

April 25, 2018

Zillow Group, Inc. (ZG)

Kristina Gallo

Sector: Information Technology

Industry: Internet Software Services

Current Price: \$47.34

Target Price: \$57.27

Zillow Group, Inc. is the leading company in real estate and rental marketplace that operates home-related and real estate information on the internet and mobile in the United States. The company offers information to consumers on the full lifecycle of owning and living in a home which includes buying, selling, financing, remodeling and more.

BUY

Current Price: \$47.34
 Target Price: \$57.27
 Market Cap: 9.144B
 ROIC: 34.6%
 WACC: 12%
 EBITDA Margin: 32.2%



Thesis: Zillow Group, Inc. is the leading company in the real estate purchase and rental marketplace on the internet in the United States and shows significant signs of growth potential especially with mobile. With Zillow beginning to directly buy and sell houses, along with acquiring most of their competitors, and investing in advertising and technologies expenses to help them become more mid-term profitable. Zillow has shown signs that they are going to take their company worldwide which shows that this company is a strong buy and undervalued.

Catalysts:

- Short Term(within the year): Zillow starting to directly buy and sell houses
- Mid Term(1-2 years): Zillow plans to increase advertising expenses and invest new products/technologies to increase annual revenue and margins
- Long Term(3+): Expand into the international real estate marketplace

Business Description:

Zillow Group, Inc. was incorporated in July of 2004 and launched its first website in February of 2006. It is composed of complementary portfolio products and brands in order to provide people information about homes and allows them to connect with agents. The portfolio is composed of real estate and rental marketplaces

such as Zillow, Trulia, StreetEasy, HotPads, Naked Apartments, RealEstate.com, and OutEast.com. Along with being composed with marketplaces, Zillow Group also includes a number of business brands for real estate, rental, and mortgage professionals. These include Mortech, dotloop, New Home Feed, and Bridge Interactive. As of 2017, Zillow's database included about 110 million U.S. homes which is a mixture of homes for sale, rent, and homes that are not currently on the market. One can interact with these homes through the internet or on mobile devices through their app. The profile of the houses include detailed information about the house, property facts, listing information, and purchase and sale data. Zillow has created a valuation model, Zestimate, which provides current value estimates for each home.






Segment Analysis:

Zillow Group, Inc. revenue has significantly grown since their initial website launch in 2006. The company generates revenue from the sale of advertising services and licensing their suite of marketing software and technology solutions to businesses and professionals. Below the table shows the split of revenue from marketplace and display revenue. Marketplace revenue has increasingly become more and more dominate over the years and is projected to continue in this pattern. This revenue consists of Premier Agent revenue, other

real estate revenue and mortgage revenues. Further, Premier Agent revenue is from the sale of advertising under Zillow's Premier Agent and Premier Broker programs that offer a suite of marketing and business technology products and services in order to aid real estate agents and brokers with their advertising needs while growing their brands. Zillow charges on a cost per impression basis, whereby an impression is delivered when a sold advertisement property appears on websites and mobile applications. Other real estate revenue is generated from Zillow Group Rentals, which includes their rental marketplace and suite of tools for rental professionals. The company has a new construction segment which generates revenue by selling advertising to builders on a cost per residential

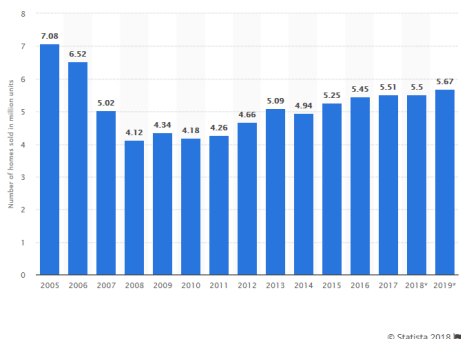
community basis. Finally, a portion of marketplace revenue is mortgage revenue which is generated by advertising sold to mortgage lenders and other mortgage professionals. The other segment that Zillow Group gets their revenue from is display revenue. This revenue stream primarily consists of graphical mobile and web advertising sold on a cost per thousand impressions or cost per click basis to advertisers promoting their brands on their websites and mobile applications. Revenue is also generated from their partner websites and mobile applications. Their advertising customers also include automotive, insurance, automotive, and consumer products companies.



In Millions of USD except Per Share	2014 Y	2015 Y	2016 Y	2017 Y
12 Months Ending	12/31/2014	12/31/2015	12/31/2016	12/31/2017
 Revenue	325.9 100.0%	644.7 100.0%	846.6 100.0%	1,076.8 100.0%
 Marketplace Revenue	267.2 82.0%	555.9 86.2%	778.1 91.9%	1,007.2 93.5%
 Display Revenue	58.7 18.0%	88.8 13.8%	68.5 8.1%	69.6 6.5%

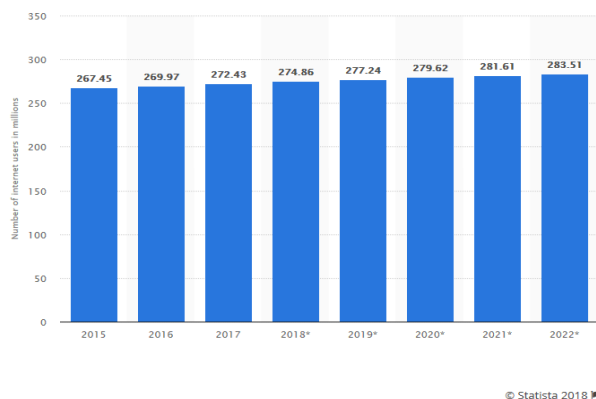
Macro Outlook:

Since the economic crisis of 2008, sales in the real estate sector have been continuously growing. The graph to the left shows the statistics of the home buying industry from 2005 and projected until 2019. According to



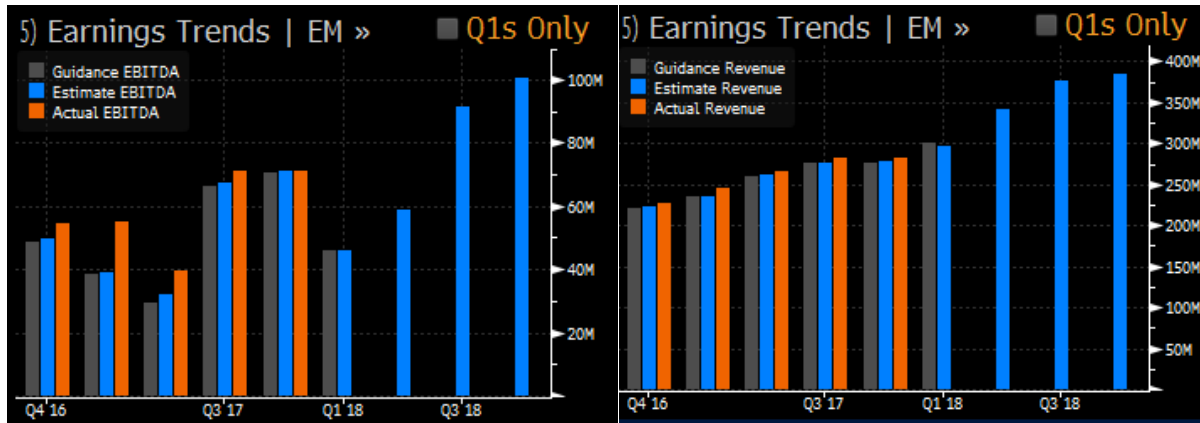
Statista, the steady rise in sales after 2008 indicates that the housing market is recovering. Consumers are growing in confidence and are becoming freer with their spending resulting in the market continuing a periods of growth at the same time that millennials are approaching the age to enter the housing industry. According to Forbes, millennials are more likely to own a home than prior generations. Consumers are significantly increasing the use of the internet along with mobile devices for real estate information. The graph below shows the number of internet users in the U.S. from 2015 and projected until 2022. The United States is already one of the biggest online marketplaces in the world. About 75% of the population uses the internet.

This shows that online companies will only continue to grow, which only continue to help Zillow grow as a company. In 2017, visits increased by 17% and on the weekend more than 75% of the usage is from the mobile application, showing that Zillow is already reaping the effects of the housing market and internet usage growth.











Earnings Performance:

Zillow Group, Inc. has beat their estimates for earnings in every quarter and are projected to grow for the upcoming quarters. According to the CEO of the company, Spencer Rascoff, it was one of the best years for the company, based on the amount of growth and revenue they obtained. He stated in the 4th quarter 2017 earnings called “We achieved a major milestone by exceeding \$1 billion in revenue.” They expected 23% year-over-year revenue growth, and instead got a 27% revenue increase for the year. As stated above, Zillow generates revenue by marketplace and display revenue. The company does experience seasonality, with the peak season being summer home shopping in Q2 and Q3 and after thanksgiving there is a drop between the holidays. Along with revenue, the graph to the right shows that Zillow has consistently beat their EBITDA margin projections. They were expecting a 19% margin for 2017 and actually ended the year with a 22% margin. Zillow believes that this is due to their gains in customers’ audience and engagement which drove their extremely high profitability. The company has created a great business model and are going to continue to invest more money on technology and products in order to keep generating these high positive returns.



Financial Analysis:

Zillow's market capitalization has significantly increased within the past few years. The main driver for the increase is Zillow acquiring companies. Trulia, another online real estate company, was a significant acquisition for Zillow that occurred in 2015. The CFO, Kathleen Phillips, stated in their Quarter four earnings call "The combination of Zillow and Trulia was the most strategic and transformative business move we have ever made." Zillow Group has been able to combine their ad products, grow revenue rapidly, improve quality listings, gain a widespread adoption of their software suite, develop new business models, and begin experimenting with Instant Offers. Due to the acquisition, the company has taken on more debt. The company does have some short-term, but mostly long-term debt at a BBB rating. Their debt is going to mature in 2021. Zillow Group plans to use their increased cash flow to pay off some of the Trulia debt as well as increase their advertising and technology and development investments in order to continue innovating their company. They have enough cash on hand to acquire more companies in order to gain a larger portion of the online real estate market. As shown below, profitability is growing at substantial rates. Revenue and gross profit have increased the most, but all metrics have expanded and they are projected to continue for the continuing years. Net income was negative prior to 2017, but just last year it turned to positive and is expected to grow to 10% net margin for 2018. Because Zillow launched its initial website in 2006, it is still very much in the growth stage of its life-cycle. Zillow has been acquiring many companies in order to be the leading company in the industry and now it is really demonstrating its growth and profitability potential. The table below shows market capitalization and profitability trends.

In Millions of USD	2014 Y	2015 Y	2016 Y	2017 Y	Current/LTM	2018 Y Est	2019 Y Est
12 Months Ending	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2017	12/31/2018	12/31/2019
 Market Capitalization	4,319.9	4,751.2	6,650.6	7,745.3	9,152.0		
 - Cash & Equivalents	372.6	520.3	507.5	762.5	762.5		
 + Preferred & Other	0.0	0.0	0.0	0.0	0.0		
 + Total Debt	0.0	230.0	367.4	385.4	385.4		
 Enterprise Value	3,947.3	4,460.9	6,510.5	7,368.2	8,774.9		
 Revenue, Adj	325.9	644.7	846.6	1,076.8	1,076.8	1,394.6	1,834.9
 Growth %, YoY	65.0	97.8	31.3	27.2	27.2	29.5	31.6
 Gross Profit, Adj	296.4	583.1	777.3	991.6	991.6	1,257.8	1,637.3
 Margin %	91.0	90.4	91.8	92.1	92.1	90.2	89.2
 EBITDA, Adj	15.7	-17.6	-88.4	128.4	128.4	296.8	397.3
 Margin %	4.8	-2.7	-10.4	11.9	11.9	21.3	21.7
 Net Income, Adj	-18.9	-94.0	-195.1	33.9	4.4	139.5	219.2
 Margin %	-5.8	-14.6	-23.0	3.1	0.4	10.0	11.9
 EPS, Adj	-0.16	-0.56	-1.08	0.18	0.01	0.70	1.06
 Growth %, YoY	-38.8	-254.3	-94.5	-	-	294.5	50.8

Competitor Analysis:

Zillow Group, Inc does not have any direct remaining competitors that are public companies which Zillow has not acquired. Therefore the table below compares Zillow to internet-based services companies. Zillow has experienced some of the effects of the technology stock market being down within this last month, and that is why the price has fallen. The revenue and EPS shows that Zillow has grown a lot within this past year. Earnings per share shows the most significant increase and profitability compared to all of its competitors. ROE is where Zillow has a shortcoming and that is because they are relatively new and just starting to have positive net income from all of its acquisitions and expenses, therefore that is why it is lower than the median and most of the competitors listed.

Name (BICS Best Fit)	Mkt Cap (USD)	Last Px	Chg Pct 1D	Chg Pct 1M	Rev - 1 Yr Gr:Y	EPS - 1 Yr Gr:Y	P/E	ROE
Median	6.48B	46.86	0.97%	-4.45%	27.19%	32.70%	99.68	5.24%
100) ZILLOW GROUP INC - A	9.16B	47.46	0.25%	-15.07%	27.19%	58.20%	4.32k	0.17%
101) ANGI HOMESERVICES IN...	6.48B	13.54	0.97%	-4.45%	47.60%	--	--	--
102) STAMPS.COM INC	3.93B	223.70	0.77%	14.05%	28.66%	31.05%	28.58	33.33%
103) TRUECAR INC	982.94M	9.74	1.09%	5.24%	16.45%	30.62%	--	-10.54%
104) BOINGO WIRELESS INC	961.02M	23.02	-0.93%	-10.69%	28.26%	40.84%	--	-17.65%
105) GODADDY INC - CLASS A	10.89B	64.85	2.36%	3.69%	20.78%	--	185.85	11.13%
106) GRUBHUB INC	8.61B	98.56	3.11%	-9.13%	38.46%	34.36%	122.74	6.76%
107) VERISIGN INC	11.74B	121.02	1.97%	-0.37%	2.01%	8.64%	32.60	--
108) MATCH GROUP INC	12.86B	46.86	3.37%	0.86%	19.01%	138.40%	31.16	87.35%
109) TRIPADVISOR INC	5.21B	37.51	-2.22%	-10.56%	5.14%	-52.28%	99.68	3.73%

Risk Factors:

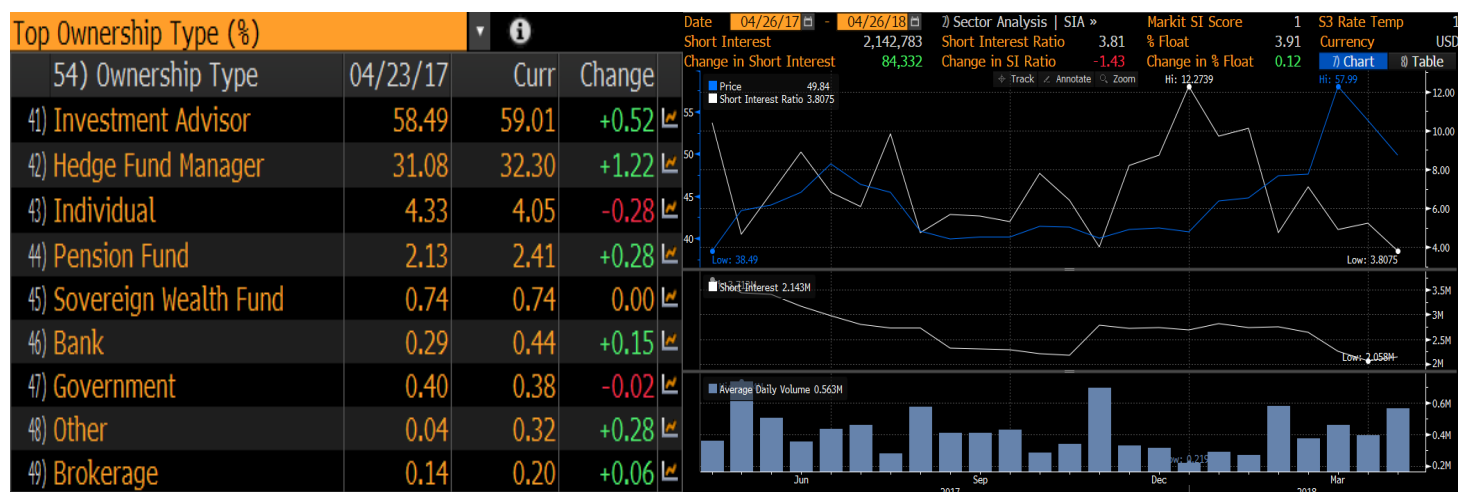


Although, Zillow shows no signs of becoming less profitable, there are risks to the company. If professionals end their advertising spending with them or they are unable to effectively manage their advertising inventory or pricing then their business could be harmed. If they do not innovate their products or services on either their website or mobile application enough then that would also negatively impact their company. Although they have acquired most of their competitors, there are still some online marketplace companies that could become more attractive to some of their current customers and would take

away from their profitability. Another risk for their competition is if Amazon, the largest online retailer in the world, acquires them or enters this market- that could have a detrimental affect on Zillow Group. But, the biggest risk associated with Zillow is if they invest a significant portion of their funds to pursue strategies and develop new products and services that do not prove to be effective, or a prolonged slowdown with the real estate industry as a whole despite the positive macroeconomic outlook.

Ownership/Short Interest:

The ownership chart for Zillow Group is shown below. The majority of its shares are owned by investment advisors and hedge fund managers with a slight increase from the last year. Pension funds have increased their ownership a slight amount too which shows that this stock is considered a “safe” investment. To the right of the table, there is the short interest chart that represents the short interest for the last year. There has been an increase in short interest since last year, but it shows that when the short interest is the very high, the volume was very low. Further, investment advisors and hedge fund managers have stayed rather consistent throughout each year, showing that many of them are not involved in short selling the company.



Growth:

Zillow group has the ultimate lead within the online real estate industry, and it projections are that the company is not going to slow its growth anytime soon. They recently announced last week, that they are going to start directly and buying and selling houses. This is really due to the company’s core advertising business and delivering high-quality leads to agents. Thus if Zillow is able to sell a guaranteed lead to its premier agent, then the company will be able to charge about 18 times the amount of its currents average. In 2016, Zillow generated nearly 17 million leads for its premier agents which is more than three times the total number of annual residential transactions in the U.S. If Zillow uses its agents on both sides of its transactions, it will create the most valuable lead possible. Zillow will be able to buy the house and then a few months later

will be able to flip it and sell the house. Below shows the tables that represent just how much growth this company can obtain for this new sector.

Zillow's Revenue Opportunity: 1,000 Transactions

Houses bought and sold	1,000
Commission	25% / \$1,875
Buyer lead revenues	\$1.875 million
Seller lead revenues	\$1.875 million
Total revenue	\$3.75 million

Assumes average home value of \$250,000, 3% buyer commission and 3% seller commission.

Zillow's Revenue Opportunity: 12,000 Transactions

Houses bought and sold	12,000
Commission	25% / \$1,875
Buyer lead revenues	\$22.5 million
Seller lead revenues	\$22.5 million
Total revenue	\$45 million

Assumes average home value of \$250,000, 3% buyer commission and 3% seller commission.

Zillow's Total Revenue Opportunity: 12,000 Transactions

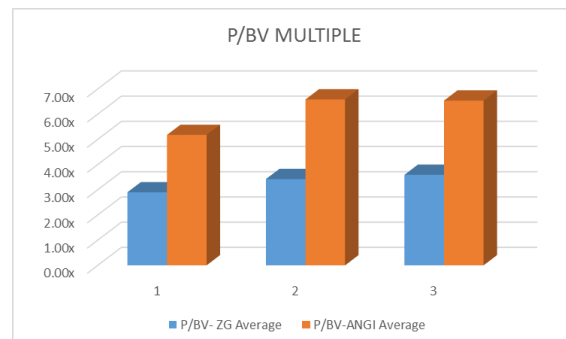
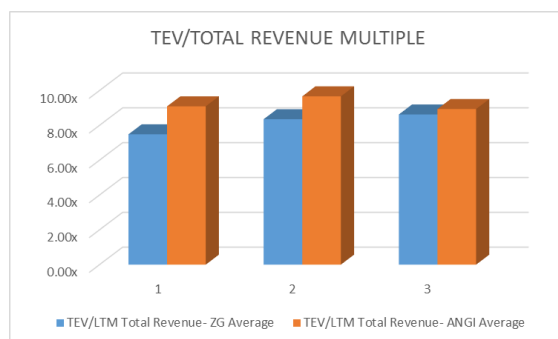
Houses bought and sold	12,000
Commission	50% / \$3,750
Buyer lead revenues	\$45 million
Seller lead revenues	\$45 million
Homeseller fee (2%)	\$60 million
Total revenue	\$150 million

Assumes average home value of \$250,000, 3% buyer commission and 3% seller commission.

Along with the growth that the company will experience through the buying and selling houses, there was mention in their quarter 4 earnings call that there is a great possibility within the next few years to expand to the international online real estate industry. This would be a huge opportunity for Zillow Group, and they could potentially be the worldwide leading company for the sector. Zillow has enough cash on hand, and every acquisition or new innovation they have made for their company has only benefited them therefore going internationally will only make Zillow more profitable and attractive for investors. Zillow already has a competitive advantage amongst their competition because of their powerful brand and scale due to having a portfolio of the largest brands along with having an incomparable database of homes that allows them give property facts, listing information, agent information, and purchase and sale data all while having a consumer-oriented marketplace. They are planning on focusing on their customers and are willing to increase their investments in order to really have the best company possible for the industry.

Multiple Analysis:

Multiples are a way to see the profitability of a company. The company that was most comparable for a competitor is ANGI Homeservices which is a company that serves as a digital marketplace for home services- it allows customers to connect to home service professionals. The graph on the left shows the multiple that compares total enterprise value to total revenue from the last three quarters. As you can see Zillow Group has a lower multiple meaning that it is more profitable and undervalued. To the right of that graph, is another multiple graph that is the price to book value ratio. The lower the value of this multiple, the more it signals that the company is undervalued. Thus showing, that Zillow Group is profitable and undervalued.



Conclusion:

Zillow Group, Inc. is the leading company for online and mobile application services for real estate and rental marketplace. Since the initial launch of the website in 2006, it has grown substantially each year. Zillow has acquired many of its competitors which lead them to turn the brand name into the Zillow Group, Inc. The company continues to experiment with new business model ideas in order to innovate and continue to grow their company. After much analysis, Zillow Group is a strong buy because of how much growth is projected and the strong possibility of become a worldwide industry leader. The company has consistently beat its estimates in earnings performance, while still projecting to grow over 20% annually in terms of revenue and gross profit. Zillow Group has generated positive above average total returns thus proving that it is strong buy.

Zillow Group, Inc. (zgy)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by Al Capone
4/27/2018

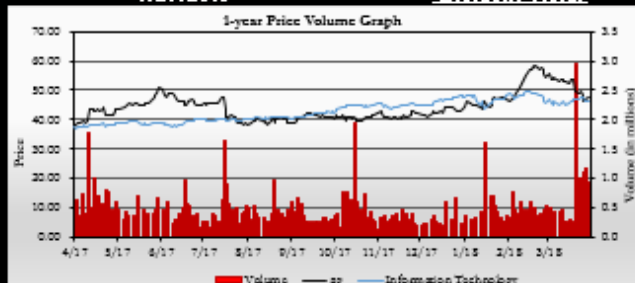
Current Price:
Dividend Yield:

\$47.34
0.0%

Intrinsic Value
Target Price:

\$52.50
\$56.27

Target 1 year Return: 18.86%
Probability of Price Increase: 100%



Description	
Zillow Group, Inc. operates real estate and home-related information marketplace on mobile and the Web in the United States.	
General Information	
Sector	Information Technology
Industry	Internet Software and Services
Last Guidance	February 12, 2018
Next earnings date	May 7, 2018
Market Assumptions	
Estimated Equity Risk Premium	5.10%
Effective Tax Rate	21%

Market Data	
Market Capitalization	\$9,144.72
Daily volume (mil)	0.44
Shares outstanding (mil)	192.73
Diluted shares outstanding (mil)	186.45
% shares held by institutions	109%
% shares held by investment managers	44%
% shares held by hedge funds	34%
% shares held by insiders	12.11%
Short interest	1.11%
Days to cover short interest	4.21
52-week high	\$59.73
52-week low	\$37.17
Volatility	43.00%

Quarter ending	Part Earnings Surprise
12/31/2016	2.38%
3/31/2017	4.17%
6/30/2017	2.24%
9/30/2017	1.90%
12/31/2017	1.66%
Mean	2.47%
Standard error	1.0%

Market and Credit Scores	
Recommendation (STARS) Value	--0
Recommendation (STARS) Description	--0
Quality Ranking Value	--0
Quality Ranking Description	--0
Short Score	--1
Market Signal Probability of Default % (Non-Rating)	--0.049%
Credit Model Score (Non-Rating)	--bb-

Industry and Segment Information	
LTM Revenue by Geographic Segment	LTM Revenue by Business Segment
United States--100%	Internet Information Providers--100%
--	--
--	--
--	--
--	--

Management	Partitions
Barton, Richard	Co-Founder & Executive Chairman
Rarcaff, Spencer	CEO & Director
Frink, Lloyd	Co-Founder, Vice Chairman & President
Phillips, Kathleen	CFO, Chief Legal Officer, Secretary, Treasurer
Samuelson, Errol	Chief Industry Development Officer
Pape, Douglas	Co-Founder & GM of Hotpadr

Total Compensation Grant	Stock Price Growth During Year
35.92% per annum over 5y	0% per annum over 0y
15.91% per annum over 5y	10.6% per annum over 5y
56.46% per annum over 2y	0% per annum over 0y
	10.6% per annum over 5y
	16.2% per annum over 2y

Peers	
Yelp Inc.	i2 Global, Inc.
GrubHub Inc.	GoDaddy Inc.
Twitter, Inc.	trivago N.V.
Pandora Media, Inc.	Dropbox, Inc.
Match Group, Inc.	Endurance International Group Holding, Inc.

