



Babson College Fund Seminar

3/8/2023



STEPHEN D. CUTLER
CENTER FOR INVESTMENTS
AND FINANCE



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Agenda

- Intro and background: From BCF to starting a fund
- WMS case study
 - Idea generation
 - Fundamental analysis
 - Valuation
 - Pitch
 - Portfolio management
 - Sell discipline



Intro and Background

9/9/2022



Timeline

- 2005 studied abroad in China in highschool
- 2011 graduated undergrad
- 2012 – 2018 worked in Taiwan/Hong Kong/China (consulting, family office, energy, IPO/IR)
- 2018 fall started Babson MBA
- **2019 spring started BCF (energy and materials team)**
- 2020 graduated Babson, worked for hedge fund
- 2021 launched Ellisville Harbour Partners



Overview

Ellisville Harbour Partners

Investment Objective: We aim to provide our partners with long-term (over 10 years) investment returns that exceed Global Equity market returns (S&P, NASDAQ, Apex 50). This is achieved by investing primarily in publicly traded stocks. By investing with us, partners gain exposure to frontier markets that are difficult to enter and stock ownership of valuable companies with transforming technology, at a good price.

Target Partners: families and institutions interested in growing long-term capital in global companies.

January 2023 Summary

-7% since August 2020

Number of Companies in Portfolio: 20

Investing is “truth seeking”

A good investor is always trying to find the truth about a company’s fair value, and where that value is with respect to the current stock price. If we have a clear picture of what the company is truly worth (call it \$100 per share), short term volatility when the company's stock goes down (to \$50 per share) provides that good entry point, also called “margin of safety”.

Honesty

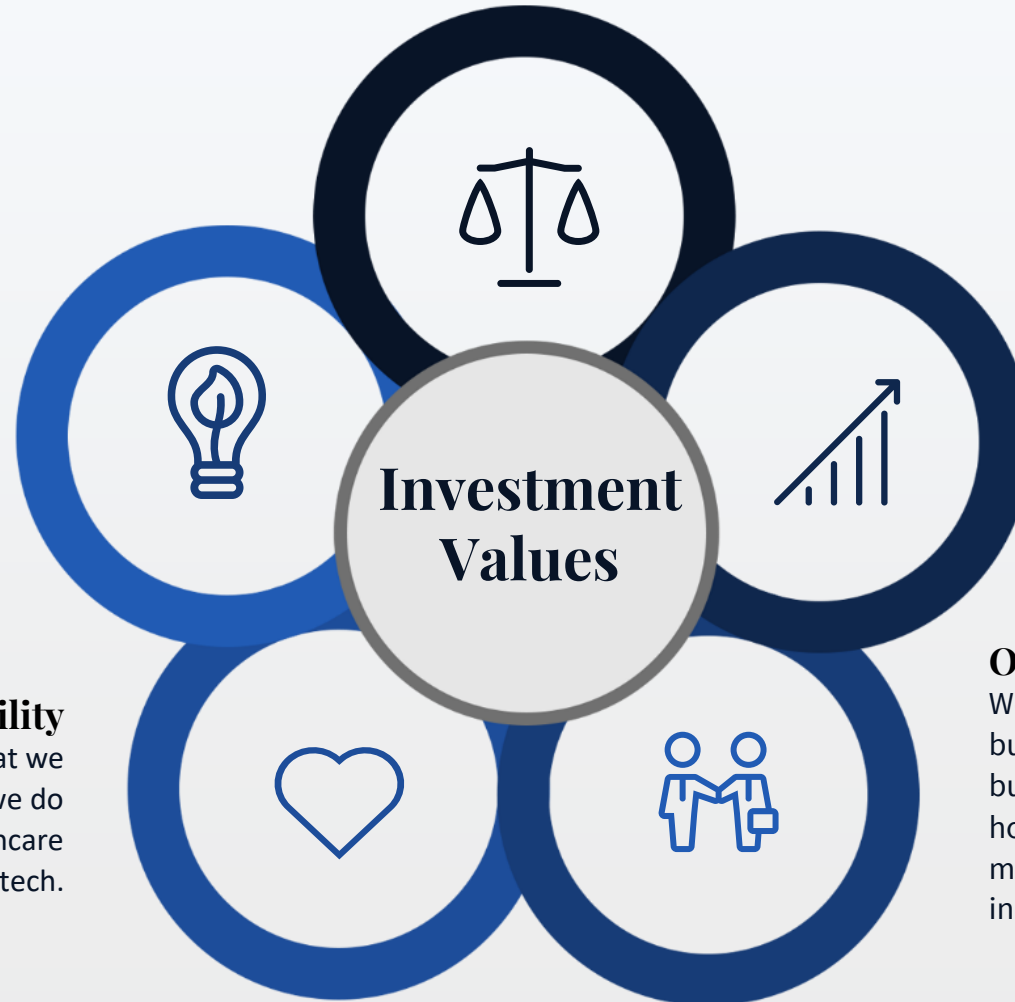
Strive to invest in companies with management teams that have demonstrated a track record of honest actions and statements. Partners who invest with us have full transparency in their investments through separately managed accounts.

Patience

Be willing to wait before investing in a company with a big enough margin of safety.

Humility

We are always learning. We are clear on what we don't know so we do not invest in industries we do not understand. Examples of this are Healthcare and Biotech.



Law of compounding

We aim to put all of our capital into our best stock ideas, and to let these ideas compound exponentially over time. When investing for the long term, and letting them grow untouched, this provides the best outcome.

Ownership

We see ourselves as owners of the underlying businesses and we like to grow with these businesses over a 10, 20 or even 30-year time horizon. We put our money where our mouth is, so much so that most of our liquid assets are invested in this strategy alongside our partners.

2022 Investment Themes

We look for businesses that fall into at least one of these investment themes:

1

Growth in Asia

This could be a company located in Asia or a company that's located in the US, that sells its products and services to the Asian market.

2

Old Industry, New Technology

These are industrial, energy and material companies benefiting from rapidly changing technology such as renewable energy, sustainable supply chains, the cloud, etc.

3

Small Cap, Fast Growing Technology

These are businesses that are innovating in areas like 5G, wifi 6, IOT, AI, blockchain technology, open-source semiconductors, etc.

Investment Strategy



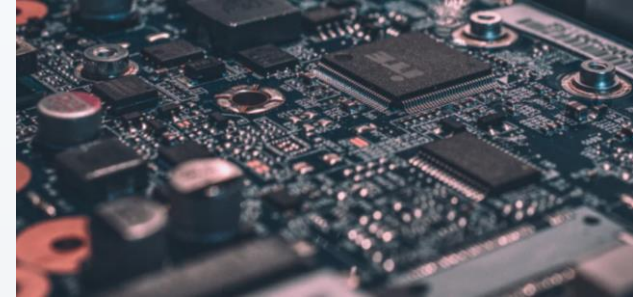
Large Addressable Markets

We look for large growing addressable markets where companies that meet our investment return requirements can outgrow the competition.



Frontier markets

These are global emerging markets which may also include the US, in overlooked areas such as the mid-west. We leverage our language skills and on-the-ground knowledge to invest in markets like China and SE Asia. If it were 1980 we would go to Japan. In 2005, we went to China. In 2022 we believe the frontier is not only SE Asia and India, but also in Mid-western US, where the economy is the 4th largest in the world (yes, bigger than Brazil and India).



Transforming Technology

We seek out a wide technology, know-how, or business model moats around the company's core business. We also look for older companies that are benefitting from transforming technology. Examples are multi-sided platforms, 5G, WiFi-6, open-source semi-conductor, renewable diesel and gas, hydrogen, etc.

Investment Strategy



Concentration

On average we hold 10 - 20 high quality businesses at a time. This provides sufficient diversification across industries and geographies, while putting all our investment behind our best ideas.



Long Term

We are long term investors with a three generational heritage of investing in stocks and holding them for decades. We take a 10-year view on each company we buy. As an example, we first bought Taiwan Semiconductor in 2010* for \$10 a share, and its now trading around \$100 a share.



Value Investing

We invest in companies that have a significant margin of safety. But, as Charlie Munger said, we do not mind paying a premium on the current stock price, if we believe the company's long-term value is much greater than today's price.

Investment Edge

1

Industry Knowledge

We have deep knowledge in the Energy, Materials and Industrials Industries and an extensive network in these sectors which give us a differentiated perspective. This gives us a unique perspective on new technologies and clean energy.

2

Volatility is not Risk

Volatility is our friend. Although we love investing, we do not get emotional about stocks. We see volatility in the stock market as opportunities to buy companies at great prices. We did not sell in March 2020 or 2008.*

3

Localized Knowledge

With 10 years experience in China and fluency in Chinese, we have a unique knowledge and network to conduct on-the-ground research in Asian countries including China, India and SE Asia.

4

Fresh Perspective

Through our relationship with the Babson College Fund, our analysts and interns come with fresh ideas, untainted by Wall Street. Our analysts often come from the countries we invest in.

5

Long Term Partners

We view our investors as partners and draw on their extensive network for ideas and support.

Portfolio Performance



Focus for Today

Investment Process

Macro View

We first take a long term macro view of the world and look for areas of high growth, large addressable markets and emerging technologies.

Ideation

We then identify investment themes that fit our macro view. This would be around our 2021 themes in technology like 5G and IOT, or a region like SE Asia.

Quant Screens

Next we run quantitative screens to look for stocks in these themes that meet our financial criteria such as high margins and ROIC. We cross check the results with our global network.

Short List

From this short list of stocks, we find the best ideas based on the company's strategy, business model, valuation, and local information.

Full DD

Finally, we conduct full due diligence on the best ideas which includes meeting with management and doing primary research.

This process takes around 3-6 months before entering a new position. Our themes could change every few years based on market cycles and our macro view.





