstSource's eastern division. Following the merger of Builders FirstSource and BMC Stock Holdings, Mr. Herron served as SVP of operations for Builders FirstSource's Gulf-South Region.

Dave Rush
Current CEO

Peter Jackson
CFO & next CEO

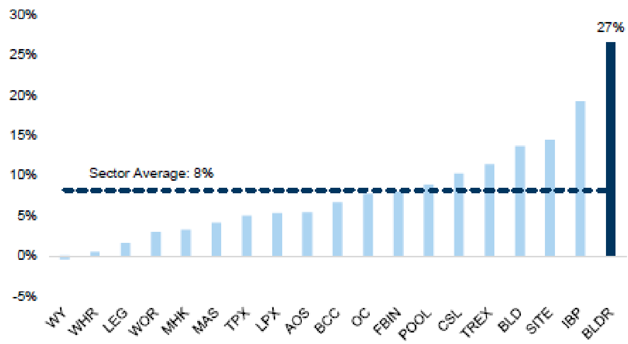
Steven Herron
COO

Amy Bass Messersmith
CPO

Appendix IV – Compared to Peers

BLDR's high ROIC profile highlights superior execution

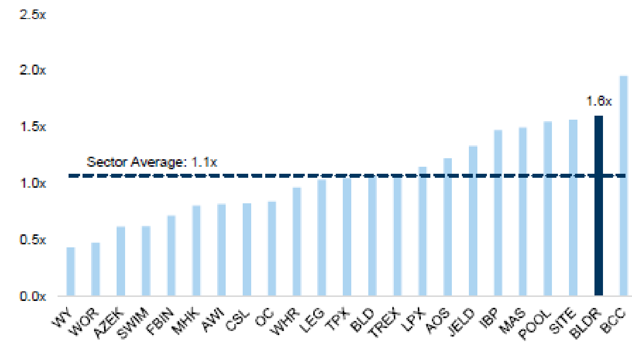
Exhibit 5: BLDR Has Been The Fastest Growing Company in our Building Products/Wood Products Coverage Over the Past Decade...
2014-2024E Sales CAGR



Includes Acquisitions, Excludes Divestitures

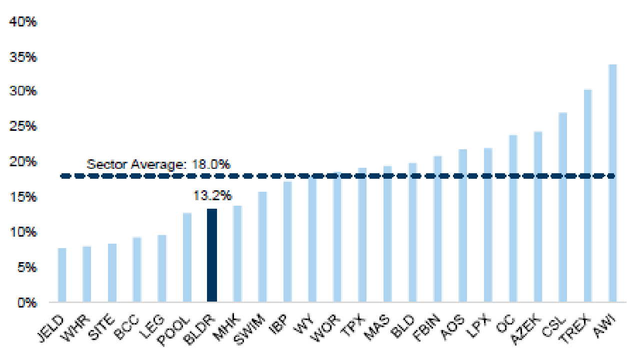
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 6: ...Along with Above Average Asset Turnover...
Sales/Average Assets (2024E)



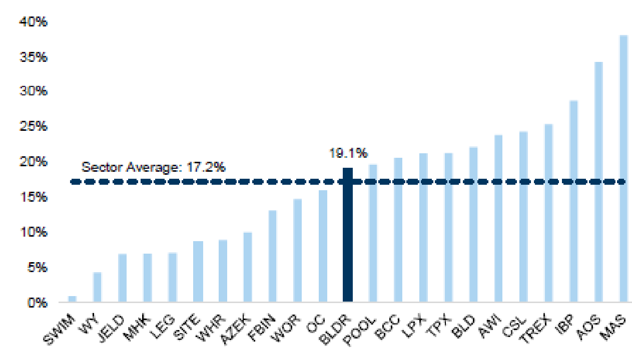
Source: Goldman Sachs Global Investment Research

Exhibit 7: ...Which More Than Compensate For Its Below Average EBITDA Margin...
2024E



Source: Goldman Sachs Global Investment Research

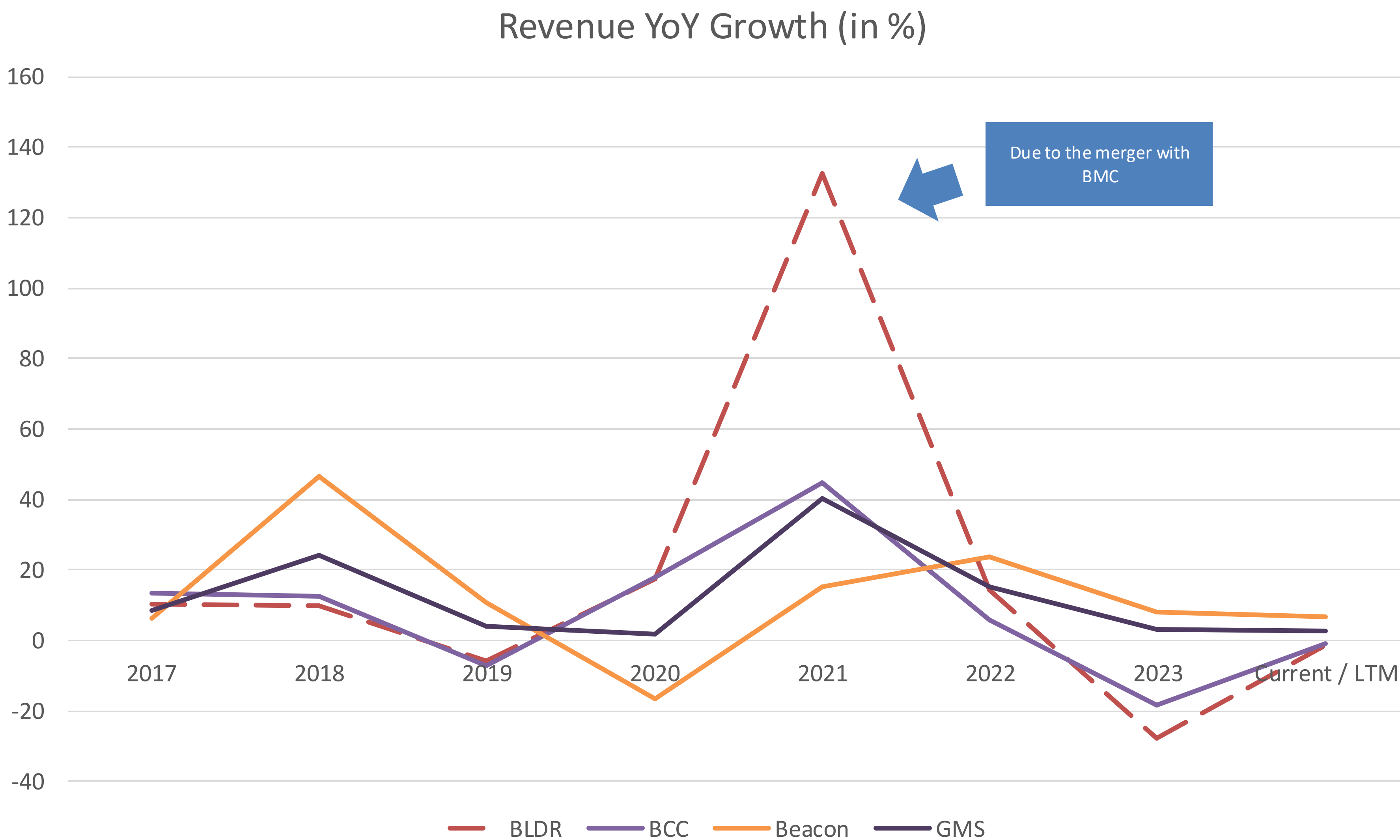
Exhibit 8: ...Leading Its ROIC Slightly Above Our Building Product Coverage Average
2024E ROIC



Source: Goldman Sachs Global Investment Research

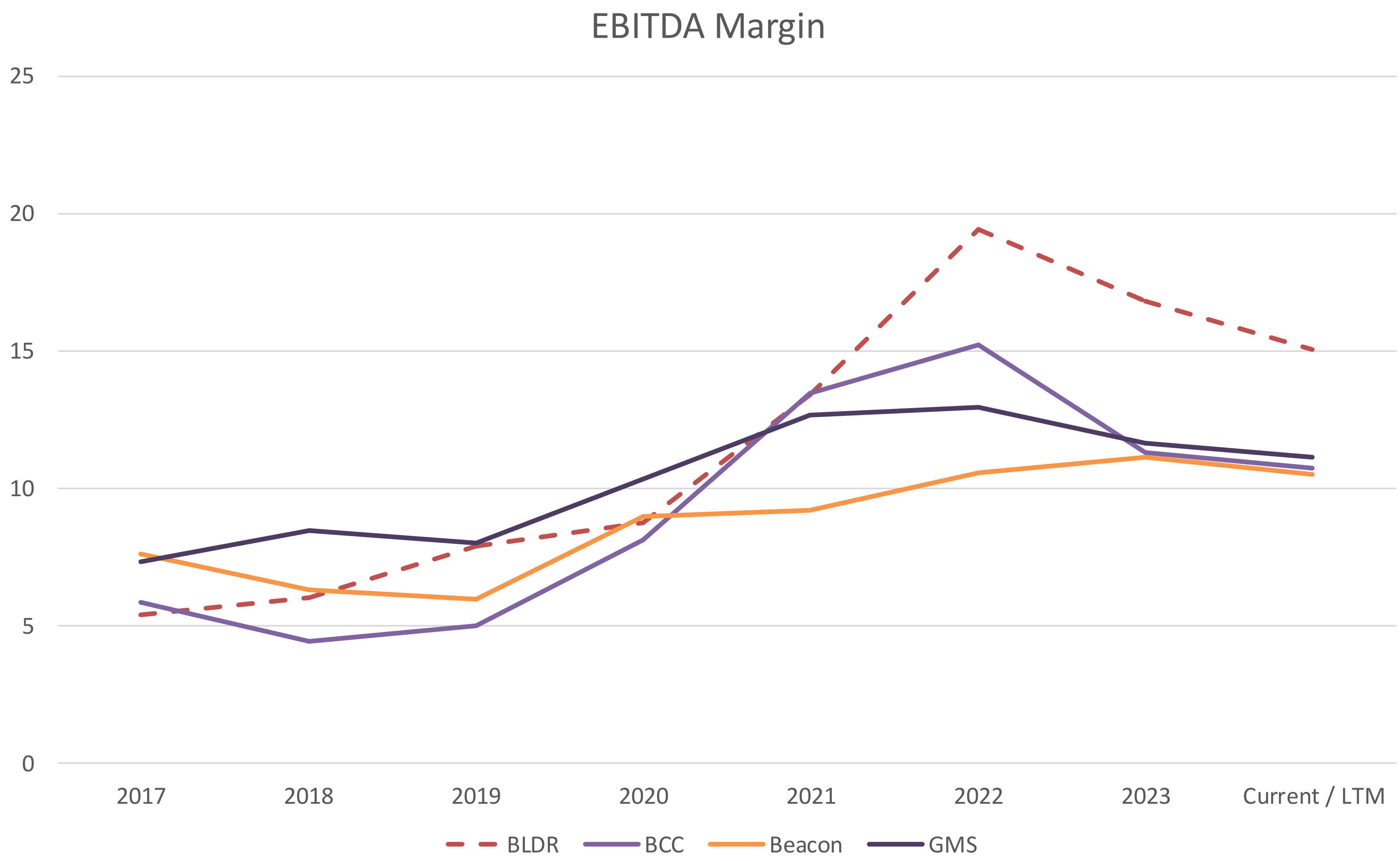
Appendix IV – Compared to Peers

Revenue Growth Compared to Peers



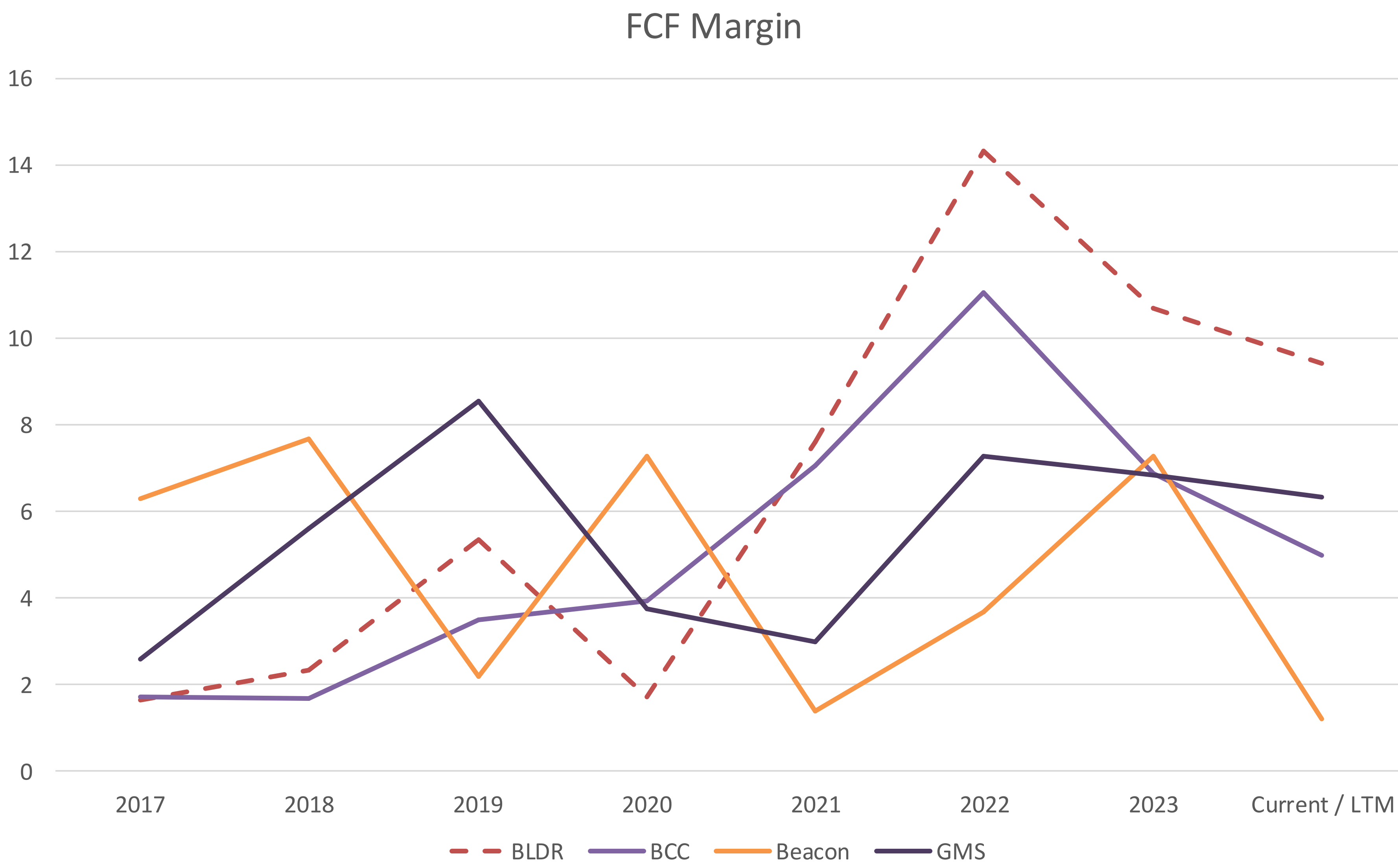
Appendix IV – Compared to Peers

EBITDA Margin



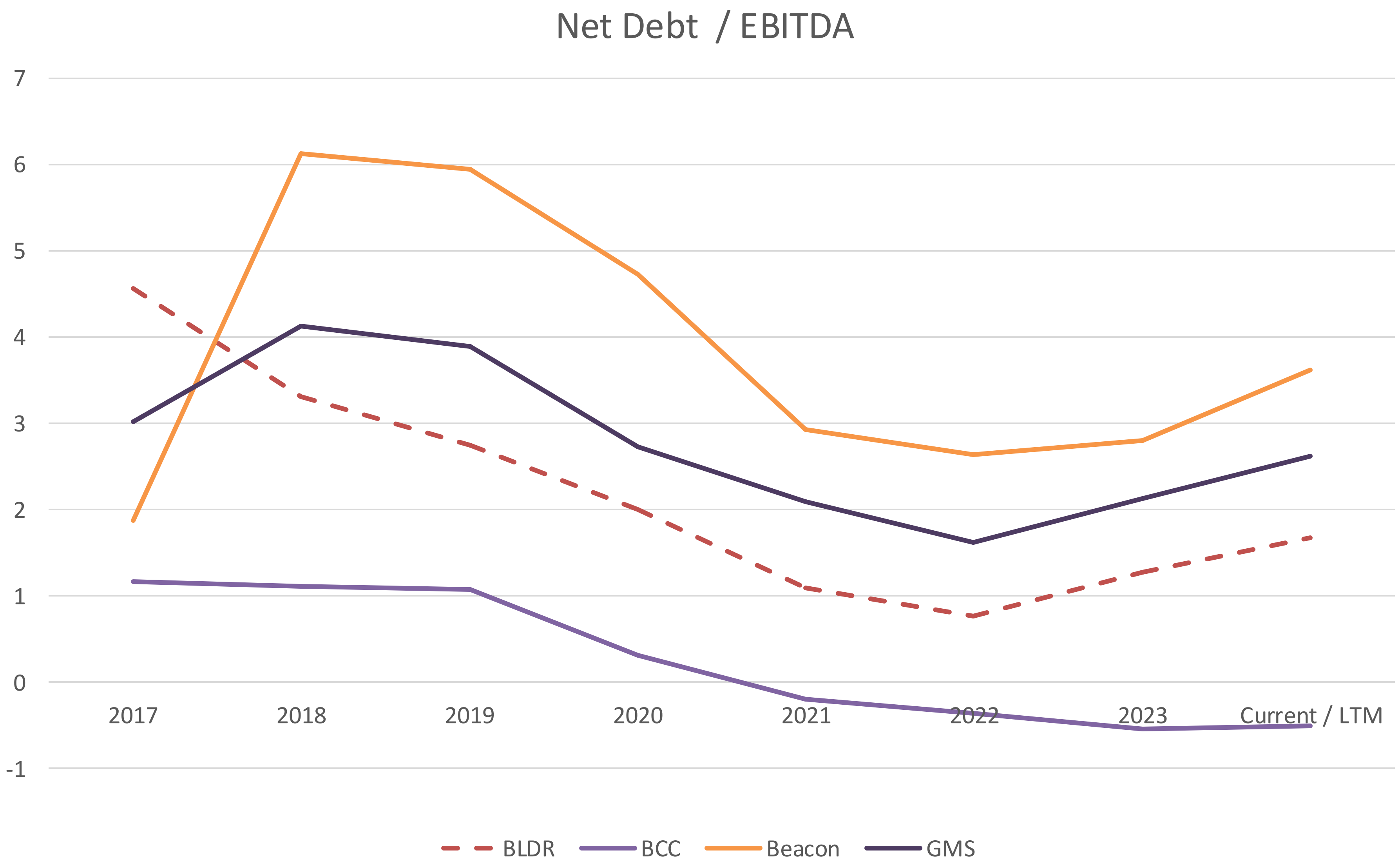
Appendix IV – Compared to Peers

FCF Margin



Appendix IV – Compared to Peers

Net Debt / EBITDA



Appendix V - Debt and Liquidity Analysis

BLDR has a healthy FCF and sound debt positions.

BLDR Debt Maturities (As of June 30, 2024)

Debt Instrument	Amount	Interest Rate	Maturity Date
ABL Facility	$1.8 billion	N/A	2028
Senior Unsecured Notes	$550 million	5%	2030
Senior Unsecured Notes	$1.3 billion	4.25%	2032
Senior Unsecured Notes	$700 million	6.375%	2032
Senior Unsecured Notes	$1 billion	6.375%	2034

- BFS has a **well-spread-out debt maturity profile,** and no significant debt reduction or meaningful changes in the company' s dividend policy are expected.
- BFS is **anticipated to continue generating strong free cash flow,** which will likely be used primarily for acquisitions or share repurchases.

BLDR Liquidity

Cash and cash equivalents of about **$75.6 million**

Working capital usage of about **$90 million to $160 million**

Cash funds from operations of **$1.65 billion to $1.9 billion** over the next 24 months

Capital expenditures (Capex) of about **$500 million to $550 million**

$1.6 billion availability under the $1.8 billion ABL facility due in 2028

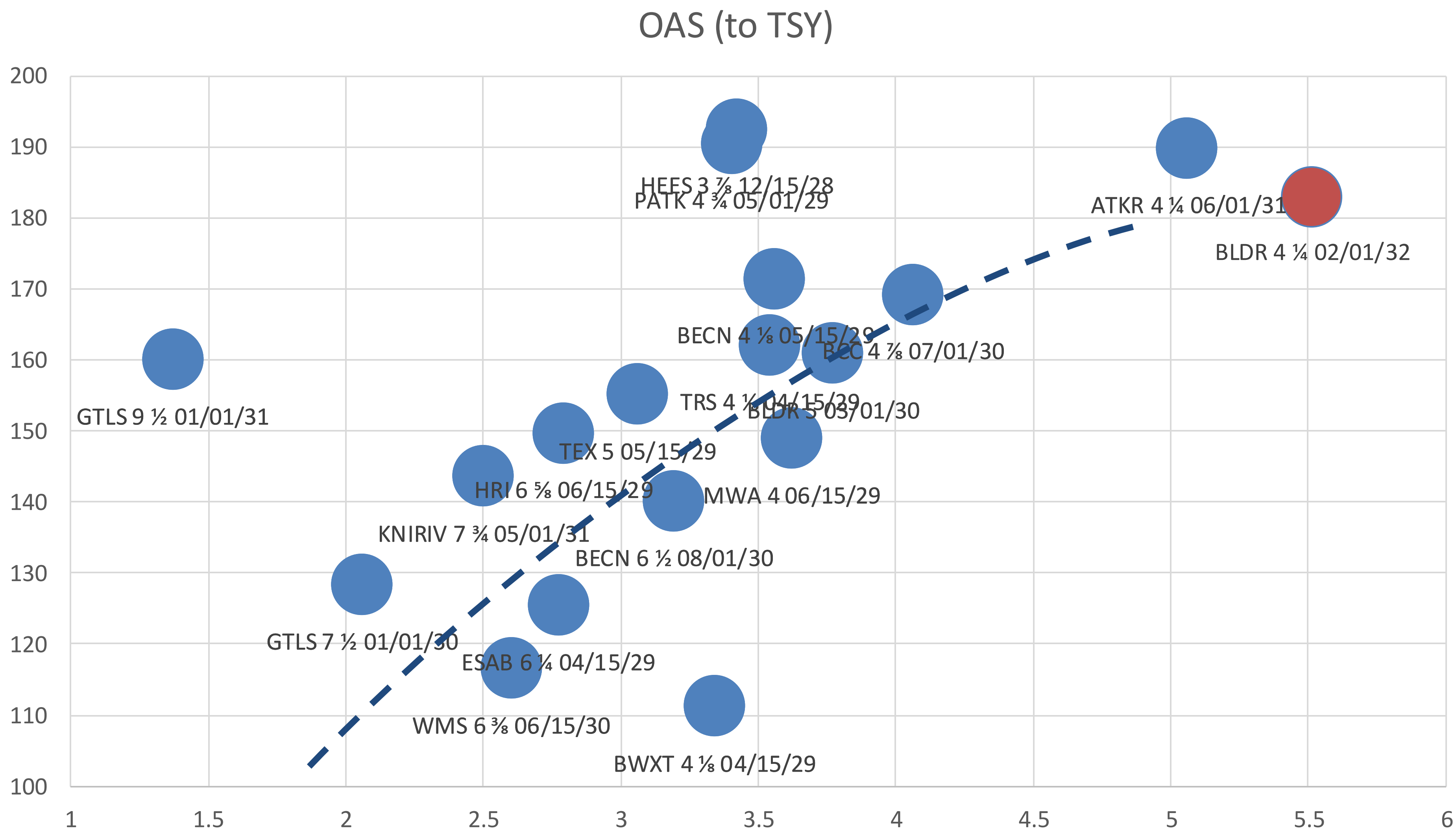
Excessive Liquidity: ~ 3 billion

Liquidity is strong based on these observations and estimates:

- Liquidity sources (including $1.6 billion availability under the company's unrated $1.8 billion ABL facility) should exceed uses by about 3x in the next two years;
- Liquidity sources would exceed uses even if EBITDA declines 30%; and
- The company should continue to exceed the availability threshold under its ABL, even considering a 30% drop in EBITDA.

