

December 1, 2017

Alaska Air Group: ALK

Connor Morelli

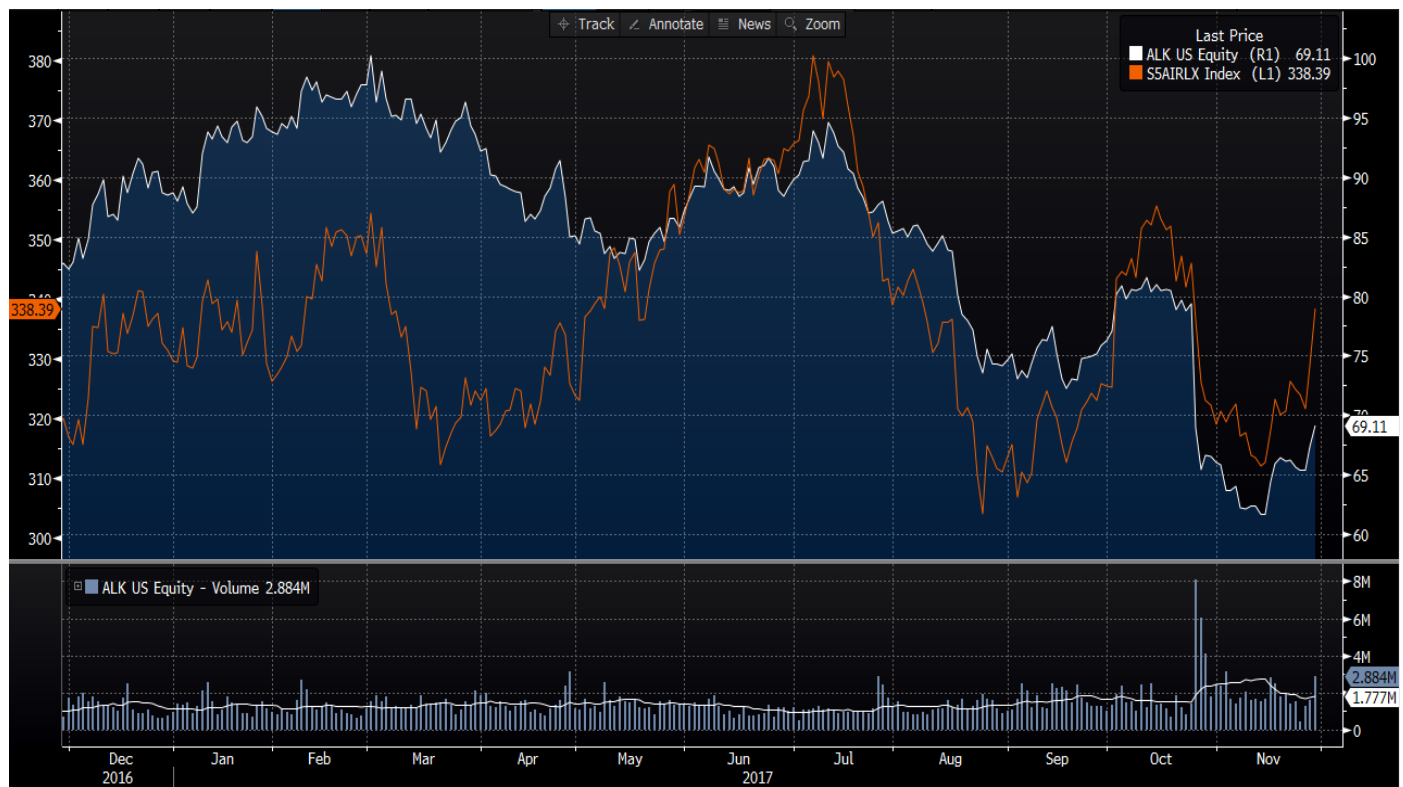
Sector: Industrials

Industry: Regional Airlines

Current Price: \$69.68

Target Price: \$80.92

Alaska Air Group is the holding company for Alaska Airlines and Horizon Air. Alaska Airlines primarily offers long-haul, full service flights along the Pacific coast and is currently the fifth largest U.S airline following the purchase of Virgin America. Horizon Air offers short-haul commuter service in the same markets, under Alaska Air's livery and logo. Alaska Air Group operates in three business segments, mainline, regional, and under the Horizon Air brand. Alaska Air Group operates a network of approximately 1200 flights per day to over 118 locations across the United States, Canada, Mexico, Costa Rica, and Cuba. Alaska Air Group was founded in 1932 and is currently located in Seattle, Washington.



