



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

**Initiate Coverage with a Buy Rating**

Advanced Drainage System 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 \$35  
WMS \$25.77  
Upside 36%

Consensus PT \$28.75  
Consensus Rating Buy

**Key Metrics**

52-Wk Range \$23.04 - 33.50  
PE Ratio 23.3x  
Shares Outstanding 57,100  
Market Capitalization 1.466B  
Avg. Daily Trading Volume 279,761.6  
Div yield 1.3%  
Annual ROE 17.2%  
LT Debt/Equity 63%  
Beta 2y 0.95

|               | 2018E   | 2019E   | 2020E   |
|---------------|---------|---------|---------|
| Sales         | \$1,330 | \$1,379 | \$1,488 |
| Y/Y Growth    | 6%      | 4%      | 8%      |
| EBIT          | 92      | 121     | 143     |
| EBITDA        | 166.5   | 129.56  | 209.91  |
| FCF           | \$88    | \$102   | \$114   |
| Net Income    | 56.76   | 87.21   | 102.6   |
| EPS           | 0.99    | 1.53    | 1.80    |
| Y/Y Growth    | 71%     | 54%     | 18%     |
| EPS (Consensu | 0.87    | 1.19    | 1.32    |
| EV/EBITDA     | 13.78   | 18.07   | 11.37   |
| P/E           | 37.89   | 25.15   | 21.81   |
| FCF Yield     | 4%      | 5%      | 5%      |
|               | 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   | 25.78   |
| Past          | 24.9    | 27.27   | 25.75   |

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## BABSON COLLEGE FUND

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**Leading Drainage Innovation:** Advanced Drainage Systems is currently the cutting edge in an industry that will forever have a high demand due to pipe degradation and age of our water disposal and treatment infrastructure. The innovation aspect sets WMS apart from its larger or international peers allowing them to take over a strong majority of the North American Market. A couple of products that have changed the market are StormTech<sup>tm</sup>, Varying Pipe types, and NyloPlast<sup>tm</sup>. The StormTech Chamber System provides a cost effective alternative to above ground ponds for detention, retention and infiltration applications. The StormTech System is designed primarily to be used under parking lots, roadways and heavy earth loads for commercial, turf and municipal applications. The pipe innovation has to do with the number of walls, materials and capacity available for that dimension pipe. They produce single, dual, and triple (AdvanEDGE) walls which allow the consumer to pick the durability they need for the project in order to increase longevity of the product. The materials they use are PP and HDPE which are both relatively new types of poly plastics that allow for an environmentally friendly stronger product and they found a way to make the inside of their pipes completely smooth without sacrificing capacity which actually increases flow rate so they have a high capacity output than the industry standard. Finally, the last innovative product is the Nyloplast is the input and output valves on their pipes. They are innovative because they have emergency high speed outflow capabilities, they are customizable to the project, and they can be seamlessly integrated into the space so it is not an eye sore in beautiful or high traffic areas. WMS has a return on equity of 20.8% versus sector average of 10% and market average of 8.8%, and a return on assets of 6.2% versus sector average of 4.9% and market average of 2.1%.

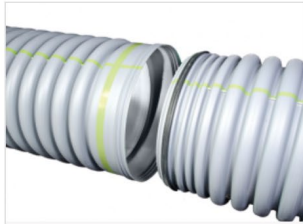
Stormtech<sup>tm</sup>:





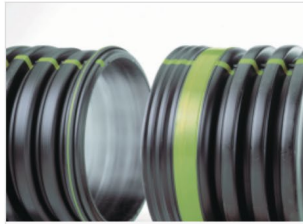


Piping:



**HP Storm - Dual Wall - PP Pipe**

Corrugated smooth interior polypropylene (PP) stormwater conveyance and drainage pipe



**N-12® Dual Wall - HDPE Pipe**

Corrugated, smooth interior, high-density polyethylene (HDPE) conveyance stormwater and drainage...



**SaniTite®HP - HP- PP Pipe**

Sanitary Sewer Pipe



**MEGA GREEN™ - HDPE Pipe**

Corrugated, smooth-interior, high-density polyethylene (HDPE) pipe

Nyloplast™:





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**Investor Activism:** WMS has benefited from strong management and shareholder support over the last 40 years. Berkshire Partners, a leading Private equity firm in Boston invested in WMS twice in 1988 and again in 2002. After selling their position in 2010, Berkshire re-invested in 2017, just two years ago, now owning 11.8% of the company. This is one of the ways that WMS came to our attention because of how low coverage the company is. Berkshire has been a long term partner of WMS, with Board membership and assisting with strategic M&A. “The long-term partnership between WMS and Berkshire has been a winner in all respects. WMS management welcomed an experienced institutional partner to help guide the company along its path of consistent performance gains. And Berkshire has enjoyed the opportunity to work with a market leader riding its strong competitive position to ongoing gains, and ultimately, a key industry consolidating acquisition.” (Berkshire Partners website). Berkshire’s 3rd investment in 2017 shows that WMS is poised for double digit growth in the years to come. Berkshire’s investment analysis is already priced into the stock, but we see the partnership allowing WMS to continue to capture market share in the growing drainage business. The management team for the company is strong and diversified in abilities allowing them to have full comprehensive coverage over the space. The combination of strong investor activism from Berkshire and a successful management team will allow WMS to drive growth. We believe this is an edge over the market because of the low coverage and the power this type of management structure has on growth and innovation going forward. We think now is the perfect time to enter into the company after the drop at the end of 2018 because WMS has retained all of their growth drivers and investor confidence from Berkshire is at an all-time high based on company reports. WMS being a small cap stock works in our favor because it is left out of a lot of screens due to the size and cyclicity of the business, but we believe this is exactly what will beat the XLB over the long term. The thesis is not that we are piggy backing onto Berkshire Hathaway’s 40 year long investment pitch, but rather that the management and Berkshire Hathaway will continue to lead this company to greater market share and increased margins.

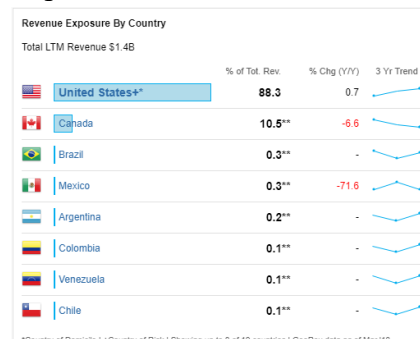


**Catalysts**

- **Q4 2019 Revenue Growth:** For the past two quarters WMS has seen abnormal deceleration in revenue growth. WMS’ last earnings report clarified that much of the earnings distress came from abnormal weather patterns leading to reduction in infrastructure demand and slowed project flow. WMS’ agriculture business line has saw reduced guidance on revenue growth due to inclement weather negatively impacting spring and fall selling seasons. Q4 should reflect that slowing growth was temporary and reassure investors of WMS continued growth.
- **International Expansion and Increased Infrastructure Spending in Mexico:** WMS’ revenue growth rates in its international markets (Canada and Mexico) have been growing at increasing rates. New government in Mexico is expanding infrastructure spending and WMS is expected to increase market share capture.
- **Cost Cutting Effort Progress:** WMS is investing in cost saving initiatives such as developing polypropylene material recycling strategies and expanding the range of material formulation for products. As all of the materials industry is seeing margin squeezes, WMS is staying ahead of the game. Progress and developments being achieved for these initiatives will reflect the efficiency and success of this cost saving effort.
- **Increased Recognition:** WMS is a relatively small company and as it increases its reach it will prove to be superior. Currently it is receiving many high profile projects such as LaGuardia Airport improvements and instillation at multiple Amazon distribution sites. As WMS continues to get large and recognized contracts it will expand its market reach.