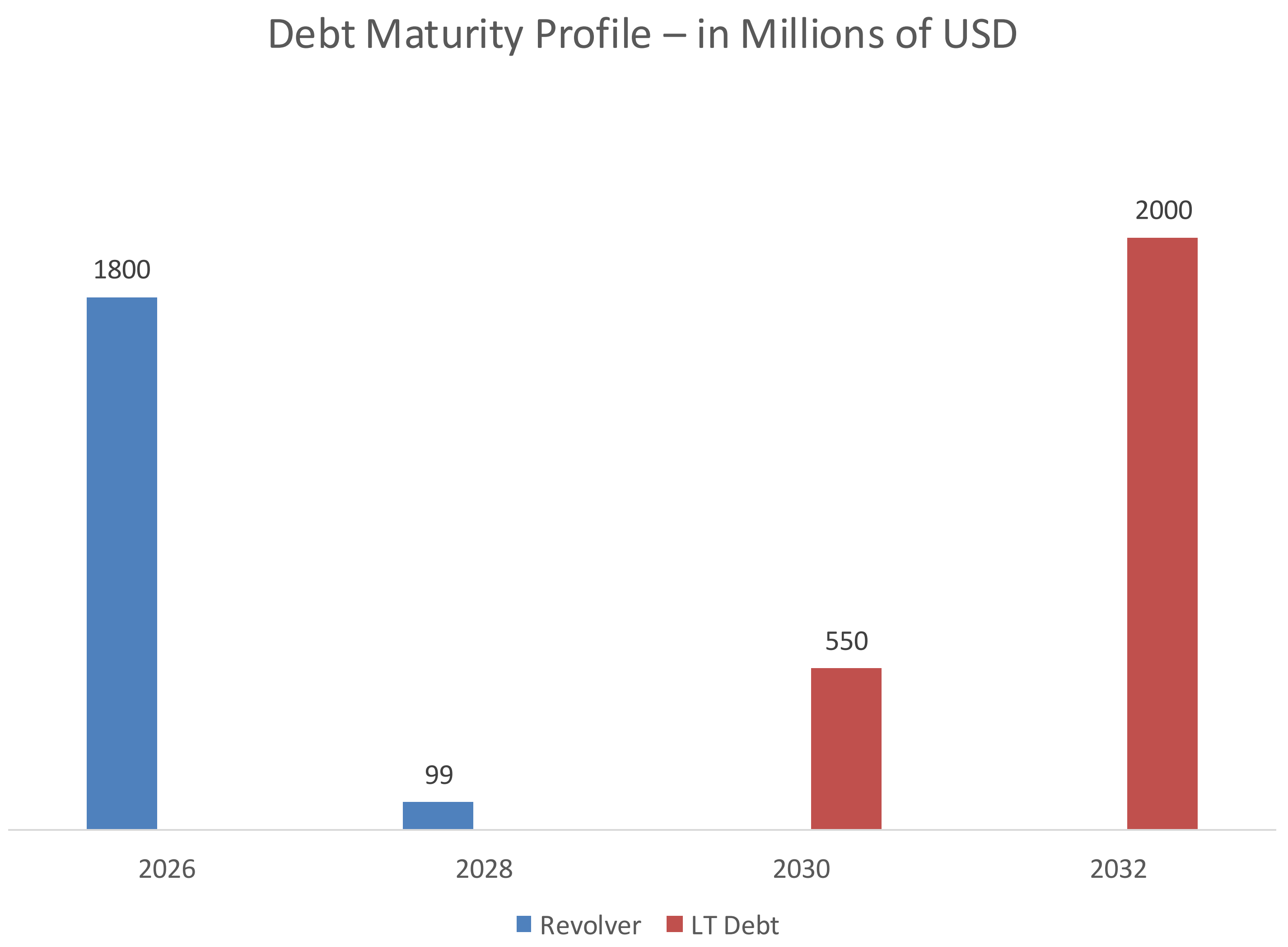
Appendix V – Credit Universe

OAS to TSY and OSA Duration



Appendix V – Maturity

BLDR's upcoming debt maturity



Appendix VI – Valuation

Equity Comps

Company	Ticker	Currency	Market Cap	EV	Revenue Growth (TTM	EBITDA	EBITDA Margin	GP Margin	Operating Margin	Net Income Margin (Adj)
Domestic										
Installed Building Products Inc	IBP US EQUITY	USD	$ 7,219.00	$ 7,809.90	3.65%	$ 521.10	18.24%	34.07%	13.39%	9.30%
SiteOne Landscape Supply Inc	SITE US EQUITY	USD	$ 6,536.70	$ 7,493.10	5.86%	$ 461.80	10.43%	34.46%	5.12%	8.64%
TopBuild Corp	BLD US EQUITY	USD	$ 12,560.90	$ 13,699.90	2.11%	$ 1,004.70	19.11%	30.87%	16.50%	8.96%
Pool Corp	POOL US EQUITY	USD	$ 14,179.30	$ 15,519.30	-7.05%	$ 696.40	12.97%	29.64%	12.18%	10.90%
Boise Cascade Co	BCC US EQUITY	USD	$ 5,540.10	$ 5,157.30	-3.09%	$ 744.10	10.75%	NA	8.48%	6.27%
Masco Corp	MAS US EQUITY	USD	$ 18,714.80	$ 21,717.80	-4.31%	$ 1,500.00	19.04%	36.41%	17.07%	12.41%
Trex Company	TREX US EQUITY	USD	$ 7,000.70	$ 7,100.70	28.06%	$ 412.30	32.99%	43.15%	28.04%	23.58%
Carlisle Companies Incorporated	CSL US EQUITY	USD	$ 21,771.60	$ 22,325.40	1.81%	$ 1,323.90	26.83%	37.56%	23.43%	19.40%
Builders FirstSource	BLDR US EQUIT	USD	$ 22,659	$ 26,936	-8.09%	$ 2,561.60	15.04%	24.10%	11.71%	8.06%
Median			9889.95	10754.90	0.02	720.25	19%	34%	15%	10%
Mean			11690.39	12602.93	0.03	833.04	19%	35%	16%	12%

(Continued)

Company	Ticker	Currency	Best. EV/ Best. EBITDA	5Y Average of EV/TTM EBITDA	EV/Best. EBITDA	Best. P/E	Est. P/E Current Y	Current P/B	Net Debt	Net Debt / EBITDA	Best. ROE	Best. ROA
Domestic												
Installed Building Products Inc	IBP US EQUITY	USD	14.40x	11.37x	14.47x	22.55x	22.79x	10.53x	$ 590.90	1.13x	43.67%	14.90%
SiteOne Landscape Supply Inc	SITE US EQUITY	USD	16.70x	17.03x	16.95x	37.65x	42.21x	4.15x	$ 937.40	2.03x	9.94%	5.24%
TopBuild Corp	BLD US EQUITY	USD	12.20x	11.66x	12.28x	19.22x	19.78x	5.40x	$ 1,139.00	1.13x	25.36%	12.90%
Pool Corp	POOL US EQUITY	USD	21.70x	19.77x	21.79x	32.02x	33.40x	9.97x	$ 1,340.00	1.92x	30.57%	12.63%
Boise Cascade Co	BCC US EQUITY	USD	8.30x	5.32x	8.29x	15.10x	14.86x	2.41x	-$ 382.90	-0.51x	NA	NA
Masco Corp	MAS US EQUITY	USD	13.70x	11.80x	13.69x	19.85x	20.84x	NA	$ 2,795.00	1.86x	-711.85%	16.67%
Trex Company	TREX US EQUITY	USD	21.20x	25.02x	21.36x	33.91x	31.79x	7.82x	$ 100.00	0.24x	16.92%	20.30%
Carlisle Companies Incorporated	CSL US EQUITY	USD	NA	13.97x	15.79x	21.49x	22.92x	7.27x	$ 553.80	0.42x	NA	NA
Builders FirstSource	BLDR US EQUIT	USD	11.70x	8.27x	11.68x	17.77x	17.24x	5.26x	$ 4,277.20	1.67x	28.30%	12.00%
Median			14.40	12.89	15.13	22.02	22.86	7.27	764.15	1.13	0.21	0.14
Mean			15.46	14.49	15.58	25.22	26.07	6.79	884.15	1.03	-0.98	0.14

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

Appendix VI – Valuation

DCF Key Scenario Assumptions

Single Family		5.59%	30.87%	5.27%	-24.06%	1.85%	6.18%	5.00%	5.00%	5.00%	5.00%	4.00%	3.00%	2.00%	2.00%
Base - 1		5.59%	30.87%	5.27%	-24.06%	1.9%	6.2%	5.0%	5.00%	5.00%	5.00%	4.00%	3.00%	2.00%	2.00%
Stress Test Bear - 2						-28.15%	-23.82%	-25.00%	-25.00%	-25.00%	0.00%	1.00%	1.00%	1.00%	1.00%
Realistic Bear - 3						-0.15%	4.18%	3.00%	3.00%	3.00%	3.00%	2.00%	1.00%	0.00%	0.00%
Multi Family		11.08%	1.17%	10.20%	12.73%	-25.98%	0.11%	10.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	2.00%
Base - 1		11.08%	1.17%	10.20%	12.73%	-26.0%	0.1%	10.0%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	2.00%
Stress Test Bear - 2						-55.98%	-29.89%	-20.00%	-27.00%	-27.00%	0.00%	1.00%	1.00%	1.00%	1.00%
Realistic Bear - 3						-27.98%	-1.89%	8.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	0.00%
Repair and Remodel and Other		4.76%	37.75%	11.71%	2.41%	-1.60%	0.90%	2.00%	4.70%	4.70%	4.70%	4.70%	4.00%	3.00%	2.00%
Base - 1		4.76%	37.75%	11.71%	2.41%	-1.6%	0.9%	2.0%	4.70%	4.70%	4.70%	4.70%	4.00%	3.00%	2.00%
Stress Test Bear - 2						-31.60%	-29.10%	-28.00%	-25.30%	-25.30%	0.00%	1.00%	1.00%	1.00%	1.00%
Realistic Bear - 3						-3.60%	-1.10%	0.00%	2.70%	2.70%	2.70%	2.70%	2.00%	1.00%	0.00%
Commodity		8.96%	45.20%	1.01%	-11.15%	-1.33%	2.20%	-0.35%	3.00%	3.00%	3.00%	3.00%	3.00%	2.00%	2.00%
Base - 1		8.96%	45.20%	1.01%	-11.15%	-1.3%	2.2%	-0.4%	3.00%	3.00%	3.00%	3.00%	3.00%	2.00%	2.00%
Stress Test Bear - 2						-5.00%	-5.00%	-5.00%	0.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%
Realistic Bear - 3						-3.33%	0.20%	-2.35%	1.00%	1.00%	1.00%	1.00%	1.00%	0.00%	0.00%
# of Workdays		0.38%	-0.49%	-0.75%	-0.17%	0.78%	0.37%	-1.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Base - 1		0.38%	-0.49%	-0.75%	-0.17%	0.8%	0.4%	-1.5%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Stress Test Bear - 2						-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%
Realistic Bear - 3						-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%
Acquisitive Growth		2.49%	8.03%	7.28%	3.59%	1.76%	0.34%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Base - 1		2.49%	8.03%	7.28%	3.59%	1.8%	0.3%	0.0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Stress Test Bear - 2						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Realistic Bear - 3						0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
GM	27.15%	25.97%	29.41%	34.08%	35.17%	32.10%	31.40%	31.80%	32.00%	32.00%	33.00%	33.00%	33.00%	33.00%	33.00%
Base - 1	27.15%	25.97%	29.41%	34.08%	35.17%	32.10%	31.40%	31.80%	32.00%	32.00%	33.00%	33.00%	33.00%	33.00%	33.00%
Stress Test Bear - 2						29.10%	28.40%	28.80%	29.00%	29.00%	30.00%	30.00%	30.00%	30.00%	30.00%
Realistic Bear - 3						31.10%	30.40%	30.80%	31.00%	31.00%	32.00%	32.00%	32.00%	32.00%	32.00%
New Debt Issuance						998.20	-	998.20	-	1,500.00	-	2,000.00	-	2,000.00	-
Base - 1						998.20	-	998.20		1,500.00		2,000.00		2,000.00	
Stress Test Bear - 2						998.20	-	499.10	-	750.00	-	1,000.00	-	1,000.00	-
Realistic Bear - 3						998.20	-	665.47	-	1,000.00	-	1,333.33	-	1,333.33	-
Effective Interest Rate						-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%
Base - 1						-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%
Stress Test Bear - 2						-5.60%	-5.60%	-6.60%	-6.60%	-6.60%	-6.60%	-6.60%	-6.60%	-6.60%	-6.60%
Realistic Bear - 3						-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%	-5.60%

Appendix VI – Valuation

DCF Base Case Overview

In Millions of USD	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024 E	FY2025 E	FY2026 E	FY2027 E	FY2028 E	FY2029 E	FY2030 E	FY2031 E	FY2032 E	FY2033 E	CAGR
Revenue	7,280	8,559	19,894	22,726	17,097	16,910	18,175	18,726	20,178	21,743	23,430	25,079	26,631	27,770	28,880	5.5%
Revenue Growth		17.6%	132.4%	14.2%	-24.8%	-1.1%	7.5%	3.0%	7.8%	7.8%	7.8%	7.0%	6.2%	4.3%	4.0%	
COGS	(5,304)	(6,336)	(14,043)	(14,982)	(11,085)	(11,482)	(12,468)	(12,771)	(13,721)	(14,785)	(15,698)	(16,803)	(17,842)	(18,606)	(19,350)	
COGS as a % of Revenue	72.8%	74.0%	70.6%	65.9%	64.8%	67.9%	68.6%	68.2%	68.0%	68.0%	67.0%	67.0%	67.0%	67.0%	67.0%	
Gross Profit	1,977	2,223	5,851	7,744	6,012	5,428	5,707	5,955	6,457	6,958	7,732	8,276	8,788	9,164	9,531	
GP Margin	27.2%	26.0%	29.4%	34.1%	35.2%	32.1%	31.4%	31.8%	32.0%	32.0%	33.0%	33.0%	33.0%	33.0%	33.0%	
EBIT	392	544	2,387	3,770	2,176	1,640	1,836	2,060	2,268	2,453	2,887	3,100	3,302	3,455	3,604	
EBIT Margin	5.4%	6.4%	12.0%	16.6%	12.7%	9.7%	10.1%	11.0%	11.2%	11.3%	12.3%	12.4%	12.4%	12.4%	12.5%	
EBITDA	492	660	2,935	4,267	2,735	2,226	2,350	2,542	2,719	2,897	3,333	3,556	3,771	3,939	4,099	
EBITDA Margin	6.8%	7.7%	14.8%	18.8%	16.0%	13.2%	12.9%	13.6%	13.5%	13.3%	14.2%	14.2%	14.2%	14.2%	14.2%	
Tax	(61)	(95)	(526)	(822)	(444)	(345)	(362)	(436)	(480)	(525)	(619)	(672)	(715)	(753)	(804)	
NOPAT	331	449	1,861	2,948	1,733	1,295	1,474	1,624	1,788	1,928	2,267	2,428	2,587	2,701	2,800	
FCFF	425	197	(499)	3,148	1,891	1,186	1,335	1,540	1,550	1,628	1,921	2,040	2,177	2,309	2,392	

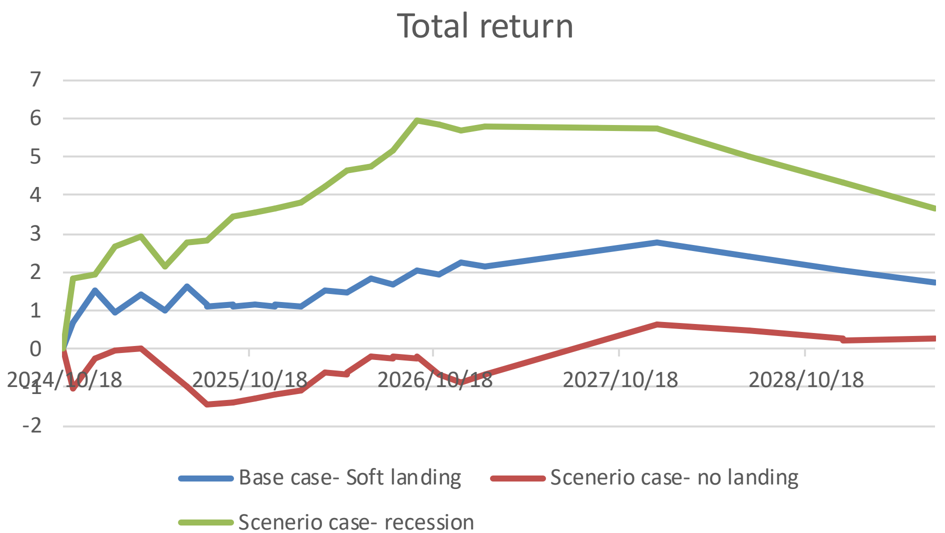
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024 E	FY2025 E	FY2026 E	FY2027 E	FY2028 E	FY2029 E	FY2030 E	FY2031 E	FY2032 E	FY2033 E
Capital Intensity															
Capex / EBITDA	23%	17%	8%	8%	17%	21%	22%	21%	21%	21%	20%	20%	20%	20%	20%
Capex / Assets	3%	3%	2%	3%	5%	5%	5%	4%	4%	4%	4%	4%	4%	4%	4%
Changes in NWC / Sales	1%	-3%	-3%	1%	2%	-1%	-1%	0%	-1%	-1%	-1%	-1%	-1%	0%	0%
Leverage															
Debt / EBITDA	3.25x	2.90x	1.16x	0.82x	1.36x	1.66x	1.82x	1.61x	1.46x	1.60x	1.35x	1.36x	1.24x	0.90x	0.85x
Net Debt / EBITDA	3.22x	2.26x	1.15x	0.80x	1.33x	1.62x	1.61x	1.02x	0.64x	0.29x	-0.08x	-0.41x	-0.72x	-1.04x	-1.35x
Debt / Capital	66%	62%	41%	41%	44%	44%	48%	42%	37%	37%	33%	31%	28%	20%	18%
Debt / Equity	194%	166%	71%	70%	78%	79%	94%	72%	59%	59%	49%	45%	38%	26%	22%
Current Ratio	1.59x	2.07x	1.86x	1.90x	1.77x	1.96x	2.19x	2.70x	3.00x	3.60x	3.90x	4.35x	4.63x	4.60x	4.96x
Quick Ratio	0.91x	1.34x	1.10x	1.12x	1.11x	1.22x	1.44x	1.96x	2.25x	2.85x	3.16x	3.61x	3.88x	3.86x	4.21x
EBITDA / Interest Expense	4.49x	4.87x	21.60x	21.51x	14.23x	11.07x	7.14x	10.39x	10.08x	10.88x	10.89x	11.79x	11.69x	12.47x	16.15x
Debt Schedule															
Current Portion of LT Debt	86	101	102	109	103	82	88	91	97	105	113	120	127	131	135
LT Debt	1,514	1,816	3,301	3,382	3,611	3,607	4,198	4,010	3,886	4,526	4,389	4,711	4,566	3,415	3,331
DEBT	1,600	1,917	3,403	3,492	3,715	3,689	4,286	4,101	3,983	4,631	4,501	4,832	4,693	3,546	3,466
Share Buybacks															
Weighted Average Number of Shares	116	117	202	162	119	114	109	106	103	99	96	92	88	84	79
Diluted Weighted Avearge Shares	117	118	204	164	120	115	110	107	104	100	97	93	89	84	80
Working Capital															
Inventory turnover		9x	12x	10x	8x	9x	9x	9x	9x	9x	9x	9x	9x	9x	9x
Days inventory outstanding		39	31	37	44	40	40	41	40	40	40	40	40	41	41
A/R turnover		11x	15x	14x	12x	12x	12x	11x	12x	12x	12x	12x	12x	11x	11x
Days sales outstanding		32	24	25	31	32	31	32	31	31	31	31	32	32	32
A/P turnover		-12x	-17x	-16x	-13x	-14x	-15x	-14x	-15x	-15x	-15x	-15x	-15x	-15x	-15x
Days payable outstanding		(30)	(22)	(23)	(28)	(27)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)
Cash Conversion cycle		**41**	**33**	**39**	**47**	**45**	**46**	**48**	**47**	**47**	**47**	**47**	**47**	**48**	**48**
ROIC	**13%**	**14%**	**21%**	**33%**	**20%**	**15%**	**15%**	**16%**	**16%**	**15%**	**16%**	**15%**	**15%**	**15%**	**14%**
ROE	**27%**	**27%**	**36%**	**55%**	**33%**	**23%**	**25%**	**24%**	**23%**	**21%**	**21%**	**20%**	**18%**	**17%**	**16%**
ROA	**7%**	**8%**	**16%**	**26%**	**15%**	**11%**	**10%**	**12%**	**12%**	**11%**	**12%**	**12%**	**11%**	**12%**	**11%**
Fwd P/E - Basic						**19.56x**	**17.84x**	**14.42x**	**12.72x**	**11.24x**	**9.18x**	**8.13x**	**7.29x**	**6.59x**	**5.84x**
Fwd P/E - Diluted						**19.72x**	**17.99x**	**14.54x**	**12.83x**	**11.35x**	**9.27x**	**8.21x**	**7.37x**	**6.66x**	**5.91x**
EV/Fwd EBITDA (Diluted)						**11.31x**	**10.38x**	**8.91x**	**7.80x**	**6.80x**	**5.38x**	**4.50x**	**3.70x**	**2.99x**	**2.32x**

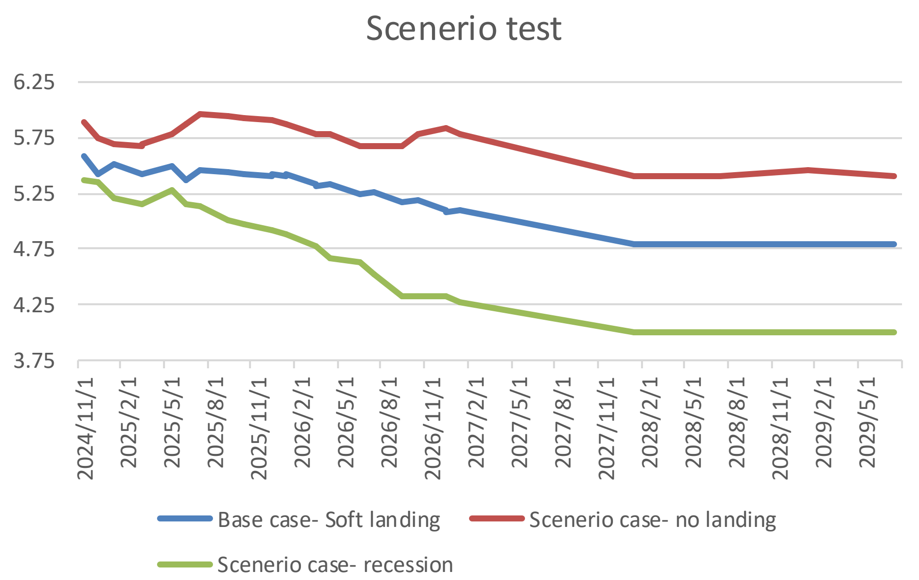
Appendix VI – Valuation
Credit Analysis (1/2) – Scenario Test

Including Funding Cost

Scenario assumptions:

1. Base case- Soft landing
   - Unemployment rates stay low, with businesses possibly reducing hiring but not engaging in mass layoffs.
   - Inflation rates decline to reasonable levels, while prices for construction materials stabilize
   - As the economy slows, demand for residential and commercial construction may remain steady, particularly in areas with housing shortages.
   - With slower demand growth, construction firms may face heightened competition, which could impact profit margins.
2. Scenario case- no landing
   - Demand for new construction may remain flat, as consumers and businesses are hesitant to make large investments without clear economic growth.
   - Developers may adopt a wait-and-see approach, cautiously pursuing projects while closely monitoring economic indicators.
   - Without significant economic changes, material costs may stabilize, allowing construction firms to plan and budget more effectively.
3. Scenario case- recession
   - Unemployment rates sky-rocketed, with businesses possibly engaging in mass layoffs.
   - While some material costs may decrease due to lower demand, others could remain high due to supply chain issues or tariffs, impacting project budgets.
   - With slower demand growth, construction firms may face heightened competition, which could impact profit margins.
   - In response to a recession, governments may increase infrastructure spending as a way to stimulate the economy, which can provide some support for the construction industry.





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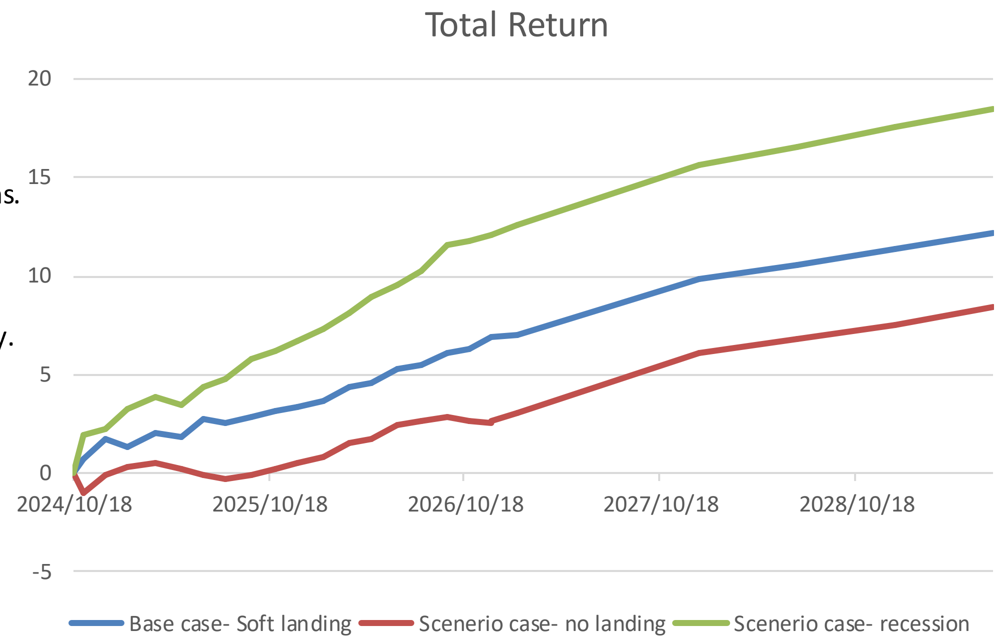
Appendix VI – Valuation
Credit Analysis (2/2) – Scenario Test

Including Funding Cost

Scenario results:

1. Base case – Soft landing
   - The company demonstrates resilience to market volatility, supported by strong cash flow. This stability allows it to navigate fluctuations in demand without significant disruptions.
   - With a lower net debt-to-EBITDA ratio, the builder is better positioned to pursue mergers with smaller local businesses. This strategic move enables the acquisition of additional customers, enhancing market reach and operational efficiency.
2. Scenario – No landing
   - In this scenario, the economy remains robust, leading to a significant reduction in default risks for Builder.
   - Higher interest rate kept bond price low.
   - The rise in single-family orders stimulates sales across all product lines, indicating strong consumer demand and confidence in the housing market.
   - The builder capitalizes on this favorable environment by continuing its organic M&A strategy, which involves integrating smaller firms to expand its market share and reinforce its dominance in the U.S. market.
3. Scenario – Recession
   - Initially, the builder faces challenges due to a decline in orders as economic uncertainty takes hold.
   - Despite this downturn, the company's strong pricing power allows it to maintain profit margins, demonstrating its ability to adapt and manage costs effectively.
   - In response to economic pressures, the Federal Reserve acts quickly to lower interest rates, which reduces the weighted average cost of capital (WACC) and tightens credit spreads. This move facilitates access to financing for both the builder and potential homebuyers.
   - As a result, new housing orders begin to rebound from their lows, indicating a potential recovery and renewed interest in the housing market.



		1Y	3Y	5Y
	Total return	3.12	9.82	12.20
Base case- Soft landing	Carry(bp)	195	705	1049
	Capital Gain	1.17	2.77	1.71
	Total return	0.20	6.06	8.46
Scenerio case- No landing	Carry(bp)	149	544	817
	Capital Gain	-1.29	0.63	0.29
	Total return	6.23	15.60	18.50
Scenerio case- Recession	Carry(bp)	270	987	1486
	Capital Gain	3.53	5.72	3.64

CENTRAL
GARDEN & PET

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December 5th, 2024

Team Number: 7

Students: Charlie Ghriskey, Katja Muller, and Omar Estrada

CENT 4 1/8 Sr. Unsecured Bonds

Recommendation: BUY
Current Price: $89.91
1-YR Target Price: $92.99

Potential Return 7.99%

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Capital Structure & Bond Selection

We recommend the Central Garden & Pet Co. 4.125% senior unsecured bond. Our base case has an annualized rate of return of 7.99%.