Profitability	zq (LTM)
Return on Capital (GAAP)	10.9%
Operating Margin	32%
Revenue of Capital (GAAP)	0.34
ROE (GAAP)	0.2%
Net margin	4.4%
Revenue of Book Value (GAAP)	0.05

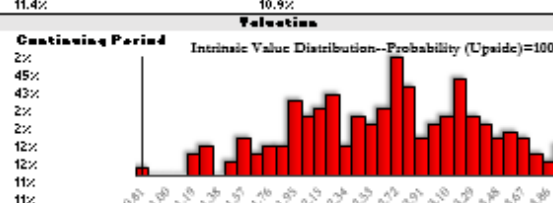
zq Historical	Peers' Median (LTM)
2.57%	13.64%
20.30%	21.25%
0.13	0.64
0.2%	18.7%
4.4%	14.2%
0.05	1.31



Inverted Funds	zq (LTM)
Carb/Capital	17.8%
NWC/Capital	-0.8%
Operating Assets/Capital	27.2%
Goodwill/Capital	55.8%
Capital Structure	zq (LTM)
Total Debt/Market Capitalization	0.13
Cost of Debt	7.3%
CGFS Rating (F+care, Z+care, and default Probability)	BBB
WACC	10.6%

zq Historical	Peers' Median (LTM)
14.6%	27.2%
-1.9%	-8.5%
65.7%	43.3%
21.5%	38.0%
zq Historical	Peers' Median (LTM)
0.04	0.39
6.5%	6.8%
11.4%	10.9%

Forecast Assumptions	Explicit Period (12 years)
Revenue Growth CAGR	12%
Average Operating Margin	37%
Average Net Margin	35%
Growth in Capital CAGR	12%
Growth in Claims CAGR	2%
Average Return on Capital	13%
Average Return on Equity	13%
Average Cost of Capital	11%
Average Cost of Equity	11%



Sensitivity Attribution Analysis	
Revenue	88.2%
Operating costs	47.9%
Capital expenditures	3.9%
Discount Rate	8.9%

Company Description: National Beverage Corp. is a holding company for subsidiaries that market, distribute a full line of beverage products in the US Market. The portfolio of the brands is composed of Shasta, Faygo, Everfresh, LaCroix, Rip It, Asante, Mt. Shasta, ClearFruit, Mr. Pure, Ritz, Crystal Bay, Cascadia Sparkling Clear, Cascadia Only 2 Calories, Ohana, Big Shot and St. Nick's. The headquarter of the company is located in Fort Lauderdale, FL.

BUY

Current Price:	\$89.78
Target Price:	\$118.70
Expected Return:	32.21%
Market Cap:	4.185B
Beta:	0.75
T12M EPS	\$3.04
Est EPS	\$3.25
Rev. growth – 1yr:	18.8%
WACC:	8.6%
ROIC/WACC:	8.29
EVA:	119.18

Catalysts:

- Short Term (within the year): The shifting consumer preferences for healthier beverages combined with consumer spending growth.
- Mid Term (1-2 years): High competition of huge competitors.
- Long Term (3+): Improve financials and increase their business segment to better face important competitors.



Thesis: National Beverage Corp. is one of the top performer of the industry. Its small capitalization of \$4.185B makes the company an outside of the beverage market comparing to Coca-Cola or Pepsi. However, the implementation

of the company in fast growing water market without to be subject to unfashionable market such as beer and carbonated-beverage segment provide significant revenue and margin upside to the company.

Earnings Performance:

According to Bloomberg consensus overview, National Beverage Corp. has beat 6 of 6 of the past analyst estimates for its EPS, Adj. making the

Product Portfolio:

Natioanl Beverage Corp. product portfolio and diversification is composed of Shasta, Faygo, Everfresh, LaCroix, Rip It, Asante, Mt. Shasta, ClearFruit, Mr. Pure, Ritz, Crystal Bay, Cascadia Sparkling Clear, Cascadia Only 2 Calories, Ohana, Big Shot and St. Nick's. The different market implementation are Sparkling Waters, Juices, Energy Drinks and Carbonated Soft Drinks.

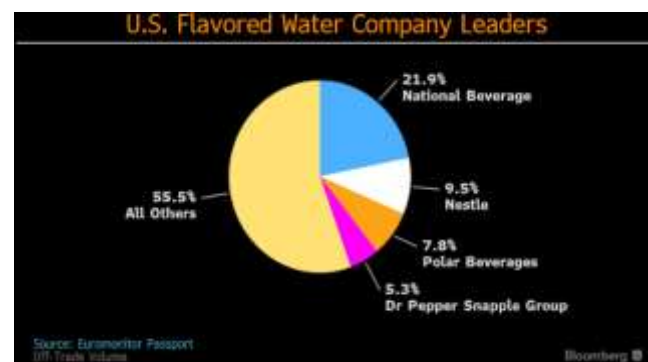
The recent trend of people increasing awareness on healthy product and wellness is the key driver for the company's growth. As a result, company's strategy is set to meet the healthy hydration demands of consumer through its main brand LaCroix on the \$3 Billion flavored-seltzer market.

The company's brands are divided into two categories. The first categories is based on beverages geared to the active and health-conscious

company having a stronger growth than its competitors. Its Yoy EPS growth is 34.2%. The revenue has beat 5 of 6 of the analyst forecast with a yoy growth of 16.0%. The 2017 Eps is at \$2.26 and the next EPS is estimated to be \$3.25, an increase of 43.8%. 2019's EPS is forecasted to reach \$3.97, a 22% growth compare to 2018.

consumer ("Power+Brands") including sparkling waters, energy drinks, and juices. The second categories is based on Carbonated Soft Drinks in a variety of flavors including regular, sugar-free and reduced calorie options.

National Beverage Corp. is recognized the leader of natural sparkling water category. Its main brand LaCroix represent 21.9% of the market share of the U.S. Flavored water market.



Revenue Upside:

The healthy trend has significantly increase the beverage demand with little to no calories and wholesome natural ingredients. As a result, healthier desired food attributes have significantly increased since 2015 with an all-natural food attributes increasing from 44% to 49%, limited sugar or no added sugar increasing from 41% to 47%.

Preferred Global Food & Beverage Attributes

2017 Overall Rank	Desired Food Attributes	2017 %	2016 %	2015 %
1▲	Is all natural	49	50	44
2▲	Has limited sugar or no added sugar	47	47	41
3▲	Does not contain artificial sweeteners	47	48	35
4▲	Does not contain trans fat or hydrogenated oils	45	47	37

Source: Euromonitor Passport, Feb 2018

While carbonated beverage sales decreased by 0.4% during 2017, U.S sparkling water trends increased by 13.9% during the same period mainly due to an increased volumes.

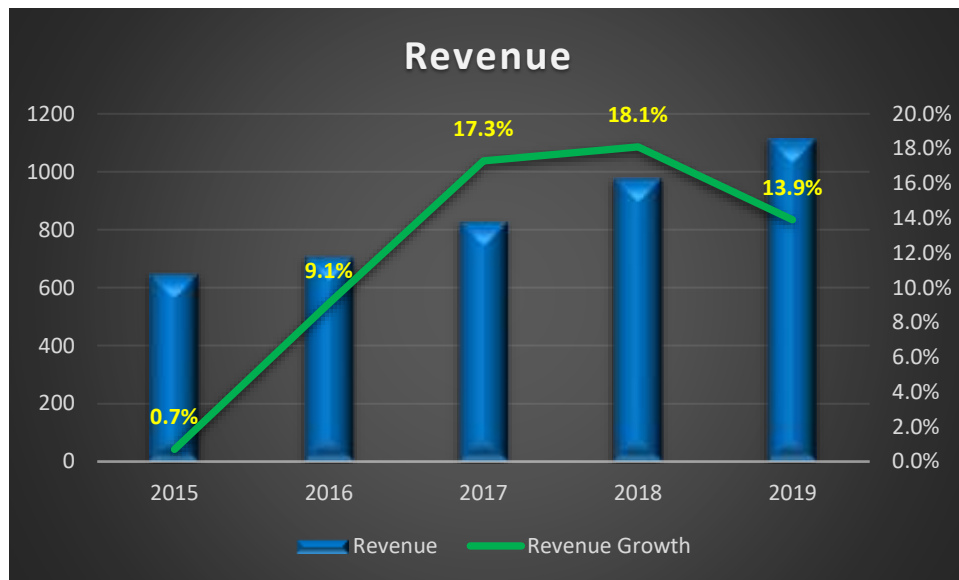
U.S. Sparkling Water Trends - IRI			
	Jan. 28, 2018	Dec. 31, 2017	Dec. 02, 2017
Sales (in Mn)	\$2,533.4	\$2,511.8	\$2,488.1
Yoy % Change	13.9%	14.0%	13.9%
Volumes (1920z)	576.9	571.9	566.3
Yoy % Change	14.1%	14.2%	14.1%
Average Price per Volume	\$4.39	\$4.39	\$4.39
Yoy % Change	-0.2%	-0.2%	-0.2%

Source: Information Resources, Inc.
Note: 52 Weeks Ending

Bloomberg

According to Beverage Marketing Corp., the sparkling water market is forecasted to reach \$13-\$15 billion by 2021.

Analysts estimate revenue of \$977M, for 2018, a growth of 18.1% compared to the previous growth of 17.3% in 2017 where revenues reach \$826.9M. The estimation for 2019 are bright with a revenue growth of 13.9%.

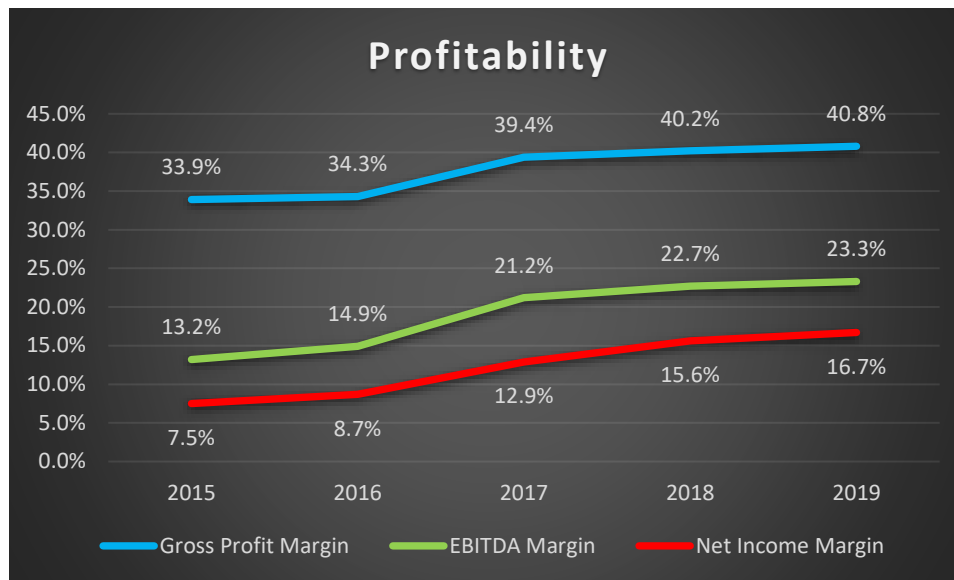


Margin Upside:

Because of its focused on healthier trend products, National Beverage Corp.'s strategy is to essentially focused its growth on sparkling water, putting at the same time in the background its carbonated soda drinks that provide lower growth and margin outcome.

As a result, Margin are forecasted to improve. The current gross profit, ebitda and net income margin are 39.4%, 21.2% and 12.9%.

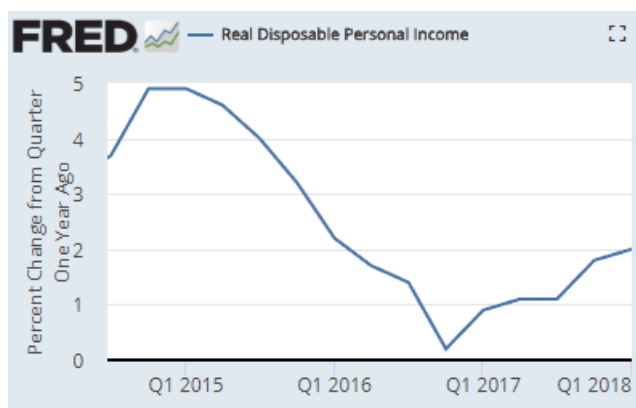
Gross Profit is forecasted to increase by 80 bps between 2017 and 2018 and 60 bps the following year. EBITDA margin is planned to increase by 150 bps next year, and 60 bps by 2019. As a result, Net income margin is estimate to reach 15.6% in 2018 and 16.7% in 2019, an astonishing increase of 380 bps over the next two years.



Risk:

While most of the current indicators for the company are bright, I may see some potential threat for the continuing exponential growth of the company.

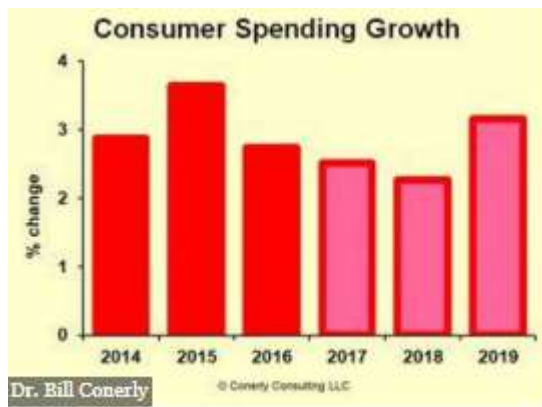
The principal factor could be the slowing trend in consumer spending. Real disposable income is slowing since the first quarter of 2015 and a record of 4.9%yoy. The current growth rate of 2.0% is the highest since Q1 of 2016 and it is far from the 1.9%.



Total Non-farm payroll, which represent the job growth rate, is at a low 1.55 compared to a 2.27 in February 2015.



As a result, real personal consumption expenditures is at a low 2.6 growth rate for Q1 of 2018, below the average of 2.8% of 2017.



Dr. Bill Conerly's consumer spending forecast.

Moreover, according to Dr. Bill Conerly's consumer spending forecast, the growth rate of 2018 is going to decrease compare to 2017. However, it is planned to climb above 3% by 2019, a significant growth of 50-60 bps compare to 2018.

The second risk for the National Beverage Corporation is the arrival of new entrant, especially by large capitalization with significant source of income.

Coca Cola's is projected to reach 34% of operating margin, compared to a current 27%. To achieve its target, Coca-Cola is planning to invest higher margin market such as sparkling water market.

On the same way, Pepsi is planning to involve the U.S. flavored water market. They recently implement the bubbly brand to satisfy the growing demand on the market. The result will probably emerge during 2018 or 2019 affecting the market share of National Beverage corp. because of PepsiCo significant advantage of scale and distribution over FIZZ.

Ownership:

Top Ownership Type (%)			
51) Ownership Type	04/22/18	Curr	Change
1) Individual	75.61	75.43	-0.18
2) Investment Advisor	16.76	16.90	+0.14
3) Hedge Fund Manager	7.00	7.04	+0.04
4) Pension Fund	0.26	0.26	0.00
5) Brokerage	0.13	0.13	0.00
6) Insurance Company	0.08	0.08	0.00
7) Bank	0.07	0.07	0.00
8) Government	0.04	0.04	0.00
9) Sovereign Wealth Fund	0.04	0.04	0.00

Company's ownership is mainly through seven individuals at which 75.43% is own by the founder of National Beverage Corp., Caporella Nick.

The second category of ownership is investment advisor that account for 16.90%, a positive change of 0.14 compared to April 22, 2018. The main investment advisor are vanguard group with 3.22%, Blackrock with 1.73%, Dimensional Fund Advisors LP with 1.44%, and Wells Fargo & co. with 1.05%. Hedge fund accounts for 7.04%.



Short interest has reached a record 14.76 at the end of February and the 10.05 SI is still high. However, I believe the market has overshot the recent missed of estimate and the current price of the stock is a perfect time to enter. The high 124.05 reached September 29, 2017, represents a 38% of upside comparing to the current price of \$89.78. The strong growth of the company and its financials improvement should bring the short interest ratio to number that is more normal in the future

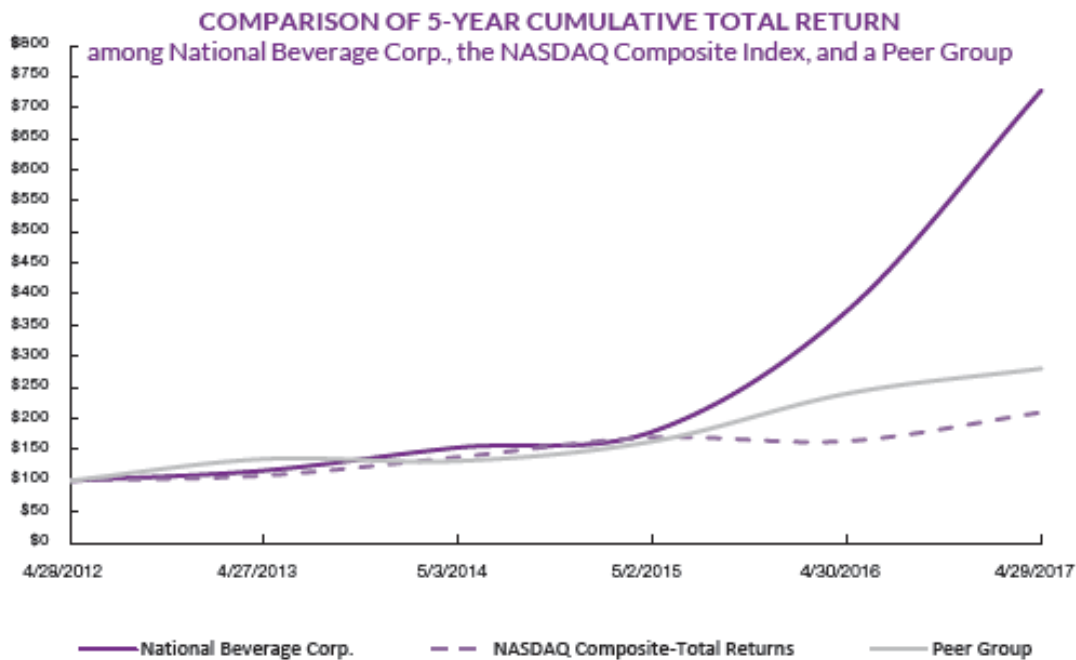
Competitors:

Name (BI Peers)	Mkt Cap (USD)	Last Px	Rev - 1 Yr Gr:Y	EPS - 1 Yr Gr:Y	P/E	Rtn on CE Adj:Y	Grs Mrgn Adj:Y	OPM:Y	EBITDA Mrgn Adj:Y	NI Mrgn Adj:Y
Median	18.62B	81.04	2.95%	2.63%	29.17	22.81%	51.41%	18.32%	22.04%	11.98%
NATIONAL BEVERAGE CORP	4.18B	89.78	17.33%	74.71%	29.51	47.41%	39.43%	19.66%	21.21%	12.94%
COCA-COLA CO/THE	184.70B	43.31	-15.38%	0.11%	21.19	41.06%	62.65%	27.27%	30.83%	23.27%
PEPSICO INC	144.21B	101.71	1.16%	7.94%	19.31	68.67%	54.67%	16.98%	20.71%	11.84%
CONSTELLATION BRANDS...	44.71B	234.22	3.46%	59.74%	29.17	24.21%	50.70%	33.75%	38.85%	23.84%
MONSTER BEVERAGE CORP	31.61B	56.19	10.48%	3.27%	41.86	21.41%	63.43%	36.58%	38.03%	22.95%
BROWN-FORMAN CORP-C...	26.49B	56.04	-3.08%	-1.16%	35.25	45.63%	67.50%	33.03%	34.97%	22.34%
DR PEPPER SNAPPLE GR...	21.62B	119.96	3.88%	2.63%	26.43	35.37%	59.72%	20.91%	24.33%	12.12%
MOLSON COORS BREWING...	15.61B	72.30	125.24%	168.87%	15.27	7.83%	42.47%	15.48%	22.86%	8.76%
BOSTON BEER COMPANY ...	2.70B	229.30	-4.79%	-3.14%	33.12	18.43%	52.13%	13.78%	19.72%	9.29%

The comparison with its peers emphasize the potential upside. The company is a fast growing company because its main market are focusing on healthy sparking water. On the other hand, Coca-Cola, Pepsi and co. have their principal revenue from soda and they are currently facing the shifting trend in the consumer staple sector where customer are focusing their choice on healthier product. As a result, National Beverage Corp. is well place to catch the new emerging trends based on water related product and the astonishing double-digit growth in revenue at 17.33% perfectly show the capacity of the company to catch it while most of the other peers struggle to be above the 4% growth. Combined to an efficient management of the cost, the company EPS increased by 74.71%, the second

of the peer group, behind Molson Coors Brewing and its 168.87% EPS growth. Despite the worst Gross margin of 39.43%, the company's Operating margin of 19.66% and Net Income margin of 12.94% are above the median industry of 18.32% and 11.98%, respectively. This emphasize the margin upside of the company in the industry.

Regarding a 5 years comparison with NASDAQ composite index and Peer group, National Beverage Corp. has completely outperform both of them. Since April 29, 2013, the stock has increased by 560.72%.



	4/28/2012	4/27/2013	5/3/2014	5/2/2015	4/30/2016	4/29/2017
National Beverage Corp.	\$100.00	\$116.25	\$153.27	\$178.88	\$372.92	\$727.64
NASDAQ Composite	100.00	108.32	137.99	169.47	163.64	209.76
Peer Group	100.00	134.80	131.60	163.15	239.99	280.27

Attractive M&A Candidate:

FIZZ has operated for many year in the industry as an outsider. Today, FIZZ is the leader in the fast growing U.S. flavored seltzer market. Its brand LaCroix has 22% of the market share of the \$3billion flavored water market. In addition, its focusing on innovation may increase this percentage especially because people are looking for healthier beverage with low-no added sugar.

While beer and carbonate segments are underperforming the BI global beverage peer group because of the new consumer behavior looking for healthier products, price of National Beverage Cor. stock has climbed from a year-end of \$20.16 in 2013 to \$97.44 in 2017.

Balance Sheet Profile

Cash	\$ 136.40
Debt	\$ -
Net Debt	\$ (136.40)
Net Debt/Equity	\$ (55.52)
EBITDA	\$ 212.20
Net Debt/EBITDA	-0.64

The company has a strong balance sheet of with no debt. As a result, net debt is negative \$136.4M. The company is own at 75.43% by seven individual of whom 73.47% is own by Caporella Nick, the 81 year old chairman/CEO/Founder of the company. My current intrinsic value of \$109.93 is 22.44% above the current stock price, which make the stock cheap.

Capital Structure:

The attractiveness of the company is also in its capital structure. In fact, the company has not debt, which mean that the company can use its ability to take more debt to finance significant expansion, acquisition and new projects to develop and improve its financials. In addition, the management of the company is particularly

efficient at investing its cash. Its ROIC of 48.94% is 5.45 times higher than its peer and the economic value added stand at an astonishing 119.18. I believe the management team can increase its efficient by using more leverage and debts to finance its growth. It should provide additional earnings to the company and strengthen its market position in profitable fast growing environment.



Conclusion:

Over the last 4 years, the company has significantly increase its earnings with a 90.8% growth in its stock price last year. I believe that the current market condition and its strong financials make

National Beverage Corp. in perfect condition to sustain its growth for the following two years. In my opinion, the recent plunge in the stock price of the company due to an overshoot of the market reaction should create a better upside trend for the company short-term catalyst.

National Beverage Corp. (fizz)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Emilian Mary

4/28/2018

Current Price:

\$89.78

Intrinsic Value

\$109.81

Divident Yield:

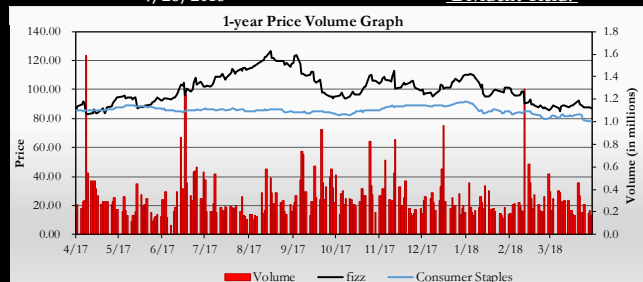
0.0%

Target Price

\$118.49

Target 1 year Return: 31.97%

Probability of Price Increase: 100%



Description	
National Beverage Corp., through its subsidiaries, develops, produces, markets, and sells a portfolio of flavored beverage products in North America and internationally.	
General Information	
Sector	Consumer Staples
Industry	Beverages
Last Guidance	February 12, 2018
Next earnings date	July 13, 2018
Market Assumptions	
Estimated Equity Risk Premium	5.00%
Effective Tax rate	21%

Market Data	
Market Capitalization	\$4,184.53
Daily volume (mil)	0.11
Shares outstanding (mil)	46.61
Diluted shares outstanding (mil)	46.89
% shares held by institutions	109%
% shares held by investments Managers	18%
% shares held by hedge funds	5%
% shares held by insiders	3.50%
Short interest	5.57%
Days to cover short interest	9.21
52 week high	\$129.82
52-week low	\$81.65
Volatility	32.70%

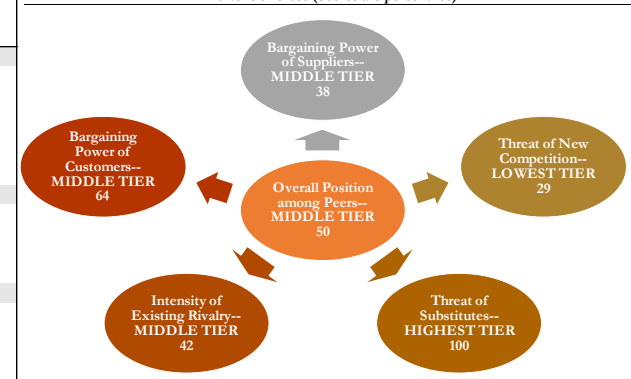
Past Earning Surprises		
Quarter ending	Revenue	EBITDA
1/28/2017	8.41%	52.27%
4/29/2017	-0.67%	10.71%
7/29/2017	4.46%	16.03%
10/28/2017	2.14%	12.59%
1/27/2018	-1.97%	-3.22%
Mean	2.47%	17.67%
Standard error	1.0%	0.5%
Management		
Caporella, Nick	Chairman of the Board & CEO	5.63% per annum over 5y
Caporella, Joseph	President & Director	6.73% per annum over 5y
Bracken, George	Executive Vice President of Finance	10.36% per annum over 5y
Cook, Gregory	VP, Controller & Chief Accounting Officer	5.25% per annum over 2y

Market and Credit Scores	
Recommendation (STARS) Value--0	
Recommendation (STARS) Description--0	
Quality Ranking Value--B+	
Quality Ranking Description--Average	
Short Score--1	
Market Signal Probability of Default % (Non-Ratings)	-0.044%
CreditModel Score (Non-Ratings)--bb	
Stock Price Growth During Tenure	
5.72% per annum over 5y	
5.72% per annum over 5y	
5.72% per annum over 5y	
98.78% per annum over 2y	

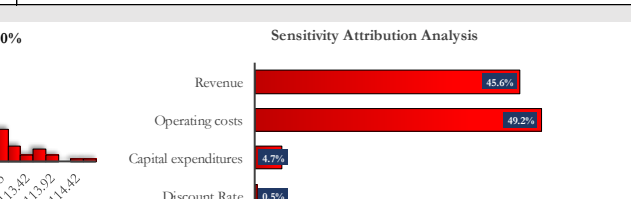
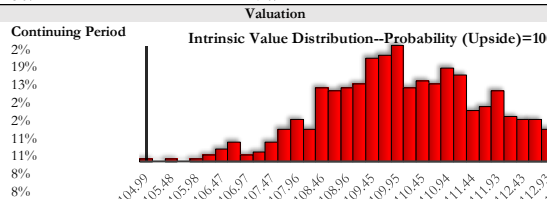
Industry and Segment Information	
LTN Revenues by Geographic Segments	LTM Revenues by Business Segments
#VALUE!	Non-Alcoholic Beverages--100%
#VALUE!	--
#VALUE!	--
#VALUE!	--
#VALUE!	--
Peers	
The Coca-Cola Company	Dr Pepper Snapple Group, Inc.
PepsiCo, Inc.	Molson Coors Brewing Company
Constellation Brands, Inc.	The Boston Beer Company, Inc.
Monster Beverage Corporation	Fanner Bros. Co.
Brown-Forman Corporation	Craft Brew Alliance, Inc.