**Risk Factors**

- **Small Market Capitalization:** The market cap of 1.5B takes this company into the microcap of the BCF. They operate in only the drainage segment of the construction business. They do operate in residential and commercial spaces giving them an edge in varying types of economies. None the less the market cap and lack of coverage in different business segments makes this company risky.
- **Seasonal Business due to Weather:** Even with the high LT growth rate of the business segment, weather heavily effects Q4 sales every year they tend to experience a 50% decrease in 4th quarter. In saying that when Q4 earnings are released the company has historically taken a 2% drop the day after earnings but then returned to the price before the earnings within the next couple days. This proves that investors are aware of the lower Q4 earnings and are not fazed by the lower earnings and EPS. The consensus for this year takes that into account and we believe that the growth Y/Y will continue to reach that 8% for the 4<sup>th</sup> quarter 2019.
- **Operation geographic concentration:** About 88% of Advanced Drainage Systems operations are concentrated in the United States. This large concentration exposes WMS to the risk of United States drainage demand. Risks to the geographic region include weather, age of current drains, and profitability on inputs. Any negative impact for the on these factors will cause waves of negative impact that will hit WMS dramatically.





### **Company Description**

WMS designs, manufactures and markets a complete line of high performance thermoplastic corrugated pipe and related water management products for use in a wide range of end markets. Its product lines consist of a variety of pipelines and a variety of allied products including: storm retention/detention and septic Chambers.

### **Pipes:**

Pipes contribute the majority of WMS' revenue, in 2018 they accounted for 72% of revenues. This product line is subdivided into three options of thermoplastic corrugated pipelines which may be further customized in size.

**Single Wall Corrugated Pipeline:** This product offers a single-layer pipeline which is ideal for drainage systems where flexibility, light weight, and low cost are important. Single wall pipe products have been used for decades in agricultural drainage, highway edge drains, and other construction applications. In the agriculture market, improved technology has highlighted the favorable impact of drainage on crop yields. For homeowners, it is an economical and easily installed solution for general drainage solutions (foundation and lawn drainage, and driveway culverts). Single wall pipe is also used for golf courses, parks, athletic fields to keep surfaces dry by channeling away excess underground moisture.

**Double Wall Corrugated Pipeline:** This product offers a dual wall corrugated pipe with exterior strength and smooth interior wall for hydraulics and flow capacity. This pipe is used for storm sewer and industrial drainage markets, where it competes with concrete pipe solutions.

**Triple Wall Corrugated Pipeline:** This product offers a three wall corrugated pipe, with a smooth outer wall, a corrugated polyethylene core, and a smooth black inner wall. This combination adds strength and stiffness while reducing weight. The pipelines that belong to this category are usually used in infrastructure and industrial projects.

### **Allied products:**

This product line is composed of additional water management products that are complementary to WMS' pipe products. These product line offers adjacent technologies to the core pipe offering which present a complete drainage solution for customers. By providing a broad range of products that can be sold on individual projects, WMS offers an attractive sale of whole drainage systems to distributors and end users.





These solutions are core to WMS' value proposition because it allows them to deeply penetrate the end market and anticipate the evolving needs of customers. In underground construction industry in particular has been project-driven (not product), which creates an impetus for owners, engineers, and contractors to deliver solution-based product portfolios.

This product line is subdivided into 5 product lines:

**Storm and Septic Chambers:** The StormTech chambers are used for stormwater retention, and underground water storage in non-residential site development. These chambers are manufactured from high density polyethylene and polypropylene into a proprietary design which provides strength, durability, and resistance to corrosion. The StormTech chamber offers great flexibility in design and underwater storage systems, making it an alternative to open bonds by reducing maintenance and liability costs. The chambers are also transportable, making it a favorable and cost competitive to long-distance export markets.

This product line also offers ARC and BioDiffuser products for on-site septic systems for residential and small volume non-residual wastewater treatment and disposal. Rural homes and communities that do not have access to central sewer lines require an on-site septic solution.

**Structures:** The Nyloplast PVC drainage structures are used in non-residential, residential and municipal site development, road and highway construction as well as landscaping, recreational, industrial, and mechanical applications. This product family includes drains, curb inlets, and water control structures which move surface-collected stormwater to pipe conveyance systems. These products are a preferred alternative to heavier and larger concrete structures, by offering greater design flexibility and improved ease of installation which reduces overall project costs and timelines.

The Inserta Tee product line consists of a PVC hub, rubber sleeve and stainless steel band. This product offers an easy tap-in to existing sanitary and storm sewers by limiting the excavation needed for installation compared to competitive products.

**Fittings:** The coupling and fitting products are highly complementary to the broader product suite, and include both soil-tight and water-tight capabilities across the full pipe diameter spectrum. The fittings are sold in all end markets where we sell our current pipe products.

**Water Quality:** The BaySaver product line targets the removal of sediment, debris, oils, and suspended solids throughout a stormwater rain event by separating and/or filtering unwanted pollutants. The product's sizing is customizable to a variety of applications and requirements. These products assist the customers



remain compliant with discharge requirements set forth by the EPA and local regulators. This product, coupled with other of our pipe product, fittings, structures, and other systems constructs a comprehensive stormwater management solution.

**Construction Fabrics & Geotextiles:** WMS purchases and distributes construction fabrics and other geosynthetic products for soil stabilization, reinforcement, filtration, separation, erosion control, and sub-surface drainage. Constructed of woven and non-woven polypropylene, geotextile products provide permanent, cost-efficient site-development solutions. Construction fabrics and geotextiles have applications in all of our end markets.

