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BJORKLUND FUND

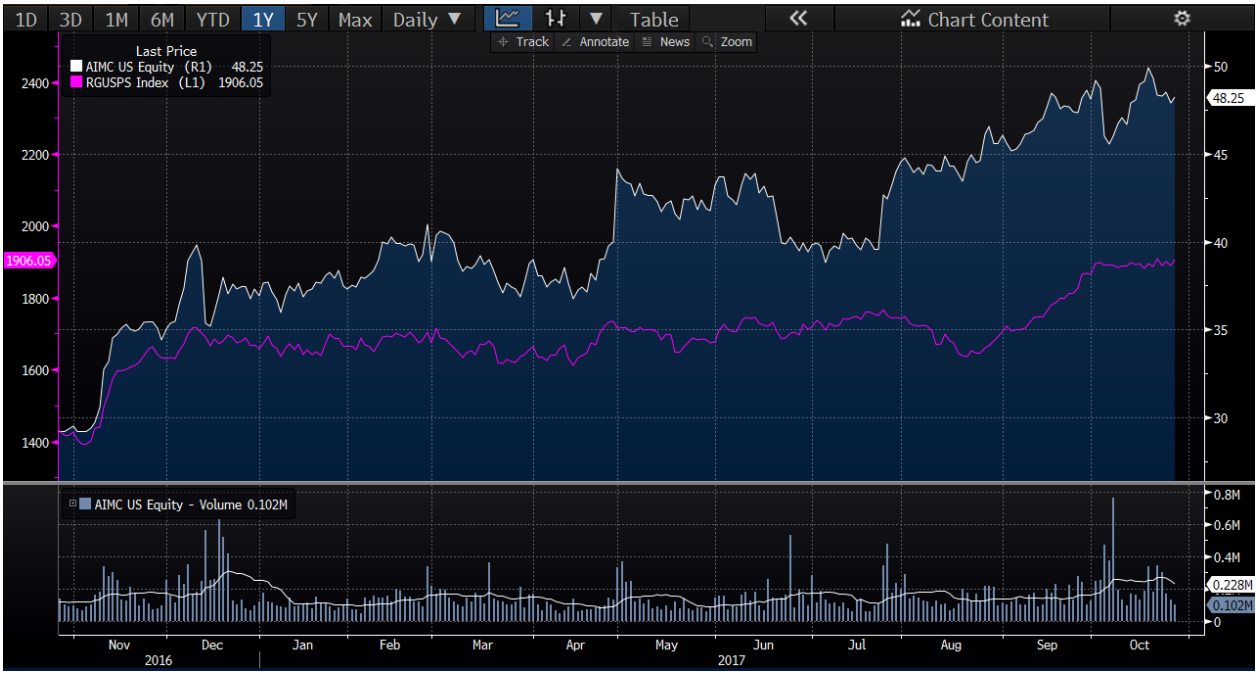
October 26, 2017

Company Name: Altra Industrial Motion Corp. AIMC

Michael Vitale

Sector: Industrials
Industry: Machinery
Current Price: $48.25
Target Price: $60.19

Company Description: Altra Industrial Motion Corp. is a leading global designer, producer and marketer of a wide range of mechanical power transmission components. With their global footprint, they sell their products in over 70 countries throughout the world and serve a diverse group of industries. The Company's product portfolio includes industrial clutches and breaks, enclosed gear drives, open gearing, couplings, engineered bearing assemblies, linear components, and other related products. They market these products under well recognized and established brand names, most of which have been in existence for 50 to over 100 years.



BUY

Current Price:	$48.25	20 Day Average Volume:	224,627
Target Price:	$60.90	Gross Profit Margin:	31.8%
Market Cap:	1.4B	EBITA Margin:	15.3%
52 Week High/ Low	$50.00 -$28.85	EPS:	2.10

Thesis:

Altra Industrial Motion has strong growth factors due to their diversified portfolio of products catering to a wide variety of sectors within the industrials industry. Altra will experience further organic growth through the increasing favorable industry trends. Their profitability and margins will continue to improve through the integration of their recent acquisitions, as well as their restructuring and cost-saving strategies.

Catalysts:

- Short Term(within the year): Integration of their acquisition of Stromag.
- Mid Term(1-2 years): Increasing sales through organic growth.
- Long Term(3+): Expand its geographical reach, and product offerings through strategic acquisitions. Improving profitability through cost reduction initiatives.

Business Overview/Outlook:

AIMC manufactures mechanical power transmission and motion control products. They specialize in industrial clutches and brakes, gear drives, couplings, and bearings, linear components, gear motors and other related products. These products serve a wide variety or end markets such as, energy, general industrial, material handling, mining, transportation and turf and garden. AIMC's line up is marketed under an impressive amount of brands including TB Wood's and Warner Electric, both directly and through distributors to OEMs in material handling, mining, and transportation industries. Altra Industrial Motion reports its top-line results under three segmental heads, namely, Couplings Clutches & Brakes (43% of total revenues in 2016), Electromagnetic Clutches & Brakes (30%), and Gearing (27%).

They are dedicated to finding new and better ways of handling some of the most demanding power transmission applications. By working closely with their customers and applying the latest technologies in design, materials and manufacturing, they have accelerated the development process of bringing new products to the marketplace. With state-of-the-art equipment at our disposal like the UniGraphics solid modeling design package, models can be generated quickly, expediting the initial phases of design and sales process. Their experienced CAD design teams can create simple models, like standard, modular, worm gear speed reducers, for high volume projects as well as complex models for small or large-scale custom jobs. Rapid prototyping utilizing 3D printing technology helps turn concept into reality. They also have full service test labs to validate the integrity of new product designs before they manufacture the product. In the test lab, they are able to simulate many common application scenarios to evaluate problems you may be experiencing on your manufacturing floor. This can decrease down time and expenses associated with trouble-shooting.

Their global sales and marketing network includes more than 1,000 direct OEM customers and over 3,000 distributor outlets. Roughly 35% of their net sales were generated through independent distributors in 2013. North America accounts for more than 60% of sales. During the quarter end September 30, 2017, they saw continued improvement in certain of their end markets that previously had been challenged. As their markets strengthen, they expect to benefit increasingly from their work during the past few years on facility consolidation, supply chain and operational excellence initiatives. Moreover, they believe they are now in a position to capitalize on the positive momentum in the industrial economy by driving growth initiatives. To this end, their sales and engineering teams are targeting specific strategic end markets with focused activities to generate new opportunities. They continue to be encouraged by the progress of the integration of our

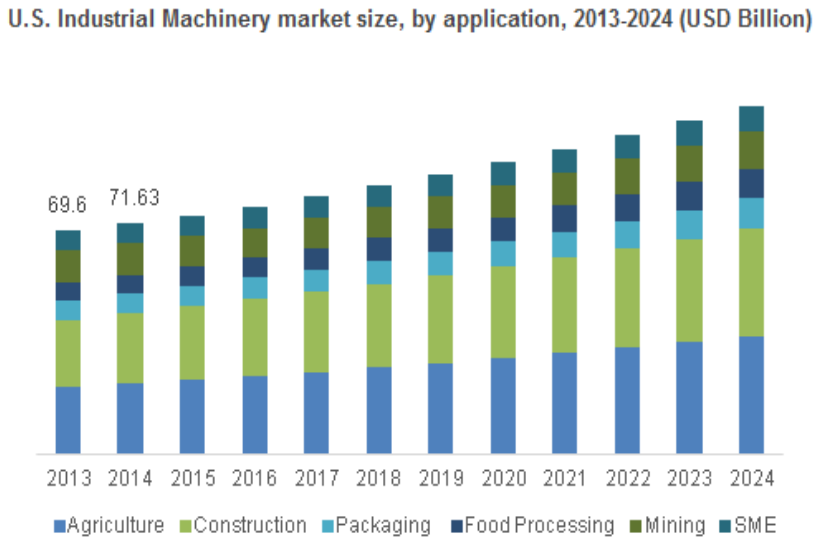
Stromag acquisition and they have already experienced an increase in cross-selling opportunities. They continue to seek further acquisitions, but remain highly disciplined in that pursuit

Industry Outlook:

The industrial machinery market size is estimated to grow at an approximate CAGR of 6% from 2016 to 2024. The improving economic conditions worldwide is one of the major factor driving the demand for the industrial machinery in various sectors such as packaging, agriculture, machine tools and materials handling. Rapid industrialization and increasing investment in capital-intensive technologies has led to a significant increase in the demand for the industrial machinery. Industrial machinery is considered crucial in the operations of printing, food, textile, construction, pharmaceuticals, chemical, automotive, agricultural, power generation, utility, transportation and shipping industries. The growth in the Industrial machinery market is driven by the increasing global demand for cars which will lead to a rise in the spending on robotics and the tools used in the automotive sector. The increase in the production of automobiles will also lead to an increase in the rubber and plastic industries which will, in turn, drive overall market demand. The increasing popularity of green technologies has led to an increase in demand for the industrial machinery in photovoltaic and in wind turbines manufacturing companies. The growing demand for efficiency and quality is anticipated to drive investments in the development of the industrial machinery market. Automated machinery saves time, improves quality and also lowers operational cost of a manufacturing company. The packaging industry is expected to boost the demand for industrial machinery. Food processing machinery market share will grow at over 7% CAGR estimation from 2016 to 2024. Increasing investment in lighter packaging which requires fewer materials, produces less waste and is more energy efficient is projected to spur the demand for industrial machinery. Further, the technological advances in packaging like wrapping food in ready-to-cook enclosures and new aseptic packaging technology is projected to drive the market growth. Packaging application will surpass a revenue USD 65 billion by 2024, primarily driven by increasing demand for packaged food and beverages across the burgeoning middle-class population.

Industry Trends

Industrial Machinery Market size was over USD 485 billion in 2015 with 5.3% CAGR estimation from 2016 to 2024.



The U.S. market showed strength subsequent to the election of President Trump, primarily factoring in his promised pro-growth policies. However, the momentum has stalled following uncertainties looming over policy enactment and implementation. As far the Industrial Products companies are concerned, the Trump government's infrastructure improvement plan, if implemented, will boost demand. Also, the sector is seeing improving export demand for its products from

foreign nations. Since the beginning of the year, industrial products stocks have been strong performers, with the sector gaining roughly 9.4%. Industrial production is one of the leading economic indicators for the industrial stocks. It measures the level of output of manufacturing, mining and utilities sectors in a country. The country's industrial production increased at an annual rate of 4.7% in the second quarter, driven by impressive growth in mining and utilities. Moreover, growing industrialization will drive construction and mining applications, with a growth rate of 4.5% over the period of 2016 to 2024. Per the U.S. Census Bureau report, new orders for U.S.-manufactured machinery increased 5.7% in the first half of 2017 led by growth in orders for construction, mining, industrial, material handling and other machineries. Also, the job market showed strength, with the recent data indicating 209,000 new job additions in July. In second-quarter 2017, new job additions averaged 194,333 per month. Unemployment rate declined from 4.4% in June to 4.3% in July. In Europe, Altra's second most populated area saw an improvement in industrial production by 1.3% in May from the prior month and rose 4% year over year. In April, industrial production inched up 0.3% from the previous month. The unemployment rate was 9.1% in June versus 9.2% in the previous month.

Product Overview/ Growth:

Altra currently operates through three business segments that are aligned with key product types and end markets served: Couplings, Clutches & Brakes, Electromagnetic Clutches & Brakes, and Gearing. Couplings are the interface between two shafts, which enable power to be transmitted from one shaft to the other. Clutches in this segment are devices that use mechanical, hydraulic, pneumatic, or friction type connections to facilitate engaging or disengaging two rotating members. Brakes are combinations of interacting parts that work to slow or stop machinery. Products in this segment are generally used in heavy industrial applications and energy markets. Products in the Electromagnetic Clutches & Brakes segment include brakes and clutches that are used to electronically slow, stop, and engage or disengage equipment utilizing electromagnetic friction type connections. Products in this segment are used in industrial and commercial markets including agricultural machinery, material handling, motion control, and turf & garden. Gears are utilized to reduce the speed and increase the torque of an electric motor or engine to the level required to drive a particular piece of equipment. Gears produced by the Company are primarily utilized in industrial applications.

Electric Clutches & Brakes	Couplings, Clutches & Brakes		Gearing
Electric Clutches and Brakes	**Couplings**	**Heavy Duty Clutches & Brakes**	**Gear Drives**
Inertia Dynamics	Ameridrives	Industrial Clutch	Boston Gear
Matrix International	Ameridrives Power Transmission	Stromag	Delroyd Worm Gear
Warner Electric	Bibby Turboflex	Svendborg Brakes	Nuttall Gear
Linear Products	Guardian Couplings	Twiflex	**Gear Motors**
Warner Linear	Huco Dynatork	Wichita Clutch	Bauer Gear Motor
	Lamiflex Couplings	**Overrunning Clutches**	**Engineered Bearing Assemblies**
	Stromag	Formsprag Clutch	Kilian Manufacturing
	TB Wood's Incorporated	Marland Clutch	
		Stieber Clutch	
	Belted Drives	**Geared Cam Limit Switches**	
	TB Wood's Incorporated	Stromag	

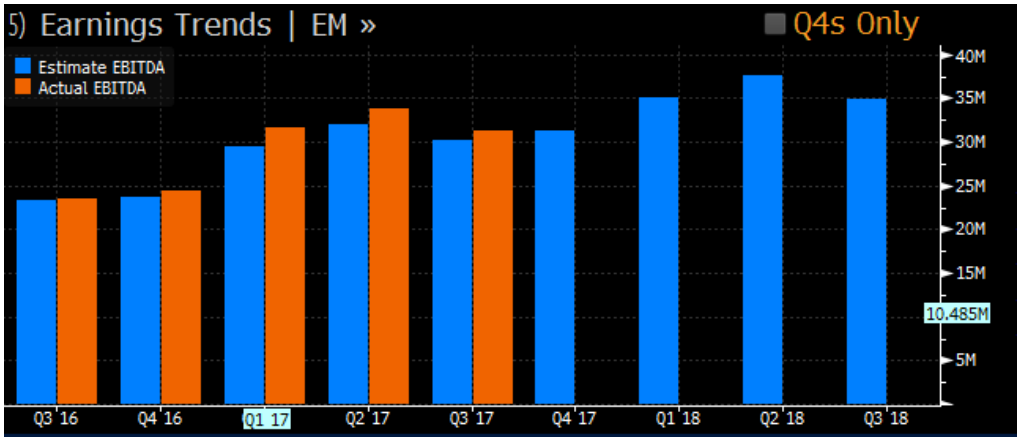
Altra's net sales across all three segments was up from $173.13M at third quarters end in 2016 to $214.62M in 2017 according to their Quarterly report. By segment, their biggest seller was couplings, clutches,

and brakes who posted a 7% increase of $32.66M. In regards to income from operations, their couplings, clutches and brakes underwent at 17% increase since the end of the third quarter of 2016. Income from operations across all segments reported at a $10.9M increase. Income from operations as a percent of total sales increased 4% since the end of the 3rd quarter in 2016. The strong performance from the couplings, clutches, and brakes segment can be attributed to Altra's recent acquisition of Stromag. Synergies continue to be on track and cross-selling initiatives are performing better than expectations.

Stromag Acquisition:

Altra successfully closed the acquisition of Stromag on Dec 30, 2016. Stromag is well known for providing tailored-engineered solutions to its customers in agricultural equipment, construction, marine, metal processing, renewable energy, crane & hoist and general industrial markets. Its product portfolio includes clutches and brakes, flexible couplings, limit switches and friction discs. Stromag's revenues totaled roughly €131 million in 2015. Altra Industrial Motion had to assume debt of roughly €14 million as well as shell out approximately €184 million in cash for the Stromag's assets. The company anticipates the acquired assets to be earnings accretive in 2017. This acquisition is consistent with its strategic expansion policy. It is also indicative of its strong balance sheet and healthy cash position. Net sales in the Couplings, Clutches & Brakes segment were $110.1 million in the quarter ended September 30, 2017, an increase of approximately $32.7 million or 42.2%, from the quarter ended September 30, 2016. Approximately $28.8 million of the increase was due to the inclusion of sales from the newly acquired Stromag business for the quarter. Segment operating income increased approximately $6.1 million compared to the prior period primarily as a result of the addition of Stromag and plant consolidations. Net sales in the Electromagnetic Clutches & Brakes segment were $58.3 million in the quarter ended September 30, 2017, an increase of approximately $7.6 million, or 15.0%, from the quarter ended September 30, 2016. Approximately $6.0 million of the increase was due to the inclusion of sales from the newly acquired Stromag business in the quarter. Segment operating income decreased $0.5 million compared to the prior period primarily as a result of the impact of foreign exchange.

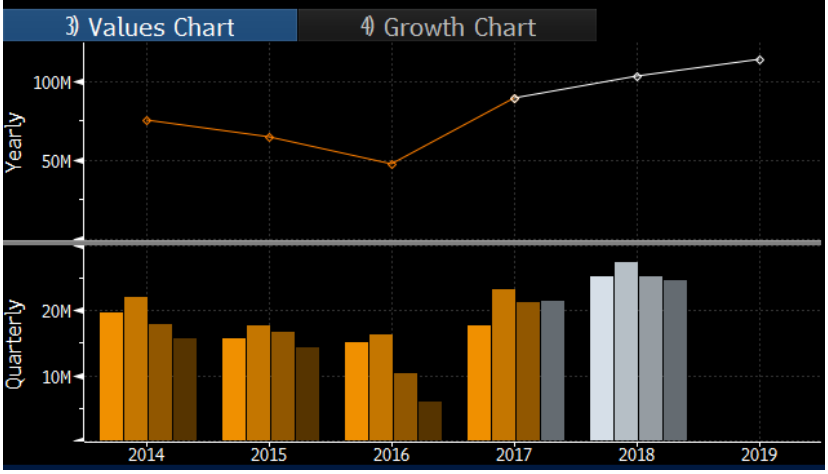
Earnings & Estimates:



In the last six months, Altra Industrial's shares have yielded 22% return, outperforming the gain of 14.2% recorded by the industry. The company stands to benefit from its diversified product portfolio and large customer base in the energy, general industrial, material handling, metals, mining, special machinery, transportation, & turf and garden industries. Non- GAAP diluted earnings per share increased from $2.00 to $2.06 at the end of Q3. The stock has an 87 EPS Rating, which means its recent quarterly and annual earnings growth tops 87% of all stocks. Altra's YoY growth across key measures: EPS 15.6%, Revenue 19%, Adjusted Net Income 29.6%, EBITA 28.7%. For the past five consecutive quarters, they have been outperforming estimates across all previously stated measures. Their estimates for EBITA moving forward into 2018 for all four quarters are considerably over the 30M mark. Operating Profit for Altra has been increasing at an average CAGR of 1.46% for quarters 1-3. Shown in the illustration to the left, the company has outperformed the past three previous quarters since 2016 and are projected to continue that increase. "This was the fourth consecutive quarter of year-over-year organic sales growth, which gives us increasing confidence that the upturn in certain previously challenged end markets is sustainable. As a result of the higher sales volumes, the success of our margin improvement initiatives and a tailwind from foreign exchange, we achieved a 130% increase in diluted GAAP EPS, a 37% increase in non-GAAP dilutive EPS, a 90 basis point increase in gross margin, and a 390 basis point increase in operating margin."* - Carl Christenson, Altra's Chairman and CEO. They has been capitalizing on positive momentum, which in turn is helping drive organic growth initiatives.

Measure	Operating Profit					
	2014	2015	2016	2017	2018	2019
Q1 Mar	19.65M	15.65M	14.98M	17.66M	25.20M	
Q2 Jun	21.96M	17.71M	16.18M	23.15M	27.35M	
Q3 Sep	17.81M	16.66M	10.37M	21.27M	25.15M	
Q4 Dec	15.70M	14.19M	6.03M	21.50M	24.60M	
Year	75.11M	64.21M	47.55M	89.40M	102.75M	113.50M
Cal Yr	75.11M	64.21M	47.55M	89.40M	102.75M	113.50M

(Fiscal Period: Reported, Estimated)



Third-Quarter 2017 Results:

- Third-quarter 2017 net sales were $214.6 million, up 24% from $173.1 million in the third quarter of 2016. Excluding the impact of the Stromag acquisition, third-quarter net sales were up 3.8% from the same quarter of 2016.

The increase in sales during the quarter ended September 30, 2017 was due to the acquisition of Stromag, price increases, higher sales levels in several end markets and the favorable effect of changes in foreign exchange rates of $2.5 million. Of the increase in sales, approximately $34.9 million relates to the inclusion of additional sales as a result of the acquisition of Stromag for the quarter. In addition, price increases contributed $1.7 million to the increase during the quarter. The rest of the increase related to a recovery in sales levels in various end markets in the Couplings, Clutches, and Brakes business segment.

- Gross margin increased 90 basis points year over year to 32.2%.

Gross profit as a percentage of sales increased during the quarter ended September 30, 2017 primarily due to improvements realized from their consolidation and cost saving efforts as well as a modest improvement in some of their more profitable end markets.

- Operating margin increased 390 basis points year over year to 9.9%; non-GAAP operating margin increased 130 basis points to 10.3%.*

- Third-quarter net income was $13.3 million, or $0.46 per diluted share, compared with $5.3 million, or $0.20 per diluted share, in the third quarter of 2016.

- Non-GAAP net income in Q3 2017 was $13.8 million, or $0.48 per diluted share, compared with $9.0 million, or $0.35 per diluted share, a year ago.*

- Cash flow from operations of $43.3 million led to free cash flow of $20.0 million for the year to date period.

During 2015, the Company adopted a restructuring plan ("2015 Altra Plan") in response to weak demand and to make certain adjustments to improve business effectiveness, reduce the number of facilities and streamline the Company's cost structure. The actions taken pursuant to the 2015 Altra Plan included reducing headcount and limiting discretionary spending to improve profitability. Approximately $1.9 million of the decrease is related to activity in the Couplings, Clutches and Brakes segment not present in the current quarter under the 2015 Altra Plan. The Company does not expect to incur any additional material costs as a result of the 2015 Plan. During the quarter ended September 30, 2017, the Company commenced a new restructuring plan ("2017 Altra Plan") as a result of the Stromag acquisition and to rationalize its global renewable energy business. The actions taken pursuant to the 2017 Altra Plan include reducing headcount, facility consolidations and the elimination of certain costs. Approximately $0.6 million of the expense in the current quarter is related to activity in the Couplings, Clutches and Brakes segment under the 2017 Altra Plan. The company expects to incur approximately $2.0 to $4.0 million in additional expense through 2019 related to the 2017 Altra Plan.

Conclusion:

Altra Industrial Motion expects to become a leading global provider of electrochemical power transmission solutions. They have been consistently beating analyst estimates for 5 consecutive quarters across multiple profitability measures. They have posted record high numbers in this last quarter through strategic executive strategies. They will continue to see organic growth through their highly diversified and industry leading products. Effective supply chain management and accretive acquisitions will remain the company's preferred modes for enhancing profitability. I propose to buy Altra Industrial Motion with a target price of $60.19.

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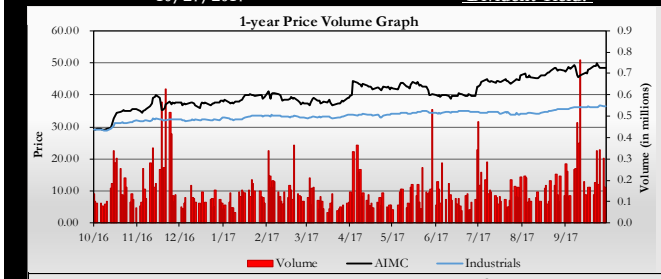
Altra Industrial Motion Corp. (AIMC)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Michael Vitale	Current Price:	$48.25	Intrinsic Value	$51.77	Target 1 year Return: 26.06%
10/27/2017	Divident Yield:	1.3%	Target Price	$60.19	Probability of Price Increase: 99%



Description

Altra Industrial Motion Corp. designs, produces, and markets mechanical power transmission components worldwide.

General Information

Sector	Industrials
Industry	Machinery
Last Guidance	November 3, 2015
Next earnings date	February 17, 2018
Estimated Country Risk Premium	6.16%
Effective Tax rate	26%
Effective Operating Tax rate	26%

Market Data

Market Capitalization	$1,412.54
Daily volume (mil)	0.10
Shares outstanding (mil)	29.28
Diluted shares outstanding (mil)	28.26
% shares held by institutions	100%
% shares held by investments Managers	74%
% shares held by hedge funds	5%
% shares held by insiders	2.94%
Short interest	1.59%
Days to cover short interest	2.57
52 week high	$50.00
52-week low	$28.85
Volatility	29.20%

Past Earning Surprises

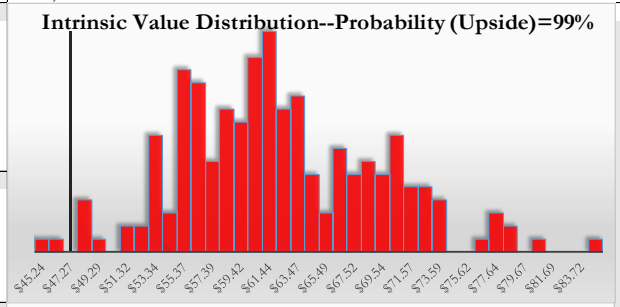
Quarter ending	Revenue	EBITDA
9/30/2016	-1.88%	-7.96%
12/31/2016	-0.64%	7.30%
3/31/2017	0.18%	2.72%
6/30/2017	-0.53%	0.78%
9/30/2017	-0.42%	0.20%
Mean	-0.66%	0.61%
Standard error	0.3%	2.5%

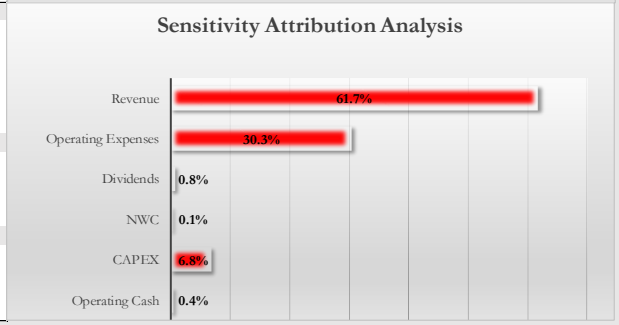
Peers

Graco Inc.
Actuant Corporation
Barnes Group Inc.
Regal Beloit Corporation
Rexnord Corporation
Colfax Corporation
Nordson Corporation
Pentair plc

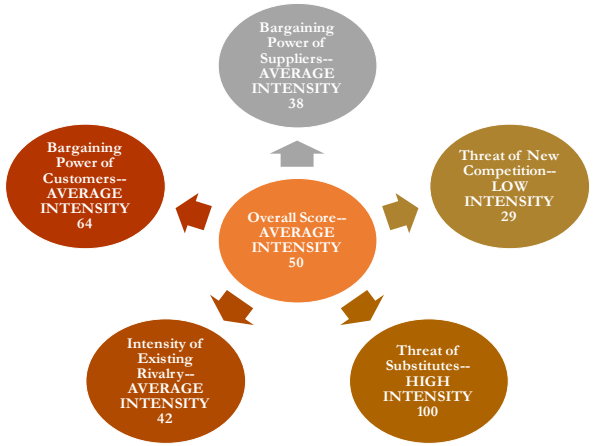
Management	Position	Total compensations growth	Total return to shareholders
Christenson, Carl	Chairman and Chief Executive	9.78% per annum over 5y	5.76% per annum over 5y
Storch, Christian	Chief Financial Officer and	8.99% per annum over 5y	5.76% per annum over 5y
Deegan, Glenn	Vice President of Legal & Hu	16.46% per annum over 5y	5.76% per annum over 5y
Schuele, Craig	Vice President of Marketing	11.58% per annum over 5y	5.76% per annum over 5y
Ferris, Gerald	Vice President of Global Sal	10.52% per annum over 5y	5.76% per annum over 5y
Patriacca, Todd	Chief Accounting Officer, Vi	N/M	N/M

Profitability	AIMC (LTM)	AIMC (5 years historical average)	Peers' Median (LTM)
Return on Capital (GAAP)	10.5%	7.95%	9.91%
Operating Margin	7%	5.49%	11.46%
Revenue/Capital (GAAP)	1.55	1.45	0.87
ROE (GAAP)	17.7%	13.1%	17.3%
Net margin	6.3%	4.7%	13.4%
Revenue/Book Value (GAAP)	2.81	2.79	1.29
Invested Funds	**AIMC (LTM)**	**AIMC (5 years historical average)**	**Peers' Median (LTM)**
Cash/Capital	8.5%	10.0%	9.2%
NWC/Capital	21.3%	27.7%	18.2%
Operating Assets/Capital	44.7%	44.9%	33.9%
Goodwill/Capital	25.4%	17.5%	38.6%
Capital Structure	**AIMC (LTM)**	**AIMC (5 years historical average)**	**Peers' Median (LTM)**
Total Debt/Market Capitalization	0.44	0.53	0.38
Cost of Existing Debt	3.3%	6.4%	3.6%
CGFS Rating (F-score, Z-score, and default Probability)	B	BB	A
WACC	8.9%	10.4%	8.4%





Porter's 5 forces (scores are out of 100)



Valuation

Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	16%	10.5%	1.04
9/30/2018	8%	8.0%	1.01
9/30/2019	4%	8.0%	1.03
9/30/2020	1%	8.5%	1.10
9/30/2021	1%	9.0%	1.19
9/30/2022	1%	9.5%	1.30
9/30/2023	1%	10.0%	1.42
9/30/2024	2%	15.1%	1.58
9/30/2025	2%	15.6%	1.60
9/30/2026	2%	16.1%	1.62
9/30/2027	2%	16.6%	1.65
Continuing Period	2%	17.2%	1.69

Period	Return on Invested Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	11.0%	8.9%	$52.35
9/30/2018	8.1%	9.5%	$60.56
9/30/2019	8.2%	9.2%	$67.56
9/30/2020	9.3%	9.0%	$74.70
9/30/2021	10.7%	9.1%	$82.02
9/30/2022	12.3%	8.9%	$89.33
9/30/2023	14.2%	8.9%	$96.76
9/30/2024	23.8%	9.0%	$104.30
9/30/2025	24.9%	8.8%	$111.80
9/30/2026	26.1%	8.8%	$119.39
9/30/2027	27.5%	8.9%	$127.06
Continuing Period	29.0%	8.9%	

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BJORKLUND FUND

October 26th, 2017

Company Name: TTD

Kevin Boland

Sector: Advertising
Industry: Technology
Current Price: $62.57
Target Price: $75.98

Company Description: The Trade Desk is an advertising technology company that provides buyers with the tools and support to create, manage and optimize data-driven digital advertising campaigns. The company uses a self-service cloud base platform that offers improvements surrounding effectiveness, efficiency and reporting of advertising. By providing these key statistics, The Trade Desk is able to monetize advertising spend more effectively for advertising buyers.

BUY

Current Price:	$62.57
Target Price:	$75.98
Market Cap:	2.55B
ROIC:	18.6%
WACC:	9.31%
EBITDA Margin:	25.5%
D/E:	.14

Catalysts:

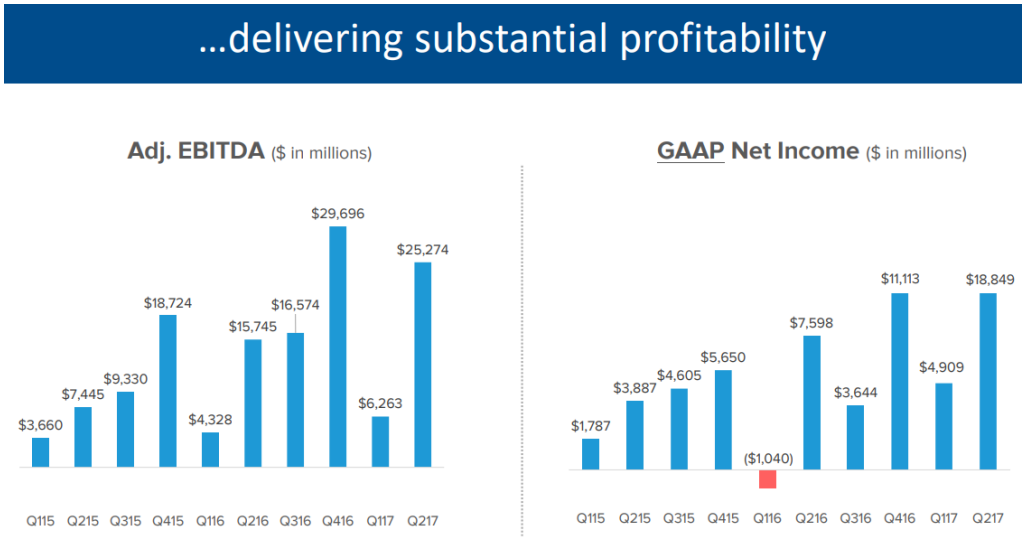
- **Short Term (within the year):** Q3 2017 Earnings combined with customer loyalty and increased spending
- **Mid Term (1-2 years):** Extension of reach in Television and focus on growth of Connected TV
- **Long Term (3+):** Continued expansion into international markets and an effective business model

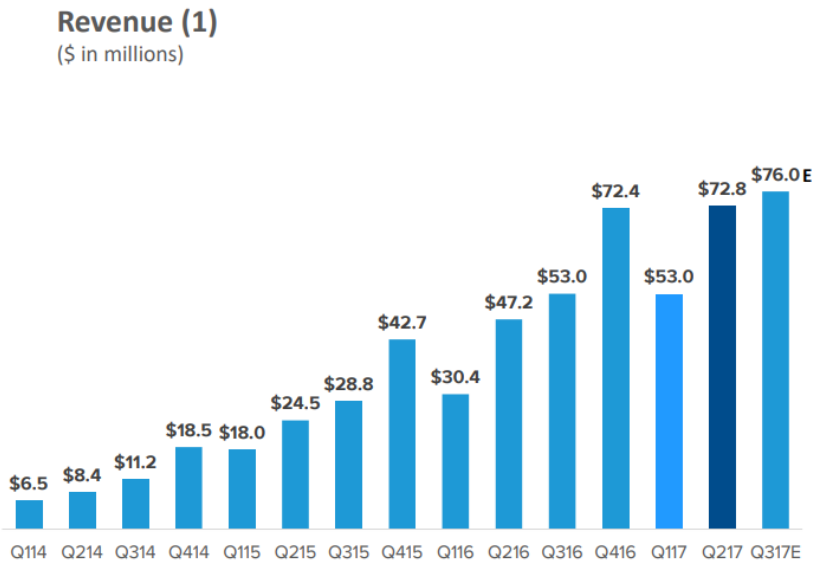
Thesis:

The Trade Desk is a relatively new company that has experienced tremendous growth over the past few years. The $650 million advertising industry is in need of a product that can eliminate unnecessary spending and provide a better representation of what works for a specific company in their marketing efforts. The Trade Desk's technology platform has demonstrated the ability to be this product. Clients of the company have shown their satisfaction through a high retention rate and continued spending on the platform. The Trade Desk is also positioned to profit off of the shift from traditional TV to Connected TV. The Connected TV channel is seen as a better and faster growing alternative. With the continued efforts in opening sales offices internationally, The Trade Desk will be more diversified and will have a better market share of this massive $650 billion industry.