Profitability		
Return on Capital (GAAP)	fizz (LTM)	fizz Historical
Operating Margin	71.3%	35.80%
Revenue/Capital (GAAP)	15%	8.59%
ROE (GAAP)	4.80	4.17
Net margin	66.4%	49.4%
Revenue/Book Value (GAAP)	17.3%	10.3%
	3.83	4.79
Invested Funds		
Cash/Capital	fizz (LTM)	fizz Historical
NWC/Capital	49.8%	27.7%
Operating Assets/Capital	16.7%	20.5%
Goodwill/Capital	29.8%	45.1%
	3.7%	6.7%
Capital Structure		
Total Debt/Market Capitalization	fizz (LTM)	fizz Historical
Cost of Debt	0.14	0.29
CGFS Rating (F-score, Z-score, and default Probability)	3.6%	3.0%
WACC	8.0%	8.0%

Valuation		
Peers' Median (LTM)		
11.63%		
17.21%		
0.68		
28.0%		
15.4%		
1.82		
Peers' Median (LTM)		
13.4%		
9.0%		
53.7%		
23.9%		
Peers' Median (LTM)		
0.46		
3.2%		
7.4%		



Forecast Assumptions		
Revenue Growth CAGR	Explicit Period (10 years)	Continuing Period
Average Operating Margin	9%	2%
Average Net Margin	19%	19%
Growth in Capital CAGR	14%	13%
Growth in Claims CAGR	17%	2%
Average Return on Capital	8%	2%
Average Return on Equity	16%	11%
Average Cost of Capital	19%	11%
Average Cost of Equity	8%	8%
	8%	8%



April 27, 2018

Iridium Communications Inc. : IRDM

Analyst: Matt Lucarelli

Sector: Telecommunications

Industry: Communications Equipment

Current Price: \$12.15

Target Price: \$15.09

Company Description: Iridium Communications, offers mobile satellite communications services.

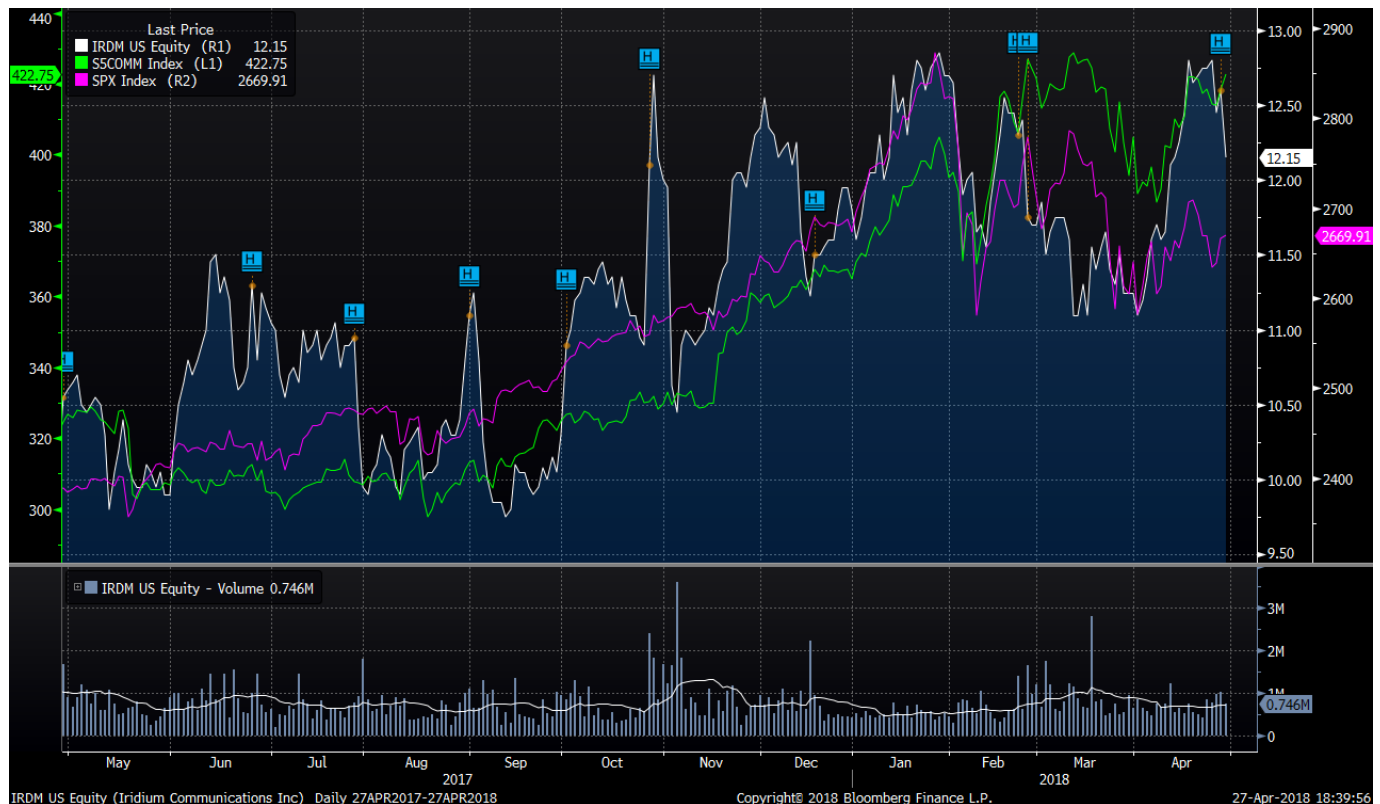
The company's satellites operate in a low-earth orbit and provide 100% global coverage. They offer voice and data communications services to the United States and foreign governments, businesses, non-governmental organizations, and consumers.

BUY

Current Price:	\$12.15
Target Price:	\$15.09
Market Cap:	\$1,341B
52 Week Range:	\$9.68 - \$13.25
Beta:	1.26
ROE:	17.54%
WACC (Adj.):	2.50%
ROIC (Adj.):	3.50%
EBITDA Margin:	50.60%

Catalysts:

- **Short Term (within the year):** Recent earnings call on April 26th, 2018. Iridium NEXT constellation replacement.
- **Mid Term (1-2 years):** Expanding their distribution network and strengthening their relationship with the government
- **Long Term (3+):** Development of new products and services, which will give them the opportunity charge more fees and attract more subscribers.



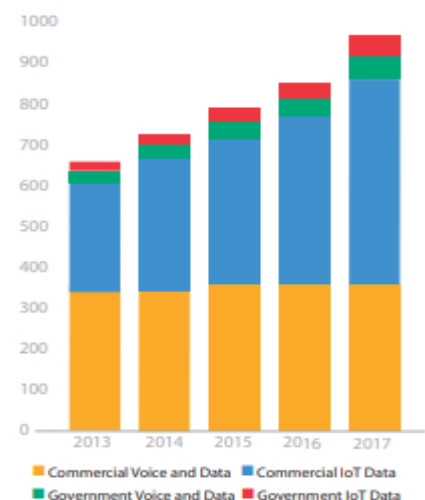
Thesis:

Iridium is a commercial provider of communications services offering true global coverage, connecting people, organizations and assets to and from anywhere, in real time. With a recent earnings call and the implementation of the Iridium NEXT project, I believe this will positively impact the company in the short term. While the company already possess contracts with the United States government and many other foreign governments, they are motivated to continue to grow their relationships and their services. In the future, Iridium seeks to develop new products and services, in which they will be able to charge additional fees and expand their company. Furthermore, Iridium presents an increasing revenue growth yoy, a robust EBITDA margin, and increasing subscriber growth. I believe this company is undervalued because people are unaware of what particular services they offer, and are not recognizing the significant demand for the types of services they provide.

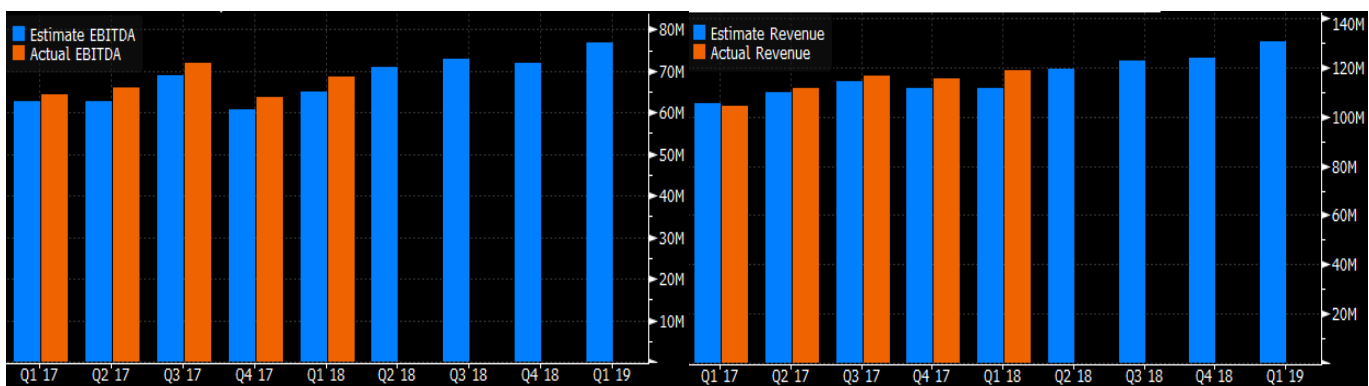
Financial Overview:

Recently, the company has witnessed strong subscriber momentum of 14% in the past year of 2017. Thus, lead to an operational EBITDA growth of 4%, which exceeded their full-year guidance. The company aligns itself with large growth partners for its commercial business. Since many of their business partners depend on real time connectivity to improve the management of their global assets, this helped fuel a 23% rise in Iridium's IoT subscribers in 2017. In addition, hurricane activity also fueled incremental demand for Iridium equipment in 2017, as three major storms hit the U.S. and Caribbean. These events caused a 4% rise in subscriber equipment revenue, with equipment margins rising to 42%. The company also held a steady revenue in their government business at \$88 million in 2017. In addition, the company recognized a tax benefit of \$114.3 million, which is why they had a significant increase in their net income.

Robust Subscriber Growth
(subscribers in thousands)



In the 1st quarter of 2018, Iridium beat their highest analyst estimate for revenue. The 1st quarter revenue was \$119.1 million, while the estimate was at \$111.5 million, with a range of \$109 million to \$114 million. Even with the increase in revenue the stock price still decreased. I believe this was because of the misconception with the company's net income. The company recognized a \$37.9 million net income in the 1st quarter of 2017, while in the 1st quarter of 2018, the company realized a net income of \$11.5 million. This decrease in net income was



primarily the result of a \$25.0 million increase in depreciation and amortization expense compared to the year-ago period and the recognition of a \$14.2 million gain in the prior year period triggered by the Company's insourcing transaction with Boeing. The outlook for the total service revenue is expected to be around 8% to 12%, with an estimated EBITDA margin of 58.6%, which is an 8% increase from the previous year. Iridium has consistently beat their estimates for EBITDA and revenue quarter over quarter and is expected to continue to increase for the rest of 2018.

Services Offered:

Iridium owns the only mobile voice and data satellite communications network that spans the entire globe. A technology innovator and market leader, Iridium enables connections between people, organizations and assets to and from anywhere, in real time. Iridium's architecture of 66 low-earth orbiting (LEO) satellites operates as a fully meshed, cross-linked network and is the world's largest commercial constellation. The company has a major development program underway for its next-generation network Iridium NEXT. Reaching over oceans, through airways and across the Polar Regions, Iridium solutions are ideally suited for industries such as maritime, aviation, emergency services, mining, forestry, oil and gas, heavy equipment, transportation and utilities. Iridium also provides service to subscribers from the U.S. Department of Defense, as well as other civil and government agencies around the world. Together with its ecosystem of partner companies, Iridium delivers an innovative and rich portfolio of reliable solutions for markets that require truly global communications.

Currently, the company is in the process of replacing their first-generation constellation with their Iridium NEXT satellite constellation, which will support more bandwidth and higher speeds for new products. The total investment of the project is expected to be \$3 billion, which is being financed primarily through debt. So far, there have been six successful launches for deploying the satellites in space, with only two launches of 10 satellites remaining.

For their wholesale distribution, the specialized needs of their global end users span many markets, including emergency services, maritime, aviation, government, utilities, oil and gas, mining, recreation, forestry, heavy equipment, construction and transportation. They sell their products and services to commercial end users primarily through a wholesale distribution network of service providers, VARs and VAMs, which often specialize in a particular line of business. Their distributors use their products and services to develop innovative and integrated communications solutions for their target markets, often combining their products with other technologies, such as GPS and terrestrial wireless technology.

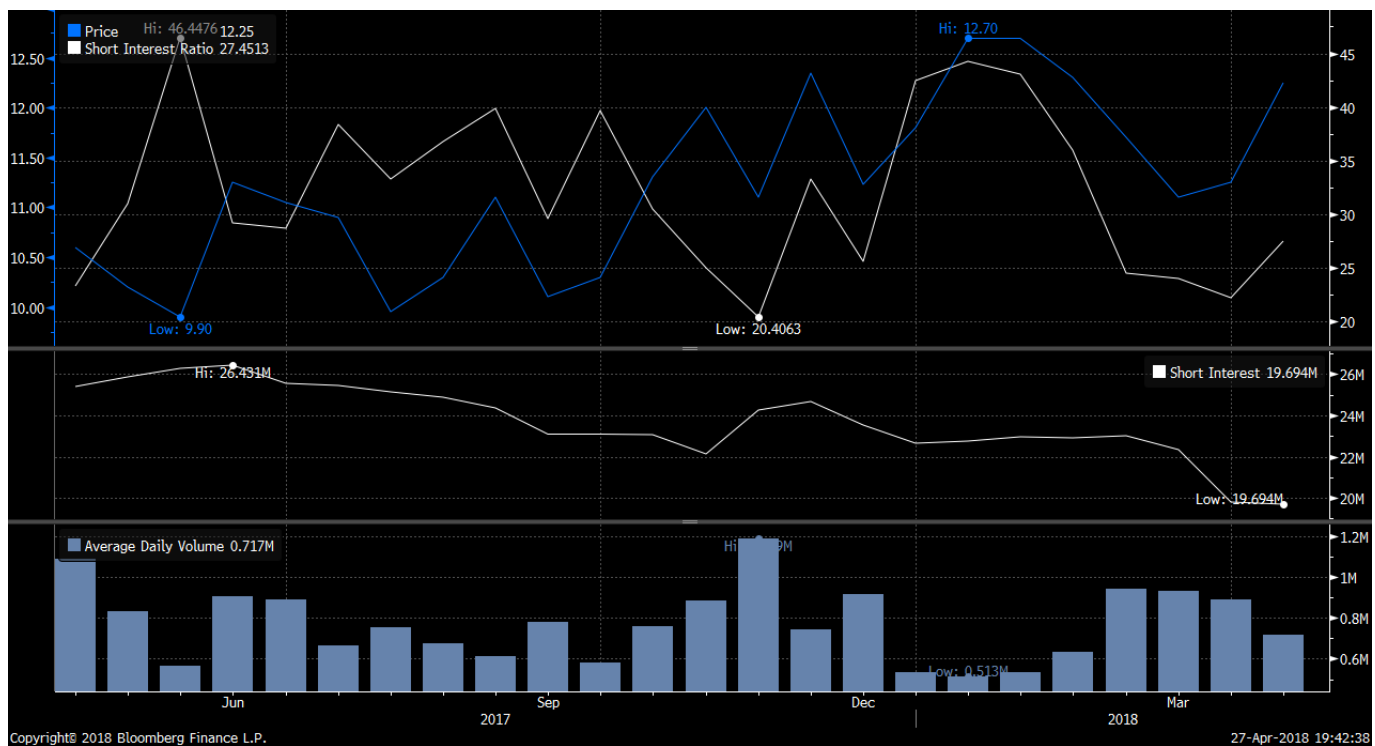
Iridium's satellites relies on an interlinked mesh architecture to transmit signals from satellite to satellite, which reduces the need for multiple local ground stations around the world and facilitates the global reach of other services. GEO satellites orbit above the earth's equator, limiting their visibility to far northern or southern latitudes and Polar Regions. LEO satellites from operators like Globalstar and ORBCOMM use an architecture commonly referred to as "bent pipe," which requires voice and data transmissions to be immediately routed to ground stations in the same region and can only provide real-time service when they are within view of a ground station, limiting coverage to areas near where they have been able to license and locate ground infrastructure. The LEO design of their satellite constellation produces minimal transmission delays compared to GEO systems due to the shorter distance the signals have to travel. Additionally, LEO systems typically have smaller antenna requirements and are less prone to signal blockage caused by terrain and other environmental factors

than GEO satellite networks. As a result, I believe that Iridium is well-positioned to capitalize on the growth in the industry from end users who require reliable, easy-to-use communications services in all locations

Ownership:

The ownership of the company primarily consists of investment advisors and individuals. Blackrock and Vanguard Group hold the most percentage of share out currently at 11.10% and 9.05%. Hedge fund managers have not taken much interest or changed their ownership that much in the company over the past year. The percentage of float consists of 150.61%.

54) Ownership Type	04/23/17	Curr	Change
41) Investment Advisor	82.77	85.35	+2.58
42) Individual	12.12	9.95	-2.17
43) Hedge Fund Manager	1.45	1.65	+0.20
44) Pension Fund	1.20	1.17	-0.03
45) Insurance Company	1.17	1.10	-0.07
46) Bank	0.54	0.45	-0.09
47) Government	0.16	0.13	-0.03
48) Brokerage	0.16	0.08	-0.08
49) Sovereign Wealth Fund		0.06	

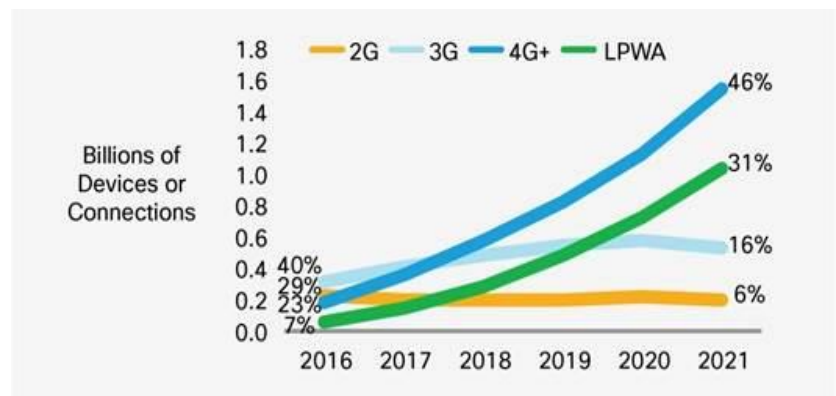


The short interest has decreased in the beginning of the first quarter of 2018, however, analyzing the chart, illustrates that it is starting to increase again. This could be due to speculation of the price appreciating. The short interest was highest at 27.45, while it was lowest at 20.41. With an increasing short interest, this implies that investors are anticipating that the stock price is going to decrease.

Industry:

A driver of the forecasted increased EBITDA margin for Iridium is that the space industry is witnessing unprecedented investment as new competition in the launch industry is reducing the cost to get to space, and satellites are getting smaller and more affordable. With this, it will make the cost to fly and repair satellites in space much cheaper. However, I believe investors are skeptical of this idea because spaceship launches require significant amounts of capital and have a high risk of failure. The failure of a SpaceX rocket explosion put pressure on Iridium back in 2016 and Iridium had to replace its satellites that were destroyed in the explosion. While this is a concern and a risk for Iridium, technology only continues to become more and more reliable. Therefore, the risk of this happening again, is a risk that progressively decreases every year as new improvements and breakthroughs are revealed in the space industry.

The demand for this industry is continuously increasing and has no reason to stop. According to a 2017 study by the GSM Association, total mobile connections reached 7.9 billion throughout the world as of the end of 2016 and are projected to reach 9.7 billion by 2020. With Iridium increasing their capacity, they will have the ability to provide connection to future customers.



I believe that the mobile satellite services industry will continue to experience growth driven by the increasing awareness of the need for reliable mobile voice and data communications services, the lack of coverage by terrestrial wireless systems of most of the earth's surface, and the continued development of innovative, lower cost technology, applications integrating mobile satellite products and services and the continued development of the IoT. Only satellite providers can offer global coverage, and the satellite industry is characterized by significant financial, technological and regulatory barriers to entry. One thing that does limit Iridium's growth is the regulation laws in other countries. Some countries have certain laws that could restrict Iridium's ability to provide their services.

Iridium's operations and performance depend significantly on worldwide economic conditions. Uncertainty about global economic conditions poses a risk as individual consumers, businesses and governments may postpone spending in response to tighter credit, negative financial news, declines in income or asset values, or budgetary constraints. Reduced demand would cause a decline in their revenue and make it more difficult for them to operate profitably, potentially compromising our ability to pursue their business plan. While they expect the number of our subscribers and revenue to continue to grow, they expect the future growth rate will be slower than our historical growth and may not continue in every quarter of every year. They expect their future growth rate will be affected by the condition of the global economy, increased competition, maturation of the satellite communications industry, and the difficulty in sustaining high growth rates as they increase in size. In addition, any substantial appreciation of the U.S. dollar may also negatively affect their growth by increasing the cost of their products and services in foreign countries.

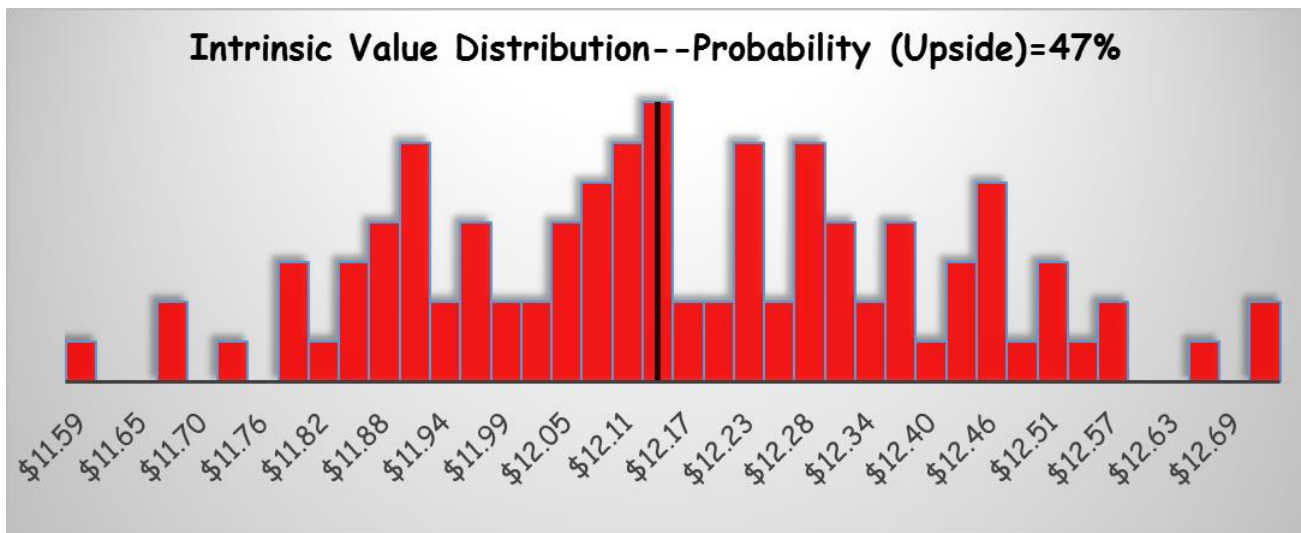
Profitability Comparison:

While Iridium may offer more distinct services and may not have a competitor that matches them accurately, they sell products and services that are similar to other companies in the communications equipment industry. Looking at the company's EBITA and Net Margin compared to their competitors, displays how they are significantly outperforming them. For the LTM, Iridium has had an EBITA Margin at 27.6%, which is 12.1% higher than their competitors at 15.5%. The company's Net Margin is over 3x higher than their competitors, implying that they are generating more cash more efficiently. In addition, Iridium's ROIC in the LTM is higher than their competitors at 3.5% compared to -0.9%. Iridium's WACC for the LTM was at 2.5%, while their competitor's WACC was at 10.7%. The ROIC/WACC for Iridium in the past LTM is 1.42, which implies that they are creating value. The industry ROIC/WACC in the past LTM was at -0.375%.

COMMON SIZE VIEW				
	6-year Historical Median		Last 12 Months	
	IRDM	Competitors	IRDM	Competitors
COR/Rev	27.3%	45.6%	27.6%	45.1%
(SGA+Other)/Rev	21.1%	38.7%	21.3%	39.4%
DPR/Rev	15.9%		23.5%	0.0%
EBITA Margin	35.7%	15.6%	27.6%	15.5%
Interest exp/Rev	6.2%	10.7%	18.6%	11.3%
AMORT/Rev	1.7%		0.3%	0.0%
SBC/REV	2.5%		3.4%	0.0%
Other Non-Operating Exp/Rev	4.6%	9.3%	-39.8%	-1.9%
Taxes/Rev	5.0%	-6.8%	10.2%	-4.5%
Net Margin	15.8%	2.4%	34.8%	10.7%
Cash/Capital	9.9%	17.2%	12.6%	-11%
NWC/Capital	-0.5%	39.1%	-0.5%	27%
Operating Assets/Capital	88.4%	27.9%	87.9%	60%
Goodwill/Capital	2.1%	15.9%	0.0%	23%
Debt/Capital	50.6%	61.7%	55.5%	58%
Other Claims/Capital	3.1%	8.2%	0.0%	0%
Book Value/Capital	46.3%	30.1%	44.5%	42.4%

Valuation:

To value a price, I used a valuation that involves a Monte Carlo simulation. For my Rev/Opex, I used 50%, which was based off the company's base year assumption and a conservative estimate. Since the Iridium NEXT project is occurring, capex was increased to match the base year assumption and its historical average at 93.81%. The cost of debt was 5%, while the equity risk premium was at 6.5%. For the expected revenue growth, I used 8%, which seemed reasonable based off of the company's historical growth plus their new initiatives. I came to a target price of \$15.09 with a percentage return of 24.17% and a 47% upside. While this investment presents risk, I believe the upside is greater than the downside. In a bullish scenario, where the Rev/Opex decreases 1% and revenue grows at 3%, the new target price would be \$17.22 with a 41.17% return and a 100% upside. For the revenue increase of 3%, this was estimated based off the idea that the economy would continue to do well and remain bullish as it's been in the past couple years. In a bearish scenario, where Rev/Opex increase 1% and revenue grows at only 5%, I came to a target price of \$12.92 with a 5.77% return. This was based off the idea that the economy would take a downturn, which would adversely affect Iridium's revenue growth.