Relationships:

ALL RELATIONSHIPS COMPANIES SUPPLIERS CUSTOMERS PARTNERS

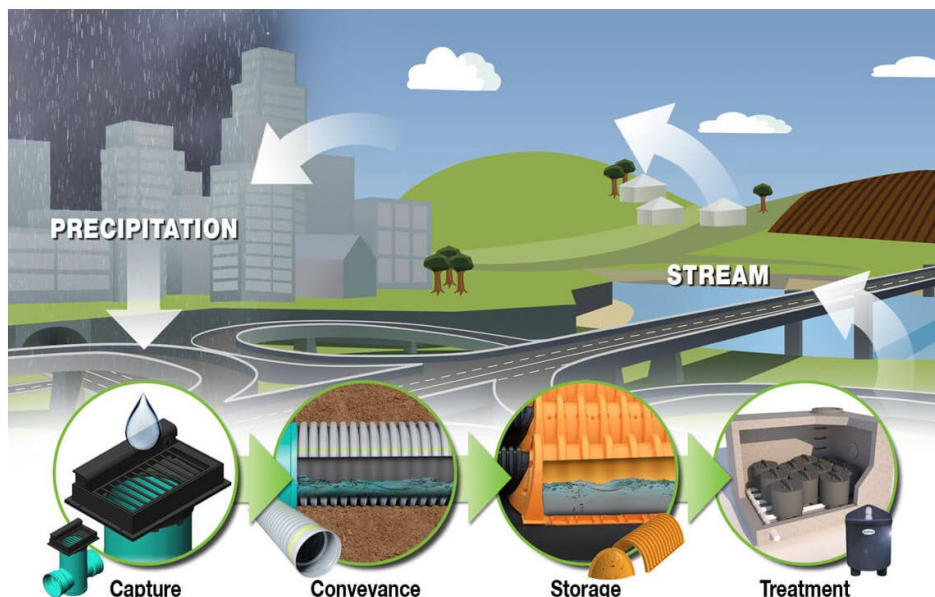
23 23 16 7 0

Top 10 Relationships (out of 23)

Overview Performance Correlation Credit Risk

| Rel Type | Rel Rank | Company            | Ctry | Industry                               | Relationship Value (\$) | Mkt Cap (\$) | Disclosures/Source | 3M Price Correlation | Key Risks | Key Events |
|----------|----------|--------------------|------|--|-------------------------|--------------|--------------------|----------------------|-----------|------------|
| ■        | 1        | Home Depot         | USA  | Building Materials and Garden Sup...   | -                       | 209,121      | Direct             | 0.61                 | -         | 1          |
| ■        | 2        | ExxonMobil         | USA  | Integrated Oil and Gas Exploration ... | -                       | 334,850      | Direct             | 0.78                 | -         | -          |
| ■        | 3        | Lowe's             | USA  | Building Materials and Garden Sup...   | -                       | 84,177       | Direct             | 0.48                 | -         | 1          |
| ■        | 4        | HD Supply Holdings | USA  | Equipment and Supplies Distributors    | 160                     | 7,661        | Direct             | 0.47                 | -         | -          |
| ■        | 5        | Phillips 66        | USA  | Petroleum Refineries                   | -                       | 43,940       | Direct             | 0.68                 | -         | -          |
| ■        | 6        | Loews              | USA  | Property and Casualty Insurance        | -                       | 14,824       | Direct             | 0.72                 | -         | -          |
| ■        | 7        | Ferguson           | CHE  | Equipment and Supplies Distributors    | 178                     | 16,109       | Direct             | 0.39                 | -         | -          |
| ■        | 8        | Chevron            | USA  | Integrated Oil and Gas Exploration ... | -                       | 227,210      | Direct             | 0.75                 | -         | -          |
| ■        | 9        | DowDuPont          | USA  | Other Specialty/Performance Chem...    | -                       | 120,021      | Direct             | 0.61                 | -         | -          |
| ■        | 10       | Silgan             | USA  | Metal Packaging Products               | -                       | 3,132        | Direct             | 0.52                 | -         | -          |

Millions. Sources: FactSet Revere, FactSet Fundamentals, FactSet Prices, FactSet Mergerstat, FactSet Estimates, and the World Bank







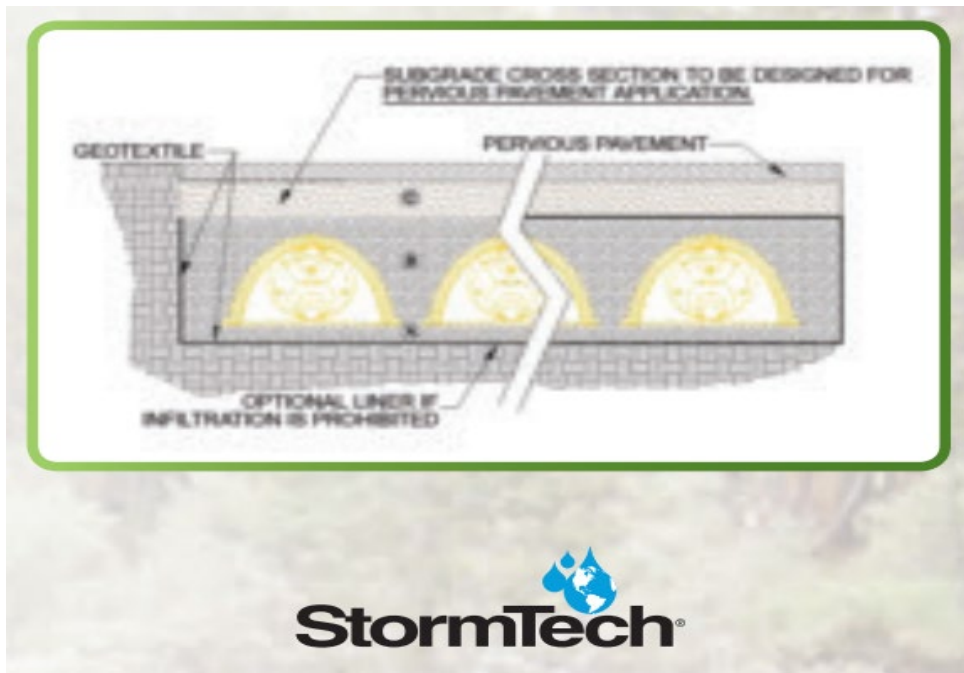
**WMS Innovation**

WMS creates ground breaking drainage solutions. Today's stormwater, drainage and sanitary sewer challenges require high quality products and expertise. Their product lines are single, dual, and triple hdpe and pvc high technology piping for water and drainage solutions.

**Product Lines:** StormTech SC 160LP, StormTech SC 310, StormTech SC 740, StormTech DC-780, StormTech MC 3500, StormTech MC 4500, Residential Downspout, StormTech RC 750, StormTech RC 310. They have many other smaller product lines that will be described below.

These product lines vary in wall structure and technology of the pipe and all have different application that can solve either deep, shallow, and various weather climate conditions to create the most effective drainage system.