BUY

Current Price:	\$69.68
Target Price:	\$80.92
Market Cap:	8.503B
WAAC:	7.6%
ROIC:	20.7%
ROIC/WACC:	2.71
Average Volume	1.77M
D/E:	0.77
S&P Debt Rating	BB+
EBITDA Margin	11.58%
Capital Usage	2.34



Thesis:

Alaska Air Group's acquisition of Virgin America in December 2016 has resulted in a reduction in share price over the last year due to integration difficulties. However, Alaska Air Group is an industry leader in cost strategy and historically has led the industry in sales growth and operating margins. As the operational difficulties of the Virgin America acquisition cease, full annual efficiency benefits are expected in 2018. Along with continued United States economic growth and expansion in to the growing California market, Alaska Air Group should continue to grow at a rate faster than industry averages, while keeping operating costs stable.

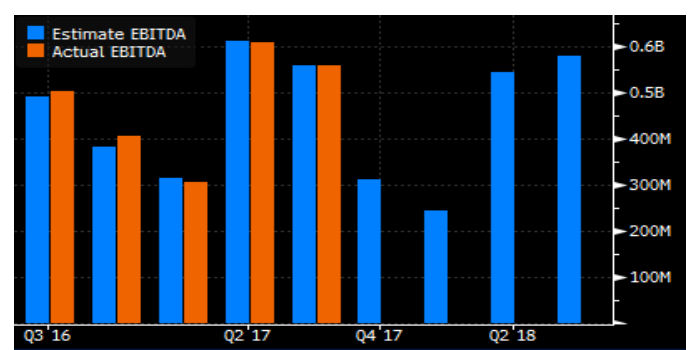
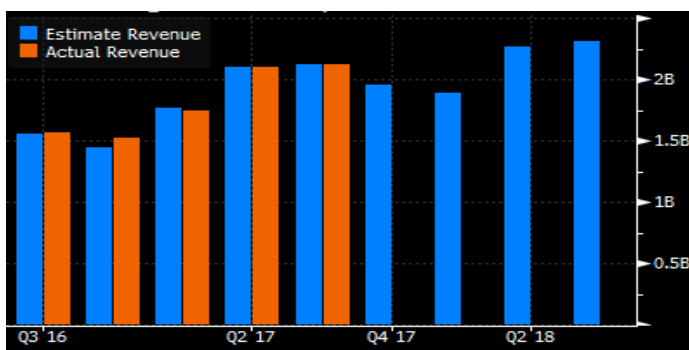
Catalysts

- Short Term (within the year): Increased traffic from holiday season travel. Updated 2018 guidance in January.
- Mid Term (1-2 years): Acquisition of Virgin America should experience full annual efficiency benefits. Operational difficulties from merger cease. Expansion into large California Market
- Long Term (3+): Continued United States economic growth.