Advanced Drainage Systems (WMS) BCF Case Study

9/9/2022





Advanced Drainage Systems

Key Metrics

Market Cap:	\$7.4 Billion USD
Revenue:	\$3.0 Billion USD
5 yr rev CAGR:	17%
Ebitda Margin:	26%
ROIC:	23% (2022 est.)
9 yr FCF/share	10x
FWD P/E:	16.5x
EV/EBITDA:	10x
Div. yield:	0.5%

TICKER

WMS:NYSE

Company Description

Advanced Drainage Systems (WMS) is the leading player in the water management industry and is one of the few pureplay water companies in the world. WMS has a complete set of water management solutions to address the lifecycle of a raindrop. There is a large addressable market opportunity in North America alone, with over 60% of pipe infrastructure still made from concrete. #1 plastic recycler in the US.

Qualities of a superior business

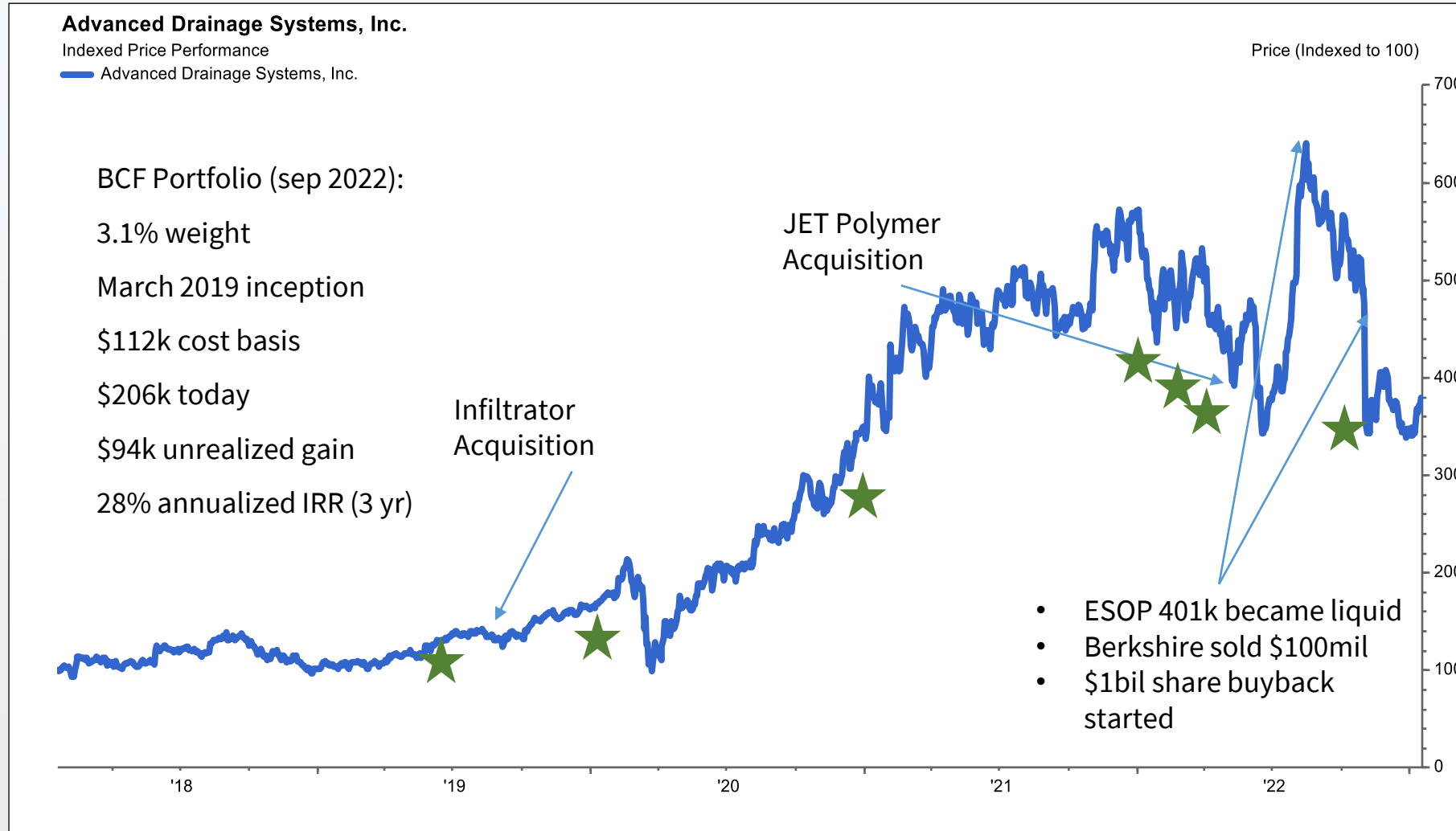
- Honest** management with **aligned incentives**
- Excellent** capital allocator
- Proven** track record as an operator
- Leading** player in a **niche** market
- Wide** business model and technology **moat**
- Long-term** investor base

Our Edge

This is a classic example of a boring industrial company that traded as a value stock with a 7% growth rate. Through primary research, visiting the company and management we believe it has now transformed into the leading clean water solutions provider with a 15% growth rates through transformational technology and vertical integration.



Advanced Drainage Systems (WMS)



As of August 2022

Focus for Today

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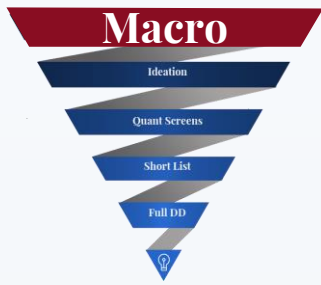
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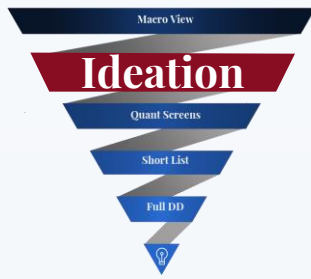
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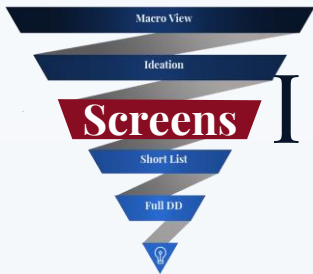
Start with the Macro

- Brush up on your Macro Econ (John Marthinsen's class)
- Scott Branis <http://scottgrannis.blogspot.com/>
- Ed Yardeni - <https://www.yardeni.com/>
- Macro economists: Milton Friedman, Thomas Sewell
- Read everyday WSJ, Economist, Barron's, regional and global news
- What are some long-term technological trends? 5G, wifi 6, energy transition etc.
- Where are we in the market cycle?
- What is supply and demand of energy doing?
- Housing starts and completions?
- Fiscal vs Monetary policy and the (M2) money supply



Idea generation- “ideation”

- Starts with sitting down with your team and throwing ideas around
 - We started talking about construction/housing sectors and scanned sector screens in cutler center
- Network and travel
 - Advanced Drainage system was owned by Berkshire Partners, got intro through friend of a friend
- Leverage your strengths
 - Energy, China, construction, (AJ and Target) Primary research from summer jobs?
- Read 13 Fs and quarterly letters: Bill Miller, Bill Nigrin, Howard Marks, Buffet/Munger etc.
 - Berkshire’s portfolio is long term, with exceptional returns
 - Steal other people’s best ideas! SE – from Dennis Hong
ROKU – from Cathie Wood
FTCH – from Bill Miller



Idea generation- quant screens

Original Materials 2018 screen:

- ROIC > Wacc of 4%
- 3 YR ROE of 82%

Other simple screens

- ROIC > 10%
- Gross Margin > 30%
- 5 Year growth rate > 10%
- Debt < 50%
- Market Cap < \$10 billion

Ticker	Name	P/E	52Wk Low	ROIC LF	WACC	3Yr Avg ROE LF	BEst ROE Median:Y
None (26 securities)							
CCK US Equity	CROWN HOLD	12.46	39.05	9.47	6.20	90.89	54.33
TSE US Equity	TRINSEO SA	5.54	42.10	21.70	10.52	63.57	52.63
TREX US Equity	TREX COMPA	36.72	50.72	47.37	10.10	52.51	46.00
SHW US Equity	SHERWIN-WIL	23.31	355.28	9.95	8.34	64.66	41.35
WDFC US Equity	WD-40 CO	37.29	122.38	23.87	8.19	40.12	40.10
LYB US Equity	LYONDELLBA	7.64	77.52	23.48	8.59	59.20	33.85
IP US Equity	INTERNATION	9.04	37.55	13.63	7.48	30.92	28.43
PKG US Equity	PACKAGING C	12.03	77.90	18.24	9.26	29.53	28.20
KRO US Equity	KRONOS WOI	5.78	10.51	21.91	8.70	28.48	25.46
SLGN US Equity	SILGAN HOLD	13.68	22.24	10.50	6.12	29.08	24.50
WLKP US Equity	WESTLAKE C	14.01	20.25	25.24	6.14	31.44	23.70
STLD US Equity	STEEL DYNAM	6.92	28.91	21.74	8.69	24.69	21.18
WLK US Equity	WESTLAKE C	9.16	59.78	21.08	9.33	20.89	20.62
EMN US Equity	EASTMAN CH	9.94	67.40	13.03	7.66	23.46	19.82
EXP US Equity	EAGLE MATEI	14.53	57.00	11.04	9.34	18.16	16.34
CSL US Equity	CARLISLE CO	19.24	92.16	11.46	7.74	16.21	16.20
APD US Equity	AIR PRODUCT	22.64	148.44	11.52	8.40	18.90	16.04
APOG US Equity	APOGEE ENT	12.25	26.38	11.53	9.95	17.02	15.80
WMS US Equity	ADVANCED D	21.05	23.04	10.69	6.49	82.56	15.79
KRA US Equity	KRATON COR	6.38	19.13	11.04	8.23	16.15	14.32
LPX US Equity	LOUISIANA-P/	9.68	20.39	19.47	8.84	21.75	14.21
MTX US Equity	MINERALS TE	12.08	47.07	9.31	8.21	14.12	12.21
BCPC US Equity	BALCHEM CO	35.92	73.16	12.68	9.44	12.94	11.91
LDL US Equity	LYDALL INC	11.59	18.47	7.76	7.48	13.11	10.51
VMC US Equity	VULCAN MATI	32.66	82.52	11.18	8.78	10.65	10.01
SQUA US Equity	SQUITTER S	4.53	20.04	22.78	8.88	10.32	10.01