Summary:

In conclusion, I believe Iridium's stock price is undervalued due to their robust revenue growth, increasing margins, and because of substantial projected demand for their services and products. With the implementation of the Iridium NEXT project, they will have the ability and capacity to handle a growing demand for mobile connection services. In addition, Iridium outperforms their competitors in EBITA, Net Margin, and ROIC/WACC, which are three important factors to the profitability and value creation of a company. With a target price of \$15.09 and a return of 24.17%, I believe Iridium is a buy at its current price and has the potential to break its 52 week high.

Iridium Communications Inc.

(IRDM)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Al Capone

4/27/2018

Current Price:

\$12.15

Dividend Yield:

0.0%

Intrinsic Value

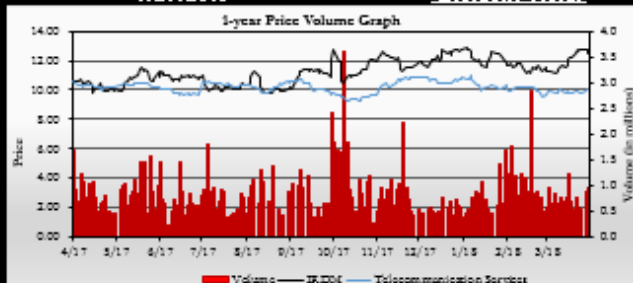
\$12.07

Target Price

\$15.09

Target 1 year Return: 24.17%

Probability of Price Increase: 47%



Description
Iridium Communications Inc. provides mobile voice and data communications services through satellite to businesses, the U.S. and foreign governments, non-governmental organizations, and consumers worldwide.

General Information
Sector: Telecommunication Services
Industry: Diversified Telecommunication Services
Last Guidance: February 12, 2018
Next earnings date: July 27, 2018

Market Assumptions
Estimated Equity Risk Premium: 6.54%
Effective Tax rate: 23%

Market Data	
Market Capitalization	\$1,341.08
Daily volume (mil)	0.75
Shares outstanding (mil)	110.38
Diluted shares outstanding (mil)	122.62
% shares held by institutions	109%
% shares held by investment managers	86%
% shares held by hedge funds	2%
% shares held by insiders	13.23%
Short interest	17.84%
Days to cover short interest	25.05
52-week high	\$13.25
52-week low	\$9.68
Volatility	37.77%

Quarter ending	
3/31/2017	-1.29%
6/30/2017	1.60%
9/30/2017	2.54%
12/31/2017	3.88%
3/31/2018	5.58%
Mean	2.66%
Standard error	1.0%

Part Earning Surprises	
Revenue	EBITDA
3/31/2017	-1.29%
6/30/2017	-11.29%
9/30/2017	-9.13%
12/31/2017	-20.30%
3/31/2018	-10.83%
Mean	-12.42%
Standard error	4.3%

Market and Credit Scores	
Recommendation (STARS) Value--0	
Recommendation (STARS) Description--0	
Quality Ranking Value--0	
Quality Ranking Description--0	
Short Score--5	
Market Signal Probability of Default--(Non-Rating)--0.922%	
Credit Model Score (Non-Rating)--bbb-	

Management	
Dorch, Matthew	CEO & Director
Fitzpatrick, Thamar	Chief Administrative Officer, CFO & Director
Smith, S.	COO & Director
Hickey, Thamar	Chief Legal Officer & Secretary
Martin, Bryan	Executive Vice President of Sales & Marketing
Levy, Kenneth	Vice President of Investor Relations

Partitions	
CEO & Director	10.9% per annum over 5y
Chief Administrative Officer, CFO & Director	10.76% per annum over 5y
COO & Director	11.6% per annum over 5y
Chief Legal Officer & Secretary	5.93% per annum over 4y
Executive Vice President of Sales & Marketing	4.39% per annum over 4y
Vice President of Investor Relations	

Industry and Segment Information	
LTM Revenue by Geographic Segments	
United States--51%	Providing Global Satellite Communications Services
Canada--10%	--
United Kingdom--10%	--
Other Countries--29%	--

Profitability	
Return on Capital (GAAP)	3.5%
Operating Margin	28%
Revenue/Capital (GAAP)	0.13
ROE (GAAP)	11.3%
Net margin	34.8%
Revenue/Book Value (GAAP)	0.33

Total Compensation Growth	
CEO & Director	10.9% per annum over 5y
Chief Administrative Officer, CFO & Director	10.76% per annum over 5y
COO & Director	11.6% per annum over 5y
Chief Legal Officer & Secretary	5.93% per annum over 4y
Executive Vice President of Sales & Marketing	4.39% per annum over 4y
Vice President of Investor Relations	

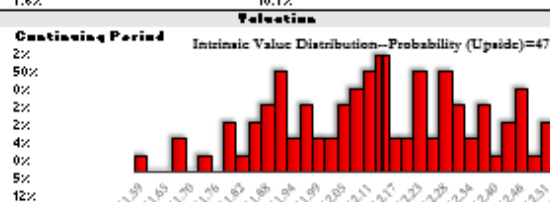
LTM Revenue by Business Segments	
United States--51%	Providing Global Satellite Communications Services
Canada--10%	--
United Kingdom--10%	--
Other Countries--29%	--

Invested Funds	
Carb/Capital	12.6%
NWC/Capital	-0.5%
Operating Assets/Capital	87.9%
Goodwill/Capital	0.0%

Peer's Median (LTM)	
Return on Capital (LTM)	-0.94%
Operating Margin	15.55%
Revenue/Capital (LTM)	-0.06
ROE (LTM)	40.9%
Net margin	1.5%
Revenue/Book Value (LTM)	27.64



Capital Structure	
Total Debt/Market Capitalization	0.55
Cost of Debt	6.0%
CGFS Rating (F--care, Z--care, and default Probability: BB	
WACC	12.8%



Sensitivity Attribution Analysis	
Revenue	48.2%
Operating costs	44.7%
Capital expenditures	1.8%
Discount Rate	2.4%

April 27, 2018

Woodward Inc.: WWD

Zachary DeLeonardo

Sector: Industrials

Industry: Aircraft

Current Price: \$73.01

Target Price: \$96.05

Woodward manufactures energy control systems for aircrafts, industrial engines, and industrial turbines. The two main segments are aerospace and industrial, both of which have multiple business within them such as jet turbines and defense mechanisms in aerospace and valves, nozzles, actuators, and sensors for the industrial division.



BUY

Current Price:	\$73.01
Target Price:	\$95.05
Market Cap:	4.55B
WACC:	8.3%
ROIC:	8.95%
Debt Rating:	BBB
Kd:	2.88%
Debt/Capital:	30.89%

Catalysts:

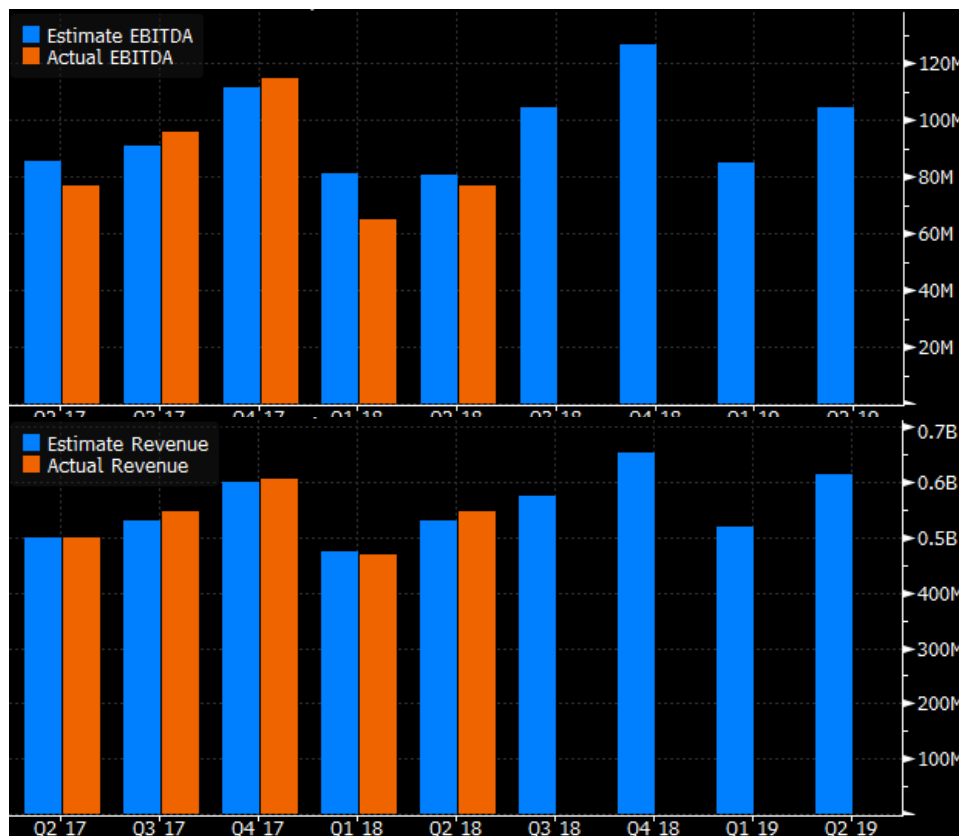
- Short Term: Rising global tensions and growing budgets to drive military applications, continued aerospace growth and ramping of airliners.
- Mid Term – Long Term: Anticipation of industrial turbine bounce back after recent recession in that industry.

Thesis:

Woodward is currently undervalued in the market due to their potential to capitalize on global tensions in their defense business along with their growth potential in the aerospace division. Even in a recessing turbine industry, Woodward has still managed to grow about 8.7% in price over the last 12 months. With diversification of their tech throughout industrial engines, turbines, aerospace solutions, and military applications, Woodward can outperform the market and create value for their shareholders. In the long term, an under demanded industrial turbines market is expected to rebound which will further compliment their growing aerospace segment.

Earnings:

Revenue is up FY 7% YoY while EBITDA is up FY 4% YoY. Moving forward, Woodward guidance suggests a 7% decrease in sales for industrial but up 12% in Aerospace. The low sales is a result of anticipated over demand in the industrial gas turbines arena where capacity is three to four times demand. This came out in their Q2 earnings call on April 22 and since then the stock price has dropped from ~\$74.16 to \$72.68. The small dip in price is a direct result of their lowered guidance, but not catastrophic due to industry wide news of industrial turbines being priced in for the last 3 quarters already. Below are charts showing quarter data for revenue and EBITDA. For Q2 2018 EBITDA is up 9.2% YoY while revenue is up 4.8%.



As we can see the company is slightly cyclical with Q4 being their best quarter and Q1 being their worst. EBITDA has missed analyst estimates for the first two quarter in 2018 ; revenue beat analyst estimates in Q2 and is estimated to see revenue growth YoY in quarters three and four in 2018. In the company's most recent earnings call questions, management believes they've hit the rock bottom, or are very close to rock bottom, for industrial power generation. At the bottom, guidance suggests this is a turning point

for an under demanded current market. This turnaround is driving high analyst estimates for the back end of 2018 revenues.

Segment Analysis:

Reported segments are Aerospace and Energy, which make up 64% of revenue and 36% of revenue, respectively. Woodward has a plethora of products to support an array of applications, as seen below, that range from military applications, to industrial turbines, to transportation.

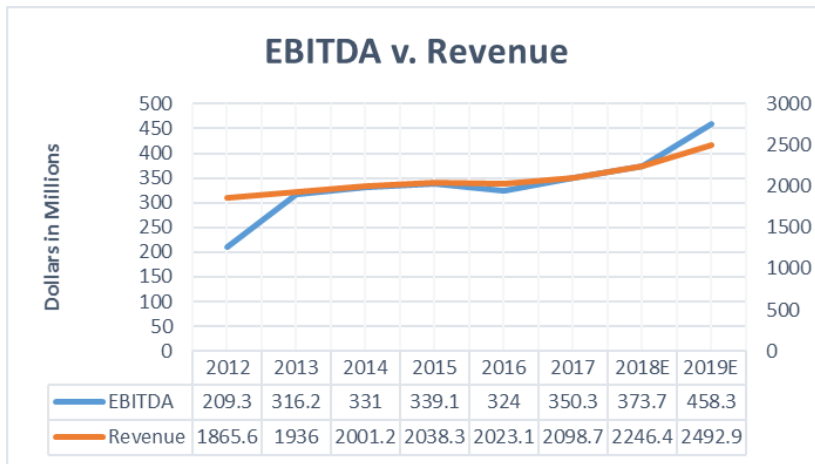
Aircraft	Industrial Turbines and	Civilian aerospace applications encompass flight control systems, cockpit controls, actuation solutions, sensing, turbine engine control, combustion systems, fuel controls, and many more. The applications can be recognized on major commercial jets such as the Boeing 737 MAX, Boeing 737, Airbus A320neo, and Airbus A320. Boeing, United Technologies Corporation, and General Electric
Aircraft Turbines	Turbomachinery Systems	
Alternative Fuel Vehicles	Industrial and Factory	
Armored and Tactical Vehicles	Automation	
Compressors and Pumps	Locomotive	
Electrical Power Distribution	Marine and Naval	
Electrical Power Generation	Microgrid	
Engines	Mobile and Industrial Equipment	
Guided Missiles and Munitions	Rotorcraft	
Hybrid	Safety Systems	
	Unmanned Aerial Vehicles	
	Wind Power	

account for more than 10% of sales in the Aerospace division. On the military side, Woodward produces precision control systems for U.S. missile programs such as the Joint Direct Attack Munition (JDAM), Small Diameter Bomb (SDB), Aim 9x Sidewinder, and Javelin tactical weapons. For the aerospace division, fiscal year 2017 direct government sales, indirect government sales, and commercial sales were \$106,685, \$362,536, and \$873,118, respectively (sourced from 2017 10-K).

The industrial segment took a hit in fiscal year 2017, specifically turbines, due to the impact of excess inventory in the market coupled with increased efficiency and the impact of renewables. To counteract the poor performance in turbines, reciprocating engines for transportation, oil, and gas improved especially in Asia, where the government is employing natural gas fueled trucks and cars to meet emission standards.

Growth:

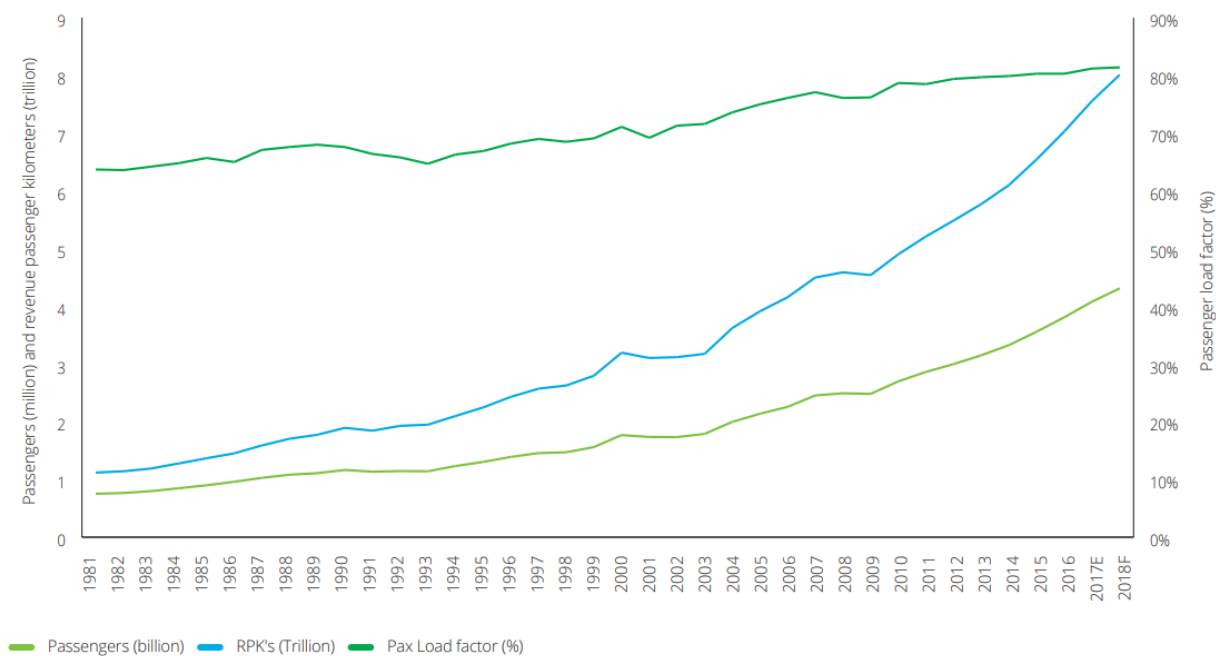
A past 5 year analysis shows a CAGR for revenue and EBITDA of 2.38% and 10.85%, respectively. In the following graph, it's evident revenue growth has been on a steady uphill tick while EBITDA spiked in 2013 and has remained relatively constant since. Estimates for 2018 and 2019 are consistent with a marginal ramp in both EBITDA and revenue. Piggybacking from 2017's revenue growth of 9%, YoY growth for 2018 is estimated to be ~7.04%. Growth potential lies primarily in their aerospace division, more specifically with their contracts with Boeing along with their military applications.



Industry:

Aerospace

The aerospace industry has a substantial aircraft unit backlog composed of primarily Boeing and Airbus, two major customers of Woodward. This bodes well for Woodward based on the increasing demand for 2018 after a subdued 2017 performance. Aircraft manufactures are planning to increase production to meet increased customer needs as shown in the graph below, where revenue passenger kilometers (RPK) has heavily ramped up and is expected to continue to grow. Pax load factor, a ratio of passenger kilometers travelled to seat-kilometers available, has also recently ramped up and expected to continue growing as well (source: Deloitte.).



Military

Military defense spending has ramped considerably from the transition from the Obama administration to the Trump administration. In the beginning of Obama's term, YoY growth for defense spending went from ~6% in 2008 to 1% in 2016, with dips into negative YoY growth in the middle of his terms. After Trump took office in 2016, defense spending went from a 1% YoY growth to 3% and is expected to remain relatively constant for 2018-2020 (source: Deloitte.). Aside from the hard numbers, increased global tensions from the reason bombings of Syria, causing relations with Russia to turn sour, whom backs Syria's Bashar al-Assad's regime. Recently, lawmakers released a \$1.3 trillion dollar spending bill that Paul Ryan refers to as "the Trump-Jim Mattis budget". With increased military spending and the personalities of both Trump and Mattis, we can expect increased demand in the military sector.

Industrial

As previously mentioned, the biggest business in industrial, turbines, have recently taken a hit. With capacity to demand being 3-4 times, the industry has hit a trough in their business cycle. We can expect to see demand to stay relatively constant in the next few years with production from gas turbines sitting around 30 GW per year for the foreseeable future (source: turbine executive).

Debt:

Woodward currently maintains ~30% debt in their capital structure. Below is a snapshot of their revolving credit and notes. Notes due are adequately spread out, with the most immediate obligation due in October. With a rating of BBB and solid margins, Woodward will have no issues meeting these obligations in the future. As I'll discuss later on, capital structures of ~30% debt is the average in this industry.

	March 31, 2018	September 30, 2017
Series D notes – 6.39%, due October 2018; unsecured	\$ 100,000	\$ 100,000
Series F notes – 8.24%, due April 2019; unsecured	43,000	43,000
Series G notes – 3.42%, due November 2020; unsecured	50,000	50,000
Series H notes – 4.03%, due November 2023; unsecured	25,000	25,000
Series I notes – 4.18%, due November 2025; unsecured	25,000	25,000
Series J notes – Floating rate (LIBOR plus 1.25%), due November 2020; unsecured	50,000	50,000
Series K notes – 4.03%, due November 2023; unsecured	50,000	50,000
Series L notes – 4.18%, due November 2025; unsecured	50,000	50,000
Series M notes – 1.12% due September 2026; unsecured	49,279	47,270
Series N notes – 1.31% due September 2028; unsecured	94,861	90,995
Series O notes – 1.57% due September 2031; unsecured	52,975	50,815
Unamortized debt issuance costs	(1,654)	(1,794)
Total long-term debt	588,461	580,286
Less: Current portion of long-term debt	-	-
Long-term debt, less current portion	\$ 588,461	\$ 580,286

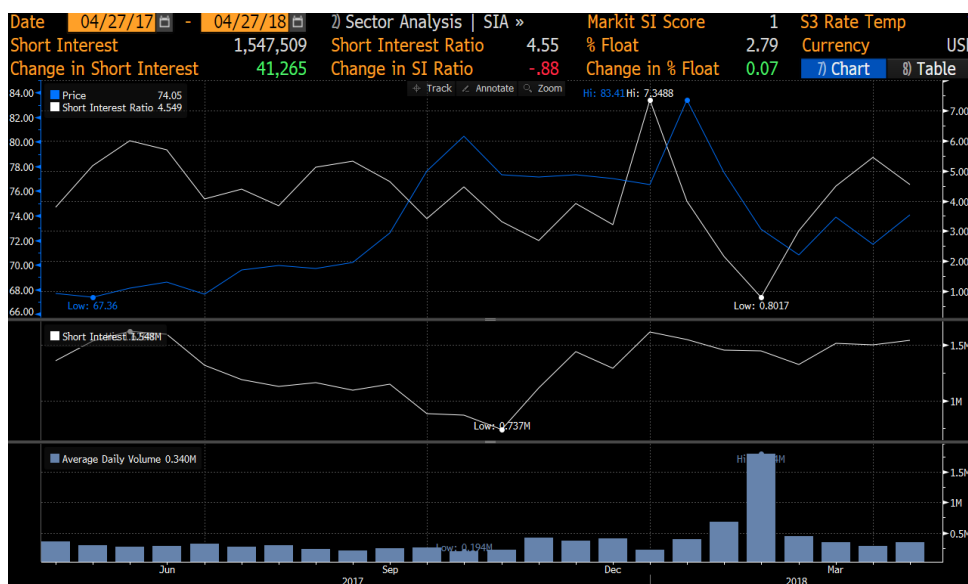
Competitors:

In terms of competition, Woodward sits at the industry average for TTM EBITDA margin, revenue YoY growth, and capital structure. They outperform in terms of the ROIC/WACC ratio showing value creation relative to their peers, along with outperforming in terms of ROE. The biggest concern for the immediate future from competitors is winning direct or indirect contracts for the U.S. military and partnerships with major airline companies to meet the ramping up demand.

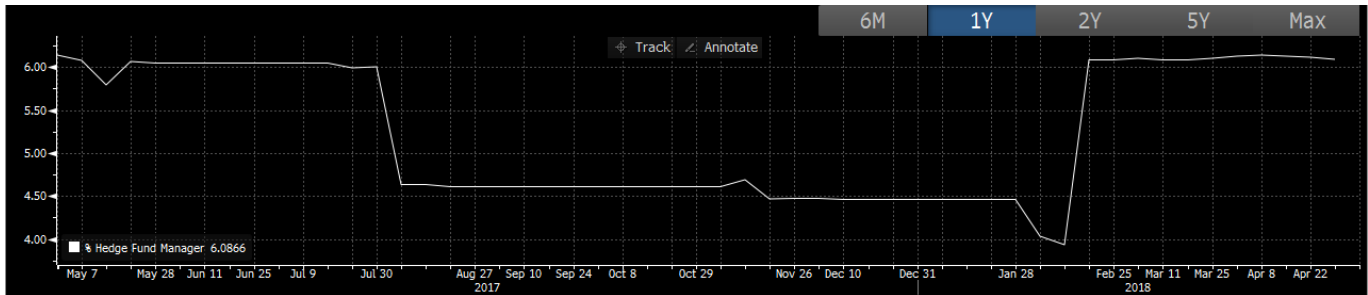
Name	Mkt Cap	T12M EBITDA Mrgn:Y	Rev - 1 Yr Gr:Y	Debt/Cap:Y+	ROIC/WACC Ratio	ROE:Y
Median	4,28B	16.67%	3.89%	33.56%	0.80	13.47%
100) WOODWARD INC	4,49B	16.69%	3.74%	30.89%	1.10	15.34%
101) MOOG INC-CLASS A	2.91B	13.39%	3.55%	44.08%	0.72	13.62%
102) TELEDYNE TECHNOLOGI...	6.79B	18.59%	21.11%	35.52%	0.88	13.31%
103) HEXCEL CORP	5.98B	23.06%	-1.55%	35.14%	1.88	17.98%
104) KLX INC	4.06B	16.65%	16.51%	34.29%	0.49	3.02%
105) HEICO CORP	8.39B	24.36%	10.79%	32.82%	1.21	17.22%
106) ESTERLINE TECHNOLOGI...	2.16B	15.08%	0.48%	29.61%	0.36	7.44%
107) AAR CORP	1.52B	7.50%	4.04%	14.68%	0.33	5.64%

Ownership Summary/SI:

The short interest ratio has been slightly volatile in calendar year 2018. Recently, the price and short interest ratio have started to favorably diverge. The massive dip in short interest ratio was due to the stock price plummeting after a press release that Woodward was not in talks with Boeing, which was fake news and was corrected by the company. Investors exited their short positions at that time and have since increased slightly, minus the most recent dip.



In terms of ownership, hedge fund managers have recently increased their position in Woodward, capitalizing on the steep drop in price in February. I believe hedge fund managers are going long due to their entry price, and anticipate they believe the stock still has room to grow since no positions have been exited recently.



Conclusion:

Woodward is buy at its current price. This is the perfect time to enter due to their future growth potential through military applications and room for growth through a growing aerospace industry. With major customers such as Boeing and Airbus, Woodward will be able to outperform the industry in terms of aerospace solutions. They have a stable capital structure and have no problems in terms of meeting debt obligations. Their plethora of products allows Woodward to diversify within both segments, counteracting the hit that gas turbines have taken and will continue to take until 2020. As long as Woodward wins contracts for military applications and the uneasy global tensions remain, Woodward can capitalize on this segment. Getting in at ~\$74.00 will allow for a targeted one-year return of 31.12%.