Earnings Performance:

In Q2 2017, The Trade Desk increased revenues by 54% year-over-year to an all-time quarterly high of $72.8 million. Adjusted EBITDA increased by 60% year-over-year to $25 million. This figure translates to an EBITDA margin of 35%, which exceeded the company's own expectations. Net income, increased by 148% year-over-year to an all-time quarterly high of $18.8 million. This increase also came at a time where the company was aggressively investing back into the business in areas of critical future growth. These staggering increases in revenues and relating figures can be attributed to a number of factors. For one, The Trade Desk was able to maintain their 95% customer retention rate for the 14th straight quarter. This speaks to the quality of the product as well as the loyalty of the customers. Another catalyst in revenue growth is the increased international growth. In Q2 2017, every single international office set all-time records in sales. Aside from revenue, operating expenses have scaled efficiently with the recent growth of the business. Increases in operating expenses are mainly due to increased investments in personnel, technology and development of other future plans. Looking ahead to next quarter,

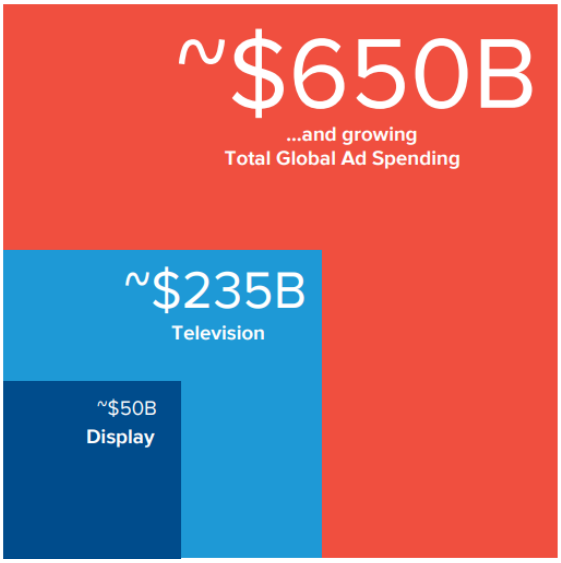


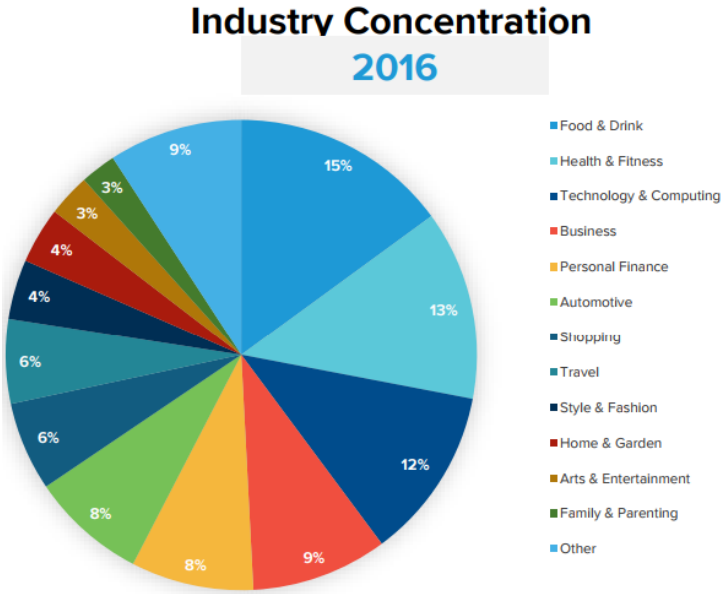


The Trade Desk expects revenues to increase to $76 million and adjusted EBITDA to be $21 million or 27.6% of revenue. For the whole year, revenue is expected to be $303 million and adjusted EBITDA to be $88 million or 29% of revenue. Using the company's expectations combined with first and second quarter results, revenues in Q4 2017 should reach $101.2 million. This is seasonally their best quarter and would represent a 137% increase year-over year.

Industry Outlook:

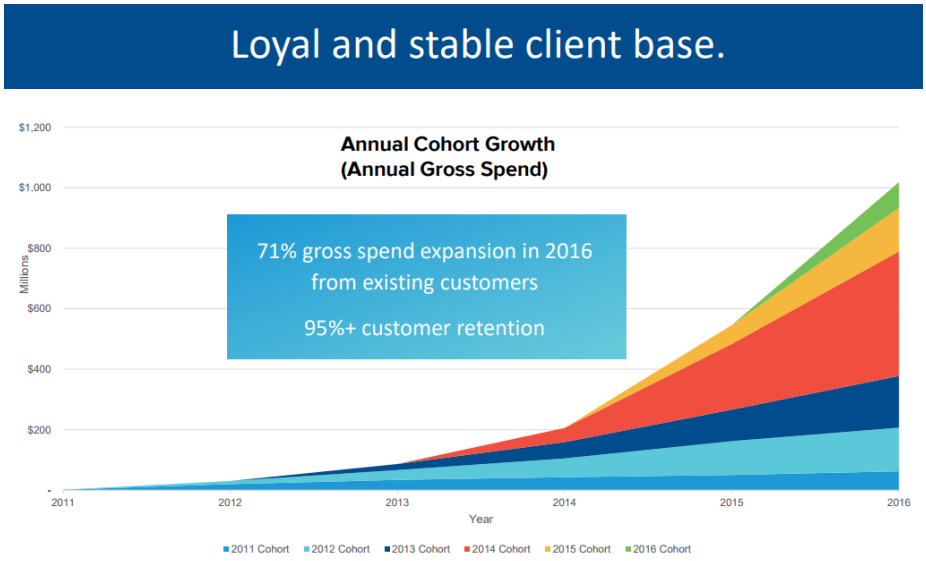
The Trade Desk is positioned in two industry's that have shown growth over the years and point to signs of future growth as well. Technology is in high demand at the moment and that does not change for the $650 billion advertising industry. A lot of money is being spent in advertising and companies must use it effectively in order to make this spending profitable. The rise of the internet has led to wholesale changes in the way media is consumed and monetized. Companies are seeking technology products, such as The Trade Desk, to make better sense of what works in their advertising and how spending can be better utilized. While the Trade Desk management recognizes that there will be fewer advertisements in the future, there will also be more relevant advertisements in order to eliminate wasted spending. This bodes well for The Trade Desk and its customers. By 2020 advertising spending is expected to grow to $767.1 billion, with a large percentage of that stemming from digital advertising. While there has been and will continue to be wholesale shifts in advertising, the demand for advertising has not waivered as companies need a way to promote their product and increase sales.





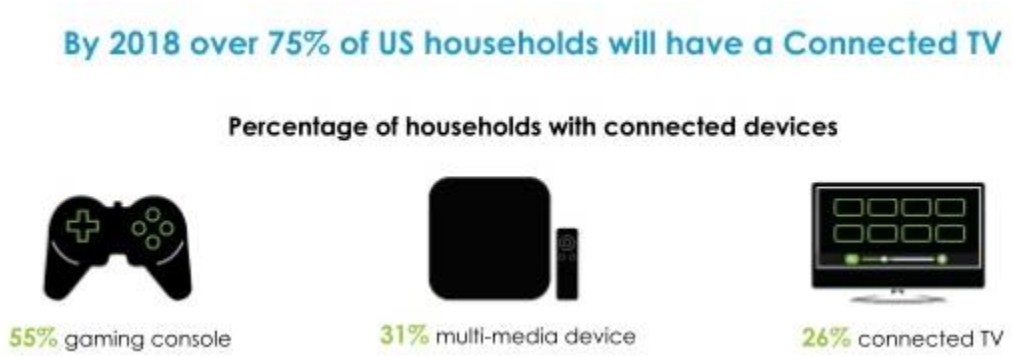
Customer Base:

The Trade Desk has approximately 566 clients from some of the world's largest advertising agencies. One of the most impressive figures of the Q2 2017 earnings call was the 95% customer retention rate for the 14th straight quarter. This shows a consistent customer loyalty and product satisfaction level that can be maintained for years. Management credits the engineering and business teams syncing together in order to build more trust with clients. Because of this loyalty, The Trade Desk will most likely be consistent with their revenues as they have a solid base to work around. Over time, these clients grow their use of the platform. Customers from 2015 increased their spending on the platform by 71% in 2016. The Trade Desk see's upward spending from clients in areas banking, communications, food and beverage, automotive and consumer electronics. Customers also are using the platform more daily, as daily usage by 75% as compared to a year ago. At the moment, The Trade Desk is protected in sales thanks to their client base which gives room for further investment in the company.



Television Advertising:

The Trade Desk sees TV as the greatest opportunity in the upcoming years. Television is the largest channel of advertising spending at $235 billion. However, recent trends have shown a shift from traditional cable to Connected TV. Traditional cable TV is losing millions of subscribers every year to streaming, and more than half of people in their 20's have never even paid a cable bill. More advertisements are being shown to fewer people at a higher price than ever for Traditional TV. Connected TV is basically the fusion of television and the web, where people can stream different shows, use the internet and play games all from their TV. 64% of people in the U.S. own a Connected TV and a large percentage of that comes from younger people. For The Trade Desk, Connected TV spending on their platform has increased by just under 200% year-over-year. Management firmly believes that this number will continue to rise as traditional TV viewing decreases more in the future. They also believe they are better positioned than any of their competitors to take advantage in this shift, due to their early and continued investments in this channel.

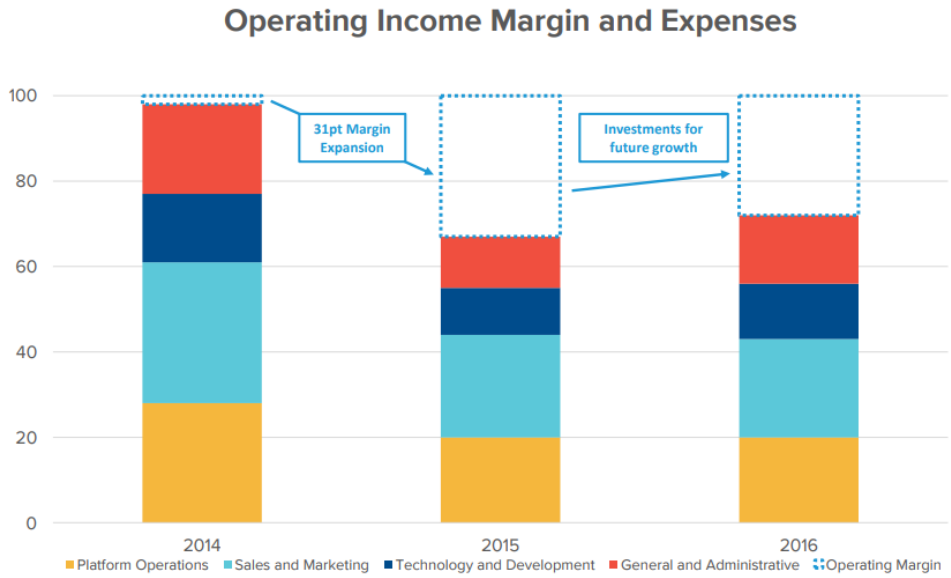


International Expansion:

The Trade Desk has a proven loyal customer base within the United States. In order to capture a larger market, they have begun to open international sales offices. Advertising is a global need that exists for every company regardless of geographic location. The Trade Desk sees international expansion as a tremendous opportunity to penetrate massive markets that have the need for their product. They currently have 20 offices worldwide, with 11 being international. They have specifically targeted major media markets such as London, Singapore, Hamburg, Tokyo and Hong Kong. Countries like Indonesia are relatively untapped markets that have potential for massive opportunities, as they are nearly similar in population to the U.S. The Trade Desk captures market share by investing ahead, building trust and demonstrating advertisement value. This specific, targeted approach has produced excellent results so far. In Q2 2017, the year-over-year quarterly growth for international offices was 130%. While it takes time to reach maturity in these offices, older offices such as Hamburg and Tokyo broke out of the adoption phase and grew by 150% and 300% respectively. Across the board, all international offices had record quarters. These metrics are the reason why management has allocated capital internationally. About two-thirds of advertising spending comes from outside of the U.S. The Trade Desk will continue to follow this spending by growing and maturing their international presence.

Business Model:

The Trade Desk's business model is something that management takes great pride in and place tremendous focus on. They believe that there does not need to be a choice between growth and profitability. Over the past three years, they have increased both growth and profitability. As seen in the chart below, EBITDA Margin is currently near the top of their competitors at 30.22%. During this time, operating spending was increased by over $20 million. This means that their investment was up 65% over the previous year. Management sees this as a great position of strength as they are investing as aggressively as they can and still producing a top of the industry EBITDA margin.



	Name (BICS Best Fit)	Sales Growth Yoy (%)	EBITDA Margin (%)	Sales ($M)	GAAP EBITDA ($M)	ROIC	WACC	EVA ($M)	Operating Margin (%)
	Median	3.06%	14.46%	940.05M	183.03M	15.50%	7.71%	10.39	12.49%
100)	TRADE DESK INC/THE -C...	78.26%	30.22%	202.93M	61.32M	18.60%	9.31%	20.93	28.34%
101)	SHUTTERSTOCK INC	16.27%	13.30%	494.32M	65.73M	10.84%	11.03%	-0.51	9.26%
102)	ABV CONSULTING INC	--	-3476.15%	2.00k	-69.52k	81.59%	9.40%	-0.14	-3476.15%
103)	MDC PARTNERS INC-A	4.49%	11.09%	1.39B	153.66M	4.25%	8.31%	-26.45	7.74%
104)	NATIONAL CINEMEDIA INC	0.25%	47.45%	447.60M	212.40M	18.88%	5.83%	97.79	39.45%
105)	INTERPUBLIC GROUP OF ...	3.06%	14.00%	7.85B	1.10B	15.16%	7.11%	356.17	11.95%
106)	OMNICOM GROUP	1.87%	14.93%	15.42B	2.30B	15.84%	7.00%	797.62	13.03%
107)	OUTFRONT MEDIA INC	0.01%	28.38%	1.51B	429.70M	6.14%	7.07%	-32.28	13.57%

Conclusion:

The Trade Desk will continue to provide the advertising industry with the technology necessary to better understand their spending. With large industry wide shifts in advertising, comes great opportunity. By investing in Connected TV and expanding their international presence, The Trade Desk is positioned to grow with these changes. The Trade Desk is ahead of the curve in these areas and will continue to act on trends through innovation and investment. With the help of strong EBITDA margins and a loyal customer base, The Trade Desk will outperform their competitors and grow accordingly.

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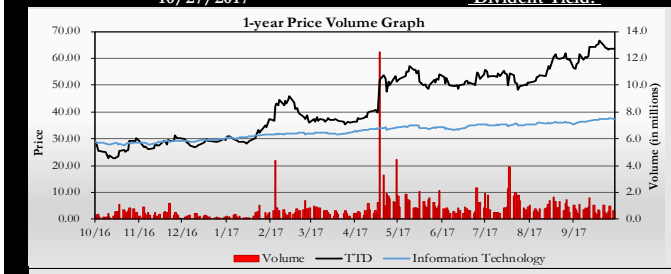
The Trade Desk, Inc. (TTD)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Kevin Boland	Current Price:	$63.31	Intrinsic Value	$65.63	Target 1 year Return: 20.01%
10/27/2017	Divident Yield:	0.0%	Target Price	$75.98	Probability of Price Increase: 98.5%



Description

The Trade Desk, Inc., a technology company, operates a self-service cloud-based platform that enables advertising buyers to create, manage, and optimize data-driven digital advertising campaigns using their own teams in the United States and internationally.

General Information

Sector	Information Technology
Industry	Internet Software and Services
Last Guidance	November 3, 2015
Next earnings date	November 10, 2017
Estimated Country Risk Premium	7.57%
Effective Tax rate	24%
Effective Operating Tax rate	24%

Market Data

Market Capitalization	$2,581.86
Daily volume (mil)	0.52
Shares outstanding (mil)	40.78
Diluted shares outstanding (mil)	34.72
% shares held by institutions	81%
% shares held by investments Managers	50%
% shares held by hedge funds	9%
% shares held by insiders	20.37%
Short interest	9.69%
Days to cover short interest	4.06
52 week high	$67.30
52-week low	$22.00
Volatility	0.00%

Past Earning Surprises

Quarter ending	Revenue	EBITDA
6/30/2016	N/A	N/A
9/30/2016	0.68%	11.18%
12/31/2016	16.23%	24.55%
3/31/2017	21.25%	242.90%
6/30/2017	2.87%	30.43%
Mean	10.26%	77.26%
Standard error	5.0%	55.4%

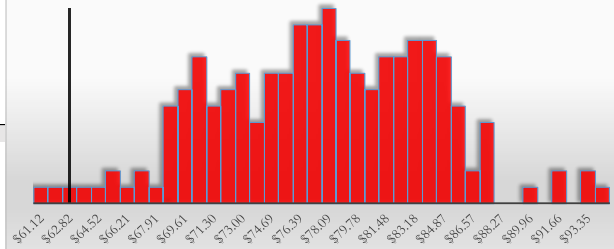
Peers

TrueCar, Inc.
Alphabet Inc.
MuleSoft, Inc.
Benefitfocus, Inc.
2U, Inc.
New Relic, Inc.
Yelp Inc.
Shutterstock, Inc.

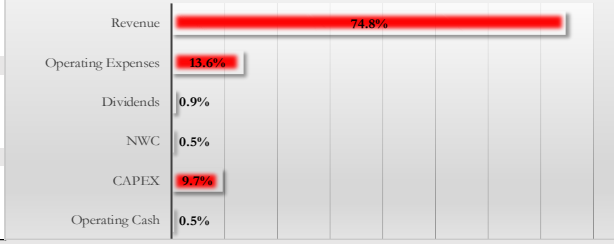
Management	Position	Total compensations growth	Total return to shareholders
Green, Jeffrey	Co-Founder, Chairman, Presid	317.53% per annum over 1y	N/M
Ross, Paul	Chief Financial & Accounting	234.1% per annum over 1y	N/M
Perdue, Robert	COO & Director	246.23% per annum over 1y	N/M
Stempeck, Brian	Chief Client Officer	244.62% per annum over 1y	N/M
Pickles, David	Founder & CTO	N/M	N/M
Blacker, Mike	Vice President of Strategic	N/M	N/M

Profitability	TTD (LTM)	TTD (3 years historical average)	Peers' Median (LTM)
Return on Capital (GAAP)	59.7%	28.22%	14.40%
Operating Margin	24%	17.81%	6.40%
Revenue/Capital (GAAP)	2.44	1.58	2.25
ROE (GAAP)	52.4%	203.8%	9.2%
Net margin	24.4%	20.4%	7.5%
Revenue/Book Value (GAAP)	2.14	10.00	1.24
Invested Funds	**TTD (LTM)**	**TTD (3 years historical average)**	**Peers' Median (LTM)**
Cash/Capital	48.4%	29.0%	59.3%
NWC/Capital	26.2%	1.5%	-15.7%
Operating Assets/Capital	25.5%	67.9%	49.0%
Goodwill/Capital	0.0%	0.0%	7.4%
Capital Structure	**TTD (LTM)**	**TTD (3 years historical average)**	**Peers' Median (LTM)**
Total Debt/Market Capitalization	0.15	0.09	0.11
Cost of Existing Debt	6.0%	6.1%	5.9%
CGFS Rating (F-score, Z-score, and default Probability)	A	CC	A
WACC	13.3%	12.3%	12.2%

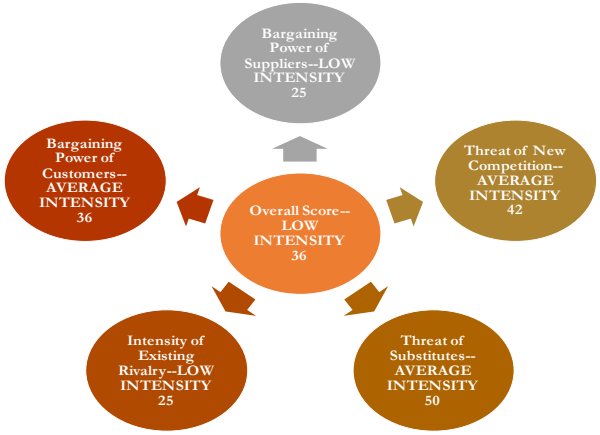
Intrinsic Value Distribution--Probability



Sensitivity Attribution Analysis



Porter's 5 forces (scores are out of 100)



Valuation

Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	69%	33.2%	1.08
6/30/2018	40%	37.9%	1.02
6/30/2019	31%	39.6%	1.02
6/30/2020	24%	41.0%	1.01
6/30/2021	20%	42.3%	1.01
6/30/2022	19%	43.6%	1.04
6/30/2023	17%	43.9%	1.07
6/30/2024	16%	43.6%	1.09
6/30/2025	10%	39.5%	1.09
6/30/2026	7%	35.1%	1.09
6/30/2027	6%	34.6%	1.10
Continuing Period	3%	34.3%	1.10

Period	Return on Invested Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	35.9%	13.3%	$63.62
6/30/2018	38.6%	12.7%	$73.80
6/30/2019	40.3%	12.7%	$84.29
6/30/2020	41.3%	12.5%	$95.63
6/30/2021	42.8%	12.4%	$107.73
6/30/2022	45.3%	12.3%	$120.54
6/30/2023	46.8%	12.2%	$133.95
6/30/2024	47.6%	12.5%	$148.17
6/30/2025	42.9%	12.8%	$163.03
6/30/2026	38.2%	12.5%	$177.71
6/30/2027	38.2%	12.5%	$192.53
Continuing Period	37.8%	12.5%	

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BJORKLUND FUND

October, 27, 2017

Company Name: FEYE

Niall McGeever

Sector: Technology
Industry: Application Software
Current Price: $16.53
Target Price: $20.03

Company Description: FireEye, Inc. provides malware protection systems and network threat prevention solutions. FireEye offers web, email and file security in addition to malware analysis. FireEye primarily serves customers in the Unites States, Europe, the Middle East and the Asia-Pacific region.

BUY/HOLD/SELL

Current Price:	$16.53
Target Price:	$20.03
Market Cap:	3B
WACC:	11.81%
ROIC:	-27.78%
EBITDA 1-year growth:	17.86%

Catalysts:

- Short Term (within the year): Reduction operating costs and the increase in operating margins Clients adopting the Helix platform
- Mid Term (1-2 years): The continued growth and adoption of the Helix platform
- Long Term (3+): The increase in demand for cybersecurity

Source: Bloomberg

Thesis:

FireEye will continue to increase their revenue with an expanded number of customers and product offerings. FireEye will continue to add new customers through their trial program. FireEye has continued to reduce their operating expenses, which has increased their operating margins. FireEye is positioned for growth in an industry that is expected to grow in the 8-10% range until 2021. The implementation of Helix will separate FireEye from any other cybersecurity company. The new product implementations that FireEye has introduced will meet the increased demands of cybersecurity, thus driving up the stock price in the short and long term.

Earnings Performance:

FireEye earnings performance has been generally good. To highlight the positives, their adjusted earnings per share, adjusted net income and EBITDA have beat on all eight of the last quarters. The main problem with earnings for FireEye is that they have missed on their revenue in five of their last eight periods. However, in the last two reporting quarters FireEye has beat forecasted revenue. In Q2 2017, FireEye reported revenues of $185.5 million, which beat forecasts by $9.07 million. The increase in revenue is partially due to an increase of 31% in the product revenue segment. Product sales continued to grow among new and repeat customers. Product subscription increased 13% YoY and mandiant professional services grew 19% YoY. This shows that FireEye is trending upwards when it comes to beating expected earnings. Revenue growth is dependent on the successful adoption of new security products offered by FireEye.

	2014	2015	2016	2017	2018	2019
Q1 Mar	73.98M	125.37M	167.97M	173.74M	187.79M	204.00M
Q2 Jun	94.49M	147.21M	175.04M	185.47M	196.95M	211.00M
Q3 Sep	114.21M	165.62M	186.41M	186.42M	203.88M	217.00M
Q4 Dec	142.98M	184.77M	184.70M	195.88M	215.00M	224.00M
Year	425.66M	622.97M	714.11M	741.85M	805.77M	866.56M
Cal Yr	425.66M	622.97M	714.11M	741.85M	805.77M	866.56M

(Fiscal Period: Reported, Estimated)

	Measure	Q3/17 Est	4Wk Chg	YoY Gr	Growth vs Comps	Past Surprise
11)	EPS, Adj+	-0.068	-0.54%	62.0%	Stronger	Beat 8 of 8
12)	EPS, GAAP	-0.406	0.00%	45.8%	Stronger	Beat 6 of 8
13)	Revenue	186.417M	-0.04%	0.0%	Weaker	Missed 5 of 8
14)	Net Income, Adj+	-12.322M	-0.14%	58.1%	Stronger	Beat 8 of 8
15)	Operating Profit	-8.642M	-0.85%	--	--	--
16)	EBITDA	17.450M	-0.57%	482.2%	Stronger	Beat 8 of 8

Source: Bloomberg

Industry Outlook:

The global cybersecurity market is expected to be worth more than $120 billion in 2017. This represents growth of 35 times since 2014. Cybersecurity Ventures predicts that global cybersecurity spending will exceed $1 trillion from 2017 to 2021. With new cyber breaches coming out all the time, the cybersecurity industry will continue to grow as the e-commerce business increases. Industry analysts project that cybersecurity market growth will be in the 8 to 10 percent range which is what FireEye predicts there revenue to grow by. Many corporations are increasing their security budgets because a cyber-attack is extremely damaging for their

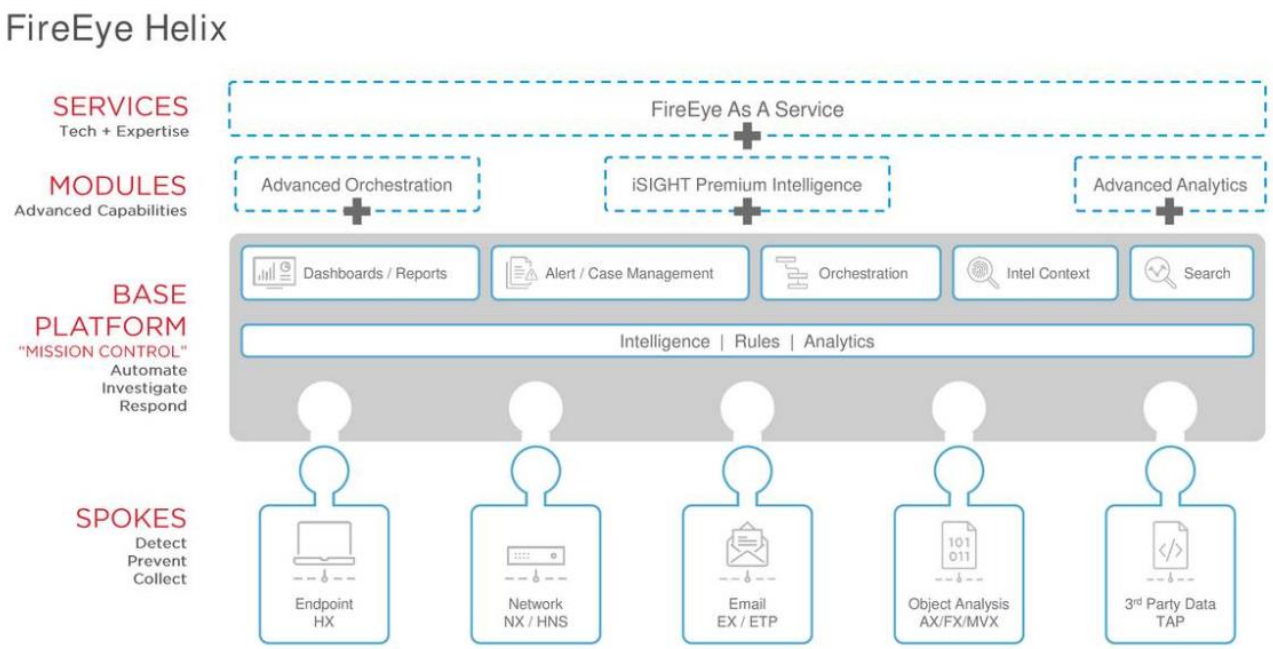
reputation and credibility. Most companies only spend about 3% of their capital expenditures on IT security. The Hiscox Cyber Readiness Report 2017, found that 53 percent of companies in the U.S., U.K. and Germany were ill prepared to deal with an attack compared to just 30 percent of companies that were rated "expert" in their cyber preparedness. This report shows that companies need to spend more of cybersecurity. Bank of America has an unlimited budget when it comes to cybersecurity spending. J.P. Morgan Chase has increased its cybersecurity budget from $250 million to $500 million. This shows a trend that more companies are willing to spend more on cybersecurity rather than risk a potential hack. Cybersecurity Ventures predicts cybercrime will cost businesses more than $6 trillion annually by 2021. In 2015, cybercrime was estimated to have cost $3 trillion globally. This shows that cybercrime is growing which means that the cybersecurity will have to grow as well to combat new threats.

>		1) YoY % Growth			2) PoP % Growth	
	2014	2015	2016	2017	2018	2019
Q1 Mar	--	69%	34%	3%	8%	9%
Q2 Jun	--	56%	19%	6%	6%	7%
Q3 Sep	168%	45%	13%	0%	9%	6%
Q4 Dec	150%	29%	0%	6%	10%	4%
Year	163%	46%	15%	4%	9%	8%
Cal Yr	163%	46%	15%	4%	9%	8%

Source: Bloomberg

Helix:

FireEye launched the Helix platform the last day of Q1 2017. Helix aims to transform security operations to the next-generation by helping to automate the process of dealing with alerts that are insignificant. Currently, advanced security operators have to manually filter out all alerts with no context and without prioritization. Helix consolidates alerts throughout the company into one dashboard and enhances the data with the knowledge of FireEye employees. Helix continues to benefit from the information it receives from potential breaches to create heuristics, machine-learning models, specific roles, dynamic inspection, analytics and threat context, which leads to better protected customers and employees that are more productive. Dozens of patents protect the helix technology, which means that it will be difficult for competitors to rival this technology. In the last earnings call, 10 more customers bought the full Helix bundle, which is extremely lucrative to FireEye. Five of the new customers of Helix were international and five were from different industries. This shows that the Helix technology has the ability to serve a diverse customer base. FireEye saw more than $2 of additional product and subscription pull-through for every $1 spent on Helix. Helix will become even more valuable as more customers start to turn to this technology. Helix enhances any security products that FireEye offers which leads to the sale of add-on modules. Currently there is one add-on, iSIGHT Premium Intelligence with two more planned for 2018. FireEye as a Service, FaaS, is an additional opportunity for FireEye to sell another product. FaaS offers tech help and expertise to clients. Six out of the ten new Helix customers have also bought Faas, which shows that the products mesh well together and there is a high possibility to cross-sell products in their product line-up. In addition to the current spokes seen in the diagram below, FireEye will create features such as encryption, archival and e-discovery. These features will help FireEye to compete in the full stack security market.



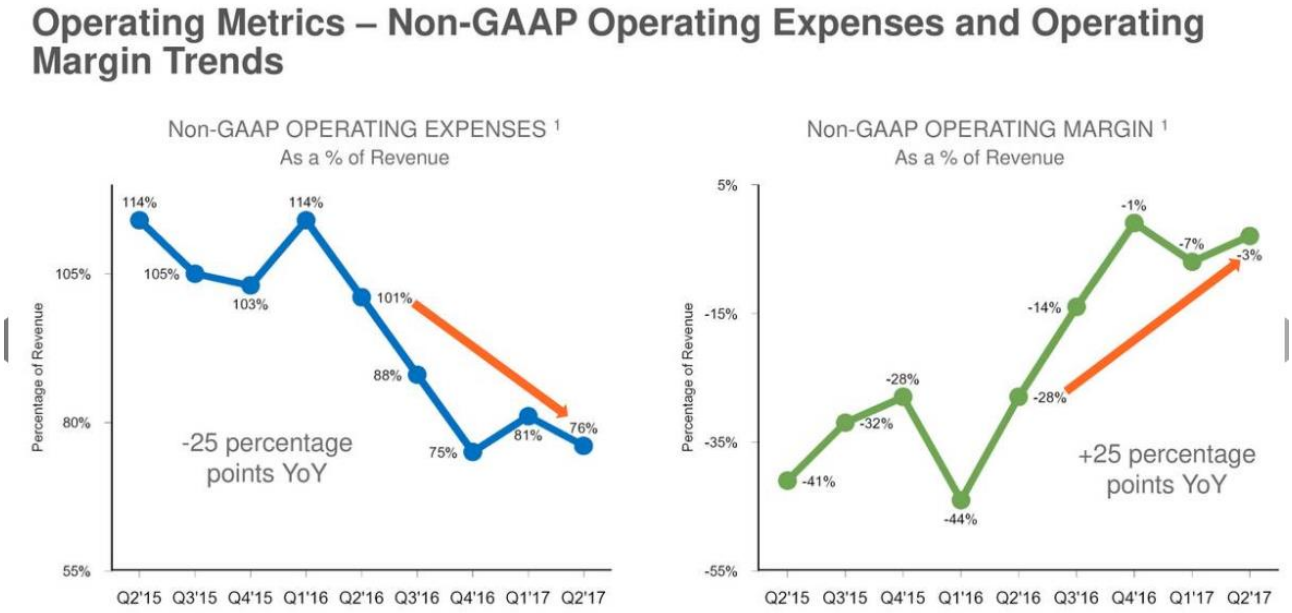
Source: FireEye Q2 Earnings Slides

Acquisition of iSIGHT and Invotas:

FireEye acquired iSIGHT in January 2016 with $192.8 million cash up front, incurred liabilities of 39.1 million and issued common stock valued at a fair value of $29.9 million for a total price of $261.8 million. Threat context from iSIGHT automatically enriches alert descriptions so that employees can better understand threat capabilities and potential impact. This allows employees to deal with higher-level threats first instead of having to go through all the threats without any order. This increases efficiency because the high-level threats are the ones that can be the most damaging to a company. In the second quarter earnings call, iSIGHT was a key inclusion for the closure of a $5 million plus deal. This shows that a large customer is recognizing the value that iSIGHT brings to the table. Once more businesses start to see the benefits of having iSIGHT than there will be more purchases in the $5 million range. FireEye acquired Invotas in February 2016 with $17.7 million cash up front and issued common stock valued at $11.1 million for a total price of $28.8 million. Invotas was a provider of security automation and orchestration technology. The acquisition of Invotas allows FireEye to deliver top caliber security orchestration to the global threat management program. As a result of this, cyber-attack detection results, threat intelligence and incident response elements will be unified into one console, which allows enterprises to respond faster to attacks through automation. This will allow for a more streamlined process of dealing with threats. This is vital in the cybersecurity sector because response time is vital in keeping the attack from spreading.

Operating Margins:

FireEye has significantly reduced their operating expenses and increased their operating margins. Their operating expenses have decreased 25% year over year. FireEye continues to execute on the strategy they have implemented which is signing deals that are financially beneficial to them. They have trimmed costs by reducing their workforce by 10% and consolidating real estate facilities. These two measures are expected to result in an annualized savings of $80 million. This shows that FireEye is committed to cost reduction and restructuring which helps them save on operating expenses. It is important that FireEye continues to do this so that they can eventually become profitable. FireEye increased their operating margins 25% year over year. They posted one of their best operating margins in Q2, which was -3%. This shows that FireEye is becoming more efficient with their spending and operations. With the continued increase in revenue and decrease in revenue, FireEye should have a positive operating margin in the next year.



Source: FireEye 10K

Repeat Customers:

As part of FireEye's sale strategy, they provide potential customers with trial runs of their products. These trial period ranges anywhere from one week to several months. It is done with the belief that potential customers will see the benefits of the products and become customers. As FireEye offers a large range of products and services it is imperative that they upsell and cross sell with customers. FireEye boats a renewal rate of approximately 90% that shows that most customers are satisfied with the services that they receive. It is important that FireEye continue to improve this so that they can attract new clients and retain current ones. With the expanded platform and services, FireEye is now able to offer this should not be a problem. The most notable cyber breach in recent news has been the Equifax scandal. The stock price of Equifax dropped 35% in the first week after it emerged that they were hacked. It took Equifax 141 days to realize that they had been breached when on average it takes 100 days to discover. Equifax hired FireEye response experts after

the incident to investigate the breach. This shows that major firms trust FireEye to investigate security breaches, which is beneficial because FireEye has the ability to gain them as a regular customer. This hack should also show other companies who were on the fence about allocating more money to cybersecurity that it is too costly not to.

FireEye vs Competitors:

FireEye has mixed ratios in their industry. One of their positive ratios is there 1-year earnings per share growth at 19.38%, which is well above the industry average of 1.37%. This shows that FireEye's profit is growing. There 1-year EBITDA growth is a healthy 17.86% compared to the industry average of -1.46%. The growth in EBITDA shows that the company is continuing to improve their operating performance. FireEye's one-year revenue growth is slightly below the industry average at a rate of 14.63%. This will increase with the customers renewing their current contracts with added services that FireEye has recently rolled out. FireEye's WACC is slightly above the median at 11.84%. FireEye's WACC will not deter them from investing in new projects. FireEye's one-year ROIC is -27.78% which is below the industry average. This will increase once Invotas and iSIGHT are fully implemented into FireEye.

	Name (BICS Best Fit)	Mkt Cap (USD)	Last Px	Rev - 1 Yr Gr:Y	EPS - 1 Yr Gr:Y	ROE	EBITDA 1Yr Growth:Y	WACC	ROIC:Y
	Median	3.03B	40.10	23.74%	1.37%	-7.49%	-1.46%	11.46%	-9.52%
100)	FIREEYE INC	3.03B	16.63	14.63%	19.38%	-36.50%	17.86%	11.84%	-27.78%
101)	PROOFPOINT INC	4.06B	90.69	41.48%	0.53%	-237.36%	-1.46%	12.63%	-19.33%
102)	LOGMEIN INC	6.44B	122.05	23.74%	-17.29%	3.97%	-12.87%	10.93%	7.73%
103)	PALO ALTO NETWORKS ...	13.69B	148.80	27.79%	2.21%	-23.13%	-4.80%	10.54%	-13.17%
104)	MIMECAST LTD	1.70B	30.42	31.53%	-25.07%	-9.20%	-81.04%	7.12%	-13.18%
105)	QUALYS INC	1.97B	52.60	20.48%	23.69%	15.02%	20.26%	12.64%	9.00%
106)	SYMANTEC CORP	19.58B	31.86	11.64%	-37.53%	1.44%	-43.50%	6.95%	3.66%
107)	IMPERVA INC	1.43B	42.20	12.87%	-20.72%	-11.56%	-43.73%	13.56%	-26.75%
108)	FORTINET INC	7.05B	40.10	26.37%	109.41%	8.21%	96.84%	11.46%	5.38%

Source: Bloomberg

Conclusion:

In conclusion, I am proposing a BUY for FireEye (FEYE). FireEye is well positioned in the cybersecurity industry with the new products that they have developed. FireEye has managed to increase its operating margins due to cost reductions and improved efficiency. FireEye continues to spend on new products to increase their foothold in the industry. A one-year target price of $20.03 can easily be achieved.