Description	BS Out ($MM)	Price	Duration	YTW	Coupon	Maturity	OAS Spread
1st Lien Secured Loans	**0.0**						
REV 1L USD	0.0				-	12/26	
Senior Unsecured Bonds	**1,200.0**						
CENT 5 1/8 02/01/28	300.0	98.67	2.86	5.43%	5.125%	02/28	96
CENT 4 1/8 10/15/30	500.0	91.17	5.09	5.85%	4.125%	10/30	154
CENT 4 1/8 04/30/31	400.0	89.91	5.49	5.95%	4.125%	04/31	165
Total	**1,200.0**						
- Cash & Cash Equivalents	502.9						
Net Debt	**697.1**						
+ Total Minority Interest	0.0						
+ Market Capitalization	2,052.6						
Enterprise Value	**2,749.8**						

ONE-YEAR TIME HORIZON	
Current Bond Price	$ 89.91

Capital Structure	2024E
Senior Unsecured Leverage:	3.4x
Enterprise Value / EBITDA:	7.9x
Interest Coverage:	6.1x

Base Case	
Total Spread Compression:	40 bps
Implied Bond Price:	$ 92.99
Annualized Total Return:	7.99 %

Bear Case	
Total Spread Compression:	(20) bps
Implied Bond Price:	$ 92.10
Annualized Total Return:	5.09 %

Source: Company filings, Bloomberg, team analysis

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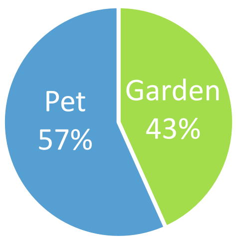
Company Overview

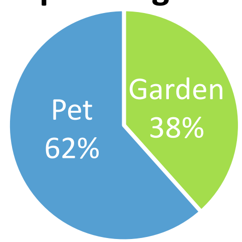
Central Garden & Pet (CENT), a leader in the Pet and Garden industries with a $2.4B market cap, offers innovative solutions incl. a portfolio of over 65 trusted brands. Based in Walnut Creek, CA, with 6,700 employees across N. America, CENT has strong manufacturing & distribution capabilities.

2023 by Segment

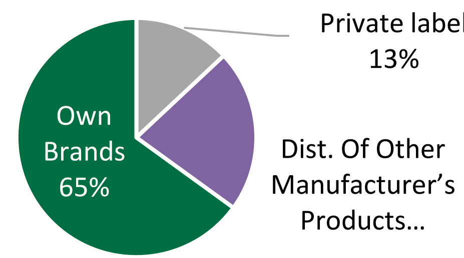
Revenues



Operating Income



2023 by Business Model



Pet

Dog & Cat Supplies

BARKWORTHIES, Nylabone CHEWS BEST, paw love

Supplies for Aquatics, Small Animals, Reptiles, & Pet Birds

L'Avian PLUS PREMIUM NUTRITION For Caged Birds & Small Animals, ZILLA, 3-D PET PRODUCTS

Equine, Livestock, Animal Health, & Insect Control

Daconil Fungicide, Vita Flex PRO, HORSE HEALTH PRODUCTS

Live Fish & Small Animals

Segrest Farms, KAYTEE, SUN PET LTD.

Competitors:

THE J.M. SMUCKER Co, MARS, Spectrum Brands, Animal Supply Co., PHILLIPS PET FOOD & SUPPLIES • SINCE 1938 •

Garden

Grass Seed

TSC TRACTOR SUPPLY Co

Wild Bird

Packet Seed

Live Plants

Fertilizer & Controls

Competitors:

ScottsMiracle-Gro, Spectrum Brands, SC Johnson

Customers:

petco, PETSMART, chewy, amazon, Walmart, COSTCO WHOLESALE, LOWE'S, THE HOME DEPOT, TSC TRACTOR SUPPLY Co

Source: Company filings

Investment Thesis

1

Capitalizing on Growth in Pet Industry Demographics

- Favorable pet ownership and humanization trends provide tailwinds for CENT's Pet Business.

2

EBITDA Margin growth through Cost and Simplicity program

- Streamlining operations, improving cost structure, and exiting underperforming businesses

3

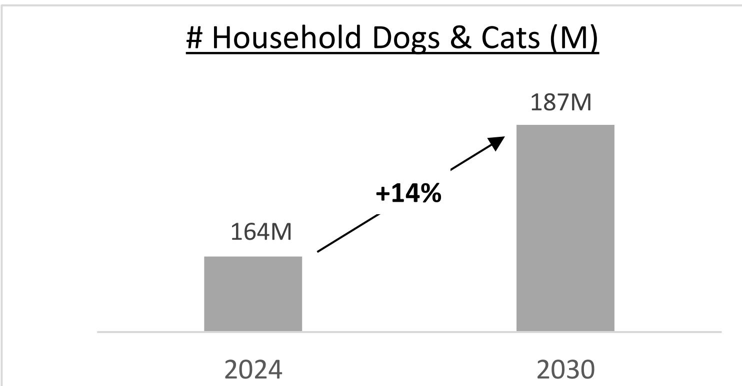
Growth Through Disciplined Acquisitions

- Acquisitions are core to growth for CENT. By leveraging their distribution network, they can secure favorable deals to expand their offerings.

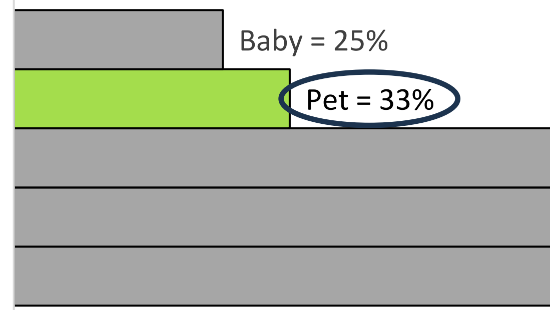
Thesis #1: Continued Growth in Pet Ownership should continue to drive Pet Industry Spend

CENT's garden segment growth is normalizing after the pandemic-induced boom and post-pandemic decline. The pet care industry should grow at an 8% CAGR through 2030 driven by population growth and growing pet humanization trends.

More Americans are expected to continue owning more Dogs & Cats



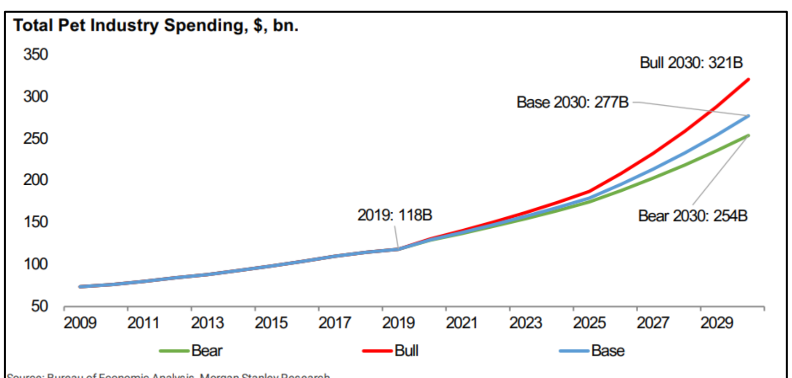
Americans will reduce spend on groceries, personal care before reducing spend on their pets and babies



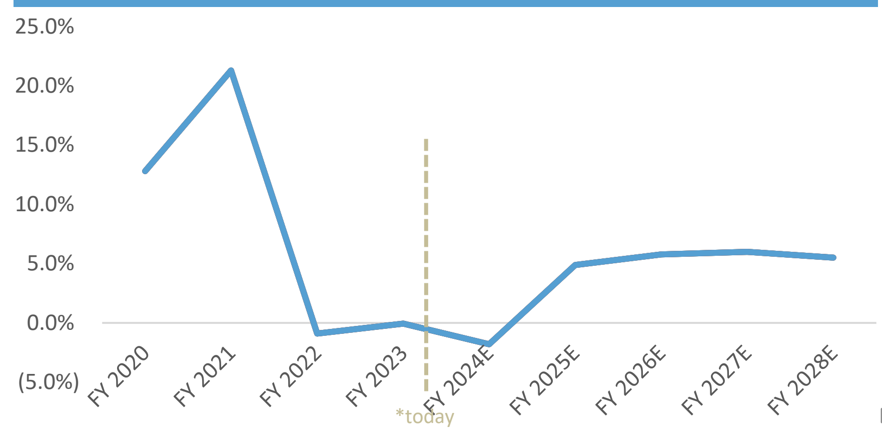
Share of Consumers who have reduced their purchase quantities due to price increases in the U.S. (2023)

Can we change this to a Combo chart to show the growing Revenues in the background? Find it easier to digest growth % line graphs when I have the growth behind it in bar chart.

The US Pet Care Industry is estimated to grow to $277B by 2030 – an 8% CAGR



YoY Growth (%) for Central Garden & Pet's *Pet Segment*



Source: Source: Morgan Stanley Research, NHPA, Statista Market Insights, AVMA, and Company Financials

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Thesis #2: EBITDA growth via Cost & Simplicity program

Central's M&A-led strategy results in plentiful opportunities for consolidation and efficiency wins, with a long tail on improvement opportunities and a domino chain effect of freed-up capacity.

Streamline to Focus

Fewer SKUs, fewer facilities

- FY23: ***Cut 5,000 SKUs*** from 3rd party side of Garden (via sale of Indep. Garden Center Distribution Business); expecting ***savings on COGS*** via better Procurement once less thinly stretched
- FY24: ***Consolidated manufacturing (mfg.) sites*** & ***distribution centers (DCs)***: transferred fertilizer mfg. to MO, shutting down original CA site; shut down 4 disparate DCs, replacing with 1 larger, more modern DC

Invest to Save

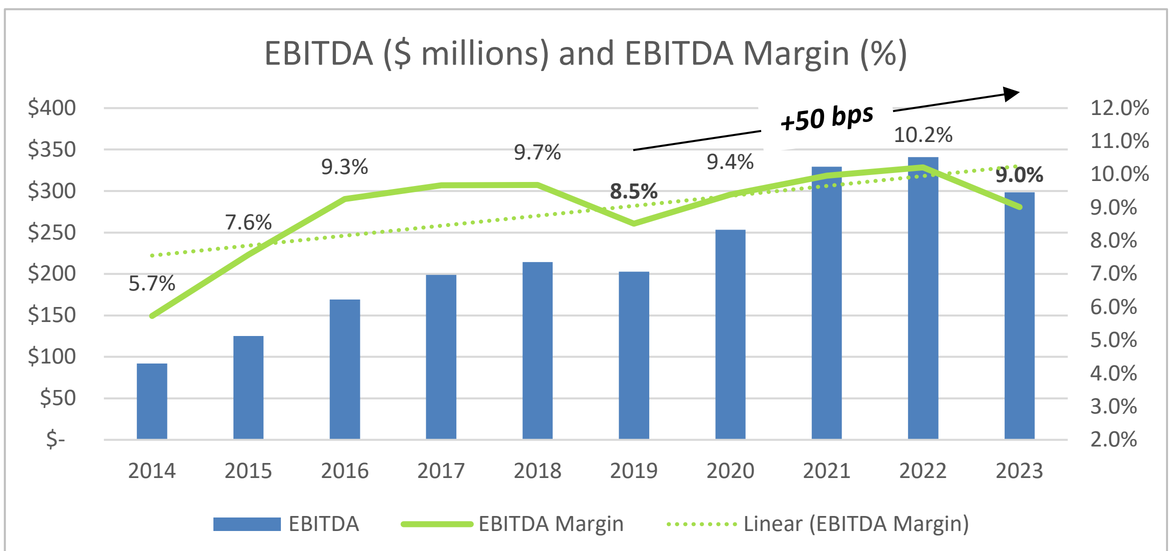
Better cost structure

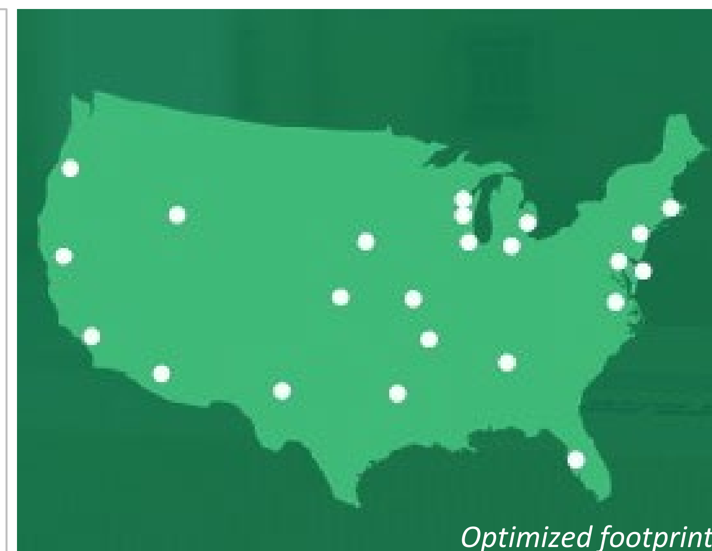
- FY23: Successfully ***added automation*** to various manufacturing processes (e.g., for wild bird suet), improving efficiencies by 20-25%
- FY24: Announced a new research facility to open in Texas; will ***reduce reliance on costly third-party*** testing for grass seeds

Exit Poor Performers

Well-deployed resources

- FY22: Exited a low-margin, high-volume private label dog bed opportunity; ***redeployed manufacturing capacity*** towards the higher-margin outdoor cushion business
- FY23: Exited & ***sold*** the Independent Garden Center Distribution business, which was margin dilutive & complex
- FY24: ***Exited*** the underperforming pottery business




Optimized footprint

Source: Company filings, earnings calls

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Thesis #3: Growth Through Disciplined Acquisitions

CENT's growth strategy is anchored in acquisitions, with management targeting a leverage ratio below 3.5x and prioritizing deleveraging post-acquisition. Their M&A approach emphasizes scaling, filling market gaps, expanding into key adjacencies, and strengthening operational capabilities. Additionally, CENT's strong and resilient balance sheet supports future M&A activity.

Deal Sourcing

Historical value buyers at **6-9x EBITDA** by leveraging their distribution business, many times **avoiding deal auctions**.

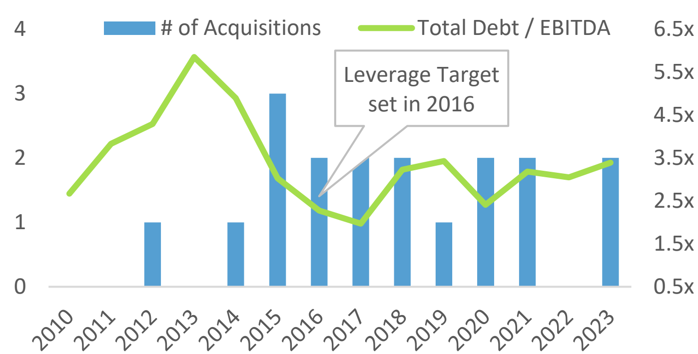
Near-Term Deal Prioritization

1. Pet Consumables (Currently 80% of Pet)
2. Digital and e-commerce (28% of Pet)

Recent Activity

Year	Target	Total	Segment	Note
2020	P&M Solutions LLC	$81	**Garden**	Digital expansion in controls
2020	Hopewell Nursery, Inc.	$81	**Garden**	Expanded geographic reach to the NE in live plants
2021	Flora Parent, Inc.	$571	**Garden**	Broadened segment into adjacents: herd/flower seeds, seed starters, plant nutrients **9.5x EBITDA**
2021	D&D Commodities Ltd.	$118	**Garden**	Category expansion into premium bird feed
2023	TDBBS LLC	$60	**Pet**	Digital capabilities expansion & segment expansion in chew/treats
2024	Leading Edge Aerial Technologies Inc.	-	**Garden**	Expansion into tech-focused mosquito/vector control, weed control, and vector farming.

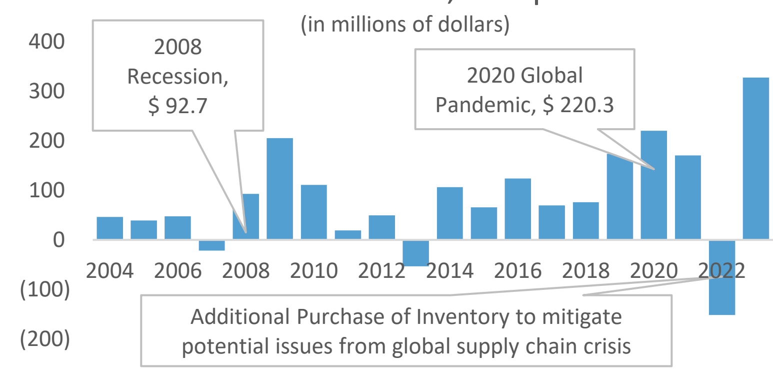
Future leverage target of 3.0 - 3.5x, willing to go to 4x for the right target, then quickly de-lever



Company has history of generating cash during significant market downturns, providing fuel for growth and product diversification

`00 -`23: FCF Positive, Except 3 Years

(in millions of dollars)



Source: Company filings, CapIQ, Factset, BoA research

Valuation – Base Case

Figures in Millions	Historical					Projections				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E
Net Sales	2,383.0	2,695.5	3,303.7	3,338.6	3,310.1	3,269.4	3,392.1	3,517.8	3,669.9	3,841.6
Pet Segment	1,384.7	1,562.2	1,894.9	1,878.1	1,877.2	1,845.1	1,916.5	2,003.0	2,111.3	2,236.0
% of total	*58.1%*	*58.0%*	*57.4%*	*56.3%*	*56.7%*	*56.4%*	*56.5%*	*56.9%*	*57.5%*	*58.2%*
Garden Segment	998.3	1,133.3	1,408.8	1,460.5	1,432.9	1,424.3	1,475.5	1,514.8	1,558.5	1,605.6
% of total	*41.9%*	*42.0%*	*42.6%*	*43.7%*	*43.3%*	*43.6%*	*43.5%*	*43.1%*	*42.5%*	*41.8%*
Pet Growth	3.3%	12.8%	21.3%	(0.9%)	(0.0%)	(1.7%)	3.9%	4.5%	5.4%	5.9%
Consensus						*(1.8%)*	*3.1%*	*3.8%*	*5.4%*	*4.0%*
Garden Growth	14.2%	13.5%	24.3%	3.7%	(1.9%)	(0.6%)	3.6%	2.7%	2.9%	3.0%
Consensus						*(0.6%)*	*3.2%*	*1.8%*	*2.3%*	*2.0%*
% Growth (YoY)		13.1%	22.6%	1.1%	(0.9%)	(1.2%)	3.8%	3.7%	4.3%	4.7%
EBITDA	202.9	288.4	370.3	389.6	350.2	333.4	425.3	442.7	463.4	484.6
Margin	8.5%	10.7%	11.2%	11.7%	10.6%	10.2%	12.5%	12.6%	12.6%	12.6%
% Growth (YoY)		42.1%	28.4%	5.2%	(10.1%)	(4.8%)	27.6%	4.1%	4.7%	4.6%
Free Cash Flow										
EBITDA	202.9	288.4	370.3	389.6	350.2	333.4	425.3	442.7	463.4	484.6
Remaining Free Cash Flow	140.3	197.8	145.4	(202.5)	290.4	302.7	210.0	220.8	227.6	220.0
Dividends	-	-	-	-	-	-	-	-	-	-
Issuance/Reduction of debt	(46.2)	(0.1)	469.6	(1.1)	(0.3)	-	-	-	-	(15.4)
Share Repurchases (Net)	(63.0)	(59.1)	(27.9)	(62.3)	(37.2)	(40.0)	(37.0)	(35.0)	(32.0)	(32.0)
Remaining Free Cash Flow	31.1	138.5	587.1	(265.9)	252.9	262.7	173.0	185.8	195.6	172.6
Balance Sheet										
Cash	510.7	666.4	439.5	192.2	502.9	779.4	929.0	1,131.3	1,303.4	1,452.5
Revolver Total (Contract)	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0
Revolver Drawn	-	-	-	-	-	-	-	-	-	-
Revolver Availability	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0
Total Liquidity	1,260.7	1,416.4	1,189.5	942.2	1,252.9	1,529.4	1,679.0	1,881.3	2,053.4	2,202.5
Long-Term Debt	693.0	694.0	1,184.7	1,186.2	1,188.0	1,188.0	1,188.0	1,188.0	1,188.0	1,188.0
Current Portion of Long-Term Debt	0.1	0.1	1.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Leases	-	86.5	130.1	147.7	135.6	135.6	135.6	135.6	135.6	135.6
Total Debt	693.1	694.1	1,185.8	1,186.6	1,188.2	1,188.2	1,188.2	1,188.2	1,188.2	1,188.2

	Historical					Projections				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E
Total Debt/EBITDA	3.4x	2.4x	3.2x	3.0x	3.4x	3.6x	2.8x	2.7x	2.6x	2.5x
Net Debt/EBITDA	0.9x	0.1x	2.0x	2.6x	2.0x	1.2x	0.6x	0.1x	-0.2x	-0.5x

Assumptions

Consensus Pet & Garden Segment Growth in 2024, then:

- Increasing Pet segment revenue growth until max of 6%
- Increasing Garden segment revenue growth until max of 4% then range between 2.5 – 3.3%

Capital Allocation:

- No dividend payouts
- Small M&A transactions
- Low-moderate share repurchases

ONE-YEAR TIME HORIZON

Base Case	
Total Spread Compression:	40 bps
Implied Bond Price:	$ 92.99
Annualized Total Return:	7.99 %

Source: Company filings, Bloomberg

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Valuation – Bear Case

Figures in Millions			Historical					Projections		
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E
Net Sales	2,383.0	2,695.5	3,303.7	3,338.6	3,310.1	3,267.7	3,333.1	3,420.7	3,530.3	3,624.0
Pet Segment	1,384.7	1,562.2	1,894.9	1,878.1	1,877.2	1,843.4	1,880.3	1,946.1	2,033.6	2,104.8
Garden Segment	998.3	1,133.3	1,408.8	1,460.5	1,432.9	1,424.3	1,452.8	1,474.6	1,496.7	1,519.2
Pet Growth		12.8%	21.3%	(0.9%)	(0.0%)	(1.8%)	2.0%	3.5%	4.5%	3.5%
Consensus						*(1.8%)*	*3.1%*	*3.8%*	*5.4%*	*4.0%*
Garden Growth		13.5%	24.3%	3.7%	(1.9%)	(0.6%)	2.0%	1.5%	1.5%	1.5%
Consensus						*(0.6%)*	*3.2%*	*1.8%*	*2.3%*	*2.0%*
% Growth (YoY)		13.1%	22.6%	1.1%	(0.9%)	(1.3%)	2.0%	2.6%	3.2%	2.7%
EBITDA	202.9	288.4	370.3	389.6	350.2	349.6	333.3	325.0	335.4	344.3
Margin	8.5%	10.7%	11.2%	11.7%	10.6%	10.7%	10.0%	9.5%	9.5%	9.5%
% Growth (YoY)		42.1%	28.4%	5.2%	(10.1%)	(0.2%)	(4.7%)	(2.5%)	3.2%	2.7%
Free Cash Flow										
EBITDA	202.9	288.4	370.3	389.6	350.2	349.6	333.3	325.0	335.4	344.3
Remaining Free Cash Flow	140.3	197.8	145.4	(202.5)	290.4	319.0	118.0	103.0	99.6	79.6
Dividends	-	-	-	-	-	-	-	-	-	-
Issuance/Reduction of debt	(46.2)	(0.1)	469.6	(1.1)	(0.3)	-	-	-	-	(315.4)
Share Repurchases (Net)	(63.0)	(59.1)	(27.9)	(62.3)	(37.2)	(40.0)	(37.0)	(35.0)	(32.0)	(32.0)
Remaining Free Cash Flow	31.1	138.5	587.1	(265.9)	252.9	279.0	81.0	68.0	67.6	(267.8)
Balance Sheet										
Cash	510.7	666.4	439.5	192.2	502.9	781.8	862.8	930.8	998.4	730.7
Revolver Total (Contract)	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0
Revolver Drawn	-	-	-	-	-	-	-	-	-	-
Revolver Availability	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0	750.0
Total Liquidity	1,260.7	1,416.4	1,189.5	942.2	1,252.9	1,531.8	1,612.8	1,680.8	1,748.4	1,480.7
Long-Term Debt	693.0	694.0	1,184.7	1,186.2	1,188.0	1,188.0	1,188.0	1,188.0	1,188.0	1,188.0
Current Portion of Long-Term Debt	0.1	0.1	1.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Leases	-	86.5	130.1	147.7	135.6	135.6	135.6	135.6	135.6	135.6
Total Debt	693.1	780.6	1,315.9	1,334.3	1,323.8	1,323.8	1,323.8	1,323.8	1,323.8	1,323.8

			Historical					Projections		
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024E	FY 2025E	FY 2026E	FY 2027E	FY 2028E
Total Debt/EBITDA	3.4x	2.7x	3.6x	3.4x	3.8x	3.8x	4.0x	4.1x	3.9x	3.8x
Net Debt/EBITDA	0.9x	0.4x	2.4x	2.9x	2.3x	1.6x	1.4x	1.2x	1.0x	1.7x

Assumptions

Consensus Pet & Garden Segment Growth in 2024, then:

- Increasing Pet segment revenue growth until max of 6%
- Increasing Garden segment revenue growth until max of 4% then range between 2.5 – 3.3%

Capital Allocation:

- No dividend payouts
- Small M&A transactions
- Low-moderate share repurchases

Bear Case	
Total Spread Compression:	(20) bps
Implied Bond Price:	$ 92.10
Annualized Total Return:	5.09 %

Source: Company filings

Valuation

*Comparables: We used **SMG** as a comparable for CENT's garden business. For the Pet business, **SJM** and **GIS** are major player in pet chews and treats.*

Company	Security	Outstanding	S&P Rating	Moody's Rating	YTW	Bid OAS Spread	Net Leverage (LTM)	EBITDA / Interest	Spread / Leverage
CENTRAL GARDEN & PET CO	CENT 4 1/8 04/30/31	400,000,000	BB	B1	5.95%	165	2.3x	6.4x	71
SCOTTS MIRACLE-GRO CO	SMG 4 1/2 10/15/29	411,093,000	B-	B2	6.18%	191	6.3x	2.2x	30
JM SMUCKER CO	SJM 6.2 11/15/33	1,000,000,000	BBB	Baa2	4.84%	69	4.6x	7.1x	15
GENERAL MILLS INC	GIS 2 7/8 04/15/30	750,000,000	BBB	Baa2	4.91%	73	3.4x	8.1x	21

Source: Company filings

Company Overview

Risks	Mitigants
Macroeconomic risks can adversely impact consumer discretionary spending **Medium Risk**	CENT's past ability to generate positive cash flow despite significant economic downturns (recession in 2008 and global pandemic in 2020) show its resiliency during difficult times.
Unfavorable weather impacting the Garden segment **High Risk**	CENT continues to diversify its product lines beyond seasonal and weather-dependent products. This includes climate-resistant and drought-tolerant products under the Pennington brand.
Future **acquisition-related challenges** **Medium Risk**	CENT has a long history in M&A, having completed about 50 acquisitions since 1996. Over that 28-year period, FCF generation has been positive in all but 3 years.