Woodward, Inc. (WWD)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Zachary DeLeonardo

4/27/2018

Current Price:

\$74.03

Divident Yield:

0.8%

Intrinsic Value

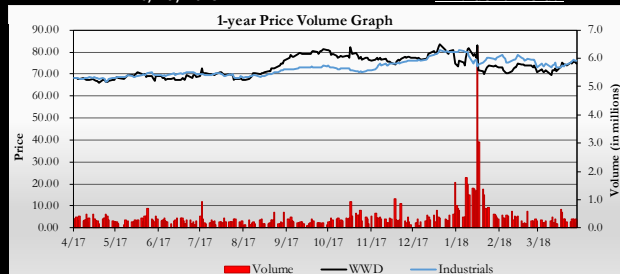
\$86.58

Target Price

\$96.50

Target 1 year Return: 31.12%

Probability of Price Increase: 100%



Description	Market Data
Woodward, Inc. designs, manufactures, and services energy control and optimization solutions for the aerospace and industrial markets worldwide.	Market Capitalization \$4,536.00
	Daily volume (mil) 0.57
	Shares outstanding (mil) 61.27
	Diluted shares outstanding (mil) 63.58
	% shares held by institutions 109%
	% shares held by investments Managers 64%
	% shares held by hedge funds 5%
	% shares held by insiders 2.73%
	Short interest 2.46%
	Days to cover short interest 2.37
	52 week high \$89.30
	52-week low \$65.22
	Volatility 24.02%
General Information	
Sector Industrials	
Industry Machinery	
Last Guidance February 12, 2018	
Next earnings date July 20, 2018	
Market Assumptions	
Estimated Equity Risk Premium 4.95%	
Effective Tax rate 21%	

Industry and Segment Information	Peers
LTN Revenues by Geographic Segments	LTM Revenues by Business Segments
Europe (Excluding Germany)--15%	Aerospace--64%
Germany--8%	Industrial--36%
Asia--14%	--
Other Countries--6%	--
United States--58%	--
Esterline Technologies Corporation	Franklin Electric Co., Inc.
HEICO Corporation	Barnes Group Inc.
Hexcel Corporation	Watts Water Technologies, Inc.
Aerojet Rocketdyne Holdings, Inc.	Crane Co.
ITT Inc.	--

Quarter ending	Revenue	EBITDA
3/31/2017	0.42%	-12.17%
6/30/2017	3.32%	5.95%
9/30/2017	1.84%	1.06%
12/31/2017	-0.37%	-32.42%
3/31/2018	4.31%	103.56%
Mean	13.20%	
Standard error	1.0%	5.5%

Market and Credit Scores	Stock Price Growth During Tenure
Recommendation (STARS) Value--0	
Recommendation (STARS) Description--0	
Quality Ranking Value--A	
Quality Ranking Description--High	
Short Score--1	
Market Signal Probability of Default % (Non-Ratings)	
-0.318%	
CreditModel Score (Non-Ratings)--bbb	

Porter's 5 forces (Scores are percentiles)
Bargaining Power of Suppliers-- MIDDLE TIER 50
Bargaining Power of Customers-- MIDDLE TIER 57
Threat of New Competition-- LOWEST TIER 25
Intensity of Existing Rivalry-- MIDDLE TIER 33
Threat of Substitutes-- HIGHEST TIER 75

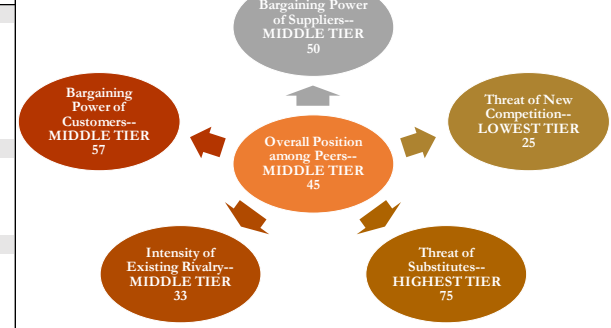
Management	Position	Total Compensations Growth
Gendron, Thomas	Chairman, CEO & President	-100% per annum over 4y
Weber, Robert	Vice Chairman, CFO, Principal Accounting Officer	-100% per annum over 4y
Fawzy, A.	Corporate VP, General Counsel, Corporate Secret	
Patel, Sagar	President of Aircraft Turbine Systems	-100% per annum over 4y
Tysver, John	Corporate Vice President of Technology	
Guzzardo, Don	Corporate Director of Investor Relations & Treas	

Profitability	WWD (LTM)	WWD Historical	Peers' Median (LTM)
Return on Capital (GAAP)	6.6%	6.13%	8.92%
Operating Margin	9%	9.87%	12.72%
Revenue/Capital (GAAP)	0.74	0.62	0.70
ROE (GAAP)	9.9%	6.9%	12.1%
Net margin	7.8%	6.0%	8.1%
Revenue/Book Value (GAAP)	1.27	1.16	1.50

Invested Funds	WWD (LTM)	WWD Historical	Peers' Median (LTM)
Cash/Capital	4.2%	3.2%	13.0%
NWC/Capital	21.7%	21.8%	13.0%
Operating Assets/Capital	51.8%	52.8%	42.5%
Goodwill/Capital	22.2%	22.2%	31.5%

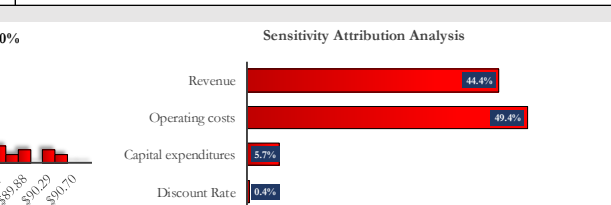
Capital Structure	WWD (LTM)	WWD Historical	Peers' Median (LTM)
Total Debt/Market Capitalization	0.27	0.28	0.32
Cost of Debt	4.1%	5.0%	3.4%
CGFS Rating (F-score, Z-score, and default Probability)	BBB		
WACC	8.7%	8.9%	7.6%

Forecast Assumptions	Explicit Period (4 years)	Continuing Period
Revenue Growth CAGR	4%	2%
Average Operating Margin	18%	18%
Average Net Margin	12%	12%
Growth in Capital CAGR	7%	2%
Growth in Claims CAGR	1%	2%
Average Return on Capital	8%	6%
Average Return on Equity	8%	6%
Average Cost of Capital	7%	7%
Average Cost of EquityKc	8%	8%



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

Sensitivity Attribution Analysis
Revenue 44.4%
Operating costs 49.4%
Capital expenditures 5.7%
Discount Rate 0.4%



Company Description: Skechers USA Inc. designs, develops, and markets footwear for men, women, and children. Skechers has three segments: Domestic Wholesale Sales, International Wholesale Sales, and Retail Sales. Of these three segments they have two main divisions of their products- lifestyle and fitness. Their lifestyle line includes Bobs from Skechers, and their fitness division includes GOrun, GOwalk, and Skechers GOplay. The company was founded in 1992 and is headquartered in Manhattan Beach, CA.

BUY

Current Price:	\$29.21
Target Price:	\$40.63
Market Cap:	4.7B
Beta:	1.00
EBITDA Margin:	11.13%
MV D/E:	0.018
Float:	98%
Credit Rating:	a-
Average Volume:	3.04M
ROIC:	18.0%
ROIC/WACC:	2.17

Compare: IYK Consumer Goods Index SMAVG (50,100,200)



Thesis: After Skechers most recent earnings call their stock dropped 16%, this is an immense overreaction by the market. Skechers is an extremely cheap stock right now. Sales have continued to grow in their 3 segments over the last few quarters, and they have managed to increase ROI and will continue to drive strong operating leverage. Overall the company has a strong balance sheet, and growing margins that are higher than the industry average. Strong cash flows and almost no debt make this company poised for recovery and further growth.

Catalysts:

- **Short Term(within the year):** Oversold, overreaction by the market for weak Q1 and soft Q2 forecasts- *undervalued
- **Mid Term(1-2 years):** Increased ROI and return to strong operating leverage stemming from last year's investments
- **Long Term(3+):** Strong balance sheet, revenue growth, and growing margins- solid CF in international growth

Earnings Performance:

Skechers USA Inc. has shown tremendous strength both domestically and internationally over the last few quarters in terms of sales growth and expanding business segments. Sales Q1 2018 marked a quarterly sales record of \$1.25 billion, and provided a 16.5% increase from Q4 2017. Domestic wholesale business increased 8.5% for Q1 2018- this is attributed to both a reduction in shoe prices that drove higher volumes in pairs sold. International wholesale grew 17.9% and company owned global retail sales grew 26.4%. Gross profit and gross margins were up this past quarter. Gross profits were up \$106.6 million to \$583.1 million, and gross margins increased by 2.3% to 46.7%. SG&A expenses were up to 28.4% of sales compared to last year's 26.3% of sales. Skechers has been committed to long term growth with investing large amounts of cash in joint venture and subsidiary businesses.

Focused marketing helped drive strong growth in sales as well. Camila Cabello helped market through social media as well as a TV Commercial for the women's Skechers D'lites. Marketing for men revolved around David Ortiz, Howie Long, and a new ad campaign with Tony Romo.

International wholesale is Skechers largest segment, representing 46.2% of total sales. International wholesale increased by 17.9% in Q1 2018. The two drivers for this international growth were the international subsidiary business and joint venture sales. These two investments are projected to drive operating leverage for the next few years. Both the subsidiary businesses and joint venture sales grew by about 25%. Most sales in Asia are coming from China- China ordered 4.4 million pairs in Q1 2018.

On the retail end- international sales increased 62.1% and domestic sales increased 13.5%. For the rest of 2018 Skechers is planning to open 60-75 new stores, and remodel 15-20 new stores. Lastly, the e-commerce business had a great quarter, increasing 12.7%. Skecher's stock price got rocked after their most recent earnings call due to disappointing guidance for 2018. As Skechers aggressively tried to grow their sales numbers they lost most of their efficiencies in the supply chain, and operating margins shrunk. Management believes that they can return to these operating margins with the operating leverage from their most recent investments (mentioned above).

Second quarter guidance on sales is forecasted to be \$1.12 billion - \$1.15 billion, driven by new product deliveries and expanded global infrastructure.

<https://seekingalpha.com/article/4164258-skechers-usa-skx-q1-2018-results-earnings-call-transcript>

Industry Performance & Outlook:

Differentiation in the Consumer Goods Sector is one of the most important factors to add value. As the US and World Economies prosper as we enter Q2 2018, the Consumer Goods Sector is poised for strong growth, as the economy is forecasted to grow at 2-2.5%. Although there has been some uncertainty in the political arena in the US and abroad, consumer confidence remains high. In Deloitte's Consumer Products Industry Outlook, they outlined 4 areas of increased growth over the next year: 1. Globalization 2. Innovation

3. M&A Activity 4. Digitization. Globalization has been the most important of these factors. Globalization has been driven by global partnerships, by tapping into consumer insights, and by entering into emerging markets.

Skechers has done a fantastic job of focusing on international expansion. As mentioned in the earnings performance, international retail sales increased 62.1%, and international wholesale increased by 17.9%- now representing almost half of all total sales. Skechers had invested in subsidiary businesses internationally and they had made partnerships in joint venture sales. These investments have not turned a profit yet, but they are only a few quarters away from doing so.

<https://www2.deloitte.com/us/en/pages/consumer-business/articles/consumer-products-industry-outlook.html>

Competitor Analysis:

Skechers operates in a highly competitive space. Powerful titans of the industry like Nike, Under Armour, Reebok, and Adidas dominate the athletic apparel and shoe markets. However, they have done well to maintain their market share in the industry. At a market cap of \$4.68B, they compete directly with mid-cap and large-cap companies. Skechers has been creating value for their shareholders by maintaining a high ROIC/WACC ratio- approximately 1.26. This is much higher than the industry average of 0.60. Skechers also has an above average EBITDA/ Net Sales % of 11.18%. Skechers is trading at a P/E of 15.81, which is well below the industry average of 20.52. Skechers management has made it a priority for deliberate growth in the next few years, this growth will drive value through operating leverage.

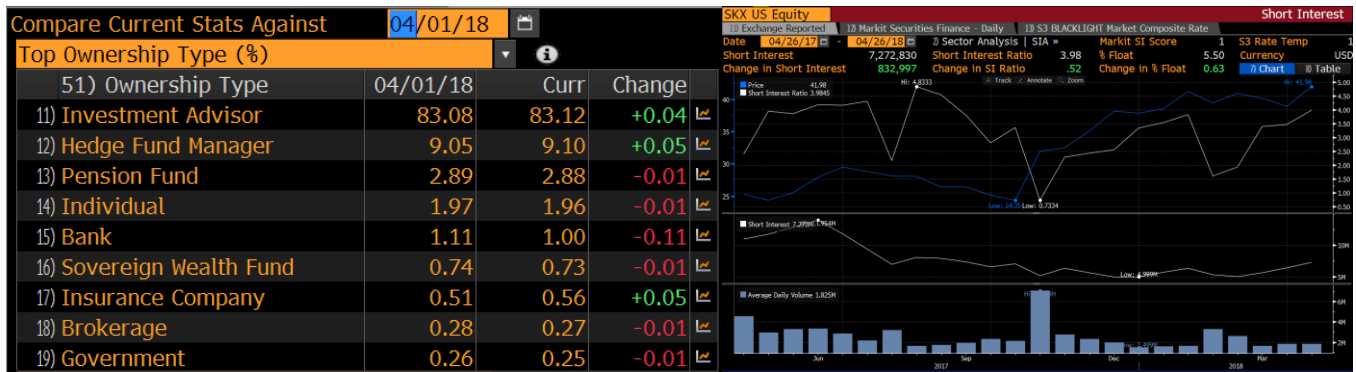
Name (BICS Best Fit)	Mkt Cap† (USD)	Last Px	EBITDA to Net Sales:Y	Op ROIC	ROIC/WACC Ratio	1Y Tot Ret	P/E	ROE	Deg Op Lev
Median	4.68B	47.50	10.74%	17.81	0.60	24.08%	20.52	15.87%	0.90
100) SKECHERS USA INC-CL A	4.68B	29.22	11.18%	20.01	1.26	14.63%	15.81	15.87%	0.16
101) MOVADO GROUP INC	910.69M	39.70	9.98%	12.57	0.60	68.09%	19.76	9.84%	5.08
102) CROCS INC	1.08B	15.84	4.93%	9.35	0.20	154.25%	179.32	4.69%	--
103) STEVEN MADDEN LTD	2.78B	47.50	12.36%	23.66	0.92	24.08%	20.52	17.30%	0.92
104) WOLVERINE WORLD WIDE ...	2.83B	29.68	2.60%	12.88	-0.24	22.23%	18.43	16.01%	-14.67
105) DECKERS OUTDOOR CORP	2.91B	91.51	2.83%	20.54	0.51	51.13%	17.16	17.11%	-1.82
106) CARTER'S INC	4.95B	104.91	14.82%	29.36	2.70	15.70%	17.71	34.69%	0.57
107) COLUMBIA SPORTSWEAR CO	5.65B	80.70	13.09%	17.81	1.20	37.46%	26.83	13.28%	1.89
108) UNDER ARMOUR INC-CLA...	6.77B	16.44	4.05%	5.28	-0.22	-16.59%	85.52	4.38%	--
109) PVH CORP	12.22B	158.77	10.74%	9.04	0.55	53.66%	20.52	11.76%	0.90

(Accounting Adjustments: Adjusted for Abnormal Items When Applicable)

10 Analyze List

Ownership Summary:

Skechers float is 98%. Ownership is heavily focused on Investment Advisors at 83% and the next largest holding comes from Hedge Fund Managers at 9%. Ownership has not changed much in the last month- even after the 16% drop to under \$30 a share. Both Hedge Fund Managers and Investment Advisors have slightly increased their positions since April 1st, when the stock was trading around \$37. Short interest has increased in the last few days, once again due to the soft earnings from their most recent earnings call and poor guidance for Q2 2018. However, if you look historically Q2 is the worst quarter for not only Skechers, but for the entire industry. This increase in short interest can be attributed to profit taking by some investors.



Revenue Multiples Valuation:

A more simple valuation, on top of the proforma valuation, makes it easy to see that Skechers is undervalued. The top competitors to Skechers are: Under Armour, DSW, Crocs, Steve Madden, and Columbia. Each of these companies are relatively the same in market cap, and revenue growth. Skechers is actually the outlier in terms of 2018E Revenue Growth- due to the increase in operating leverage and profitability of their LT investments. Skechers has some fixed cost investments in both an automation and distribution centers in Europe and China- but these should open in the next 12 months. The last metric is Enterprise Value/ Next 12M Revenue. The average multiple of the competitors is 1.24x. Using this average multiple and multiplying by 2018E Revenue, you get an EV of \$5.87B. Less Net Debt and dividing by shares outstanding, you get a Value Per Share of \$40.72. This is a current upside of 39% from the current price of \$29.20. If this multiple was only 1.05x, the Value Per Share would still be \$35.08- this provides a 20% 1YR return.

SKX Comps			
Company	Market Cap	2018E Revenue Growth	EV/NTM Revenue
SKX	4.68B	14%	0.86x
UAA	6.77B	3%	1.47x
DSW	1.75B	6%	0.53x
CROX	1.08B	2%	1.09x
SHOO	2.78B	6%	1.56x
COLM	5.65B	6%	1.91x
Average		6%	1.24x

SKX Valuation based on Comps		
2018E Revenue (\$B)	4.73	
Applicable Multiple	1.24x	
EV (\$B)	5.87	
Less: Net Debt	-0.655	
Equity Value (\$B)	6.525	
Shares Outstanding	0.16025	
Value Per Share	\$40.72	
Upside from current price	39%	
Current Price:	\$29.20	

Conclusion:

In conclusion, Skechers got crushed from their poor guidance on their last earnings call, but the selloff is overdone. Skechers' margins are solid within the industry, and they have the strongest revenue growths in terms of the competitors outlined in the Revenue Multiples Valuation model. They will begin to turn a profit from their two large investments overseas- in automation and in distribution centers. This will contribute to their operating leverage. Overall, Skechers has a strong balance sheet, no debt, and very strong international CF growth. At \$29 they are drastically underpriced, and should be bought now. I wouldn't hold the shares for longer than 8 months- since the volatility in the price has caused investors to be wary.

Skechers U.S.A., Inc. (SKX)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Al Capone

4/26/2018

Current Price:

\$29.21

Intrinsic Value

\$37.37

Target 1 year Return: 36.53%

Dividend Yield:

0.0%

Target Price

\$39.87

Probability of Price Increase: 100%



Description	
Skechers U.S.A., Inc. designs, develops, markets, and distributes footwear for men, women, and children; and performance footwear for men and women under the Skechers GO brand worldwide.	
General Information	
Sector	Consumer Discretionary
Industry	Textiles, Apparel and Luxury Goods
Last Guidance	February 12, 2018
Next earnings date	July 18, 2018
Market Assumptions	
Estimated Equity Risk Premium	6.86%
Effective Tax Rate	23%

Market Data	
Market Capitalization	\$4,675.23
Daily Volume (mil)	3.04
Shares outstanding (mil)	160.06
Diluted shares outstanding (mil)	156.95
% shares held by institutions	109%
% shares held by investment managers	59%
% shares held by hedge funds	9%
% shares held by insiders	8.87%
Short interest	4.54%
Days to cover short interest	2.37
52 week high	\$43.08
52 week low	\$22.64
Volatility	46.95%

Quarter Ending	
3/31/2017	1.10%
6/30/2017	6.32%
9/30/2017	2.40%
12/31/2017	10.67%
3/31/2018	4.02%
Mean	4.90%
Standard error	1.0%

Part Earning Surprises	
Revenue	1.10%
EBITDA	0.14%
	-9.02%
	17.31%
	-60.24%
	-100.00%
	-30.36%
	4.4%

Market and Credit Scores	
Recommendation (STARS) Value--3	
Recommendation (STARS) Description--Hold	
Quality Ranking Value--E	
Quality Ranking Description--Below Average	
Short Score--0	
Market Signal Probability of Default % (Non-Rating)--0.515%	
Credit Model Score (Non-Rating)--a	

Management	
Greenberg, Robert	Co-Founder, Chairman of the Board & CEO
Greenberg, Michael	Co-Founder, President & Director
Weinberg, David	Executive VP, COO & Director
Pacciano, Philip	Executive VP of Business Affairs, General Coun
Naran, Mark	Executive VP of Product Development
Vandemore, John	Chief Financial Officer

Partitions	
Co-Founder, Chairman of the Board & CEO	42.27% per annum over 5y
Co-Founder, President & Director	36.31% per annum over 5y
Executive VP, COO & Director	46.28% per annum over 5y
Executive VP of Business Affairs, General Coun	31.19% per annum over 5y
Executive VP of Product Development	24.94% per annum over 5y

Industry and Segment Information	
LTM Revenue by Geographic Segment	
United States--49%	
Canada--4%	
Other International--47%	
LTM Revenue by Business Segment	
Domestic Wholesale--30%	
International Wholesale--42%	
Retail (Including e-Commerce)--28%	

Profitability	
Return on Capital (GAAP)	18.0%
Operating Margin	10%
Revenue/Capital (GAAP)	1.82
ROE (GAAP)	16.5%
Net margin	6.5%
Revenue/Book Value (GAAP)	2.54

Total Compensation Growth	
Co-Founder, Chairman of the Board & CEO	42.27% per annum over 5y
Co-Founder, President & Director	36.31% per annum over 5y
Executive VP, COO & Director	46.28% per annum over 5y
Executive VP of Business Affairs, General Coun	31.19% per annum over 5y
Executive VP of Product Development	24.94% per annum over 5y

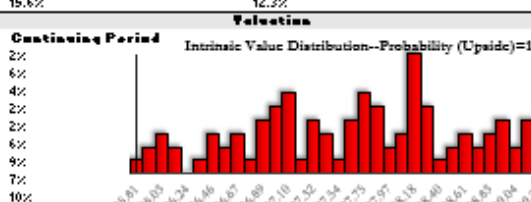
Peers	
Under Armour, Inc.	Ralph Lauren Corporation
DSW Inc.	Columbia Sportswear Company
Foot Locker, Inc.	Steven Madden, Ltd.
Wolverine World Wide, Inc.	NIKE, Inc.
Deckers Outdoor Corporation	Taproot, Inc.

Invested Funds	
Cost of Capital	28.4%
WACC/Capital	24.6%
Operating Assets/Capital	47.0%
Goodwill/Capital	0.0%

Capital Structure	
Total Debt/Market Capitalization	0.35
Cost of Debt	7.3%
CGFS Rating (F-rare, Z-rare, and default Probability: AA	
WACC	8.3%



Forecast Assumptions	
Revenue Growth CAGR	12%
Average Operating Margin	7%
Average Net Margin	4%
Growth in Capital CAGR	11%
Growth in Claims CAGR	11%
Average Return on Capital	7%
Average Return on Equity	10%
Average Cost of Capital	7%
Average Cost of Equity	10%



Sensitivity Attribution Analysis	
Revenue	36.53%
Operating costs	6.37%
Capital expenditures	3.46%
Discount Rate	8.3%

March 14, 2018

Charles River Laboratories (CRL)

Theo Wind

Sector: Healthcare

Industry: Healthcare Services

Current Price: \$104.53

Target Price: \$129.22

Charles River Laboratories provides tools for research and support services for drug companies. The company offers animals to aid in the development and discovery of new drugs, devices, and therapies. They serve pharmaceutical and biotech companies as well as hospitals, and academic institutions worldwide.



BUY

Current Price: \$104.53

Target Price: \$129.22

Market Cap: \$5.01B

Beta: 1.2

Cash ROIC/WACC: 1.81

Cash WACC: 7.5%

Debt Rating: BBB-

Catalysts:

- Short Term(within the year): Merger with MPI Research Inc.
- Mid Term(1-2 years): Record funding for biotech and pharmaceutical research
- Long Term(3+): Other mergers and acquisitions to help expand the business and achieve managements goals of doubling size of the business

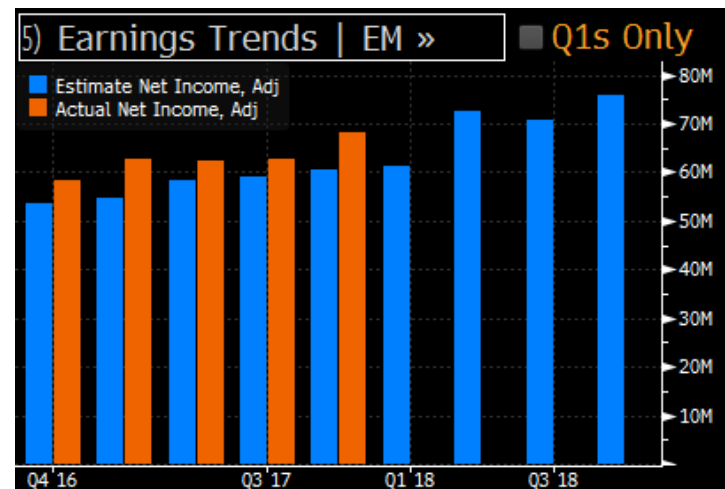
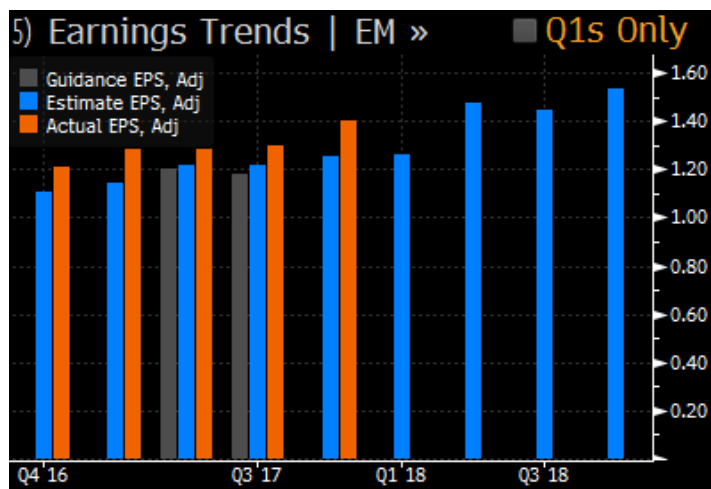
Thesis:

Charles River Laboratories serves an important role in the pharmaceutical and biotech industries. They provide lab rats, mice, and chickens used for testing medical devices and drugs. The biotech industry continues to grow, last year growing by 37% and CRL worked with 74% of the drugs that were approved last year. CRL intends to improve their position through internal initiatives and strategic acquisitions. Charles River has a sterling reputation in the pharmaceutical and biotech industry so they are primed to take an even bigger part in the market. Also, they have been able to continually beat analysts' estimates in revenue and EPS. Charles River is a company that provides products that are necessary for drug development and are the leaders in the growing industry. CRL is currently underpriced because of the growth potential as well as the internal commitment to improving market share as well as margins.