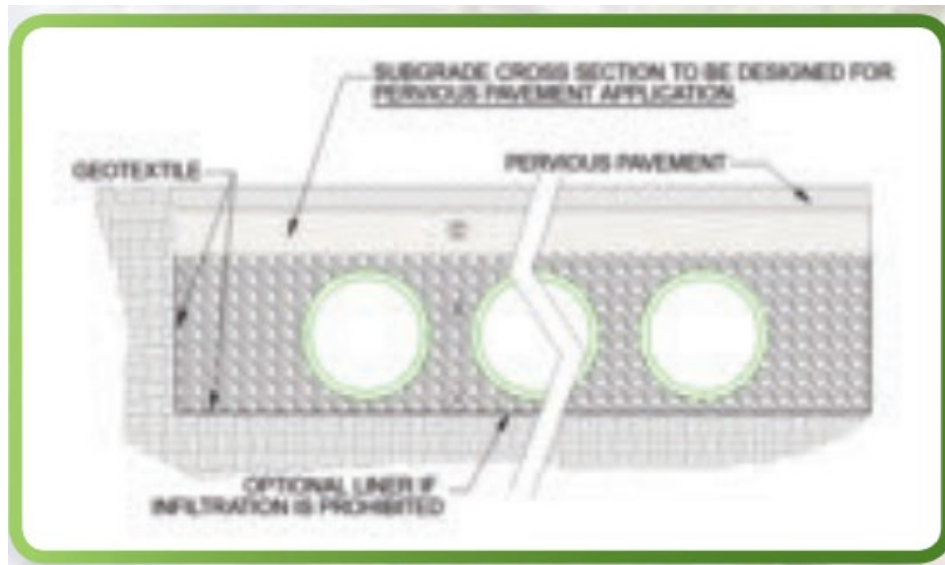
**StormTech:** Has an enhanced storage volume with a 100% open space chamber to increase volume per square foot. The products under Storm Tech have an increased service life with an added safety factor and simple maintenance capabilities to reduce costs to the customer and WMS. The major technological advances to this product line are enhanced infiltration in poor quality soils, flexible site design, and it is made from recycled content.





**Perforated Pipe:**

The perforated pipe technology similar to the StormTech has the enhanced storage volume and increased service life. The specific innovation for this product comes from the enhanced filtration capabilities from an increase in detention time. As well as a critical design component which means the piping can be utilized as underdrain and outfall in conjunction to storage and filtration systems.



**AdvanEDGE:**

This is one of the commercial systems that is very easy to install for the amount of drainage volume it puts out. It can be installed horizontally or vertically. Its low vertical profile is ideal for shallow designs and can be used as a perimeter drain in vertical installations. Finally the AdvanEDGE supports heavy traffic loads with an H-25 traffic rating per AASHTO design standards which is higher than any other design currently in the industry.





**Nyloplast:**

The Nyloplast is the product line that is the input and output valves for Advanced Drainage systems pipes. They are better than the industry standard because they provide emergency overflow inlets, outlet control with many different customization options available for that. As well as for aesthetic purposes they have a low construction profile and can even be retrofitted with a decorative grate to make sure it blends perfectly into commercial or residential designs. Even though the high tech piping is underground there needs to be some entry and exit point and this solution provides the best in the industry for quality, durability, customization, and aesthetic design.



**Geosynthetics:**

This product line has many applications in terms of commercial use but essentially it is used as a soil separation device that protects stone media from native soil migration and erosion. When the soil is wet and damaging man-made structures this device separates the soil from the structure to prevent damage. Where this line varies from other products on the market is in the support system created which is strong enough to support pavement designs and heavy construction as well as the liners available which can be impervious for pond containment.





**Management:**

WMS is led by a technically capable management with management experience.



CEO: D. Scott Barbour joined WMS in September 2017 as CEO. He comes from a successful tenure at Emerson Electric Company from 1989 until 2016 (including the Executive Vice President position). He has an extensive background in product planning, marketing, sales, engineering, and operations around the world. Mr. Barbour earned a B.A. in Mechanical Engineering from Southern Methodist University and an MBA from Vanderbilt University's Owen Graduate School of Management.



CFO: Scott Cottrill joined WMS in November 2015 as Chief Financial Officer. Mr. Cottrill started his career at PwC on 1987 and remained in the company until 1998. He proceeded to hold executive positions in Goodrich Corporation and Jeld-Wen in various finance and accounting positions. Mr. Cottrill holds a bachelor's degree in Accounting from the Pennsylvania State University and is also a Certified Public Accountant.



Executive Vice President, Sales: Bob Klein has been a part of ADS since 1992 and has held his current position since 2006. Prior to his current position Mr. Klein he held several leadership positions in operations including Manager, Regional Manufacturing; Manager, Distribution Yards; Director, Purchasing. Prior to joining WMS, Mr. Klein spent 7 years at The Gerstenslager Company in manufacturing management positions. Mr. Klein holds a bachelor's degree in Business Administration from Ashland College.





# BABSON COLLEGE FUND

March 5<sup>th</sup>, 2019



## BCF Edge:

Our edge comes from the lack of coverage on this company. Currently, there are only 3 analysts covering the company and only one of those analysts is from a reputable firm. We found this company through two different screens in which we filtered through the entire materials sector and landed on this company. The Analysts covering this stock are very short term focused. Within a couple quarters of revenue decrease, the analysts have downgraded the stock and pushed the stock price down. This demonstrates a fundamental lack of understanding about the company, its seasonal revenue patterns, and its position for long term growth. Essentially, we believe WMS is a value stock, with higher than average ROE, ROIC compared with peers, with a strong history of generating free cash flow and dividends, but all with a Long Term growth rate of a growth stock at 7%. It is relatively under the radar due to its size and industry, and just the fact that it's a seemingly boring company that just makes drains. Its trading near 52 week lows and we believe is at a good price to buy.