Idea generation- short lists

WMS example:

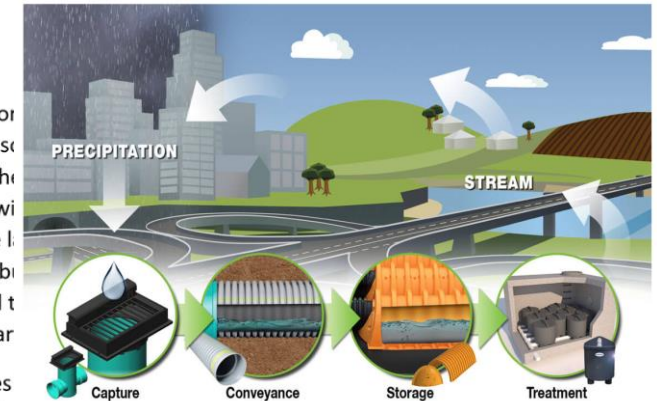
Primers to EIR: (usually 2 or 3 ideas)

- *Attractive business: Only sole provider of stormwater management in North America*
- *Growing free cash flow last 5 years*
- *52 week low*
- *Berkshire Partners 22 years owning WMS. Bought back in 2015*
- *Sr. Partner specializes in M&A roll-ups in industrial companies*
- *Weird share structure and ESOP*



Advanced Drainage Systems. (WMS)

WMS is the leading provider of pipes for stormwater management. They are the only complete supplier in the industry, which is rapidly growing. The newly listed and has been consistently growing from operations, and free cash flow for the last stock is close to their 52 week low and is a buy. Since going public, WMS has outperformed the benchmark XLB. See chart.



This is one of the most attractive companies in the materials screen I ran when searching for companies with a higher ROE and ROIC than the average (within materials).

Another main reason I like this company is that it has strong management ownership and activist investors. Berkshire Partners, a leading PE shop in Boston with 100 billion invested over 40 years, has been investing in WMS for 22 years.

Berkshire was the majority shareholder and took the company public in 2015, divesting all of its shares in 2017. Berkshire bought back into WMS last year and now owns 11% of the company with a board seat. As a PE company, with only one fund, and over \$120 million in WMS, they are looking for high double digit IRR net or their 2/20 fees. This means Berkshire understands WMS really well, and is expecting double digit growth over the next 5-10 years.

The Sr. Partner in Berkshire which is leading this deal is an M&A specialist, and several of his previous deals have involved rolling up smaller competitors to create leading global players, in rail, cleaning solutions, and franchise. I believe there is huge opportunity here with future synergistic M&A.

Target Price	\$28.75
LT Growth Rate	7.4%
Avg Rating	Hold (1.90)
IPO Date	24 Jul '14

2018 Income statement

Income Statement



	MAR '18 365 DAYS	MAR '17 365 DAYS	MAR '16 366 DAYS	MAR '15 365 DAYS	MAR '14 365 DAYS	MAR '13 365 DAYS	MAR '12 366 DAYS	MAR '11
Sales	1,330.4	1,257.3	1,290.7	1,180.1	1,069.0	1,017.0	1,013.8	863.1
<i>Growth (%)</i>	5.81	-2.59	9.37	10.39	5.11	0.32	17.45	-
Gross Income	294.4	287.3	276.1	196.4	201.5	198.0	184.0	163.7
<i>Growth (%)</i>	2.49	4.03	40.62	-2.54	1.75	7.63	12.40	-
<i>Gross Margin (%)</i>	22.13	22.85	21.39	16.64	18.85	19.47	18.15	18.96
EBIT	103.3	84.8	95.1	58.6	48.0	60.9	52.5	39.6
<i>Growth (%)</i>	21.71	-10.83	62.28	22.20	-21.16	15.89	32.69	-
<i>EBIT Margin (%)</i>	7.76	6.75	7.37	4.97	4.49	5.98	5.18	4.58
EBITDA	178.3	157.2	166.2	124.1	103.9	116.5	107.7	95.3
<i>Growth (%)</i>	13.40	-5.39	33.89	19.47	-10.80	8.15	12.94	-
<i>EBITDA Margin (%)</i>	13.40	12.50	12.87	10.52	9.72	11.45	10.62	11.05
Net Income	57.4	29.6	22.8	-2.4	6.7	20.2	29.7	2.4
<i>Growth (%)</i>	93.96	29.75	-	-136.35	-66.69	-32.06	1,164.48	-
<i>Net Margin (%)</i>	4.32	2.36	1.77	-0.21	0.63	1.99	2.93	0.27

All figures in millions of U.S. Dollar.

2018 balance sheet

Balance Sheet

	MAR '18 365 DAYS	MAR '17 365 DAYS	MAR '16 368 DAYS	MAR '15 365 DAYS	MAR '14 365 DAYS	MAR '13 365 DAYS	MAR '12 368 DAYS	MAR '11
Cash & Short-Term Investments	17.6	6.5	6.6	3.6	3.9	1.4	2.1	-
Growth (%)	172.67	-1.60	80.93	-7.84	188.83	-34.63	-	-
Cash & ST Investments / Total Assets (%)	1.66	0.60	0.62	0.35	0.42	0.15	0.23	-
Total Assets	1,059.0	1,070.4	1,063.7	1,041.7	937.6	907.7	905.0	-
Growth (%)	-1.06	0.63	2.11	11.10	3.29	0.30	-	-
Asset Turnover (x)	1.25	1.18	1.23	1.19	1.16	1.12	-	-
Return on Assets (%)	5.40	2.78	2.17	-0.25	0.73	2.23	-	-
Total Debt	379.7	428.8	427.3	461.1	454.0	350.0	370.7	-
Growth (%)	-11.45	0.36	-7.35	1.56	29.73	-5.58	-	-
Total Debt / Total Assets (%)	35.86	40.06	40.17	44.27	48.43	38.56	40.96	-
Total Debt / Total Equity (%)	63.41	81.60	85.85	154.65	203.57	116.91	137.75	-
Net Debt	362.1	422.3	420.7	457.5	450.1	348.6	368.6	-
Growth (%)	-14.26	0.39	-8.04	1.64	29.11	-5.42	-	-
Net Debt / Total Equity (%)	60.47	80.37	84.53	153.43	201.81	116.46	136.98	-
Total Liabilities	625.2	719.9	749.5	727.1	692.0	585.1	615.3	-
Growth (%)	-13.16	-3.94	3.08	5.08	18.26	-4.91	-	-
Total Shareholders' Equity	598.8	525.5	497.7	298.2	223.0	299.4	269.1	-
Total Shareholders' Equity / Total Assets (%)	56.55	49.10	46.79	28.62	23.79	32.98	29.73	-
Return on Equity (%)	10.22	5.79	5.74	-0.94	2.58	7.11	-	-

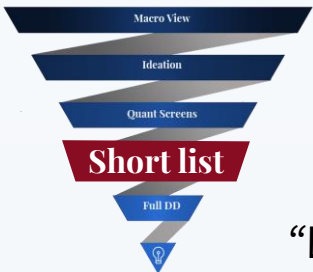
All figures in millions of U.S. Dollar.

2018 cash flow

Cash Flow

	MAR '18 365 DAYS	MAR '17 365 DAYS	MAR '16 366 DAYS	MAR '15 365 DAYS	MAR '14 365 DAYS	MAR '13 365 DAYS	MAR '12 366 DAYS	MAR '11
Net Operating Cash Flow	137.12	104.24	135.34	74.38	62.12	68.22	57.00	37.23
Growth (%)	31.54	-22.98	81.96	19.73	-8.93	19.68	53.08	-
Cash Flow Return on Invested Capital (%)	15.03	11.81	16.88	10.63	9.53	10.78	-	-
Capital Expenditures	-41.71	-51.30	-44.94	-32.08	-43.60	-42.39	-29.86	-35.70
Growth (%)	18.69	-14.14	-40.09	26.42	-2.84	-41.96	16.35	-
Net Investing Cash Flow	-30.45	-61.26	-49.02	-76.09	-41.77	-47.20	-35.83	-53.24
Growth (%)	50.30	-24.97	35.58	-82.18	11.51	-31.72	32.69	-
Net Financing Cash Flow	-94.95	-42.83	-82.96	1.79	-17.71	-21.74	-21.23	15.13
Growth (%)	-121.72	48.38	-4,732.27	-	18.52	-2.37	-240.30	-
Free Cash Flow	95.41	52.94	90.40	42.90	21.83	28.21	36.53	7.19
Growth (%)	80.21	-41.43	110.72	96.48	-22.60	-7.60	324.50	-
Free Cash Flow Yield (%)	6.54	4.35	7.69	2.79	-	-	-	-

All figures in millions of U.S. Dollar.

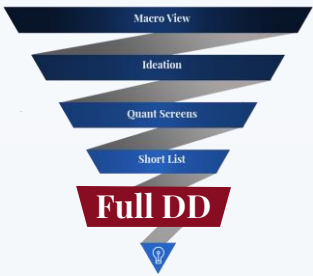


Short list – what stands out?