Earnings Performance:





Charles River's strong earnings performance over the last five quarters has been exceptional. The graph below on the left shows their adjusted EPS over the last five quarters. Charles River has been able to significantly beat analysts' estimates in EPS beating them in all five quarters. They released guidance for quarters two and three of 2017 that analysts believed set the bar to low, however they were able to outperform not only their guidance but also estimates. The downside to this would be that now analysts expect them to beat estimates, however I do not believe this should be a problem for CRL as they have both growth and cost cutting objectives in their sights for 2018.

The second graph below on the right shows their adjusted net income compared to analysts estimates. Again, they have been able to outperform the analysts estimates consistently. This is a great signal to investors because this proves their ability to control costs. Their cost control has been seen especially visible in their SGA decreasing it by about 2% from 2015. Also, their adjusted net income has constantly been growing over the last five quarters, therefore they do not suffer from seasonality, and continue to grow. Charles River has been able to outperform estimates and will continue to do so in the future.



Segment Analysis:

Charles River Laboratories has three major segments in the company: Discovery and Safety Assessment, Research Models and Services, and Manufacturing Support. The first segment Discovery and Safety Assessment has grown over the last four years to make up approximately 53% of the business. This segment offers both discovery and safety assessment services for both in vitro and in vivo studies. In vitro studies are when the studies are performed on non-living organisms compared to in vivo studies that use living organisms. They support a variety of therapeutic areas including oncology, central nervous system, bone and musculoskeletal, inflammation, metabolic diseases, respiratory and fibrotic diseases, cardiovascular, gastrointestinal, genito-urinary, anti-infectives, and ophthalmology. The second segment that makes up approximately 26% of CRL's revenue is the Research Models and Services segment. This segment is designed to support the the basic research models and screening of non-clinical drugs. They currently have three service offerings in research models services: Genetically Engineered Models and Services, Insourcing Solutions, and Research Animal Diagnostic Services. The third segment that CRL operates is the manufacturing support that makes up approximately 21% of the business. This segment provides microbial solutions, biologics testing solutions, and avian vaccine solutions. The total revenues have grown over the past four years, however only the discovery and safety assessment and manufacturing support services have consistently been able to grow revenue. The research models and services revenue has been declining however this is because they have been moving away from this segment. They have decreased the percentage from 39% to approximately 26.6%. I believe CRL has each segment under control because they moving away from the research models and services segment towards the more successful discovery and safety assessment segment.

In Millions of USD except Per Share 12 Months Ending	2014 Y 12/27/2014	2015 Y 12/26/2015	2016 Y 12/31/2016	2017 Y 12/30/2017
 Revenue	1,297.7 100.0%	1,363.3 100.0%	1,681.4 100.0%	1,857.6 100.0%
 Discovery and Safety Assessm...	538.2 41.5%	612.2 44.9%	836.6 49.8%	980.0 52.8%
 Research Models and Services	507.3 39.1%	473.2 34.7%	494.0 29.4%	493.6 26.6%
 Manufacturing Support	252.1 19.4%	277.9 20.4%	350.8 20.9%	384.0 20.7%

Growth:

Charles River recently acquired MPI Research Inc on April 3, 2018 for \$800M in cash. MPI is a leading non-clinical contract research organization (CRO). They provide testing services to biopharmaceutical and medical device companies across the globe. Charles River believes that this acquisition will allow them to increase their ability to partner with customers in the drug development and discovery industries. This also increases the CRO business of Charles River, which will drive revenue growth. This merger shows that even though Charles River has a significant portion of the market share, that they are not satisfied and want to continue to grow the business bigger.

The industry they are in is also growing. The biotech industry grown 37% in 2017 from 2016, and the FDA approved 46 drugs, which is twice the amount approved in 2016. Of the 46 drugs that were approved, CRL worked on 74% of the 46 approved drugs. This shows the pure market share that CRL has in the industry as there are hundreds of drugs that are submitted for FDA approval and to still have almost three quarters of the market share is very impressive. They still want to grow this percentage as can be seen with their recent acquisition of MPI. CRL has organic revenue growth in the high single digit range, while maintaining revenue growth in the low double digits. This shows CRL's ability to capitalize on growth opportunities in the market. CRL has also been able to consistently improve their EBITDA margin year over year since 2014 from 14.6% to 16.9%, which is why this is the number I expected them to keep improving upon when valuing them in the proforma.

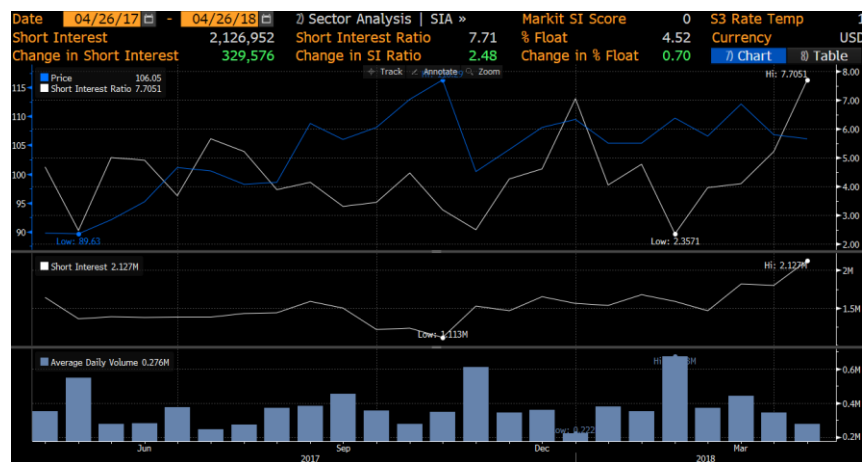
Competitors:

Charles River compares favorably to their competitors in multiple categories. The first category I looked at was EBITDA margin. I thought the EBITDA margin was important because it shows the ability of the firm to control costs. Charles River had an adjusted EBITDA margin of 23.50% over last year. This compares with the median of 13.41% for their competitors. Charles River has proven their ability to control their costs better than any of their competitors and have plans to try increase their margins more. The second ratio I looked at the ROIC/WACC ratio for CRL compared to the competitors. This shows the ability of CRL to create profits. They currently fall one point below the median of their competitors, but basically fall right in line with the industry. The third metric I looked at was return on equity over the past year. CRL had an ROE of 22.19% which blows their competitors away. They have been able to return the most to shareholders over the past year. Therefore, based on these three metrics I would say that CRL has outperformed the competitors, and will continue to do so in the future as they look to grow market share and revenue, while still cutting costs.

Name	Ticker	Mkt Cap	EBITDA Mrgn Adj:Y	ROIC/WACC Ratio	ROE:Y
Median		3.17B	13.41%	0.68	12.68%
100) CHARLES RIVER LABORA...	CRL US	5.05B	23.50%	0.67	22.19%
101) GMS INC	GMS US	1.29B	7.62%	0.68	13.55%
102) BMC STOCK HOLDINGS INC	BMCH US	1.19B	5.46%	0.66	8.73%
103) OWENS CORNING	OC US	7.40B	19.20%	0.91	11.81%

Short Interest/Ownership:

The short interest for Charles River can be seen on the right. As you can see it has increased significantly over the last couple months. I am not really sure what caused this spike in short interest as their price per share has stayed relatively constant over the same time period. I believe that this might signify a good time to buy the stock because there has been a lot of people betting against it, so it is currently cheaper than it normally would be in the market.



Top Ownership Type (%)				
54) Ownership Type	04/23/17	Curr	Change	
41) Investment Advisor	77.28	85.85	+8.57	↗
42) Hedge Fund Manager	14.90	7.78	-7.12	↘
43) Pension Fund	2.01	2.12	+0.11	↗
44) Individual	1.89	1.42	-0.47	↘
45) Bank	1.33	1.00	-0.33	↘
46) Sovereign Wealth Fund	1.37	0.81	-0.56	↘
47) Insurance Company	0.77	0.52	-0.25	↘
48) Corporation	0.00	0.18	+0.18	↗
49) Government	0.24	0.17	-0.07	↘

The ownership summary can be seen on the left. This represents the changes in ownership over the past year. The top line shows almost an 8% increase in investment advisor activity. This is significant because this type of investor cannot go short on a stock, so the 8.5% increase represents them betting long on Charles River. The second line shows the Hedge Fund manager change which is about 7%. This is interesting because it could mean they are getting out of long or short positions. However, hedge funds still represent the second largest ownership group in Charles River which I believe is a positive sign as I believe most investors would be long on this stock.

Conclusion:

Charles River Laboratories has continued to be the leader in their industry capturing about 75% of the market. However, they are not satisfied just maintaining the status quo. They have gone out to improve their CRO side of the business by acquiring MPI research. This acquisition will help Charles River to improve their ability to acquire customers earlier in the research process. This will help to improve their revenue margins and diversify their sales. Another reason why CRL is a buy is because they have been able to consistently improve their margins year over year by an average of about a percent. This returns more value to shareholders and proves that they are still looking for ways to cut costs to improve their profit margins. Another positive sign for CRL is that funding in the biochem and pharmaceutical industry was the second largest in recent history causing the FDA to approve almost double the amount of drugs in 2016. Charles River worked with 74% of the companies who had their drugs approved by the FDA. CRL still has their sights set on growth, they believe they can almost double the amount of business they currently do in the coming years. While this may be an aggressive estimation on their part, I do believe there is significant room to grow with their great reputation in the industry and their motivation to continue to grow through acquisitions. CRL is also underpriced because there has been an increase in short interest for no real reason that I could find, so I believe their stock price is not fairly valued. CRL is an industry leader proven to pursue growth and an ability to control costs, I believe they are undervalued and should be a buy at this time.

Charles River Laboratories International, Inc. (crl)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Al Capone

Current Price:

\$105.21

Intrinsic Value

\$115.22

4/27/2018

Divident Yield:

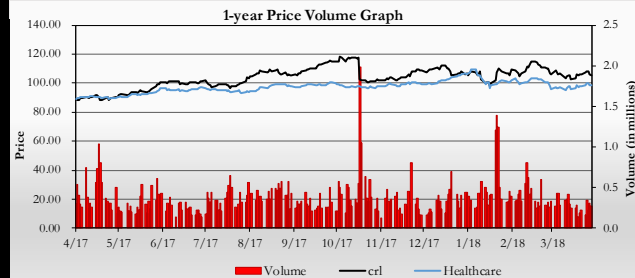
0.0%

Target Price

\$129.22

Target 1 year Return: 22.82%

Probability of Price Increase: 100%



Description	
Charles River Laboratories International, Inc., an early-stage contract research company, provides drug discovery, non-clinical development, and safety testing services worldwide.	
General Information	
Sector	Healthcare
Industry	Life Sciences Tools and Services
Last Guidance	February 12, 2018
Next earnings date	May 10, 2018
Market Assumptions	
Estimated Equity Risk Premium	5.64%
Effective Tax rate	22%

Market Data	
Market Capitalization	\$5,044.74
Daily volume (mil)	0.15
Shares outstanding (mil)	47.95
Diluted shares outstanding (mil)	48.56
% shares held by institutions	109%
% shares held by investments Managers	88%
% shares held by hedge funds	7%
% shares held by insiders	1.61%
Short interest	3.75%
Days to cover short interest	4.49
52 week high	\$119.05
52-week low	\$86.66
Volatility	23.55%

Past Earning Surprises		
Quarter ending	Revenue	EBITDA
12/31/2016	5.75%	15.77%
4/1/2017	1.64%	-0.90%
7/1/2017	2.27%	3.47%
9/30/2017	1.32%	-2.37%
12/30/2017	0.62%	9.91%
Mean	2.32%	5.18%
Standard error	1.0%	5.1%

Market and Credit Scores	
Recommendation (STARS) Value--4	
Recommendation (STARS) Description--Buy	
Quality Ranking Value--B	
Quality Ranking Description--Below Average	
Short Score--0	
Market Signal Probability of Default % (Non-Ratings)	-0.362%
CreditModel Score (Non-Ratings)--bbb-	

Industry and Segment Information	
LTN Revenues by Geographic Segments	LTN Revenues by Business Segments
U.S.--52%	Rms--27%
Europe--31%	Dsa--53%
Canada--11%	Manufacturing--21%
Asia Pacific--7%	--
Other--0%	--

Management	
Position	
Foster, James	Chairman & CEO
Molho, Davide	President & COO
Smith, David	Corporate Executive VP & CFO
Jobst, David	Chief Administrative Officer, Corporate Executive
Barbo, William	Chief Commercial Officer & Corporate Executive
Knell, Michael	Corporate Senior VP & Chief Accounting Officer

Total Compensations Growth	
14.81% per annum over 6y	
17.44% per annum over 6y	
10.69% per annum over 2y	
13.99% per annum over 6y	
32.45% per annum over 1y	

Peers	
Syneos Health, Inc.	--
PRA Health Sciences, Inc.	--
IQVIA Holdings Inc.	--
ICON Public Limited Company	--
Medpace Holdings, Inc.	--

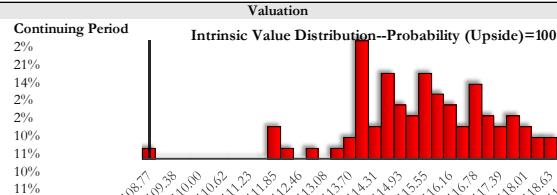
Profitability	
crl (LTM)	
Return on Capital (GAAP)	8.4%
Operating Margin	12%
Revenue/Capital (GAAP)	0.70
ROE (GAAP)	17.1%
Net margin	7.7%
Revenue/Book Value (GAAP)	2.22

Peers' Median (LTM)	
12.70%	
14.71%	
0.86	
24.6%	
8.9%	
2.76	

Invested Funds	
crl (LTM)	
Cash/Capital	7.6%
NWC/Capital	5.8%
Operating Assets/Capital	49.9%
Goodwill/Capital	36.6%

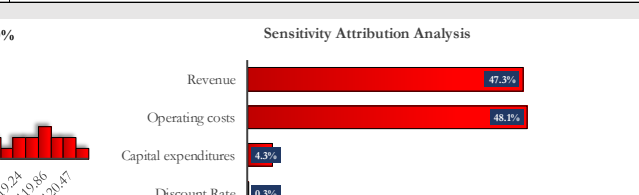
Peers' Median (LTM)	
9.9%	
-0.5%	
6.9%	
83.7%	

Capital Structure	
crl (LTM)	
Total Debt/Market Capitalization	0.57
Cost of Debt	2.5%
CGPS Rating (F-score, Z-score, and default Probability)	BB
WACC	9.4%



Forecast Assumptions	
Revenue Growth CAGR	9%
Average Operating Margin	21%
Average Net Margin	12%
Growth in Capital CAGR	11%
Growth in Claims CAGR	1%
Average Return on Capital	11%
Average Return on Equity	15%
Average Cost of Capital	10%
Average Cost of EquityKc	11%

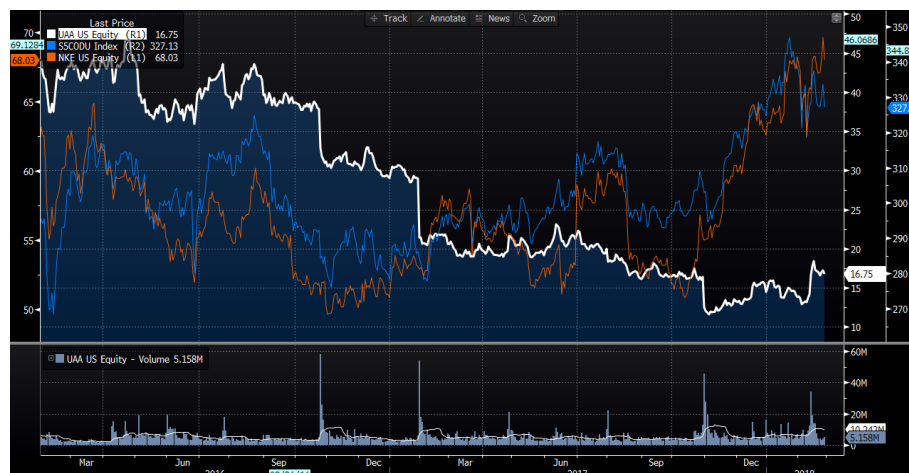
Valuation	
Explicit Period (8 years)	
Continuing Period	
9%	
21%	
14%	
2%	
2%	
10%	
11%	
10%	
11%	



Under Armour is an American company operating in the consumer durables and apparel sector. It was founded by Kevin Plank in 1996. The headquarter is located in Baltimore, Maryland. The company has grown since 1996 mostly in North America and also in international countries like China or area like Latin America. The main activities of the company are to sell footwear, athletic, and lifestyle products. Many famous athletes in the world are supporting the brand Under Armour

HOLD

Current Price:	\$16.75
Target Price:	\$18.60
Market Cap:	7.001B
Beta:	1.563
EBITA Margin	- 0.79%
WACC	12.86%
ROIC	0.79%



Thesis: Since 1996, Under Armour is a solid company in term of products and in term of revenue growth. The company has been in constant growth since 2011. At the end of each quarter, investors are pessimistic concerning the sales and net income. However, each time the company shows better result than expected. Under Armor is often underestimated in the market by investors and analysts. Indeed, investors and analysts accuse retail companies are victims of the internet bubble and online shopping (Amazon). To fight this problem caused by online shopping, the company decided to experiment something new in one of their store located in Soho to attract more customers. They put in place a charging point in their store. According to the store manager of this store, this new method works well. Furthermore, even if during the last quarter of 2017 the stock price of UAA went down. However, the

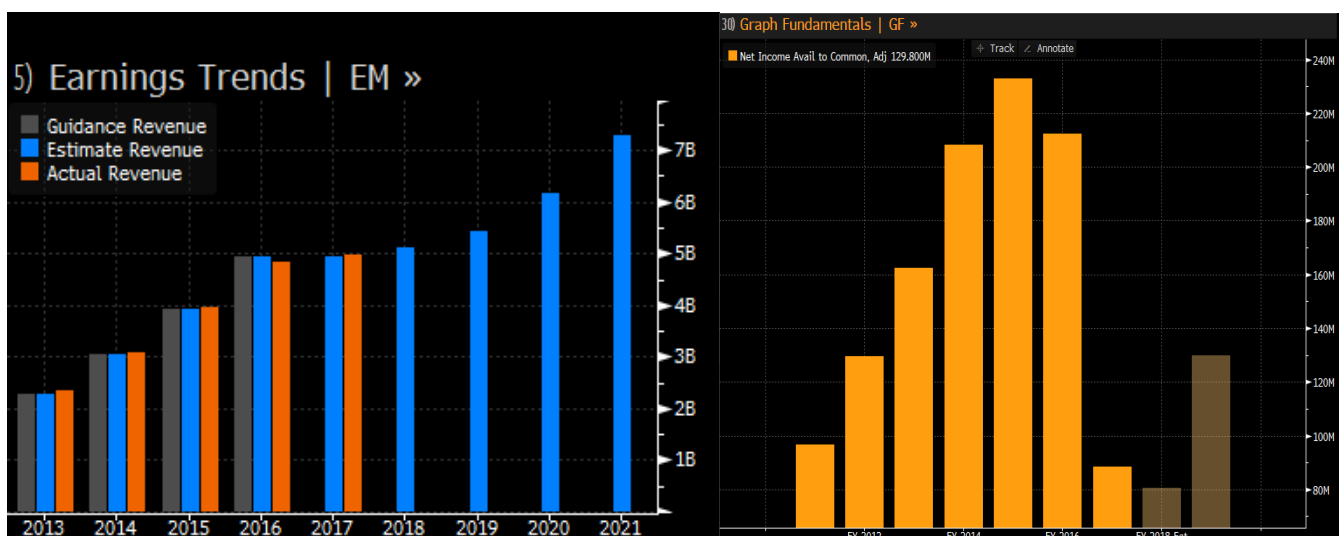
Catalysts:

- Short Term: Recent launch of a new product called HOVR. This is a shoe line for running. This product includes Digitally Connected Smart Shoes.
- Mid Term: Continue the construction of their global model, which helps them to improve their operation in a mid-term.
- Long Term: Continue to innovate in creating new products that link with new technology. It will help them to improve their sales and revenues.

results for 2017 were good. An increase of 4.6% relative to the Q4 of 2016. Moreover, in the middle of 2017 the CEO decided to hire a new Chief Operating Officer (Patrik Frisk) to help the company grow. Thus, this report will analyze how Under Armour will grow in the next few years. Furthermore, this paper will argue why Under Armour will be better than the industry in a middle term.

Earnings Performance:

Under Armour has seen since more than a decade, a constant increase in their revenue. As the graph shows, the estimate revenues from analysts are very close each year than the actual revenue. In 2013, 94.1% of their revenue was from North America with only 5.9% from international (EMEA, Pacific Asia and Latin America). However, Under Armour knew that they should go internationally to improve. In 2017, with a revenue of 4,976.6 million, North America represents 76.4%, 9.4% from EMEA, 8.7% from Asia and 3.6% from Latin America. These show that UAA invested to expand its power in important areas. The estimate revenues for the company seem well in a Long-term according to investors. However, for the end of the current year the estimation shows a revenue very close to 2017. The forecast for 2020 and 2021 shows a huge increase. However, the net income saw a decrease in 2017 and the estimate net income for 2018 seems to be less than 2017. Concerning 2016, it was the first time that the estimate net Income adjusted was higher than the real net income. In 2017, the company has seen the most important decrease for its net income adjusted. This decrease was due to high increase of selling, general and administrative expenses (SG&A), and also due to an inventory in excess. According to the CEO, these increases are due to two main changes in 2017. First, the company changed their systems, they implanted SAP. Secondly, they changed their structure of categories of sale. Finally, Under Armour hired a new COO during the year of 2017 Patrick Frisk. He is the former CEO of Global footwear company The Aldo Group.



Strategy:

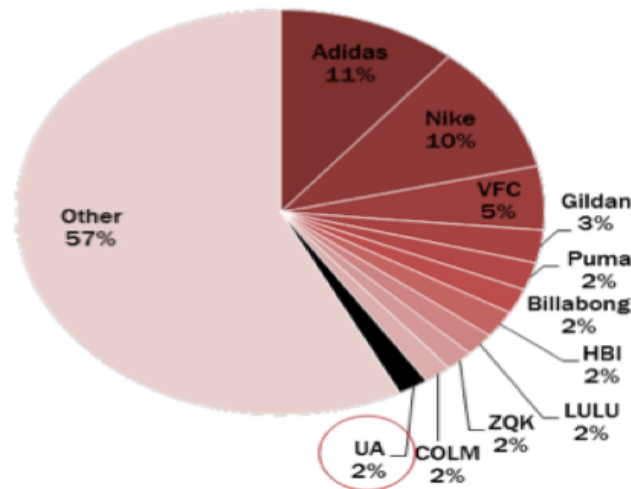
As it stated earlier in this report, Under Armour was created in 1996, it means the company is a new company in this industry. It was a big challenge to create a company like this in this kind of industry where there are many main actors already in place with big market shares (Reebok, Puma, Columbia). Furthermore, big and solid companies like Nike and Adidas were already in the market. The company has proven that they got to be a main actor in this industry in few years. It means that UAA had solid projects because year after year the company has grown in the past, and it means that the company knows where it is going. They took some market share from big companies (Nike and Adidas). Actually, one of the biggest strategy for Under Armour is to continue to expand its brand internationally. As it said earlier in this report, the company increased its sales internationally especially in Europe, Asia Pacific and Latin America. They increased their revenue from foreign countries by 16 % in 4 years. Furthermore, Under Armour has a strong marketing strategy. Indeed, they choose athletes who are the best to represent their brand. As the Chief Marketing executive said the company chose their athletes who are the most driven to win and to be the best because it represents the company attitude. The company has signed athletes like Stephen Curry to get an impact in the basketball market. They also have Misty Copeland who is a star dancer to get a step in the dancing market. Moreover, they have Andy Murray (Tennis), George St-Pierre (MMA), Tom Brady (Football) and other famous athletes. Thus, thanks to the partnership with these athletes, the company shows through these sports icons the power of its brand. For example, thanks to Stephen Curry the brand is present in many countries which show basketball games. Furthermore, Andy Murray who represent the brand in Europe has a real impact on people who are watching tennis matches and who are practicing this sport. This marketing strategy shows and has shown that it has a good impact for international sales. Finally, the company signed a partnership for 10 years with one of the best universities in the United States of America which is UCLA. However, these partnerships costed for the company \$466 Million.

Industry Outlook:

The company has been operating for 22 years in the apparel, accessories industry and now it is one of the leaders of this market. The biggest actors of this industry since recent few decades are Nike and Adidas. In addition, from 2013 to the end of 2014, investors and analysts thought that the company Under Armour will be a main actor in the industry. Moreover, the sport industry was in a good trend because of a constant growth in 7 years. In 2014 the sport industry worth was of \$60.5 Billions. The growth expected for this industry in 2010 was approximately of \$73.5 Billions. This expected increase was mainly due thanks to the medias. Furthermore, this increase is also due to the increase of people who practice sport regularly to stay in shape and get a healthy life. It means that more people year after year will be able to buy more sport clothes that is good for the industry. Because the demand will go up so the production for companies which are present in this industry will increase. Furthermore, Under Armour keeps growing internationally even if Nike and Adidas are already present in these countries where UAA is implanting. Indeed, if Adidas is already present in China and trying to grow in this country. Under Armour should increase their footprint in China to grow their revenue from this country because as the company showed to the world, it is able to perform even if the market is already closed, and

already led by some main actors. Under Armour is able to increase their international revenue thanks to their business plan and their product. Thus, Under Armour has a very good opportunity to grow their sales in China, Latin America and Europe.