| Ticker               | Name                         | Trd Status     | 1D Tot Ret  | P/E        | 52Wk Low   | ROIC LF    | WACC       | 3Yr Avg ROE LF | Best ROE Median:Y |
|----------------------|------------------------------|----------------|-------------|------------|------------|------------|------------|----------------|-------------------|
| None (26 securities) |                              |                |             |            |            |            |            |                |                   |
| CCK US Equity        | CROWN HOLDINGS INC           | #N/A Connector | #N/A Conner | 12.4625225 | 39.0499992 | 9.46592808 | 6.19500017 | 90.89064026    | 54.33499908       |
| TSE US Equity        | TRINSEO SA                   | #N/A Connector | #N/A Conner | 5.53607845 | 42.0999985 | 21.7007599 | 10.5229998 | 63.56877518    | 52.63000107       |
| TREX US Equity       | TREX COMPANY INC             | #N/A Connector | #N/A Conner | 36.7223206 | 50.7200012 | 47.3688736 | 10.1049995 | 52.51404572    | 46                |
| SHW US Equity        | SHERWIN-WILLIAMS CO/THE      | #N/A Connector | #N/A Conner | 23.3141079 | 355.279999 | 9.94977379 | 8.33899975 | 64.6619339     | 41.34999847       |
| WDFC US Equity       | WD-40 CO                     | #N/A Connector | #N/A Conner | 37.2880974 | 122.375    | 23.8690319 | 8.19499969 | 40.12263107    | 40.09999847       |
| LYB US Equity        | LYONDELLBASELL INDU-CL A     | #N/A Connector | #N/A Conner | 7.64483213 | 77.5199966 | 23.4814816 | 8.58500004 | 59.20246887    | 33.84999847       |
| IP US Equity         | INTERNATIONAL PAPER CO       | #N/A Connector | #N/A Conner | 9.03705311 | 37.5499992 | 13.6314116 | 7.4829998  | 30.92274666    | 28.43000031       |
| PKG US Equity        | PACKAGING CORP OF AMERICA    | #N/A Connector | #N/A Conner | 12.029048  | 77.9000015 | 18.2425861 | 9.25899982 | 29.53176689    | 28.20000076       |
| KRO US Equity        | KRONOS WORLDWIDE INC         | #N/A Connector | #N/A Conner | 5.78083944 | 10.5100002 | 21.9093361 | 8.70400047 | 28.48296928    | 25.45999908       |
| SLGN US Equity       | SILGAN HOLDINGS INC          | #N/A Connector | #N/A Conner | 13.6776371 | 22.2399998 | 10.4996376 | 6.11899996 | 29.07939911    | 24.5              |
| WLKP US Equity       | WESTLAKE CHEMICAL PARTNERS L | #N/A Connector | #N/A Conner | 14.0122509 | 20.25      | 25.2413445 | 6.14400005 | 31.43834877    | 23.70000076       |
| STLD US Equity       | STEEL DYNAMICS INC           | #N/A Connector | #N/A Conner | 6.92053223 | 28.9099998 | 21.7394638 | 8.68999958 | 24.68637848    | 21.18499947       |
| WLK US Equity        | WESTLAKE CHEMICAL CORP       | #N/A Connector | #N/A Conner | 9.1618948  | 59.7750015 | 21.0751209 | 9.33100033 | 20.89328957    | 20.62000084       |
| EMN US Equity        | EASTMAN CHEMICAL CO          | #N/A Connector | #N/A Conner | 9.94405937 | 67.4000015 | 13.033947  | 7.66300011 | 23.46455193    | 19.81999969       |
| EXP US Equity        | EAGLE MATERIALS INC          | #N/A Connector | #N/A Conner | 14.5325661 | 57         | 11.0439653 | 9.34300041 | 18.16354752    | 16.34000015       |
| CSL US Equity        | CARLISLE COS INC             | #N/A Connector | #N/A Conner | 19.2378159 | 92.1600037 | 11.4598665 | 7.73999977 | 16.20948982    | 16.20000076       |
| APD US Equity        | AIR PRODUCTS & CHEMICALS INC | #N/A Connector | #N/A Conner | 22.636694  | 148.440002 | 11.5212107 | 8.40299988 | 18.89953041    | 16.04000092       |
| APOG US Equity       | APOGEE ENTERPRISES INC       | #N/A Connector | #N/A Conner | 12.245657  | 26.3799992 | 11.5327444 | 9.9460001  | 17.01696205    | 15.80000019       |
| WMS US Equity        | ADVANCED DRAINAGE SYSTEMS IN | #N/A Connector | #N/A Conner | 21.0463905 | 23.0400009 | 10.6932039 | 6.48699999 | 82.56121063    | 15.78999996       |
| KRA US Equity        | KRATON CORP                  | #N/A Connector | #N/A Conner | 6.37861109 | 19.1299992 | 11.0356445 | 8.22900009 | 16.14954758    | 14.32499981       |
| LPX US Equity        | LOUISIANA-PACIFIC CORP       | #N/A Connector | #N/A Conner | 9.6818428  | 20.3899994 | 19.4743328 | 8.83600044 | 21.75400925    | 14.19999981       |
| MTX US Equity        | MINERALS TECHNOLOGIES INC    | #N/A Connector | #N/A Conner | 12.0826426 | 47.0695    | 9.31013393 | 8.20600033 | 14.11977673    | 12.25             |
| BCPC US Equity       | BALCHEM CORP                 | #N/A Connector | #N/A Conner | 35.9216232 | 73.1600037 | 12.6847906 | 9.43700027 | 12.94156361    | 11.94999981       |
| LDL US Equity        | LYDALL INC                   | #N/A Connector | #N/A Conner | 11.5900612 | 18.4699993 | 7.76330185 | 7.48199987 | 13.11001778    | 10.5              |
| VMC US Equity        | VULCAN MATERIALS CO          | #N/A Connector | #N/A Conner | 32.6579437 | 82.5199966 | 11.1760035 | 8.7840004  | 10.64852524    | 10                |
| SCHN US Equity       | SCHNITZER STEEL INDS INC-A   | #N/A Connector | #N/A Conner | 4.52536726 | 20.9400005 | 22.7779694 | 8.88099957 | 10.317976      | 9.100000381       |