Third Quarter

Earnings Performance:

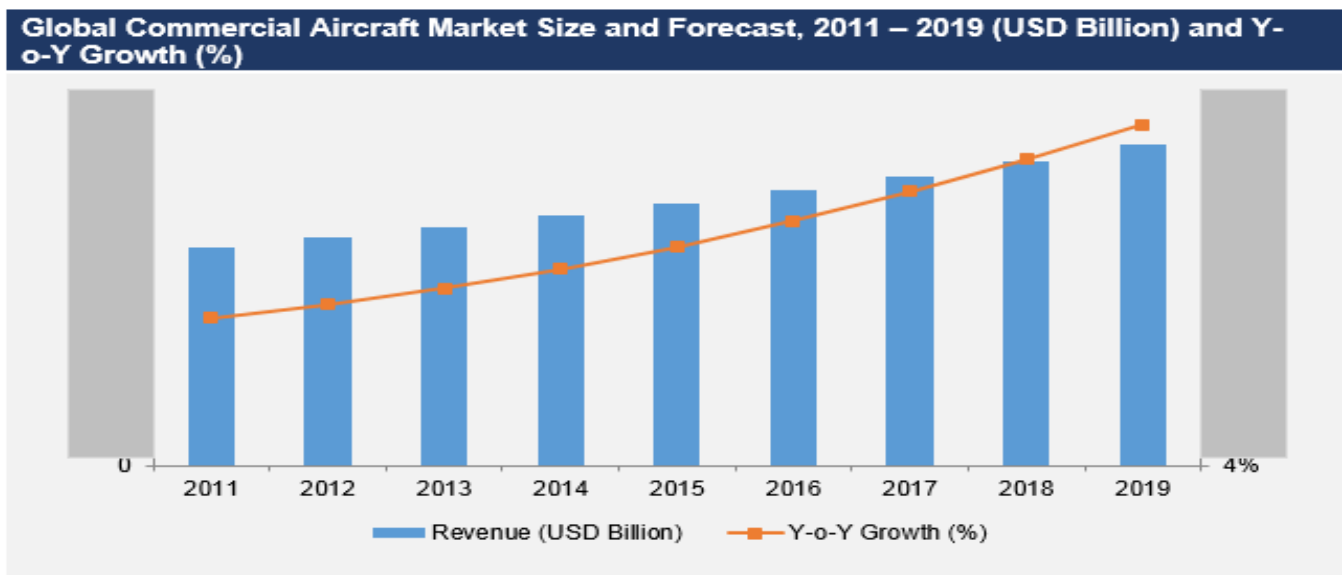
On October 22, 2017, Alaskan Air Group released Q3 earnings and reported record operating GAAP revenues of \$2.12B, which represented a growth of 35% year over year and 5.4% from the previous quarter. Same store capacity, which are markets that have been in service for longer than one year, which represents 94% of Alaskan Air Group's total capacity, grew 0.7% while RASM was slightly positive. Same store load factor was reported at 86% for the 3Q as well. Management commented, "Certain yield suffered from close-in pricing, primarily intra-California and California transcendental." Twenty new markets commenced in the nine months ended 2Q 2017 contributed to one third of revenue growth for the third quarter and 60% of these new markets have already become profitable. Utility for the state of California is 44%, up 28 points from pre 2016 merger network levels. Alaska Air Group posted a \$278mm adjusted profit for the 3Q 2017, a \$6mm increase over last year's period. Alaska Air Group experienced significant cost increases for the 3Q 2017. Fuel costs rose \$70mm, which equates to a 23% increase year over year. Non-fuel costs also rose by \$97mm for the 3Q as well. This translate to unit costs up 1% on 7% available seat miles (ASM) growth. For the 3Q 2017, CASM excluding fuel and special items was 7.98 cents per dollar or revenue while for FY 2017, CASM excluding fuel and special items was 8.09 cents on the dollar a decrease from 8.16 the prior year. Overall, management adjusted guidance for the 4Q of 2017 and for the full fiscal year as well. Management expects unit costs to be up about 1.5% on an 11% increase in capacity. These cost increases stem from a newly signed engine services deal with GE, which is expected to impact near term CASM, but will stabilize engine expenses long term. Alaska Air Group ended the quarter with \$1.7B of cash on hand and has generated \$1.4B of operating cash flow for FY 2017. Capex for



the first nine months of FY 2017 was reported at \$850mm, which translates to a free cash flow of approximately \$600mm for FY 2017, excluding merger related expenses accrued in 2016.