Global Athletic Apparel Market Share

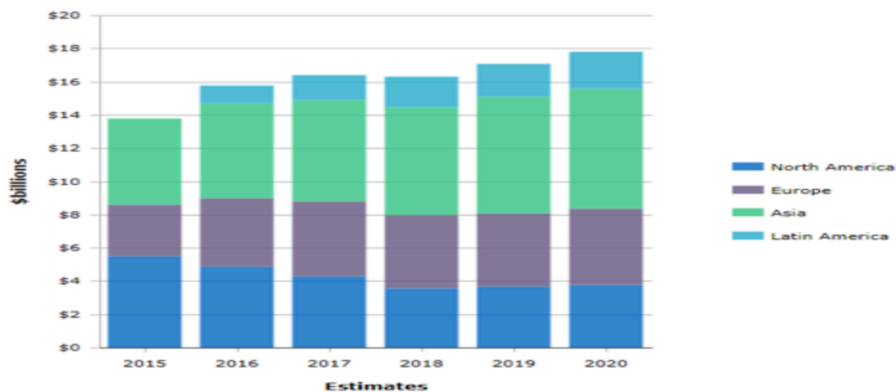


Source : Blogpost

Company Potential Growth:

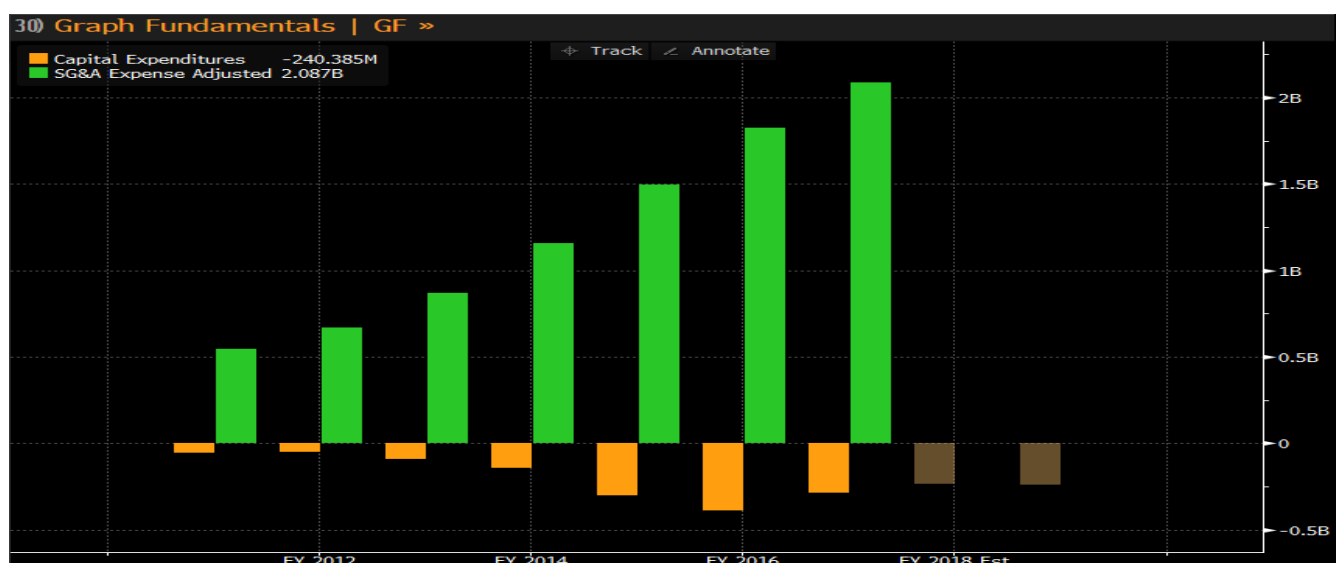
The China sport clothes market has been in a constant growth for 10 years from now. This market increased by 6.5% in 2014. However, as it stated earlier in this report, Nike and Adidas are already present in this market which will be more difficult for Under Armour to increase their sales in this market in this area. However, the Chinese market may overtake the American sports market in 2020 which is good news for the company. As Kevin Plank said: "someday the company Under Armour will have more sales internationally than in North America". Thus, the growth in China should be a good opportunity for UAA to achieve that goal that the CEO of the company said. Actually, UAA is barely implemented in Asia and in Europe but the company has to be more present in these markets and to set this strategy. They started to get some big partnership that I said earlier especially with some famous athletes (Stephen Curry, George St-Pierre, etc.). Moreover, the company is talking with one of the biggest soccer clubs in the world which is Real Madrid. The Spanish club is currently in a partnership with Adidas until 2020. However, these two entities did not find an agreement for the future. If Under Armour find an agreement with Real Madrid, the brand will be representing throughout the world because Real Madrid is followed worldwide. Real Madrid games are retransmitted worldwide. Thanks to this project, UAA will get the best contract that Under Armour could get in its History. However, this deal will have a huge cost for UAA. The company is ready to pay the Real Madrid \$150 Millions per year. It will be the biggest deal that soccer has ever seen for a sponsorship.

Asia Could Be Biggest Contributor to Athletic-Wear Sales Growth



Segment and profitability:

The company is operating in four main segments: Apparel (66.1%), Footwear (20.9%), Accessories (9.0%), and Licensing (2.3%). The revenues of the company increased by approximately 20% in 6 years which is better than their competitors. However, the revenue increased just by 3.14% for the last year. Furthermore, selling, general and administrative (SG&A) expenses increased year after year. However, from 2016 to 2017 these expenses for this sector increased less than the other years. The SG&A for 2017 was 2,086.8 million. However, SG&A have increased because of Capital expenditure. Indeed, the Capital Expenditures for UAA was 387.6M in 2016 and in 2017 was 283.0M. Furthermore, in 2018 and 2019 the capex is expected to be approximately 250M. It means that the company has a strong desire to invest to grow, and to become an influent company in the sport world.

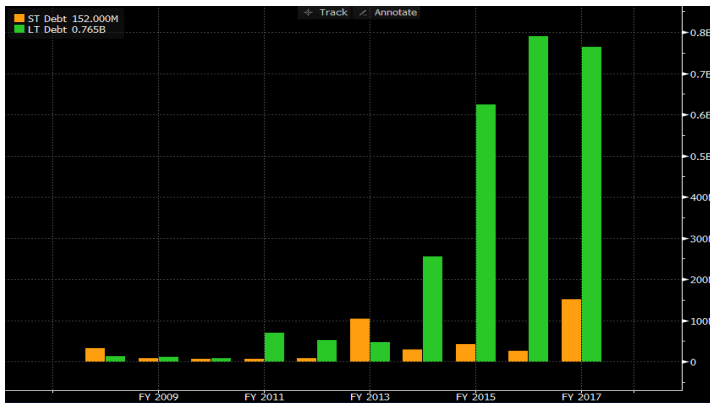


Concerning the profitability of the company for 2017, as shown in the table below, the company in 2017 was in a bad trend. EBITA growth decreased of 43.25%. It is the worst case among its competitors. Thus, the income growth dropped off by 67.54%. Under Armour was the worst again for this category. However, some profitability ratios show that the company is promising for the future. Return on invested capital has seen an increase of 12.93%, which is a good indicator. Furthermore, the return of equity increased by 21.76%. Finally, the EBITA margin grown by 12.57% in 2017. All this information shows that the company in 2017 invested in to trying to grow in the future. Moreover, as I said earlier, the company has some good future projects that will help UAA to get better result in the future. In addition, thanks to their future projects, investors will be more confident about the company growth.

Name (BICS Best Fit)	Sales Growth (%)	EBITDA Growth (%)	EBITDA Margin	Operating Income Margin	Net Income Growth (%)	Net Profit Margin	Net Profit ex/Sales (%)	Return on Invested Capital	Return on Assets	Return on
Average	4.88%	-5.45%	12.57%	9.80%	-7.88%	7.26%	3.07%	12.93%	8.61%	21.76%
100) UNDER ARMOUR INC-CLA...	3.13%	-43.25%	6.69%	3.20%	-67.54%	1.78%	5.69%	3.58%	2.32%	4.38%
101) COLUMBIA SPORTSWEAR CO	3.75%	5.69%	13.77%	11.34%	8.36%	8.57%	2.16%	13.73%	10.00%	13.28%
102) NIKE INC -CL B	3.63%	-0.14%	14.84%	12.75%	-0.54%	11.13%	3.22%	23.40%	16.55%	32.11%
103) SKECHERS USA INC-CL A	16.86%	6.05%	11.13%	9.14%	13.91%	6.67%	3.27%	17.37%	10.83%	16.18%
104) PVH CORP	3.85%	-1.62%	13.01%	9.22%	-2.53%	6.59%	3.01%	6.77%	4.95%	11.19%
105) HANESBRANDS INC	7.35%	2.17%	16.06%	14.17%	1.00%	11.05%	1.34%	19.69%	10.35%	74.91%
106) OXFORD INDUSTRIES INC	3.23%	-7.03%	12.38%	8.31%	-12.39%	5.06%	4.83%	10.85%	7.71%	13.75%
107) MOVADO GROUP INC	-2.78%	-5.44%	12.64%	10.31%	-3.34%	7.22%	1.07%	8.06%	6.18%	8.29%

Debt :

In the most recent Earning call, the CFO David Bergman talked about the past year which was 2017. The total debt for UAA has increased by 12% to reach 917M. Long term debt represent 0.765B and short-term debt represents 152M. They increased their short-term debt during this year to finance their project of a new integrated global model. This new model should speed up operation and make the company more efficient. It will allow for better management of their operation, and this will allow to grow for the future. Furthermore, the long-term debt in 2017 decreased a little bit. In fact, the long-term debt decreased by \$25 Million. Also, the CFO of the company explain that this trend will be the same in 2018, to continue to invest. Furthermore, revenue will be close to 2017 with a low single digit percentage.



Conclusion:

Under Armour, has shown bad results for 2017 compared to the past years. These results show that they are in a bad trend compared to their strong beginning. More than 47% of investors are thinking that the stock has to be held. Even if the past year (2017) has shown bad results in terms of profitability and concerning the net income, this paper proves that the company is aware of the situation and it is acting in consequence to increase their result for the next years coming. As we saw during this report, UAA is putting in place some strategies which are significantly good for their business. Even if UAA is late compared to their competitors, the past proves to us that the company is smart enough to improve. In fact, UAA has stolen some market shares from companies like Nike and Adidas that is a proof that executives in this company have the right strategy to increase in this industry. However, during the beginning of 2017 the stock UAA saw a drop off that the company never saw in its history. This drop off was due to an earning call where the CEO explained that the company is going to restructure many facets of their business. During this year to begin their restructuring, the company hired Patrick Frisk in order to grow internationally because the company knows that this is the key of the success for the company. The company is going to grow consequently in 2019 because 2018 according to the CEO and the CFO is going to be close to 2017.

CENTER FOR GLOBAL FINANCIAL STUDIES

Under Armour, Inc. (usa)

NEUTRAL

Analysis by Al Capone

Current Price: \$16.75

Intrinsic Value

\$16.63

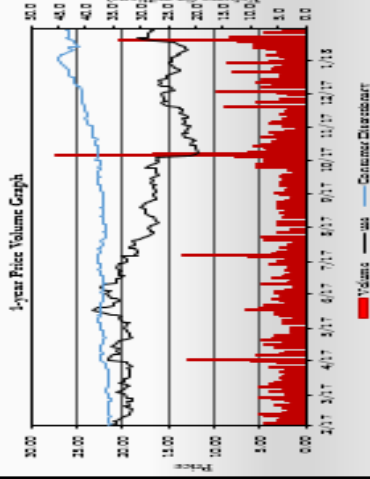
Target 1 year Return: 10.42%

Dividend Yield: 0.0%

Target Price

\$18.50

Probability of Price Increase: 56%



Description

Under Armour, Inc., together with its subsidiaries, develops, markets, and distributes branded performance apparel, footwear, and accessories for men, women, and youth primarily in North America, Europe, the Middle East, Africa, the Asia-Pacific, and Latin America.

General Information

Sector: Consumer Discretionary
Industry: Textiles, Apparel and Luxury Goods
Last Guidance: February 12, 2018
Next earnings date: May 1, 2018

Market Assumptions

Estimated Equity Risk Premium: 6.46%
Effective Tax Rate: 22%

Market Data	Market Data
Market Capitalization	\$1,028.72
Daily Volume (mil)	5.16
Share outstanding (mil)	441.70
Diluted share outstanding (mil)	440.73
1/2 share held by institutional	108%
1/2 share held by investment managers	47%
1/2 share held by hedge funds	5%
1/2 share held by insiders	13.34%
Short interest	13.22%
Days to cover short interest	8.09
52 week high	\$23.46
52 week low	\$11.40
Volatility	43.04%

Part Earning Surpriser

Revenue

-7.46%

0.81%

0.99%

-5.03%

4.82%

-12.44%

Mean

Standard Error

1.0%

Profitability

Return on Capital (GAAP)

Operating Margin

Revenue/Capital (GAAP)

ROE (GAAP)

Net Margin

Revenue/Book Value (GAAP)

Inverted Funds

Cap/Book

MM/Book

Operating Assets/Capital

Goodwill/Capital

Capital Structure

Total Debt/Market Capitalization

Cost of Debt

CGFS Rating (Fitch, S&P, and default probability)

WACC

7.6%

10.6%

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

2%

6%

10%

8%

7%

9%

Explicit Period (5 years)

Implicit Value Distribution-Probability (Upgrade)=56%

Continuing Period

Valuation

22%

10%

April 26, 2018

Oshkosh Corporation (OSK)

George Brockmann

Sector: Machinery

Industry: Construction Machinery and Heavy Trucks

Current Price: \$74.41

Target Price: \$94.79

Company Description: Oshkosh Corporation is a leading manufacturer and marketer of access equipment, specialty vehicles and truck bodies for the primary markets of defense, concrete placement, refuse hauling, access equipment and fire & emergency.

BUY

Current Price: \$74.41

Target Price: \$94.79

Market Cap: 5.5B

Beta: 1.54

Avg. Volume: 1,053,237

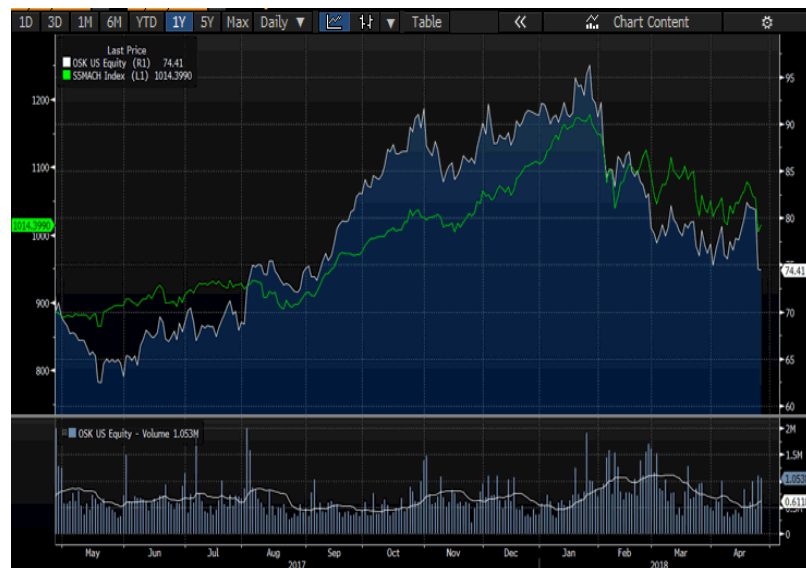
Adj. ROE: 14.82%

Ke: 8.03%

Adj. EBITDA Margin: 9.22%

Adj. ROIC: 10.14%

WACC: 7.135%



Thesis:

OSK has seen a strong margin growth in the past year and has hit their highest stock price ever. Macro effects have recently been pushing the stock price down, but as a result of government contracts, projected growth in sales, and a notably lower tax rate, OSK is in a strong position to further growth

Catalysts:

- **Short Term:** Tax rate decreasing by 10%
Defense JLTV contract with Department of Defense set to ramp up production over the course of the year.

and begin to outperform the market, and continue to outperform their competitors.

- **Mid Term:** In the running for a large production contract from the Department of Defense
 - **Long Term:** Further growth of market share through deepening of product line
-

Earnings Performance:

OSK ended Q1 of their fiscal year on 12/31/2017, and they saw high levels of performance in multiple areas. YoY Adj. Rev Growth was 30.9% in Q1 2018 up from -3.2% in 2017. Adj. Gross Profit Margin shrank from 16.5% in 2017 to 15.5% in 2018 as a result of higher costs of revenue while Adj. EBITDA Margin grew from 5.6% in 2017 to 7.8% in 2018. Adj. Net Income Margin increased from 1.7% in 2017 to 4% in 2018 and Adj. EPS grew from 0.28 in 2017 to 0.84 in 2018. Since Q1 of 2017 OSK has increased their short term debt position from 5M to 29.7M and decreased their long term position from 821.6M to 803.4M.

Revenue growth levels are expected to decrease into Q2, however Gross Profit, EBITDA, and Net Income margins are expected to increase. Adj. EPS is expected to increase as well but at a lower growth rate than Q1. Over the past year OSK's stock has seen a high level of growth and hitting its highest price ever before falling largely as a result of macro related issues. The macro issues have to do with the price of steel and whether or not the companies who use it can tolerate a price increase as a result of tariffs. However OSK has already seen material price growth over the past quarter and still posted very positive numbers, as well as having a larger backlog which gives them more time to prepare the supply chain for orders. Once the macro related worries have past, coupled with a large decrease in taxes, the strong financial performance OSK has shown will lead to them outperforming the market as they have over 2017.



Industry Outlook:

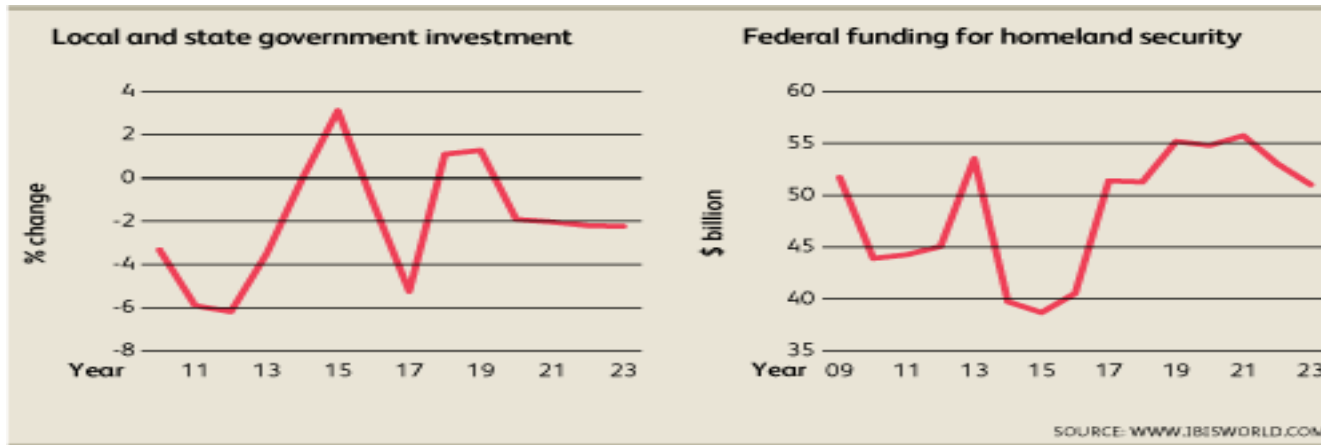
While OSK is considered to be in the truck manufacturing industry, the diversified products that they produce places them in a variety of industries. In particular OSK is in the Aerial Work Platform Manufacturing Industry, the Fire Truck Manufacturing Industry, and the Armored Vehicle Manufacturing Industry. One of the drivers that comes up in each of these industries is the world price of steel, as is a necessity to produce their products. Despite concerns over steel tariffs that have affected OSK stock price, the overall world price of steel is expected to decrease over the coming years which will positively effect OSK in all their segments.



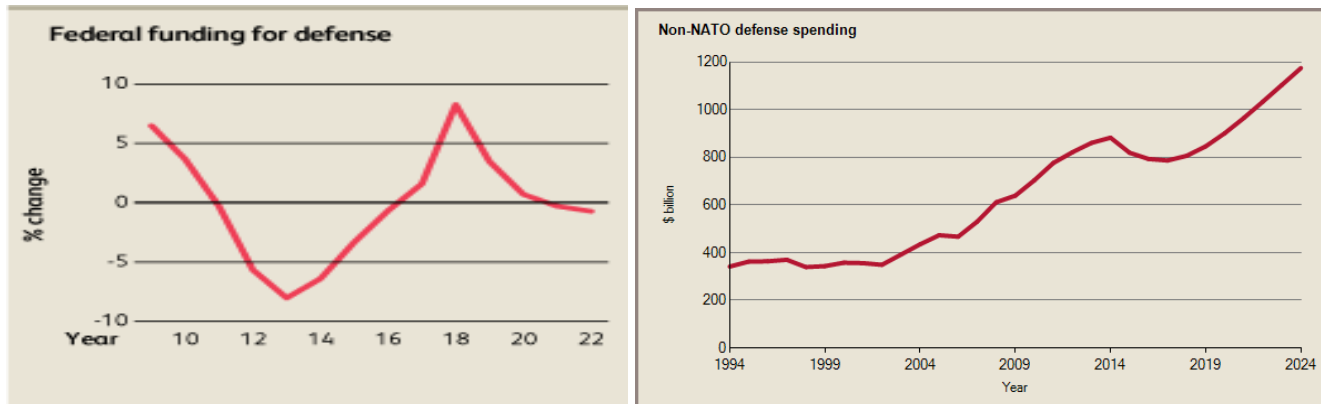
In the Aerial Work Platform Manufacturing Industry, the main drivers are the aggregate private investment and the overall value of construction. Aggregate private investment measures total private spending on capital, and it is likewise expected to increase over the coming years which will lead to increases in demand for construction and machinery like aerial work platform. The rate at which the value of construction increases will also determine the demand for aerial work platforms, and it is expected to increase consistently at a rate slightly less than that of GDP over the coming years.



The Fire Truck Manufacturing Industry is expected to increase over 2018 after a stagnant 2017, OSK stated in an earnings call that they were “bullish” on it as well. This industry is mainly dependent on the levels of local and state government investment as well as the federal funding for homeland security. Local and state government investment is expected to increase in 2018 which will lead to larger budgets and further funding for fire departments. Federal funding for homeland security is also expected to increase into 2019, money for this would benefit fire departments through the Assistance to Firefighters Grant program, and would allow more departments to update their fleet.



The Armored Vehicle Manufacturing Industry is highly sensitive to the Federal Funding for Defense. The amount the government sets aside to purchase these vehicles is what drives the profit in this industry as it increases the number of contracts the companies get. The Federal Funding for Defense is expected to increase over 2018 at a decreasing rate of change. Another important driver is Non-NATO Defense Spending, or the defense budgets of countries around the world excluding the countries included in NATO. This driver is expected to increase substantially over the coming years as a result of conflicts and political tensions around the world, namely the Middle East and China.



OSK also produces refuse collection vehicles in their Commercials product segment, a market in which OSK has seen breach pre-recession levels. Also in the Commercials segment, OSK produces concrete mixers. According to OSK this market is still below pre-recession levels, however if construction increases as it is expected to, then it will bring up the market for this product with it.

Business Model:

OSK is a leading designer, manufacturer, and marketer of a large range of specialty vehicles and vehicle bodies. OSK operates through 4 reportable product segments, respectively Access Equipment, Defense, Fire & Emergency, and Commercial. These segments all share common customers and distribution channels, leverage common components and suppliers, utilize common technologies and manufacturing processes as well as sharing employees and manufacturing and distribution facilities. OSK's strategy moving forward to increase shareholder value is known as MOVE. Its goals are to maximize the customer's experience, to optimize their cost and capital customer, to emphasis new product innovation through the introduction of new technologies, and to expand geographically into new markets where the opportunity presents itself. In regards to the distribution of their products OSK focuses on flexibility and will meet customers anywhere they need as well as offering same-day parts shipment and service technicians available 365 days a year. OSK produces their products out of 29 manufacturing facilities.

Segment Analysis:

OSK operates out of 4 reportable product segments, Access Equipment which makes up 44.3% of revenue overall, and is also their most profitable segment bringing in 45.9% of Adj. Operating Income. The Defense segment which brings in 26.6% of revenue and 31.6% of Adj. Operating Income. Fire & Emergency which is 14.9% of revenue and 15.8% of Adj. Operating Income and lastly Commercial which brought in 14.1% of revenue and 6.7% of Adj. Operating Income. OSK is an international company and they break up their geographic areas for revenue into 4 sections; the United States which makes up 74.6% of revenue, Europe & the Middle East which makes up 16.8% of revenue, the Rest of the World which makes up 5.8% of revenue, and Other North America which makes up 2.8% of revenue.

CSK operates their Access Equipment segment under the name JLG. JLG is a global manufacturer of aerial work platforms and telehandlers used in a wide variety of construction, industrial, institutional and general maintenance applications to position workers and materials at elevated heights, forms the base of CSK's access equipment segment. JLG's customer base includes equipment rental companies, construction contractors, manufacturing companies and home improvement centers. The access equipment segment also includes Jerr- Dan-branded tow trucks and roll-back vehicle carriers sold to towing companies in the U.S. and abroad. In addition, through a long-term license with Caterpillar Inc. that extends through 2025, JLG produces Caterpillar-branded telehandlers for distribution through the worldwide Caterpillar Inc. dealer network. JLG also offers a broad range of parts and accessories, including technical support and training, and reconditioning services. Access equipment customers include equipment rental companies, construction contractors, manufacturing companies and home improvement centers. JLG's products are marketed worldwide through independent rental companies and distributors that purchase these products and then rent or sell them and provide service support, as well as through other sales and service branches or organizations. JLG also arranges equipment financing and leasing solutions for its customers, primarily through third-party funding arrangements with independent financial companies, and occasionally provides credit support in connection with these financing







and leasing arrangements. Since Q1 of 2017 revenue has increased from 489M to 628M as well as the order backlog increasing by 2.5x. OSK stated that customers are placing larger annual orders this year and have since increased their full year sales expectations.