Source: Company filings

Questions

CENT 4 1/8 Sr. Unsecured Bonds

Recommendation: BUY
Current Price: $89.91
1-YR Target Price: $92.99

Potential Return 7.99%

One-year time horizon

Current Bond Price	$ 89.91

Base Case	
Total Spread Compression:	40 bps
Implied Bond Price:	$ 92.99
Annualized Total Return:	7.99 %

Bear Case	
Total Spread Compression:	(20) bps
Implied Bond Price:	$ 92.10
Annualized Total Return:	5.09 %

Source: Company filings

APPENDIX

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

Revenue Build

Revenue Build				Projected Year Ending Dec. 31					2021-2023	2023-2028	2023-2028
	2021	2022	2023	2024	2025	2026	2027	2028	Hist. CAGR	Proj. CAGR	Proj. CAGR (Consensus)
Total Revenue	3,304	3,339	3,310	3,269	3,392	3,518	3,670	3,842	0.1%	3.0%	2.3%
Total Garden	1,409	1,461	1,433	1,424	1,476	1,515	1,559	1,606	0.9%	2.3%	1.3%
Y/Y % growth	*NA*	4%	-2%	-0.6%	3.6%	2.7%	2.9%	3.0%			
% of Total Revenue	43%	44%	43%	44%	43%	43%	42%	42%			
Total Pet	1,895	1,878	1,877	1,845	1,917	2,003	2,111	2,236	-0.5%	3.6%	3.1%
Y/Y % growth	*NA*	-0.9%	0.0%	-1.7%	3.9%	4.5%	5.4%	5.9%			
% of Total Revenue	57%	56%	57%	56%	57%	57%	58%	58%			
Pet Organic Net Sales	14.2%	-0.7%	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*			
Dog & Cat Products	571	543	569	597	651	709	773	843	-0.2%	8.2%	
Y/Y % growth	*NA*	-4.9%	4.7%	5%	9%	9%	9%	9%			
% of Total Pet	30%	29%	30%	32%	34%	35%	37%	38%			
% of Total Revenue	17%	16%	17%	18%	19%	20%	21%	22%			
Other Pet Products	767	766	699	633	608	589	578	572	-4.5%	-3.9%	
Y/Y % growth	*NA*	-0.1%	-8.7%	-10%	-4%	-3%	-2%	-1%			
% of Total Pet	40%	41%	37%	34%	32%	29%	27%	26%			
% of Total Revenue	23%	23%	21%	19%	18%	17%	16%	15%			
Other Manufacturers Products	749	730	735	732	766	802	849	891	-1.0%	3.9%	
Y/Y % growth	*NA*	-3%	1%	0%	5%	5%	6%	5%			
Other Manufacturers Products (Pet)	557	569	609	615	658	704	761	821	4.6%	6.2%	
Y/Y % growth (Pet)	*NA*	-2.5%	0.6%	1%	7%	7%	8%	8%			
Other Manufacturers Products (Garden)	192	161	126	117	108	98	88	70	-19.0%	-11.1%	
Y/Y % growth (Garden)	*NA*	-16%	-22%	-7%	-8%	-9%	-10%	-20%			
% of Total Revenue (Pet)	17%	17%	18%	19%	19%	20%	21%	21%			
% of Total Revenue (Garden)	6%	5%	4%	4%	3%	3%	2%	2%			
% of Total Revenue	23%	22%	22%	22%	23%	23%	23%	23%			
Wild Bird Products	340	434	475	502	548	597	651	716	18.2%	8.5%	
Y/Y % growth	*NA*	27.7%	9.4%	6%	9%	9%	9%	10%			
% of Total Garden	24%	30%	33%	27%	29%	30%	31%	32%			
% of Total Revenue	10%	13%	14%	15%	16%	17%	18%	19%			
Other Garden Products	877	866	832	805	820	820	820	820	-2.6%	-0.3%	
Y/Y % growth	*NA*	-1%	-4%	-3%	2%	0%	0%	0%			
% of Total Garden	62%	59%	58%	57%	56%	54%	53%	51%			
% of Total Revenue	27%	26%	25%	25%	24%	23%	22%	21%			

Source: Company filings

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

Pro Forma Income Sheet

Income Statement / Cash Flow	2019A	2020A	2021A	2022A	2023A	2024E	2025E	2026E	2027E	2028E
Net sales	2,383.0	2,695.5	3,303.7	3,338.6	3,310.1	3,269.4	3,392.1	3,517.8	3,669.9	3,841.6
COGS	(1,679.0)	(1,899.0)	(2,332.8)	(2,346.3)	(2,363.2)	(2,334.2)	(2,353.9)	(2,441.2)	(2,546.7)	(2,665.9)
Gross profit	**704.0**	**796.6**	**970.9**	**992.3**	**946.8**	**935.2**	**1,038.1**	**1,076.6**	**1,123.2**	**1,175.7**
SGA + Other Operating Expenses	(552.0)	(598.6)	(716.4)	(732.3)	(736.2)	(707.5)	(771.4)	(803.5)	(812.5)	(835.2)
Operating Income	**152.1**	**198.0**	**254.5**	**260.0**	**210.6**	**227.7**	**266.7**	**273.1**	**310.6**	**340.5**
Interest Expense	(42.6)	(44.0)	(58.6)	(58.3)	(57.0)	(60.0)	(60.0)	(60.0)	(60.0)	(81.0)
Interest Income	9.6	4.0	0.4	0.7	7.4	0.0	0.0	0.0	0.0	0.0
Other income/expense	0.2	(4.3)	(1.5)	(3.6)	1.5	0.0	0.0	0.0	0.0	0.0
Pretax Income	119.3	153.7	194.8	198.9	162.4	167.7	206.7	213.1	250.6	259.5
Income taxes expense / benefit	(26.6)	(32.2)	(42.0)	(46.2)	(36.3)	(36.9)	(45.5)	(46.9)	(55.1)	(57.1)
Net income / loss attributable to noncoı	0.1	(0.8)	(1.0)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Net income attributable to CENT	**92.8**	**120.7**	**151.7**	**152.2**	**125.6**	**130.3**	**160.8**	**165.8**	**195.0**	**202.0**
EBIT	152.4	192.9	252.0	255.9	211.7	227.2	266.3	272.7	310.2	340.1
EBITDA	202.9	288.4	370.3	389.6	350.2	353.0	394.8	404.0	445.0	478.9
EBITDA Margin	*8.5%*	*10.7%*	*11.2%*	*11.7%*	*10.6%*	*10.8%*	*11.6%*	*11.5%*	*12.1%*	*12.5%*
EBIT Margin	*6%*	*7%*	*8%*	*8%*	*6%*	*6.9%*	*7.9%*	*7.8%*	*8.5%*	*8.9%*
Per share	**2019A**	**2020A**	**2021A**	**2022A**	**2023A**	**2024E**	**2025E**	**2026E**	**2027E**	**2028E**
Basic	1.63	2.23	2.81	2.86	2.40	2.49	3.07	3.16	3.72	3.85
Diluted	1.61	2.20	2.75	2.80	2.35	2.44	3.01	3.10	3.65	3.78
Weighted average shares										
Basic	56.77	54.01	53.91	53.22	52.40	52.40	52.40	52.40	52.40	52.40
Diluted	57.61	54.74	55.25	54.42	53.43	53.43	53.43	53.43	53.43	53.43

Source: Company filings

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

Forecasted Balance Sheet

	2019A	2020A	2021A	2022A	2023A	2024E	2025E	2026E	2027E	2028E
Cash and cash equivalents	510.7	666.4	439.5	192.2	502.9	794.7	920.4	1,092.6	1,250.4	1,395.0
Accounts Receivable, net	300.1	391.8	385.4	376.8	332.9	392.3	407.0	422.1	440.4	461.0
Inventories	466.2	439.6	685.2	938.0	838.2	653.9	678.4	703.6	734.0	768.3
Other Current Assets	30.2	27.5	33.5	46.9	33.2	33.2	33.2	33.2	33.2	33.2
Total Current Assets:	1,307.2	1,525.3	1,543.7	1,553.9	1,707.1	1,874.1	2,039.1	2,251.4	2,457.9	2,657.5
PPE Gross	624.3	649.0	754.0	856.2	883.4	951.6	1,022.9	1,096.7	1,173.8	1,254.5
- Accumulated Depreciation	(378.9)	(404.4)	(425.4)	(459.2)	(491.6)	(567.0)	(645.0)	(725.9)	(810.3)	(898.7)
Goodwill	286.1	290.0	369.4	546.4	546.4	546.4	546.4	546.4	546.4	546.4
Other Intangible, net	146.1	134.9	134.4	543.2	497.2	497.2	497.2	497.2	497.2	497.2
Operating lease right-of-use assets	0.0	115.9	165.6	186.3	173.5	173.5	173.5	173.5	173.5	173.5
Other Long-Term Assets	40.2	28.7	575.0	55.2	62.6	62.6	62.6	62.6	62.6	62.6
Total Assets:	2,025.0	2,339.4	3,116.7	3,282.0	3,378.6	3,538.5	3,696.7	3,902.0	4,101.2	4,293.0
Accounts payable	149.2	205.2	245.5	215.7	190.9	196.2	203.5	211.1	220.2	230.5
Accrued expenses	129.2	201.4	235.0	201.8	216.2	216.2	216.2	216.2	216.2	216.2
Current lease liabilities	0.0	33.5	40.7	48.1	50.6	50.6	50.6	50.6	50.6	50.6
Current portion of long-term debt	0.1	0.1	1.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Total Current Liabilities	278.5	440.3	522.3	465.9	458.0	463.2	470.6	478.2	487.3	497.6
Long-term debt	693.0	694.0	1,184.7	1,186.2	1,188.0	1,188.0	1,188.0	1,188.0	1,188.0	1,188.0
Long-term lease liabilities	0.0	86.5	130.1	147.7	135.6	135.6	135.6	135.6	135.6	135.6
Deferred income taxes and other long-term obligations	57.3	41.0	56.0	147.4	144.3	144.3	144.3	144.3	144.3	144.3
Total Liabilities	1,028.8	1,261.7	1,893.1	1,947.3	1,925.8	1,931.1	1,938.5	1,946.0	1,955.1	1,965.4
Paid in Capital	575.9	567.4	577.0	582.6	595.0	595.0	595.0	595.0	595.0	595.0
Retained Earnings	421.7	510.8	646.1	755.3	859.4	1014.0	1164.8	1362.6	1552.6	1734.2
Other	(1.5)	(0.5)	0.5	(3.1)	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)
Total Equity:	996.2	1,077.7	1,223.5	1,334.7	1,452.8	1,607.4	1,758.2	1,956.0	2,146.0	2,327.6
Total Liabilities and Equity	**2,025.0**	**2,339.4**	**3,116.7**	**3,282.0**	**3,378.6**	**3,538.5**	**3,696.7**	**3,902.0**	**4,101.2**	**4,293.0**
Balance check	*0.0*	*0.0*	*(0.0)*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*

Source: Company filings

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

Forecasted Cash Flow Statement

	2019A	2020A	2021A	2022A	2023A	2024E	2025E	2026E	2027E	2028E
Operating Activities										
Net Income	92.8	120.7	151.7	152.2	125.6	130.3	160.8	165.8	195.0	202.0
Depreciation and amortization	50.8	55.4	74.7	80.9	87.7	75.3	78.0	80.9	84.4	88.4
Non-cash lease expense	0.0	35.0	41.0	48.7	51.9	50.0	50.0	50.0	50.0	50.0
(Increase) / Decrease in working capital	38.2	28.7	(43.9)	(372.4)	87.5	130.1	(31.9)	(32.7)	(39.5)	(44.6)
Other Non Cash Adjustments	23.3	23.7	26.2	56.1	28.5	20.0	20.0	20.0	20.0	20.0
Cash Flow from Operating Activities:	**205.1**	**263.4**	**249.8**	**(34.5)**	**381.2**	**405.8**	**276.9**	**284.0**	**309.9**	**315.7**
Investing Activities										
Additions to property and equipment	(31.6)	(43.1)	(80.3)	(115.2)	(54.0)	(68.2)	(71.2)	(73.9)	(77.1)	(80.7)
Payments to acquire companies, net of cash acquired	(41.2)	0.0	(820.5)	0.0	0.0	0.0	(40.0)	0.0	(40.0)	(40.0)
Other investing activities	(3.5)	(5.1)	1.4	(27.8)	19.4	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)
Cash Flow from Investing Activities:	**(76.3)**	**(48.1)**	**(899.4)**	**(143.0)**	**(34.6)**	**(71.2)**	**(114.2)**	**(76.9)**	**(120.1)**	**(123.7)**
Financing Activities										
Repayments of long-term debt	(46.2)	(0.1)	(430.4)	(1.1)	(0.3)	0.0	0.0	0.0	0.0	(315.4)
Issuance of long-term debt	0.0	0.0	900.0	0.0	0.0	0.0	0.0	0.0	0.0	300.0
Repurchase of common stock	(63.0)	(59.1)	(27.9)	(62.3)	(37.2)	(40.0)	(37.0)	(35.0)	(32.0)	(32.0)
Other financing activities	(1.6)	(1.3)	(21.2)	(3.4)	(0.1)	0.0	0.0	0.0	0.0	0.0
Cash Flow from Financing Activities:	**(110.8)**	**(60.6)**	**420.5**	**(66.8)**	**(37.6)**	**(40.0)**	**(37.0)**	**(35.0)**	**(32.0)**	**(47.4)**
Exchange rate effect on cash	(0.3)	0.1	1.2	(3.5)	1.2	0.0	0.0	0.0	0.0	0.0
Net change in cash	17.8	154.9	(227.9)	(247.9)	310.2	294.6	125.7	172.1	157.8	144.6
Beginning cash balance	493.0	510.8	665.7	437.8	189.9	500.2	794.7	920.4	1,092.6	1,250.4
Ending cash balance	510.8	665.7	437.8	189.9	500.2	794.7	920.4	1,092.6	1,250.4	1,395.0

Source: Company filings

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

Indenture Key Provisions

Term	Description
Notes	4.125% Bonds due 04/30/2031
Issuer	Central Garden & Pet Co.
Principal Amount	$ 400,000,000
Coupon Rate	4.124% paid semi-annual
Maturity Date	April 30, 2031
Covenants	1. Negative Pledge 2. Change of Control (@ 101.00) 3. Limit of Indebtedness 4. Cross Default 5. Negative Covenant 6. Certain Sales of Assets 7. Restriction on Activities 8. Restrictive Covenant 9. Merger Restrictions 10. Restricted Payments
Events of Default	▪ Percentage of Bondholders ▪ Litigation ▪ 30 days Grace Period for Missed Payments

Source: Company filings

Bond Holders

	Holder Name	Count	Source	Held Amount	Position	% Out	Filing Date
1.	Capital Group Cos Inc/The	2	ULT-AGG	151,614,000	151,614	9.48	11/20/24
2.	JPMorgan Chase & Co	3	ULT-AGG	136,573,000	136,573	8.54	11/20/24
3.	New York Life Insurance Co	3	ULT-AGG	82,778,000	82,778	5.17	07/31/24
4.	Blackrock Inc	3	ULT-AGG	75,489,000	75,489	4.72	11/20/24
5.	Thrivent Financial for Lutherans	1	Multi	21,105,000	21,105	1.32	07/31/24
6.	Genworth Financial Inc	1	ULT-AGG	13,000,000	13,000	0.81	06/30/24
7.	Chubb Ltd	2	ULT-AGG	10,638,000	10,638	0.66	06/30/24
8.	Travelers Cos Inc/The	2	ULT-AGG	10,055,000	10,055	0.63	06/30/24
9.	Unum Group	1	ULT-AGG	10,000,000	10,000	0.63	06/30/24
10.	State Street Corp	3	ULT-AGG	9,151,000	9,151	0.57	11/20/24
11.	CUNA Mutual Holding Co	1	ULT-AGG	9,000,000	9,000	0.56	06/30/24
12.	Goldman Sachs Group Inc/The	2	ULT-AGG	8,792,000	8,792	0.55	09/30/24
13.	Allianz SE	3	ULT-AGG	8,780,000	8,780	0.55	06/30/24
14.	Northwestern Mutual Life Insurance Co/The	2	Sch-D	8,000,000	8,000	0.50	06/30/24
15.	Aegon Ltd	4	ULT-AGG	5,874,000	5,874	0.37	10/31/24
16.	Liberty Mutual Insurance Co	1	Sch-D	5,800,000	5,800	0.36	06/30/24
17.	GAM Holding AG	2	ULT-AGG	5,791,000	5,791	0.36	07/31/24
18.	Guggenheim Partners LLC	2	ULT-AGG	5,707,000	5,707	0.36	08/31/24
19.	Franklin Resources Inc	1	ULT-AGG	5,500,000	5,500	0.34	10/31/24
20.	FMR LLC	3	ULT-AGG	5,401,426	5,401	0.34	09/30/24
21.	Genworth Life and Annuity Insurance Co	1	Sch-D	5,276,000	5,276	0.33	06/30/24
22.	Nordea Bank Abp	1	ULT-AGG	5,012,000	5,012	0.31	09/30/24
23.	Peerless Insurance Co	1	Sch-D	4,600,000	4,600	0.29	06/30/24
24.	Calamos Partners LLC	1	ULT-AGG	4,580,000	4,580	0.29	09/30/24
25.	Allspring Global Investments Holdings LLC	2	MF-AGG	4,540,000	4,540	0.28	10/31/24
26.	Deutsche Bank AG	3	ULT-AGG	4,496,000	4,496	0.28	11/21/24
27.	Security Life of Denver Insurance Co	1	Sch-D	4,000,000	4,000	0.25	06/30/24
28.	Boyd Watterson Asset Management LLC	1	MF-AGG	3,907,000	3,907	0.24	06/30/24
29.	Hotchkis and Wiley Capital Management LLC	1	MF-AGG	3,863,000	3,863	0.24	09/30/24
30.	American Century Cos Inc	3	MF-AGG	3,676,000	3,676	0.23	09/30/24
31.	NLV Financial Corp	1	ULT-AGG	3,600,000	3,600	0.22	06/30/24
32.	UBS AG	2	ULT-AGG	3,495,000	3,495	0.22	07/31/24
33.	Lincoln Financial Investments Corp	2	MF-AGG	3,168,000	3,168	0.20	09/30/24
34.	TCW GROUP	2	ULT-AGG	3,161,000	3,161	0.20	11/19/24
35.	SEI Investments Co	3	ULT-AGG	3,104,000	3,104	0.19	10/31/24
36.	Ameritas Investment Partners Inc	3	MF-AGG	3,100,000	3,100	0.19	06/30/24
37.	Muzinich & Co Ireland Ltd	2	MF-AGG	3,000,000	3,000	0.19	11/30/23
38.	Brighthouse Financial Inc	1	ULT-AGG	3,000,000	3,000	0.19	06/30/24

Source: Company filings

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Equity Holders

	Holder Name	Portfolio Name	Source	Opt	Position	% Out	Latest Chg	File Dt
			All	All				
1.	Pacer Advisors Inc	Pacer Advisors Inc	13F		2,747,414	24.80	-423,073	09/30/24
2.	Victory Capital Management Inc		13G		2,238,044	20.20	2,238,044	12/31/22
3.	Blackrock Inc		ULT-AGG		1,668,059	15.06	1,234	09/30/24
4.	Brown William E		Form 4		1,510,376	13.63	-60,000	08/30/24
5.	Vanguard Group Inc/The		ULT-AGG		1,348,895	12.18	0	09/30/24
6.	Allspring Global Investments Holdings LLC	Allspring Global Investments Holdings LLC	13F		893,226	8.06	7,893	09/30/24
7.	Dimensional Fund Advisors LP	Dimensional Fund Advisors LP	13F		774,214	6.99	-3,083	09/30/24
8.	Morgan Stanley		ULT-AGG		592,979	5.35	7,114	09/30/24
9.	Geode Capital Management LLC	Geode Capital Management LLC	13F		556,236	5.02	-2,144	09/30/24
10.	Norges Bank	Multiple Portfolios	MF-AGG		379,702	3.43	144,889	06/30/24
11.	State Street Corp		ULT-AGG		371,577	3.35	-14,620	09/30/24
12.	Bank of America Corp	Bank of America Corp	13F		233,581	2.11	37,480	09/30/24
13.	Allianz SE		ULT-AGG		209,020	1.89	-28,222	09/30/24
14.	Argenta Asset Management SA	Multiple Portfolios	MF-AGG		204,493	1.85	43,702	06/30/24
15.	Northern Trust Corp	Northern Trust Corp	13F		203,421	1.84	25,357	09/30/24
16.	Renaissance Technologies LLC	Renaissance Technologies LLC	13F		182,087	1.64	-38,600	09/30/24
17.	American Century Cos Inc	American Century Cos Inc	13F		177,535	1.60	14,888	09/30/24
18.	Millennium Management LLC/NY	Millennium Management LLC/NY	13F		162,545	1.47	101,238	09/30/24
19.	Orchard Capital Management LLC	Orchard Capital Management LLC	13F		148,979	1.34	-20,128	09/30/24
20.	Hotchkis and Wiley Capital Management LLC	Hotchkis and Wiley Capital Management LLC	13F		148,910	1.34	2,450	09/30/24
21.	Pennington Brooks M		Form 4		148,140	1.34	0	08/13/24
22.	MARSHALL WACE		ULT-AGG		119,695	1.08	35,695	09/30/24
23.	Charles Schwab Corp/The		ULT-AGG		112,305	1.01	11,671	09/30/24
24.	Citadel Advisors LLC	Citadel Advisors LLC	13F	Y	110,015	0.99	110,015	09/30/24
25.	GW&K Investment Management LLC	GW&K Investment Management LLC	13F		100,165	0.90	-3,500	09/30/24
26.	Lahanas Nicholas		Form 4		89,804	0.81	-10,000	05/15/24
27.	Skyline Asset Management LP	Multiple Portfolios	MF-AGG		85,815	0.77	-5,050	10/31/24
28.	Invesco Ltd		ULT-AGG		75,563	0.68	5,685	09/30/24
29.	Bridgeway Capital Management LLC	Bridgeway Capital Management LLC	13F		73,843	0.67	73,843	09/30/24
30.	Martin & Co Inc	MARTIN & CO INC	13F		73,202	0.66	-292	09/30/24
31.	RBF Capital LLC	RBF Capital LLC	13F		72,176	0.65	0	09/30/24
32.	Bank of New York Mellon Corp/The		ULT-AGG		71,754	0.65	-15,123	09/30/24
33.	Brighthouse Financial Inc		ULT-AGG		70,670	0.64	-11,463	06/30/24
34.	UBS AG		ULT-AGG		55,313	0.50	24,558	09/30/24
35.	Deerfield Management Co LP	Deerfield Management Co LP	13F		53,827	0.49	53,827	09/30/24
36.	Principal Financial Group Inc	Principal Financial Group Inc	13F		51,214	0.46	29	09/30/24
37.	T Rowe Price Group Inc		ULT-AGG		49,612	0.45	1,628	09/30/24
38.	Goldman Sachs Group Inc/The		ULT-AGG		48,934	0.44	23,296	09/30/24
39.	Ameriprise Financial Inc		ULT-AGG		48,487	0.44	-1,528	09/30/24
40.	SEI Investments Co		ULT-AGG		47,617	0.43	-21,537	10/31/24
41.	Empirical Finance LLC	Multiple Portfolios	MF-AGG		46,924	0.42	112	11/21/24
42.	Empowered Funds LLC	Empowered Funds LLC	13F		46,095	0.42	46,095	09/30/24
43.	Ohio Public Employees Retirement System	Ohio Public Employees Retirement System	13F		45,816	0.41	0	09/30/24
44.	Qube Research & Technologies Ltd	Qube Research & Technologies Ltd	13F		43,828	0.40	37,442	09/30/24
45.	American International Group Inc		ULT-AGG		41,673	0.38	12	09/30/24
46.	361 Capital LLC	Multiple Portfolios	MF-AGG		[illegible]	[illegible]	[illegible]	[illegible]

Source: Company filings

Bond Liquidity & Callable Info

Bond Liquidity

Trade Recap for 11/21							
14:12:39	S	614	90.171	5.986	155.8	T 4 ¼	11/15/34
13:19:16	B	921	90.081	6.005	159.2	T 4 ¼	11/15/34
Trade Recap for 11/20							
10:32:02	D	148	90.027	6.015	160.8	T 4 ¼	11/15/34
10:32:02	D	148	89.996	6.021	161.4	T 4 ¼	11/15/34
Trade Recap for 11/18							
08:48:13	B	4	89.747	6.070	160.2	T 4 ¼	11/15/34
Trade Recap for 11/15							
16:30:39	B	25	89.675	6.084	163.9	T 4 ¼	11/15/34
14:41:29	D	194	89.523	6.115	169.8	T 4 ¼	11/15/34
14:41:29	D	194	89.553	6.108	169.2	T 4 ¼	11/15/34
Trade Recap for 11/14							
17:08:40	S	25	90.166	5.983	154.5	T 4 ¼	11/15/34
13:42:26	D	890	90.041	6.008	160.3	T 4 ¼	11/15/34
13:42:26	B	890	90.041	6.008	160.3	T 4 ¼	11/15/34
12:54:40	S	1000+ (	90.250	5.966	157.5	T 4 ¼	11/15/34
12:33:33	B	1000+ (	90.125	5.991	160.0	T 4 ¼	11/15/34

Bond Callable Info

YTC	Date	Price	Yield
Maturity	04/30/2031	100.00	5.997379
Custom	04/30/2031	100.00	5.997379
Next Call	04/30/2026	102.063	13.235686
Worst Call	04/30/2031	100.00	5.997379
May be called anytime starting 04/30/2026			

Source: Company filings

Company Overview: Leading Positions in Key Categories

CENT's Top Brands in Pet and Garden

	Pet	Garden
#1 position in:	Kaytee – Pet bird; Segrest Farms – Live animal ex. dog & cat); Kaytee – Small animal	C and S – Wild bird; Zoëcon Professional Products – Municipal mosquito control; Starbar – Farm insect control
#2 position in:	Farnam – Equine fly control; Nylabone – Dog toys; Aqueon (it's all about the fish.) – Aquatics	Ferry-Morse (Since 1856) – Packet seed; Pennington (Nurture your roots, Estd 1945) – Fertilizer; Pennington (The Grass Seed People) – Grass seed
#3 position in:	Comfort Zone (Less stress. More love.) – Calming products; Zilla (Rep Yourself) – Reptile	Amdro, GardenTech Sevin – Controls

Source: Company filings

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Overview: Market Position and Product Participation

Major, Meaningful and Minor Participant Grades

Garden

#2

Lawn & Garden Consumables

	CENTRAL GARDEN & PET	Scotts	Spectrum Brands	SC Johnson
Controls	Meaningful	Major	Major	Major
Grass Seed	Major	Major		
Packet Seed	Major			
Wild Bird	Major			
Fertilizer	Meaningful	Major		
Live Plants	Meaningful	Minor		
Growing Media & Mulch		Meaningful		

Pet

#2

Pet Supplies (ex- Dog & Cat Food, Cat Litter)

	CENTRAL GARDEN & PET	MARS	Spectrum Brands	SMUCKER'S
Dog & Cat Supplies	Major		Minor	
Dog Treats & Chews	Meaningful	Major	Major	Major
Aquatics Supplies	Major	Meaningful	Major	
Small Animal Supplies	Major		Meaningful	
Pet Bird Supplies	Major		Meaningful	
Reptile Supplies	Meaningful	Minor		
Equine Supplies	Major	Major		
Professional	Major	Meaningful		
Live Fish & Small Animals	Major			
Dog & Cat Food		Major	Major	* Major
Cat Treats		Major	Minor	Minor
Cat Litter		Minor	Meaningful	
Services (Vet/ non-medical)		Major		

Major Participant

Meaningful Participant

Minor Participant

Source: Company filings

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Appendix

Our M&A Priorities

1. Build scale in core categories
2. Enter priority adjacencies
3. Enhance key capabilities
4. Pursue portfolio optimization

Preferred acquirer in our industries

- Track record of M&A success
- Focused on maintaining entrepreneurial led culture
- Immediate distribution and supply chain scale benefits
- Merchandising, category management leadership
- Stellar balance sheet and access to capital

Seeking gowth and margin accretive, brand-focused companies with talented management teams.