Airline Industry Outlook:

The commercial airline industry is a highly cyclical industry that often replicates the current business cycle environment as well as severe and extreme weather events that affect the ability of airlines to conduct travel, which act as short-term revenue headwinds. Overall, the world economy as a whole is expected to modestly over the next 5-10 years at a CAGR of 3.8% while advanced economies are projected to grow between 1.7% and 2.2% CAGR over the same period. There is also a broad consensus that oil prices will continue to rise to the range of USD 80 to USD 100 per barrel by 2030 which will serve as a cost headwind for the airline industry over a moderate to long-term time horizon. The airline industry is a very cost sensitive industry and growing oil and jet fuel prices have the ability to be destructive to operating margins. Airlines are expected to manage costs by switching from a network-based approach to a per-passenger basis. In order to do so, airlines will need to invest in right size aircraft in the range of 100-150 seat aircraft. These smaller aircrafts are key to cost control and new route potential for the industry. Intra-regional routes represented 80% of global air traffic in 2016 and are expected to grow at a CAGR of 5% over the next twenty years. These routes also generate the highest yield but often suffer from outdated fleets. Newer aircraft orders are expected to be filled over the next twenty years with technologies that aim to reduce CASM and are fuel-efficient. For 2016 unit revenues weakened however, for 2017, there has been improvement from 2016 levels. Airlines have been currently trimming excess capacity over FY 2017 due to the overestimate of demand from 2015 and 2016. This has allowed for better pricing power in 2017. For the ttm period ending 2016, total revenue passenger miles (RPMs) rose 3.6%, available seat miles rose 3.8% and the passenger load factor fell by 0.1 percentage points to 83.0. Over the next twenty years, the International Air Transport Association (IATA) expects air traffic to grow at a CAGR of 3.7%, which would put air traffic passengers to 7.2 billion for the year 2035, double what they were in 2016, 3.8 billion. Overall, economic growth drives the commercial airline industry, and as the United States airline market grows to 1.1 billion annual passengers over the next twenty years, Alaska Air Group is poised to capitalize on these trends.



Source: Company Annual Reports, Industrial Journals, Technical Publications, KOLs, and TMR Analysis

Business Operations and Strategy:

Alaska Air Group is the holding company of Alaska Airlines, Virgin America and Horizon Airlines. Alaska Airlines generates the majority of the revenues for Alaska Air Group at 82% of revenue while Horizon accounted for 18% for FY 2016. Alaska Air Group reports their revenue between mainline and revenue which are synonymous to Alaska Airlines and Horizon. Alaska Airlines is currently the fifth largest United States airline following the purchase of Virgin America. Alaska Airlines has code sharing agreements the other U.S legacy carriers such as Delta, United Continental, and American Airlines. Alaska Airlines primarily serves north/south routes along the pacific coast. It also serves destinations in Alaska as well as north/south service internationally between cities located in the United States, Canada, and Mexico. Alaska Airlines also provides east/west route service to Hawaii as well as twelve additional cities in the United States, primarily out of the airlines hub in Seattle. In 2016, Alaska Airlines carried 25mm passengers, up 9% from 2015. West coast passenger traffic accounted for 36% of revenue passenger miles, while passenger traffic within Alaska and between Alaska and the continental United States contributed 15% of revenue passenger miles. Additionally, transcontinental, Hawaii, Mexico, and Canada contributed 22%, 18%, 6%, and 3% of revenue passenger miles respectively. Horizon Air provides regional airline service and was acquired by Alaska Air Group in 1986. In 2016, Horizon carried 9.4mm passengers primarily between Washington, Oregon, Idaho, and California. The mainline fleet consists of 155 total Boeing 737 and Airbus A319 and A320's, with an average fleet age of 8.4 years. Alaska Air Group maintains two frequent flyer plans: the Alaska Airlines Mileage Plan and Virgin America Elevate. Benefits are earned using the Alaska Airlines credit card and can be used through a syndicate of 24 partners and 3 major global alliances. Members of the rewards program have access to over 900 worldwide destinations. Reward incentives are based on miles flown and purchases made on flights or alaskaair.com.