OSK's defense segment has manufactured and sold military tactical wheeled vehicles to the Department of Defense (DoD) for more than 90 years. In 1981 OSK became the DoD's leading supplier of severe-duty, heavy-payload tactical trucks. Since that time, OSK has broadened its product offerings to become the leading manufacturer of severe-duty, heavy- and medium-payload tactical trucks for the DoD, manufacturing vehicles that perform a variety of demanding tasks such as hauling tanks, missile systems, ammunition, fuel, troops and cargo for combat units. Most recently, OSK Defense solidified its position in the light-payload tactical wheeled vehicle category through the successful effort to capture the DoD's Joint Light Tactical Vehicle (JLTV) program. OSK is currently in the low rate initial production phase of this eight-year \$6.7 billion contract awarded in 2015 for approximately 18,000 vehicles and sustaining services. OSK Defense's proprietary product line of military heavy-payload tactical wheeled vehicles includes the HEMTT, the Heavy Equipment Transporter (HET), the Palletized Load System (PLS), and the Logistic Vehicle System Replacement (LVSr). OSK Defense's proprietary medium-payload military tactical wheeled vehicles include the Medium Tactical Vehicle Replacement (MTVR). OSK Defense's proprietary light-payload military tactical wheeled vehicles include the Mine Resistant Ambush Protected-All Terrain Vehicle (M-ATV). In June 2009, the DoD awarded OSK Defense a sole source contract for M-ATVs and associated aftermarket parts packages. Since receiving the initial contract award OSK Defense has delivered over 8,700 M-ATVs domestically and over 2,500 M-ATVs internationally. In June 2015, the DoD awarded OSK Defense a new Family of Heavy Tactical Vehicles (FHTV) contract for the recapitalization of HEMTT, HET and PLS vehicles as well as associated logistics and configuration management support. The contract is a five-year requirements contract for the continued remanufacturing of FHTV vehicles through fiscal 2020. The contract is fixed-price incentive firm where the price paid to OSK is subject to adjustment based on actual costs incurred. The impact of pricing adjustments under fixed-price incentive firm contracts are generally shared by OSK and the customer. In August 2015, the DoD awarded OSK Defense an eight-year, fixed price JLTV contract valued at \$6.7 billion for production and delivery of approximately 18,000 vehicles and sustaining services. The JLTV program is expected to be a 20-year, \$30 billion program for the production of up to 55,000 vehicles, support services and engineering. OSK delivered its first production JLTV vehicles to the U.S. Army in September 2016. The contract remained in the low rate initial production phase during fiscal 2017. A decision on moving to full rate production is expected in fiscal 2019. Along with retaining and growing their current contracts, OSK is also looking to expand into other areas of the U.S. and international defense industries. Compared to Q1 of 2017, the defense segment's revenue has increased from 294.2M to 493.2M. However over the coming year, overall revenue in this segment is expected to be stagnant or decrease as a result of slow ramping up of production in early stages of the JLTV contract. OSK still expects to see operating margin growth in this segment and recently increased their expectations on it for the year.

OSK's fire & emergency segment manufactures custom and commercial firefighting vehicles and equipment, aircraft rescue and firefighting (ARFF) vehicles, snow removal vehicles, simulators and other emergency vehicles primarily sold to fire departments, airports and other governmental units in the Americas and abroad and broadcast vehicles sold to broadcasters and television stations in the Americas and abroad. Through Pierce, OSK is the leading domestic manufacturer of fire apparatus assembled on custom chassis, designed and manufactured to meet the special needs of firefighters. Pierce also manufactures fire apparatus assembled on commercially available chassis, which are produced for multiple end-customer applications.

Pierce's engineering expertise allows it to design its vehicles to meet stringent industry guidelines and government regulations for safety and effectiveness. Pierce primarily serves domestic municipal customers, but also sells fire apparatus to the DoD, airports, universities and large industrial companies, and increasingly in international markets. Pierce offers a full line of custom and commercial fire apparatus and emergency vehicles, including pumpers, aerial platform, ladder and tiller trucks, tankers, light-, medium- and heavy-duty rescue vehicles, wildland rough terrain response vehicles, mobile command and control centers, bomb squad vehicles, hazardous materials control vehicles and other emergency response vehicles. OSK through Airport Products, is among the leaders in sales of ARFF vehicles to domestic and international airports. These highly-specialized vehicles are required to be in service at most airports worldwide to support commercial airlines in the event of an emergency. OSK, through Airport Products, is a global leader in airport snow removal vehicles. OSK's specially designed airport snow removal vehicles are used by some of the largest airports in the world. OSK, through its Frontline brand, is a leading manufacturer, system designer and integrator of broadcast and communication vehicles, including electronic field production trailers, satellite news gathering and electronic news gathering vehicles for broadcasters and command trucks for local and federal governments along with being a leading supplier of military simulator shelters and trailers. OSK offers three- to fifteen-year municipal lease financing programs to its fire & emergency segment customers in the U.S. through Oshkosh Equipment Finance, LLC, doing business as Pierce Financial Solutions. When compared to Q1 2017, this segment's revenue shrank from 229.1M to 224.9M, this was as a result of lower airport product deliveries. OSK has stated that they are expecting growth in this segment and have pushed their expectations for operating margin in this segment up recently.

OSK's commercial segment manufactures rear- and front-discharge concrete mixers, refuse collection vehicles, portable and stationary concrete batch plants and vehicle components sold to ready-mix companies and commercial and municipal waste haulers in North America and other international markets and field service vehicles and truck-mounted cranes sold to mining, construction and other companies in the Americas and abroad. Through OSK Commercial, McNeilus, London and CON-E-CO, OSK is a leading manufacturer of front- and rear-discharge concrete mixers and portable and stationary concrete batch plants for the concrete ready-mix industry throughout the Americas. Through McNeilus, OSK is a leading manufacturer of refuse collection vehicles for the waste services industry throughout the Americas. Through IMT, OSK is a leading North American manufacturer of field service vehicles and truck-mounted cranes for the construction, equipment dealer, building supply, utility, tire service, railroad and mining industries. Since Q1 of 2017, revenue has increased in this segment from 198.1M to 239.7M, and looking towards the future OSK has seen a higher than usual backlog for Refuse Collection and Concrete Mixer vehicles so far in the year.

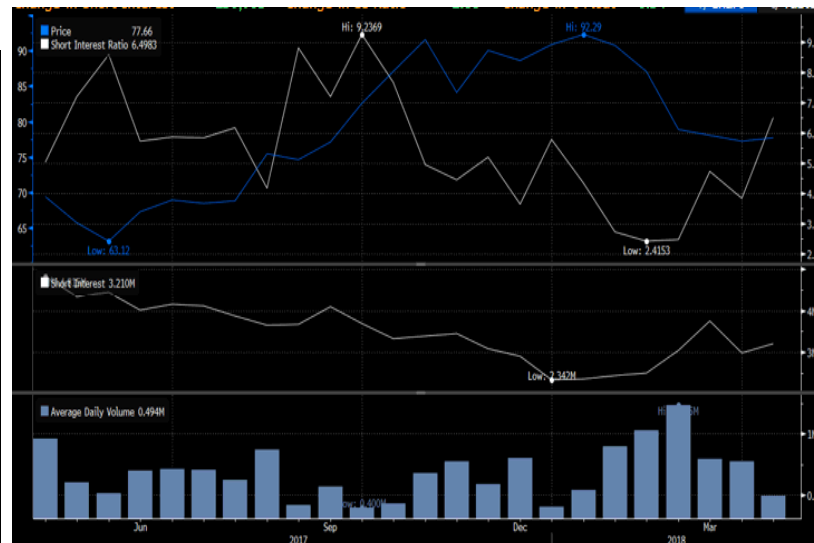
In Millions of USD except Per Share	2015 Q1		2016 Q1		2017 Q1		2018 Q1	
3 Months Ending	12/31/2014		12/31/2015		12/31/2016		12/31/2017	
 Revenue	1,353.3	100.0%	1,252.0	100.0%	1,211.4	100.0%	1,586.3	100.0%
 Access Equipment	716.7	53.0%	529.8	42.3%	489.2	40.4%	628.2	39.6%
 Defense	269.2	19.9%	316.9	25.3%	294.2	24.3%	493.2	31.1%
 Commercial	207.9	15.4%	199.9	16.0%	198.1	16.4%	239.7	15.1%
 Fire & Emergency	159.5	11.8%	205.4	16.4%	229.1	18.9%	224.9	14.2%
 Intersegment Eliminations	—		0.0		0.8		0.3	

Adjusted Operating Income		62.3	100.0%	30.3	100.0%	36.2	100.0%	92.4	100.0%
Defense		6.4	6.6%	23.2	37.1%	23.8	34.1%	65.2	49.8%
Access Equipment		77.2	79.2%	20.4	32.6%	24.4	35.0%	29.9	22.8%
Fire & Emergency		1.5	1.5%	10.1	16.1%	17.0	24.4%	25.1	19.2%
Commercial		12.4	12.7%	8.9	14.2%	4.6	6.6%	10.8	8.2%
Corporate and Other		-35.3		-32.3		-33.6		-38.6	
Intersegment Eliminations		0.1		0.0		0.0		-	

Management/Ownership:

OSK is primarily owned by Investment Advisors with 81.01% of ownership which is a decrease of 0.32% from last year. After this is Hedge Fund Managers with 9.23%, a decrease of 0.95% from last year. Insurance Companies own 3.10% of shares, which is an increase of 0.47% from last year. The majority holder is Vanguard Group with 9.73%, followed by Blackrock with 9.27% of ownership, and Aristotle Capital with 6.24% of ownership. OSK has 98.9% of shares listed as freely floated. When OSK's stock price was at their 52 week high in January, short interest dropped substantially to its 52 week days to cover low of 2.415. Since then as OSK's stock price has decreased days to cover has increased to a middle of the yearly range 6.498. This increase is likely due to macro worries as well as an earnings report for OSK that is set to come out soon.

Top Ownership Type (%)				0
54) Ownership Type	04/23/17	Curr	Change	
41) Investment Advisor	81.33	81.01	-0.32	
42) Hedge Fund Manager	10.18	9.23	-0.95	
43) Insurance Company	2.63	3.10	+0.47	
44) Pension Fund	2.74	2.65	-0.09	
45) Bank	0.67	1.17	+0.50	
46) Sovereign Wealth Fund	0.63	1.15	+0.52	
47) Individual	1.27	1.02	-0.25	
48) Brokerage	0.24	0.30	+0.06	
49) Government	0.17	0.25	+0.08	



President and CEO Wilson R. Jones was appointed CEO in 2016 and when he began his tenure the stock price was hovering around \$35 and has seen substantial growth with him and recently hit the highest price it has ever been at. The price does see relatively large fluctuations in price however it has shown consistent growth. Jones was made an Executive VP/President of the Access Equipment segment of OSK in 2010, until 2012 where he was named President/COO, where he worked until he was named CEO.

Management	Position	Total Compensations Growth	Stock Price Growth During Tenure
Jones, Wilson	President, CEO & Director	18.09% per annum over 6y	9.87% per annum over 6y
Sagehorn, David	Executive VP & CFO	-1.59% per annum over 6y	9.87% per annum over 6y
Sims, Robert	Executive VP & Chief Administrative Officer		11.28% per annum over 1y
Kimmit, Joseph	Executive Vice President of Government Operations	2.22% per annum over 2y	28.72% per annum over 2y
Nerenhausen, Frank	Executive VP & President of Access Equipment Segment	-100% per annum over 3y	26.22% per annum over 3y
May, Marek	Senior Vice President of Operations		

Capital Allocation Comparison:

OSK has a Total Debt to Total Asset Ratio of 16.3%, which is equal to competitor median. Their debt is made up of 325M of a term loan due in 2018 and 2019, as well of 500M of bonds due in 2022 and 2025, the coupon on both these bonds is 5.375%. OSK also has a WACC of 7.135%, and Adj. ROIC of 10.14% which is above the competitor median of 8.53%. Other important numbers are Operating Margin, Net Income Margin, Adj. ROA and Adj. ROCE which all exceed the competitor median showing that OSK is performing well above their competitors.








Name	Ticker	Mkt Cap	EBITDA Mrgn Adj:Y	OPM:Y	NI Adj Mrgn Adj:Y	ROIC	AR	ROA Adj:Y	Rtn on CE	Debt/Assets:Y
Median		2.85B	6.91%	5.18%	2.92%	8.53		5.92%	11.61%	16.30%
100) OSHKOSH CORP	OSK US	5.54B	9.22%	7.32%	4.65%	10.14		6.61%	14.82%	16.30%
101) TEREX CORP	TEX US	2.85B	6.91%	5.39%	2.92%	5.77		3.01%	9.41%	28.44%
102) SPARTAN MOTORS INC	SPAR U	578.98	4.03%	2.63%	2.01%	7.99		5.23%	8.83%	5.97%
103) MILLER INDUSTRIES INC	MLR US	292.01	6.09%	5.09%	3.68%	--		7.36%	11.67%	3.34%
104) NAVISTAR INTERNATIONAL	NAV US	3.59B	7.78%	5.18%	0.76%	--		--	--	82.44%
105) GENERAL DYNAMICS CO	GD US	63.89B	14.91%	13.49%	9.79%	--		8.89%	27.89%	11.36%
106) REV GROUP INC	REV U	1.16B	5.94%	4.27%	2.12%	9.06		4.49%	11.56%	18.32%

Metric	OSK	Low	Comp Range	High
Est P/E Current Yr	14.03	10.65		27.34
EV/Est EBITDA Curr	8.43	7.59		14.02
Sales Growth Yoy	8.77	-1.79		19.69
EBITDA Margin (%)	9.22	4.03		14.91
Operating Margin (%)	7.32	2.63		13.49

 OSK US  Median

Profitability Comparison:

Revenues over the first quarter for OSK typically run in negative growth levels, and over the past few years the growth percentage has been getting closer to 0. This most recent quarter OSK went from -3.2% growth in Q1 of 2017 to 30.9% growth in Q1 2018. Gross Profit fell by 1% as a result of higher costs of materials, however OSK saw positive margin growth as a result of the double digit growth in all of their segments besides Fire & Emergency. The fluctuations in revenue are largely related to macro effects as well as contracts that mandate levels of production for vehicles. For the Adj. 5 Year Revenue Growth CAGR, the competitor median is -1.9%, while OSK has seen -3.45%. However in the last year, OSK has seen 8.77% of annualized revenue growth compared to the competitor median of 5.66%, this coupled with their previously stated ROIC, ROA, and ROCE, is showing that as of recent OSK has begun to outperform their competitors.

In Millions of USD	2014 Q1	2015 Q1	2016 Q1	2017 Q1	2018 Q1	2019 Q1 Est	2020 Q1 Est
3 Months Ending	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019
 Market Capitalization	4,244.4	3,801.2	2,853.7	4,817.9	6,782.6		
 - Cash & Equivalents	558.7	111.0	33.7	369.6	379.1		
 + Preferred & Other	0.0	0.0	0.0	0.0	0.0		
 + Total Debt	938.8	890.0	985.2	826.6	833.1		
 Enterprise Value	4,624.5	4,580.2	3,805.2	5,274.9	7,236.6		
 Revenue, Adj	1,530.2	1,353.3	1,252.0	1,211.4	1,586.3	1,648.6	1,697.0
 Growth %, YoY	-12.6	-11.6	-7.5	-3.2	30.9	3.9	2.9
 Gross Profit, Adj	255.1	229.7	182.8	199.7	246.1	290.1	
 Margin %	16.7	17.0	14.6	16.5	15.5	17.6	
 EBITDA, Adj	127.3	92.8	55.6	68.4	123.8	137.0	139.0
 Margin %	8.3	6.9	4.4	5.6	7.8	8.3	8.2
 Net Income, Adj	54.9	32.6	10.9	21.0	64.0	67.9	72.5
 Margin %	3.6	2.4	0.9	1.7	4.0	4.1	4.3
 EPS, Adj	0.63	0.40	0.14	0.28	0.84	0.84	0.95
 Growth %, YoY	28.8	-35.9	-65.2	101.4	196.8	0.0	13.1
 Cash from Operations	4.7	-52.3	73.2	83.8	29.2		
 Capital Expenditures	-14.3	-52.2	-36.3	-27.1	-19.9	-29.0	
 Free Cash Flow	-9.6	-104.5	36.9	56.7	9.3		

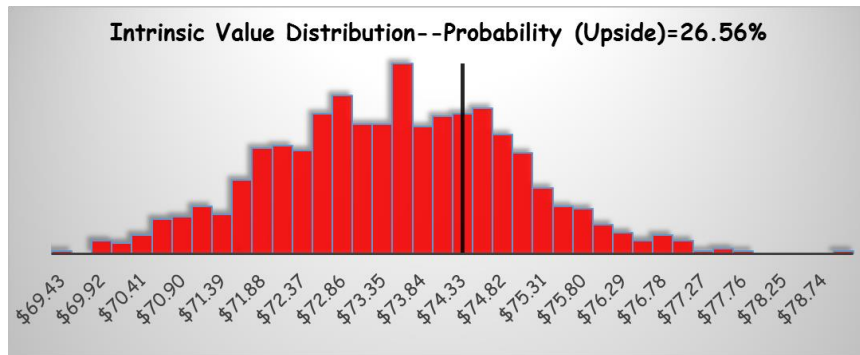
OSK's gross margin lies at the competitor median of 17.2%, while their profit margin of 4.65% is well ahead of the competitor median of 2.92%. OSK's asset turnover of 1.42 is slightly below the competitor median of 1.45, and inventory turnover is equivalent to the competitor median. The cash conversion cycle is in the range of competitors however it is higher with OSK's cash conversion cycle being 91.65 while the competitor median is 76.08. These numbers imply that OSK is using their working capital with a efficiency that is inline with their competitors, and it is resulting in positive margin growth.

	Name	Ticker	Mkt Cap	GM:Y	PM:Y	Rev Gr Adj 5Y CAGR:Y	Ast T0:Y	A/P Turnover:Y	Cash Conversion Cycle:Y
	Median		2.84B	17.20%	2.92%	-1.90%	1.45	8.69	76.08
100)	OSHKOSH CORP	OSK US	5.52B	17.20%	4.65%	-3.45%	1.42	10.52	91.65
101)	TEREX CORP	TEX US	2.84B	18.70%	2.92%	-8.97%	1.03	6.57	83.94
102)	SPARTAN MOTORS INC	SPAR US	578.98M	12.65%	2.01%	8.49%	2.60	17.69	58.06
103)	MILLER INDUSTRIES INC	MLR US	289.16M	10.91%	3.68%	12.41%	2.00	6.72	66.45
104)	NAVISTAR INTERNATIONAL	NAV US	3.58B	17.89%	0.76%	-7.56%	1.45	5.78	62.11
105)	GENERAL DYNAMICS CO	GD US	63.72B	19.98%	9.79%	-0.35%	0.91	8.69	76.08
106)	REV GROUP INC	REVG US	1.16B	12.99%	2.12%	--	2.12	12.11	76.40

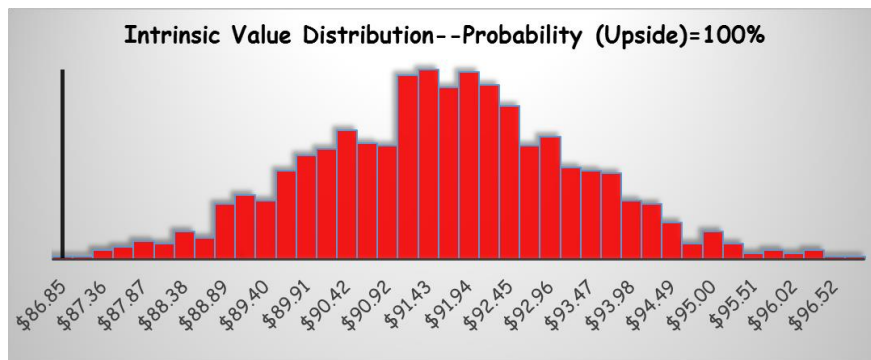
Sensitivity Analysis:

OSK's stock price value is very sensitive to the level of revenue and expenses. The base, bear, and bull case valuation are evaluated using a Monte Carlo simulation with different assumptions. Under the bear case there is a 26.5% intrinsic value probability upside. This creates an intrinsic value of \$73.39, a 1 year target price of \$79.48, this results in a 1 year target return of 7.55%. This is due to the assumption that EBITDA margin misses OSK's target by 10% as a result of macro effects causing an increase in production costs and lower revenue. This decrease is reflected in the projections until the continuing period as this unanticipated decline postpones further growth thus lowering the EBITDA margin OSK would have reached otherwise. Based on historical performance, it is highly unlikely that this scenario would take place. In the past OSK's EBITDA margin has fluctuated but not to extreme extents. Along with this OSK has historically come very close to estimated EBITDA during earnings reports and nothing points out at this quarter being anything different. Their strong level of sales and orders in Q1 2018 will also have a positive effect going further into the year. In the Bull case, it involves the assumptions that costs of operating decrease, and revenue increases more than anticipated resulting in a EBITDA margin that beats what OSK estimated by 10%. This creates an intrinsic value probability upside of 100%, an intrinsic value of \$91.56, a 1 year target price of \$98.79, and this results in a 1 year target return of 34.05%. Although very optimistic, this scenario is also unlikely to occur based on historical performance. If it was to happen it would be as a result of unforeseen beneficial macro occurrences that have a strong positive impact on OSK, most likely in the form of reducing costs of producing their products. The most likely case however is the base case, which has an intrinsic value probability upside of 100%. This creates an intrinsic value of \$87.75, a 1 year target price of \$94.79, and a 1 year target return of 28.68%. This is because of making the assumption that OSK's EBITDA margin would increase 5% more than their estimates, this growth, like the other cases, is factored into the forecast and allows OSK to reach a higher continuing period EBITDA margin than they would have otherwise. Based on historical performance, this scenario is the most likely as a result of a very positive first quarter with higher than expected sales and orders, along with a positive market in which costs are expected to decrease. Once macro fears have subsided, it is highly likely that OSK will reach the levels presented in this case.

Bear Case



Bull Case



Summary:

In conclusion, OSK is a buy at its current price. This is due to the fact that OSK has seen strong growth over the past two quarters having beat their Q1 and Q2 earnings expectations, long with this the stock price has dropped significantly as a result of macro conditions. A much reduced tax rate will free up a large amount of cash for OSK to expand as well. OSK has also been outperforming their competitors who are also down because of macro effects. As long as OSK continues their growth, their stock price will come back up and they will outperform the market in the coming year. Based on analysis, the upside of OSK is much greater than the downside as the upsides are much more likely. OSK's 1 year target price is \$94.79 with a return based on current stock price of 28.68% which is reasonable based on historical and recent financial performance. OSK appears to be in strong position to approach their 52-week high.

Oshkosh Corporation (OSK)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by George Brockmann

4/26/2018

Current Price:

\$74.41

Dividend Yield:

1.3%

Intrinsic Value

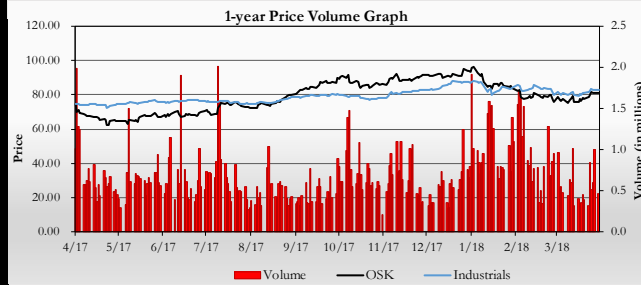
\$87.75

Target Price

\$94.79

Target 1 year Return: 28.68%

Probability of Price Increase: 100%



Description	
Oshkosh Corporation designs, manufactures, and markets specialty vehicles and vehicle bodies worldwide.	
General Information	
Sector	Industrials
Industry	Machinery
Last Guidance	February 12, 2018
Next earnings date	April 26, 2018
Market Assumptions	
Estimated Equity Risk Premium	4.94%
Effective Tax rate	26%

Market Data	
Market Capitalization	\$5,517.37
Daily volume (mil)	1.04
Shares outstanding (mil)	74.15
Diluted shares outstanding (mil)	75.95
% shares held by institutions	109%
% shares held by investments Managers	80%
% shares held by hedge funds	8%
% shares held by insiders	1.10%
Short interest	4.33%
Days to cover short interest	3.76
52 week high	\$100.26
52-week low	\$61.74
Volatility	33.20%

Past Earning Surprises		
Quarter ending	Revenue	EBITDA
12/31/2016	3.10%	25.19%
3/31/2017	-0.53%	4.91%
6/30/2017	4.73%	45.74%
9/30/2017	3.89%	16.13%
12/31/2017	9.65%	9.66%
Mean	4.17%	20.33%
Standard error	1.0%	5.6%

Market and Credit Scores	
Recommendation (STARS) Value--4	
Recommendation (STARS) Description--Buy	
Quality Ranking Value--B	
Quality Ranking Description--Below Average	
Short Score--0	
Market Signal Probability of Default % (Non-Ratings)	-1.947%
CreditModel Score (Non-Ratings)--bbb	

Industry and Segment Information	
LTM Revenues by Geographic Segments	LTM Revenues by Business Segments
United States--75%	Access Equipment--44%
--	Defense--27%
Rest of the World--6%	Fire & Emergency--15%
Other North America--3%	Commercial--14%
Europe, Africa and Middle East--17%	Corporate and Intersegment Eliminations--0%

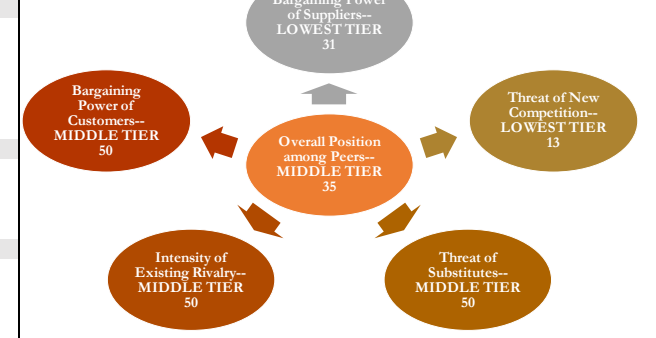
Management	Position	Total Compensations Growth
Jones, Wilson	President, CEO & Director	18.09% per annum over 6y
Sagehorn, David	Executive VP & CFO	-1.59% per annum over 6y
Sims, Robert	Executive VP & Chief Administrative Officer	
Kimmitt, Joseph	Executive Vice President of Government Operatio	2.22% per annum over 2y
Nerenhausen, Frank	Executive VP & President of Access Equipment Se	-100% per annum over 3y
May, Marek	Senior Vice President of Operations	

Stock Price Growth During Tenure	
	9.87% per annum over 6y
	9.87% per annum over 6y
	11.28% per annum over 1y
	28.72% per annum over 2y
	26.22% per annum over 3y

Peers	
Terex Corporation	REV Group, Inc.
Spartan Motors, Inc.	--
Miller Industries, Inc.	--
General Dynamics Corporation	--
Navistar International Corporation	--

Profitability	OSK (LTM)	OSK Historical
Return on Capital (GAAP)	8.1%	7.19%
Operating Margin	5%	4.40%
Revenue/Capital (GAAP)	1.67	1.63
ROE (GAAP)	12.1%	9.9%
Net margin	4.1%	3.5%
Revenue/Book Value (GAAP)	2.93	2.81

Peers' Median (LTM)	
	18.65%
	6.08%
	3.07
	9.4%
	3.0%
	3.13



Invested Funds	OSK (LTM)	OSK Historical
Cash/Capital	9.9%	11.3%
NWC/Capital	28.2%	19.5%
Operating Assets/Capital	34.3%	40.4%
Goodwill/Capital	27.6%	28.9%

Peers' Median (LTM)	
	23.1%
	27.4%
	31.2%
	18.3%

Capital Structure	OSK (LTM)	OSK Historical
Total Debt/Market Capitalization	0.27	0.30
Cost of Debt	7.3%	7.3%
CGFS Rating (F-score, Z-score, and default Probability)	BBB	
WACC	9.1%	10.9%