Source: Company filings

Management

Source: Company filings

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Management

TEXT

Niko Lahanas

Chief Executive Officer

Niko Lahanas became Chief Executive Officer of Central in September 2024. In this role, he is responsible for leading the broad $3.3 billion portfolio of 65+ pet and garden brands with a team of over 6,700 employees primarily across the United States.

From 2017 until he became CEO, Niko served as Chief Financial Officer at Central. He joined Central in 2006 and has held a variety of finance positions within the Company, including Senior Vice President of Finance, Operations Management & Reporting, Chief Financial Officer of the Pet Segment, Vice President of Corporate Financial Planning & Analysis, and Director of Business Performance of the Garden segment, focusing on business unit profitability. Before joining Central, Niko worked in private equity and investment banking for over eight years.

Niko earned his BA in Psychology from the University of California, Berkeley and his MBA from The George Washington University.

Brad Smith

Chief Financial Officer

Brad became our Chief Financial Officer in September 2024. He joined Central in 2017 as Chief Financial Officer of our Pet Segment. Before joining Central, Brad worked at the Delhaize Group (now Ahold Delhaize), where he served 12 years in finance roles of increasing responsibility, including Chief Financial Officer of their European operations. Prior to Delhaize Group, Brad spent 11 years at Arthur Andersen.

Brad earned his BA in Economics from the University of California, Davis.

Source: Company filings

Company History

History of Growth

Milestones

- **Pre 2003**
  - **'80**: Founded
  - **'93**: IPO on NASDAQ
  - **'98**: Surpassed $1bn in Net Sales
- **2003-2006**
  - **'04:** Surpassed $1.5bn in Net Sales
- **2007-2011**
  - **'07 -'11:** Singular focus on profit improvement
- **2011-2013**
  - Transformation period
- **2013-2015**
  - **'13:** John Ranelli named President and CEO
  - **'14:** Rejected unsolicited proposal from Harbinger Group
  - **'13 -'15:** Focused on "righting the ship"
- **2016-2018**
  - **'16:** George Roeth named President and CEO
  - **'18:** Eleven consecutive quarters of record earnings

M&A

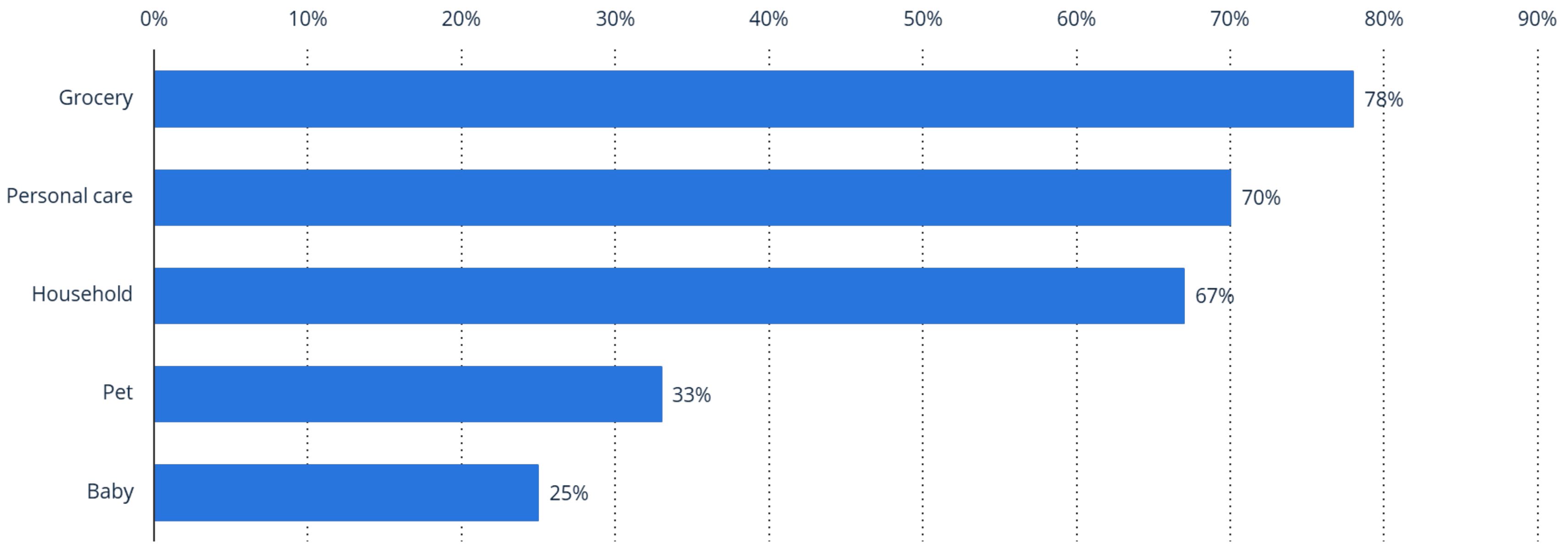
- **Pre 2003:** Amdro, Nylabone, Kaytee, Four Paws, Pennington, Grant's Kills Ants, Aqueon
- **2003-2006:** Farnam, Ironite, ESU Energy Savers Unlimited, New England Pottery, GardenTech, Kent Marine, Breeder's Choice, Interpet
- **2013-2015:** DMC Dallas Manufacturing Company, Pet Inns, Envincio, Earth Juice
- **2016-2018:** General Pet Supply, Bell Nursery, Segrest Farms, K&H

Over 50 Acquisitions in the Past 25 Years

Source:

Pet Spending less discretionary than it may seem

Share of consumers who have reduced their purchase quantities due to price increase in the United States in 2023, by categories



Description: A survey conducted in the United States in December 2023 revealed that three out of four consumers by less groceries due to price increases. Read more
Note(s): United States; December 2023; 1,010 respondents
Source(s): McKinsey & Company

Source:

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November 24th, 2024

Students: Karn Dalal, Fenghua Lu, Stephen Monrad

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Investment Summary

Investment Recommendation:
- Buy: Fortrea (FTRE) 7.5% 2030 Senior Secured Notes Trading at ~Par (7.42% YTW)
- Target Spread: 126bps; Expected 1-Year Total Return: ~7.4% (YTW)
- Tranche Size: $570M
- Ratings: Moody's B1, S&P BB

Thesis Summary:
- The CRO industry is poised for sustained growth from research spending tailwinds in Biotech/Pharma and continued outsourcing by small and large firms alike
- As the Fed continues to reduce rates, VC spending for small Biotech firms will expand, positively affecting Fortrea
- In an expanding industry Fortrea needs to only maintain share to service our debt, and the company continues to win new contracts at a competitive rate
- If there is a slowdown, CRO revenues and healthcare R&D is arguably insensitive to consumer demand and should even benefit from lower interest rates
- In any case, Fortrea is poised to improve margins as they exit their TSA agreements from the spinoff and begin to manage down costs through offshoring and automation; CEO is highly qualified by experience to lead this change

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Fortrea Holdings



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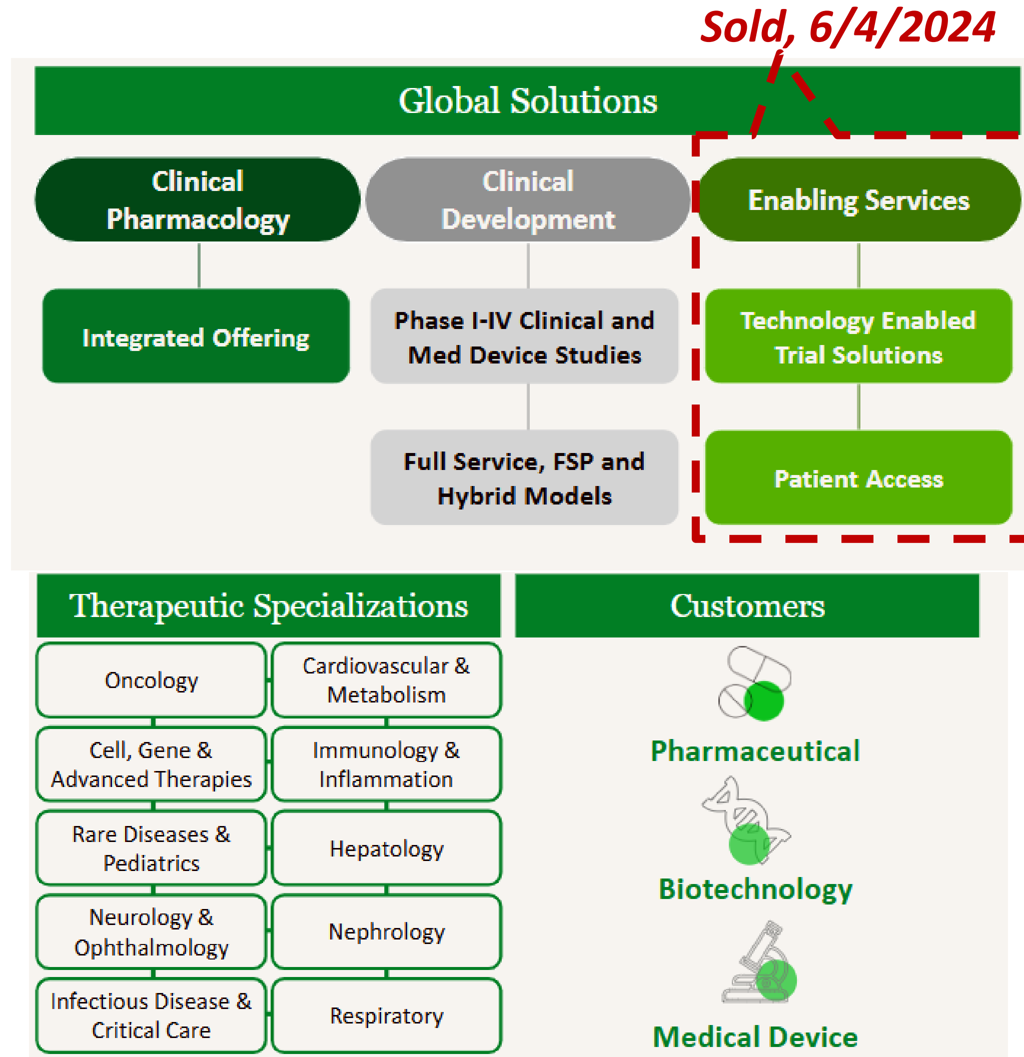
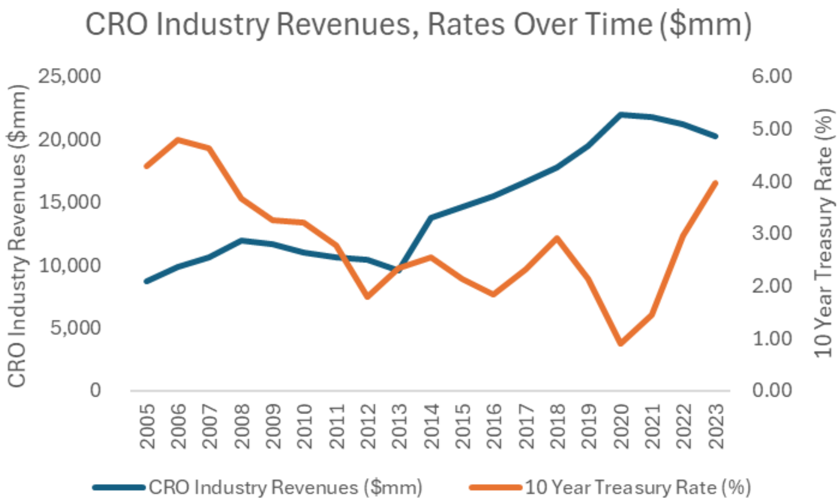
Fortrea Background

- Fortrea is the sixth largest contract research organization in the world based on revenue, providing services across all stages of the clinical research process
- CEO of Fortrea is Tom Pike. Tom previously led Quintiles through its merger with IMS to form IQVIA, which is now the largest CRO in the world
- In the LTM period, FTRE generated \$2.98bn in revenue and \$205mn in EBITDA, leaving gross leverage at 5.6x and net leverage at 5.1x
- With a market capitalization of \$1.69B and \$1.14B of Debt. The company has an EV of \$2.73B

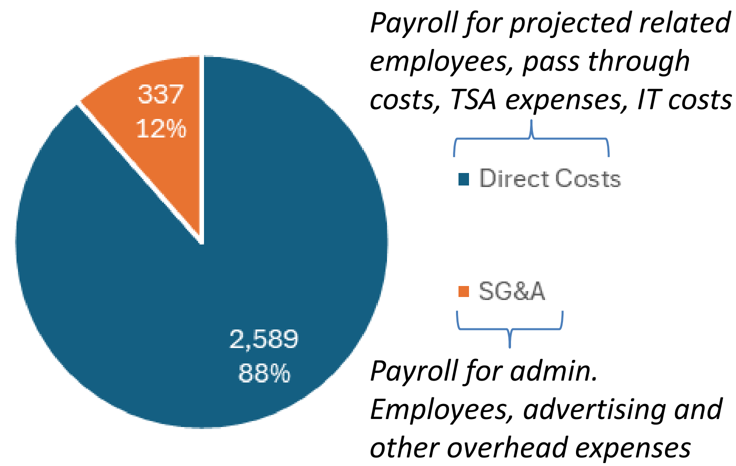
FTRE Business Overview

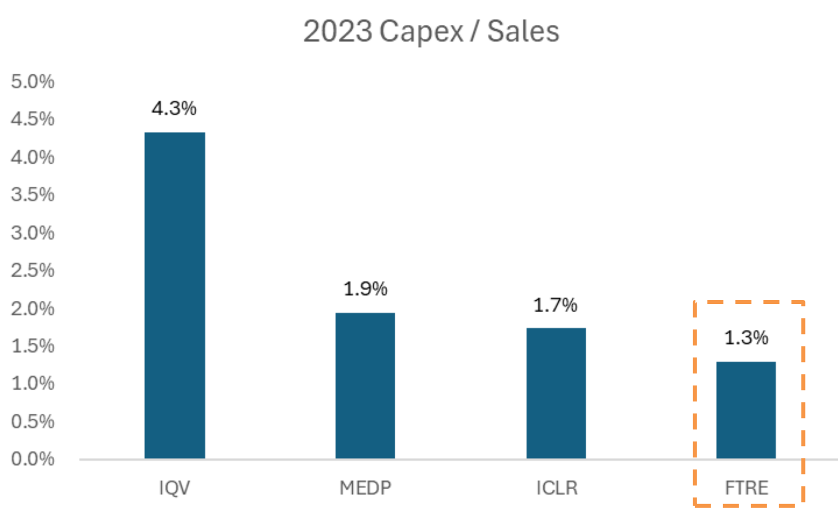


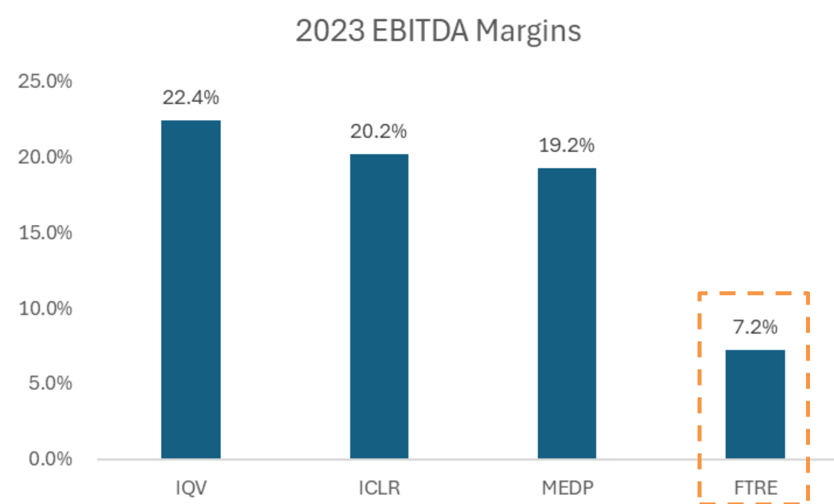
CRO Industry Revenues Grow Significantly Over Time; CRO Business Model Results in Minimal Operating Leverage, but Consumes Little Capital; Margins Significantly Vary by Operator



Breakdown of FTRE OpEx Costs ex. D&A







Note: Data from company filings, FRED.

Large, Diversified CROs Benefit from Competitive Advantages which New Entrants, In-House R&D Find Expensive to Replicate

- CROs large enough to be publicly traded tend to offer combinations of services which would be expensive to disintermediate by in-house research teams or new entrants
- Geographically diversified CROs are able to assist clients, who are often US-based, in simultaneously running trials in multiple geographies
- Large CROs have built up credibility and experience working with regulators on multiple regulatory submissions, and so can "pool experience" across past projects
- Sufficiently large CROs can invest in the infrastructure necessary to offshore or automate labor-intensive work
- CROs are essentially billable hours and labor utilization businesses – larger CROs with multiple sets of operations can cross-sell bundles of solutions to keep utilization high

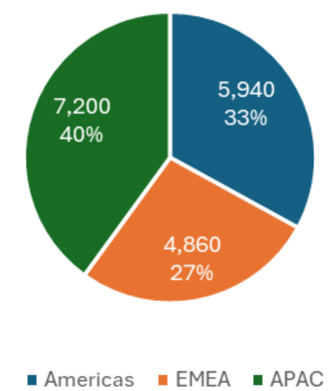
"So I think the good example is what happened with all the vaccines for COVID. So imagine that historically, you are running reports maybe in one year. Now with all these technical information around system automation, you can run reports in three months. ... So as a CRO, if you want to be a CRO, one of the most important value assets that you need to invest is your systems."

- Global Regulatory Affairs Director, PPD

"What happens is like I know I was doing a study with IQVIA years ago. We're in the middle of our study, they shifted all their data management to India.
*However, like the [face] of the people that you deal with at the CRO are still in the United States, but the data is really in the cloud and a lot of the day-to-day work is done **offshore**."*

- Former Head of Clinical Operations at Midsize Biotech

FTRE Employee Base Breakdown



Source: McKinsey, Tegus

Capital Structure

Instrument	Principal	Rate	Leverage	LTV	Maturity Date	Price	YTW	OAS/Spre	Ratings
Cash and Cash Equivalents	**$105**								
Revolving Credit Facility ($450) Due 2028		TSFR1M +			28-Jun			225	B1/BB
Senior Secured Term Loan A Due 2028	$417	TSFR1M +			28-Jun	97.13	7.97%	225	B1/BB
Senior Secured Term Loan B Due 2030	$155	TSFR6M +			30-Jun	100.38	7.90%	375	B1/BB
7.5% Senior Notes Due 2030	$570				30-Jul	100.9	7.42%	272	B1/BB
Total Debt	**$1,142**		**5.6x**	**42%**					
Net Debt	**$1,037**		**5.1x**	-					
Market Capitalization	**$1,769**								
Enterpise Value	**$2,727**								
-	-								
TTM EBITDA	**$205**								
Liquidity	**$555**								
Interest Coverage (LTM)	**1.5x**								

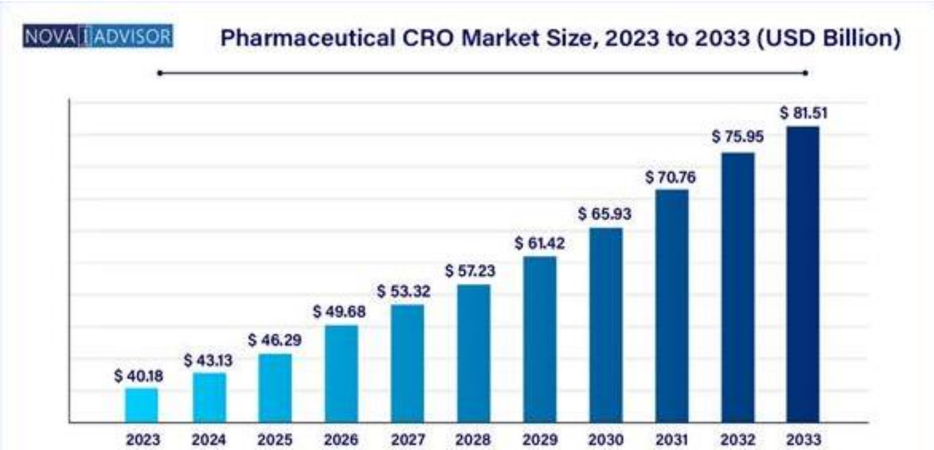
*Statements refer to the 2030 Bonds as "Senior Notes", but these notes are in-fact secured obligations **pari passu with credit facilities***

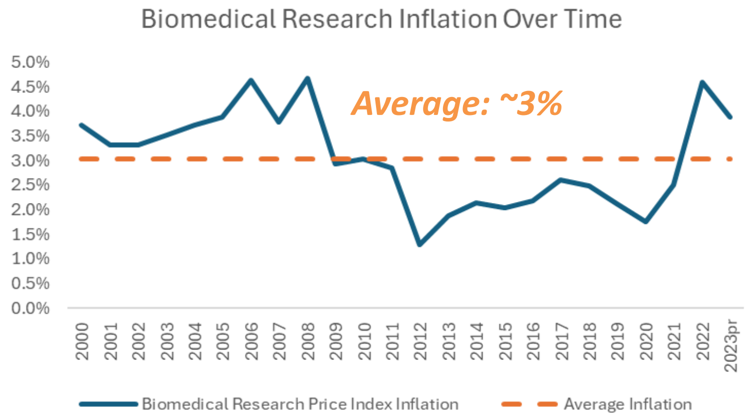
Note: Data from Company Filings, Bloomberg

Investment Thesis

Thesis Point #1: The CRO Industry is Poised for Long-Term Growth Significantly Faster than GDP

- Small venture funded biotech start-ups command an increasing share of the biopharma industry's clinical pipeline, with the top 15 biopharma companies share of pipeline shrinking from 40% in 2011 to 20% in 2021
- Biotech start-ups are relatively lean enterprises, and don't have in-house teams or infrastructure to handle the logistics of a clinical trial, may lack experience dealing with regulatory processes, etc., forcing them to rely on CROs
- Biomedical research costs have historical inflated at a ~3% rate, faster than overall inflation, due to constraints in the supply of skilled healthcare labor; costs per clinical trial grow faster as trial complexity grows due to growth in regulatory requirements and globalization of R&D
- Legacy Pharma Research investment has ticked up in response to drug patent expirations, motivating pharmaceutical companies to outsource research and fill revenue gaps. Pharmaceutical CRO Market Size expected to expand at a 7.33% CAGR





Source: McKinsey, NIH

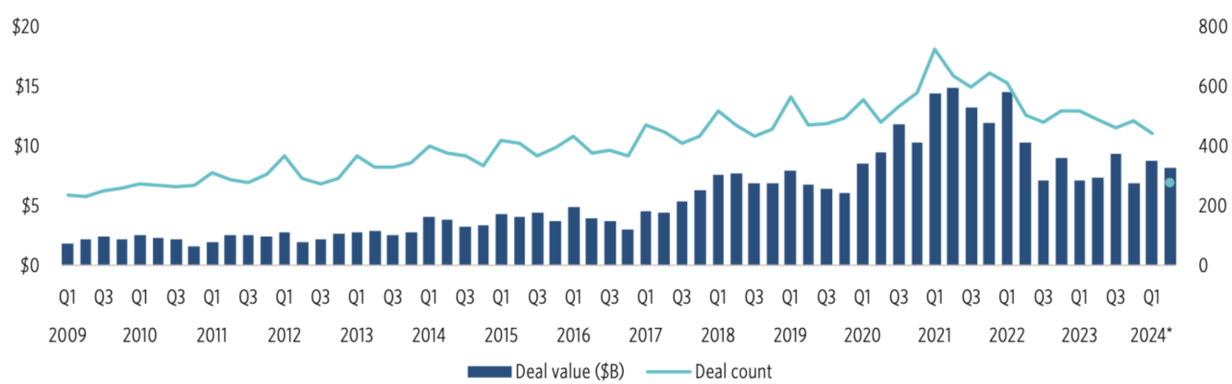
Thesis Point #2: VC Funding has Stabilized for Life Sciences, is on Par with Pre-Covid levels, and is likely to Reaccelerate in the Near Term

- Following a decade of growth, VC funding for life sciences start-ups has fallen as sponsors pulled back following the 2022-2023 increase in interest rates
- This disproportionately affected CROs, as the services that CROs provide are “investment” from the point of view of their clients, and therefore making demand interest rate sensitive
- Going forward, moderation in inflation means that interest rate policy is likely to switch from a headwind to a modest tailwind, with almost all FOMC participants expecting some level of interest rate cuts in 2025
- Note that Fortrea’s revenues appear flat from 2022 through 2023 while margins declined significantly as billable hours revenues were replaced by revenues attributable to pass-through costs (ie. 0% gross margin)

FOMC Target Rate Projections

TARGET RATE	2024	2025	2026	2027	LONGER RUN
5.000					
4.875	2				
4.750					
4.625	7				
4.500					
4.375	9				
4.250					
4.125	1	1			
4.000					
3.875		1	1	1	
3.750					1
3.625		3	3	3	1
3.500					2
3.375		6	3	3	2
3.250					1
3.125		6	2	2	
3.000					2
2.875		2	6	5	2
2.750					3
2.625			3	3	1
2.500					3
2.375			1	2	1
2.250					

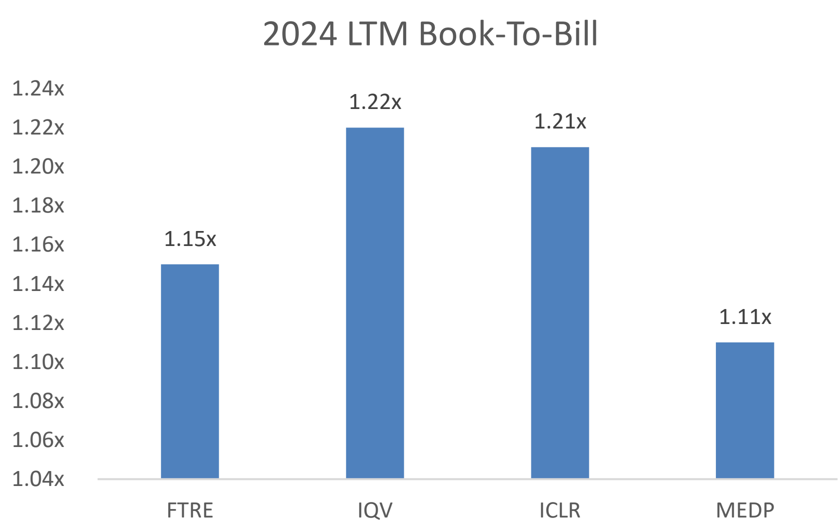
Life sciences VC deal activity by quarter