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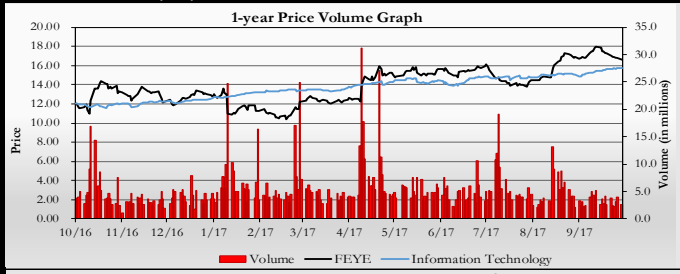
FireEye, Inc. (FEYE)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Niall McGeever	Current Price:	$16.53	Intrinsic Value	$17.56	Target 1 year Return: 21.19%
10/25/2017	Divident Yield:	0.0%	Target Price	$20.03	Probability of Price Increase: 98.5%



Description

FireEye, Inc. provides cybersecurity solutions that allow organizations to prepare for, prevent, respond to, and remediate cyber-attacks.

General Information

Sector	Information Technology
Industry	Software
Last Guidance	November 3, 2015
Next earnings date	November 1, 2017
Estimated Country Risk Premium	6.50%
Effective Tax rate	24%
Effective Operating Tax rate	24%

Market Data

Market Capitalization	$3,038.56
Daily volume (mil)	0.59
Shares outstanding (mil)	182.17
Diluted shares outstanding (mil)	170.23
% shares held by institutions	71%
% shares held by investments Managers	53%
% shares held by hedge funds	9%
% shares held by insiders	5.18%
Short interest	15.11%
Days to cover short interest	5.72
52 week high	$18.00
52-week low	$10.35
Volatility	0.00%

Past Earning Surprises

Quarter ending	Revenue	EBITDA
6/30/2016	-3.62%	-424.37%
9/30/2016	1.85%	-493.54%
12/31/2016	-3.28%	-400.81%
3/31/2017	6.35%	-411.10%
6/30/2017	5.18%	-439.90%
Mean	1.29%	-433.94%
Standard error	2.1%	16.3%

Peers

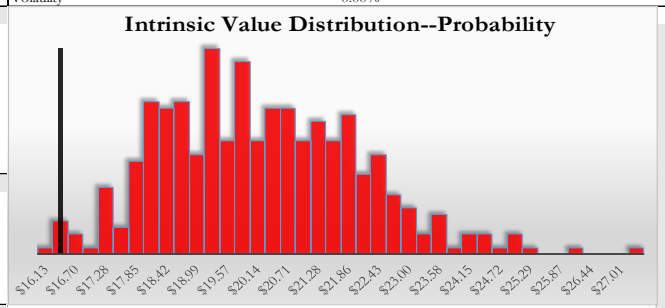
Fortinet, Inc.
Proofpoint, Inc.
SecureWorks Corp.
Palo Alto Networks, Inc.
Splunk Inc.
Tableau Software, Inc.
Barracuda Networks, Inc.
Symantec Corporation

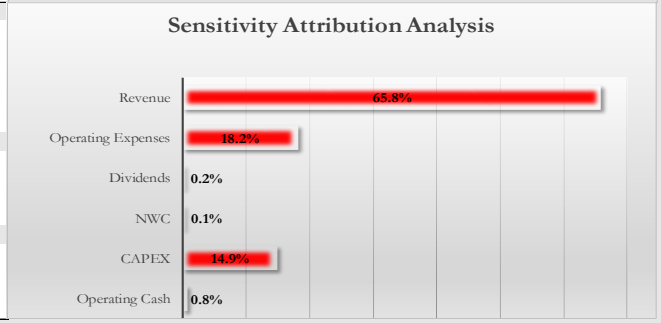
Management	Position	Total compensations growth	Total return to shareholders
Mandia, Kevin	Chief Executive Officer and	-19.89% per annum over 1y	-42.62% per annum over 1y
Reese, Travis	President	N/M	0% per annum over 0y
King, Alexa	Executive Vice President, Ge	39.18% per annum over 4y	N/M
Robbins, William	Executive Vice President of	N/M	0% per annum over 0y
Verdecanna, Frank	Chief Financial Officer, Chi	N/M	0% per annum over 0y
Summers, Grady	Chief Technology Officer and	N/M	N/M

Profitability	FEYE (LTM)	FEYE (5 years historical average)	Peers' Median (LTM)
Return on Capital (GAAP)	-2.5%	-17.88%	38.93%
Operating Margin	-4%	-27.57%	12.18%
Revenue/Capital (GAAP)	0.58	0.65	3.20
ROE (GAAP)			15.6%
Net margin			18.0%
Revenue/Book Value (GAAP)	#VALUE!	#VALUE!	0.87

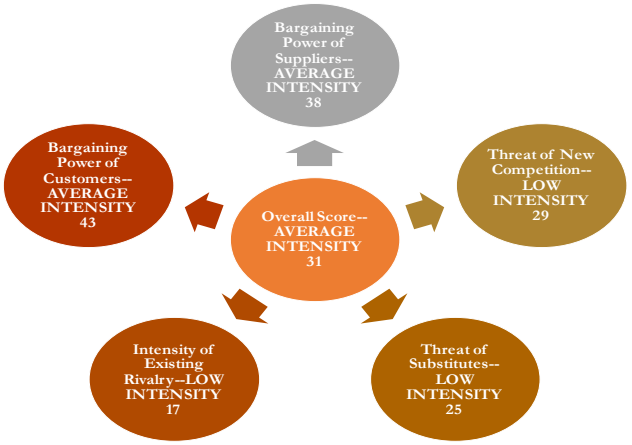
Invested Funds	FEYE (LTM)	FEYE (5 years historical average)	Peers' Median (LTM)
Cash/Capital	50.0%	62.1%	63.6%
NWC/Capital	-17.0%	0.3%	-32.8%
Operating Assets/Capital	17.9%	8.5%	48.0%
Goodwill/Capital	49.1%	40.6%	21.1%

Capital Structure	FEYE (LTM)	FEYE (5 years historical average)	Peers' Median (LTM)
Total Debt/Market Capitalization	0.41	0.02	0.20
Cost of Existing Debt	6.6%	6.5%	5.9%
CGFS Rating (F-score, Z-score, and default Probability)	CCC	D	BBB
WACC	10.8%	12.2%	12.1%





Porter's 5 forces (scores are out of 100)



Valuation

Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	5%	3.6%	0.43
6/30/2018	9%	6.5%	0.44
6/30/2019	8%	7.4%	0.45
6/30/2020	5%	9.6%	0.54
6/30/2021	8%	13.6%	0.66
6/30/2022	6%	15.3%	0.78
6/30/2023	2%	14.9%	0.90
6/30/2024	5%	29.3%	1.08
6/30/2025	5%	29.5%	1.07
6/30/2026	5%	29.6%	1.07
6/30/2027	2%	29.5%	1.04
Continuing Period	2%	29.4%	1.03

Period	Return on Invested Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	1.5%	10.8%	$16.76
6/30/2018	2.9%	6.4%	$19.25
6/30/2019	3.3%	9.5%	$21.71
6/30/2020	5.1%	9.6%	$24.20
6/30/2021	8.9%	9.5%	$26.71
6/30/2022	11.9%	9.4%	$29.27
6/30/2023	13.3%	9.6%	$31.87
6/30/2024	31.5%	9.6%	$34.43
6/30/2025	31.7%	9.5%	$36.97
6/30/2026	31.7%	9.7%	$39.51
6/30/2027	30.8%	9.8%	$42.09
Continuing Period	30.1%	9.9%	

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October, 27, 2017

Euronet Worldwide Inc.: EEFT

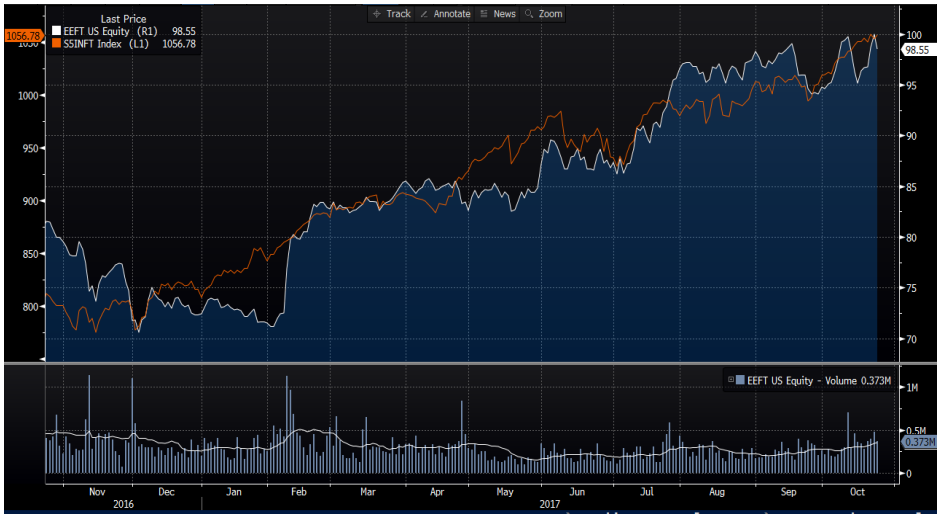
Connor Morelli

Sector: Information Technology
Industry: Software and Services
Current Price: $98.55
Target Price: $119.26

Euronet Worldwide is a global leader in providing electronic payment and transaction processing and distribution solutions to financial institutions, retailers, service providers, and individual consumers. Euronet operates in three distinct segments worldwide; Electronic Financial Transaction (EFT) Processing, epay, and Money Transfer. The EFT segment of Euronet provides electronic payment solutions, which include ATM cash withdrawal and payment services, point-of-sale (POS) management solutions and the issuance of credit and debit cards. The epay segment operates in the electronic distribution and processing of prepaid mobile airtime and other electronic payment products such as gift cards and vouchers. The Money Transfer segment provides consumer-to-consumer and account-to-account money transfer services, bill payment services and payment alternatives such as money orders and prepaid debit cards. This segment is also involved in foreign currency exchange and cash management and foreign currency risk management services.

BUY

Current Price:	$98.55
Target Price:	$118.72
Market Cap:	5.177B
EBITDA Margin	17.2%
WACC	11.0%
ROIC	28.3%
ROIC/WACC	2.57
Cost of Equity	12.1%
D/E Ratio	0.62
Volume	369,461



Catalysts:

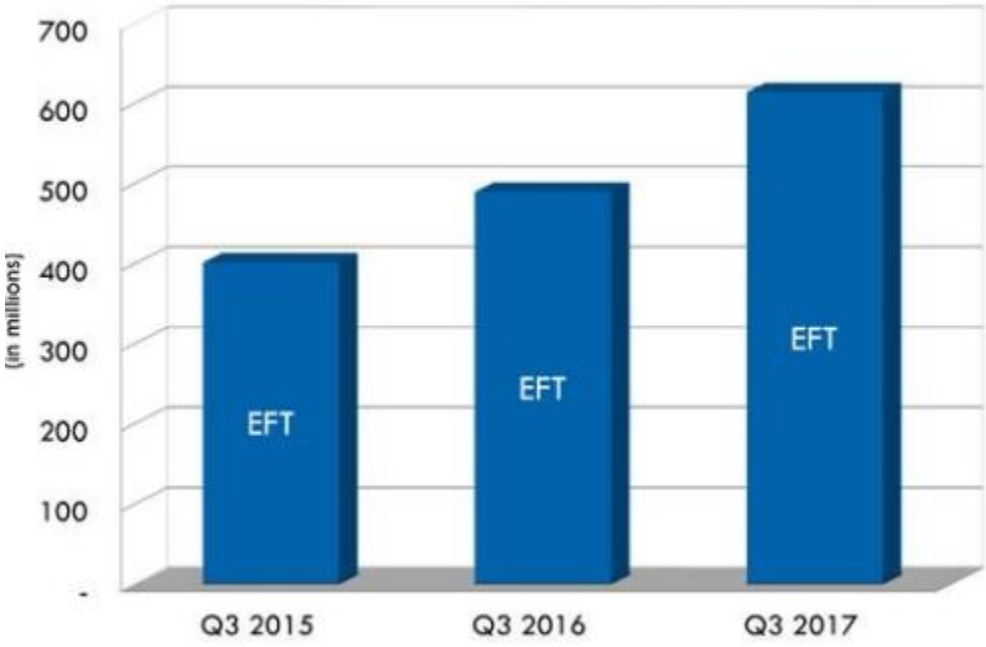
- Short Term (within the year): High demand in the EFT and epay segment during the 4Q due to the holiday season.
- Mid Term (1-2 years): Expansion of ATM and POS systems into higher margin regions such as Europe. Continued processing volume growth of the Money Transfer Segment. Expansion of recent acquisitions XE and HiFX into new markets.
- Long Term (3+): Continued business strategy of acquisitions to expand company's portfolio.

Euronet®
WORLDWIDE

Thesis: Euronet Worldwide is a global leader in electronic payment and processing solutions that serves a wide range of customers such as financial institutions, retailers, service providers, and the individual consumer. Euronet is poised to continue to expand their business portfolio of electronic payment and processing solutions both domestically and internationally through electronic financial transaction services, epay, and money transfer businesses. The expansion of ATM services and POS systems in emerging markets such as India along with the global trend of increasing electronic money transfer and transaction volumes will put Euro net in an exceptional position to gain market share in an increasingly globalized economy. Through managements continued strategy of acquisitions and expansion into high margin regions internationally, Euronet can expected to see continued growth into the near future.

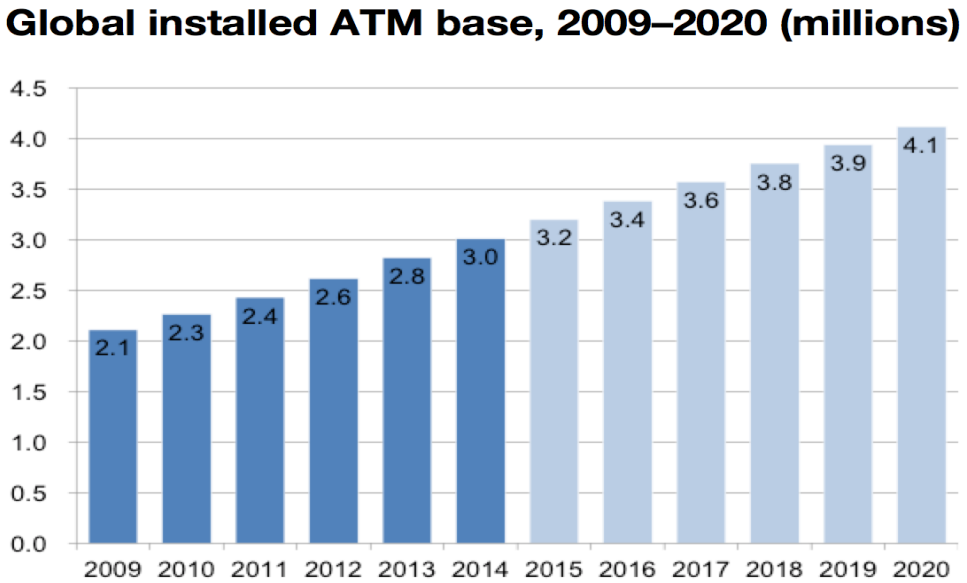
Third Quarter Earnings Performance:

Euronet Worldwide recently released their 3Q 2017 earnings on October 20. Euronet reported constant currency revenue of $638M, an increase of 21.71% from the prior year's period. Adjusted EBITDA for the 3Q 2017 was reported at $145M while adjusted operating income came to $117M for the quarter. This represented an increase of 28.12% and 29.23% respectively compared to the 3Q of FY 2016. Euronet's EFT segment reported a 26% increase in transactions due to the expansion of ATM networks in Europe and India. This increase also was impacted by the recent acquisition of YourCash in October 2016. The Money Transfer segment of Euronet saw transactions grow by 12% for the 3Q 2017. Money transfers in this segment grew by 13%, while non-money transfers grew 4%. The EFT segment reported currency revenue, operating income, and adjusted EBITDA growth at 40% for each measure. This increase was due to a 26% increase in transactions and a 30% year over year increase in physical ATMs. The epay segment of Euronet grew slower during the 3Q 2017 period due to a loss of a high volume, low margin costumer in the Middle East geographical region. Currency revenue increased 6% and operating income grew 1% for the epay segment. The growth of the epay segment was due to an increase in non-mobile product sales, which were offset by mobile declines. The Money Transfer segment of Euronet reported constant currency revenue growth of 10%. Double-digit revenue increases were the result of growth across RIA businesses, HiFX and the conversion of the xe business to the HiFX platform as well as the expansion of digital and physical networks internationally, primarily in India. Digital sourced transactions increased 37% year over year for the Money Transfer segment, which is indicative of management's continued focus on digital delivery and costumer preferences. The Money Transfer segment now reaches 332,000 locations in 146 countries, a 6% increase year over year. This graph shows the increase in EFT transactions year over year from the past three years.



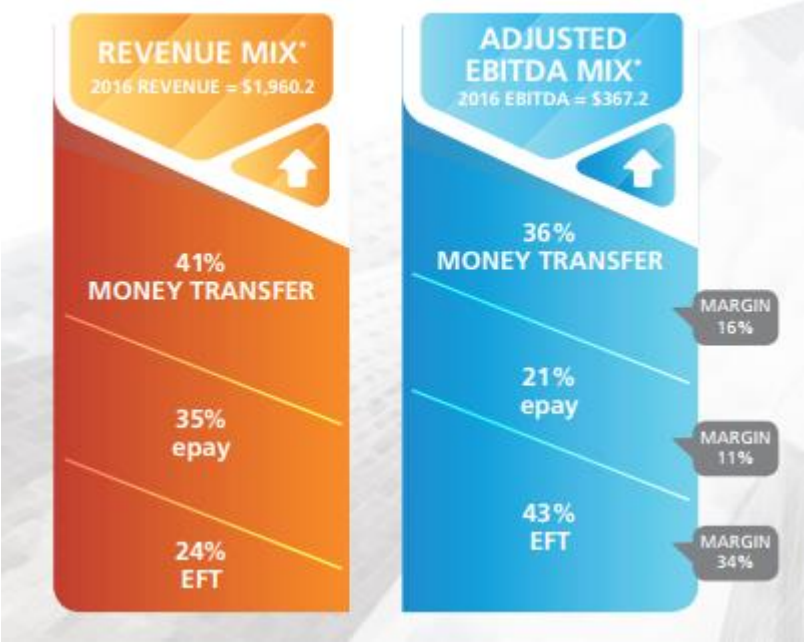
Industry Outlook:

The Information Technology sector is poised to continue to outperform the market and many other sectors as 2017 turns over to 2018. Companies have underinvested in technology upgrades over the past few years and are poised to upgrade their technology capabilities per Charles Schwab. Currently consumer confidence is at its highest level since 2001 according to a report issued by the Conference Board. This will give the technology sector support from businesses and the individual consumer, which Euronet having direct access to both lines of support. Euronet in particular operates in the software and services industry segment of the overall IT sector focusing on electronic and digital payment processing, a fast growing industry according to Business Insider. Within the digital and electronic payment industry, growth is accelerating at a pace at which payments are now faster, cheaper and more convenient for the modern business compared to tradition physical transferring of funds. According to McKinsey, electronic payment volume is expected to grow at CAGR of 7.3% over the next five years. Transactions via solutions such as integrated point of sale (POS) systems are expected to grow from 24 to 33% over the next five years as well. Currently, ATM penetration in emerging markets such as India, China, and other Eastern Asia countries is well below developed economies. This low penetration offers potential for ATM service providers such as Euronet to penetrate these markets. The growth in customer base, rise in R&D expenditures, and the increase in demand for ATM services will result in a steady pace of growth for this market. India, in particular, recently demonetized which has fueled the need for proper ATM services and management. By the 2020, the world ATM market is expected to see revenues of $21.9B at a CAGR of 7.7% over the next three years. Currently, the money transfer market is valued at $700B. The increased global mobility of consumers has resulted in the expansion of cross-border payment needs and the shifting away from traditional bank channels to more mobile and less expensive solutions. Traditional consumer remittance providers are expected to see mid to high single digit volume growth over the next five years while International Payment Specialists are expected to see strong double-digit growth over the same five-year period.



source: Global ATM Market and Forecasts to 2020 (RBR)

Segment Overview and Operations:



Currently, Euronet Worldwide operates in three distinct business segments. As previously stated, these segments are Electronic Financial Transaction (EFT) processing, epay, and Money Transfer. As of FY 2016, 72% of revenues come from currencies denominated in something other than the USD. The EFT processing segment provides comprehensive electronic payment solutions worldwide, which consist of ATM cash withdrawal and deposit services, ATM network participation and POS management solutions. This segment also is active in the outsourcing of credit and debit cards. This segment offers several value added services such as ATM and POS currency conversion, fraud management, bill payment, and foreign remittance payouts. These services are offered through Euronet owned ATMs and POS systems and under contracts. The major sources of revenue generated by the ATM network consist of recurring monthly management fees, transaction-based fees, and margins earned on currency conversion transactions. The geographical region that is primarily served by the EFT segment are the developing markets of Central and Easter Europe along with the developed economies of several Western European nations. As of 2016, the number of EFT processing transactions that occurred stood at 1.885 Billion. The EFT processing business sees its heaviest demand for cash withdrawals during the third quarter of the fiscal year. This trend is due to the coinciding tourist season in Europe. The fourth quarter has typically been strong for the EFT processing segment as well as the need for cash withdrawals increases due to the holiday season. The EFT processing segment represented 24% of total revenues for FY 2016. Total revenues for this segment for FY 2016 were $464.3M, an increase of 22% compared to the prior year. The average monthly revenue per ATM was $1,392 for 2016. Operating income for the EFT segment was reported at $117.2M, an increase of 24% over the prior year. Operating margin for this segment was 25.2%.

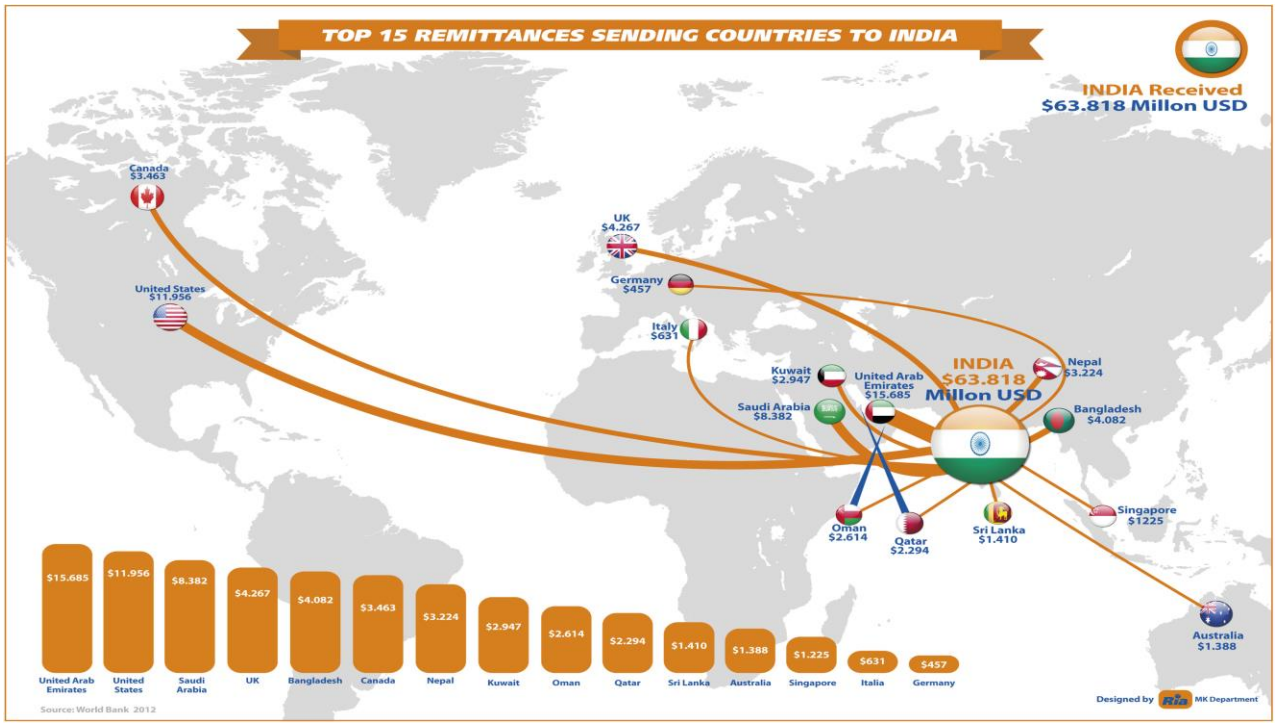
Euronet's epay segment offers prepaid mobile airtime top-up services and other prepaid and payment products on a network of 661,000 POS terminals across 305,000 retailer locations worldwide. In addition to prepaid mobile airtime services, the epay segment offers products across their retail networks such as prepaid debit cards, gift cards, vouchers, and prepaid digital content such as music, games, and software. Epay primarily earns revenues through commissions or processing fees from telecommunications service providers from the sale and distribution of prepaid mobile airtime and the distribution of prepaid payment product. The epay segment offers a full cash collection and settlement service and processes approximately $11B and 1.3B transactions annually. For FY 2016, total revenues for the epay segment were $694M, a decrease of 2% compared to the prior year. This decrease can be attributed to competitive pressures on prepaid mobile carriers. Total operating income for FY 2016 was $68.2M, an increase of 3% compared to FY 2015. Operating margins were reported at 9.8% for this segment. Significant customers of the epay segment include state owned lotteries as well as Florida's state run turnpike and Transurban Limited, the largest the manager of toll roads in Australia.

The Money Transfer segment provides global money transfer services under the brand names Ria, IME, XE, and HiFX. Ria and IME provide consumer to consumer money transfer services through a network of 317,000 locations and through their respective websites. Money transfer delivery was completed in 146 countries over FY 2016, through sending agents. Consumer money transfer occurs through brand retail agents, company owned stores, or online while the delivery of the funds occur with bank correspondents, retailer agents, or from ATMs. XE and HiFX are involved in global account-to-account money transfer services. XE also provides foreign currency exchange information and offers money transfer services on its currency data websites. Over the last five years, transactions processed on Euronet platforms has grown at CAGR of 28%. Many large retailers are involved in Euronet's money transfer network such as Walmart and several other smaller retailers, convenience stores, and multi-service shops. The Walmart-2-Walmart money transfer service allows customers to transfer money to and from Walmart stores throughout the United States. This contract allows Ria to be the only party through which Walmart will sell U.S domestic money transfers. Most of the Money Transfer segment are earned through the charging of a transaction fee, as well as a margin earned from purchasing foreign currency at wholesale exchange rates and selling at retail exchange rates. The Money Transfer segment processed approximately $33.3B in transfers in FY 2016. Total revenues for FY 2016 reached $801.9M, an increase of 17% from the prior year. These increases were due to the increase in volume of money transfers processed. The Walmart-2-Walmart money transfer service and overall organic growth accounted for a significant portion of total growth as well. Revenues per transaction were reported to be $9.74 for FY 2016. Total operating margin was $101.5M for FY 2016, an increase of 29% compared to FY 2015. Operating margins climbed to 12.7% compared to 11.5% in FY 2016. The acquisitions of XE and IME and the increased activity in the HiFX business contributed to revenue, operating income, and margin growth for FY 2016.

Growth Strategy and Drivers:

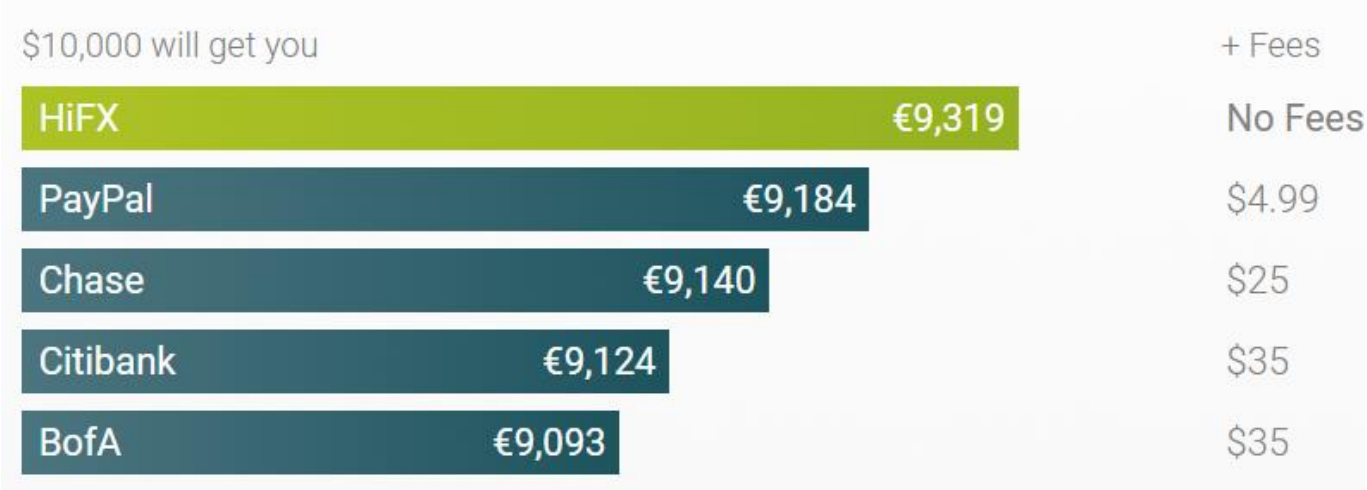
Management currently has outlined growth strategies for each business segment, and should these initiatives come to fruition and are successful, Euronet should be able to capitalize on its growth potential. The EFT segments current strategy is to continue to expand the network of ATMs and POS terminals into both developed and emerging markets. The trend for value added services has increased primarily in the small bank industry, as these smaller banks are looking for integrated ATM and POS solutions that will allow them to lower their own costs of transactions. Through Euronet's software and solutions, Euronet is well positioned to take advantage of this trend. Currently in the EFT segment 95% of ATMs operated by Euronet are Euronet owned machines. However, in India outsourcing contracts are much easier to acquire in conjunction with banks. Under these contracts Euronet ATMs are operated under the brand name of the bank and they carry half of the risk while Euronet still controls the transaction revenue. India represents an extremely large potential market. With outsourcing, the risk for Euronet is cut in half and there is no CAPEX while margin to the bottom line is typically around 95%.

Currently, the epay segment is operating at lower margins compared to EFT processing and Money Transfer. While mobile top up transactions are declining in many developed markets, the strategy of management in the epay segment is to focus on non-mobile products such as gift cards, prepaid debit cards, and the transport of digital content which includes music, software, and games. Non-mobile gross margins make up 58% of the total gross margins of the epay segment. This indicates that there is an active effort by management to shift to this segment of operations. By continuing this trend of moving away from the declining mobile business to non-mobile products, Euronet should expect to see the tightening of margins and increased profitability. For the 3Q 2017, the epay segment partnered with Microsoft and Xbox to launch the pre-order of FIFA 2018, one of the most popular sports based video games in the world. This agreement allowed the epay segment a portion of revenues associated with sale of the game. Epay also continues to expand the distribution of valuable software products. In Portugal, epay launched Microsoft Office and McAfee antivirus software and in Australia similar antivirus protection software was also launched. In India, epay enabled Google Pay recharge codes on ICICI Bank mobile apps and on the Yes Ban ATM network of ATMs. This was the first-time codes have been available through these methods in India. This diversification of the products and services in the epay segment, position it to expand globally through a number of markets.



The Money Transfer segment offers perhaps the most intriguing growth potential of Euronet's three segments. During the 3Q 2017 Money Transfer added 19 new correspondents in 17 countries. One of the strategic developments during the 3Q 2017 was the launch of remittances to Cuba. Euronet's Ria business is only the second major money transfer company to offer these services in Cuba. Cuba's remittance market is currently valued at $3.5B according to the Havana Consulting Group. Much of this market is concentrated in informal channels and due to Ria being a highly respected and reliable money transfer business, there is immense potential for Ria to break into this market. Money Transfer also formed relationships with two cash remittance payout services in India over the 3Q 2017. These agreements are poised to add 9000 additional locations in India. India's money transfer market is valued at $6B. Overtime management expects to continue

to expand into this market through the signing of agents and marketing initiatives. Thailand also offers the Money Transfer segment tremendous room to grow into an emerging market. Ria recently signed an agreement with the Government Savings Bank of Thailand which will add 1100 locations in Thailand. Currently, Thailand is a $6.3B receive market according to World Bank. Euronet is currently continuing to invest in digital growth strategies as well for the Money Transfer segment. During the 3Q 2017, Euronet launched MyRia, a mobile app that partners with Spanish supermarket chain Dia. Through this app, customers are able to transfer money between users on this apps platform and when at Dia grocery stores, customers are able to show a bar code to the cashier and money will be directly transferred to Dia. This agreement adds 2600 locations to Ria's Spanish network. Digital sourced transactions grew 37% year over year. This is primarily the result of investment and operating focus on digital delivery and customer experience. In the near future, Euronet expects to launch riamoneytransfer.com in the UK. Euronet is also looking at expanding this service to other countries over the next 12 months. xe has been able to convert four times as many new costumers to the HiFX platform, which will result in earnings growth over the next few quarter, coupled with the xe money transfer app, there is strong growth potential for the xe business as well. The continued strong growth in this segment will allow management to explore more direct money transfer agreements such as the Walmart-2-Walmart agreement.



Recent Acquisitions:

Euronet management has a long history of prioritizing acquisitions as growth strategy. For FY 2016, Operating Cash Flow and Free Cash Flow were reported to be the highest in the company's history at $368.2M and $280.8M respectively. The company also has excess cash and cash equivalents valued at $1.062B while total debt is $744M. This capital allocation gives Euronet the opportunity to continue to evaluate companies to add to their portfolio of businesses and services. The most recent acquisition by Euronet was the purchase of YourCash Europe Limited, a UK based ATM operator with approximately 5000 ATMs across the UK, Netherlands, Belgium, and Ireland. This acquisition provides Euronet with additional expertise in key Western European markets and access to retailers in the UK Euronet was previously not exposed to. Euronet purchased YourCash for $62.2M in cash. In 2015, Euronet made to significant acquisitions in the purchase of xe and IME. In July of 2015, Euronet completed the acquisition of all of the capital stock of xe Corporation. xe operates xe.com and x-rates.com websites, which provide currency related data and international payment services. The acquisition of xe gives Euronet a substantial presence in the

digital space where Euronet can offer their products through an internationally recognized brand in a cost effective manner. This acquisition cost Euronet $79.9M in cash as well as 642,912 shares of Euronet common stock. The second major acquisition made by Euronet in 2015 was the acquisition of IME. IME is a leading Malaysian-based money transfer provider that gives Euronet the opportunity to expand the Money Transfer Segment into Asian and Middle Eastern Send markets. Euronet purchased IME for $78.9M in cash along with 49,941 shares of Euronet common stock. These selected acquisitions are expected to contribute to the continued growth of Euronet's Money Transfer and EFT segments in markets that are currently underserved by Euronet.

Management Overview:

Euronet Worldwide was founded in 1994 in Budapest, Hungary as Bank Access 24 with the aim of establishing the first independent ATM network in Central and Eastern Europe. Euronet is now head quartered in Leawood, Kansas. Euronet was co-founded by Michael J. Brown and he has served as the CEO since the company's inception. The majority of the management of Euronet has been tenured for over ten years. This signals that shareholders of Euronet have been satisfied with the performance that the executive management team has been responsible for over the long term as no major core changes have occurred. Euronet recently hired two Executive VP's and CEO of specific segments. Kevin J. Caponecchi and Nikos Fountas were hired in December of 2014 as Executive VP and CEO of the epay segment and EFT Europe segments respectively. The EFT segment has grown substantially since Mr. Fountas hiring. The number of ATMs has increased by nearly 13,000 units under his tenure and year over year revenue, operating margin, and EBITDA margin have all increased by at least 25% year over year. Currently, Michael J. Brown is the highest salaried employee of Euronet whose annual compensation is $6,413,811, which in my opinion is warranted based on the company's performance since his tenure and compared to peers within the industry. The longevity of the executive management team signals the confidence shareholders have in management to continue to grow the business at rates either corresponding with market or greater than market growth rates. Over the course of the last several years, the acquisitions that have been made by management have been successful in contributing to the growth of the business. As long as management continues to find business that will aid in value creation, this strategy seems to be beneficial to the company and shows the competence of the management team.