*“Wondering what's going on with their balance sheet after I looked at the headlines for the last several earnings reports - **single-digit revenue growth but then 50% or higher EBITDA and Net Income growth for multiple quarters?** Seems odd to me, and even if it has logical explanations, which I imagine it does, what does that mean for their comps for the coming quarters?”*

*Bloomberg I believe has a built-in seasonality function so you can see over multiple years how seasonal their results are (and the stock price chart too), as **I believe you are correct in that this is a heavily seasonal business.***

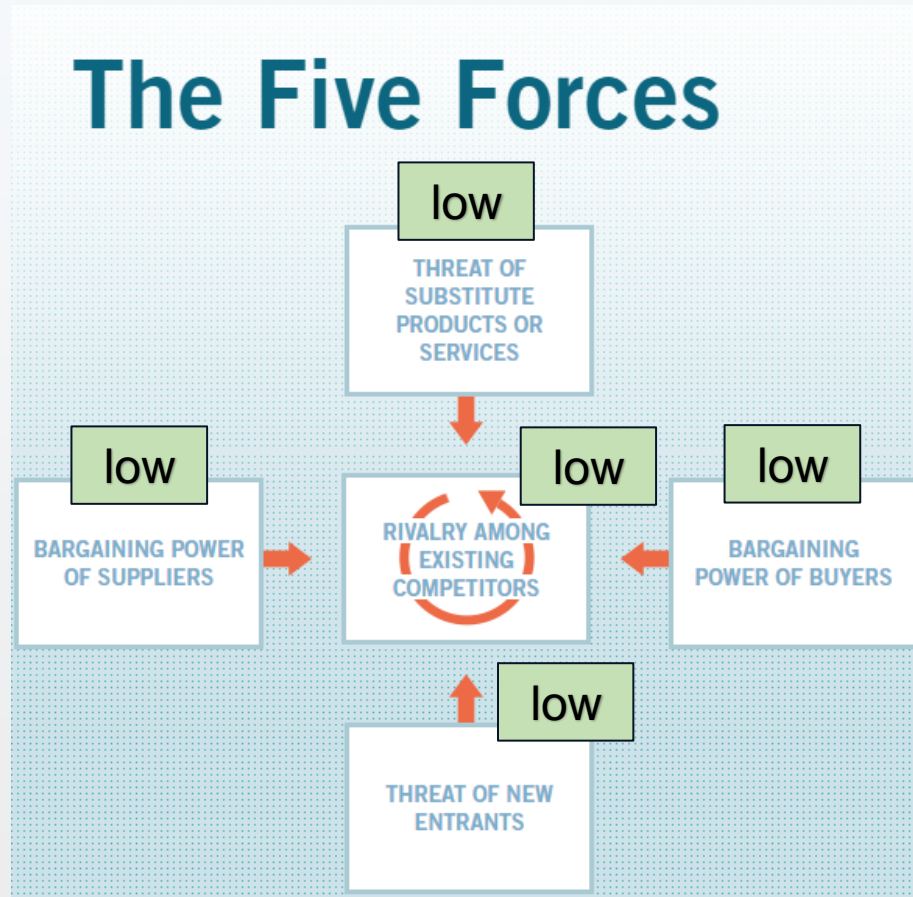
*Keep plugging away at it (drainage pun, you're welcome) and let's see how it progresses. The chart doesn't look terrible. Also, **beware PE involvement** - you want to be doing what they are doing when they do it, never the opposite (ie, don't be a buyer when they're selling).”*



Fundamental analysis

- From the top of Income statement to the bottom, understand the key drivers/inputs
- Revenue segments – growth drivers
- Gross margins – supply chain analysis
- Operating Margins – “operating leverage”
 - G&A – what do they spend money on
 - S&M – How do they market and sell, is it scalable?
 - R&D – what technology are they investing in, can any of it be capitalized as an investment?
- Read the historical 10k’s, earnings transcripts, “dear shareholder letters”
- Who owns it? (Bloomberg “HDS”)
- Competitive landscape – porters 5 forces
- Is there wide a moat? Technology or business model?
- **Is it a strong management team?**
- **Can I hold this for 10+ years?**

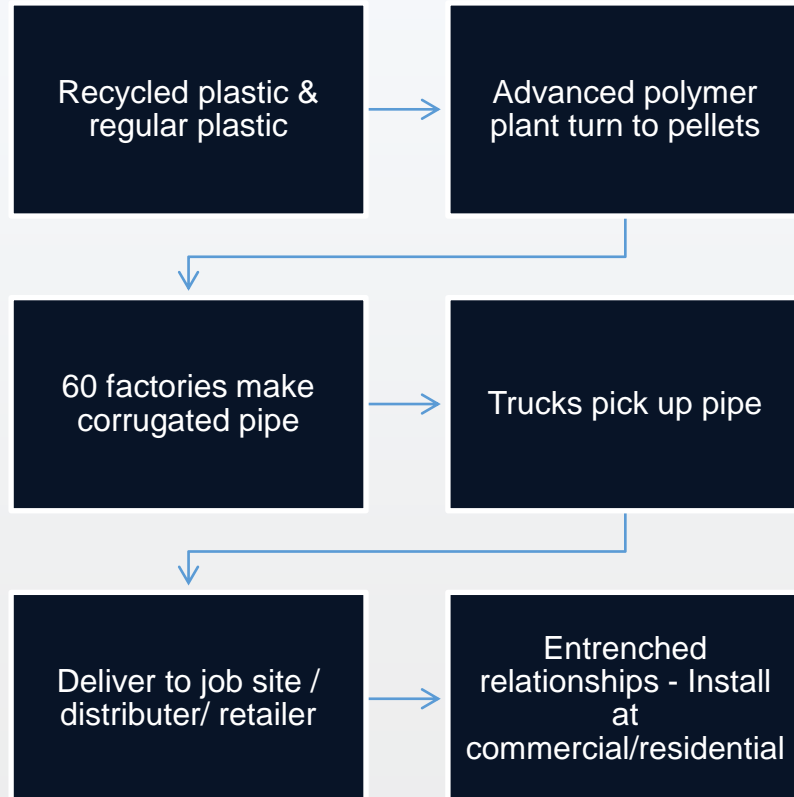
Michael Porter's 5 forces



<https://www.isc.hbs.edu/strategy/business-strategy/Pages/the-five-forces.aspx>

- Wide competitive moat
- Pricing power
- Localized manufacturing
- Strong relationships with distributors and customers
- Own truck fleet
- Ability to expand grow market share, expand margins, vertically integrate over time

Supply chain analysis



Key areas to look for operating leverage:

- How do they acquire plastic?
- What's their manufacturing process?
- What does the truck fleet look like?
- What is the sales process?
- How do they maintain customer relationships?
- How do they distribute?

Valuation

“When you make an assumption, you make an ass out of you and umption” – Samuel L. J.

- Tie your assumptions to the model
- Back up your assumptions with data and research
- DCF
 - EV/EBITDA, P/E, Terminal Value
- Free Cash Flow
 - Debt and interest
 - M&A
 - Share buybacks
- What multiples to use?
- Compare with Comps and itself

Financial forecasting

- Historical growth rates of 0 – 7%, what will growth be going forward?
- Is growth cyclical?
- Gross margin around 20%, can they increase going forward?
- Operating margins – potential for operating leverage?
- Who are the comps, are they important?
- Can R&D costs be capitalized?
- How does management team allocate capital
 - Capex, M&A, dividend, buyback
- Based on what we know,
how far into the future can we forecast?

2019 DCF model

- 6.7% growth rate
- Projected seasonal growth rates by quarter
- Premium multiples over comps
- Little to no work done on operating leverage or FCF analysis



Valuation

- Price Target **\$35**
- Upside 38%
- 10% FCF growth

Assumptions

- WMS has largest market share so we gave 65% over comps
- WMS only publicly traded drainage pure play
- We projected 2019 and 2020 quarterly growth based on historical seasonality
- Low analyst coverage, and consensus very short term focused.

WMS Free Cash Flow



	Price	Weights
DCF	\$38	60%
CompCo	\$32	40%
Blended Price	\$35	
Current Price	\$25.77	
Gap to Target	37%	

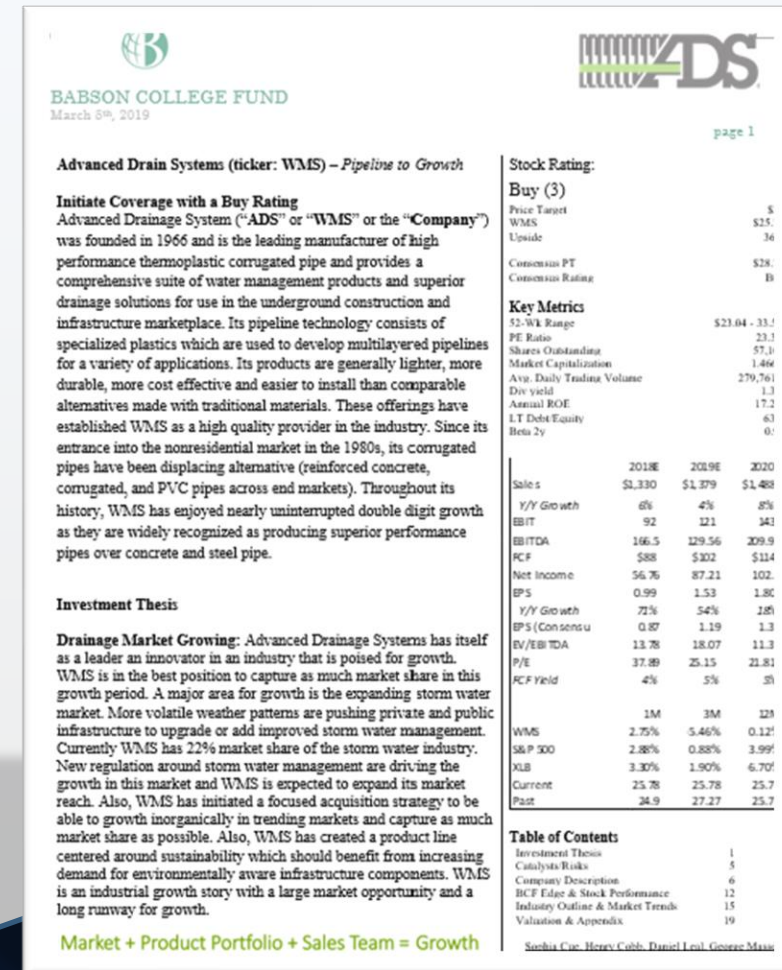
Sensitivity Analysis

		Growth				
		1.0%	1.5%	2.0%	2.5%	3.0%
6.6%	\$	36.36	39.73	43.82	48.91	55.41
7.1%	\$	32.88	35.64	38.94	42.96	47.96
7.6%	\$	29.92	32.22	34.93	38.17	42.12
8.1%	\$	27.39	29.33	31.58	34.24	37.42
8.6%	\$	25.18	26.84	28.74	30.96	33.57