### Historic Price Performance

#### 5 YR Performance

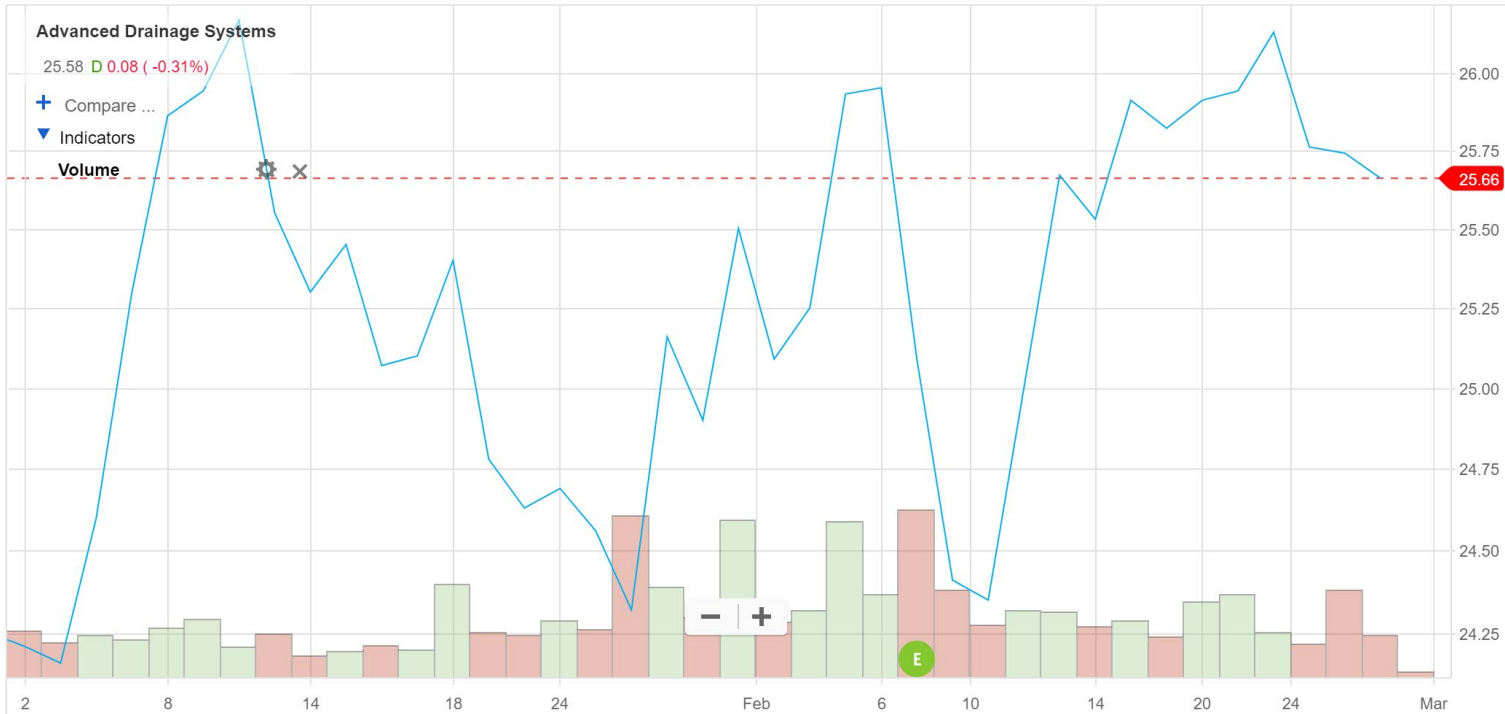


#### Stocks Recent Performance: as of 2/28/2018





YTD Change: 5.28%



**Financial Health**

- 5 year FCF growth of 27%
- 5 year Sales growth of 25.5%
- 5 year Net Income growth of 23.3%
- Healthy Debt/Equity ratio of 63% down from a high of over 200%.
- Increasing “allied products” (other than pipes) now 27% of sales – growing diverse product portfolio
- Significant growth coming from increasing international sales. International gross profit increased 30% last year. 7.5% long term growth for domestic markets.
- \$40 to \$50 million of expected investments (Capex) in 2019

**Industry Trends**

**Growing Drainage Market:**

Firstly, increasing infrastructure development in North America has led to potential growth opportunities in the pressure and drainage pipes market owing to aging infrastructure and increasing replacement of existing pipes. Further, rising demand for water management and water withdrawals for surface and ground water may also impact the growth of the pressure and drainage pipes market. Also, laying of new pipelines along the North America border crossing points of electricity and oil and natural gas pipelines will further fuel the growth of the pressure and drainage pipes market in the region.



This is anticipated to increase to US\$ 39,997.2B by the end of the forecast period in 2025. This reflects a CAGR of 6.4% during the forecast period 2017 to 2025.

US only: Water and wastewater pipe demand in the US will grow 7.7% per year to \$18.1 billion in 2018.

One of their product lines is guaranteed to increase at a 6.4% rate.

#### **Materials Used:**

The global water and wastewater pipes market is segmented on the basis of material type into Concrete, Steel, Ductile Iron, Clay, and Plastic (PVC, cPVC, HDPE, PP, Others (LDPE, ABS, Fiberglass)). Plastic will remain the dominant segment in this category throughout the forecast period. In terms of volume, the Plastic segment is estimated to be pegged at 14,411 KT in 2017 and this is anticipated to increase to 22,748 KT by the end of 2025, witnessing a CAGR of 5.9% during the assessment period.

Even the material they are using is at the highest growth and covers the most land. And they are a premium to that material because they are adding technology and other pieces to the typical plastic used which is why they will continue to see FCF generated and margin expansion

#### **End Use:**

The global water and wastewater pipes market is segmented on the basis of end use into Municipal, Industrial, and Agricultural. Municipal sector is projected to dominate the global market with a value share of more than 40% throughout the forecast period. Demand for water and wastewater pipes from the Municipal sector is likely to gain traction in the next five years, leading to continual growth till the end of 2025 with a growth rate of 6.3%. The Municipal and Industrial sectors are expected to create incremental \$ opportunity worth around US \$1B by 2025.

#### **Forecast by Pipe Size:**

The global water and wastewater pipes market is segmented on the basis of pipe size into Below 12 inch, 12-24 inch, 24-48 inch, and Above 48 inch. The 12-24 inch segment is the largest segment with a market share of more than 30% throughout the forecast period. This segment will grow at a robust rate over the assessment period with an estimated CAGR of 6.4% in terms of value. The 12-24 inch segment is projected to create incremental opportunity worth US\$ 4,692.8 B between 2017 and 2025.

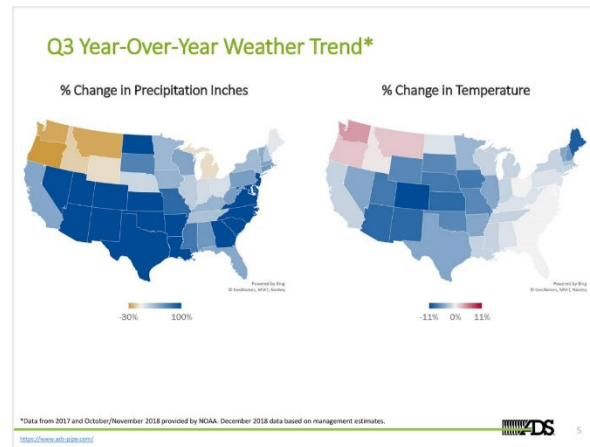
#### **Global Market Trends:**

Persistence Market Research tracks the performance of the global water and wastewater pipes market across the key regions of North America, Latin America, Europe, Asia Pacific, and the Middle East & Africa. Asia Pacific is the largest regional market for water and wastewater pipes, with a projected market share just under 48% by the end of 2025. North America is the second largest market with an estimated market share of nearly 24% by the end of the forecast period in 2025. Asia Pacific and North America are estimated to grow at higher rates as compared to other regions and the annual growth rates for these two regions are expected to be in the range of 6%-7%.