	Name	Title	Board	Age	Tenure	Start
1)	Michael J Brown	Chairman/Pres/CEO/Co-Found...	✓	60 *	16.1	09/10/2001
2)	Rick L Weller	Exec VP/CFO		59 *	14.9	11/2002
3)	Juan C Bianchi	Exec VP/CEO:Money Transfer		46 *	10.5	04/2007
4)	Jeffrey B Newman	Exec VP/Secy/General Counsel		62 *	16.1	09/10/2001
5)	Kevin J Caponecchi	Exec VP & CEO:Epay Software		50 *	2.8	12/16/2014
6)	Nikos Fountas	Exec VP & CEO:EFT Europe		53 *	2.8	12/10/2014

Conclusion:

Based on current market conditions and the growth potential of Euronet into emerging markets across the globe, I believe Euronet is a buy. Euronet management has consistently shown that they are able to grow their business through numerous strategic acquisitions that provide value and diversity to the company's business portfolio. The EFT and Money Transfer markets are poised to continue their upwards growth potential over the next five years and I believe Euronets expansion into new markets and the signing of contracts with banks and other retailers in the money transfer market will push Euronets share price higher in the next one to two years. The digitization of payments and money transfers is expected to continue to dominate this market space. As Euronet shifts their solutions into this space, there is opportunity for continued growth of this company in all three of their operating segments.

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Euronet Worldwide, Inc. (EEFT)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

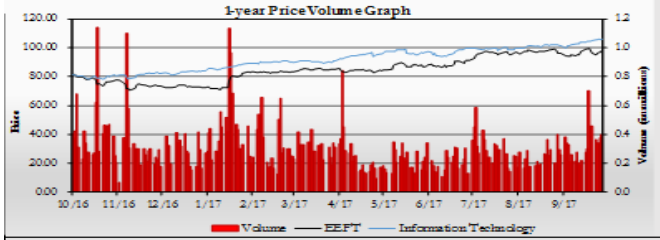
Analysis by Connor Morelli

10/27/2017

Current Price:	$98.55	Intrinsic Value	$119.51
Dividend Yield:	0.1%	Target Price	$119.26

Target 1 year Return: 21.11%

Probability of Price Increase: 96%



Description

Euronet Worldwide, Inc. provides payment and transaction processing and distribution solutions to financial institutions, retailers, service providers, and individual consumers worldwide.

General Information

Sector	Information Technology
Industry	IT Services
Last Guidance	November 3, 2015
Next earnings date	February 9, 2018
Estimated Country Risk Premium	5.85%
Effective Tax rate	24%
Effective Operating Tax rate	23%

Market Data

Market Capitalization	$5,177.20
Daily volume (mil)	0.37
Shares outstanding (mil)	52.53
Diluted shares outstanding (mil)	54.53
% shares held by institutions	84%
% shares held by investment Managers	93%
% shares held by hedge funds	5%
% shares held by insiders	4.40%
Short interest	3.70%
Days to cover short interest	6.51
52 week high	$101.07
52-week low	$70.51
Volatility	26.47%

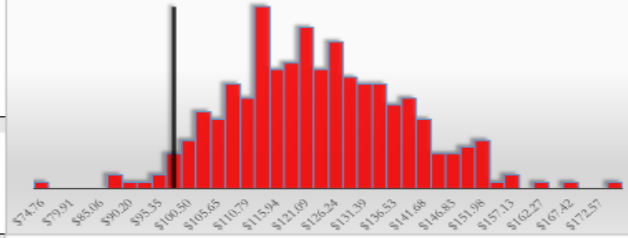
Past Earning Surprises

Quarter ending	Revenue	EBITDA
9/30/2016	-5.07%	-3.50%
12/31/2016	0.94%	-11.43%
3/31/2017	-0.13%	-14.62%
6/30/2017	3.40%	-10.44%
9/30/2017	3.34%	-4.51%
Mean	0.50%	-8.90%
Standard error	1.6%	2.1%

Peers

- DST Systems, Inc.
- Fiserv, Inc.
- Global Payments Inc.
- Jack Henry & Associates, Inc.
- MoneyGram International, Inc.
- The Western Union Company
- SS&C Technologies Holdings, Inc.
- Total System Services, Inc.

Intrinsic Value Distribution--Probability (Upside) = 96%



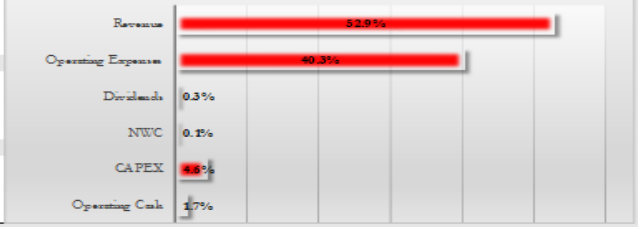
Management	Position	Total compensations growth	Total return to shareholders
Brown, Michael	Founder, Chairman, Chief Exe	10.98% per annum over 5y	9.29% per annum over 5y
Weller, Rick	Chief Financial Officer, Chi	6.23% per annum over 5y	9.29% per annum over 5y
Caponecchi, Kevin	Executive Vice President and	1.19% per annum over 5y	9.29% per annum over 5y
Eksioglu, Jim	Executive Vice President and	4.86% per annum over 4y	22.1% per annum over 4y
Fountas, Nikos	Executive Vice President and	6.07% per annum over 5y	9.29% per annum over 5y
Bruckner, Martin	Chief Technology Officer and	N/M	N/M

Profitability	EEFT (LTM)	EEFT (5 years historical average)	Peers' Median (LTM)
Return on Capital (GAAP)	28.3%	22.08%	22.81%
Operating Margin	10%	7.95%	16.99%
Revenue/Capital (GAAP)	2.81	2.78	1.34
ROE (GAAP)	23.2%	15.9%	14.9%
Net margin	9.6%	6.1%	9.4%
Revenue/Book Value (GAAP)	2.41	2.61	1.58

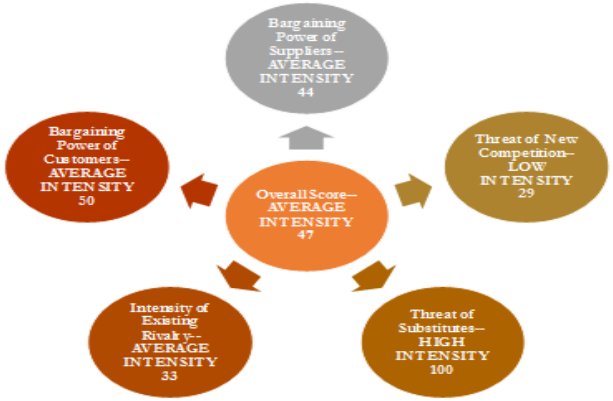
Invested Funds	EEFT (LTM)	EEFT (5 years historical average)	Peers' Median (LTM)
Cash/Capital	54.7%	30.8%	9.7%
NWC/Capital	-15.1%	-13.9%	33.2%
Operating Assets/Capital	60.4%	25.9%	-8.3%
Goodwill/Capital	0.0%	55.6%	65.3%

Capital Structure	EEFT (LTM)	EEFT (5 years historical average)	Peers' Median (LTM)
Total Debt/Market Capitalization	0.38	0.36	0.59
Cost of Existing Debt	5.1%	5.7%	4.3%
CGFS Rating (F-score, Z-score, and default Probability)	A	BBB	A
WACC	6.9%	11.4%	9.4%

Sensitivity Attribution Analysis



Porter's 5 forces (scores are out of 100)



Valuation

Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	14%	14.4%	1.14
9/30/2018	8%	1.2%	0.76
9/30/2019	11%	2.9%	1.00
9/30/2020	11%	3.7%	1.02
9/30/2021	10%	7.7%	1.02
9/30/2022	9%	14.1%	0.99
9/30/2023	8%	13.6%	0.91
9/30/2024	7%	13.2%	0.84
9/30/2025	6%	12.7%	0.79
9/30/2026	6%	12.2%	0.74
9/30/2027	5%	11.7%	0.71
Continuing Period	4%	11.2%	0.67

Period	Return on Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	16.4%	6.9%	$121.31
9/30/2018	0.9%	6.0%	$120.01
9/30/2019	2.9%	6.3%	$131.05
9/30/2020	3.7%	6.5%	$142.40
9/30/2021	7.9%	6.7%	$153.96
9/30/2022	14.0%	7.2%	$166.29
9/30/2023	12.4%	7.4%	$182.43
9/30/2024	11.1%	7.6%	$195.48
9/30/2025	10.0%	7.9%	$209.00
9/30/2026	9.1%	8.1%	$223.06
9/30/2027	8.3%	8.4%	$237.76
Continuing Period	7.5%	8.6%	

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BJORKLUND FUND

October, 20, 2017

Monster Beverage Corp: MNST

Nico Dumas

Sector: Consumer Staples
Industry: Beverages
Current Price: $56.22
Target Price: $65.11

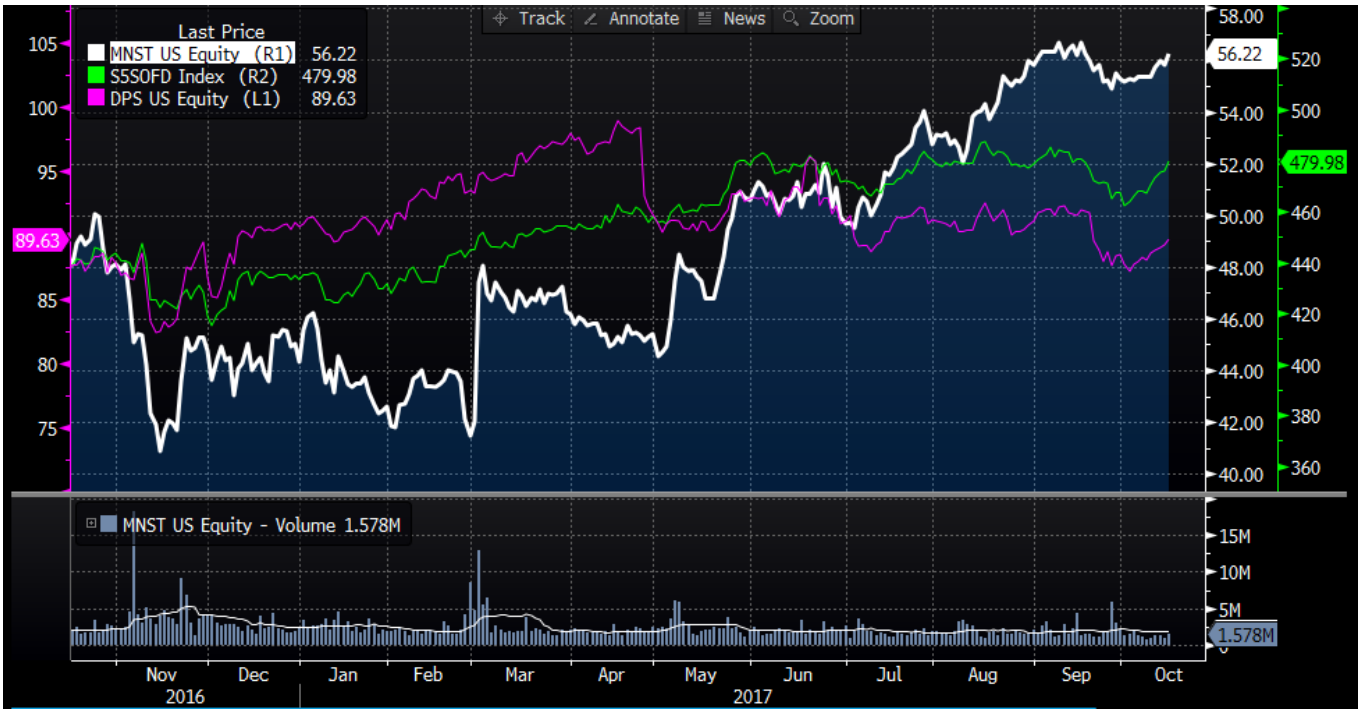
Monster Beverage Corporation, based in Corona, California, is a US holding company that develops, markets, sells, and distributes energy drinks through its subsidiaries. Monster operates through three segments: Energy Drinks, Strategic Brands, and other. The other segment consists of certain products sold by American Fruits & Flavors, LLC; a wholly owned subsidiary of Monster. The company developed a strategic partnership with Coca-Cola in 2015, positioned well to expand into international markets. Monster currently holds 22% share of the fast growing $42.9 billion global energy drink market. The company generates strong cash flow and has no debt, allowing them to regularly repurchase shares.

BUY

Current Price:	$56.22
Target Price:	$65.11
Market Cap:	31,942.5M
Volume:	1,578,124
52 Week Range	$40.64-$57.25
ROIC	22.58%
WACC	10.5%
EBIT Margin	38.7%
Net Income Margin	24%

Catalysts:

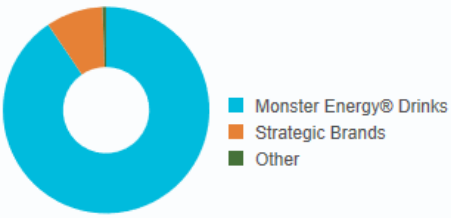
- **Short Term(within the year):** New product development and consistent revenue growth along with rising margins
- **Mid Term(1-2 years):** Monster's partnership with Coca-Cola causing internationally expansion
- **Long Term(3+):** Further development and distribution in China



Thesis: Monster Beverage Corporation is an aggressive competitor within the Beverage industry. With a market cap of just below $32 billion, this company has endless upside with Coca-Cola as a strategic partner. Compared to the soft drink index and competitor Dr. Pepper in the price chart above, anyone can see how fast Monster's stock price is increasing. With consistent revenue growth and rising margins in quarter 2, this trend will continue forward. New product development is a crucial part of Monster's sales growth as well, constantly removing non-performing products and introducing new flavors. Analysts are forecasting double-digit expected earnings growth within the upcoming year. The main driver of this is Monster's international presence. With 73% of total sales currently in the United States, the company realizes the potential profitability from expansion throughout Europe and Asia. Monster has already started launching new operating units in countries such as China, Hong Kong, and Macau. China is currently the world's second leading Energy Drink market taking up 16% of consumption. Monster launched 14 new operating units in China during the second quarter. With Coca-Cola's knowledge of the international market, Monster could be looking at easy double-digit earnings growth.

Segments:

Monster Beverage Corporation operates in three segments: Monster Energy Drinks, Strategic Brands, and "Other". The Energy Drink segment sells packaged drinks and dairy-based coffee energy drinks to full service beverage distributors, retail grocery and specialty chains, wholesalers, club stores, mass merchandisers, convenience chains, food service customers, and the military. This segment takes up the majority of Monster's sales revenue at $2.76 billion in 2016. This accounted for 90.5% of the company's total revenue. The Strategic Brands segment contributed the second largest share towards Monster's revenue at 8.9%. Monster is turning a lot of focus towards this segment, which consists of various energy drink brands acquired from The Coca-Cola Company (TCCC). Monster generates revenue here through selling "concentrates" and/or "beverage bases" to authorizing bottling and canning operations. These companies, mostly Coca-Cola, then take the "beverage bases" and add sweeteners, water, and other ingredients to personalize the product to their specific company. The Strategic Brands segment currently generates a higher operating margin than the Energy Drink segment, showing that the company is focused in the correct direction. If you look at the chart on the left, it shows the second quarter results for both the Energy Drinks segment and the Strategic Brands segment. This chart shows that Monster's operating efficiency in the Strategic Brands segment is far greater than the Energy



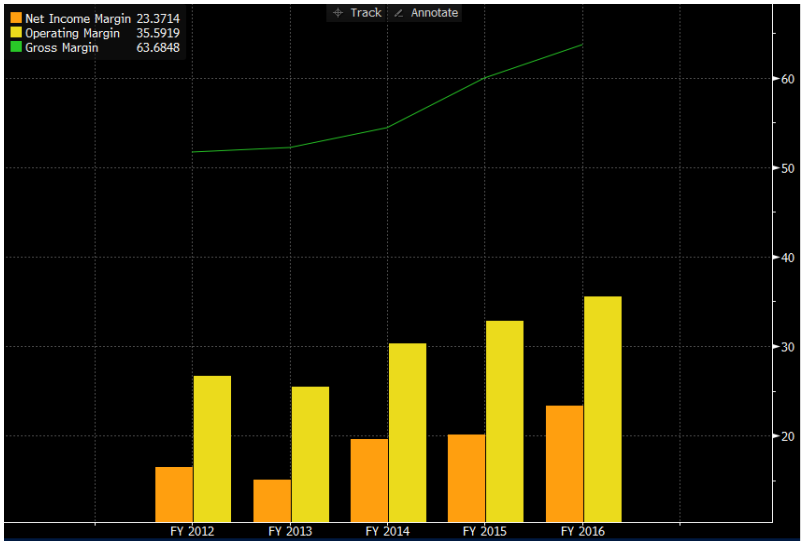
Segment	USD in mm	
Monster Energy® Drinks	2,759.9	90.5%
Strategic Brands	272.5	8.9%
Other	17.0	0.6%
Total	**3,049.4**	**100.0%**

(2017 Quarter 2)

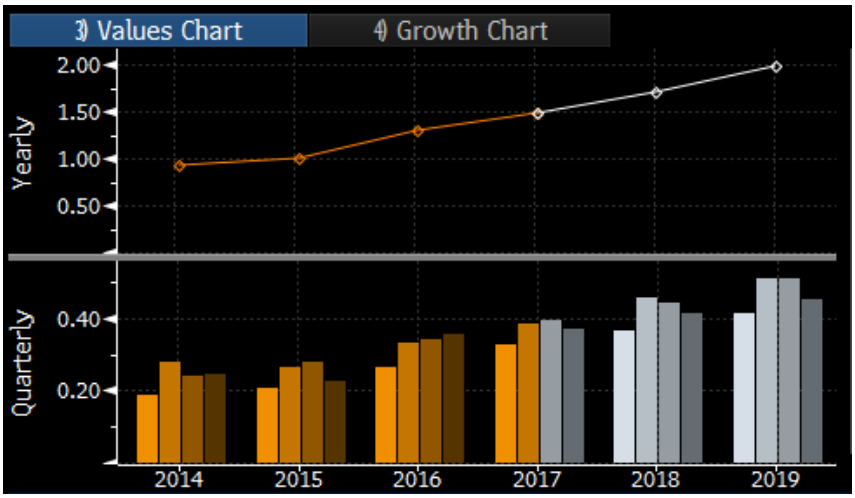
	Energy Drinks	Strategic Brands
Revenue	815.3	85.6
Operating Profit	356.2	53.2
Operating Margin	**43.69%**	**62.15%**

Drinks segment, having a margin of 62.15% compared to 43.69%. With Coca-Cola being a well-established international company, this is a very profitable segment to concentrate on. Monster and Coca-Cola entered into a strategic partnership in 2015, Coca-Cola obtaining Monster's non-energy business and ownership of almost 18% of the company's shares. In return, Coca-Cola transferred ownership of its worldwide energy business, including NOS, Full Throttle, Burn, and multiple other businesses. Coca-Cola is the world's largest beverage company, providing limitless expansion for Monster into new markets. In the previous quarter, Monster's revenue generated from United States transactions accounted for 72.7% of total revenue, 27.3% of sales being international. In the first quarter of 2017, international sales were 25.7% of total revenue. The percentage of international sales has been increasing steadily for the previous six quarters. Monster's presence internationally will continue to expand, as they grow more accustomed to their partnership with Coca-Cola. This soft-drink giant has positioned Monster as their preferred energy drink partner worldwide. The company is beginning to aggressively pursue unpenetrated markets outside of the United States.

Earnings Performance:



Monster Beverage Corporation's gross, operating, and net income margins have all been increasing consistently annually over the past five years. Between quarter 1 and quarter 2 of 2017 every single margin has increased except for gross (decreased by .47 of a percent), operating margin almost touching 40%. Monster is beginning to gain momentum in new markets. If revenue growth continues at its current rate of approximately 10% YOY, the company should touch $4 billion in total revenue by the end of 2019. This is being very conservative, historical growth having little contributions from international presence. It would come to no surprise if revenue growth spiked to around 20%-25% when Coca-Cola introduces them to increased international sales of their Strategic Brands. With this segment having the largest operating margin for Monster, net profits would increase. Net sales for the second quarter of 2017 increased 9.6% to $907.1 million from $827.5 million in the same quarter in 2016. Gross sales increased 9.8% during this period exceeding a record of $1 billion. Of this, international net sales increased 23.8% to $247.9 million. Adjusted earnings per share have been increasing consistently over the past 3 ½ years and



are forecasted to continue to do so. This indicates that Monster's profitability is on the rise, the recent quarter holding the highest adjusted earnings per share ever for the company at $0.39. This is forecasted to reach approximately $0.51 by 2019. With adjusted earnings and margins growing consistently accompanied by increased revenue, this stock is a for sure buy. Coca-Cola developed their strategic partnership with Monster Beverage Corp in June of 2015. The stock price has stayed relatively stable over the past two years fluctuating between the $40s per share and low $50s, but now it is clear that the company is starting to take their investment in Coca-Cola to the next level; targeting international expansion.

Industry Outlook:

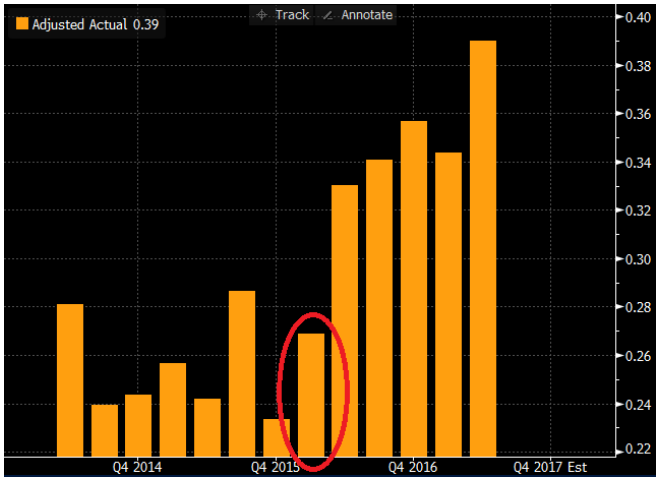
Analysts are forecasting that the global energy drink market could continue to rise at a 5% compound annual rate through 2021. This is a fast growing industry, maintaining 10% annual worldwide sales growth since 2010. This is the highest among all major beverage categories. People believe that this growth is mainly due to young consumers looking for a caffeine-driven boost. With Monster increasing net sales internationally each quarter, they are looking to take over a large share of the market. The company is currently focused on development in Europe and Asia. Monster's most significant competitors outside of the United States are Suntory Holdings in Japan and the Unite Kingdom, Red Bull in Brazil, and TC Pharmaceuticals in Thailand. Suntory has a market cap of about $14 billion and their adjusted revenue growth YOY has been declining rapidly, last quarter having a loss in revenue. Their net income margin is low at 3.26%, ROIC at 5.5%. This company also operates in the food industry, not specializing in beverages as Monster does. This company is not a threat at all. TC Pharmaceuticals and Red Bull will be Monsters only competition in China. TC Pharmaceuticals is a privately-owned company that has been in the market since 1978, being a partner to Red Bull and being the sole manufacturer and distributer of Red Bull products in the Chinese market. In 2012, Red Bull's sales growth was the highest it has seen in China; almost 30% YOY. This number has been on a rapid decline through 2015, losing YOY sales growth as competition enters the market. Red Bull still controls 80% market share in China, but this goes to show the potential market share that Monster can take from them.

With Coca-Cola's large presence in China, it seems like an unfair advantage for Monster's entrance. With the

correct amount of capital invested on distribution penetration, marketing campaigns, and research Monster should have no problem creating a presence among Red Bull.

Acquisition of Fruits & Flavors:

Monster Beverage Corp and American Fruits & Flavors have been long-time business partners, Fruits & Flavors being Monster's primary flavor supplier. Monster acquired this company in order to further enhance flavor development and their global flavor footprint capabilities. The acquisition costed Monster $690 million cash and was finalized April 1st, 2016. This was a strategic move by the company, bringing their primary flavor supplier in-house so they would now have complete control over their operations. Monster's largest competitors do not do this. This gives the company a major advantage when it comes to new flavor technologies and differentiating themselves from the rest. This acquisition has boosted adjusted earnings per share as well. Before Monster obtained Fruits & Flavors their EPS hovered around .25 never breaking .3, now their EPS has jumped well above .3. Their most recent adjusted earnings per share for the second quarter of 2017 was .39. This acquisition has made Monster increase profitability substantially. As you can see from the adjusted actual earnings per share graph on the left, EPS has increase by approximately .12 since the first quarter of 2016. After the acquisition price per share also increased from $45 to $49 within a month. Investors noticed how beneficial this transition would be for Monster, taking over their primary flavor supplier. Price per share has increase 27.35% since the acquisition.



Ownership & Management: the

MONSTER BEVERAGE CORP CUSIP 61174X10

1) Current | 2) Historical | 3) Matrix | 4) Ownership Summary | 5) Insider Transactions | 6) Options | 7) Debt

Compare Current Stats Against 01/01/17

Ownership Type	01/01/17	Curr	Change
11) Investment Advisor	60.85	62.63	+1.78
12) Corporation	23.38	24.51	+1.13
13) Hedge Fund Manager	6.68	3.64	-3.04
14) Pension Fund	1.90	2.27	+0.37
15) Bank	1.94	2.17	+0.23
16) Individual	2.08	1.27	-0.81
17) Government	0.97	1.02	+0.05
18) Holding Company	1.12	0.97	-0.15
19) Insurance Company	0.40	0.71	+0.31
20) Sovereign Wealth Fund	0.53	0.61	+0.08
21) Brokerage	0.07	0.12	+0.05

The ownership summary provided shows the year to date changes in ownership for 2017. As it shows, there has been almost a 2% increase in investment advisors, realizing the long-term potential of Monster. These

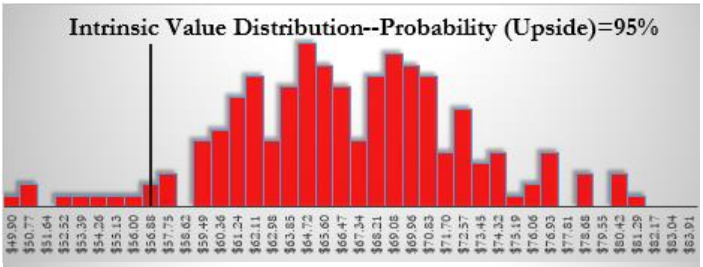
investment advisors mostly consist of Fidelity Management & Research, Vanguard Group, and Wellington Management Group. Corporation holds the second most shares of the company; due to Coca-Cola's 18% ownership along with Brandon Limited Partnership's 6%. Hedge Fund Managers have decreased their shares by about 3%, collecting gains as Monster's stock price rose from the low $40s in January to the mid $50s today. There has been relatively little insider transactions recently, increasing net shares in June by about 27,000 and decreasing net shares of approximately 11,000 between August and September. Although Monster is currently trading around its 52 week high, insiders are still holding onto shares and looking forward to higher returns. With their strong strategic alliance with Coca-Cola and an increasing market share internationally, people can see the long-term gains that are possible from Monster. Management consists of Rodney Sacks and Hilton Schlosberg who started running the company together in 1990. Rodney is the CEO while Hilton holds the positions of Vice Chairman, CFO, and COO. Compensations seem reasonable seeing how Dr. Pepper pays their CEO almost $10 million per year, and their company has a market cap half the size of Monster's. This CEO has only been with them since 2007 as well. Rodney and Hilton started the company together and deserve what they are making.

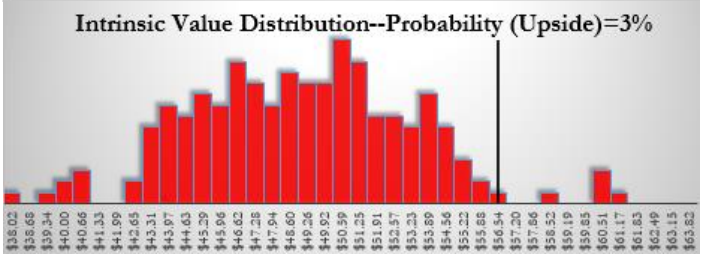
Compensation Analysis 2016

	Name	Title	Total Compensation
1)	Rodney Sacks	Chairman/CEO	12,028,955 (USD)
2)	Hilton Schlosberg	Vice Chairman/Pres/CF...	11,995,786 (USD)
3)	Mark Hall	Chief Marketing Officer	4,092,571 (USD)
4)	Thomas Kelly	Senior VP:Finance	1,817,298 (USD)

Possible Forecasts:

With revenue growth increasing consistently at 3% over the next five years as Monster expands globally and operating cost to revenue staying at 60%, Monster's current valuation based on unlevered free cash flow comes out to $59.76. The company's one-year target price from my price simulation was $66.67 with a 95% upside probability. I used the last reported income statement and balance sheet operating components for my valuation as well. This is my projected forecast of the company being relatively conservative. About a $10 upside. I then set up a worst-case scenario where revenue growth only increased 1% per year over the next five years, combined with operating cost/revenue increasing from 60% to 63%. The one-year target price from the Monte Carlo simulation came out to $49.22, with only a 3% probability of upside. This is about a $7 downside. The market's estimate of long-term return on invested capital was higher by 39.2% for this model. This worst-case scenario is highly unlikely and still only has a downside of 12.5% compared to a possible upside of almost 18%. I do not believe the stock will stop when it hits $66-$67 per share; if they make an international presence and take control of the market, their profits could far exceed this valuation.





Conclusion:

Monster Beverage Corporation is beginning to enter new markets globally. Monster is focused on increasing their Strategic Brands segment, through Coca-Cola, which holds the highest operating margin among the segments. Alongside Coca-Cola, they could see double digit gains in earnings year over year. The company's revenue has been increasing consistently along with most of their margins. When they acquired American Fruits & Flavor in 2016, their adjusted earnings per share have been increasing consistently as well; turning their primary flavor supplier into an in-house operation. The one competitor that stands between them and the Chinese market is Red Bull, who has been growing at a slowed rate in this market. With the correct amount of capital spent on distribution and marketing campaigns, Monster can make their presence known in the Chinese Energy Drink market. They already have set up 14 new operating units within China in the second quarter of 2017. The European and Asian markets provide vast opportunities for Monster, only 26% of sales revenue coming from international sales in the second quarter. This percentage will continue to rise as they develop further with Coca-Cola as their parent company.

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Monster Beverage Corporation (MNST)

CENTER FOR GLOBAL FINANCIAL STUDIES

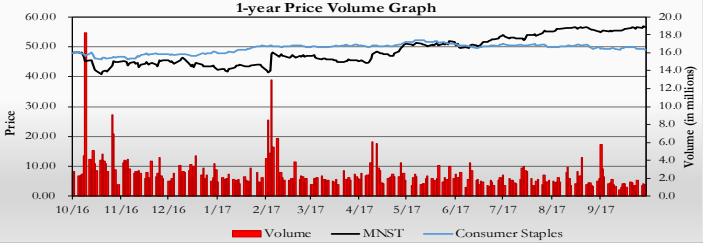
NEUTRAL

Analysis by RICK
10/27/2017

Current Price:	$56.91	**Intrinsic Value**	$58.37
Divident Yield:	0.0%	**Target Price**	$65.11

Target 1 year Return: 14.41%
Probability of Price Increase: 95%

1-year Price Volume Graph



Description

Monster Beverage Corporation, through its subsidiaries, develops, markets, sells, and distributes energy drink beverages, soda, and its concentrates in the United States and internationally.

General Information

Sector	Consumer Staples
Industry	Beverages
Last Guidance	November 3, 2015
Next earnings date	November 4, 2017
Estimated Country Risk Premium	6.54%
Effective Tax rate	23%
Effective Operating Tax rate	23%

Market Data

Market Capitalization	$32,243.60
Daily volume (mil)	0.78
Shares outstanding (mil)	568.17
Diluted shares outstanding (mil)	579.76
% shares held by institutions	71%
% shares held by investments Managers	57%
% shares held by hedge funds	3%
% shares held by insiders	1.23%
Short interest	1.01%
Days to cover short interest	3.17
52 week high	$57.25
52-week low	$40.64
Volatility	31.24%

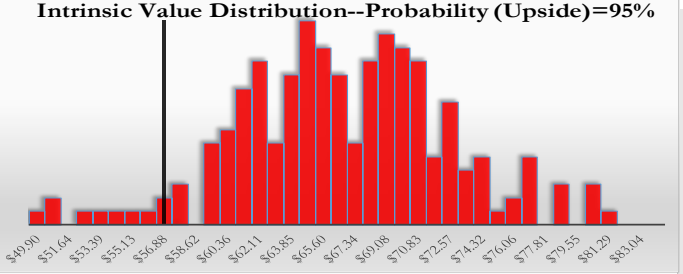
Past Earning Surprises

Quarter ending	Revenue	EBITDA
6/30/2016	3.05%	-2.82%
9/30/2016	-4.14%	-12.51%
12/31/2016	3.80%	7.62%
3/31/2017	0.21%	-0.80%
6/30/2017	1.01%	-1.41%
Mean	0.79%	-1.98%
Standard error	1.4%	3.2%

Peers

Dr Pepper Snapple Group, Inc.
The Coca-Cola Company
Pepsico, Inc.
Coca-Cola Bottling Co. Consolidated
Constellation Brands, Inc.
National Beverage Corp.

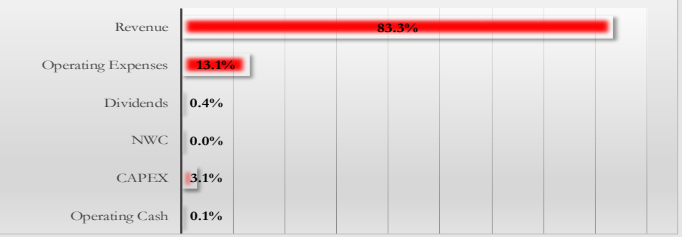
Intrinsic Value Distribution--Probability (Upside)=95%



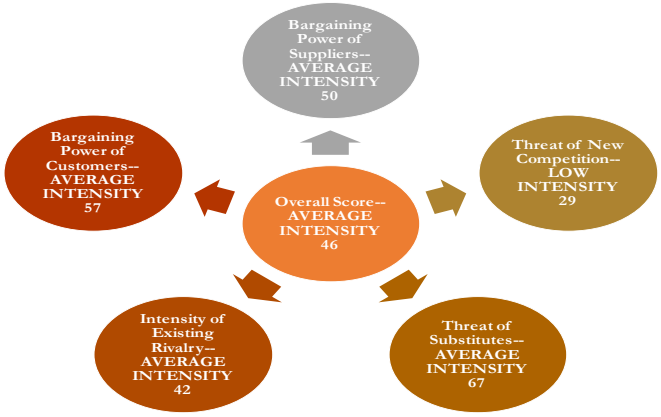
Management	Position	Total compensations growth	Total return to shareholders
Sacks, Rodney	Chairman, Chief Executive Of	0.67% per annum over 5y	5.06% per annum over 5y
Schlosberg, Hilton	Vice Chairman, President, CF	0.63% per annum over 5y	5.06% per annum over 5y
Kelly, Thomas	Senior Vice President of Fin	29.64% per annum over 5y	5.06% per annum over 5y
	0 0	N/M	N/M
	0 0	N/M	N/M
	0 0	N/M	N/M

Profitability	MNST (LTM)	MNST (5 years historical average)	Peers' Median (LTM)
Return on Capital (GAAP)	23.7%	13.88%	13.96%
Operating Margin	19%	13.17%	8.15%
Revenue/Capital (GAAP)	1.22	1.05	1.71
ROE (GAAP)	19.5%	17.4%	24.8%
Net margin	24.9%	22.5%	9.5%
Revenue/Book Value (GAAP)	0.78	0.77	2.62
Invested Funds	**MNST (LTM)**	**MNST (5 years historical average)**	**Peers' Median (LTM)**
Cash/Capital	39.2%	17.6%	14.7%
NWC/Capital	3.8%	17.1%	3.4%
Operating Assets/Capital	28.7%	60.2%	56.5%
Goodwill/Capital	28.3%	0.0%	25.4%
Capital Structure	**MNST (LTM)**	**MNST (5 years historical average)**	**Peers' Median (LTM)**
Total Debt/Market Capitalization	0.01	0.01	0.57
Cost of Existing Debt	4.0%	4.0%	3.7%
CGFS Rating (F-score, Z-score, and default Probability)	BBB	B	BBB
WACC	10.3%	10.5%	8.7%

Sensitivity Attribution Analysis



Porter's 5 forces (scores are out of 100)



Valuation

Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	10%	31.3%	0.97
6/30/2018	12%	24.0%	1.09
6/30/2019	15%	26.4%	1.32
6/30/2020	18%	29.1%	1.64
6/30/2021	25%	30.5%	2.10
6/30/2022	22%	31.5%	2.50
6/30/2023	20%	32.2%	2.83
6/30/2024	18%	34.4%	3.06
6/30/2025	16%	35.3%	2.99
6/30/2026	14%	35.2%	2.80
6/30/2027	12%	35.0%	2.61
Continuing Period	2%	34.3%	2.26

Period	Return on Invested Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	30.4%	10.3%	$57.45
6/30/2018	26.2%	10.4%	$64.53
6/30/2019	34.8%	10.4%	$71.10
6/30/2020	47.7%	10.5%	$78.21
6/30/2021	64.2%	10.5%	$85.86
6/30/2022	78.9%	10.6%	$94.07
6/30/2023	91.2%	11.1%	$103.21
6/30/2024	105.2%	11.1%	$112.94
6/30/2025	105.5%	11.3%	$123.44
6/30/2026	98.4%	11.4%	$134.51
6/30/2027	91.4%	11.2%	$145.87
Continuing Period	77.6%	11.2%	

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BJORKLUND FUND

October, 25, 2017

Gentex (GNTX)

Timothy Cousin

Sector: Consumer Discretionary
Industry: Auto Components
Current Price: $19.08
Target Price: $20.99

Company Description: Gentex is a company that prides themselves on the ability to design, manufacture, and market products that use electro-optic technology. The company can be broken up into two main segments such as fire protection and rearview mirrors. The focus of Gentex is they are able to create auto-dimming rearview mirrors for the automotive market. The three main companies that Gentex works with are Toyota, General Motors, and Volkswagen. Gentex is a company that also has some experience in the aircraft industry, creating windows that found on commercial aircrafts.