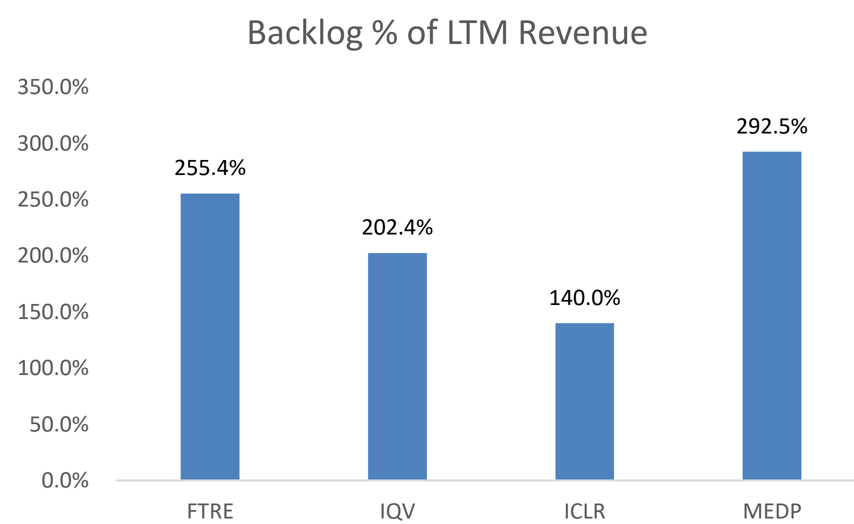


Source: PitchBook, Chicago Mercantile Exchange

Thesis Point #3: Fortrea is likely to at least maintain market share in this growing market going forward

- Fortrea continues to show strength in their ability to win new contracts, with a strong LTM Book to Bill Ratio of 1.15x (in-line with competitors) and an especially strong Q3 of 1.23x. We believe this reflects well on the company's ability to grow in the future as they are booking more than they are fulfilling
- The company's backlog is now at ~7.6B, increasing 6.2% yoy. Comparatively, Fortrea has a higher backlog as a percentage of LTM revenues v competitors suggesting a strong pipeline of future sales and strong demand for their services
- Fortrea has a large focus in Oncology (46% of Therapeutic revenues), which happens to be the largest therapeutic area for R&D activity. 25% of Phase I to Phase III trials are focused on Oncology and Gene Therapy from this past year and likely to increase going forward (Contract Pharma)





Thesis Point #4: Fortrea Offers Downside Protection and Creditor Friendly Qualities

Downturn Performance:

- Fortrea's revenues (Covance) was resilient throughout the Great Financial Crisis with revenue growth slowing to 3% in 2010 but never dipping negative from 07-10

History of Debt Repayment:

- FTRE previously owned a patient / provider outreach business, which was sold in Q2 2024; proceeds from this sale were entirely applied to repaying debt; Pike used Quintiles IPO proceeds to repay debt

Liquidity:

- Fortrea has a strong liquidity position of $555M including $105M of cash and a $450M untapped revolver

FCF Generation/Low Capital Expenditures:

- For the LTM period, CFO was $263M and Capex was only 1.3% of sales or -$38M. FCF on these metrics is $225M

Valuation Cushion:

- Based on a public market capitalization of ~$1.76B the 2030 bonds have a LTV of 42% and are senior secured with the rest of the Floating-Rate debt

Conservative Management:

- During Tom Pike's tenure as CEO of Quintiles, leverage was generally managed down to ~2x, with leverage only increasing to ~3x (on a PF basis) during the company's transformative merger with IMS Health

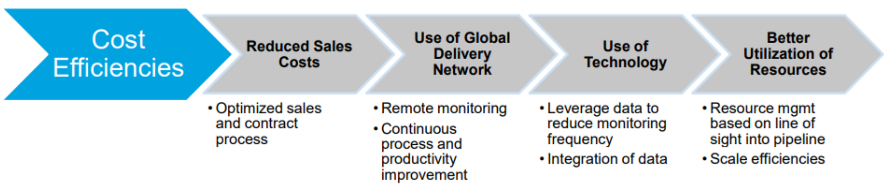
50% Floating-Rate Capital Structure:

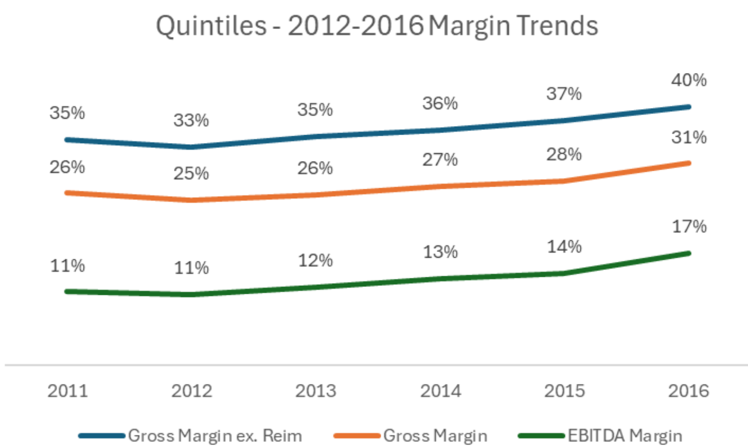
- In the event where there is a significant downturn, the Fed would likely cut rates which would lead to some interest expense relief as half the debt is based on floating-rates

Thesis Point #5: Fortrea was Historically Undermanaged, Resulting in Significant Margin Upside Going Forward

- The new CEO of Fortrea, Tom Pike, presided over a significant improvement in Quintiles margins, as the company automated or offshored labor intensive activities, cut headcount, or exited low margin activities
- Fortrea is current exiting TSAs with Labcorp, with the majority of exits planned for EOY 2024
- Fortrea's former status as a subsidiary of Labcorp made it difficult to incent employees to execute or allocate capital in a manner which leveraged the business's scale and expertise

Quintiles, 2014 Cost Improvement Plan





FTRE Expert Transcript Commentary

"having worked for ICON and PRA… the [person] that they hire is someone that understands… they need to maintain a 25% profit margin… Fortrea and Covance and Labcorp's culture was not established that way… it took us six months to execute a change order because there wasn't enough people in contracting and pricing to do it"

- Former Director of Project Management at Covance

"it all boils down to the parent company, [being a] lab company, not understanding the clinical CRO business… Labcorp was pretty tight with the purse strings"

- VP, Enterprise Alliance Management at Covance

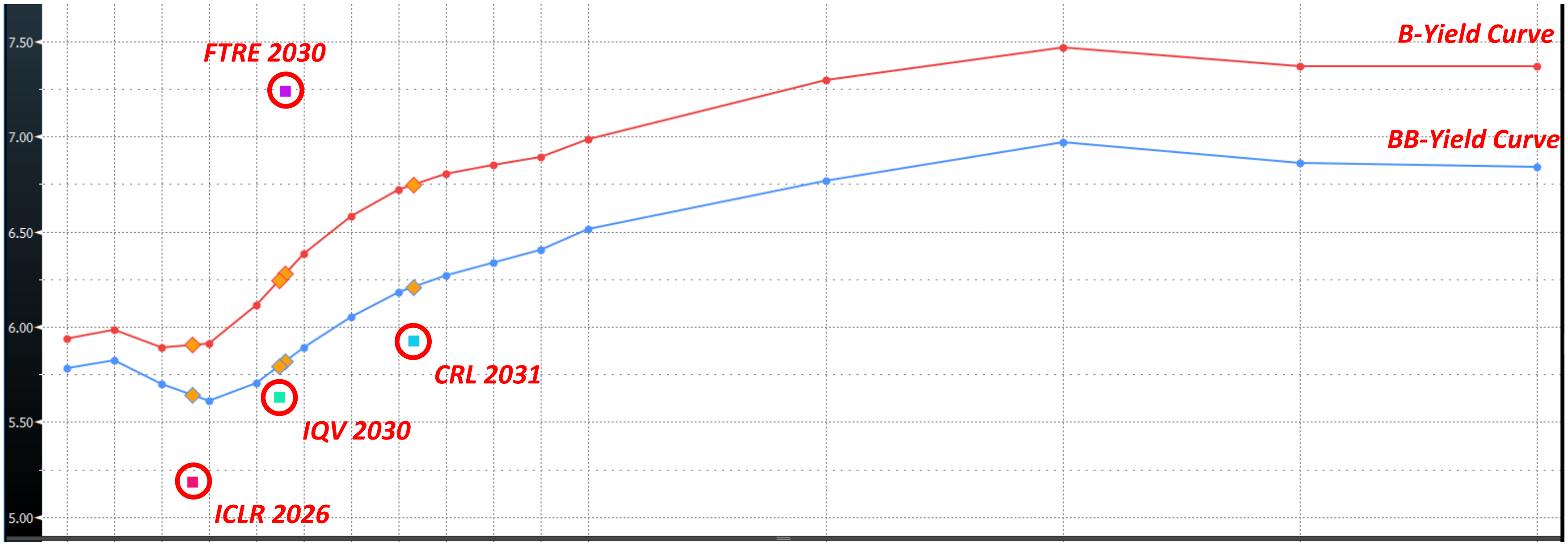
"I think the issue is their operating costs… Covance [ie. Fortrea] was very US focused… all their back office work was done in the US… Covance was a number of years behind Quintiles and Syneos and Icon in moving that work offshore"

- Former Senior Advisor to the CEO at LabCorp

Source: Company Filings, Tegus

Valuation

FTRE 2030s Trade Wide to Curve and Peers, Suggesting Opportunity for Yield as TSAs Roll Off



Ticker	Principal ($mm)	S&P	Coupon	Maturity	Ask Yield	Net Leverage
FTRE	570	BB	7.500%	7/1/2030	7.42%	5.1x
IQV	500	BB	6.500%	5/15/2030	5.63%	3.3x
ICLR	500	BBB-	2.875%	7/15/2026	5.13%	1.9x
CRL	500	BB	4.000%	3/15/2031	5.93%	2.4x

Note: Data from Bloomberg

Capital-Light Operating Model Limits Liquidation Value but Enables Strong FCF Conversion Ratio; Covenants Incent Debt Paydown from Current Levels

Liquidation Analysis

	Reported	(Disc.) / Prem.	Liq. Value	Notes
Cash and Eq.	105	0%	105	
Receivables	689	(40%)	413	
Other Current Assets	143	(100%)	0	Prepaid Exp.
PP&E	173	(65%)	61	
Intangibles and Other	2,554	(100%)	0	
Total Assets	3,664		579	
Working Liabilities	796		796	
Net Assets to Secured	2,868		(216)	
Gross Secured Debt	1,142		1,142	
Recovery	***100%***		***(19%)***	

Covenants:

- Unlimited RP subject to 2.9x net leverage test; RP basket builds with 50% of net income and is subject to 3.4x net leverage test *OR* 2x FCCR test; General RP not to exceed greater of $145mm and 35% of EBITDA
- Incurrence of debt subject to 4.4x net leverage test OR 2x FCCR test, with non-guarantor debt not to exceed $185mm; credit facility debt exception up to 3.9x net secured leverage or 4.15x net secured leverage if financing an acquisition; exception for assumed acquisition debt up to 5.3x net leverage provided that debt is not guaranteed; additional exceptions for purchase money financing up to $125mm, letters of credit of $80mm, $205mm of non-guarantor debt, JV debt of $120mm, $205mm of general indebtedness
- Asset sales >$120mm require cash consideration; asset sale proceeds in excess of $40mm require the company to make an offer to pay down debt or purchase notes

Risks & Mitigants

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Risk	Mitigants
Customer Concentration: One customer accounted for 15.1% of revenues and the top 10 customers account for 51% of revenue and 53% of backlog.	The clinical trial process is critical, expensive, and lengthy, so **switching costs are high –** companies are unlikely to switch CROs in the middle of a trial. Contracts tend to be longer-term in nature.
Top-Line Headwinds: Revenue has declined by mid-single digits in each of the last three quarters YoY.	Fortrea has a **massive backlog of $7.57B**, representing an increase of 6.2% yoy building on the previous quarter's increase of 5.6% yoy. **LTM Book-to-Bill stands at 1.15x** after Q3 with the last quarter posting a strong 1.23x after some new wins.
Heavy Competition: Fortrea is the 6th largest CRO in revenue behind IQVIA and ICON and competes with a plethora of smaller niche CROs.	Mitigating the competitive dynamics are significant Industry Tailwinds for the CRO market (**9.6% CAGR growth expected).** Going forward, maintaining share will likely lead to growth. The complexity of the regulatory environment and specialized expertise needed creates **significant barriers to entry.**
Depressed Margins and High Leverage: LTM EBITDA margins are only at 6.9% and with the significant debt load, Interest Coverage is low at 1.5x.	The company is on track to exit majority of TSA services by the end of the year. The CEO has very strong experience in driving margin improvement at another CRO (Quintiles).

Summary Outputs

FTRE Base Case Financial Summary

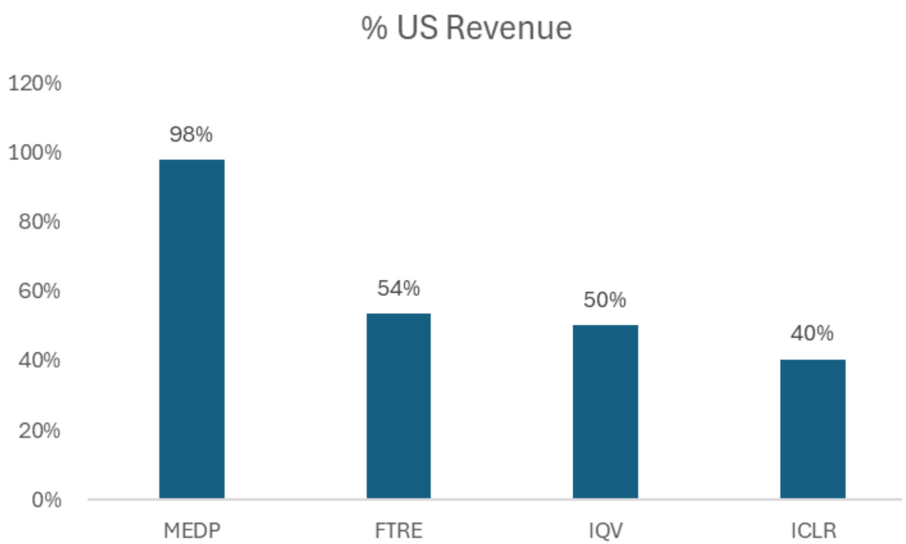
	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenue	3,109	2,713	2,840	3,039	3,252	3,479	3,723	3,983
EBITDA	227	230	341	471	504	539	576	617
Gross Debt	1,592	1,125	1,172	1,596	1,691	1,793	1,903	2,019
Cash	(109)	(184)	(231)	(231)	(231)	(231)	(231)	(231)
Net Debt	1,483	941	941	1,365	1,460	1,563	1,672	1,789
Leverage	6.5x	4.1x	2.8x	2.9x	2.9x	2.9x	2.9x	2.9x
OCF	167	307	226	303	325	346	370	396
Capex	(40)	(41)	(43)	(46)	(49)	(53)	(57)	(61)
FCF	127	266	183	257	275	293	314	336
FCF/EBITDAR	0.6x	1.2x	0.5x	0.5x	0.5x	0.5x	0.5x	0.5x

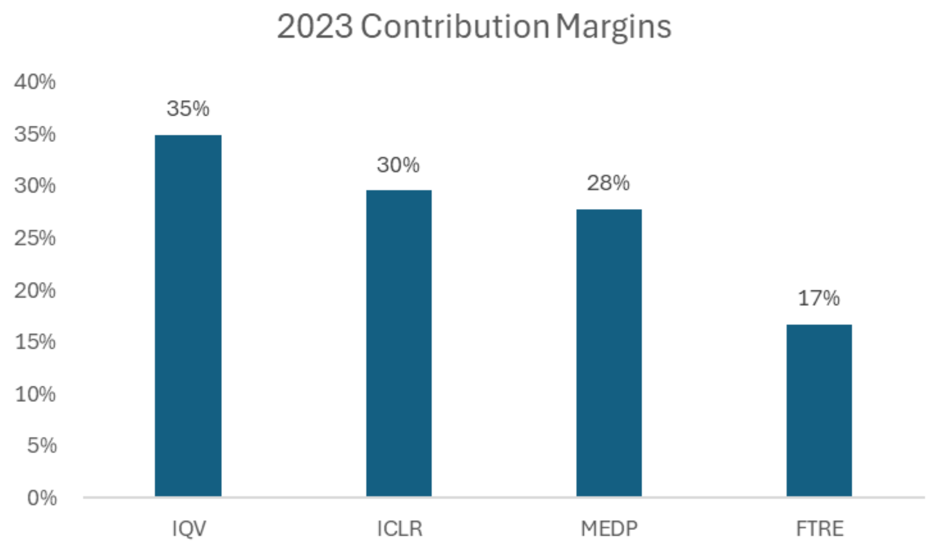
FTRE Downside Case Financial Summary

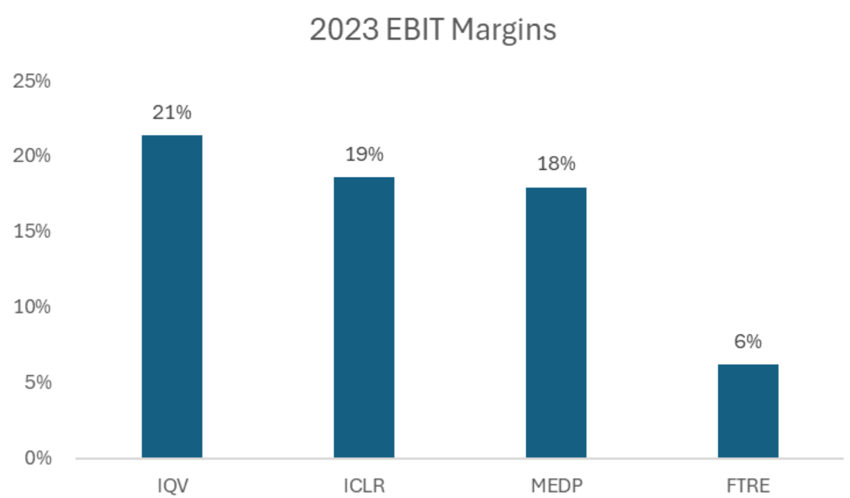
	2023	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenue	3,109	2,713	2,577	2,577	2,706	2,895	3,098	3,315
EBITDA	227	230	312	403	423	452	483	516
Gross Debt	1,592	1,125	1,087	1,352	1,410	1,494	1,584	1,680
Cash	(109)	(184)	(184)	(184)	(184)	(184)	(184)	(184)
Net Debt	1,483	941	904	1,169	1,227	1,310	1,400	1,496
Leverage	6.5x	4.1x	2.9x	2.9x	2.9x	2.9x	2.9x	2.9x
OCF	167	307	211	265	277	293	313	334
Capex	(40)	(41)	(39)	(39)	(41)	(44)	(47)	(50)
FCF	127	266	172	226	236	249	266	284
FCF/EBITDAR	0.6x	1.2x	0.6x	0.6x	0.6x	0.6x	0.6x	0.6x

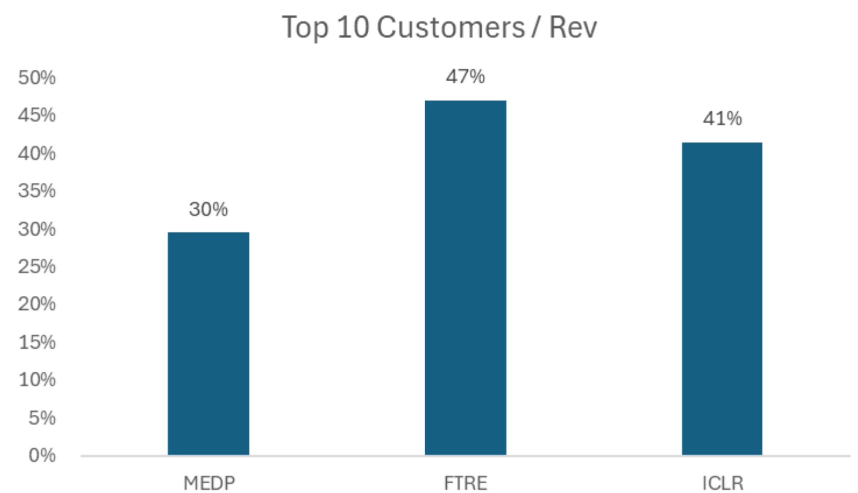
Appendix

Peer Benchmarking









Model Cases

Model Cases							
Active	2025	2026	2027	2028	2029	2030	2031
Base	4.7%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Downside	(5.0%)	0.0%	5.0%	7.0%	7.0%	7.0%	7.0%

Income Statement

Income Statement - Simple

Revenues	3,096	3,109	2,713	2,840	3,039	3,252	3,479	3,723	3,983	4,262
x Margin	12.7%	7.3%	8.5%	12.0%	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%
Adj. EBITDA	394	227	230	341	471	504	539	576	617	660
SBC	(25)	(43)	(55)	(58)	(62)	(66)	(71)	(75)	(81)	(86)
Depreciation	(27)	(33)	(25)	(27)	(29)	(31)	(33)	(35)	(38)	(40)
Adj. EBIT	342	151	150	256	380	407	435	466	498	533
Amortization	(66)	(64)	(64)	(61)	(61)	(61)	(54)	(54)	(54)	(54)
Interest expense	(0)	(70)	(124)	(91)	(124)	(131)	(139)	(147)	(157)	(166)
Other Expense	(39)	(17)	(210)							
EBT	237	1	(249)	104	196	215	243	265	288	314
Taxes	(44)	(5)	52	(22)	(41)	(45)	(51)	(56)	(61)	(66)
Net Income	193	(3)	(197)	82	155	170	192	209	228	248
Basic WASO	88.8	88.8	91.3	86.1	62.6	52.2	42.0	32.1	22.5	13.2
Diluted WASO	88.8	88.8	91.3	86.1	62.6	52.2	42.0	32.1	22.5	13.2
Basic EPS	$2.17	($0.04)	($2.15)	$0.95	$2.47	$3.26	$4.56	$6.51	$10.11	$18.80
Diluted EPS	$2.17	($0.04)	($2.15)	$0.95	$2.47	$3.26	$4.56	$6.51	$10.11	$18.80
Effective Tax Rate	19%	409%	21%	21%	21%	21%	21%	21%	21%	21%

Balance Sheet

Balance Sheet - Simple

ASSETS										
Current assets:										
Cash and cash equivalents	112	109	184	231	231	231	231	231	231	231
Working Capital Assets	1,135	1,145	831	870	931	996	1,066	1,141	1,220	1,306
Total current assets	1,247	1,253	1,015	1,101	1,162	1,227	1,297	1,371	1,451	1,537
Property, plant and equipment, net	165	221	237	253	270	289	309	330	353	377
Goodwill, net	1,997	2,029	1,753	1,753	1,753	1,753	1,753	1,753	1,753	1,753
Intangible assets, net	823	771	707	646	585	525	471	418	364	311
Other assets, net	56	83	83	83	83	83	83	83	83	83
Total assets	4,288	4,357	3,794	3,835	3,853	3,876	3,912	3,954	4,004	4,060
LIABILITIES AND EQUITY										
Current liabilities:										
Current portion of long-term debt	0	26	0	0	0	0	0	0	0	0
Working Capital Liabilities	699	750	796	833	892	954	1,021	1,092	1,169	1,250
Total current liabilities	699	776	796	833	892	954	1,021	1,092	1,169	1,250
Long-term debt, less current portion	0	1,566	1,125	1,172	1,596	1,691	1,793	1,903	2,019	2,145
Other liabilities	246	277	277	277	277	277	277	277	277	277
Total liabilities	945	2,618	2,197	2,282	2,764	2,922	3,091	3,271	3,465	3,672
Total equity	3,343	1,739	1,597	1,553	1,089	954	821	683	539	388
Total liabilities and equity	4,288	4,357	3,794	3,835	3,853	3,876	3,912	3,954	4,004	4,060
Check	0	0	0	0	0	0	0	0	0	0
Effective Interest Rate		4.4%	11.1%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%

Cash Flow Statement

Cash Flow Statement - Simple

CASH FLOWS FROM OPERATING ACTIVITIES:										
Net income (loss)	193	(3)	(197)	82	155	170	192	209	228	248
Depreciation Expense	27	33	25	27	29	31	33	35	38	40
Amortization Expense	66	64	64	61	61	61	54	54	54	54
Stock compensation	25	43	55	58	62	66	71	75	81	86
Change in Net Working Capital	(246)	46	360	(2)	(3)	(3)	(3)	(3)	(3)	(4)
Other	22	(14)								
Net cash provided by operating activities	88	167	307	226	303	325	346	370	396	424
CASH FLOWS FROM INVESTING ACTIVITIES:										
Capital expenditures	(54)	(40)	(41)	(43)	(46)	(49)	(53)	(57)	(61)	(65)
Other	0	9	277							
Net cash used for investing activities	(54)	(32)	235	(43)	(46)	(49)	(53)	(57)	(61)	(65)
CASH FLOWS FROM FINANCING ACTIVITIES:										
Debt Payment / Issuance	0	1,616	(468)	47	424	95	102	109	117	125
Repurchases				(183)	(681)	(371)	(395)	(423)	(453)	(485)
Distributions to Common / Parent	(9)	(1,729)								
Other	0	(26)								
Net cash used for financing activities	(9)	(139)	(468)	(136)	(257)	(275)	(293)	(314)	(336)	(360)
FX	(7)	0								
Change in Cash	17	(3)	75	47	0	0	0	0	0	0
BOP Cash	95	112	109	184	231	231	231	231	231	231
EOP Cash	112	109	184	231	231	231	231	231	231	231
Check	0	0	0	0	0	0	0	0	0	0

Management Compensation Metrics

Element	Form of Payment	Description	Key Considerations
Base Salary	Cash	Provide competitive fixed pay that is tied to the market and allows us to attract, retrain and motivate executives	• Reflects individual skills, experience, responsibilities and performance over time • Key input to annual bonus opportunity
Annual Bonus	Cash	Motivates and rewards executives to be focused on key business and individual goals by using at-risk variable compensation	• Performance-based payments tied to achievement of short-term corporate and individual performance goals • Pays only if threshold performance (or above) are met • Range of potential payout: 0% - 200% of target • In 2023, Labcorp awarded both Ms. McConnell and Mr. Morais a cash bonus in order to incentivize them to work through and past the Spin
Long-Term Incentives	Equity	Rewards performance that enhances stockholder value using equity-based awards that link compensation to the value of Fortrea Common Stock and the achievement of performance goals, and strengthens the alignment of management and stockholder interests by creating meaningful levels of Company stock ownership by management	• Links value to stock price and performance • Range of potential payout for performance-based equity awards: 0% - 200% of target

2024 Compensation Highlights

In 2024, the Fortrea MDCC implemented the following changes to the Fortrea compensation program:

- Approved the 2024 Fortrea Bonus Plan, under which achievement is based on the following financial performance and strategic objectives: (i) Financial metrics, including Adjusted EBITDA, which aligns with the interests of stockholders, and net new business, which focuses on growth; and (ii) Strategic components based on the successful exit of the TSAs, which is critical to Fortrea's success as an independent company; and
- Approved the 2024 Long-term Incentive Plan ("LTIP"), under which achievement is based on the following absolute and relative metrics: (i) Financial metrics, including revenue and Adjusted EBITDA Margin, which continues the focus on growth and profitability; and (ii) A relative Total Stockholder Return modifier that measures Fortrea's long-term stockholder return versus an industry-relevant index to align with stockholders over the longer-term.