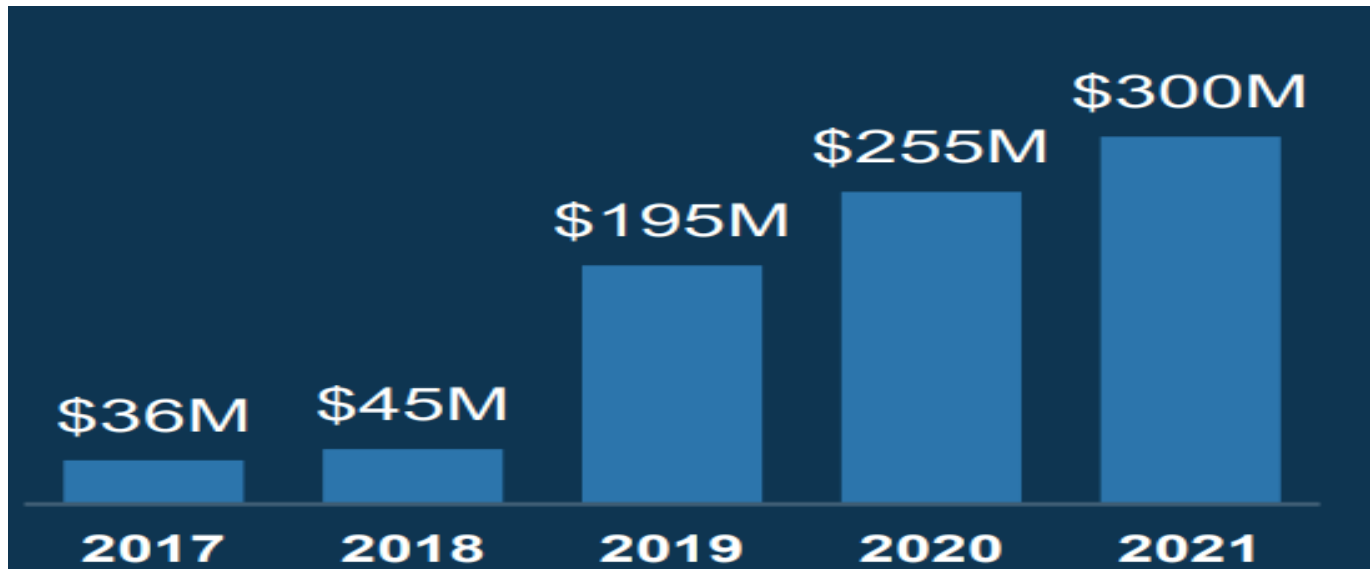
Corporate strategy is focused on expansion into target markets and routes not yet served by Alaska Air Group, primarily in California and the West Coast through the merger with Virgin America in December of 2016. Management is also concerned with continuing the low cost, low fare strategy that has seemed to dominate this industry over the past decade. The low cost, low fare strategy employed by Alaska Air Group has resulted in an increase in a net change in seats of 27mm between 2000-2015, while the industry has seen a

decline of 26mm over the same period. Currently, the average fare paid is \$160 for an Alaska Airlines flight, which is in line with other low cost carriers such as JetBlue and Southwest, while significantly lower than legacy carriers. This pricing strategy mirrors the passenger demand for low fares while still receiving a premium product and service. The key growth strategy of management is build Pacific Northwest relevance to build loyalty in the significantly larger California market. California is currently 3x the population of the Pacific Northwest and has more than 2.5x the amount of daily passengers. This represents a significant opportunity for Alaska Air Group to gain market share in a growing population and network. Currently AS/VX relevance is 38% for the California market and management hopes to grow this by 10% over the next two-three years. Alaska Air Group has recently added 27 new California markets, making them the #1 airline in passenger relevance on the West Coast. Passenger relevance is defined as the percent of North American O&D passengers in markets that each carrier service serves with non-stop service. These new markets include destinations in San Francisco, San Jose, the L.A Basin, and San Diego. An additional strategy is to deploy the fleet mix in a way that matches capacity to demand. Alaska Air Group's plan is to offer more seats in capacity constrained markets, which will offer lower trip costs on off-peak flights, which helps execute the low cost strategy. Alaska Air Group is also expanding premium seating on the Airbus fleet. Management expects this initiative to increase revenues by \$40mm per year and in hand will lower unit costs.