BUY

Current Price:	$19.08
Target Price:	$20.99
Market Cap:	5.41B
52 Week Range:	16.06-22.12
ROE	18.85%
Debt/Equity	9.7%
Return on Assets	15.8%

Thesis:

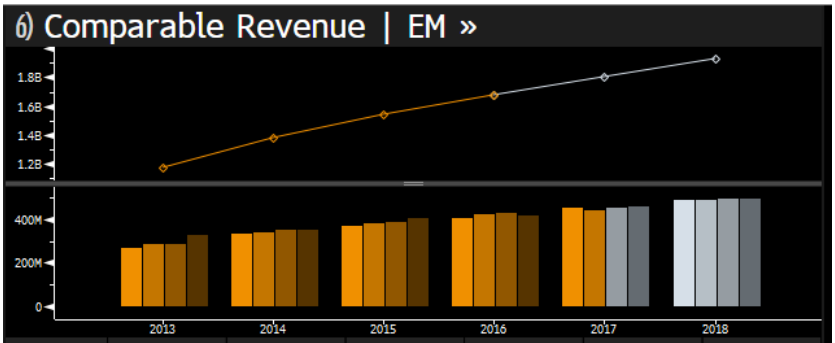
Gentex is a company that has had the opportunity to create revenue in a number of different ways in the past couple of years. Gentex prides themselves on the ability to make a profit in three main segments. Those segments include the car industry, fire protection, and aircrafts. Gentex is expected to have a growth between six and ten percent this upcoming year, and would be a great addition to our portfolio.

Catalysts:

- Short Term (within the year): Car companies always trying to come up with advancements in car safety.
- Mid Term (1-2 years): People always having a need to wanting the newest piece of technology.
- Long Term (3+): Merges and Acquisitions that Gentex made over the last couple of years.

Earnings Performance:

Gentex is a company that has been on the rise for the past couple of years. The company receives most of their revenues from its top customer, which happens to be Volkswagen. Volkswagen accounts for roughly 14% of the company's sales.



(USD)	2013	2014	2015	2016	2017	2018
FY	1.2B	1.4B	1.5B	1.7B	1.8B	1.9B
Q1	269.5M	335.7M	368.9M	405.6M	453.5M	486.6M
Q2	287.0M	338.4M	379.3M	423.8M	443.1M	486.6M
Q3	288.6M	350.9M	389.8M	429.6M	451.0M	495.2M
Q4	326.8M	350.4M	405.6M	419.9M	457.6M	493.2M

Throughout the years, Gentex has been able to achieve a strong growth. Revenue increased 17% from $223 million in 2013 to $289 million in 2014. This increase in revenue has to do with the fact of Gentex being so innovate using top technology, and always trying to differentiate themselves from their competitors.

The reason for this growth in 2014 has to do with sales from automotive products. The main reason for the increase of nets sales had to do with the acquisition of HomeLink. During the time from 2014 and on, there has been an 11% increase in auto-dimming mirror shipments, a 54% increase in aircraft window sales, and fire and protection increased by 4%.

Gentex aspires for the upcoming year in the sense that they predict to see a growth between six and ten percent. According to the graph, Gentex has the opportunity to see an increase in 2018 in every quarter. Gentex is able to succeed due to the fact they are able to generate revenue from three segments. Even though they receive most of their revenue from automotive, it is beneficial from them to generate revenue from aerospace and fire protection.

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Industry Overview:

Gentex is a company that has 98% of their net sales from customers within the automotive industry. The automotive industry has been impacted by the different levels of economic activity. The economic activity as of right now has been stable, but there are some points of uncertainty. The areas that seem to provide some uncertainty happen abroad in the Japan and Korean markets. If automotive customers and suppliers were to experience any type of plant shut down, work stoppages, or any other type of distraction would cause a delay in shipments to customers.

GENTEX CORPORATION

There are times when the automotive industry tries to implement new programs to increase efficiency, but may cause delays at times. They delays may come from thinking one program may work, but then finding a problem with it. This is difficult to try to make forecasts about predicted sales and costs.

The automotive industry has a large number of key customers that they rely on yearly. Gentex relies on for 10% or more of annual net sales in 2016 three main customers. The three main companies that contribute to this ten percent includes Volkswagen, Toyota, and General Motors. In sum, the automotive industry remains stable.

Asia's Driving Growth:

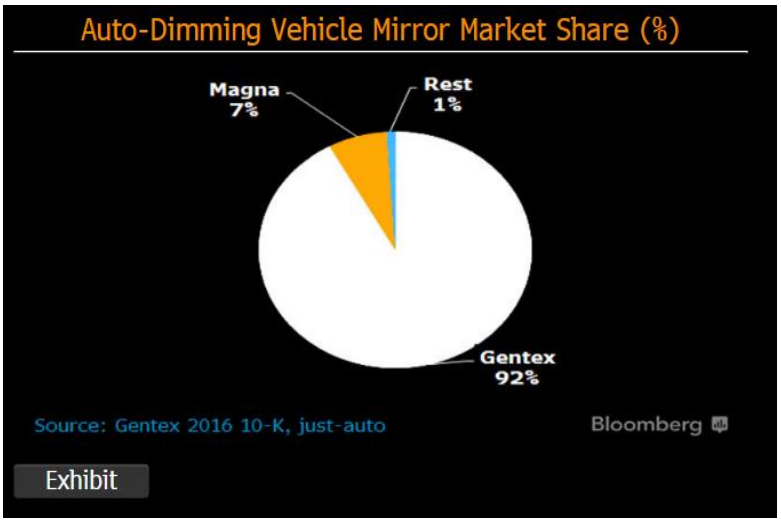
Gentex has been able to see success when it comes to doing business in Asia. This has to do with the fact that there is a growing demand for higher-value car mirror systems. This increase for demand has been able to drive Gentex's revenue growth. Asia has been looking for a company that has the ability to create high end technology when it comes to the mirror market. Gentex took full opportunity of that, and caused them to experience a 40% increase in revenue since 2009.

As you can tell from the graph, starting in quarter four in 2013, Asia began to take a hit in the automotive revenue. As the automotive revenue for Gentex in Asia began to fall, the mirror shipment began to increase at a steady pace. This had to do with the fact that Asia was more concerned with the reaping the benefits of Gentexs's innovation in creating mirrors versus automotive revenue.

After a while, the mirror shipment began to decrease, but at the end of the second quarter, they were still making more revenue off mirrors, rather than automotive parts. This had to do with Gentex's new release of their full body mirrors. People in Asia are trying to keep up with the new and upcoming technology, because automotive parts lacked in the second quarter but picked up once the new mirror came out. People in Asia may not have needed as many automotive parts, but wanted to make sure they did not fall behind in the mirror segment.

Gentex's Strong Mirror Market:

Gentex is a company that has dominated the market share when it comes to the mirror market. Gentex has dominated in the sense that they hold 92% of the automatic vehicle mirror markets. Their next closes competitor is Magna who only controls around 7% of the market share.



Gentex owning 92% of the market share is important to contributing to the company's strong margins, and the sales growth. This is crucial the sense that 87% of its revenue in 2016 had to pertain to mirrors.

Gentex having the opportunity to own 92% of the market share is important in the sense that they are competing at a higher level than their main competition in Magna. The only other threat that Gentex has when it comes to the market share are domestic Chinese companies.

Growth Strategy:

When it comes to a growth strategy, Gentex believes it is important from them to start internally. Gentex invested in a lot of money into creating a new facility. The new facility is adjacent to their headquarters in Michigan. Not only are they trying to build a new complex, they are also making renovations and upgrades to their headquarters as well. This will give the company a great opportunity to have a high end facility, and give them the tools necessary to be innovative.

Having the ability to create a brand new building, and renovations to their headquarters, supports the claim from Gentex that they will grow from six to ten percent this upcoming year. Gentex is a company that will see growth in the aspect of being able to produce the best camera that will be able to show a rear view while backing up. This is crucial for the company in the sense that drivers always want top end technology so they are safe when it comes to taking the road.

GENTEX CORPORATION

Mergers and Acquisitions:

Gentex saw a couple of great opportunities that they took advantage of in 2013 and 2014 that paid off for them in the end. In 2013, Gentex saw success in the sense of acquiring a company called HomeLink. This was huge for Gentex in the sense that HomeLink is a company focuses on creating wireless communication products. The type of products that HomeLink makes are products that allow drivers to remotely activate garage door openers, the lightening in their home, and security systems. This is a great acquisition for Gentex in the sense that not only will it cause them to add a different aspect to their company, and people look forward to advancements in technology.

Just recently in 2014, Gentex made another acquisition of Helmet Integrated Systems. This acquisition was a positive for Gentex in the sense that it allowed the company to test waters internationally. Helmet is located in the United Kingdom, and provides helmets, communication equipment, and respiratory protection for everyday use. This is a great opportunity for Gentex to not only grow, but to try to test other markets to try and generate even more revenue.

Management/Ownership:

Gentex has a strong management team that led by Fred Bauer. Mr. Bauer is the CEO of the company at the time and has been with the company since 1974. Steve Downing is the chief operation officer, and joined Gentex in 2002. He served as an analyst since 2002 and has balanced many different hats while working at the company, such as being analysts for a number of years. Finally, Kevin Nash is the vice president of accounting at Gentex. He decided to join Gentex in 1999 as a senior account and has been with the company ever since. The reason Gentex is successful has to do with the fact that not only is the management team a veteran group, but also Fred Bauer has only taken a 1.33% growth on his compensation over the past 5 years. Gentex believes it is important to their shareholders to see an increase in stock price, before paying their top people.

When it comes to ownership, in 2015 Gentex has had the opportunity to pay over 101 million dollars in dividends. When it comes to ownership of the shares, the United States has a strong ownership mounting to

82.42%. The company is able to expand in foreign territory reaching Canada at 5.45% and Britain at 4.49%. This is a strong company based out of the United States, but also has interest in domestic land.

Top Geographic Ownership (%)		
53) Geographic	10/22/17	Curr
31) UNITED STATES	82.42	82.45
32) CANADA	5.45	5.44
33) BRITAIN	4.49	4.48
34) Unknown	2.28	2.27

Conclusion:

Gentex is a strong company in the sense that they are led by three people who have been in the company for multiple years. They are a veteran group in the sense that they care about their shareholders, and do anything they can to drive the price of the stock.

Gentex is a company that isbased on revenue, and have many projects coming up in the near future that will cause the value of the company to go up. They are a company that has a smart growth strategy in the sense that they are starting internally and then expanding outward.

Gentex having the ability to acquire two companies in the sense that it will only increase their revenue streams. HomelLink was a win in the company in the sense that they are a company that is heavy on trying to find ways to be innovate in the automotive industry. This is important to Gentex in the sense they are always trying to find way in the automotive industry. Their second acquisition in Helmet is important because they are a company internationally. This is a great way for Gentex to try to get experience internationally.

Overall, Gentex is a company that is always trying to find innovative ways to increase revenue. Gentex has the ability to come out with type of the line products, their acquisitions, and understanding the importance of building up their company internally. Gentex would be a great company to add to our portfolio.

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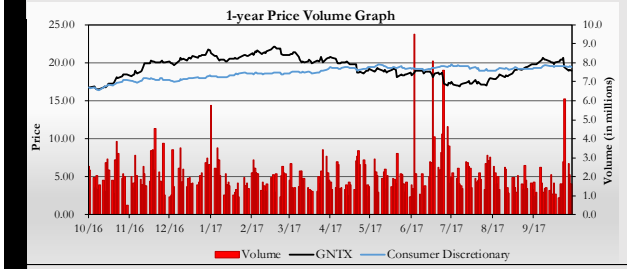
Gentex Corporation (GNTX) — CENTER FOR GLOBAL FINANCIAL STUDIES — NEUTRAL

Analysis by Timothy Cousin	Current Price:	$19.08	Intrinsic Value	$15.48	Target 1 year Return: 11.79%
10/27/2017	Divident Yield:	1.8%	Target Price	$20.99	Probability of Price Increase: 90.5%



Description

Gentex Corporation designs, develops, manufactures, and markets automatic-dimming rearview mirrors and electronics for the automotive industry; dimmable aircraft windows for the aviation industry; and commercial smoke alarms and signaling devices for the fire protection industry worldwide.

General Information	
Sector	Consumer Discretionary
Industry	Auto Components
Last Guidance	November 3, 2015
Next earnings date	January 27, 2018
Estimated Country Risk Premium	7.52%
Effective Tax rate	24%
Effective Operating Tax rate	24%

Market Data	
Market Capitalization	$5,493.97
Daily volume (mil)	0.89
Shares outstanding (mil)	285.55
Diluted shares outstanding (mil)	289.60
% shares held by institutions	83%
% shares held by investments Managers	73%
% shares held by hedge funds	2%
% shares held by insiders	2.05%
Short interest	5.35%
Days to cover short interest	7.92
52 week high	$22.12
52-week low	$16.06
Volatility	23.46%

Past Earning Surprises

Quarter ending	Revenue	EBITDA
9/30/2016	0.40%	2.79%
12/31/2016	-4.36%	-7.13%
3/31/2017	2.59%	1.26%
6/30/2017	-1.35%	-6.86%
9/30/2017	-3.20%	-2.09%
Mean	-1.18%	-2.40%
Standard error	1.2%	2.0%

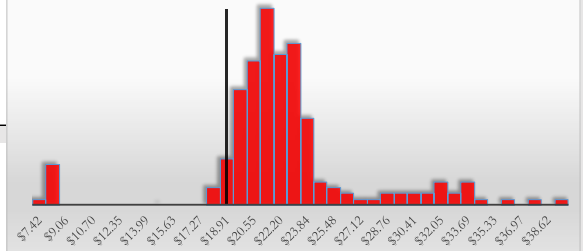
Peers

Tower International, Inc.
Superior Industries International, Inc.
Gentherm Incorporated
BorgWarner Inc.
Visteon Corporation
Standard Motor Products, Inc.
American Axle & Manufacturing Holdings, Inc.
Dana Incorporated

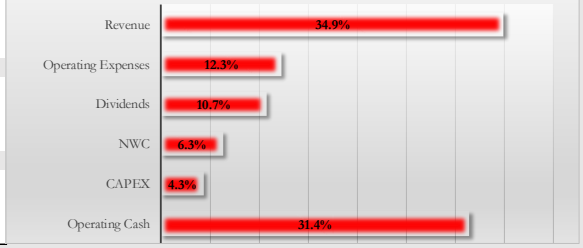
Management	Position	Total compensations growth	Total return to shareholders
Bauer, Fred	Founder, Executive Chairman	1.33% per annum over 5y	-5.17% per annum over 5y
Downing, Steven	President, COO, Interim CFO	13.79% per annum over 3y	5.88% per annum over 3y
Nash, Kevin	Chief Accounting Officer and	2.36% per annum over 2y	6.46% per annum over 2y
Ryan, Scott	Assistant General Counsel an	12.91% per annum over 1y	25.23% per annum over 1y
Matthews, Joseph	Vice President of Purchasing	-1.57% per annum over 2y	6.46% per annum over 2y
Chiodo, Matt	Vice President of Sales	N/M	N/M

Profitability	GNTX (LTM)	GNTX (5 years historical average)	Peers' Median (LTM)
Return on Capital (GAAP)	0.7%	15.52%	11.19%
Operating Margin	0%	14.38%	4.71%
Revenue/Capital (GAAP)	1.52	1.08	2.38
ROE (GAAP)	0.5%	15.2%	20.9%
Net margin	0.6%	18.7%	5.9%
Revenue/Book Value (GAAP)	0.87	0.81	3.52
Invested Funds	**GNTX (LTM)**	**GNTX (5 years historical average)**	**Peers' Median (LTM)**
Cash/Capital	32.2%	32.2%	25.0%
NWC/Capital	12.8%	12.7%	13.3%
Operating Assets/Capital	41.4%	45.2%	50.2%
Goodwill/Capital	13.6%	13.5%	11.6%
Capital Structure	**GNTX (LTM)**	**GNTX (5 years historical average)**	**Peers' Median (LTM)**
Total Debt/Market Capitalization	0.00	0.09	0.48
Cost of Existing Debt	4.0%	3.4%	3.6%
CGFS Rating (F-score, Z-score, and default Probability)	AAA	BB	AA
WACC	11.0%	10.7%	8.7%

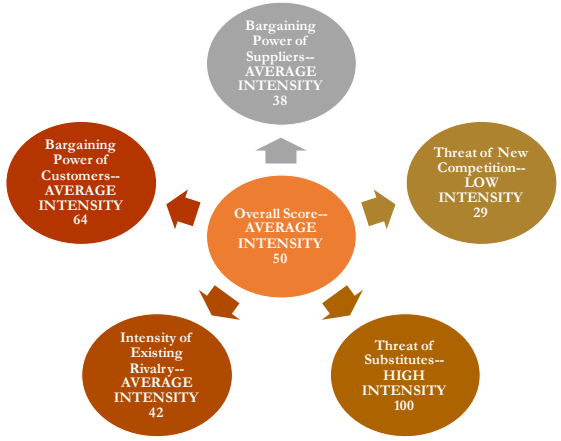
Intrinsic Value Distribution--Probability



Sensitivity Attribution Analysis



Porter's 5 forces (scores are out of 100)



Valuation

Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	5%	25.3%	0.98
9/30/2018	7%	21.6%	1.09
9/30/2019	7%	22.5%	1.16
9/30/2020	10%	23.1%	1.28
9/30/2021	3%	21.5%	1.28
9/30/2022	3%	20.0%	1.32
9/30/2023	2%	18.5%	1.37
9/30/2024	2%	17.8%	1.41
9/30/2025	2%	18.4%	1.43
9/30/2026	2%	16.9%	1.40
9/30/2027	2%	15.4%	1.37
Continuing Period	2%	13.9%	1.34

Period	Return on Invested Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	24.8%	11.0%	$14.51
9/30/2018	23.4%	7.5%	$16.48
9/30/2019	26.0%	11.0%	$17.94
9/30/2020	29.5%	11.0%	$19.41
9/30/2021	27.4%	10.8%	$20.86
9/30/2022	26.5%	10.5%	$22.25
9/30/2023	25.3%	17.2%	$24.43
9/30/2024	25.1%	10.1%	$25.82
9/30/2025	26.3%	11.9%	$27.43
9/30/2026	23.6%	11.7%	$29.05
9/30/2027	21.1%	9.9%	$30.50
Continuing Period	18.6%	10.9%	

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BJORKLUND FUND

October, 27, 2017

Company Name: PLNT

Joshua Weiss

Sector: Consumer Discretionary
Industry: Hotels, Restaurants and Leisure
Current Price: $26.83
Target Price: $29.88

Company Description: Planet Fitness is a company that looks to provide the best "Judgement Free" environment to work out in. They provide a safe, energetic and comforting place for people to feel good about working out while still being pushed to get healthier.

BUY

Current Price:	$26.83
Target Price:	$29.88
Market Cap:	2.58B
Avg Volume:	.861M
LTM EBITDA Margin:	42%
ROIC:	159.12%
WACC:	7.6%

- Planet Fitness vs. Hotels, Restaurants and Leisure Index

Thesis: Through the analysis of Planet Fitness, I believe that the stock is underpriced. They are the main sponsor for the New Year's Eve celebration and are planning on coming out with new technology to make treadmills more interactive. I believe that since the new year is coming around and the openings of new franchises their stock price will go up a few dollars, however I believe that it should only be a short term buy. After the first few months of the year and especially before the third quarter where the price goes and earnings go down, I suggest we sell it because their long term debt will catch up to them.

Catalysts: Forward looking projections that call for positive/negative outlook that will strengthen your thesis. Example:

- Short Term: Main sponsorship with New Year's Eve celebration (175M views in US and 1B worldwide)
- Mid Term: New technology for treadmills
- Long Term: Goal to have 4000 stores worldwide

Background

In 1992, Michael and Marc Grondahl founded Planet Fitness in Dover, New Hampshire by acquiring a financially struggling gym. In '93 the current CEO Chris Rondeau was hired to work front desk and then worked his way up the company. Their goal was the make a comfortable environment that people would not be intimidated to work out in. They came up in 1998 after opening their 3rd store a slogan of having a "Judgement-Free Zone" to follow their goal. They also started the use of a "Lunk Alarm" go off which activates when anyone grunts or drops weights. This is to discourage members from doing that so they do not put any other members in an uncomfortable setting. They also wanted to make the gym accessible for almost all demographics. They set their goal to make a low-cost while still providing a high quality fitness experience. In 2003 it opened its first franchised store in Florida. By 2006 they hit the 500,000 member mark as well as opening their 100th store. By 2014 they had opened their 900th store along with their 1st international store in Canada, having a total across all stores of 6.1M members. Now they have 1,367 locations with plans to keep expanding until they reach 4,000 stores. They predict within the next 3 years of opening another 500 stores and continue to grow until they reach their goal. In 2015 they because the primary sponsor for the New Year's Eve celebration. Finally, in 2017, they won JD Power 2017 Health and Fitness Center Satisfaction Report for highest in customer satisfaction.

Earnings Performance:

	Name (BICS Best Fit)	Sales Growth (%)	EBITDA Growth	EBITDA Margin	Operating Income Margin	Net Income Growth	Net Profit Margin	Capex/Sales (%)	Return on Invested Capital	Return on Assets	Return on
	Median	10.88%	18.73%	26.12%	12.79%	44.81%	8.61%	7.57%	9.12%	4.42%	13.25%
100)	PLANET FITNESS INC - C...	14.98%	29.15%	42.05%	34.09%	255.94%	9.36%	4.07%	159.12%	3.53%	--
101)	MEDIFAST INC	2.46%	3.99%	14.42%	12.79%	9.38%	8.61%	1.05%	23.90%	19.29%	24.43%
102)	TOSHO CO LTD	11.60%	6.97%	34.59%	27.16%	14.54%	16.88%	22.39%	9.12%	7.78%	17.45%
103)	KOSHIDAKA HOLDINGS C...	8.04%	17.77%	18.37%	11.12%	92.13%	6.60%	9.01%	14.49%	9.46%	20.73%
104)	HUAYI TENCENT ENTERTA...	10.05%	50.06%	-57.81%	-76.92%	73.34%	-111.30%	6.41%	-11.06%	-14.11%	-15.44%
105)	ARDENT LEISURE GROUP	4.40%	-59.25%	9.14%	-1.89%	--	-9.21%	42.60%	-6.23%	-4.30%	-7.96%
106)	ROUND ONE CORP	4.58%	3.28%	21.60%	7.90%	318.10%	5.02%	5.97%	7.77%	4.42%	9.06%
107)	XI'AN QUJIANG CULTURA...	10.88%	--	--	7.28%	-2.84%	5.84%	3.96%	4.70%	3.57%	6.79%
108)	SKISTAR AB	15.85%	19.69%	30.86%	20.63%	43.68%	16.92%	16.19%	9.97%	9.06%	20.32%

Since Planet Fitness is a very new company that went public in 2015, it has done very well in the past couple of years. There EBITDA Margin growth of 42.05% is substantially higher than the median of their market. This shows us that a very high percentage of their revenue is operating profitability. They had a 4.4% increase in adjusted EBITDA margins from 2016 second quarter to 2017 second quarter. They also have an operating income margin of 34.09% which shows us that before interest and taxes, for every dollar in sale, Planet Fitness makes .34 cents on that dollar. This is almost 3x higher than the average for the industry and is highest among competitors. With a net income growth of 255.94% from the past 12 months, Planet Fitness' net income has increased massively. Having a net income growth this large shows us that from the past year their profits are growing at an exponential rate. Along-side having a NI growth of that size, Planet Fitness also has an ROIC of 159.12%. I presume this to be so high due to having a little over 700M in long term debt. The long term debt was taken out over the past 3 years. This debt is mostly in their senior term loan which they just repriced and took advantage of the lower interest rates. This saved them .05% which they predict to reduce their projected interest expense by $2,000,000. Alongside all this information, comps increased by 9% making it Planet Fitness' 42nd straight positive quarter of comparable sales growths. New member growth was the driver of comps consisting of 90%. This has been around the same percentage for the past couple of years and this shows that as long as members keep joining which by their marketing strategies it looks like people will continue to join and comps will continue to be positive and increasing. Along

with all of this, Planet Fitness has increased their royalty fees. Although not all new openings will open at 7% and most will open at 5%, having a handful at 7% they predict will see an increase in the average by .41% which is why we saw an increase to 3.93% avg royalty rate from 3.43% which was Q2 of last year. Planet Fitness had a very strong quarter two for growth among sectors.

Margins				
Gross Margin	61.45	64.15	65.66	67.66
EBITDA Margin	30.73	33.56	31.54	38.91
Operating Margin	17.08	22.00	21.81	30.58
Incremental Operating Margin	–	37.08	20.81	91.31
Pretax Margin	12.53	13.75	14.30	23.77
Income before XO Margin	12.23	13.33	11.54	18.84
Net Income Margin	12.06	13.16	5.60	5.68
Net Income to Common Margin	12.06	13.16	5.60	5.68

Industry

It is projected that over the next 5 years that U.S health club revenues as a whole will grow at an annualized rate of approximately 3%. This will have to do with growing consumer awareness and an increase in people concerned with their health. CDC reported that 70% of Americans that are over the age of 20 are overweight and that includes the 35% that are considered obese. Although it's not as easy as just having people overweight and getting them to the gym, it shows that there are a lot of potential customers that could chose to join at any time. In the second quarter of 2017, nearly 25% of all people that went to the gym at least stepped into Planet Fitness. A statistic that shows differentiation for them is that out of all the members that have joined in the past year, 40% of them have said they never belonged to a gym before. This shows us that they are reaching out through their strong marketing campaigns to get new customers to join the gym.

Comparing Planet Fitness earnings performance is quite difficult due to the fact that there are not many publically traded gyms. One of the very few publically traded gyms besides Planet Fitness is Town Sports International Holdings and it's a micro-cap so it is difficult to compare with. The closest company to compare it with is Nautilus Inc which is a small cap company that produces and sells cardio and strength machines to be used at home. Although it is different trying to sell a membership versus a treadmill, they still have similar ratios. Last recorded data on 12/31/2016 Planet Fitness has down better in almost all margins. Compared to Planet Fitness' gross margin being 67.66, Nautilus Inc has a gross margin of 52.09. This shows that compared to their main competitor, Planet Fitness retains a higher percentage on each dollar of sale.

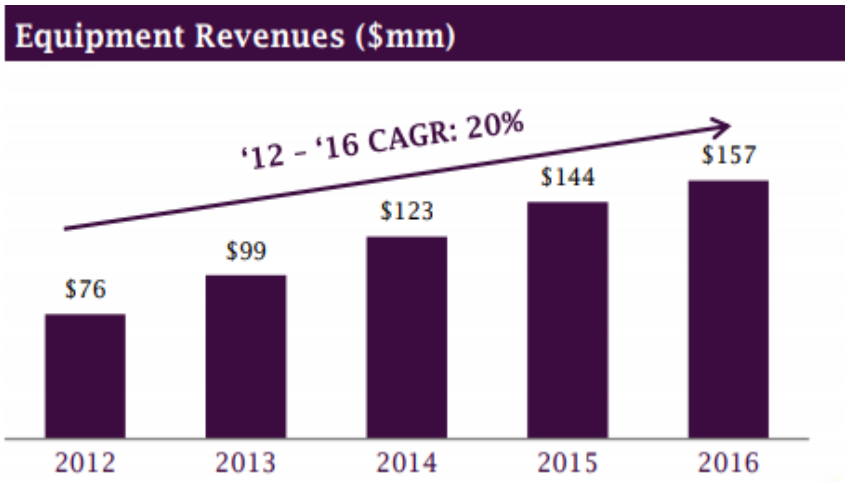
Marketing

The main focus that Planet Fitness continues to focus on is rapid growth through their marketing campaigns. In 2016 alone, Planet Fitness spent $100M on marketing their brand and getting their concept across of being an accepting and comforting gym for all ranges of people. In 2015, they became the number 1 sponsor of the Times Square New Year's Eve celebration. They are expecting approximately 1M new members that want to join the Judgement Free group and become a member of Planet Fitness after the New

Year. Not only will it be on television but also on the life streamed webcast. With a very well-capitalized franchisee stores, they are very eager to grow as well. Planet Fitness is looking to open 200 new stores per year. The main marketing for their company however is on the difference between being a regular member at the rate of $10/month or a black card member which is $19.99/month. The perks of being a black card member is you are allowed to use the massage beds/chairs and also the tanning places. Also on top of a few other things, they get cheaper foods and drinks at the gyms. With the Black Card Membership being better advertised and shown off more to the new customers, it could be beneficial for them since 40% of their new member's claim they have never belonged to a gym before. They also do not have a set demographic group that they aim to target. They say their target is the 80% of America which is everyone including the very top and very bottom. Many different members have salary differences with having 1/3rd of their population making over $100k while another 1/3rd makes under $50k.

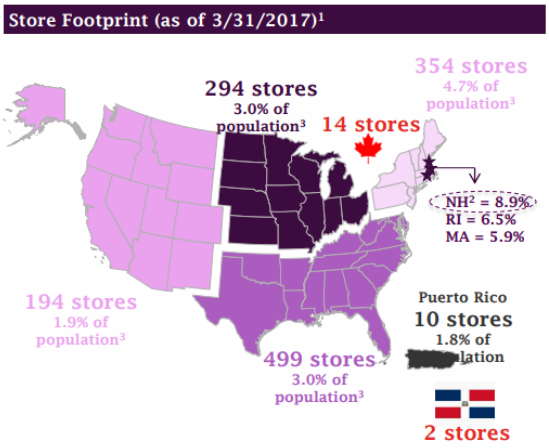
New Tech/Equipment

This section of their company is the one that is not talked about enough but why I believe they are slightly undervalued and that their stock price will increase. Planet fitness does every 5 to 7 years a replacement of equipment which is where the increase in revenue to $41.2M came from this past year. From 2012-2015 Planet Fitness had a Compound Annual Growth Rate on Equipment Revenues although has been decreasing has still been over 17% for all three years. 2016' CAGR grew by 9% and with planning on opening 500 stores within the next 3 years, I believe that CAGR will steady out to about 10% for the long term on Equipment Revenue. On top of the replacement of equipment, they are planning on adding new equipment to a few of their stores such as rowers and fit ergometers which is a fancy way of saying arm bikes. Although they are making new equipment and force their franchises to use them, they are more focused on the enhancements of their technology. They have plans to create new treadmills that replaces the red LED light that goes around the track. The new technology will replace this with images of you walking through the Grand Canyon or walking through the streets of Paris for example. On top of this they also are planning on creating treadmills that only Black Card Members will have access to. With these treadmills you will be able to search the internet and also link to your Netflix/Hulu account to watch episodes or movies. These treadmills will also allow you to shop on amazon or even stream music that you do not have on your phone to listen to you. These new technologies benefits not only the experience for the customer but also Planet Fitness as well. For the customer it is all about having a Judgement Free Zone and having them be comfortable. With these new technologies it will enhance their experience and also entice people with normal memberships to join the Black Card Memberships. However for Planet Fitness, they will be able to take in data and keep track of what type of music people are streaming or what shows people are watching at certain times of the day. This will allow them to have a competitive advantage over their competitors by knowing what their members want.



Real Estate

In order for them to expand they need property. Since they have done very well with their marketing and getting a great reputation on their brand, whenever there is a 20,000 sq ft box they are one of the first companies to get called. In order to start up a franchisee location you need 600k in liquid assets and $1.5M in net worth of all the partners. Then you have to go through another selection process but as long as you have those two you are off to a good start. As a franchisee you have to pay royalty which is a rate that you have to pay on a monthly bases or annual membership fees. This rate has just grown from 5% to 7% as of April, 2017. More recently a lot of the time a small gym going under will call Planet Fitness in hope of becoming a franchisee. With this there is are 3 different outcomes that can happen. 1st they can convert you to a Planet Fitness franchisee. Second they can move over to your location since it's a better spot and bring members. Lastly they could close your club and just inherit your members at their current location which is what happens 50% of the time. For corporate owned stores however, they are all leased on a 10-year team, with two 5-year renewal options to see how they are performing. An increase in $1.9M in corporate owned segment revenue, only 4.3% came from same-store sales.



Planet Fitness is also expanding globally. They just opened a store in Panama that is still currently in the presale process before it is the first Planet Fitness store to open in Panama. It plans on opening for use at towards the end of this year. Panama is a very easy country to open stores in compared to other Latin America countries and Mexico because its unit of currency is American Dollars. As the presale looks great in Panama they are looking to not only expand in Panama but also across other countries in the area. The main issue they see with this is the software and banking processing because it's in a different currency is done differently than the United States.

Conclusion

Overall Planet Fitness' strides to become a low cost and Judgement Free Zone will continue to lead them in the right direction. With the increase in members from the start of the new year from the New Year's Eve Sponsorship there is a high chance their stock price goes up. In the midterm and long term with the new technology of the treadmills it will force more people into being black card members alongside with the continuous openings of 200-300 new stores a year just seems like a great and very profitable future for Planet Fitness.

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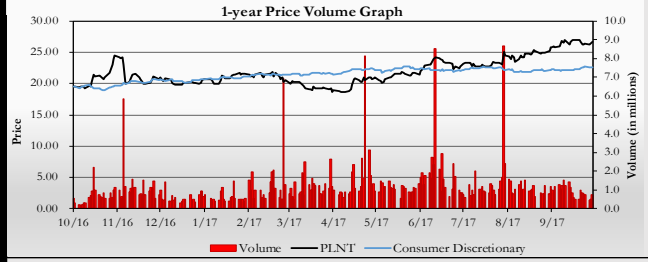
Planet Fitness, Inc. (PLNT)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Joshua Weiss	Current Price:	$26.83	Intrinsic Value	$29.88	Target 1 year Return: 48.4%
10/27/2017	Divident Yield:	3.8%	Target Price	$38.79	Probability of Price Increase: 100%

1-year Price Volume Graph



Description

Planet Fitness, Inc., through its subsidiaries, franchises and operates fitness centers.

General Information

Sector	Consumer Discretionary
Industry	Hotels, Restaurants and Leisure
Last Guidance	November 3, 2015
Next earnings date	October 26, 2017
Estimated Country Risk Premium	5.73%
Effective Tax rate	24%
Effective Operating Tax rate	24%

Market Data

Market Capitalization	$2,298.03
Daily volume (mil)	0.79
Shares outstanding (mil)	85.65
Diluted shares outstanding (mil)	60.82
% shares held by institutions	123%
% shares held by investments Managers	93%
% shares held by hedge funds	24%
% shares held by insiders	0.63%
Short interest	17.48%
Days to cover short interest	12.94
52 week high	$27.22
52-week low	$18.32
Volatility	0.00%

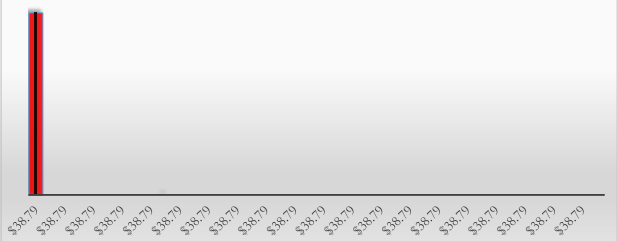
Past Earning Surprises

Quarter ending	Revenue	EBITDA
6/30/2016	3.95%	0.31%
9/30/2016	1.61%	0.16%
12/31/2016	-0.53%	-2.33%
3/31/2017	-4.10%	-2.14%
6/30/2017	-0.17%	3.62%
Mean	0.15%	-0.08%
Standard error	1.3%	1.1%

Peers

Town Sports International Holdings, Inc.
YogaWorks, Inc.
Vera Bradley, Inc.
Callaway Golf Company
Dunkin' Brands Group, Inc.