WACC

2019 report

- Keep it short! Say less with more
- Write in your own words, don't copy and paste
- Focus work on YOUR analysis and variant perspective
- Use this space to clearly tie each thesis point to inputs and drivers in your model
- Show clear differentiated view
- Have conviction in your valuation based on your fundamental research



BABSON COLLEGE FUND
March 8th, 2019

Advanced Drain Systems (ticker: WMS) – Pipeline to Growth

Initiate Coverage with a Buy Rating
Advanced Drainage System (“ADS” or “WMS” or the “Company”) was founded in 1966 and is the leading manufacturer of high performance thermoplastic corrugated pipe and provides a comprehensive suite of water management products and superior drainage solutions for use in the underground construction and infrastructure marketplace. Its pipeline technology consists of specialized plastics which are used to develop multilayered pipelines for a variety of applications. Its products are generally lighter, more durable, more cost effective and easier to install than comparable alternatives made with traditional materials. These offerings have established WMS as a high quality provider in the industry. Since its entrance into the nonresidential market in the 1980s, its corrugated pipes have been displacing alternative (reinforced concrete, corrugated, and PVC pipes across end markets). Throughout its history, WMS has enjoyed nearly uninterrupted double digit growth as they are widely recognized as producing superior performance pipes over concrete and steel pipe.

Investment Thesis
Drainage Market Growing: Advanced Drainage Systems has itself as a leader an innovator in an industry that is poised for growth. WMS is in the best position to capture as much market share in this growth period. A major area for growth is the expanding storm water market. More volatile weather patterns are pushing private and public infrastructure to upgrade or add improved storm water management. Currently WMS has 22% market share of the storm water industry. New regulation around storm water management are driving the growth in this market and WMS is expected to expand its market reach. Also, WMS has initiated a focused acquisition strategy to be able to growth inorganically in trending markets and capture as much market share as possible. Also, WMS has created a product line centered around sustainability which should benefit from increasing demand for environmentally aware infrastructure components. WMS is an industrial growth story with a large market opportunity and a long runway for growth.

Market + Product Portfolio + Sales Team = Growth

Stock Rating:
Buy (3)

Price Target	\$
WMS	\$25.
Upside	36
Consensus PT	\$28.
Consensus Rating	B

Key Metrics

52-WK Range	\$23.04 - 33.1
PE Ratio	23.1
Shares Outstanding	57.0
Market Capitalization	1.464
Avg. Daily Trading Volume	279,761
Div yield	1.3
Annual ROE	17.2
LT Debt/Equity	63
Beta 2y	0.

	2018E	2019E	2020
Sales	\$1,330	\$1,379	\$1,488
Y/Y Growth	6%	4%	8%
EBIT	92	121	141
EBITDA	166.5	129.56	209.9
FCF	588	5302	5114
Net Income	56.76	87.21	102.
EPS	0.99	1.53	1.80
Y/Y Growth	71%	54%	28%
EPS (Consensus)	0.87	1.19	1.3
EV/EBITDA	13.78	18.07	11.3
P/E	37.89	25.15	21.81
FCF Yield	4%	5%	3%
	1M	3M	12M
WMS	2.75%	5.46%	0.12%
S&P 500	2.88%	0.88%	3.99%
XLB	3.30%	1.90%	6.70%
Current	25.78	25.78	25.7
Past	24.9	27.27	25.7


Table of Contents

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BCF Edge & Stock Performance	12
Industry Outlook & Market Trends	15
Valuation & Appendix	19

Sachia Cui, Henry Cobb, Daniel Leal, George Mass

2019 pitch


















- First explain the company – one slide
- Then describe the stock – one slide
- “Why WMS?” pitch thesis in one slide
- Build the P&L into your pitch
- Focus on lasting value in thesis points
- Focus on the inputs to future value
- Clearly explain catalysts like M&A
- Simplify and explain the competitive advantage
- Use pictures, charts and graphs



Why WMS?

- **The drainage market is growing**
 - Infrastructure demand
 - Increased Regulation
- **Leading industry technology**
 - WMS currently hold 68 patents for its technology
- **Investor Support**
 - Berkshire Partners

Comprehensive Portfolio of Products Driving Solutions

Conveyance	Capture
  	 
  	  
 	   

4

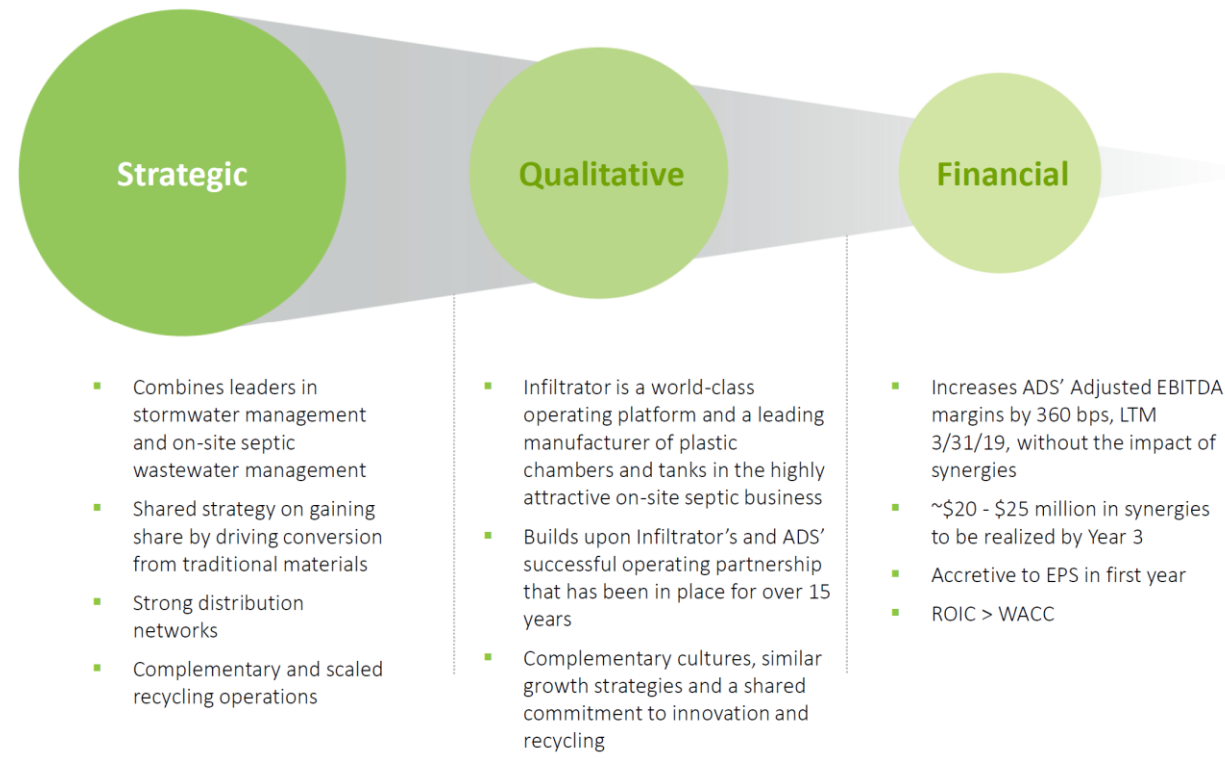
2019 – 2022 Portfolio Management

- Follow company news and subscribe to press releases
- Listen to earnings calls and ask Management questions
- Continue to challenge thesis points
- Track catalysts and risks
- Have a clear expectation of your fair value or price target
- Continue to do primary research
- If higher conviction, increase weight in your portfolio (WMS started out small)
 - 2019 bought 2 lots @ \$28, \$37
 - 2020 bought 1 lot @ \$57
 - 2021 bought 5 lots @ \$108, \$109, \$111, \$112, \$119
 - 2022 stock bottomed at \$80 (remember the core value, “*Patience!*”)

2019 Infiltrator Acquisition












- Transformative M&A
- Took on debt and issued shares which diluted our position and tanked the stock
- We modeled out the combined companies and synergies, increasing our fair value, so we decided to buy more

A Compelling Strategic Acquisition





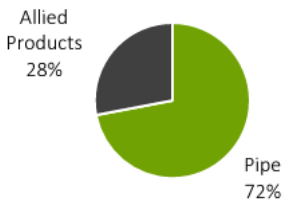

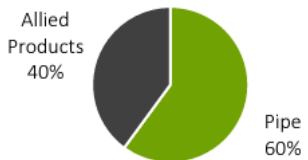
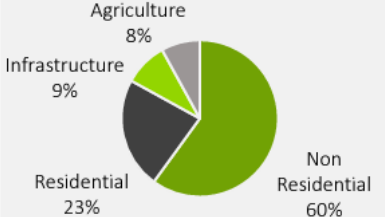
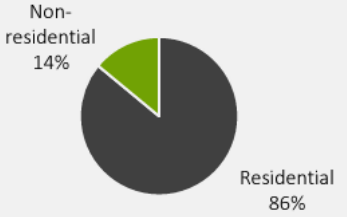
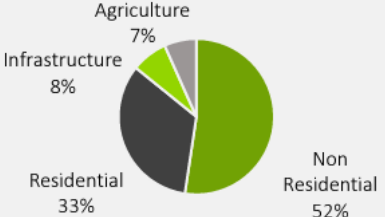
Infiltrator Acquisition- Strategic M&A ties directly to the model

Infiltrator Accelerates Our Path to Achieving 3-Year Plan

	3-Year Plan			Combined
Organic Sales Growth	4% to 6% CAGR			
Adj. EBITDA Margin	18% to 19%			
Free Cash Flow Conversion	>50% of Adjusted EBITDA			