Appendix – Miscellaneous Exhibits

Clinical CRO Market Outsourcing Penetration 2015 – 2020E

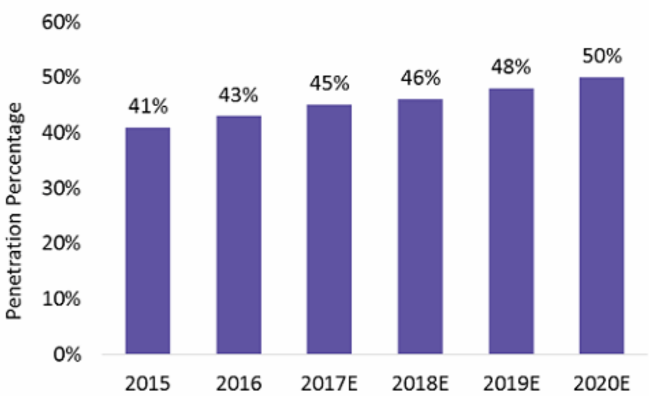


Figure 4: *Source: Company data, EvaluatePharma, Credit Suisse estimates*

Labcorp Drug Development Segment EBIT Margin (incl. alloc. Corp. Exp.)

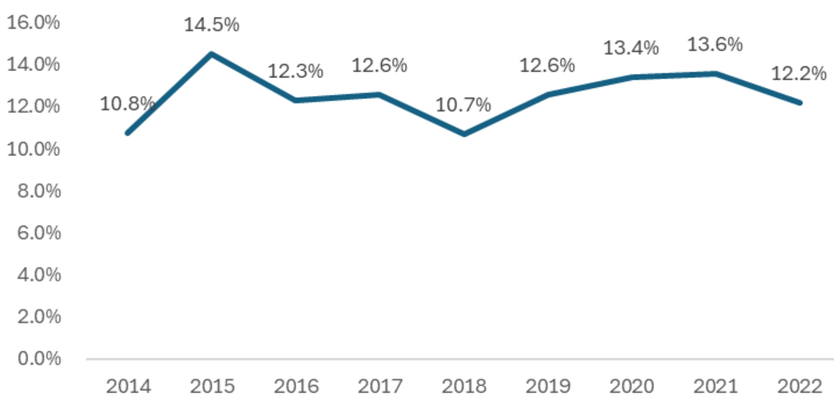
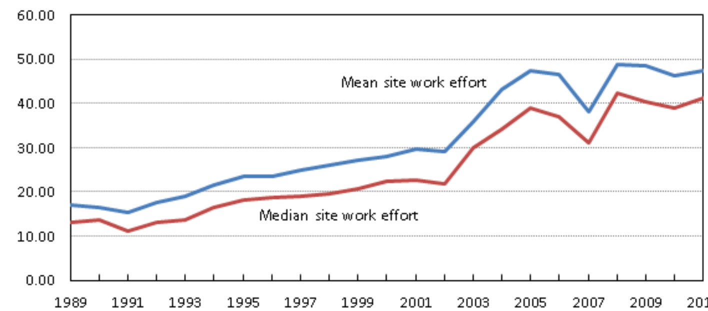


Figure 1. Mean and median site work effort, 1989–2011

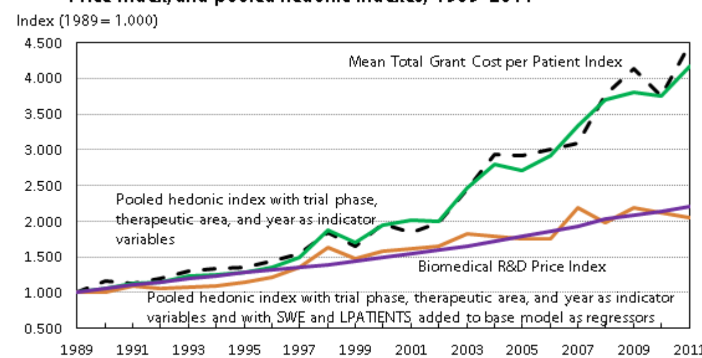


[1] RVUs = relative value units (see text); WEUs = work effort units (see text).

Source: Authors' calculations based on Medidata Solutions, Inc.'s, PICAS® database.

Source: BLS

Figure 3. Mean Total Grant Cost per Patient Index, Biomedical R&D Price Index, and pooled hedonic indexes, 1989–2011



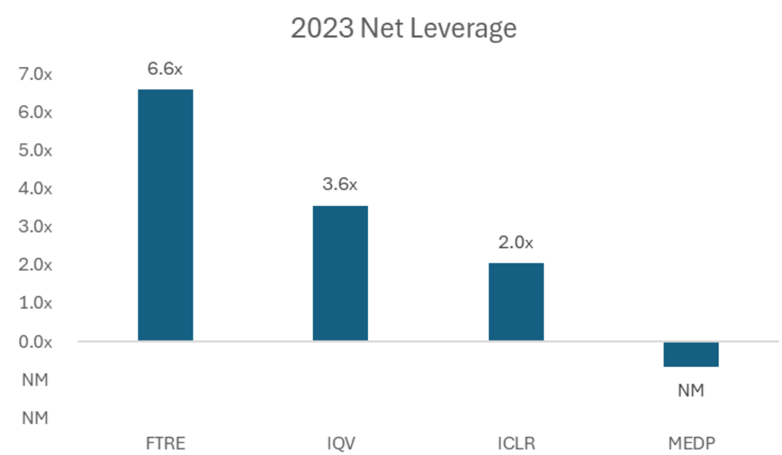
Source: Authors' calculations based on Medidata Solutions, Inc.'s, PICAS® database.

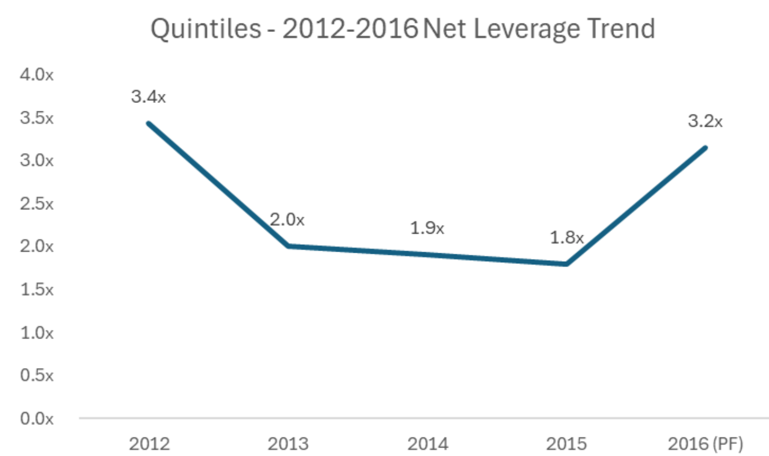
Source: BLS

Near-Term Capital Allocation is Likely to be Creditor Friendly

- FTRE has publicly stated their intent to manage their business to 2.5-3.0x Leverage
- FTRE previously owned a patient / provider outreach business, which was sold in Q2 2024; proceeds from this sale were entirely applied to repaying debt, with the majority applied to repaying the company's TLB, given its higher cost of capital
- During Tom Pike's tenure as CEO of Quintiles, leverage was generally managed down to ~2x, with leverage only increasing to ~3x (on a PF basis) during the company's transformative merger with IMS Health; Pike used Quintiles IPO proceeds to repay debt
- FTRE's leverage at spin was well above that of other CROs to fund a dividend to Labcorp, and does not signal long-term stance

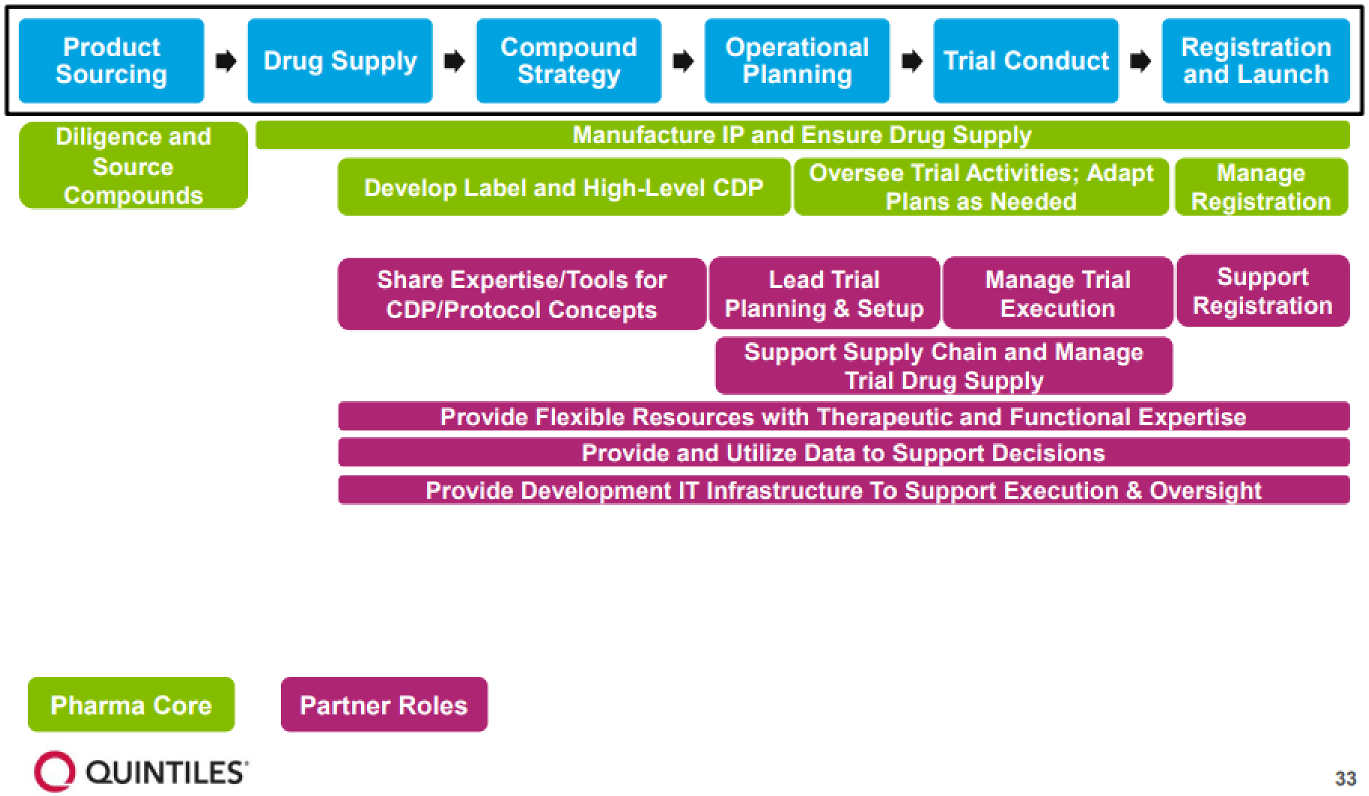
FTRE Q3 2024 Investor Presentation





Source: Company Filings, Investor Presentation.

Appendix – Miscellaneous Exhibits



Appendix – 6/20/2024 Special Call Transcript Excerpts

- EVR: Annualized amount starting with sort of the 3Q, right? Okay. Got it. That's very helpful. And then, obviously, you guys filed an 8-K talking about, I guess, it was 2 Fridays ago now, in terms of some of the changes you made, and I think we had some updated financials from 1Q. So can you talk maybe through a couple of the things there, maybe starting with some of the delayed filing of the Q, initially, and then we can talk about some of the updates and the numbers there.
- CFO: Yes, absolutely. So in terms of the delayed filing, Elizabeth, we -- when we started really digging in and working through our discontinued operations accounting, as you can imagine, having come out of the spin and then trying to spin from a spin, there was a lot of work. And as we started digging in, we became aware of some issues primarily related to periods before the spin, going back multiple years, where there were just some issues that needed to be addressed. And so we had to take the extra time to go through, when we really started looking to go through, and make sure we had covered all of those. So the good news is that we were unfortunately a few days late in terms of filing that. ***But we believe, and we said it would be immaterial in terms of the overall impact, and it is, people can see that now***. We believe with that work. We've gotten to the bottom of it. What ended up happening 2 weeks ago, we were made aware of an issue in our slides. So the 10-Q is not impacted at all by this, but there were a couple of items in the slides. And we have already made internal, and we're still making internal process, and some personnel enhancements to address that. I take responsibility that, that happened, and it won't happen again. We know what we need to do, and we're on top of it…. ***our ERP is through a TSA from Labcorp***.

Kenan–Flagler Business School
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The University of North Carolina

WOLVERINE worldwide

December 5 , 2024

Team Number: 2

Student Names: Sebastian Hartmann, Rachael Kim, Edward Rippon

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

INVESTMENT SUMMARY

WOLVERINE worldwide

BUY WWW 4% Senior Unsecured Notes Due 2029

Investment Recommendation

- **Recommendation:** BUY Wolverine World Wide - WWW 4% 2029 Note, Spread 270 bps
- **Target spread:** 200 bps base case – 70 bps compression / Total Annual Return: ~10%

Why buy WWW 2029 bonds?

- **Thesis 1:** Strategic Portfolio Optimization Will Drive Growth and Unlock New Opportunities
- **Thesis 2:** Cost Reduction and Improved Inventory Management Will Boost Results
- **Thesis 3:** Rating Upgrade Opportunity Driven by Improved Cash Generation and Debt Reduction

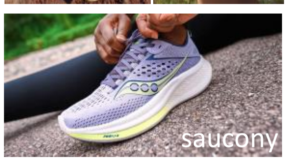
Notes Details	
Rank	Sr. Unsecured
Coupon	4.0%
Maturity	8/15/2029
Outstanding	$550 million
Rating	B- (S&P) / Caa2 (Moody's)
Current Price	87.30
YTW	7.0%
OAS Spread	280 bps

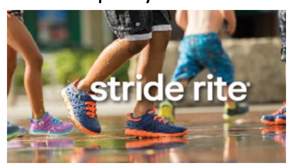
BUSINESS DESCRIPTION

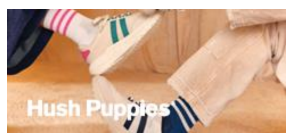
Wolverine World Wide: Leading Designer, Marketer, and Licensor of Footwear/Apparel

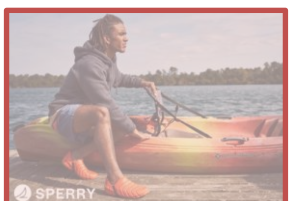
Key Segment

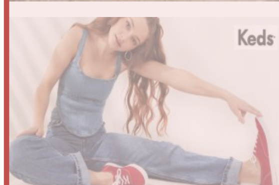
Active Group	Work Group	Other
Merrell, Saucony, Sweaty Betty, Chaco	Wolverine, Cat, Bates, Harley-Davidson, HYTEST Safety Footwear	Stride rite and Hush Puppies Licensing, Multi-brand stores. Sold Sperry and Keds





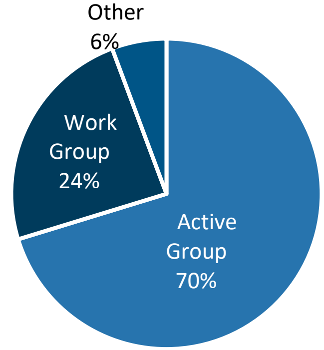




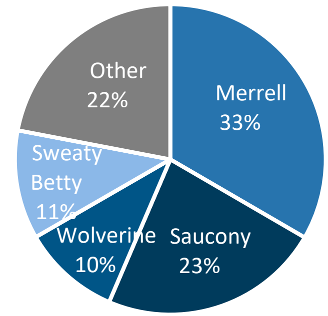


Divestitures:
- Sperry: Jan-2024
- Keds: Feb-2023

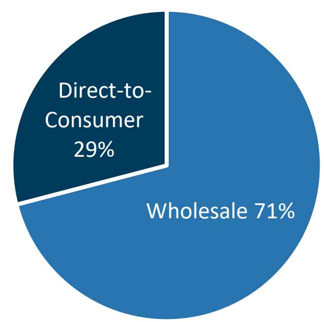
Revenue by Segment



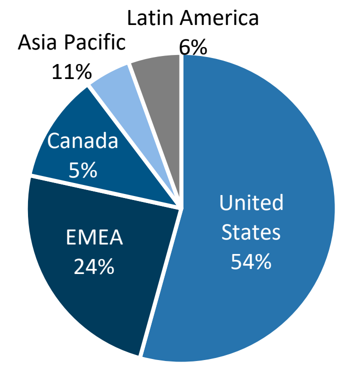
Revenue by Brand



Revenue by Brand



Revenue by Sales Channel

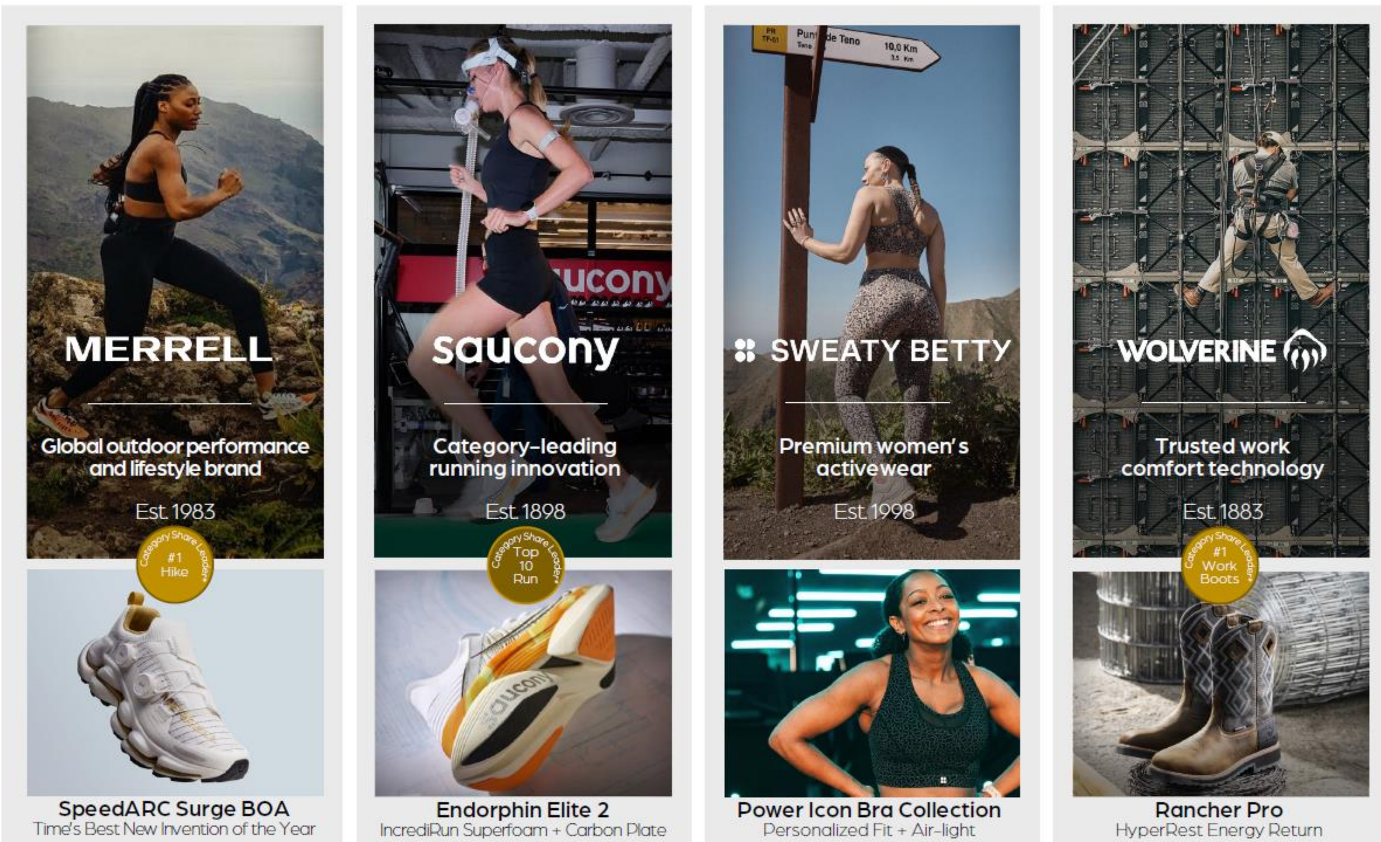


Data as of September 2024, except Revenue by region (Dic-23)
Source: Company Reports.

BUSINESS DESCRIPTION

Wolverine World Wide: Leading Designer, Marketer, and Licensor of Footwear/Apparel

Strong Brand Portfolio



Additional Brands:

Chaco

CAT

BATES

HARLEY-DAVIDSON FOOTWEAR

HYTEST SAFETY FOOTWEAR

Hush Puppies

stride rite

1. US category share data for the trailing 12 months ending September 2024

Source: Company Reports.

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CAPITAL STRUCTURE

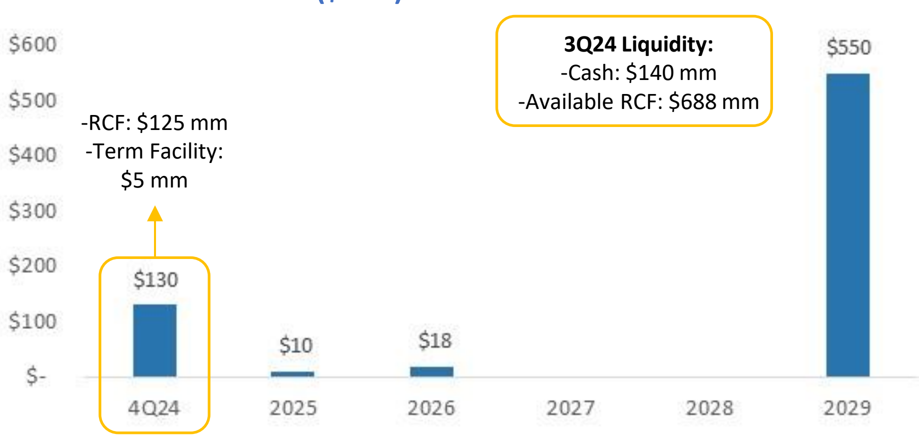
WOLVERINE worldwide

Leverage Decreasing Rapidly with Manageable Short-Term Maturities

- **Manageable Maturities:** Short-term maturities total $125 million in CRF and $10 million in Term Facility, with flexible terms
- **Leverage:** projected to decrease from 6.2x in 3Q24 to 2.1x by 2026

Security	Type	Maturity	Coupon	Mid Price	YTW	OAS Spread	Rating	Outstanding ($mm)	%	Leverage 2024E
Revolving Facility - $1 bn	1st lien	3/19/2026	ABR + 0.125%/1.0%					125		
Term Facility October 2026	1st lien	3/19/2026	ABR + 0.125%/1.0%	-	-	-		33		
Total Sr. Secured								**158**	**22%**	**0.1x**
PBI 7 ¼ 03/15/29	Note - USD	3/15/2029	7.250%	98.0	7.8%	328	B- / Caa2	550		
Total Sr. Unsecured								**550**	**78%**	**3.9x**
Total Debt								**708**		
(-) Cash & Cash Equivalents								140		
Net Debt								**567**		
(+) Minority Interest								9		
(+) Market Cap								1,874		
Enterprise Value (EV)								**2,441**		**17.0x**
Debt to EV								**29%**		

Amortization Schedule ($mm):



Leverage:

6.2x (3Q24) ⇨ 2.1x (2026E)

Net Debt/EBITDA

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INVESTMENT THESIS #1

WOLVERINE worldwide

Strategic Portfolio Optimization Will Drive Growth and Unlock New Opportunities

Key Strategic Initiatives…

Simplification and focus leading brands

- Portfolio **focused on performance brands**
- **Divestiture** of several brands ($394 mm in proceeds)

…with Concrete Growth Opportunities

Saucony Lifestyle and Merrell Apparel Expansion

- **Scaling lifestyle franchise in 2025** with fresh offerings, leveraging retro sneaker trend
- Increase US lifestyle distribution to **900+ stores by FY25**

Sales 2023	Weight	Growth
SportStyle	10%	36%
Onitsuka Tiger	11%	40%
Consolidated Sales	**100%**	**18%**

Saucony ProGrid Omni 9

Saucony Grid Ride Millennium

Source: WWW and Asics Financial Reports.

INVESTMENT THESIS #1

Strategic Portfolio Optimization Will Drive Growth and Unlock New Opportunities

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Enhanced capabilities for building brands

- “The Collective”: new strategic center of **innovation**
- **Global Licensing Team** to unlock portfolio’s potential
- Opened Boston **Innovation Hub**

…with Concrete Growth Opportunities

Saucony Lifestyle and Merrell Apparel Expansion

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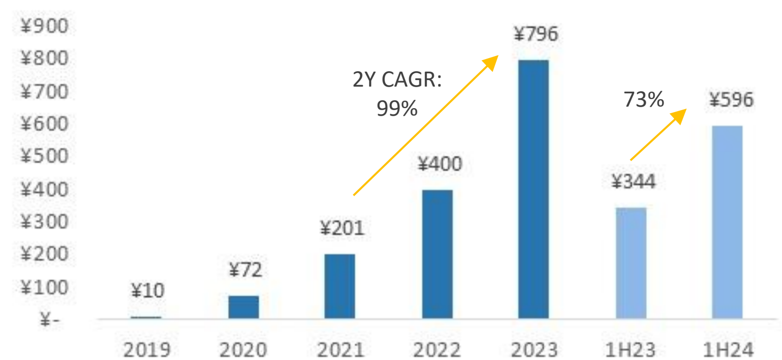
Strong Potential of New Licensing Agreement in China

- Partner (Xtep) operates **128 Saucony stores in China**
- Licensee projects **50%+ growth in FY24** for professional sports, up from $110M in 2023 sales



Source: WWW and Xtep Financial Reports.

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INVESTMENT THESIS #1

WOLVERINE worldwide

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Investing in brand-building

- **Increasing marketing** to support growth
- **Strong Pipeline** with trend-right, innovative products

…with Concrete Growth Opportunities

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DTC Gains Driven by Digital Enhancements

- Following a Merrell pilot, **launching a digital product line**
- Mid single-digit growth in 3Q24 for Merrell and Saucony

Source: WWW and Xtep Financial Reports.