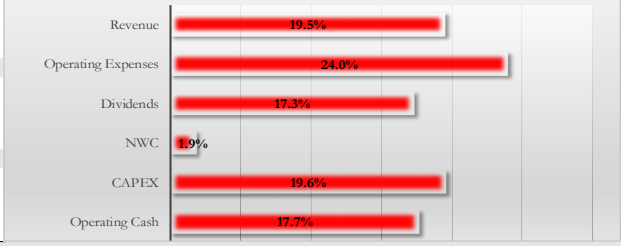
Intrinsic Value Distribution--Probability (Upside)=100%



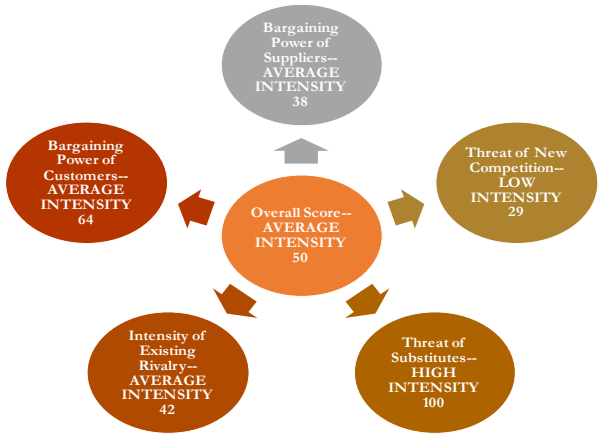
Management	Position	Total compensations growth	Total return to shareholders
Rondeau, Christopher	Chief Executive Officer and	51.5% per annum over 2y	N/M
Lively, Dorvin	President and Chief Financia	3.46% per annum over 2y	N/M
Moore, Richard	Chief Administrative Officer	7.06% per annum over 2y	N/M
Correa, Jessica	Senior Vice President of Mar	N/M	N/M
Esposito, Jim	Senior Vice President of Cor	N/M	N/M
Bode, William	Senior Vice President of Fra	N/M	N/M

Profitability	PLNT (LTM)	PLNT (5 years historical average)	Peers' Median (LTM)
Return on Capital (GAAP)	25.5%	17.05%	12.29%
Operating Margin	29%	22.76%	10.81%
Revenue/Capital (GAAP)	0.89	0.75	1.14
ROE (GAAP)	-16.4%	-655.7%	-23.1%
Net margin	8.8%	10.3%	13.4%
Revenue/Book Value (GAAP)	-1.87	-63.35	-1.73
Invested Funds	**PLNT (LTM)**	**PLNT (5 years historical average)**	**Peers' Median (LTM)**
Cash/Capital	14.3%	7.3%	21.4%
NWC/Capital	-8.2%	-4.4%	-22.8%
Operating Assets/Capital	61.7%	62.2%	85.9%
Goodwill/Capital	32.2%	34.5%	15.6%
Capital Structure	**PLNT (LTM)**	**PLNT (5 years historical average)**	**Peers' Median (LTM)**
Total Debt/Market Capitalization	1.29	0.86	0.84
Cost of Existing Debt	5.3%	4.7%	9.7%
CGFS Rating (F-score, Z-score, and default Probability)	BB	BB	BBB
WACC	8.0%	7.8%	12.7%

Sensitivity Attribution Analysis



Porter's 5 forces (scores are out of 100)



Valuation

Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	15%	32.1%	0.48
6/30/2018	8%	21.8%	0.50
6/30/2019	10%	24.5%	0.64
6/30/2020	10%	27.6%	0.75
6/30/2021	9%	30.7%	0.88
6/30/2022	8%	30.3%	1.01
6/30/2023	7%	29.9%	1.15
6/30/2024	6%	35.4%	1.29
6/30/2025	5%	34.2%	1.30
6/30/2026	4%	33.0%	1.30
6/30/2027	3%	31.8%	1.30
Continuing Period	2%	30.6%	1.30

Period	Return on Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	15.3%	8.0%	$30.40
6/30/2018	11.0%	6.7%	$38.69
6/30/2019	15.5%	5.5%	$39.00
6/30/2020	20.8%	6.1%	$39.18
6/30/2021	26.9%	7.0%	$39.35
6/30/2022	30.6%	7.5%	$39.53
6/30/2023	34.3%	7.4%	$39.53
6/30/2024	45.7%	8.3%	$39.93
6/30/2025	44.5%	8.7%	$40.36
6/30/2026	43.0%	9.0%	$40.87
6/30/2027	41.3%	9.9%	$41.70
Continuing Period	39.7%	10.2%	

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October, 18, 2017

Arista Networks (ANET)

Marco Kloster

ARISTA

Sector: Cloud Network Solutions
Industry: Communications Equipment
Current Price: $189.61
Target Price: $214.80

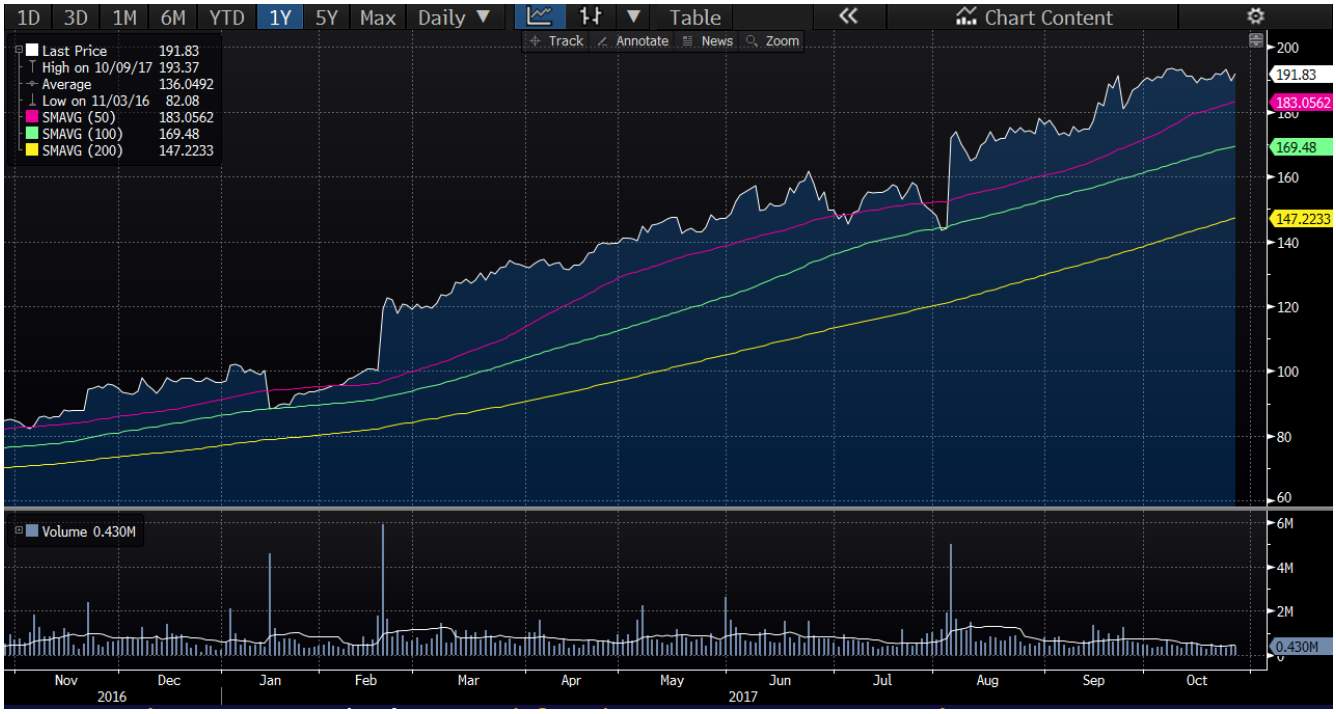
Arista Networks Inc. provides cloud-networking solutions for data-centers and computer environments. The Company offers Ethernet switches, pass-through cards, transceivers, cards, and enhanced operating systems. Arista also provides host adapter solutions and networking services and markets its products globally.

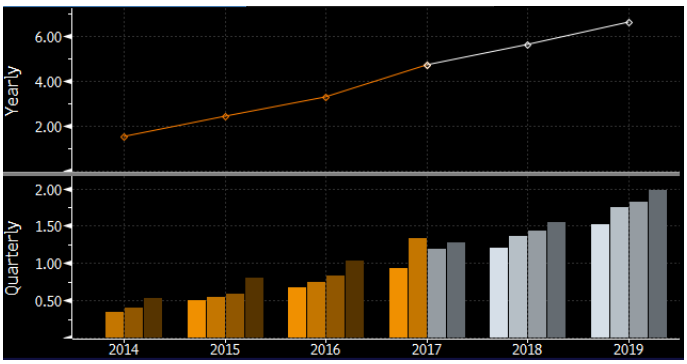
BUY

Current Price:	$189.61
Target Price:	$214.80
Market Cap:	14.97B
Beta:	1.134
Gross Margin (LTM)	64.1%
Gross Profit	39.4%
EBITDA Margin	25.8%
D/E	2.8%
Operating margin	36.3%

Catalysts:

- Short Term(within the year): Arista's software development gives it a sustained market advantage that has led to additional share gains in 100G sales.
- Mid Term(1-2 years): Worldwide spending on public cloud services and infrastructure will reach $122.5 billion in 2017, an increase of 24.4% over 2016, promising profitable revenues going forward.
- Long Term(3+): End markets show strong growth, Big Data, Social Media, Video on Demand, Service Provider Network Function Virtualization, and importantly as a Service and Software as a Service. Demand for Arista's products will increase consequently.





Thesis: Despite high trading multiples, Arista Networks continue to show strong sales momentum and increase customer base expansion as well as organic growth. In my opinion, Arista is currently undervalued and due to their growing industry, and their ability to meet customer's needs compared to the competition. Arista will capture around 20% of the data center switching market by 2020, and continue growing. Arista's advanced technology in their Ultra-high-speed Ethernet switches will guarantee Arista's success in their market. Arista's constant revenue growth and the inevitable demand for could solutions in the current market will enable Arista to continue beating earnings expectations and to become more dominant in their industry.

Earnings Performance

Arista Networks, Inc. reported their Second Quarter 2017 Financial Results by beating the expected earnings compared to analyst's estimates, once again. On August 3, ANET presented a Revenue of $405.2 million, an increase of 20.8% compared to the first quarter of 2017, and an increase of 50.8% from the second quarter of 2016. Additionally, Arista had a Non-GAAP gross margin of 64.4%, compared to a gross margin of 64.2% in the first quarter of 2017 and 64.1% in the second quarter of 2016.

Non-GAAP net income of $105.5 million, or $1.34 per diluted share, compared to net income of $53.7 million, or $0.74 per diluted share, in the second quarter of 2016.

Arista Networks beat the Earnings per Share (EPS) by 42.1%, with a $1.35 EPS compared to the analysts' estimated $0.95 EPS. Current Earnings per Share is a 45.2% increase compared to the previous quarter.

Company Overview

Arista Networks, Inc., launched on December 2, 2011, is a supplier of cloud networking solutions that use software innovations to address the needs of Internet companies, cloud service providers and data centers for enterprise support. The Company develops markets and sells cloud-networking solutions, which consist of its Gigabit Ethernet switches and related software.

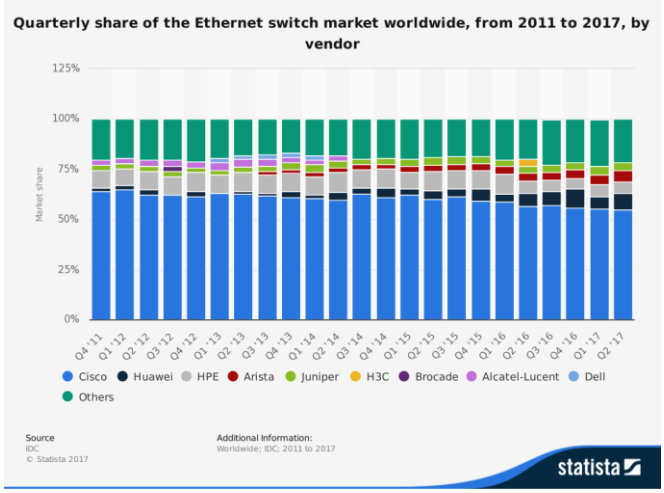
The Business's cloud networking solutions consist of its Extensible Operating System (EOS), a set of network applications and its Ethernet switching and routing platforms. The programmability of EOS has allowed the Company to create a set of software applications that address the requirements of cloud networking, including workflow automation, network visibility and analytics, and has also allowed it to integrate with a range of third-party applications for virtualization, management, automation, orchestration and network services.

EOS supports cloud and virtualization solutions, including VMware NSX, Microsoft System Center, OpenStack and other cloud management frameworks.

Industry Outlook:

The market for data center networking, including the market for cloud networking, is intensely competitive, and this competition is expected increase in the future from established competitors and new market entrants. This competition could result in increased pricing pressure, reduced profit margins, increased sales and marketing expenses. A continuous increase of revenues is crucial to Arista's business and their success in the future.

Arista intense competition, especially from larger, well-established companies, and their lack of sufficient financial shows that Arista market share acquisition may take longer due to their competitive position. Certain large competitors encourage end customers of their other products and services to adopt their data networking solutions through discounted bundled product packages, which it pressures ANET's ability to compete with their prices. However, due to its Cloud Networking Platforms and their multiple silicon architectures switches and routers enabled ANET to differentiate themselves from the rest of the industry. A differentiated product has allowed resulting in an increase of revenue growth year over year of 50.78%. The second best performer in the data center industry has only increased by 7.17%



The chart called "Quarterly share of the Ethernet switch market worldwide, from 2011 to 2017, by vendor" shows the market share by vendor around the globe. Cisco Systems, Inc. has a noticeable dominance in the market over the years. However, their average market share has declined quarter after quarter. Arista Networks have consistently increased their revenue and consequently their share in the Ethernet switch market. Huawei have also increased their market share similarly to ANET's performance, which could be worrisome due to their performance as a provider of router and switches segment.

Products and Segments:

Arista provides two distinctive products in high-speed networking market:

Series 7000 switches: This line of product has a higher efficiency compared to its competitors and at the same time offers significantly high cost savings. Based on company reports, total cost of ownership for a 100GbE port from Arista Networks is just about $3,000 compared to $100,000 in competing products. The new series of switches is a big deal and enhances the differentiation that this company can offer. The new cards are designed to provide existing customers with investment protection so they can take advantage of the new capabilities without changing out their switches. Overall, the new capabilities allow an Arista network to handle 3X the Internet routing table, 10X the number of ACL' s that can be processed and 100X what is called the sFlow rate of previous generations.

EOS (Extensible Operating Systems): Arista developed a customized operating system to be used in high-speed Ethernet switches, which is device independent. That means a user may buy any type of product, install EOS and benefit from the efficiency of ANET. Before development of EOS, users where bonded to the solution that each vendor provide. This new software allows customers to better analyze and autotomize their work, independently of the data center of their choice. Additionally, Arista EOS CloudVision simplifies tasks in a simple software solution designed to help customers move to a more automated, cloud-like infrastructure. This solution has allowed ANET to simplify the integration of the private and public cloud solutions to the customers' physical data centers. Another factor that is helping growth rates has been the advent of this company's router solutions, which have grown to be 20% of revenues in a very short space of time and helped to diversify the company's total revenue.

These are features that that are tailored to the customers that Arista targets, public cloud providers, service providers and large enterprises that need the ability to scale up and to provide a workflow automation for their customers. This ability to tailor to their customers' need is what had made Arista continue to increase revenues quarter after quarter.

Profitability:

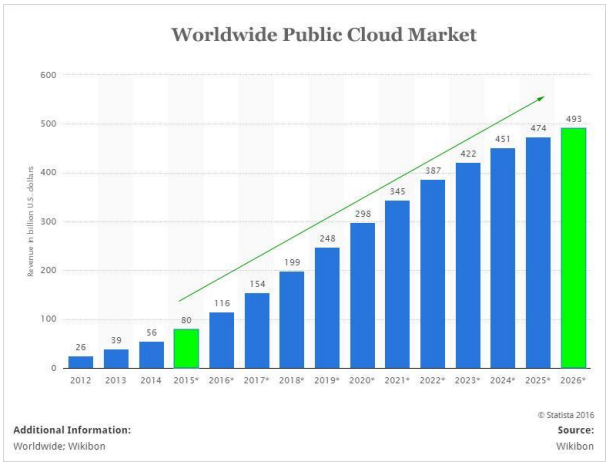
Arista's high trading multiples can be explained by their healthy financials. Arista has routinely increased their revenue and diluted EPS over the past. Their margins have been constant while new products are released with the newest technology demanded by the customers. Arista is a top-class company in their industry in terms of efficiency. Additionally, increasing sales growth quarter after quarter represent their ability to allocate their capital towards products and services that best s satisfy their customers' needs. ANET's ability to operate efficiently will guarantee their progress and success in this growing industry.

Overview | Comp Sheets | Markets | EPS Preview | Ownership | Credit | Custom

Equity Valuation | CDS Spreads | Op Stats | Profitability | Balance Sheet | ESG

	Name (BI Peers)	Sales Growth (%)	Gross Profit Growth (%)	Operating Income Growth (%)	Net Income Growth (%)	Free Cash Flow/Share Growth (%)	Return on Equity	Return on Assets (%)	Return on Invested Capital (%)
	Median	2.72%	4.75	39.28%	46.27%	14.12%	11.77%	6.52%	8.99%
100)	ARISTA NETWORKS INC	34.81%	33.03	46.41%	43.51%	13.13%	23.78%	15.52%	24.02%
101)	JUNIPER NETWORKS INC	2.72%	0.93	0.54%	-2.50%	-15.05%	13.81%	7.27%	10.17%
102)	F5 NETWORKS INC	4.76%	4.75	3.50%	9.64%	15.12%	33.84%	17.07%	32.79%
103)	NETGEAR INC	2.12%	12.10	32.45%	54.38%	--	9.47%	6.52%	8.99%
104)	A10 NETWORKS INC	15.61%	16.58	53.01%	49.27%	--	-19.25%	-7.83%	-17.66%
105)	D-LINK CORP	-13.87%	-6.47	46.11%	49.03%	--	-6.08%	-3.07%	-4.02%
106)	CISCO SYSTEMS INC	-2.52%	-2.29	0.54%	1.37%	7.63%	16.23%	8.37%	11.10%
107)	EXTREME NETWORKS INC	13.20%	19.83	97.13%	73.29%	30.59%	11.77%	2.70%	8.12%
108)	RADWARE LTD	-9.23%	-9.80	--	--	81.40%	-3.12%	-2.17%	-3.82%

Arista's Cloud Networking Opportunity:

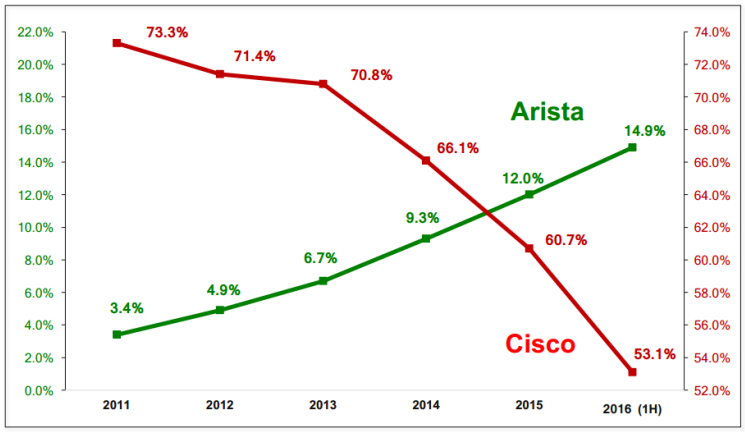


Arista Networks cloud networking solutions deliver industry-leading performance, scalability, availability, programmability, automation and visibility. The programmability of EOS has allowed the company to create and not only compete at Ethernet switches, but they are also able to integrate data centers with cloud solutions that many companies currently have. Mainly, EOS is a set of software applications that addresses the requirements of cloud networking, including workflow automation, network visibility and analytics, and has also allowed them to rapidly integrate with a wide range of third-party applications for virtualization, management, automation,

orchestration and network services. EOS is a tool that facilitates the workflow automation of cloud networking. EOS is not competing with the Cloud Titans, but facilitating their customers to optimize the usage of those services.

The demand for cloud networking is expanding rapidly and competition forces all providers to look for cheaper yet more efficient solutions. Based on estimates provided by IDC, worldwide spending on public cloud services and infrastructure will reach $122.5 billion in 2017, an increase of 24.4% over 2016. According to the their own reports, Arista is expected to deliver 20% plus growth in the Enterprise arena due to their diversification in their products ranging from the data centers, Ethernet switches and cloud networking solutions. According to the expected increase for cloud-networking solutions will ensure the upside potential from datacenter routing and software-based tech advantage, which should lead the increase Arista Networks' growth year over and year and increase of their market share.

Growth Potential:



Arista's software development has become to a market advantage that has led to additional share gains in 100G sales. Arista has tailored its solution set to the needs of the largest and most demanding users which include Cloud Titans, what it calls Cloud Specialty & Hosting Providers, the largest Service providers and the largest Financial Services vendors. Arista has a market share overall of just 5%, it has a market share of 28% in the 100GB market segment. The graph above shows the contrast between Arista and their main competitor Cisco from 2011 and 2016. The trend is still valid in this quarter. Even though Cisco still has the majority of the high-speed data center market share, they have losing their dominance year after year. The opposite has happened to Arista Networks. ANET have been gaining market share due to their product differentiation and high efficiency.

While the 100 GB segment is new, it is showing dramatic increases. That is why Arista's market share is rising. Put another way, Arista has a dramatically disproportionate share of the 100 GB market and the 100 GB market is exploding as it becomes necessary to support the performance requirements for the Cloud Titans and other larger users. ANET's growth is tied to the growth of the only part of the switching market that is growing rapidly and that seems likely to persist into the future. Following the trend, Arista Networks expects meaningful contribution from 400G products in 2019 as the Cloud Titans will continue to look for new technologies. Arista Networks have already invested in this type of technology and they will see an increase of demand for this technology in 2019.

Another area for growth is via product line extensions. Currently Arista focuses on datacenter networking, with no products addressing the markets for campus networking and wide-area networking (WAN). The cloud-based approach to IT networking is not just limited to datacenters, and Arista can further accelerate its growth by developing cloud-first products for those use cases as well.

With the financial flexibility afforded by its $1.1 billion of cash and barely no debt compared to their total equity, Arista certainly has the means to pursue capital-intensive growth strategies. Most technology hardware companies lean heavily on debt financing (Cisco has $33.7 billion of debt on its balance sheet, or a

leverage ratio of approximately 2.4x debt/EBITDA). Arista's large net cash position actually makes its enterprise value cheaper than its current market cap of $13 billion, and the clean balance sheet also gives it future flexibility for debt financing if it chooses to pursue further growth opportunities.

Ownership Summary:

Ownership Type	10/22/17	Curr↓	Change
11) Investment Advisor	60.49	60.31	-0.18
12) Individual	23.34	23.45	+0.11
13) Trust	8.65	8.69	+0.04
14) Hedge Fund Manager	4.23	4.25	+0.02
15) Pension Fund	1.18	1.18	0.00
16) Bank	0.70	0.70	0.00
17) Sovereign Wealth Fund	0.44	0.44	0.00
18) Government	0.38	0.38	0.00
19) Other	0.20	0.22	+0.02
20) Insurance Company	0.22	0.21	-0.01
21) Brokerage	0.14	0.13	-0.01

This table shows the owners of the Arista Networks. The ownership of ANET primarily consists of Investment Advisors, and Individual investors. Respectively, these two groups make up 60.49% and 23.34% of the ownership of Arista Networks. There has been an increasing position in shares outstanding by individuals, Trust and Hedge Fund Managers and a decreasing position by investment advisors. Hedge fund only represents 4.23% of the owners of the company. The hedge fun ownership increased by 0.02%. It is a sign of an increase of hedge fund interest on the company.

Conclusion:

The eminent growth in cloud data centers, as well as the expansion into the routing market should help Arista to keep growing at a similar pace into the next couple of years. Due to historical revenue growth, Arista Networks will be able to scale their operations and lead to a better operating margins and EPS. Arista has shown healthy financials compared to their competitors, which has signifies an increase of market share in each segment they operate. I value ANET as a buy since they continues to outperform their peers in a growing industry.

I have set a 1-year price target to $214.80, a 13% increase from the current price. Additionally, the following chart shows two possible scenarios that deviate from my assumption. The Bearish scenario assumes that if future revenue values are 2% less than what I expected and a 1% increase in operating expenses, there would be a 7.48% downside compared to the current share price. On the other side, the Bullish scenario represents the possibility of a 2% positive deviation in revenue compared to my prediction and a 1% decrease in operating costs compared to what I expected. The Bullish scenario (which is not far realistic since I was very conservative in my assumptions) would result in an increase of 34.27% compared to the current price. Even with high trading multiples, I believe that this stock will continue to gain value as Arista Networks gain market share and scale their operations in a growing industry.

Scenario	1-year price target	% Change
Bearish	$ 175.42	-7.48%
Realistic	$ 214.80	13.29%
Bullish	$ 254.59	34.27%

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Arista Networks, Inc. (ANET)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by MARCO KLOSTER

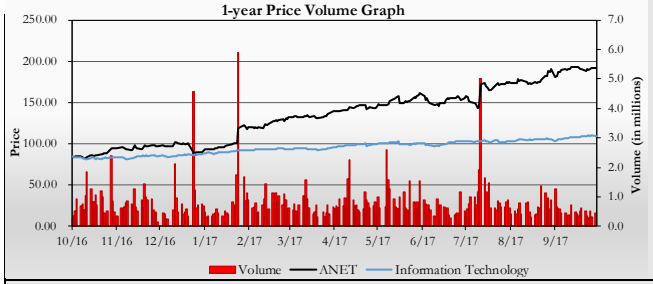
10/27/2017

Current Price:	$189.61	Intrinsic Value	$187.62
Divident Yield:	0.0%	Target Price	$214.80

Target 1 year Return: 13.28%

Probability of Price Increase: 93.67%

1-year Price Volume Graph



Description

Arista Networks, Inc. supplies cloud networking solutions in the Americas, Europe, the Middle East, Africa, and the Asia-Pacific.

General Information

Sector	Information Technology
Industry	Communications Equipment
Last Guidance	November 3, 2015
Next earnings date	November 2, 2017
Estimated Country Risk Premium	6.25%
Effective Tax rate	23%
Effective Operating Tax rate	23%

Market Data

Market Capitalization	$13,752.41
Daily volume (mil)	0.46
Shares outstanding (mil)	72.53
Diluted shares outstanding (mil)	76.04
% shares held by institutions	71%
% shares held by investments Managers	49%
% shares held by hedge funds	4%
% shares held by insiders	34.37%
Short interest	4.24%
Days to cover short interest	4.03
52 week high	$196.27
52-week low	$79.05
Volatility	0.00%

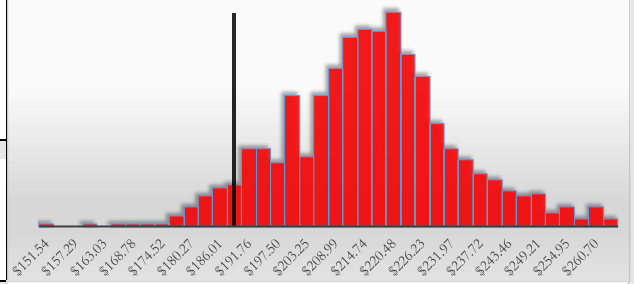
Past Earning Surprises

Quarter ending	Revenue	EBITDA
6/30/2016	2.27%	-21.96%
9/30/2016	2.57%	-13.76%
12/31/2016	3.56%	-10.78%
3/31/2017	2.64%	-17.38%
6/30/2017	12.31%	10.94%
Mean	4.67%	-10.59%
Standard error	1.9%	5.7%

Peers

NETGEAR, Inc.
Juniper Networks, Inc.
F5 Networks, Inc.
Brocade Communications Systems, Inc.
Fortinet, Inc.
Palo Alto Networks, Inc.
Cisco Systems, Inc.
Finisar Corporation

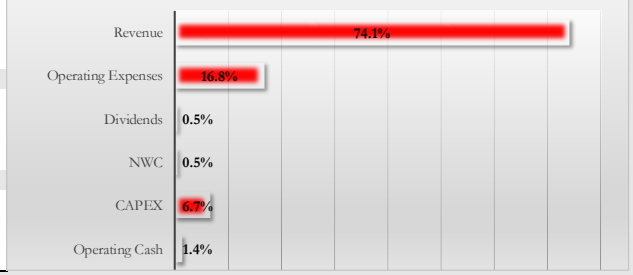
Intrinsic Value Distribution--Probability



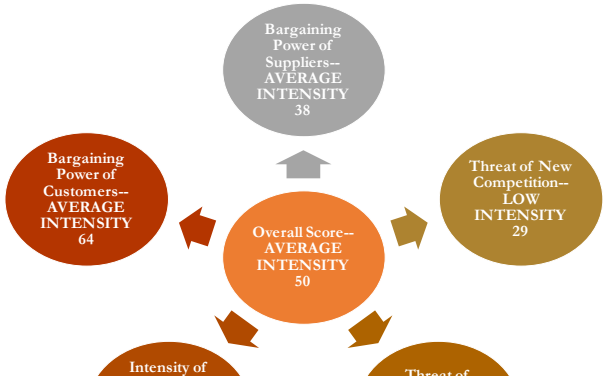
Management	Position	Total compensations growth	Total return to shareholders
Bechtolsheim, Andreas	Co-Founder, Chairman & Chief	-51.78% per annum over 2y	26.2% per annum over 2y
Ullal, Jayshree	President, CEO & Director	112.37% per annum over 3y	N/M
Brennan, Ita	CFO & Senior Vice President	-82.84% per annum over 1y	24.32% per annum over 1y
Taxay, Marc	Senior VP & General Counsel	N/M	0% per annum over 0y
Sadana, Anshul	Chief Customer Officer	-20.88% per annum over 2y	26.2% per annum over 2y
Duda, Kenneth	Co-Founder, CTO & Senior VP	-100% per annum over 2y	26.2% per annum over 2y

Profitability	ANET (LTM)	ANET (5 years historical average)	Peers' Median (LTM)
Return on Capital (GAAP)	68.6%	186.74%	34.55%
Operating Margin	22%	17.67%	13.42%
Revenue/Capital (GAAP)	3.17	10.57	2.57
ROE (GAAP)	25.9%	25.9%	9.6%
Net margin	25.1%	23.2%	10.5%
Revenue/Book Value (GAAP)	1.03	1.12	0.91
Invested Funds	**ANET (LTM)**	**ANET (5 years historical average)**	**Peers' Median (LTM)**
Cash/Capital	64.9%	80.2%	45.5%
NWC/Capital	13.3%	34.4%	-3.7%
Operating Assets/Capital	21.8%	-8.7%	41.8%
Goodwill/Capital	0.0%	0.0%	16.4%
Capital Structure	**ANET (LTM)**	**ANET (5 years historical average)**	**Peers' Median (LTM)**
Total Debt/Market Capitalization	0.04	0.16	0.20
Cost of Existing Debt	7.6%	6.9%	5.1%
CGFS Rating (F-score, Z-score, and default Probability)	BB	BB	A
WACC	13.7%	13.5%	10.6%

Sensitivity Attribution Analysis



Porter's 5 forces (scores are out of 100)



Valuation

Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	40%	31.0%	1.06
6/30/2018	35%	36.4%	1.21
6/30/2019	30%	34.6%	1.23
6/30/2020	30%	34.2%	1.27
6/30/2021	20%	32.1%	1.21
6/30/2022	15%	32.6%	1.17
6/30/2023	15%	31.2%	1.17
6/30/2024	15%	31.6%	1.20
6/30/2025	15%	31.1%	1.23
6/30/2026	10%	31.1%	1.22
6/30/2027	8%	34.2%	1.22
Continuing Period	3%	33.3%	1.19

Period	Return on Invested Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	32.8%	13.7%	$181.41
6/30/2018	44.2%	12.6%	$206.19
6/30/2019	42.5%	12.1%	$232.66
6/30/2020	43.2%	12.3%	$262.40
6/30/2021	38.8%	11.9%	$293.78
6/30/2022	37.9%	12.1%	$327.64

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BJORKLUND FUND

October 20, 2017

Nanometrics, Inc.: NANO

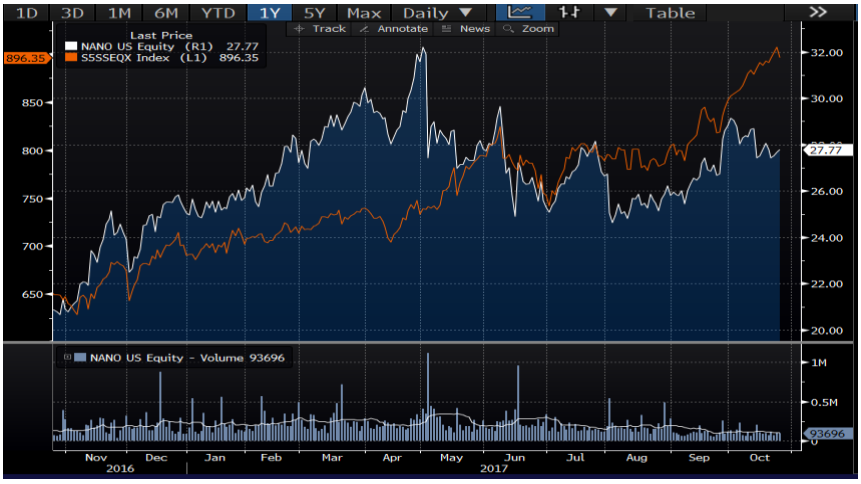
Nicholas Matzelevich

Sector: Technology
Industry: Semiconductor Equipment & Materials
Current Price: $27.77
Target Price: $33.52

Company Description: Nanometrics, Inc. manufactures film thickness and overlay metrology systems used for integrated circuit, flat panel display, and magnetic head manufacturing. These metrology systems are used to measure thickness and consistency of film materials in various electronic devices, such as semiconductors. In addition to manufacturing these machines, Nanometrics also develops their own software for implementation in their machines, and provides servicing for both the machines and software.

BUY

Current Price:	$27.77
Target Price:	$33.52
Market Cap:	$716.2M
EBITDA Margin T12M:	16.59%
Debt/Asset Ratio:	0.1531

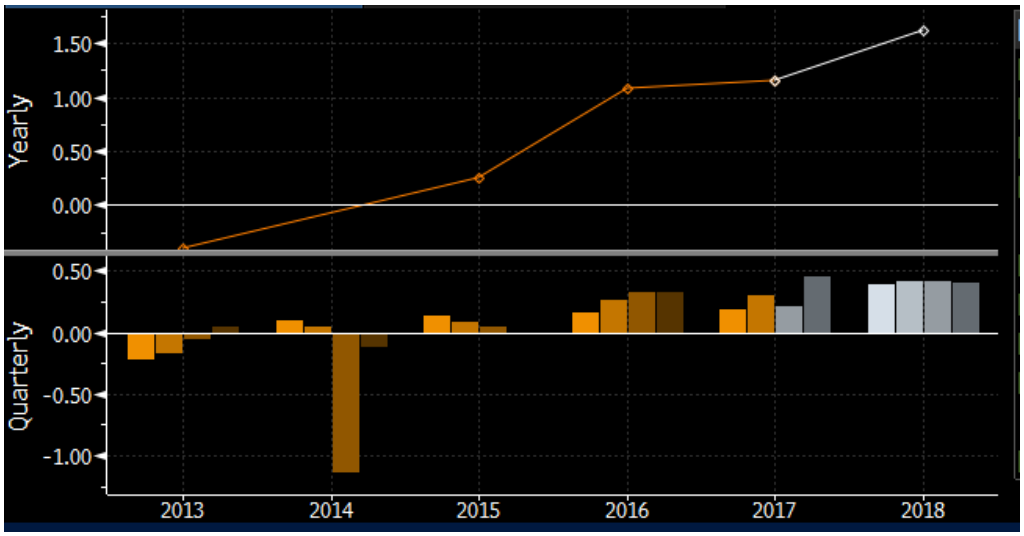


Thesis: Nanometrics is an industry leader in metrology systems and software used to measure consistency in producing semiconductors and other electronic devices. Nanometrics has experienced a growth in customer base over the past several years, leading to an increase in revenue. If Nanometrics can continue to increase their revenue and EBITDA margin, then double digit stock can be expected in the coming months.