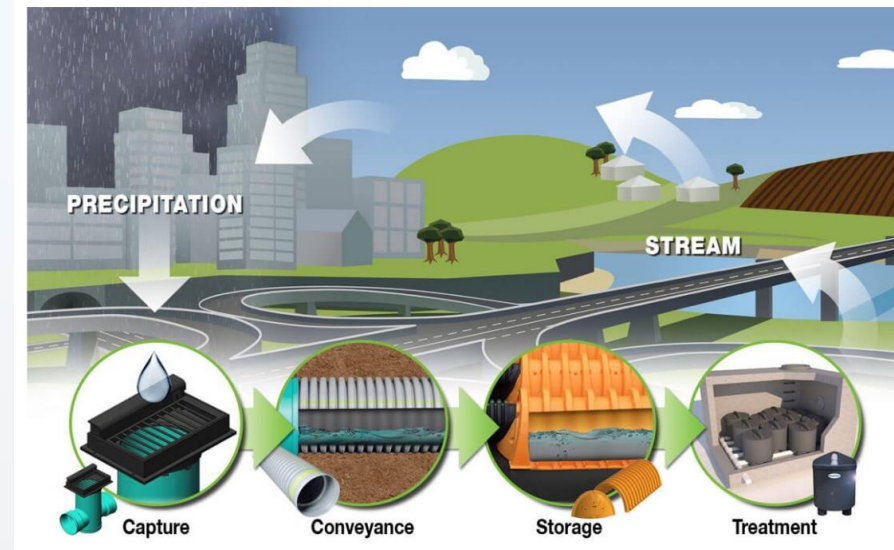
Infiltrator Acquisition

Compelling Financial Rationale that Supports Long-term, Sustainable Value Creation

			<i>Pro Forma</i>
Net Sales (LTM 3/31/19)	\$1,385 million	\$293 million	\$1,609 million ⁽¹⁾
Adjusted EBITDA (LTM 3/31/19)	\$232 million	\$96 million	\$328 million ⁽²⁾
Adjusted EBITDA Margin (LTM 3/31/19)	16.8%	32.7%	20.4% ⁽¹⁾
Manufacturing Facilities	56	7	63
Distribution Facilities	32	-	32
Number of Employees	4,400	479	4,879
Product Mix			
End Markets			

Approach

- Feb 2019 – screened for Materials companies with $PE < LTM$, $ROIC > WACC$, revenue growth
- Fundamental analysis
 - Growing market
 - Technology moat
 - Management expertise
- Bought 3 times:
 - After initiation
 - After new shares drove price down
 - After management sell off drove price down
 - **Outperformed bench by 15%**



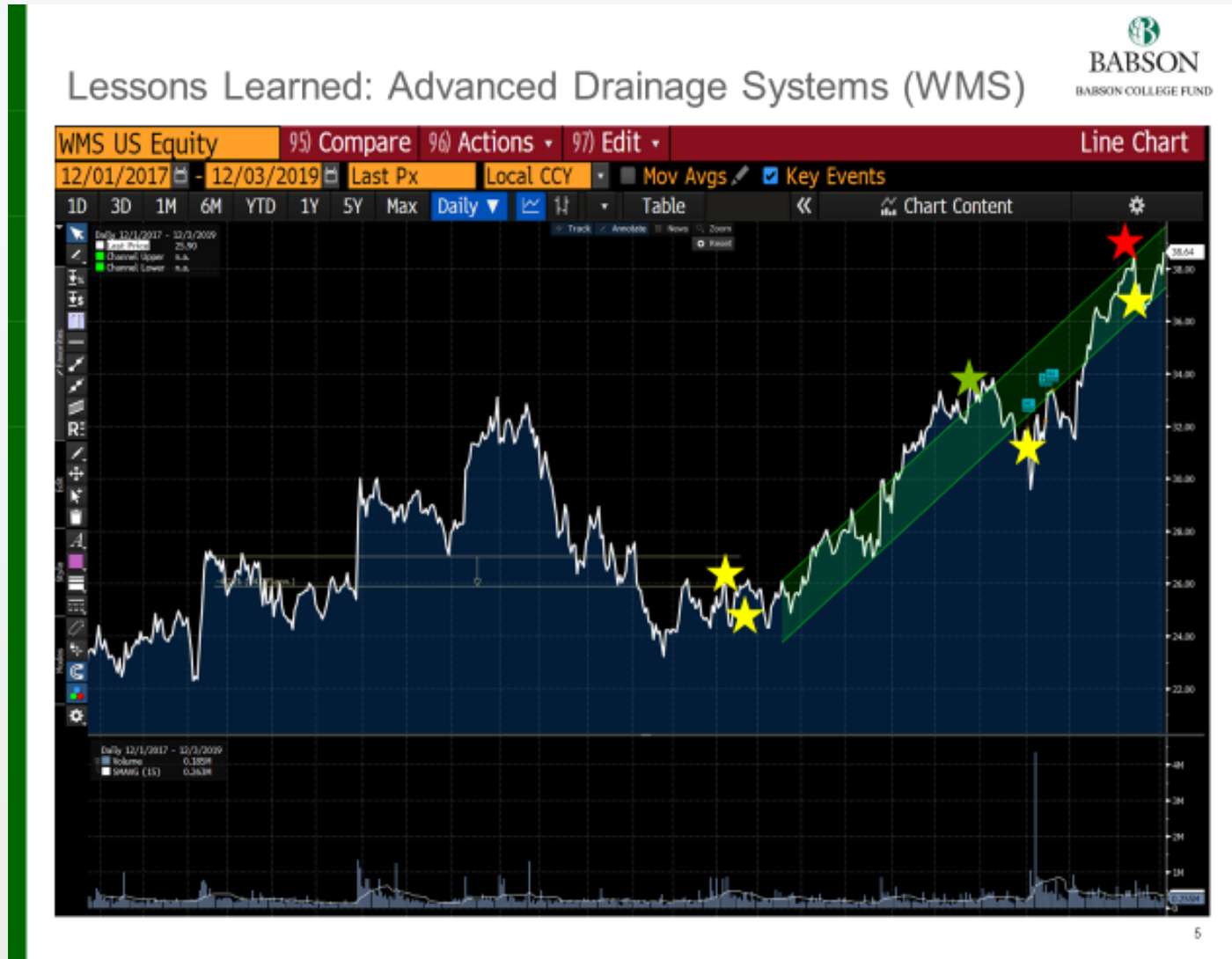
Thesis Points

- Growth in Market
- Innovation
- Investor Activism

Catalysts

- Q42019 Earnings
- International expansion
- Cost cutting
- Increased recognition

Lessons Learned: Advanced Drainage Systems (WMS)



Portfolio Management - Site Visits



Site Visits



Take aways (November 2021):

- Machines look 50 years old
- **Capex will increase**
- Production will become more efficient
- Leading to margin expansion

Technology (March 2022)

Case Study – Infiltrator Advanced Molding Manufacturing Efficiency

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



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

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

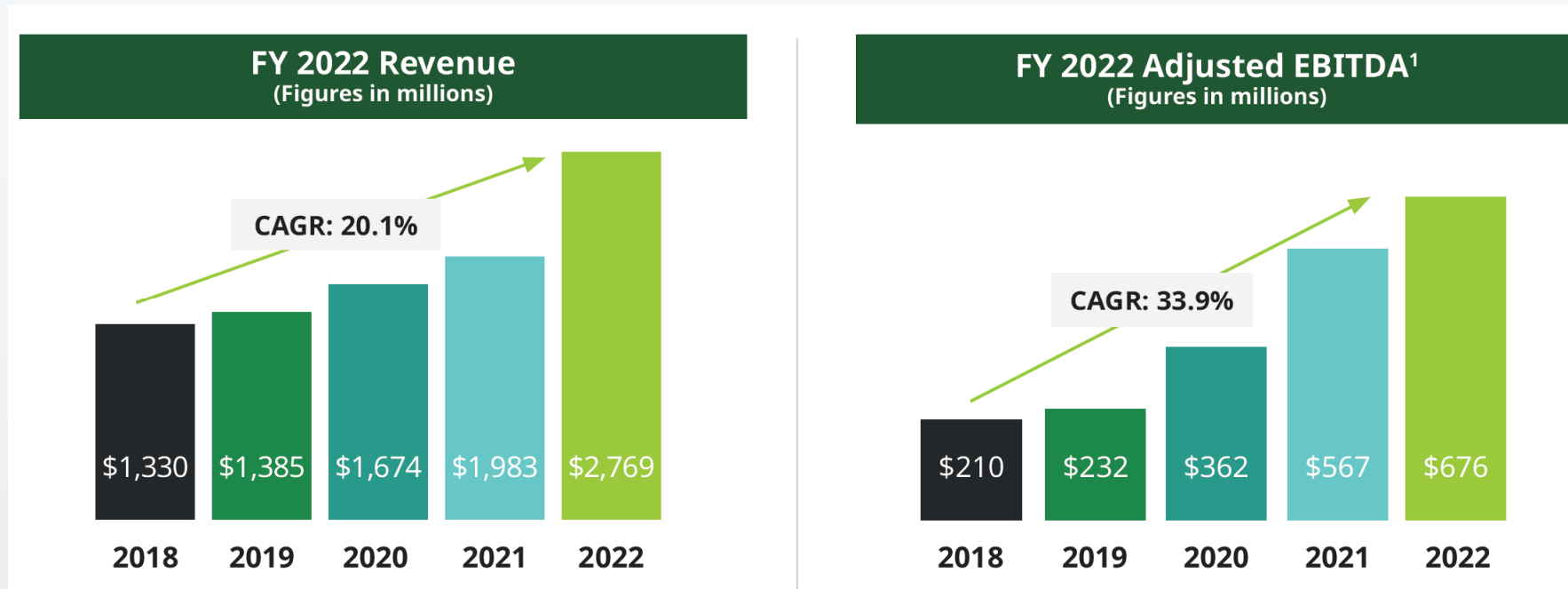
Weight Reduction **17%** | Shipping Cost Reduction **72%**



6x
Improvement in
Labor Efficiency

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

WMS today



Management Guidance

Did management execute on their guidance?