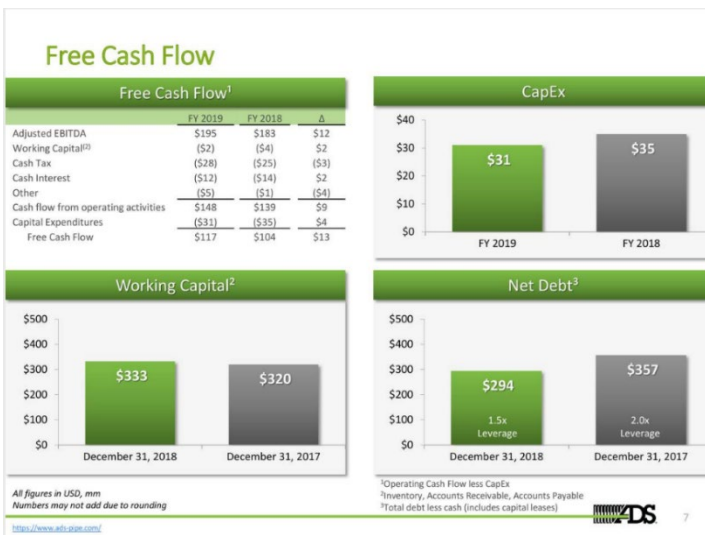


**2019 Weather Trends:** Over the past couple years there have been an increasing amount of precipitation in the fourth quarter which is actually a very funny positive problem for WMS. It is positive that there is excess rain and snowfall because that increases a demand for more and higher functioning drain systems, yet they cannot be built during this wet season that we have recently been experiencing. Fortunately, investors understand this cycle and do not discount the company on poor 4<sup>th</sup> quarter earnings, but rather pay serious attention to the summer earnings season when the company should have the capability to construct all the drains needed to deal with this increase in precipitation



**Quarter 3 Earnings**

The third quarter earnings, they operate on an off cycle earnings season. Was a successful quarter even with facing heavy margin pressure and terrible weather conditions for updating and constructing the infrastructure needed for their services.





### **Competitive Landscape Analysis**

There are some minor risks of increasing competition in WMS' existing and future markets, including competition from both manufacturers of high performance thermoplastic corrugated pipe and manufacturers of products using alternative materials. Currently most of the competition is coming from international companies in which they do not compete directly in the drainage market. The more direct competition facing WMS is the manufacturers that do not actually do the construction but they produce the piping at a possibly lower cost. Currently, to date, there is no company that is making the high level of pipes that WMS is for a lower cost, but it is an obvious risk going forward as these smart pipes become the main stream.

The competitors we used in our model are Polypipe Group, Forterra, Westlake Chemical Co. and CRH PLC.



**Appendix: Trading Comps**

| Trading Comps         |                  |                    |            |            |                  |               |       |                  |      |           |      |                  |       |
|-----------------------|------------------|--------------------|------------|------------|------------------|---------------|-------|------------------|------|-----------|------|------------------|-------|
|                       | Share Price (\$) | Shares Outstanding | Market Cap | Net Debt   | Enterprise Value | EBITDA Margin |       | Enterprise Value |      |           |      | Price / Earnings |       |
|                       |                  |                    |            |            |                  | 2018          | 2019  | EV/Sales         |      | EV/EBITDA |      | Price / Earnings |       |
|                       |                  |                    |            |            |                  |               |       | 2018             | 2019 | 2018      | 2019 | 2018             | 2019  |
| Polypipe Group        | \$5.43           | 199.8              | \$1,085    | \$197      | \$1,282.29       | 22.3%         | 22.2% | 2.5x             | 2.1x | 11.2x     | 9.5x | 11.5x            | 11.5x |
| Forterra              | \$5.25           | 64.2               | \$337      | \$1,093    | \$1,430.45       | 9.1%          | 12.0% | 1.0x             | 0.9x | 10.4x     | 7.7x | 18.7x            | 18.5x |
| Westlake Chemical Co. | \$69.87          | 128.5              | \$8,978    | \$1,915    | \$10,893.30      | 24.1%         | 23.6% | 1.3x             | 1.2x | 5.2x      | 5.2x | 9.3x             | 9.2x  |
| CRH Plc               | 31.68            | 811.3              | \$25,702   | \$6,879    | \$32,580.74      | 12.8%         | 13.4% | 1.1x             | 1.0x | 8.9x      | 7.4x | 9.3x             | 9.2x  |
| Average               |                  |                    | \$3,466.75 | \$1,068.59 | \$4,535.34       | 18.5%         | 19.3% | 1.6x             | 1.4x | 9.0x      | 7.5x | 13.2x            | 13.1x |
| Median                |                  |                    | \$1,084.91 | \$1,093.40 | \$1,430.45       | 22.3%         | 22.2% | 1.3x             | 1.2x | 10.4x     | 7.7x | 11.5x            | 11.5x |
| Premium               | 65th percentile  |                    |            |            |                  | 22.8%         | 22.5% | 1.57             | 1.45 | 10.63     | 8.17 | 13.30            | 13.23 |
| WMS                   | \$25.78          | 57.1               | \$1,472.04 | \$362.10   | 1,834            | 17.3%         | 18.4% | 1.4x             | 1.3x | 8.0x      | 7.2x | 16.9x            | 14.4x |

| Metrics               |                |          |         |         |       |        |         |       |  |
|-----------------------|----------------|----------|---------|---------|-------|--------|---------|-------|--|
| Ticker                | Sales          |          | EBITDA  |         | EPS   |        | Total   |       |  |
|                       | 2018           | 2019     | 2018    | 2019    | 2018  | 2019   | Debt    | Cash  |  |
|                       | Polypipe Group | \$515    | \$608   | \$115   | \$135 | \$0.37 | \$0.41  | \$243 |  |
| Forterra              | \$1,502        | \$1,545  | \$137   | \$185   | \$0   | \$0    | \$1,341 | \$30  |  |
| Westlake Chemical Co. | \$8,635        | \$8,828  | \$2,082 | \$2,082 | \$8   | \$7    | \$2,668 | \$753 |  |
| CRH Plc               | \$28,811       | \$32,967 | \$3,674 | \$4,406 | \$2   | \$2    | 11,574  | 2,194 |  |
| Average               | \$9,866        | \$10,987 | \$1,502 | \$1,702 | \$2   | \$2    | \$3,957 | \$757 |  |
| Median                | \$5,069        | \$5,187  | \$1,109 | \$1,134 | \$1   | \$1    | \$2,005 | \$402 |  |

|     |         |         |       |       |        |        |       |       |
|-----|---------|---------|-------|-------|--------|--------|-------|-------|
| WMS | \$1,330 | \$1,385 | \$230 | \$255 | \$1.53 | \$1.80 | \$314 | \$172 |
|-----|---------|---------|-------|-------|--------|--------|-------|-------|

| Valuation              | 2019 EV/Sales | 2019 EV/EBITDA | 2018 P/E |
|------------------------|---------------|----------------|----------|
| Enterprise Value       | \$2,012       | \$2,084        |          |
| Cash and Equivalents   | 172           | 172            |          |
| Minority Interest      | 3             | 3              |          |
| Total Debt             | 314           | 314            |          |
| Fair Equity Value      | \$1,867       | \$1,940        |          |
| Shares Outstanding     | 57            | 57             |          |
| Expected Stock Price   | \$32.71       | \$33.98        | \$25.78  |
| Weight                 | 25%           | 50%            | 25%      |
| Fair Value Stock Price |               |                | \$32     |
| Current Stock Price    |               |                | \$25.78  |
| Upside Potential       |               |                | 22.6%    |