Catalysts: Forward looking projections that call for positive/negative outlook that will strengthen your thesis. Example:

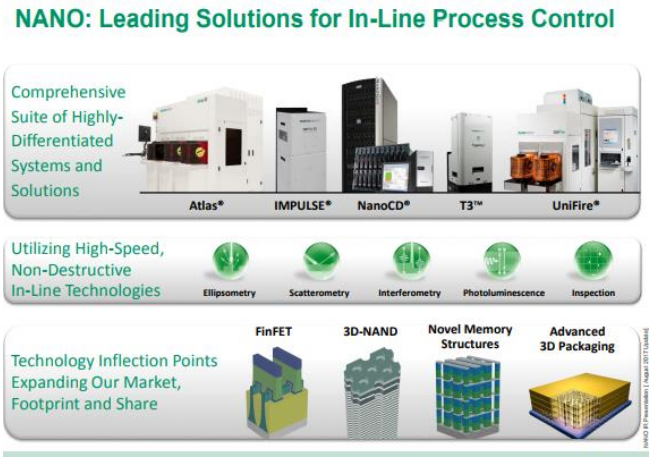
- Short Term(within the year): Atlas product line is being adopted by leasing memory chip manufacturers.
- Mid Term(1-2 years): Micron announces 2018 capex spending of $7.5B
- Long Term(3+): Continued usage of microchips in various electronics.

Earnings Performance:



Nanometrics has beaten 5 out of their past 8 projected earnings, continuing the overall growth trend since 2013. Most recently, the company announced its preliminary revenue and EPS for Q3 2017 will miss their projections and fall in the range of $56M-$57M and $0.20-$0.22 respectively. This miss in projections is due to the delay in revenue recognition on multiple systems sold to Japanese companies, all of which require customer acceptance. As a result, the stock price fell by $0.90 since the announcement, which occurred approximately a week ago. The upside to these missed projections is that the delayed revenue recognition will be fully recognized in Q4 2017, leading to projections of EPS in the $0.40-$0.50 range and revenue in the $72M-$80M range. Furthermore, the fall in stock price has made Nanometrics a more desirable stock to buy, as the price will rebound and continue to grow in Q4 2017.

Business Description:



Nanometrics, Inc. is a leading manufacturer of process control metrology and inspection systems for the fabrication of semiconductors, optoelectronic devices, high-brightness LEDs, and data storage components. These systems are comprised of a physical measuring device and accompanying software, both developed by the company, that measure critical dimensions, device structures, topography, and various thin film properties, such as thickness and electrical properties. These systems are deployed throughout fabrication process, from actual manufacturing to wafer-level packaging of the product. In addition to manufacturing these systems, the company also provides servicing for their products. This servicing comprises 16.3% of revenue as of FYE 2016, while the manufacturing of the systems makes up 83.7% of revenue as of FYE 2016.

Nanometrics operates in a global economy, distributing the bulk of their products to Asia and the United States. Asia is the largest geographical segment, making up 81% of revenue. The United States comprises 13.5% of revenue, and the rest of the world 5.5%.

Nanometrics' flagship product line, Atlas, has several sub-lines, the Atlas III, II+, XP+, and M. All of these products are automated standalone metrology systems. To accompany these systems, Nanometrics has developed the NanoCD Suite, accompanying software that optimizes the full capability of the Atlas system

through modeling methods, regression capability, and sensitivity analysis tools in order to accurately assess and measure their customers' products. The Atlas system also falls under the category of capital expenditure for Nanometrics' customers.

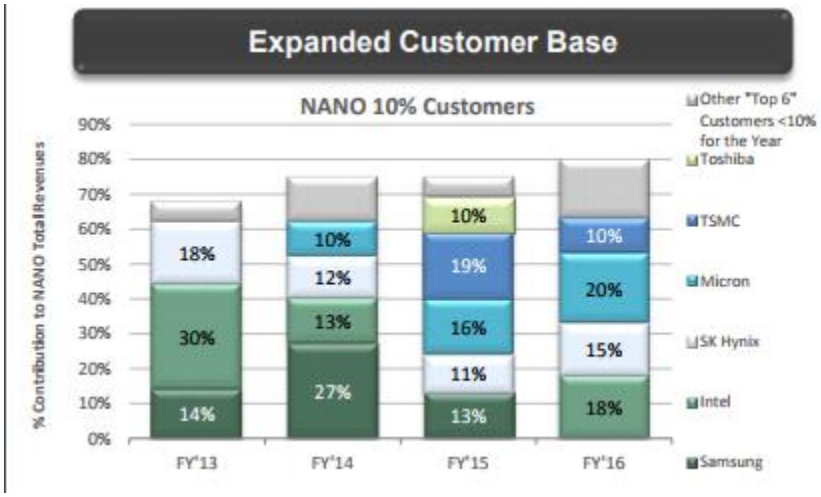
Industry Overview and Outlook:

Nanometrics operates in a niche industry, the manufacturing and support of optical critical dimension metrology for semiconductor manufacturing. These semiconductors are used throughout the electronic device manufacturing process. The industry's end customers manufacture different types of integrated circuits, such as information processing and management, memory storage, and analog devices.

Demand for the optical critical dimension metrology industry is driven by the semiconductor manufacturers. The semiconductor manufacturers want to constantly improve their chip performance. This includes improvements in power efficiency, logic processing capability, and data storage volume. Since Nanometrics' industry is tightly tied to the semiconductor manufacturing industry, it naturally follows that the semiconductor chip business cycle affects Nanometric's industry. The semiconductor industry is highly cyclical and based around the timing of integrated electronic manufacturer's chip purchases. Often times, semiconductor manufacturers will exceed the global demand for semiconductor chips, causing a slow-down in chip production and the eventual lagging behind global chip demand. As a result, the price for chips can vary greatly depending on the stage of the business cycle. Nanometrics experiences these trends through the purchases of their metrology equipment. If the business cycle is in a boom, more orders will come in and vice versa.

Currently, the semiconductor chip market is in a boom, as shown by the increase in semiconductor indices in the graph above and the numerous orders Nanometrics and its competitors have received since the beginning of 2017. This trend is expected to continue through the end of this year at a minimum.

Customer Growth:



Since 2013, Nanometrics has been expanding its customer base to include some of the top semiconductor manufacturers in the industry, such as Samsung, Toshiba, and Intel. As shown in the graph above, Nanometrics' top ten percent of customers have grown from three customers to five since 2013. This customer growth can be attributed to the adoption of the Atlas MPU and Atlas III systems, which deliver higher productivity and improved thin metrology performance.

Micron, one of Nanometrics' top customers, recently announced a significant increase in capital expenditure for 2018 to $7.8B, which exceeds analyst estimates of $6B. Furthermore, this is a large increase from capital expenditure in 2017, which is estimated to be $4.8B-$5.2B. This spending will be equally divided between DRAM and NAND chip manufacturing. As Nanometrics' products both support DRAM and NAND manufacturing systems, there is little doubt that Micron will return to Nanometrics for additional metrology systems, increasing revenues and growing the stock price of Nanometrics.

Revenue Growth:

Since 2013, Nanometrics has been consistently growing their revenue, from $144.3M in 2013 to $221.1M in 2016. This can be attributed to the wide adoption of their Atlas product line by numerous leading chip manufacturers. Of particular interest is the $33.8M increase in revenue from 2015 to 2016, their largest growth since 2013, which is an 18% growth. This growth can be most attributable to an industry-wide improvement in 3D NAND- related semiconductor capital spending. This trend is expected to continue in 2017 and 2018, highlighted by Micron's announcement of $7.8B in capital expenditure for 2018 and Nanometrics' expected revenue of $288.3M.

Quarterly, Nanometrics has been improving their revenue growth over the past twelve months, from $55.8M in Q2 2016 to $64.4M in Q2 2017. Recently, the company announced a missed earnings in revenue for Q3 2017. While the company was expected to earn $62.5M for the quarter, the preliminary Q3 earnings report suggests only $56M-$57M. This miss in revenue is attributable to a delay of revenue recognition on multiple systems in Japan that required customer acceptance. While this miss in earnings has caused a small drop in stock price since the announcement, around $1.20, the revenue is expected to be fully realized in Q4 2017. In fact, analysts are expecting revenues of $75.9M for the quarter. Furthermore, this slight drop in stock price provides a unique mispricing opportunity in the market, in that there is already known additional revenue in Q4 2017 that will cause the stock price to increase at the end of the quarter.

Improving EBITDA Margin:

	Name	Mkt↑ Cap (USD)	Last Px	Rev - 1 Yr Gr:Y	ROE	T12M EBITDA Mrgn:Y	T12M EBITDA Mrgn:Q
	Median	1.02B	27.77	1.38%	11.22%	7.83%	11.43%
100)	NANOMETRICS INC	708.01M	27.77	18.02%	11.94%	16.59%	17.12%
101)	ELECTRO SCIENTIFIC INDS INC	562.33M	16.97	-12.67%	-8.94%	-5.77%	-2.82%
102)	VEECO INSTRUMENTS INC	852.20M	17.60	-30.31%	-2.58%	-3.33%	1.69%
103)	AXCELIS TECHNOLOGIES INC	1.02B	32.75	-11.45%	13.80%	7.83%	11.43%
104)	ULTRA CLEAN HOLDINGS INC	1.10B	32.69	19.96%	21.38%	6.39%	10.12%
105)	FORMFACTOR INC	1.27B	17.45	35.96%	1.88%	9.28%	16.11%
106)	BROOKS AUTOMATION INC	2.27B	32.49	1.38%	11.22%	8.76%	14.33%

In addition to growing their revenues from 2013-2016, Nanometrics has also been growing their EBITDA margin to be a leader among their competitors. In 2014, Nanometrics' EBITDA margin was only 0.2%. Since then, their EBITDA has improved to an LTM margin of 16.59% yearly and LTM margin of 17.12% quarterly. In both cases, Nanometrics is the leader among their competitors, as shown in the chart above. An EBITDA margin that continues to improve coupled with the margin being an industry leader provides a strong outlook for Nanometrics, which will cause the price of their stock to rise.

Little Total Debt:

NANOMETRICS INCORPORATED

CONSOLIDATED BALANCE SHEETS

(In thousands except share and per share amounts)

	December 31, 2016	December 26, 2015
ASSETS		
Current assets:		
Cash and cash equivalents	$ 47,062	$ 38,154
Marketable securities	82,899	44,931
Accounts receivable, net of allowances of $73 and $150, respectively	39,457	37,832
Inventories	38,837	47,749
Inventories-delivered systems	2,457	2,856
Prepaid expenses and other	5,667	6,592
Total current assets	216,379	178,114
Property, plant and equipment, net	44,226	44,493
Goodwill	8,940	9,415
Intangible assets, net	412	1,867
Deferred income tax assets	17,399	1,118
Other assets	474	533
Total assets	$ 287,830	$ 235,540
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 11,342	$ 11,675
Accrued payroll and related expenses	12,656	10,097
Deferred revenue	9,168	12,790
Other current liabilities	8,047	8,878
Income taxes payable	813	1,771
Total current liabilities	42,026	45,211
Deferred revenue	816	827
Income taxes payable	841	775
Deferred tax liability	20	521
Other long-term liabilities	353	878
Total liabilities	44,056	48,212

Nanometrics also has little debt compared to their assets, only furthering their position as a strong company. As of FYE 2016, Nanometrics has $44.06M in total liabilities, some of this debt stems from accrued payroll, accounts payable, and deferred revenue. Additionally, the company has several long term open purchase agreements with their suppliers, as shown in the provided balance sheet. As of FYE 2016, this commitment is estimated to be $30.6M, with $30.5M expected to be paid in 2017; however, the actual expenditure amount may vary based on transaction volume, length, renegotiation, or cancellation. As a result of their small debt, Nanometrics has a debt to asset ratio of 0.1531.

Conclusion:

Nanometrics' premier Atlas product line has led to significant customer acquisition and revenue growth since 2013. This wide adoption of Atlas by leading microchip manufacturers is expected to continue through 2017 and into 2018, as shown by Micron's 2018 capital expenditure announcement of $7.8B, which will cause an increase in Nanometrics' stock price. This announcement follows the overall semiconductor equipment industry boom, which will also cause Nanometrics' stock price to increase. Furthermore, Nanometrics' miss in Q3 2017 revenue has caused a $1.20 decrease in stock price, causing a mispricing opportunity for an otherwise successful company that must be capitalized upon before Q4 2017's revenues are reported.

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Nanometrics Incorporated (NANO)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

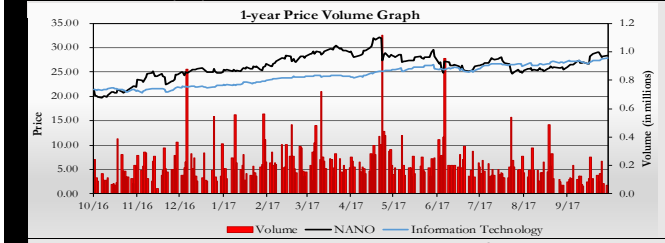
Analysis by Nick Matzelevich

10/25/2017

Current Price:	$28.66	Intrinsic Value	$30.51
Divident Yield:	0.0%	Target Price	$33.52

Target 1 year Return: 16.97%

Probability of Price Increase: 98%



Description

Nanometrics Incorporated provides process control metrology and inspection systems for use primarily in the fabrication of semiconductors and other solid-state devices worldwide.

General Information

Sector	Information Technology
Industry	Semiconductors and Semiconductor Equipment
Last Guidance	November 3, 2015
Next earnings date	October 28, 2017
Estimated Country Risk Premium	8.35%
Effective Tax rate	24%
Effective Operating Tax rate	25%

Market Data

Market Capitalization	$730.70
Daily volume (mil)	0.06
Shares outstanding (mil)	25.50
Diluted shares outstanding (mil)	25.71
% shares held by institutions	84%
% shares held by investments Managers	70%
% shares held by hedge funds	10%
% shares held by insiders	4.79%
Short interest	2.79%
Days to cover short interest	4.58
52 week high	$32.42
52-week low	$18.65
Volatility	30.83%

Past Earning Surprises

Quarter ending	Revenue	EBITDA
6/25/2016	-0.42%	N/A
9/24/2016	1.23%	1.83%
12/31/2016	1.82%	3.03%
4/1/2017	-2.12%	-32.46%
7/1/2017	-3.84%	-13.64%
Mean	-0.66%	-10.31%
Standard error	1.1%	8.3%

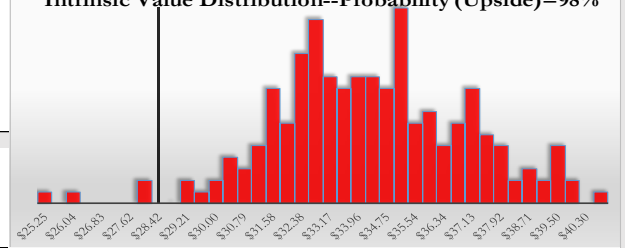
Peers

Veeco Instruments Inc.
Rudolph Technologies, Inc.
Axcelis Technologies, Inc.
Xcerra Corporation
KLA-Tencor Corporation
Advanced Energy Industries, Inc.
Lam Research Corporation
FormFactor, Inc.

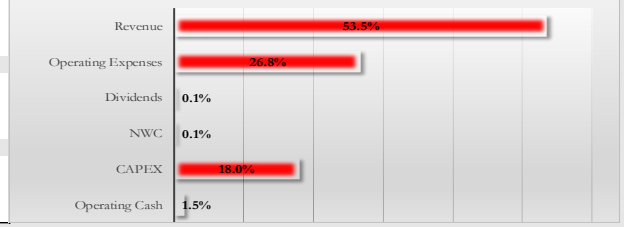
Management	Position	Total compensations growth	Total return to shareholders
Stultz, Timothy	Chief Executive Officer, Pre	25.41% per annum over 5y	-3.51% per annum over 5y
Andreson, Jeffrey	Chief Financial Officer	13.77% per annum over 2y	22.9% per annum over 2y
Borowicz, Stanislaw	Executive Vice President of	41.98% per annum over 1y	58.71% per annum over 1y
Taylor, Janet	General Counsel	21.67% per annum over 1y	58.71% per annum over 1y
Kocher, Rollin	Senior Vice President of Com	N/M	0% per annum over 0y
Ziman, Philip	Vice President of Global Hum	N/M	N/M

Profitability	NANO (LTM)	NANO (5 years historical average)	Peers' Median (LTM)
Return on Capital (GAAP)	23.3%	5.60%	37.55%
Operating Margin	11%	3.56%	13.69%
Revenue/Capital (GAAP)	2.12	1.57	2.74
ROE (GAAP)	19.8%	2.1%	26.5%
Net margin	19.9%	2.4%	16.7%
Revenue/Book Value (GAAP)	0.99	0.87	1.58
Invested Funds	**NANO (LTM)**	**NANO (5 years historical average)**	**Peers' Median (LTM)**
Cash/Capital	51.2%	45.8%	45.5%
NWC/Capital	23.1%	23.0%	18.2%
Operating Assets/Capital	22.1%	24.4%	20.0%
Goodwill/Capital	3.7%	5.3%	16.2%
Capital Structure	**NANO (LTM)**	**NANO (5 years historical average)**	**Peers' Median (LTM)**
Total Debt/Market Capitalization	0.00	0.00	0.23
Cost of Existing Debt	4.0%	4.0%	5.5%
CGFS Rating (F-score, Z-score, and default Probability)	AA	BBB	BBB
WACC	8.2%	12.4%	12.9%

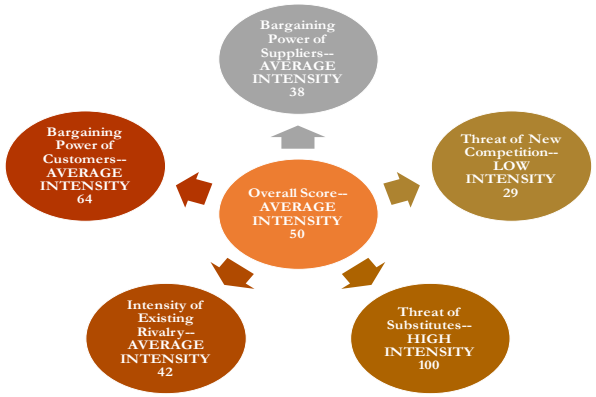
Intrinsic Value Distribution--Probability (Upside)=98%



Sensitivity Attribution Analysis



Porter's 5 forces (scores are out of 100)



Valuation

Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	26%	13.7%	0.69
7/1/2018	13%	20.3%	0.72
7/1/2019	12%	21.2%	0.68
7/1/2020	11%	21.7%	0.63
7/1/2021	10%	21.8%	0.59
7/1/2022	9%	21.9%	0.55
7/1/2023	8%	22.3%	0.51
7/1/2024	6%	22.4%	0.47
7/1/2025	5%	22.5%	0.44
7/1/2026	4%	22.6%	0.41
7/1/2027	3%	22.7%	0.38
Continuing Period	2%	22.8%	0.35

Period	Return on Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	9.5%	8.2%	$30.26
7/1/2018	14.7%	8.2%	$32.98
7/1/2019	14.4%	11.8%	$37.21
7/1/2020	13.7%	11.9%	$41.97
7/1/2021	12.8%	11.8%	$46.77
7/1/2022	11.9%	11.8%	$51.81
7/1/2023	11.3%	11.8%	$57.07
7/1/2024	10.6%	11.9%	$62.48
7/1/2025	9.9%	11.9%	$68.03
7/1/2026	9.3%	11.9%	$73.72
7/1/2027	8.6%	12.0%	$79.51
Continuing Period	8.1%	12.0%	

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October 27, 2017

Company Name: WLDN

Michael Diotalevi

Sector: Industrials
Industry: Electricity
Current Price: $29.86
Target Price: $32.51

Company Description:

The Willdan Group is the leading provider of professional technical and consulting services to utilities, private industry, and public agencies. The group enables their clients to realize cost and energy savings providing a wide range of specialized services. Offering four segments of business: *Energy Efficiency and Sustainability, Engineering and Planning, Economic and Financial Consulting, National Preparedness and Interoperability*, The Willdan Group operates business through a nationwide network of offices in Arizona, California, Colorado, Florida, Illinois, Kansas, New Jersey, New York, Ohio, Oregon, Texas, Utah, Washington and Washington, DC. As of December 30, 2016 the group employed 831 employees including licensed engineers and other professionals.

Founded in 1964 The Willdan Group was later developed into a holding group in 2006. Historically their clients have been public agencies in communities with populations from 10,000 to 300,000 people. The group believes that, "communities of this size are underserved by large outsourcing companies that tend to focus on securing large federal and state projects and private sector projects. Since expanding into energy efficiency services, our client base has grown to include investor-owned and other public utilities as well as substantial energy users in government and business. (10-K, Description)"

Limit Buy @ $28.68

Current Price:	$29.86
Target Price:	$32.38
Market Cap:	258.70M
Beta:	1.71
Average Volume:	31734

D/E: .13
Roe: LTM 17.9%, Ke 11%
Roic: LTM 13.8%, Wacc 8.3%
2016 EBITDA margin: 7.07
Sales Growth LTM: 62.31%

Thesis:

Demand within the electricity efficiency segment of power generation is becoming a national concern. As demand increases, there is trending movement by consumers toward more efficient methods of electricity transportation. This trend stimulates from the increased expenses consumers are realizing. The market itself is growing and modernizing by a global push for "more green" energy. Traditional methods such as gas and coal generation systems, long-line transmission systems, and local distribution are

Catalysts:

- **Short Term (within the year):** Announcement of third quarter earnings on 11/02/2017
- **Mid Term (1-2 Years):** Increased operating margins from acquisition.
- **Long Term (3+ Years):** Nationwide regulation, government-mandated improvements to energy efficiency, and increasing concern for energy efficiency nationwide.

beginning to change in how electricity is transmitted through each segment. The Willdan Group is at the heart of this, focusing its targets on their energy efficiency and engineering segments on a national scale.

Users are looking for more cost efficient means of obtaining their needed kilowatt's (KWH), while lowering CAPEX expenses associated with electricity. Large-scale users are becoming more reliant on analytical research, gathering of data, strategized systems, and integrated planning for efficiency programs. The Willdan Group currently holds the industry leading technology in transmission analytical data.

With a well-known reputation in civil engineering The Willdan Group has taken its previous business model, diversified it, and synchronized their expertise to become an emerging leader within the energy efficiency industry. Through acquisition, research and development, and analytically backed strategy, The Willdan Group will see rapid growth within two of its four segments.

Second Quarter Earnings Performance and release of 3rd quarter earnings:

The Willdan Group has continued to see double-digit revenue growth within three of their four segments. From the groups most recent earnings call transcript, the company reports; Total contract revenue for the second quarter of 2017 increased 21.9% to $71.8 million from $58.9 million from the second quarter of 2016. By segment, including both organic and acquisitive revenue, energy efficiency services increased 26.1% to $53.7 million; engineering services contract revenue increased 11.1% to $14.1 million. Revenue from public finance services increased 14.7% to $3.5 million and homeland security services revenue decreased 15.1% to $527,000 in the quarter. The 21.9% increase in contract revenue was reported as organic growth.

The follow chart is a comparison of revenue, by segment over a four-year term. The data is a comparison of the first and second quarters of 2017:

WILLDAN

($ in Thousands, Except Per Share Data)	2013	2014	2015	2016					2017		
	Total	Total	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	YTD
REVENUE	**85,510**	**108,080**	**135,103**	**33,915**	**58,941**	**58,660**	**57,425**	**208,941**	**68,351**	**71,833**	**140,184**
Energy Efficiency Services	36,041	52,941	74,124	18,979	42,606	41,988	38,317	141,890	50,114	53,733	103,847
Engineering Services	35,217	40,783	45,997	11,262	12,696	12,906	15,426	52,290	14,376	14,111	28,487
Public Finance Services	9,845	10,630	11,857	2,989	3,018	3,199	3,180	12,386	3,238	3,462	6,700
Homeland Security Services	4,407	3,726	3,125	685	621	567	502	2,375	623	527	1,150

Revenue Growth:

Y/Y REVENUE GROWTH %	**(8.5%)**	**26.4%**	**25.0%**	**2%**	**60%**	**75%**	**82%**	**54.7%**	**102%**	**22%**	**51%**
Energy Efficiency Services	(21%)	47%	40.0%	0%	98%	136%	141%	91.4%	164%	26%	69%

Of the four segments Willdan operates, the company is seeing increased revenue growth in its two main segments. The *Energy Efficiency Services* segment and *Engineering Services* segment are expected to continue to grow due a macro driven demand for efficiency, and a relative demand increase pertaining to both segments. Through acquiring Genesys and Integral Analytics Willdan will begin to recognize the benefits of acquisition through the up-coming years by capitalizing on increasing revenue. Performance of Willdan's energy efficiency sector and engineering services were the major contributing factors towards revenue generation and operating earnings. Both were within the companies' expectations.

The following chart represents Bloomberg analyst's projections of revenue for the years 2018 and 2019, and previous quarter's performance. The percentages in grey represent analysts' forecasts for each segment.

>		1) YoY % Growth			2) PoP % Growth	
	2014	2015	2016	2017	2018	2019
Q1 Mar	6%	47%	2%	102%	9%	4%
Q2 Jun	32%	36%	60%	22%	9%	5%
Q3 Sep	33%	19%	75%	3%	19%	13%
Q4 Dec	35%	4%	82%	2%	21%	17%

For each year on a quarterly spectrum revenue has grown, and is projected to grow throughout 2018 and 2019. For quarter 4 of 2016, and quarter 1 of 2017, the increases in revenue came from a contract win with New York's *Con Edison* utility company. The *Con Edison* deal was a statewide energy efficiency program that The Willdan Group won project-engineering rights to. It was a project that required strategic planning and precise engineering on a state-wide scale. For this deal, the group used Integral Analytical data, which contributed to the most efficient plan design. The group's ability to use this software is what set them apart from their competition when placing a bid on the project. The Willdan Group looks to revisit this particular contract when the current contract ends and a new contract must be re-instated by the end of 2018. Contracted work like the *Con Edison* deal is a strong catalyst in future revenue. Existing relations and reputation will be a contributing factor to allow The Willdan Group to win, and re-win these contracted operations. The past quarter's increase in revenue is also a result of The Willdan Group expanding into new target markets.

Mentioned by Thomas Brisbin, Willdan's *Chief Executive Officer* in the most recent earning conference, "we continue to see strong growth in both energy efficiency and our engineering segment." The increase in revenue came from new areas of business Willdam has begun to work with. Specifically the earnings call mentions Kansas, New Jersey, Connecticut, and Oregon as Willdam diversifies across the country. Willdan also is highly interested in the mid-west in particular where the market of energy efficiency is just beginning to emerge. Willdam expects an upward trend in efficiency as the market is seeing an increasing number of states and municipalities starting to involve more funding to energy efficiency, energy resiliency and distributed energy resources. New states are now beginning to deregulate their electricity markets, opening new opportunity within the energy market.

Improving Operating Margins:

Direct costs for contract revenue for the quarter were up 29.1% compared to the previous year's quarter. Stacy McLaughlin, Willdan Group's Chief Financial Officer mentions that the increase in direct costs were, "primarily a result of the growth in total contract revenues in the energy efficiency services segment and the corresponding increase in subcontractor services and other direct costs." Stacy also mentions that, "given the pipeline of work

ahead of us we think that our direct costs as a percentage of contract revenue has most likely peeked primarily due to less subcontracting required for these future projects."

Operating income increased by 15% compared to the previous year's second quarter. EBITDA increased to $5.6 million from $5.1 million comparably. For the most recent quarter the group missed EBITDA estimates due to the increased costs associated with the subcontracting necessary to meet increased contract revenue, and attributable Genesys acquisition expenses. Direct costs were up for 2017 quarters one and two, as the incremental cash expenses were recognized from the 2016 acquisition of all of Genesys's assets. $43.2 million were attributable to the incremental costs associated with Genesys. This is presented in the following chart, which is comparison of EBITDA actual (yellow), and Bloomberg EBITDA estimates (in grey).

08/03/2017	Q2 17	06/17	5.514M	5.612M	6.197M	-9.44%
05/04/2017	Q1 17	03/17	2.883M	3.077M	2.810M	9.50%
03/09/2017	Q4 16	12/16	3.595M	3.746M	3.535M	5.97%
11/03/2016	Q3 16	09/16	3.801M	5.059M	4.145M	22.05%
08/04/2016	Q2 16	06/16	4.920M	5.059M	4.540M	11.43%
05/05/2016	Q1 16	03/16	2.448M	2.421M	2.565M	-5.61%

Directly focusing on operating margin and EBITDA the following graph represents The Willdan Group's operating margin and EBITDA margin for previous, current, and future years. Once again, Bloomberg analysts' projections are in grey. Future estimates suggest an increase in both segment.

	FY 2015	FY 2016	Current/LTM	FY 2017 Est	FY 2018 Est
	01/01/2016	12/30/2016	06/30/2017	12/31/2017	12/31/2018
Operating Margin	5.57	5.53	4.79	5.63	7.00
EBITDA Margin	9.6	14.8	15.8	18.5	25.8

In 2016 Willdan Energy Solutions acquired substantially all of the assets of Genesys Engineering P.C, a now subsidiary company based out of the state of New York. The acquisition in March of 2016 has accounted for $22 million of the contract revenue in the first quarter of 2017. This acquisition allowed the Willdan group to strengthen their power engineering capability within the northeastern U.S, while increasing client exposure and experience with universities and hospitals specifically. The acquisition was conducted through a cash purchase of $6-million at initial payment, and a twenty-four month common stock repayment program for the remaining stock which took effect on March 26,2016. In completing the acquisition, Willdan will pay an expected $12-million in cash.

On March 5, 2016 WESGEN, a non-affiliate corporation merged with Genesys. Genesys emerged as the surviving company. The acquisition of Genesys provides a strong background in plant operations, maintenance, and physical engineering of systems. Genesys engineers work effectively with plant operators and owners to provide the most efficient and cost reductive systems for their clients. Acquiring an engineering company, The Willdan Group will begin to lower the costs associated with production through their ability to manufacture materials once subcontracted in production.

Genesys Engineering, P.C. is a power-engineering firm that provides planning, design, project management, and commissioning services for the energy and utility infrastructure of major facilities and large building complexes - including large commercial and institutional buildings, commercial and industrial parks, manufacturing facilities, university campuses, hospitals, and military facilities. While providing planning Genesys also manufactures many of the products required in energy efficiency programs. Less subcontract services leads to greater return from

operations. Subcontractor services have been increasing from increased revenue, but with the acquisition of Genesys these costs can be expected to decrease. Tom Brisbin, President and CEO of Willdan states, "In addition to complementary technical skills, Genesys brings to Willdan a new group of long-term university and industrial customers, while Willdan brings to Genesys strong utilities experience and broader national reach. As America's power systems evolve toward distributed generation and “microgrids”, our combined technical solutions should become more valuable.”

On July 28th, 2017 the Willdan Group completed its second acquisition. The acquisition was of the company Integral Analytics. Conducted through a $15-million cash payment made at closing, a $3-million cash purchase of common stock, and an earn-out of $30-million. All aspects were preformed through cash.

Integral Analytics has developed and delivered the electric industry’s highest-preforming data-science software allowing utilities and grid-edge participants to plan, forecast, value, invest and execute change on distribution systems. Integral Analytics merges economics with power engineering to provide more precise forecasting and utility operations decisions. IA works as a prime contractor for more than 40 investor owned and municipal utilities nationwide. The California Public Utilities Commission recently referred to IA as the “gold standard” of planning and, “that all other utilities should be using these mathematical tools to optimize CAPEX spending.” Willdan expects Integral Analytics to contribute ~70 basis points to margin, moving EBITDA margin closer to 9% compared to the current ratio. “With data infrastructure, IA has created the ability for the data segment to offer ~10% revenue within the next year. (T.Brisban,CFO)”

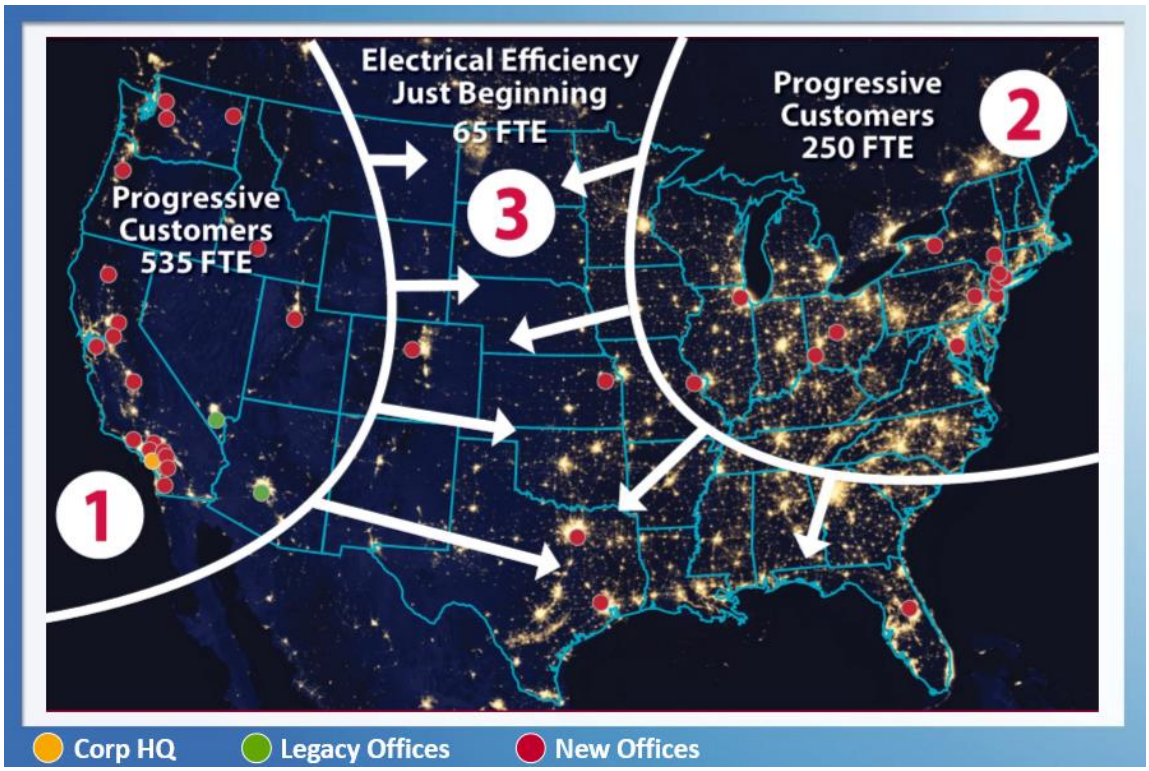
Q3 IA Acquisition
(closed 7/28/17)

- $15M Cash at close
- $3M Stock (90,611 shares)
- $30M max (3 year earnout)

360 Energy, both located within the mid-west. The Willdan Group operates under their existing names. Through these acquisitions, the operating expenses associated with revenue are expected to decrease. This assumption is based on the fact that less subcontracting will be required. With acquiring a manufacturing company in the northeast (Genesys), and two in the mid-west (360 Energy and Abacus) the group will now require lower amounts of outsourced operations.

	Analysts Estimates (FY)			Analysts' Estimates (Period)		
Fiscal Year ending	Fiscal Year Revenue	Fiscal Year EBITDA	Period ending	Period Revenue	Period EBITDA	
12/28/2007	$ 78.80	$ 5.33	6/30/2008	$ 76.00	$ 2.70	$
1/2/2009	$ 73.19	$ 0.07	6/30/2009	$ 67.41	$ (1.63)	$
1/1/2010	$ 61.61	$ (3.33)	6/30/2010	$ 69.73	$ 0.35	$
12/31/2010	$ 77.90	$ 4.06	6/30/2011	$ 92.49	$ 4.20	$
12/30/2011	$ 107.17	$ 4.35	6/30/2012	$ 100.32	$ 0.54	$
12/28/2012	$ 93.44	$ (3.28)	6/30/2013	$ 89.49	$ (0.04)	$
12/27/2013	$ 85.51	$ 3.22	6/30/2014	$ 96.76	$ 6.14	$
1/2/2015	$ 108.08	$ 9.08	6/30/2015	$ 121.55	$ 9.71	$
1/1/2016	$ 135.10	$ 10.35	6/30/2016	$ 171.92	$ 12.59	$
12/30/2016	**$ 208.94**	**$ 14.84**	**6/30/2017**	**$ 234.00**	**$ 16.56**	**$**
12/30/2017	$ 259.20	$ 18.30	6/30/2018	$ 277.35	$ 22.21	$
12/30/2018	$ 295.60	$ 26.15	6/30/2019	$ 309.24	$ 28.07	$
12/30/2019	$ 322.96	$ 30.00	6/30/2020	$ 322.96	N/A	N/A

Expansion: Diversified Customer Base:



Expansion into new markets will be crucial to growth of The Willdan Group. On a national spectrum, more energy markets are beginning to become deregulated. Deregulation means individual companies and users have the ability to choose their supplier of electricity, and additional efficiency programs related to transmission. Prior to deregulation this was not an available option. Companies, municipalities, and states can now implement third-party efficiency programs. With deregulation comes new opportunity for The Willdan Group. Some in particular are for state utilities, state agencies, colleges, hospitals and municipalities. Bloomberg analysts have projected for the year 2018 a growth in revenue of ~18%. Conservatively I predict that revenue will grow at ~12% for the year 2018 with regard to the proforma analysis. This growth is stimulated by increasing contracted work on a state, municipal, and commercial scale.