Delivering Consistent Performance

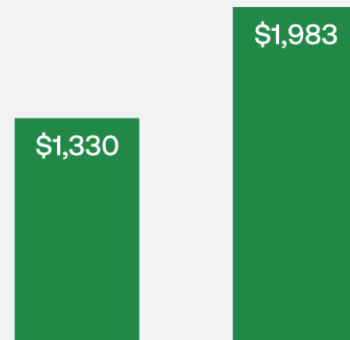
- Revenue and Adj. EBITDA CAGR of 14.2% and 39.2%, respectively, from FY18 to FY21
- Exceeded 3-year targets for organic sales growth, Adj. EBITDA margin and FCF conversion set at our last investor day in 2018

Executed on 2018 Investor Day Commitments

Sales Growth

Target
+4 to +6% CAGR

CAGR 14.2%

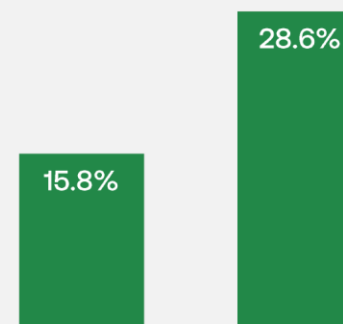


FY18 FY21
ADS Legacy CAGR 7.7%

Adjusted EBITDA Margin

Target
18% to 19%

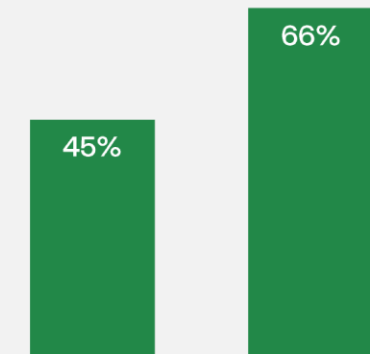
+1280 basis points



FY18 FY21
ADS Legacy 24.3%

Free Cash Flow Conversion

Target
>50% of Adj. EBITDA



FY18 FY21

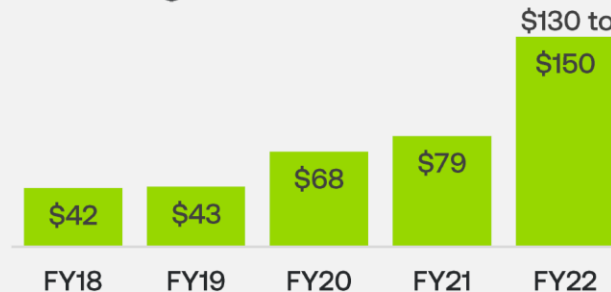
Capital Allocation

What are they investing in?

Effective Capital Deployment

- Doubled CapEx commitments in FY22 to between \$130 million and \$150 million, focused on capacity expansion to support organic growth
- Since FY18, distributed \$482M to shareholders through share repurchases and dividends
- Executed \$1.1B on strategic M&A opportunities (Infiltrator, Jet Polymer)
- Responsibly managed leverage through period and successfully de-levered following Infiltrator acquisition.

Organic Investments



Acquisitions

Infiltrator Water Technologies

July 2019

Leader in Onsite Septic Wastewater

Jet Polymer Recycling

December 2021

Largest supplier of recycled PP to IWT

Share Repurchases

- **\$292M** executed in FY22
- **\$1B** share repurchase authorization announced February 2022

Dividends

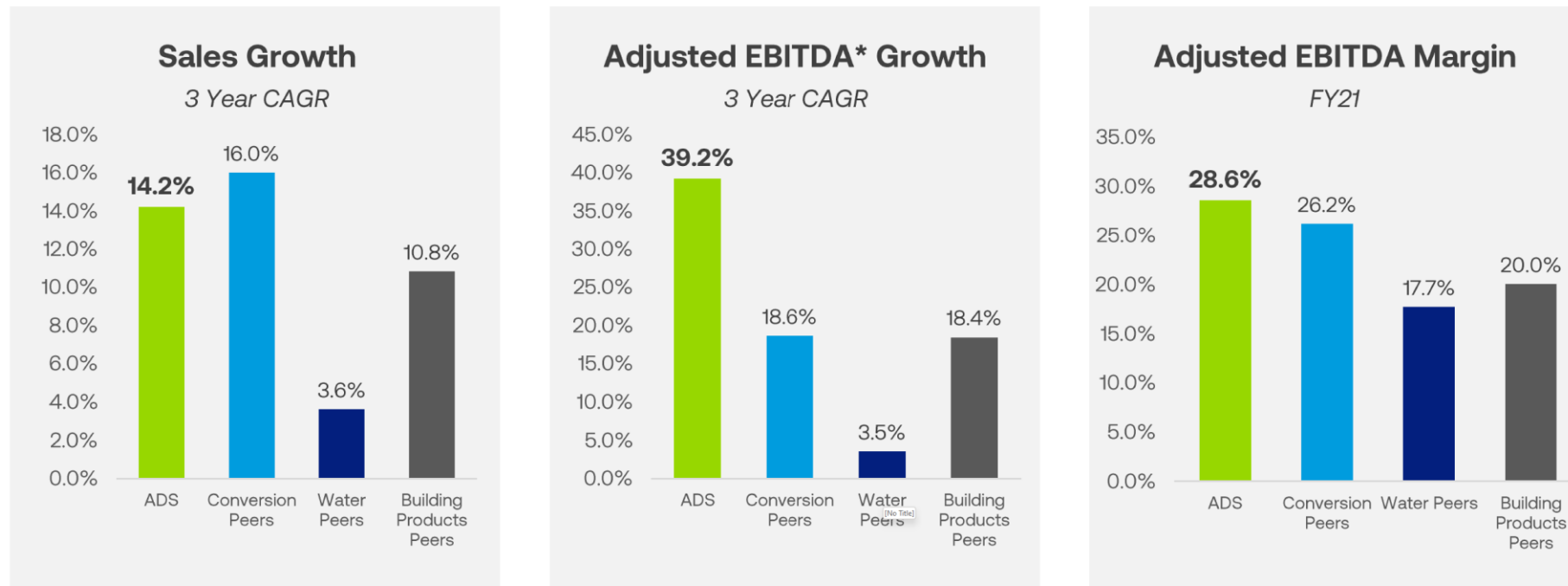
- **\$190M** in dividends paid, including **\$75M** special dividend June 2019
- 57% increase in quarterly dividend since FY18

Management Communication

What are they telling investors?

Delivering Superior Performance

ADS Performance vs. Select Groups – FY18 to FY21



Management Compensation and incentives

- Usually in Proxy statements
- Some more detailed than others
- What are the incentives?

Executive Compensation Philosophy and Objectives

Philosophy

- Link the equity compensation of our executives to the sustained value they create for our stockholders
- Place greater emphasis on variable pay versus fixed pay
- Performance should predominantly drive compensation
- In establishing compensation levels, we consider the competitive range for similar executive roles and largely view the competitive market range as between the 25th percentile and the 75th percentile of our Compensation Peer Group. As a general rule, we strive to position total compensation levels within this market range while also recognizing the individual performance, experience, and skills of our NEO's drive our compensation decisions

Management Compensation and incentives

- **ROIC**
- ***Cash Flow from operations***

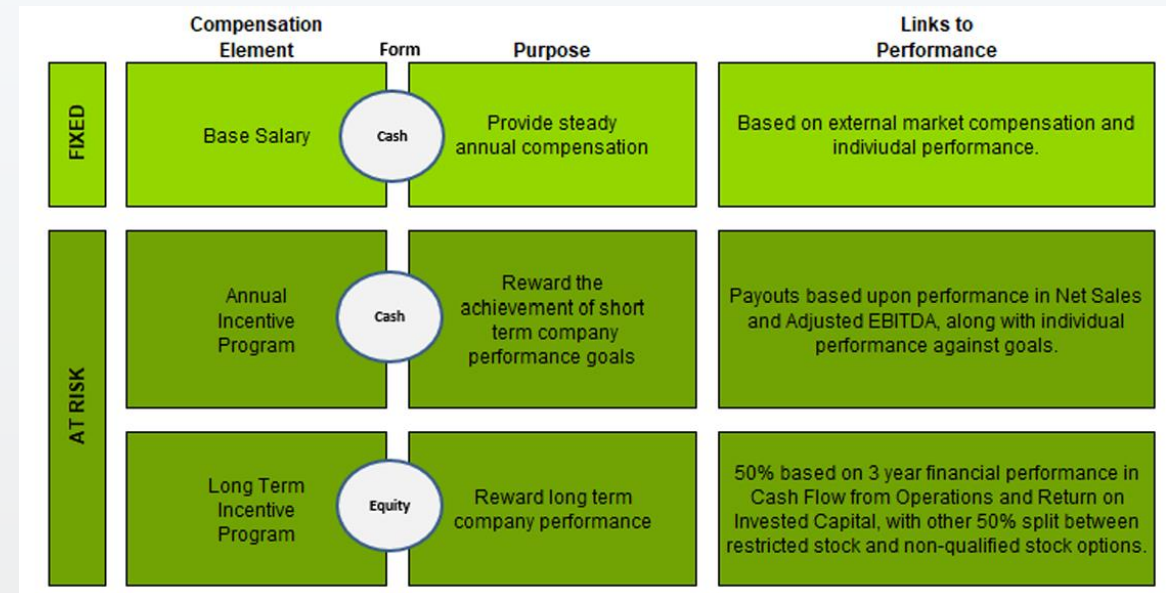
For the three-year performance period ending on March 31, 2024, the Compensation Committee approved Cash Flow from Operations and Return on Invested Capital as the performance measures. These are two key measures of the company's long-term value creation strategy.