Appendix: DCF

| Advanced Drain Systems        | WMS | Actual  |         |         |         | Forecast |         |         |         |         |
|-------------------------------|-----|---------|---------|---------|---------|----------|---------|---------|---------|---------|
|                               |     | 2015A   | 2016A   | 2017A   | 2018A   | 2019E    | 2020E   | 2021E   | 2022E   | 2023E   |
| <b>Total Revenue</b>          |     | \$1,180 | \$1,291 | \$1,257 | \$1,330 | \$1,379  | \$1,488 | \$1,592 | \$1,640 | \$1,656 |
| <i>% Growth</i>               |     |         | 9%      | (3%)    | 6%      | 4%       | 8%      | 7%      | 3%      | 1%      |
| <b>EBIT</b>                   |     | 51      | 93      | 96      | 92      | 121      | 143     | 145     | 149     | 159     |
| <i>EBIT Margin</i>            |     | 4.3%    | 7.2%    | 7.6%    | 6.9%    | 8.8%     | 9.6%    | 9.1%    | 9.1%    | 9.6%    |
| <b>-Taxes</b>                 |     | 9       | 24      | 25      | 11      | 28       | 32      | 34      | 35      | 40      |
| <b>Tax Adjusted EBIT</b>      |     | \$42    | \$69    | \$71    | \$80    | \$93     | \$111   | \$111   | \$114   | \$119   |
| <b>Depr. &amp; Amort.</b>     |     | 66      | 71      | 72      | 75      | 68       | 75      | 82      | 83      | 85      |
| <b>(Change in NWC)</b>        |     |         | (14)    | 8       | 25      | 13       | 20      | (2)     | 9       | 5       |
| <b>(Capital Expenditures)</b> |     | 32      | 45      | 51      | 42      | 46       | 52      | 56      | 55      | 57      |
| <b>Free Cash Flow</b>         |     | \$75    | \$110   | \$85    | \$88    | \$102    | \$114   | \$139   | \$133   | \$142   |

| Perpetuity Growth Model | Terminal Value Growth Rate | Terminal Year            | Implied LT EV/EBITDA            |
|-------------------------|----------------------------|--------------------------|---------------------------------|
| Terminal Value          | \$2,587.0 <i>2.0%</i>      | 2023                     | 10.6x                           |
| <b>Cost of Capital</b>  | <i>Sources</i>             | <b>Capital Structure</b> | <i>Sources</i>                  |
| Beta                    | 0.95 <i>Bloomberg</i>      | Market Value of Stock    | \$ 1,473 82.4% <i>Bloomberg</i> |
| Risk-free Rate          | 2.7% <i>US 10-Yr Treas</i> | Debt                     | \$ 314 17.6% <i>Bloomberg</i>   |
| Risk Premium            | 6.0% <i>Damodaran</i>      | TOTAL                    | \$ 1,787 100%                   |
| Weight of Equity        | 82.4% <i>Computed</i>      |                          |                                 |
| Cost of Equity          | 8.4% <i>Computed</i>       |                          |                                 |
| Weight of Debt          | 17.6% <i>Computed</i>      |                          |                                 |
| Cost of Debt            | 4.9% <i>Bloomberg</i>      |                          |                                 |
| Effective Tax Rate      | 20% <i>Guidance</i>        |                          |                                 |
| WACC                    | 7.6% <i>Computed</i>       |                          |                                 |

| DCF Model               | Sources                      |
|-------------------------|------------------------------|
| Enterprise Value        | 2,295 <i>Computed</i>        |
| Cash and Equivalents    | 172 <i>Capital IQ</i>        |
| Minority Interest       | 3 <i>Capital IQ</i>          |
| Total Debt              | 314 <i>Capital IQ</i>        |
| Fair Equity Value       | \$ 2,151 <i>Computed</i>     |
| Shares Outstanding      | 57.1 <i>Bloomberg</i>        |
| <b>Fair Stock Value</b> | <b>\$ 38</b> <i>Computed</i> |
| Current Price           | \$ 25.78                     |
| <i>Upside</i>           | <i>46.0%</i>                 |





**Appendix: Sensitivity Analysis**

Sensitivity Analysis

|      |      | 1.0%     | 1.5%     | 2.0%     | 2.5%     | 3.0%     |
|------|------|----------|----------|----------|----------|----------|
| WACC | 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

Growth

Terminal Value

|            |            |            |            |            |
|------------|------------|------------|------------|------------|
| \$2,561.59 | \$2,826.26 | \$3,148.37 | \$3,548.89 | \$4,060.42 |
| \$2,351.90 | \$2,574.27 | \$2,840.18 | \$3,163.80 | \$3,566.20 |
| \$2,173.94 | \$2,363.54 | \$2,586.95 | \$2,854.11 | \$3,179.23 |
| \$2,021.01 | \$2,184.70 | \$2,375.18 | \$2,599.64 | \$2,868.03 |
| \$1,888.19 | \$2,031.02 | \$2,195.46 | \$2,386.83 | \$2,612.32 |

Past

Estimated EV

|            |            |            |            |            |
|------------|------------|------------|------------|------------|
| \$2,077.71 | \$2,269.91 | \$2,503.82 | \$2,794.67 | \$3,166.14 |
| \$1,878.66 | \$2,036.41 | \$2,225.05 | \$2,454.62 | \$2,740.09 |
| \$1,709.80 | \$1,841.21 | \$1,996.05 | \$2,181.20 | \$2,406.54 |
| \$1,564.75 | \$1,675.60 | \$1,804.59 | \$1,956.59 | \$2,138.34 |
| \$1,438.82 | \$1,533.34 | \$1,642.16 | \$1,768.79 | \$1,918.01 |

**Appendix: Valuation**

|                      | Price       | Weights |
|----------------------|-------------|---------|
| DCF                  | \$38        | 60%     |
| CompCo               | \$32        | 40%     |
| <b>Blended Price</b> | <b>\$35</b> |         |
| <b>Current Price</b> | \$25.78     |         |
| <b>Gap to Target</b> | <b>37%</b>  |         |



## BABSON COLLEGE FUND

March 5<sup>th</sup>, 2019



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### Important Disclosures

#### **Babson College Fund**

The Babson College Fund (BCF) is an academic program in which selected students manage a portion of the Babson College endowment. The program seeks to provide a rich educational experience through the development of investment research skills and the acquisition of equity analysis and portfolio management experience. Please visit <http://cutler.babson.edu> for more information.

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#### **Definition of Ratings**

**BUY:** Expected to outperform the S&P 500 producing above average returns.

**HOLD:** Expected to perform in line with the S&P 500 producing average returns.

**SELL:** Expected to underperform the S&P 500 producing below average returns.

#### **References**

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