Currently focused on the north east and west coast, particularly the states of New York and California, The Willdan Group looks to diversify its target market. Within California more opportunity is still available. Recently California has mandated that its three investor-owned utility companies- PG&E, SCE, and SDG&E- increase the amount of energy efficiency services that are outsourced from the current level of 20% efficiency to at least 60%. Essentially what legislation is mandating is more energy efficiency programs on a state level. This mandate will increase the market opportunity for The Willdan Groups services, particularly in a state where they already have a strong existing relationships. Within the year California legislation has given utility companies 1 billion dollars to be used towards energy efficiency programs to lower the utility CAPEX expenses associated with energy transmission. These programs are to be completed through contracted third party consultants such as The Willdan Group.

Mentioned in The Willdan Group's investor conference, "they expect to win many of these opportunities seeing the experience the group possesses within the state of California. Through the acquisition of Integral Analytics The Willdan Group separates themselves from their competitors being the only company to offer such detail and strategic data for future planning. The group will continue to improve their chances of winning these bids by their ability to provide the most precise forecasting and strategic planning when entering bids. Within the year, investors can expect increased revenue growth from California segments in particular. Mentioned in the investor conference call, The Willdan Group can expect ~10% revenue growth over the next two years from their data

analytic segment alone. With a sensitivity analysis highly influenced by revenue, any increases will move the stock price in an upward trend.

The mid-west is a high opportunity target market for The Willdan Group. Lagging behind in energy efficiency programs the group will further expand its efficiency segment through the acquisitions of *Abacus and 360 Energy.* Within their *Energy Efficiency* segment, The Wildan Group is constantly sending out engineering "bid" proposals to state legislators regarding efficiency projects on a municipal and statewide scale. Currently The Willdan Group works with 37 utilities across the nation, all under contracted agreements. Providing little detail due to privacy restrictions, the group mentions in their most recent investor conference that they are currently waiting to hear back on three state contract bids.

The Willdan Group is continuing to prepare for an increase in the demand for more efficient utility operations and general energy efficiency strategy and programs. As previously mentioned, The Willdan Group originally was a small civil engineering firm. The group's management team consists of individuals with strong reputations and experience in state contracted work and planning. These engineers have synchronized their expertise within the energy efficiency market with their experience in working with state legislative councils.

Following the acquisition, the group now has the ability to manufacture their own products to fit the needs of whatever projects The Willdan Group enters. The Willdan Group has become the market leader in "grid and supply analytics for planning, operations, demand-side management, storage and DER optimization, integration and optimization." The group's ability to do so comes from acquiring Integral Analytics. The Willdan Group has strategically positioned the company to take advantage of an upcoming shift within the mid-west in particular, and nationwide as a whole.

The group has also directed part of their focus towards the commercial market. Working directly with individual companies the group now has a variety of products to offer for energy management and efficiency. From retro-fit efficient lightbulbs, to energy efficient water boilers The Willdan Group has expanded its target market ranging from state contracts, hospitals, university, and individual companies. The company's ability to expand its product offerings will positively contribute to increased revenue in the years to come. Increased revenue through diversification in products, target markets, and location will all contribute to long-term growth.

The following graph shows each segments growth year over year. The graph further highlights The Willdan Group's ability to increase revenue through improving revenue within the company's two main segments.

	Fiscal Year		
	2016	2015	2014
Energy Efficiency Services	68 %	55 %	49 %
Engineering Services	25 %	34 %	38 %
Public Finance Services	6 %	9 %	10 %
Homeland Security Services	1 %	2 %	3 %

Conclusion:

The Willdan Group has installed the proper initiative to develop new growth. The group has the advantage of increasing concern and demand within two of the main segments. The Willdan Group has focused its attention on two very large areas and have developed strong relationships within each are on a state level. As they continue to maintain these relationship the group diversifies across the national. The group has expanded and improved its current model which has allowed for well positioning in the anticipation of future growth. Electricity will always be a highly demanded utility and The Willdan Group has revolutionized how it is transmitted. The groups created internal value while offering a valuable product to consumers. I am proposing a Limit Buy at the price of $28.68.

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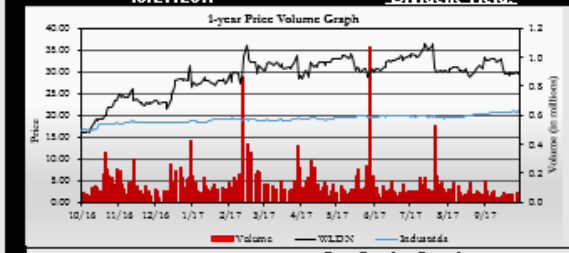
Willdan Group, Inc. (WLDN) — CENTER FOR GLOBAL FINANCIAL STUDIES — NEUTRAL

Analysis by Michael Diotalevi
10/27/2017

Current Price:	uation Inputs'!C4	Intrinsic Value	$28.68
Divident Yield:	0.0%	Target Price	$32.51

Target 1 year Return: 8.88%
Probability of Price Increase: 79.



Description

Willdan Group, Inc., together with its subsidiaries, provides professional technical and consulting services to utilities, private industry, and public agencies at various levels of government primarily in the United States.

General Information

Sector	Industrials
Industry	Professional Services
Last Guidance	November 3, 2015
Next earning date	November 2, 2017
Estimated Country Risk Premium	5.69%
Effective Tax rate	40%
Effective Operating Tax rate	40%

Market Data

Market Capitalization	$261.40
Daily volume (mil)	0.03
Shares outstanding (mil)	8.75
Diluted shares outstanding (mil)	8.91
% shares held by institutions	55%
% shares held by investments Managers	48%
% shares held by hedge funds	11%
% shares held by insiders	14.00%
Short interest	8.07%
Days to cover short interest	8.65
52 week high	$36.87
52-week low	$15.25
Volatility	56.09%

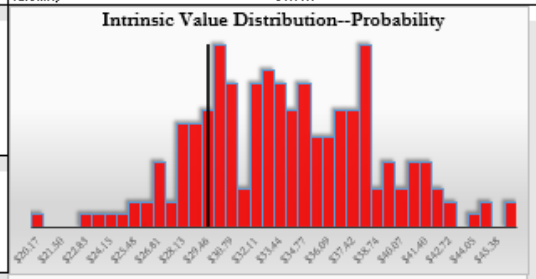
Past Earning Surprises

Quarter ending	Revenue	EBITDA
7/1/2016	18.96%	9.33%
9/30/2016	14.82%	-8.31%
12/30/2016	33.63%	2.15%
3/31/2017	52.74%	2.96%
6/30/2017	9.97%	-18.59%
Mean	26.02%	-2.49%
Standard error	7.8%	4.9%

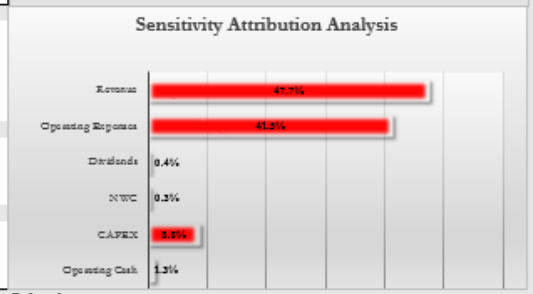
Peers

NV5 Global, Inc.
Hill International, Inc.
Ecology & Environment, Inc.
Tetra Tech, Inc.
Exponent, Inc.

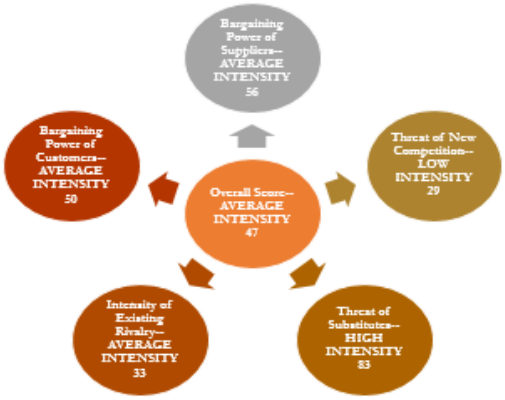
Management	Position	Total compensation grant	Total return to shareholders
Brirbin, Thomas	Chairman and Chief Executive	28.39% per annum over 5y	-5.22% per annum over 5y
Bieber, Michael	President	32.37% per annum over 2y	24.82% per annum over 2y
McLaughlin, Stacy	Chief Financial Officer and	16.93% per annum over 2y	24.82% per annum over 2y
Chau, Daniel	COO, CEO of Willdan Engineer	26.52% per annum over 4y	35.8% per annum over 4y
Tripepi, Frank	Senior Vice President of Bur	N/M	169.57% per annum over 1y
Salm, Paul	Vice President of Human Reso	N/M	N/M



Profitability	WLDN (LTM)	WLDN (5 years hirtorical av.	Peers' Median (LTM)
Return on Capital (GAAP)	18.0%	8.14%	4.58%
Operating Margin	4%	2.61%	2.50%
Revenue/Capital (GAAP)	4.88	3.11	1.83
ROE (GAAP)	15.7%	10.8%	20.8%
Net margin	2.9%	3.2%	3.2%
Revenue/Book Value (GAAP)	5.41	3.42	6.55
Invested Funds	**WLDN (LTM)**	**WLDN (5 years hirtorical av.**	**Peers' Median (LTM)**
Cash/Capital	43.2%	19.6%	15.8%
NWC/Capital	6.0%	19.8%	20.4%
Operating Assets/Capital	24.2%	51.8%	39.6%
Goodwill/Capital	26.7%	10.7%	24.3%
Capital Structure	**WLDN (LTM)**	**WLDN (5 years hirtorical av.**	**Peers' Median (LTM)**
Total Debt/Market Capitalization	0.27	0.34	0.56
Cost of Existing Debt	2.5%	4.1%	5.4%
CGFS Rating (F-score, Z-score, and default Probability	BB	BBB	BB
WACC	9.0%	9.4%	9.6%



Porter's 5 forces (scores are out of 100)



Valuation

Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	62%	4.7%	2.64
6/30/2018	12%	4.8%	2.74
6/30/2019	11%	5.5%	2.62
6/30/2020	10%	6.2%	2.54
6/30/2021	9%	6.7%	2.56
6/30/2022	8%	7.1%	2.54
6/30/2023	7%	7.4%	2.48
6/30/2024	6%	8.3%	2.41
6/30/2025	5%	8.5%	2.27
6/30/2026	4%	8.7%	2.14
6/30/2027	3%	8.9%	2.02
Continuing Period	2%	9.0%	1.91

Period	Return on Invested Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	12.4%	9.0%	$28.42
6/30/2018	13.3%	9.0%	$32.38
6/30/2019	14.5%	9.0%	$35.96
6/30/2020	15.6%	9.1%	$40.14
6/30/2021	17.1%	9.0%	$44.77
6/30/2022	18.0%	9.1%	$49.85
6/30/2023	18.4%	9.2%	$55.37
6/30/2024	19.9%	9.5%	$61.38
6/30/2025	19.3%	9.6%	$67.78
6/30/2026	18.7%	9.4%	$74.40
6/30/2027	17.9%	9.5%	$81.31
Continuing Period	17.2%	9.5%	

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October 26, 2017

Advanced Energy Industries: AEIS

Hunter Sanna

Sector: Technology
Industry: Diversified Electronics
Current Price: $90.34
Target Price: $100.98

Company Description: Advanced Energy Industries tames electric for its high-tech clients using alternative energy. The power conversion products transform raw electricity to high performance, high precision, and consistent production in manufacturing. AE products are also used in the production of solar panels and other thin-film products such as cell-phones, computers, cars, and glass panels.

BUY

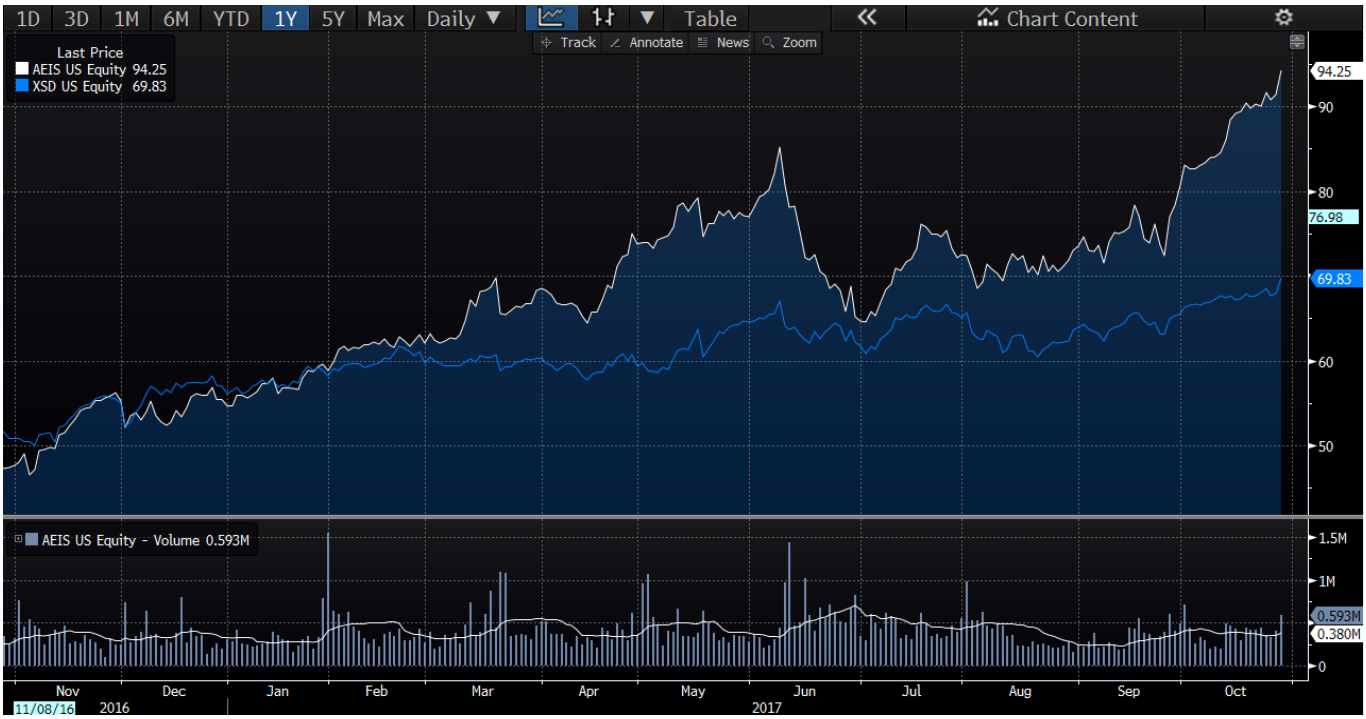
Current Price:	$90.34
Target Price:	$100.98
Market Cap:	$3.57B
Beta:	1.38
Gross Margin:	52.61%
ROIC:	40.42%
WACC:	11.10%
Operating Margin:	28.41%
EBITDA Margin:	27.84%

Catalysts:

Short Term: High demand for new generation of product 3DNAND.

Mid Term: Thin-film area will see rapid growth due to a large demand of screens and movement toward OLED screens.

Long Term: Large growth within the semiconductor space as technology increases and innovation is needed.



Thesis:

AE has strong growth potential in the future as the technology industries continue to explode. They have organic growth coming from the industrial side of their business, as well as strong revenue growth year over year. Being the industry leader in semis, they control a majority of the market share and have pricing power within this segment.

Earnings Performance:

AE experienced a record quarter in Q2 of 2017 with revenues growing 40% year over year to $166 million. The main driver for this was sales within the semiconductor industry, which experienced an increase of 50% year over year. Furthermore, they also outperformed the broader wafer fab equipment industry. Also, industrial growth continued in all sectors and service surpassed historical levels. Revenues reached $117 Million, which was driven by AE's new product the 3DNAND. The semiconductor business is the largest segment of AE totaling at about 71% of their total sales. This market is fast growing and has a lot of potential in the future due to the overall increase of usage of technology. As the semiconductor business is changing form planar to 3D, AE is confident that this product will be the biggest driver for their semiconductor markets over the next few years and currently demand is well ahead of current capacity. Looking forward into next quarter, AE expects the semi revenue to stay constant with the previous quarter or even grow.

AE made advancements within their power segment of their company, ramping up high volume manufacturing and shipping of their Navigator-II FastCapsolid-state match product. This reflects AE's expertise in radio frequency power and early collaboration with customers to address their needs and challenges for advance tech applications. All businesses grew this quarter within our OEM sector. This was led by a record period in Korea, where AE's sales to OEMS increased over 100% from last year's second quarter. AE also secured designs with indigenous Wafer Feb Equipment companies in China. By locally engaging with their global customers early in the design process, we can help them perform their complex processes. This is a win for AE because these wins are a direct result of continuing to be innovative and to continue our leading position within the precision power solutions sector.

The industrial business revenues grew 19% over last year, which was driven by an increase in AE's targeted thin films markets. This was led by the ramp up of industrial coating for consumer electronics, which found a capacity expansion in the glass coating market. This drove demand for new coaters as well as retrofits and upgrades from the existing line of glass. As this increase in demand for glass expanded across many regions, AE opened their first integrated power system for glass formation. With securing many design wins within the glass market, Ae expanded in the U.S., China, and Japan, where their technology is being more widely accepted and adopted. Additionally, the successful evaluation of power solutions enabled the formation of these engineered materials with improved

film qualities. Looking forward, the thin film segment should accelerate due to more demand and advancement within the coating industry.

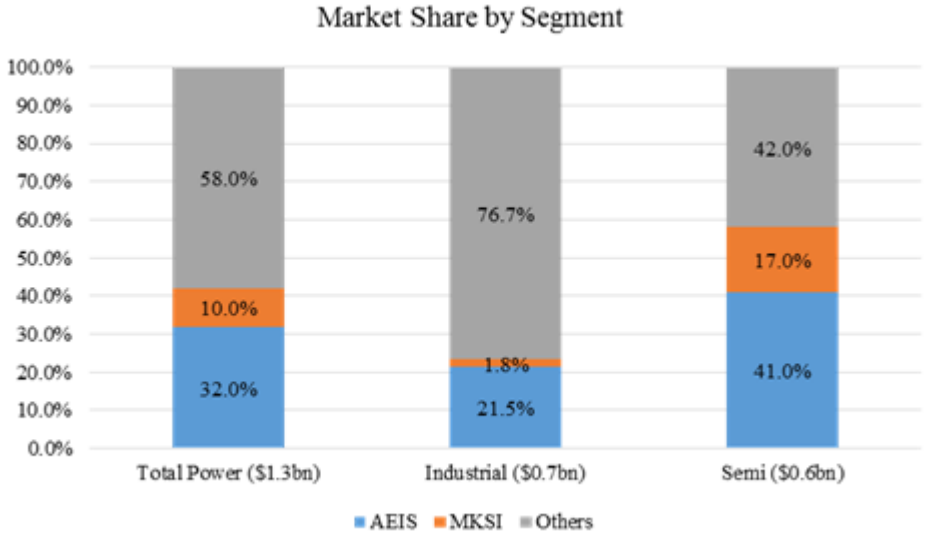
Industry Overview:

The overall technology sector has made an outstanding 32% gain within the financial markets for 2017. The current outlook within the technology sector is bullish as our society becomes consumed with the idea of Internet of Things and many other variables. This idea is how everything we use will eventually have somewhat of a relationship with technology. Relating everything to the internet will make everyday devices smarter and more efficient. We are currently in a special place with technology because millennials are one of the first generations to always have technology around them. That being said, there is room for growth within this sector. As many companies seek efficiencies, they will turn to technology to streamline the process for them. That being said, a large market within the technology sector is smartphones, which many people have nowadays. If one looks deeper into what really is inside the smartphone they would find semiconductor chips, which AE produces.

Market Share:

AE is an industry leader in Industrial Power and Semiconductor space. They have recently expanded to gain more traction overseas in other profitable areas like Korea and China. In Korea, AE has expanded their footprint by increasing sales to local OEM (original equipment manufacturer) over 100% from last year's second quarter. Along with Korea, AE has also opened three new locations in Asia. The locations in Shenzhen, China, and Japan are improving their proximity to their customers so that AE has the highest quality and most responsive service for their growing customer base. Within these new locations, Asia is currently AE highest growing sector next to the US at 19.4% of their total sales.

AE closest rival within all three sectors they operate in is MKS Instruments, which holds very little market share relative to the industry leader AE. Within the very fragmented Industrial market AE holds more than 10x the market share compared to MKSI.



AE currently generates a large amount of their semiconductor revenue, (57%) which forms two major market leaders Applied Materials (AMAT) and LAM Research (LAM). This relationship has been ongoing for over 10 years and the two companies are considered loyal customers to AE. AMAT has received many rewards and is on Fortune's world's most admired companies, as well as one of the world's most ethical companies. AMAT has a revenue of $10.8 Billion dollars and has secured over 10,200 patents within the semiconductor space. They are also located in 82 locations in 17 countries and is the world's number one semiconductor and display equipment company in the space. AMAT has expertise in modifying materials at atomic levels, and on an industrial scale, enables customers to transform possibilities into reality with their technology. Along with this, AMAT has also been recognized by Intel as their preferred quality supplier award for the 5th consecutive year, as well as TSCM's supplier award for the 6th consecutive year. LAM is slightly smaller, producing revenues of $6.4 Billion and has locations in 16 counties worldwide, and is the leading supplier of wafer fabrication equipment and services to the global semiconductor industry. LAM's main goal is to develop innovative products to help their customers build smaller, faster, more powerful, and more power-efficient electronic devices. Through powerful research and development, LAM allows chipmakers to build device features that are more than 1,000 times smaller than a grain of sand and hold the leading edge in integrated circuits within the semiconductor market.

Growth Drivers:

General Power products and solutions:

Within AE's general power products, their main focus is on green energy. Many companies are making that push toward a cleaner energy source. According to Forbes, 100 Fortune 500 companies have gone 100% alternative energy. While this trend continues, AE will be a benefactor. AE uses the most efficient product application to convert this energy into more useful energy, especially within the solar cell and TAM (wind power) spaces. While AE makes these systems run more efficiently, they also have analytics for these products and information displayed for the company to see the benefits of their product. The current trend in this industry is a migration from discrete boxes to configurable systems that are much smaller. In addition, AE just acquired Excelsys, which recently released a product with no cooling fans. This was an all-cash transaction of $17.7 million, and is focused in the wind power sector. This acquisition will add around $150-200 million in revenue to their bottom line.

Semiconductor Processes:

The semiconductor industry is a very fast and actively growing space, especially within the smartphone industry. The main way the major players in the smartphone industry differences and innovates is through better cameras, faster processing power, and longer battery life. With these differentiators in mind, two of the three (faster processing power and longer battery life) are enabled by semiconductors. Another fast growing market where semis play a huge role is Augmented Reality, Virtual Reality, Artificial Intelligence, IoT, and Robotics, which is the future of technology. In the future, AR and VR are going to revolutionize the world in training people and giving them real hands on experience through a simulation. Artificial intelligence will make computers smarter and let them learn, which will make them more widely used across many different fields. The Internet of Things are all enabled through semis, and as our world become more connected through technology, semiconductors will be used in many products. There is also a huge demand for more memory and advance logic in a smaller size, which the new 3DNAND does more efficiently compared to its competitors because it is placed vertically instead of horizontally hence the name 3D.

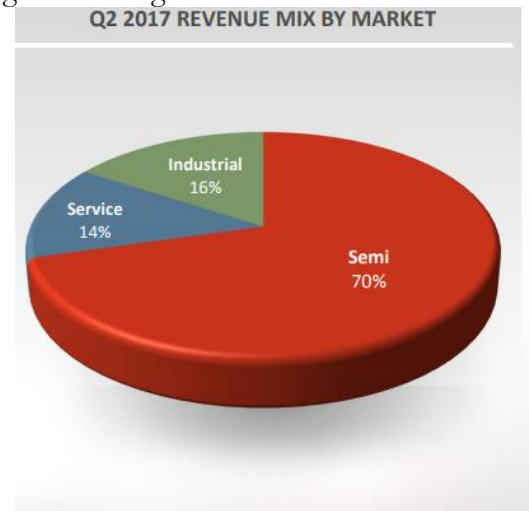
Industrial thin film processing:

The thin films industry also hasnumerous applications currently and in the future. Its main growth drivers are the adoption of advance FDP products, such as 4K and 8K screens, as well as OLED screen. Each of these products are relatively new in the market place of Televisions and smartphone screens. As the TV sector is growing in the high definition space, there will be a shift to all TV's being higher definition and the only way to improve the definition is by the 4k and 8k technology. Past the TV sector, these screens can also be used in computer screen and in the future we will see all new products that come to the market to have this high standard of viewing definition. As for the OLED system, we will see more products shift toward these screens as smartphone industry leaders like Apple and Samsung are currently using these screens. With these industry leaders using these screens to keep up with completion, other players will have to advance their technology and shift screens as well to stay relevant. These OLED screens offer more colors to the users, which look more appealing than older generations. AE is current reducing the cost of these thin film processing, which in turn makes them have more of a margin on these products and can offer lower prices to the customers.

Market Overview:

Thin Film:

The thin film segment a major component in AE's industrial strategy. With a very small revenue compared to other markets that AE is in, this is a differentiator due to the possibilities this segment has. AE currently is trying to capitalize on their thin film industry by leveraging their strength within the semiconductor market, expanding on their geographic footprint, and investing in sales and marketing infrastructure. The thin film coat can go on many products like windows on skyscrapers, smart phone screens, computers, car windows, as well as TVs. This market has a diverse customer base, with various sales channels and global OEMs serving in multiple applications. A way for this segment to grow is to use the vast amount of cash AE keep on hand overseas to merge or acquire a company to accelerate diversification within this sector.



Global Service:

Currently, AE has a best in class lifecycle services, which reduce variability and with opening new service centers overseas for aftermarket needs, their service could only get better. With a record of 14% of total revenue, AE can differentiate themselves between competitors in the market. Their products can have very long useful life, sometimes up to 15-20 years, this causes somewhat of a long term investment to have additional revenue that does not cost them anything. This service market is not geographically segmented either, while they have a decent mix internationally of where their products go, they also have world-class repair centers around the world to be responsive to their customers. They have a uniformly trained staff, which creates consistent quality repairs in all locations. Due to their unique customer base, this is an advantage to the customer to have this service be flexible and to fit all customer needs.

Semiconductor:

Within the semiconductor space, AE has positioned itself for success. They are currently the market leader within this segment, controlling 42% of the customers. Their closest competitor is at 17% market share. This market share leads AE to have superior pricing power within the segment, and with the new trend with semiconductors moving to 3D compared to plasma. Their recent revenue was driven by their new 3DNAND product, which resulted in $117 million in sales. The semi also makes up about 70% of their total sales, which strengths their position to increase in value due to IoT. PWC is currently projecting a 42% CAGR within IoT related chips sector. The semi marketplace is also quickly growing in China, where a main focus of AE growth is taking place by building three new locations to take advantage of this opportunity.

EBITDA and Margin Performance:

AE has put a focus on increasing their margins since Yuval Wasserman, the current CEO, has been appointed. In years past, AE has struggled and has gone through their speed bumps, but with the change in leadership came a change of focus as well. In 2014, AE had to fully drop one of their large parts of their business in solar panel development due to poor revenue and growth. Once they completely dropped that segment, their margins skyrocketed and have continued to operate at a high level. EBITDA also was lacking in 2014, but shot up due to the disengagement in a sector that was hurting their overall business. Margins should continue to increase, as they hold a considerable amount of market share and control pricing power in their highest revenue generating market, semiconductors. In 2017, AE has already increased their EBITDA, and with the high projected growth rates within the semi business, they should operate even more efficiently within this market. In 2015, AE faced some trouble with their profit by losing business within their solar energy business. Their profit margin has lagged within 2015 but looking forward in 2016, they have turned their profit margins around and expect an increase in 2017.

12 Months Ending	12/31/2014	12/31/2015	12/31/2016	06/30/2017	12/31/2017	12/31/2018
Gross Margin	33.28	52.28	52.34	52.61		
EBITDA Margin	10.52	27.84	27.84	29.79		
Profit Margin	8.06	-38.21	26.35	27.42	28.63	27.19

Name (BICS Best Fit)	Ticker	Mkt Cap	T12M EBITDA Mrgn:Q	Rev - 1 Yr Gr:Q	PM LF
Median		2.43B	21.89%	32.72%	12.21%
100) ADVANCED ENERGY INDU...	AEIS US	3.76B	29.82%	39.66%	27.76%
101) MKS INSTRUMENTS INC	MKSI US	5.80B	23.86%	27.74%	15.63%
102) APPLIED MATERIALS INC	AMAT US	60.46B	30.07%	32.72%	24.71%
103) ENTEGRIS INC	ENTG US	4.57B	25.60%	16.48%	11.84%
104) AMKOR TECHNOLOGY INC	AMKR US	2.62B	21.89%	7.86%	11.67%
105) CABOT MICROELECTRONI...	CCMP US	2.43B	26.79%	11.49%	19.38%
106) BROOKS AUTOMATION INC	BRKS US	2.33B	14.33%	23.17%	9.55%
107) FORMFACTOR INC	FORM US	1.28B	16.11%	73.29%	12.21%
108) AXCELIS TECHNOLOGIES ...	ACLS US	1.01B	11.43%	59.49%	13.55%
109) VEECO INSTRUMENTS INC	VECO US	864.31M	1.69%	52.71%	-15.98%

The main problems within their margins was the organizational structure from business units to a single function organization with various product lines. So as AE experienced their difficulties, they have

rebounded and look strong as margins go heading into the future. The margins will increase as the nature of the business is fast growing, and their less cyclical side of the industry (industrials) has major growth opportunities. The industrials side is more concentrated, which will lead to better pricing power and higher margins than the semi business.

Conclusion:

In conclusion, AE is a market leader in across many sectors, which takes out of the cyclical semiconductor business. Being a market leader with a large majority of the market, AE will continue to grow organically and with the aid of acquisitions. They hold strong pricing power and are in a very high growth segment where they get a majority of their revenues. With the future of technology, AE will only become larger and operate more efficiently due to their dynamic management team who focuses heavily on their shareholders, ROIC, and are strong capital allocators.

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Advanced Energy Industries, Inc. (AEIS)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by Hunter Sanna

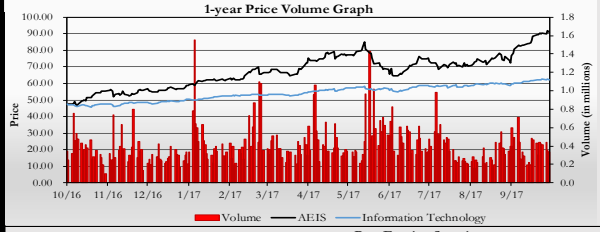
10/27/2017

Current Price:	$93.97	Intrinsic Value	$90.84
Divident Yield:	0.0%	Target Price	$100.98

Target 1 year Return: 7.46%

Probability of Price Increase: 85.5%

1-year Price Volume Graph



Description

Advanced Energy Industries, Inc., together with its subsidiaries, designs, manufactures, sells, and supports power conversion and control products that transform power into various usable forms.

General Information

Sector	Information Technology
Industry	Semiconductors and Semiconductor Equipment
Last Guidance	November 3, 2015
Next earnings date	October 30, 2017
Estimated Country Risk Premium	5.95%
Effective Tax rate	23%
Effective Operating Tax rate	23%

Market Data

Market Capitalization	$3,651.96
Daily volume (mil)	0.51
Shares outstanding (mil)	39.94
Diluted shares outstanding (mil)	40.11
% shares held by institutions	71%
% shares held by investments Managers	79%
% shares held by hedge funds	8%
% shares held by insiders	0.69%
Short interest	2.99%
Days to cover short interest	3.26
52 week high	$92.10
52-week low	$46.39
Volatility	31.50%

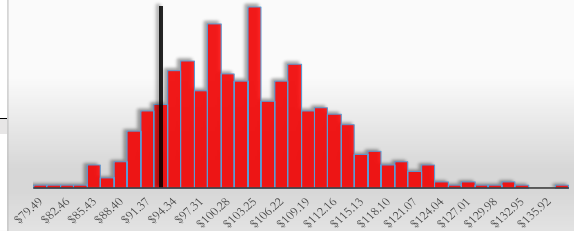
Past Earning Surprises

Quarter ending	Revenue	EBITDA
6/30/2016	5.76%	-5.95%
9/30/2016	3.06%	-4.34%
12/31/2016	1.65%	-2.65%
3/31/2017	-1.07%	-8.11%
6/30/2017	5.18%	4.59%
Mean	2.91%	-3.29%
Standard error	1.2%	2.2%

Peers

FormFactor, Inc.
Teradyne, Inc.
KLA-Tencor Corporation
Veeco Instruments Inc.
Brooks Automation, Inc.
Axcelis Technologies, Inc.
MKS Instruments, Inc.
Nanometrics Incorporated

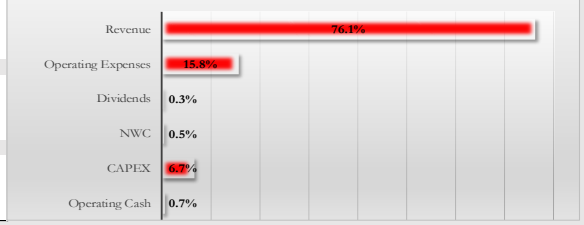
Intrinsic Value Distribution--Probability



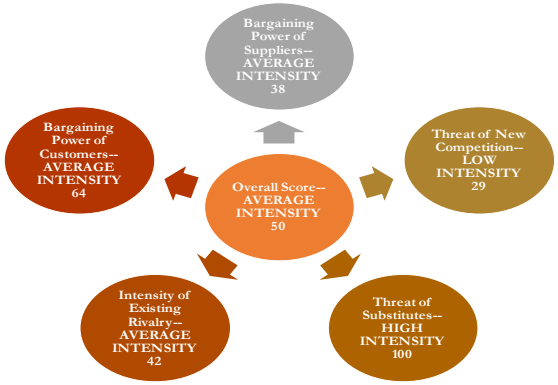
Management	Position	Total compensations growth	Total return to shareholders
Wasserman, Yuval	Chief Executive Officer, Pre	33.62% per annum over 5y	8.68% per annum over 5y
Liguori, Thomas	Chief Financial Officer, Chi	-22.5% per annum over 1y	93.94% per annum over 1y
McGimpsey, Thomas	Executive Vice President, Ge	21.84% per annum over 5y	8.68% per annum over 5y
Trupkiewicz, William	Vice President and Corporate	-1.19% per annum over 2y	51.99% per annum over 2y
	0 0	N/M	N/M
	0 0	N/M	N/M

Profitability	AEIS (LTM)	AEIS (5 years historical average)	Peers' Median (LTM)
Return on Capital (GAAP)	50.0%	7.29%	11.13%
Operating Margin	23%	6.26%	8.94%
Revenue/Capital (GAAP)	2.19	1.17	1.25
ROE (GAAP)	27.9%	25.3%	11.2%
Net margin	22.7%	21.1%	10.5%
Revenue/Book Value (GAAP)	1.23	1.20	1.07
Invested Funds	**AEIS (LTM)**	**AEIS (5 years historical average)**	**Peers' Median (LTM)**
Cash/Capital	55.7%	20.2%	28.3%
NWC/Capital	6.5%	10.0%	12.8%
Operating Assets/Capital	31.3%	54.5%	43.8%
Goodwill/Capital	6.5%	8.2%	15.1%
Capital Structure	**AEIS (LTM)**	**AEIS (5 years historical average)**	**Peers' Median (LTM)**
Total Debt/Market Capitalization	0.04	0.04	0.19
Cost of Existing Debt	4.0%	4.0%	5.1%
CGFS Rating (F-score, Z-score, and default Probability)	AA	BBB	BBB
WACC	9.9%	10.9%	10.5%

Sensitivity Attribution Analysis



Porter's 5 forces (scores are out of 100)



Valuation

Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	38%	26.8%	0.76
6/30/2018	21%	25.5%	0.83
6/30/2019	12%	26.6%	0.88
6/30/2020	11%	27.2%	0.93
6/30/2021	10%	27.8%	0.99
6/30/2022	9%	28.2%	1.04
6/30/2023	8%	28.7%	1.09
6/30/2024	7%	29.8%	1.13
6/30/2025	6%	30.2%	1.15
6/30/2026	5%	30.5%	1.17
6/30/2027	4%	30.9%	1.18
Continuing Period	4%	31.2%	1.20

Period	Return on Invested Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	20.3%	9.5%	$88.57
6/30/2018	21.1%	9.8%	$98.45
6/30/2019	23.5%	9.8%	$108.31
6/30/2020	25.4%	9.7%	$118.68
6/30/2021	27.6%	9.8%	$129.57
6/30/2022	29.5%	9.8%	$140.97
6/30/2023	31.2%	9.8%	$152.84
6/30/2024	33.7%	9.8%	$165.15
6/30/2025	34.8%	9.9%	$177.89
6/30/2026	35.7%	9.9%	$191.01
6/30/2027	36.6%	9.9%	$204.47
Continuing Period	37.4%	9.9%	