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INVESTMENT THESIS #2

WOLVERINE worldwide

Cost Reduction and Improved Inventory Management Will Boost Results

Profitability Measures Implemented…

Cost Reduction Initiates

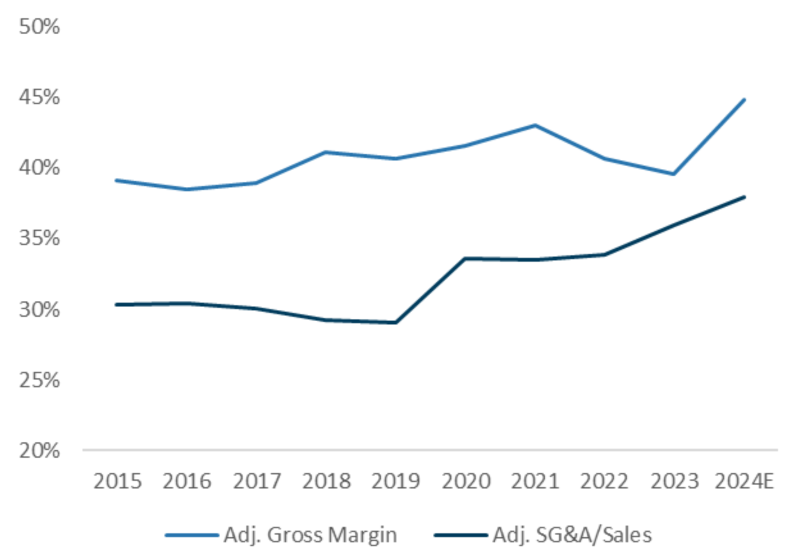
- **Annual run rate savings**: $215 mm ($73 mm in 2023)
- **Supply Chain Cost Improvements**: Raw material vendor consolidation, negotiations with factories, and leveraging technology to drive efficiencies in distribution centers
- **Reduced Organizational Costs**: workforce reduction
- **Reduced Indirect Spend**: consolidating footprint

$mm	2023 Actioned Savings	2024 Incremental Savings	Annual Savings Run Rate
Supply Chain Improvements	$30	$70	$100
Reduced Organizational Costs	$35	$50	$85
Reduced Indirect Spend	$10	$20	$30
Total	$75	$140	$215

…with Already Some Visible Results

Gross Margin and SG&A

- **3Q24 Gross Margin**: +380bps, reaching 45.3%
- **SG&A/Sales**: Still at elevated levels



Source: WWW Financial Reports.

INVESTMENT THESIS #2

Cost Reduction and Improved Inventory Management Will Boost Results

Profitability Measures Implemented…

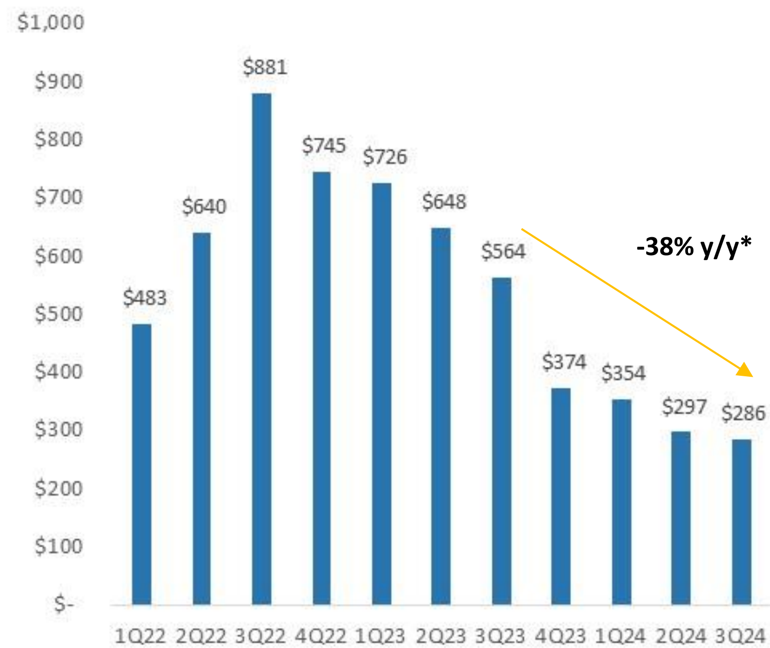
Inventory Optimization

- Accelerated liquidation of end-of-life inventory and a reduction in forward purchases
- Guidance: Reduction in inventory of approximately $85 million by the end of the year

Cleaner inventory should allow for more full-priced selling and higher gross margins among with lower working capital

…with Already Some Visible Results

Inventory Reduction*: 38% y/y as of 3Q24 for ongoing business



*Does not include inventory reduction for divestiture of Sperry in January of 2024, with quarterly inventory of $100 -$130 mm between 4Q22 and 3Q23. $463 mm of inventory in 3Q23 excluding Sperry.

Source: WWW Financial Reports.

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INVESTMENT THESIS #3

WOLVERINE worldwide

Rating Upgrade Opportunity Driven by Improved Cash Generation and Debt Reduction

Data in $mm	Historical					Base Case			
CASH FLOW	**FY19 A**	**FY20 A**	**FY21 A**	**FY22 A**	**FY23 A**	**FY24 E**	**FY25 E**	**FY26 E**	**FY27 E**
Revenues	2,274	1,791	2,415	2,685	2,243	1,730	1,754	1,801	1,850
Variation YoY	*1.5%*	*-21.2%*	*34.8%*	*11.2%*	*-16.5%*	*-22.9%*	*1.4%*	*2.7%*	*2.7%*
Adj. Variation YoY	-	-	-	*0.0%*	*-12.4%*	*-9.8%*	*1.4%*	*2.7%*	*2.7%*
Adj. EBITDA	**295**	**167**	**264**	**208**	**109**	**144**	**168**	**195**	**200**
EBITDA Margin	*13.0%*	*9.3%*	*10.9%*	*7.7%*	*4.8%*	*8.4%*	*9.6%*	*10.8%*	*10.8%*
Variation YoY		*-43.5%*	*58.4%*	*-21.3%*	*-47.7%*	*32.9%*	*16.1%*	*16.1%*	*2.7%*
Net Interest expenses	(30)	(44)	(37)	(47)	(64)	(41)	(31)	(25)	(24)
Taxes	(17)	46	(13)	64	95	(15)	(30)	(30)	(32)
Change in Working Capital	5	160	(88)	(274)	168	79	(17)	(23)	(25)
CAPEX	(34)	(10)	(18)	(37)	(15)	(31)	(30)	(30)	(31)
Sale of assets	-	-	-	90	189	102	-	-	-
Free Cash Flow	**219**	**318**	**107**	**3**	**483**	**239**	**59**	**86**	**88**
FCF Margin	*9.6%*	*17.8%*	*4.4%*	*0.1%*	*21.5%*	*13.8%*	*3.4%*	*4.8%*	*4.8%*
Dividends Paid	(34)	(34)	(34)	(33)	(33)	(32)	(32)	(32)	(32)
Share Repurchases	(319)	(21)	(40)	(81)	-	-	-	-	-
FCF - Div - Share Rep	**(134)**	**264**	**34**	**(111)**	**450**	**207**	**28**	**54**	**57**
BALANCE SHEET									
Cash	181	347	162	132	179	196	179	176	248
Total Debt	798	723	967	1,158	921	727	667	594	594
Net Debt	618	375	805	1,027	742	530	487	418	346
LEVERAGE RATIOS									
Net Debt / Adj. EBITDA	2.1x	2.3x	3.0x	4.9x	6.8x	3.7x	2.9x	2.1x	1.7x
Adj. EBITDA / Interest Expense	9.8x	3.8x	7.1x	4.4x	1.7x	3.5x	5.4x	7.7x	8.4x

Assumptions:

- **Revenues**: Sales stabilization with a conservative scenario projecting a CAGR of ~2% from 2024 to 2027.
- **Gross Margin**: ~45% in 2025-2027, in line with 3Q24 levels, but higher than the 5-year average of 41%, benefiting from lower inventory levels and increased full-priced selling.
- **SG&A/Sales**: In line with 2023's elevated levels of 36%, amid expected higher marketing and innovation spending (vs 5-year average of 33%).

Leverage:

6.2x (3Q24) ⇨ 2.1x (2026E)

- **Upside Trigger for S&P**: clear path to lower and sustain leverage below 7x.
- This could occur if top-line inflects to growth; the company improves profit; or prioritizes debt repayment.
- **<u>Conditions for upgrade are met under our base case.</u>**

VALUATION

WWW 29' will close spread gap as company deleverages

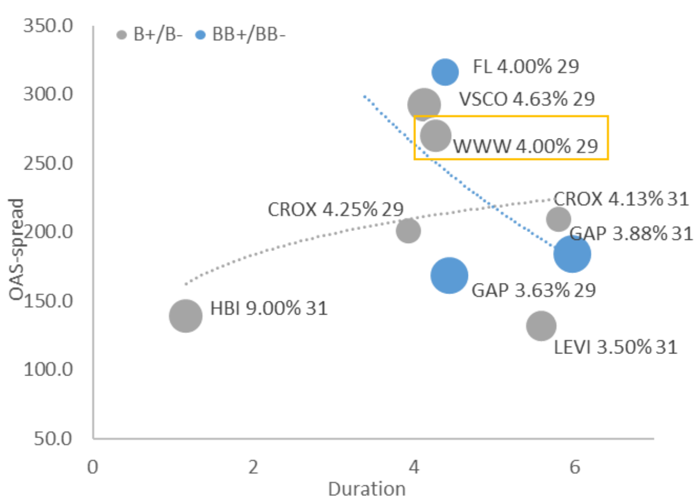
Comp Table

Issuer	Name	Coupon	Outstanding ($mm)	Maturity	Duration	Price	YTW	OAS-Spread	Leverage	Moody's	S&P	Sub-Industry
GAP INC/THE	GAP 3 7/8 10/01/31	3.9%	750	10/1/2031	6.0	86.9	6.2%	184	1.3	B1	BB	Retail-Apparel/Shoe
FOOT LOCKER INC	FL 4 10/01/29	4.0%	400	10/1/2029	4.4	85.8	7.5%	316	2.0	Ba3	BB	Retail-Apparel/Shoe
GAP INC/THE	GAP 3 5/8 10/01/29	3.6%	750	10/1/2029	4.4	89.8	6.1%	168	1.3	B1	BB	Retail-Apparel/Shoe
KONTOOR BRANDS INC	KONBRA 4 1/8 11/15/29	4.1%	400	11/15/2029	4.5	92.0	6.0%	148	1.4	Ba3	BB-	Apparel Manufacturers
LEVI STRAUSS & CO	LEVI 3 1/2 03/01/31	3.5%	500	3/1/2031	5.6	87.9	5.8%	132	0.6	Ba2	BB+	Apparel Manufacturers
VF CORP	VFC 2.95 04/23/30	3.0%	750	4/23/2030	5.0	86.0	6.0%	185	6.2	Ba1	BB	Apparel Manufacturers
VICTORIA'S SECRET & CO	VSCO 4 5/8 07/15/29	4.6%	600	7/15/2029	4.1	89.9	7.2%	292	2.5	B1	BB-	Retail-Apparel/Shoe
CROCS INC	CROX 4 1/4 03/15/29	4.3%	350	3/15/2029	3.9	91.9	6.4%	201	1.1	B2	BB	Footwear&Related Apparel
CROCS INC	CROX 4 1/8 08/15/31	4.1%	350	8/15/2031	5.8	87.1	6.5%	209	1.1	B2	BB	Footwear&Related Apparel
HANESBRANDS INC	HBI 9 02/15/31	9.0%	600	2/15/2031	1.2	107.1	6.5%	139	3.9	B3	B+	Apparel Manufacturers
WOLVERINE WORLD WIDE	WWW 4 08/15/29	4.0%	550	8/15/2029	4.3	88.0	7.2%	270	3.7	Caa2	B-	Footwear&Related Apparel

Recommendation

- **Bull Case:** Tighten 110 bps to 160 bps / Annual Return: ~11%
- **Base Case:** Tighten 70 bps to 200 bps / Annual Return: ~10%
- **Bear Case**: Trade 70 bps wider to 340 bps / Annual Return: ~5%

Spread vs Duration



Source: Bloomberg.

RISKS AND MITIGANTS

Slower Execution on Growth Opportunities	• **RISK**: High competition and misalignment with customer preferences could hinder growth in new categories and delay the turnaround of declining sales • **MITIGANT**: Strong brands should enable WWW to expand into other categories. A lighter cost structure allows for increased spending on innovation and marketing
Turnaround Execution	• **RISK**: Unsuccessful execution of cost reductions or unsustainable high gross margins could impact the deleveraging process • **MITIGANT**:WW has already demonstrated successful execution of its transformation and cost-cutting initiatives in recent quarters, such as inventory reductions
Disruptions in Supply Chain	• **RISK**: High dependence on imported products exposes WWW to disruptions or increased costs • **MITIGANT**: WWW has diversified its suppliers, reducing logistics risks. A lighter cost structure provides the company with greater flexibility to manage unexpected events
Demand Slowdown	• **RISK**: A demand slowdown or economic downturn could significantly impact sales • **MITIGANT**: The company has high levels of available liquidity through its RCF ($850mm), enabling it to weather a significant demand slowdown

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ALPHA CHALLENGE

The University of North Carolina

Team Number: 2

Student Names: Sebastian Hartmann, Rachael Kim, Edward Rippon

APPENDIX

SPREAD CHART

OAS Spread: Wolverine World Wide - WWW 4% 2029 Note

Source: Bloomberg.

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PRODUCT ANALYSIS

WOLVERINE worldwide

Saucony and Merrell

	Saucony	Merrell
Strength	• Leading in performance footwear • Strong community focus, online presence, and digital engagement • Runner's World "Gear of the Year" winnder in 2023 and 2024 • Ranked 3rd in 2024's most popular running shoe brands • **China:** Rapid growth, especially among marathon runners & urban elites. Retail sell-through in China grew over 50% YoY for Q3 2024 (offline & online)	• Leader in outdoor footwear with a focus on innovation • Known for durability, comfort, and arch/heel support
Best Uses	• Ideal for pro/casual runners, marathons, and long-distance training • Expanding from pro to casual runners with innovative styles/materials	• Ideal for outdoor enthusiasts, hikers, and trail runners • Expanding to premium trail running shoe for long-distance stability (ISPO Award 2023 winner)
Competitors	• Nike, Adidas, and Brooks	• Columbia and The North Face in outdoor footwear
Limitations	• Higher prices limit casual consumer appeal • Performance focus limits competitiveness in casual/lifestyle	• Bulky and heavy compared to competitors
Key Products	• Endorphin Pro 4 (premium racing shoe) • Peregrine 14 (best-selling trail shoe) • Triumph 22 (maximum cushion road shoe) • Endorphin Elite (top-tier marathon shoe)	• Moab 3 (best-selling hiking boot) • Trail Glove 6 (minimalist barefoot-style shoe) • Agility Peak 5 (premium cushioned trail shoe) • MTL Line (award-winning performance line)

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ALTERNATIVE SCENARIOS

WOLVERINE worldwide

Bear/Bull Case

Data in $mm	Historical				Bear Case			Bull Case		
CASH FLOW	**FY20 A**	**FY21 A**	**FY22 A**	**FY23 A**	**FY24 E**	**FY25 E**	**FY26 E**	**FY24 E**	**FY25 E**	**FY26 E**
Revenues	1,791	2,415	2,685	2,243	1,730	1,643	1,594	1,730	1,825	1,916
Variation YoY	*-21.2%*	*34.8%*	*11.2%*	*-16.5%*	*-22.9%*	*-5.0%*	*-3.0%*	*-22.9%*	*5.5%*	*5.0%*
Adj. Variation YoY	*-*	*-*	*0.0%*	*-12.4%*	*-9.8%*	*-5.0%*	*-3.0%*	*-9.8%*	*5.5%*	*5.0%*
Adj. EBITDA	**167**	**264**	**208**	**109**	**144**	**112**	**132**	**149**	**197**	**230**
EBITDA Margin	*9.3%*	*10.9%*	*7.7%*	*4.8%*	*8.4%*	*6.8%*	*8.3%*	*8.6%*	*10.8%*	*12.0%*
Variation YoY	*-43.5%*	*58.4%*	*-21.3%*	*-47.7%*	*32.9%*	*-22.5%*	*18.2%*	*2.7%*	*2.7%*	*2.7%*
Net Interest expenses	(44)	(37)	(47)	(64)	(41)	(36)	(35)	(40)	(29)	(23)
Taxes	46	(13)	64	95	(15)	(19)	(16)	(16)	(36)	(38)
Change in Working Capital	160	(88)	(274)	168	79	2	(2)	80	(32)	(33)
CAPEX	(10)	(18)	(37)	(15)	(31)	(28)	(27)	(31)	(31)	(32)
Sale of assets	-	-	90	189	102	-	-	102	-	-
Free Cash Flow	**318**	**107**	**3**	**483**	**239**	**31**	**52**	**244**	**68**	**104**
FCF Margin	*17.8%*	*4.4%*	*0.1%*	*21.5%*	*13.8%*	*1.9%*	*3.3%*	*14.1%*	*3.7%*	*5.4%*
Dividends Paid	(34)	(34)	(33)	(33)	(32)	(32)	(32)	(32)	(32)	(32)
Share Repurchases	(21)	(40)	(81)	-	-	-	-	-	-	-
FCF - Div - Share Rep	**264**	**34**	**(111)**	**450**	**207**	**(1)**	**21**	**213**	**36**	**72**
BALANCE SHEET										
Cash	347	162	132	179	196	201	214	152	143	158
Total Debt	723	967	1,158	921	727	717	694	677	617	544
Net Debt	375	805	1,027	742	530	516	480	525	473	386
LEVERAGE RATIOS										
Net Debt / Adj. EBITDA	2.3x	3.0x	4.9x	6.8x	3.7x	4.6x	3.6x	3.5x	2.4x	1.7x
Adj. EBITDA / Interest Expense	3.8x	7.1x	4.4x	1.7x	3.5x	3.1x	3.8x	3.7x	6.8x	9.9x

Bear Case: Gross Margin falls

-Revenues: Continuing negative trend in 2025/2026, with declines of -5%/-3%.

-Gross Margin: Compressing by 200 bps in 2025 to 43%, and maintaining at that level in 2026, down from 45% in 3Q24.

-SG&A/Sales: In line with 2023's elevated levels of 36%, amid expected higher marketing and innovation spending (vs 5-year average of 33%).

Bull Case: Higher Growth, Lower SG&A

-Revenues: Rebound from 2024, growing 5.5% in 2025 and 5.0% in 2026.

-Gross Margin: ~45% in 2025-2026, in line with 3Q24 levels, but higher than the 5-year average of 41%.

-SG&A/Sales: Increased efficiency, falling 200 bps in 2025 and 100 bps in 2026, reaching 35% (vs 5-year average of 33%).

GROWTH OPPORTUNITIES

Organization Transformation Unlocks New Growth Opportunities

Saucony US Lifestyle Market Sales Estimate

Footlocker - Selected Segements in North America	2022	2023
Sales ($mm)		
Foot Locker	$ 3,304	$ 3,205
WSS	$ 604	$ 640
Stores		
Foot Locker	833	808
WSS	115	141
Selling square footage (thousand)		
Foot Locker	2,611	2,660
WSS	1,138	1,458
Sales/Store per Year ($mm)		
Foot Locker	4.0	4.0
WSS	5.3	4.5

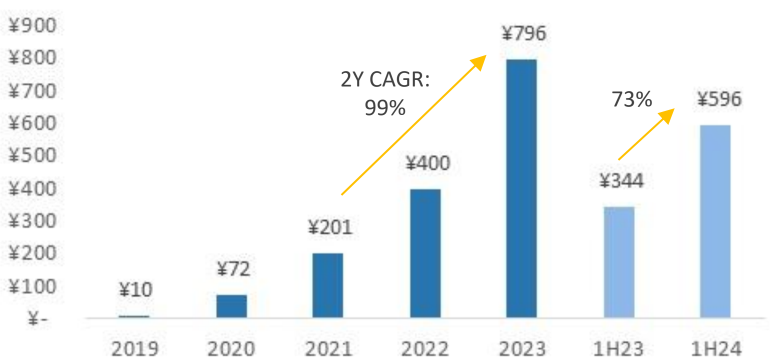
Saucony Lifestyle Sales Estimate	2025
Lifestyle and athletic special channels Stores	900
Sales/Store per Year ($mm)	$ 4.3
Initial Addressable Market ($mm)	$ 3,828
Saucony Sales ($mm)	
Market Share - 0.75%	$ 29
Market Share - 1.0%	$ 38
Market Share - 1.25%	$ 48
Percentage of Year - Starting Spring 2025	75%
Contribution to Consolidated Sales	
Market Share - 0.75%	1.2%
Market Share - 1.0%	1.6%
Market Share - 1.25%	2.0%

WWW plans to increase US lifestyle distribution to **900+ stores by SP25**

China Licensing Agreement

SAUCONY & MERRELL CHINA	2023	2024E	2025E	2026E
Sales (RMB)	¥ 796	¥ 1,274	¥ 1,847	¥ 2,401
Growth y/y	99%	60%	45%	30%
Sales (USD)	**$ 110**	**$ 176**	**$ 255**	**$ 332**
Gross Margin	40%	56%	56%	56%
Cost of Goods	$ 66	$ 77	$ 112	$ 146
Scenarios				
Licensing Fee - 10%	$ 7	$ 8	$ 11	$ 15
Licensing Fee - 15%	$ 10	$ 12	$ 17	$ 22
Incremental Contribution to EBIT				
Licensing Fee - 10%		$ 1	$ 3	$ 3
Licensing Fee - 15%		$ 2	$ 5	$ 5
WWW Projected EBIT		118	143	169
% Contribution to Consolidated EBIT				
Licensing Fee - 10%		1.0%	2.4%	2.0%
Licensing Fee - 15%		1.4%	3.7%	3.0%

Saucony and Merrell China Revenues ($mm RMB)



Source: Footlocker and Xtep Financial Reports.

CHINA PARTNER

China Saucony and Merrell Licensing Agreement with Xtep International

China Saucony and Merrell Licensing Agreement

- **Xtep International Holdings Limited:** leading multi-brand sportswear company listed on the Hong Kong Stock Exchange since 2018, with a market cap of $1,750 mm. The group engages in the design, development, manufacturing, sales, marketing, and brand management of sports products covering footwear, apparel, and accessories for adults and children. The company has an extensive global distribution network and more than 8,600 stores in Asia-Pacific, North America and EMEA.
- **China Saucony and Merrell:** Xtep has license and distribution agreement with Wolverine Group, to develop, market, and distribute footwear, apparel and accessories for the Saucony and Merrell brands in China.
- **Joint Venture to Licence Model:** On December 17, 2023, the WWW entered into an agreement to sell the Company's equity interest in the Merrell and Saucony China joint venture entities to Xtep, its joint venture partner, transitioning the business from a joint venture model to a license and distribution rights model. On January 1, 2024, the Company completed the sale of and received cash of $22.0 million. On January 1, 2024, the Company completed the sale and received cash of $22.0 million.
- **China Operation:** Saucony has caught on in the mainstream and become one of the fastest-growing sportswear brands in China. As at 30 June 2024, there were 128 Saucony stores in Mainland China.

Source: WWW and Xtep Financial Reports.

LICENSING AGREEEMENTS

BUY

Agreements

- **Cat, Harley Davidson, etc**

Cat® Footwear Agreement:

- Initiation: In 1994, WWW acquired the worldwide license to market footwear under the Caterpillar name

- Scope: This agreement allows WWW to produce and distribute Cat® branded footwear globally, leveraging Caterpillar's brand recognition in the industrial and rugged footwear market

Harley-Davidson® Footwear Agreement:

- Initiation: In 1998, WWW entered into a licensing agreement with Harley-Davidson Motor Company to manufacture and sell footwear bearing the Harley-Davidson brand and insignia

- Scope: This partnership enables WWW to design and market Harley-Davidson® branded footwear, catering to both functional riding needs and fashion preferences of consumers

DIVESTITURES

Main divestitures since Jan 2023, with reported proceeds of $394 by 3Q2024

Date	Key Properties	Proceeds(mm)
Feb-23	Keds	$90
Feb-23	Hush Puppiees China	$58.8
Aug-23	Leathers US	$6
Dec-23	Leathers non-US	$9 (Not fully disclosure)
Dec-23	Kentucky Distribution Center	$23
Dec-23	Stake in Xtep (for new license agreement)	$61
Jan-24	Sperry	$130

*"We are moving **with speed and urgency to transform the Company**, which will enable us to capitalize on our biggest growth opportunities. We are taking **decisive steps to stabilize the business by divesting non-core assets, paying down debt, reducing inventory, and right-sizing our cost structure**."*

Christ Hufnagel, CEO (Nov 09, 2023)

MANAGEMENT

Recent Key Leadership Changed

- **CEO & President : Christopher E. Hufnagel**

  Appointed August 2023

  Previously served in various leadership roles since joining in 2008

  Prior experience: Under Armour, Gap, and Abercrombie & Fitch

- **CFO : Taryn Miller**

  Effective May 9, 2024

  Previously VP of Corporate and Commercial Finance at Corteva Agriscience

  Prior experience: Kimberly-Clark Corporation, Kraft Heinz

- **Active Group President: Susie Kuhn**

  Since October 2024

  Oversees Merrell, Saucony, and Chaco brands

  Previously President of Europe, Middle East and Africa at Foot Locker

  Prior experience: Nike, Converse, URBN

- **Board Chairman: Nicholas T. Long**

  Since November 2022

  Former CEO of MillerCoors until 2015

  Appointed Lead Independent Director in November 2022

3Q24 RESULTS

3Q24 Earning Calls Highlights

Positive Highlights:

- **Revenue**: $440M, exceeding expectations by $20M
- **Gross Margin**: Record 45.3%, up 380 bps YoY
- **Merrill Brand**: Significant U.S. m/s gains; plans for innovative product launches in 2025
- **Socking Brand**: Strong international growth; U.S. store expansion planned by 2025
- **Net Debt**: Reduced by $370M YoY

Challenges:

- **Revenue Decline**: Ongoing business revenue down 7% YoY
- **Work Group Segment**: 11% decline due to supply chain disruptions
- **Delayed Deliveries**: Impacted Wolverine brand shipments
- **Inventory**: Further optimization needed
- **Outdoor Footwear**: Merrill brand faces ongoing category pressure

	3Q24 Result	Guidance
Adjusted Revenue	$440mm -7.0% yoy	$420mm
Adjusted Gross Margin	45.3% +380bps yoy	Approx. 45%
Adjusted Operating Margin	7.7% +210bps yoy	Approx. 7.0%

Q&A Key Points

1. Momentum for Merrill and Saucony : Focus on product innovation, new leadership, and expanded key accounts with strategic distribution and segmentation
Expected to drive growth into 2025

2. Operating Margins & China Exposure : Q4 operating margins forecasted at ~9%; long-term opportunity for 10%
China exposure reduced to mid-teens percentage from over 40%, diversifying the supply chain

3. Work Group Performance : Recovery from Q3 delays, favorable YoY comparisons, and demand pull-forward from Q1 2025 support growth

4. Saucony Brand Growth : Expansion in performance and lifestyle categories, leveraging product archives and collaborations
Key city-focused initiatives and new store openings to enhance brand presence in 2025

5. Tariff & Pricing Strategy : Building a model to withstand potential new tariffs. No current changes to international model or pricing strategy anticipated