- Cash Flow from Operations – For the three-year performance period ending March 31, 2024, performance in Cash Flow from Operations will be based upon actual cumulative Cash Flow from Operations over the three-year performance period against the targets approved by the Compensation Committee.
- Return on Invested Capital – For the three-year performance period ending March 31, 2024, performance in Return on Invested Capital will be based upon the average Return on Invested Capital over the three-year performance period against the targets approved by the Compensation Committee.

Source: chrome
extension://efaidnbmnnnibpcajpcglclefindmkaj/https://d18rn0p25nwr6d.cloudfront.net/CIK-0001604028/c96a23d1-b3ce-4595-b466-19b479de5a3c.pdf

Management Compensation and incentives

- External market compensation and individual performance
- Short term cash
 - Net Sales
 - Adjusted Ebitda
 - Individual performance vs goals
- Long term stocks
 - 50% Cash
 - 50% restricted stock and options
 - 3 year Cash from operations and ROIC



Management Compensation and incentives

- Safety
 - Culture
 - Strategic Growth
 - Capital allocation
 - Origination and talent
 - Operational priorities
- **Quote from CFO “We allocate capital based on ROIC and Economic Margin”**

D. Scott Barbour
President & CEO

- Safety performance and culture;
- Strategic growth plan development;
- Capital allocation strategy and execution;
- Organization and talent;
- Execution of operational priorities

Scott A. Cottrill
Executive Vice President, Chief Financial Officer

- Capital allocation strategy;
- Capital allocation execution;
- Strategic growth plan development;
- Business analysis and decision support;
- Organization and talent

Roy E. Moore, Jr.
Executive Vice President

- Safety performance and culture;
- Capital allocation execution;
- Execution of operational priorities;
- Innovation strategy and performance;
- Financial performance;
- Organization and talent

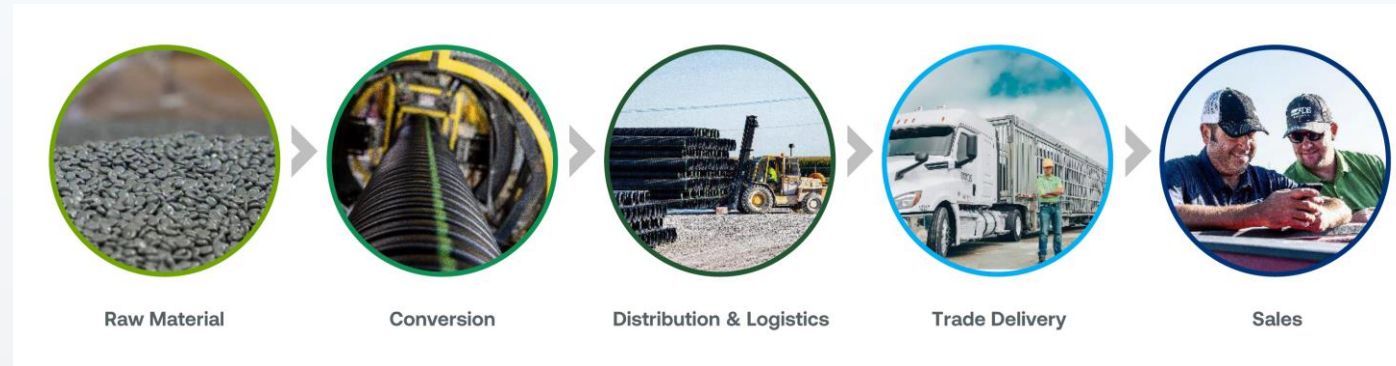
Darin S. Harvey
Executive Vice President, Supply Chain

- Safety performance and culture;
- Customer service operational priorities;
- Capital allocation execution;
- Manufacturing operational priorities;
- Logistics and transportation operational priorities;
- Organization and talent

Kevin C. Talley
Executive Vice President, Administration

- Safety performance and culture;
- Talent management operational priorities;
- Operational network staffing and retention;
- Diversity, Equity, and Inclusion operational priorities;
- Benefits and retirement planning operational priorities;
- Organization and talent

2022 supply chain analysis



<p>Capacity Expansion</p> <ul style="list-style-type: none"> • Execution on approved capital investments • Raw material growth and productivity strategies • Workforce planning • Future capital investments 	<p>Automation</p> <ul style="list-style-type: none"> • Processes and information • Stick pipe down stream automation • Single wall automated coiling • Septic stack automation • Sock stuffing automation 	<p>Continuous Improvement & Environmental, Health and Safety</p> <ul style="list-style-type: none"> • Safety program execution • Lean Transformation • Downtime reduction • Training programs 	<p>Order Management</p> <ul style="list-style-type: none"> • Production planning and systems • Customer service • Order automation 	<p>Logistics and Transportation</p> <ul style="list-style-type: none"> • Retail strategy • Asset refresh and growth strategy • Workforce planning
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2022 – 2025 targets

FY22 – FY25 Financial Outlook

Targets

Sales Growth

+10% CAGR

- Strength and diversity of our end-markets
- Above market volume growth (material conversion)
- Growth capex
- New product introduction and innovation

Margin Expansion

**+400 to +500
basis points expansion
(28% to 29%)**

- Adjusted EBITDA +~15%
- Pricing above inflationary cost pressure
- Volume, mix and leverage
- Use of recycled materials
- Continuous improvement, lean transformation, productivity initiatives and automation

Free Cash Flow Generation

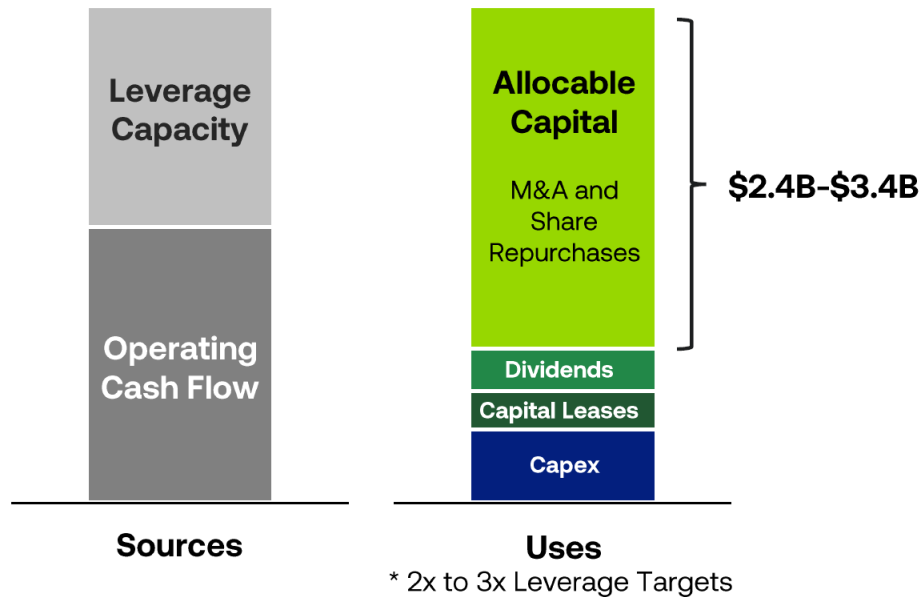
**45% to 50%
conversion of Adj.
EBITDA**

- Capital expenditures to remain at elevated levels – focus on growth and productivity initiatives
- Increased profitability and margin performance
- Working capital ~20% of sales

2022 – 2025 targets

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

FY23 – FY25 Capital Allocation



Deployment Priorities

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

2022 FCF model

- 10 year free cash full model,
 - bull, bear, base, case
 - Revenue build for infiltrator and legacy
 - dividends
 - share buy backs
- Assumptions based on primary research
- Higher confidence

Updated Fiscal Year 2023 Guidance

Fiscal 2023 Expectations			
Key Metric	FY 2022	FY 2023	Y-o-Y Change
Net Sales <small>(in Millions)</small>	\$2,769	\$2,975 - \$3,050	Up 7% to 10%
Adj. EBITDA <small>(in Millions)</small>	\$676	\$850 - \$890	Up 26% to 32%
Adj. EBITDA Margin	24.4%	28.6% - 29.2%	+420 to +480 basis points

Exit Multiple			
EV/EBITDA	10	EV/Sales	2.5
PV of Forecast Period	5,914.39	PV of Forecast Period	5,914.39
Terminal Value	23,328.45	Terminal Value	16,068.64
PV of Terminal Value	10,805.59	PV of Terminal Value	7,442.89
EV	16,719.98	EV	13,357.28
Equity Value	15,740.23	Equity Price	12,377.53
Share Price	190.79	Share Price	150.03
Target Price	170		
Upside	84%		

Conclusion

“Time is Money...”

- Investing takes time
- How you allocate your time matters
- Invest in your core values
- Think critically and differently
- Spend time finding high quality businesses
- Spent time on good management teams
- If management consistently achieves their targets, you can trust their guidance going forward
- Keep doing the work after the initial investment
- Patience – there will be opportunities to add to your position

Long Runway Ahead

A Unique Investment Opportunity with Multiple Value Creation Levers



Useful links and books

[Pitch the Perfect Investment](#)

[Narrative and Numbers](#)

[Expectations Investing: Reading Stock Prices for Better Returns, Revised and Updated](#)

[The Warren Buffet Way](#)

[Damn Right! Behind the Scenes with Berkshire Hathaway Billionaire Charlie Munger](#)

[The Big Short](#)

[The Everything store; Jeff Bezos and the age of Amazon](#)

1997 – [Current Amazon Shareholder Letters](#)

Ed Yardeni - <https://www.yardeni.com/>

Scott Grannis <http://scottgrannis.blogspot.com/>

[The Grant Williams Podcast](#)

www.50xpodcast.com/episodes/ (TDG and Berkshire)

[Doomberg](#)

[Sinocism – Bill Bishop](#)

<https://thechinaproject.com/>

<https://stockcharts.com/>

Seekingalpha (pro version)

www.equityinsights.com/

[WMS Investor Day](#)