Acquisition of Virgin America:

On December 14, 2017, Alaska Air Group announced that it had completed the acquisition of Virgin America, a low cost, west coast airline with \$1.5B in annual revenues. The goal of this acquisition is to offer broader national reach and position the company to better serve people on the West Coast. The combined airline now provides 1,200 daily departures and the combination of loyalty programs and networks will provide greater benefits for guests and expand the international partner portfolio. At the time of the acquisition, Virgin America operated 200 daily departures and 63 aircraft. Alaska Air Group purchased Virgin America for \$4.0B, including the assumption of all debt. The agreed upon price of \$57/share was over an 80% premium to Virgin America's trading price prior to the news of the acquisition being made public and represented 44.645mm shares of Virgin America common stock. Alaska Air Group still expects to receive \$225mm in synergies at total integration, which is expected at some point in FY 2018. By 2019, Alaska Air Group has announced they will fully retire the Virgin America brand name. Since the time of Alaska Air Group's acquisition of Virgin America, shares are subsequently down nearly 22% due to the ineffective execution as well as the difficulties in integrating the Virgin America network that has seen costs rise. Despite headwinds in the acquisition and merger of the Virgin brand, approximately a \$400mm one-time cost increase, cost synergy targets are still up 20% since announcement of the deal. Pre-tax margins have also benefited from the merger. LCC's average pre-tax margin is approximately 19%, where legacy airlines typically incur higher costs, their margins are typically around 14%. The potential impact of \$300mm in run-rate synergies, net of amortization and interest, put Alaska Air Group's pre-tax margin at 25%, well above competitors. By 2024, Alaska Air Group expects a fleet size of 297 committed airliners, with an option of 109 to lease. I believe this figure is a positive metric as it shows management expects capacity and demand to grow following the acquisition. There has been significant headwinds faced by Alaska Air Group following the merger. Management has struggled to meet earnings and revenue expectations, primarily due to the lower operating margins as well as operating systems still not being fully integrated. Following the acquisition, Virgin America saw RASM fall 8%, while Alaska Air Group has remained flat. In turn, legacy carriers on the West Coast have in turn lowered fares, initiating a price war. In the recent third quarter earnings call

management said that walk-up fares for the quarter fell precipitously. However, these challenges are not uncommon for airline mergers and acquisition and I believe that management's target date of 2019 to fully resolve all issues and see the full benefits of the acquisition as a positive catalyst to this stock. If the integration of operating systems becomes efficient and Alaska Airlines can tap into Virgin America's previous market in a greater capacity, there is significant value creation available. The chart below shows the projected



synergies of the Alaska Air Group and Virgin America acquisition.

Cross Sectional Analysis and Company Performance:

Name	Sales Growth (%)	EBITDA Margin	Operating Income Margin	Net Income Growth (%)	Net Profit Margin	Capex/Sales (%)	Return on Invested Capital	Return on Assets	Return on Equity
Median	4.11%	20.83%	15.27%	-15.36%	8.90%	12.85%	12.94%	6.77%	25.87%
ALASKA AIR GROUP INC	29.58%	23.99%	19.23%	-1.58%	11.63%	11.43%	15.97%	8.97%	27.42%
SPIRIT AIRLINES INC	13.06%	21.00%	15.86%	-24.61%	9.16%	23.30%	9.79%	6.70%	16.09%
HAWAIIAN HOLDINGS INC	10.46%	24.17%	19.95%	19.82%	11.78%	7.30%	30.94%	11.41%	41.34%
AIR CANADA	9.86%	14.63%	8.64%	17.10%	7.22%	19.90%	13.09%	7.10%	70.95%
JETBLUE AIRWAYS CORP	4.78%	22.30%	16.04%	-16.62%	9.38%	15.24%	12.79%	6.75%	16.21%
AMERICAN AIRLINES GRO...	3.43%	16.36%	11.66%	-46.26%	5.84%	14.26%	10.97%	4.67%	58.02%
SOUTHWEST AIRLINES CO	3.19%	23.32%	17.33%	-14.09%	10.20%	9.98%	19.90%	9.05%	25.41%
UNITED CONTINENTAL HO...	2.22%	16.07%	10.41%	-31.65%	5.90%	8.82%	12.42%	5.32%	25.33%
DELTA AIR LINES INC	1.95%	19.92%	14.68%	-19.52%	8.63%	8.55%	17.63%	6.79%	26.34%

Alaska Air Group operates in two segments, Mainline and Regional, which includes Freight and Mail, and other services. Alaska Airlines (mainline) for FY 2016 reported passenger revenue of \$4.098B and Horizon (regional) reported revenues of \$908mm. Freight and mail contributed \$108mm in revenue while other net revenues were reported at \$817mm. Other net revenue increased primarily due to increases in Mileage Plan revenue. This resulted in net revenues of \$5.931B. Alaska Air Group does not report operating expenses per segment. However, GAAP operating expenses for FY 2016 were reported at \$4.582B, resulting in GAAP operating income of \$1.349B. Expenses primarily consist of fuel expenses and on fuel expenses such as wages, benefits, and defined contribution plans. Fees such as aircraft leases and maintenance in FY 2016 increased by \$9mm and \$17mm, or 9% and 7% respectively. Management expected maintenance expenses to

increase by approximately 50-55% due to the acquisition of Virgin America in FY 2017. Revenue generation of Alaska Air Group is highly cyclical with the business cycle of the United States. In the event of a recession or slowdown of the United States economy, revenues expediently decline for that period of downturn. At this moment, the growth of the United States economy is expansionary and that is expected to continue for the near future. Alaska Air Group is an industry leading low cost, low fare carrier and over the last twelve months, has seen sales growth out pace competition. Over the LTM, sales growth has grown 29.58%. Alaska Air Group also has industry leading margins. With a GAAP EBITDA margin of 23.99%, which outpaces all competitors except the low cost Hawaiian Airlines with a GAAP EBITDA, margin of 24.17%. However, Alaska Air Group is a considerably larger carrier, which comes along with higher costs. In my view, this leads me to believe that Alaska Air Group is the industry leader in cost control. Overall, Alaska Air Group outperforms the peer group median for operating income margin, net income growth, net profit margin and return on invested capital (ROIC). This signals a healthy company who has been growing sales as well as keeping costs low. On a multiple basis, Alaska Air Group currently has a GAAP P/E ratio of 9.82x, which is below the median P/E ratio for peer groups. EV/TTM EBITDA is currently 5.27, which also is below the median for the peer group. These multiples indicate that Alaska Air Group is currently undervalued by the market. Alaska Air Group's CAPEX/Sales is currently 11.43%. This number is in line with the peer group median, which is 12.85%. I believe these capital expenditures are justified due to an industry leading ROIC of 20.7%.

Capital Structure:

Alaska Air Group currently holds \$2.701B of debt, which represents 43.6% of total capital for the firm. Consequently, this translates to a D/E ratio of 0.77. A significant portion of long-term debt was raised to finance the acquisition of Virgin America in December of 2016. The long-term debt of Alaska Air Group consists of senior bonds and notes and holds no revolving credit. Undrawn revolving credit consists of \$475mm. Currently, net debt to EBITDA is 0.4x where total debt to EBITDA is 1.2x. Debt structure currently consists of \$1.179B of fixed rate notes payable due through 2028 at a coupon base rate of 4.3% and \$1.803B of variable rate notes payable through 2028 at a coupon base rate of 2.6%. These variable rate notes payable bear interest at a floating rate per annum equal to a margin plus the three or six-month LIBOR in effect at the commencement of each semi-annual or three-month period. The average interest expense over the next five years is \$394.2mm with \$1.007B paid thereafter. In my opinion, even with the large amount of debt, the company should have no issues with paying back debt due to their large number of assets and operating cash flows expected to range between \$1.5-2.0B over the period interest must be paid back. The LTM ROIC/WACC ratio of Alaska Air Group is 2.71 compared to a competitor average of 1.38 over the same period. Historically, Alaska Air Group has generated returns on capital of 1.51, which is lower than competitors. However, due to the recent improvement in ROIC/WACC, Alaska Air Group has begun to create more value with their assets compared to competitors. Competitors have also deviated from their historical ROIC/WACC, indicating some competitors have been destroying the value of their firms. Another metric such as ROIC (NOPAT/Invested Capital), over the LTM has been 20.7%, an increase from the historical average of 15.4%, which has historically been near the industry average as well. Over the LTM, competitors have been generating ROICs of 10.2%. This shows that Alaska Air Group's capital allocation strategy is performing better than competitors' over the LTM. Alaska Air Group management has a history of share repurchases. In FY 2012 and FY 2014, they respectively bought back \$900mm in common stock. Additionally, in FY 2015 management authorized a \$1.0B share repurchase program, which was paused in the

second quarter of 2016 due to the acquisition of Virgin America. As of FYE 2016, the company held 5,861,583 shares in treasury and does not anticipate retiring these shares for the foreseeable future.

ROIC /WACC		
	History	LTM
ALK	1.51	2.71
Competitors	1.74	1.38
Target	1.69	

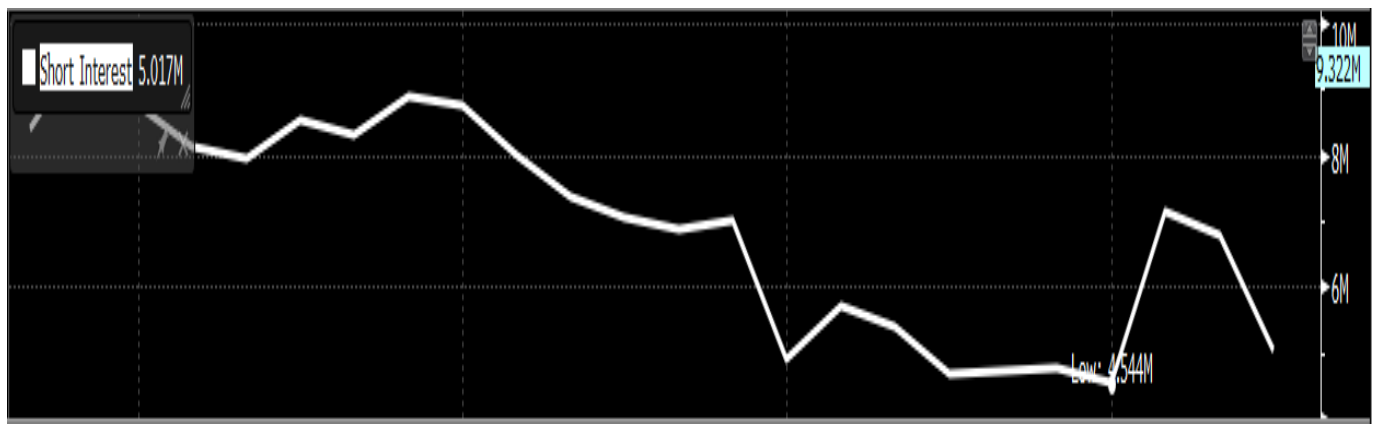
ROIC (NOPAT/IC)		
	History	LTM
ALK	15.4%	20.7%
Competitors	15.2%	10.2%
Target	12.9%	

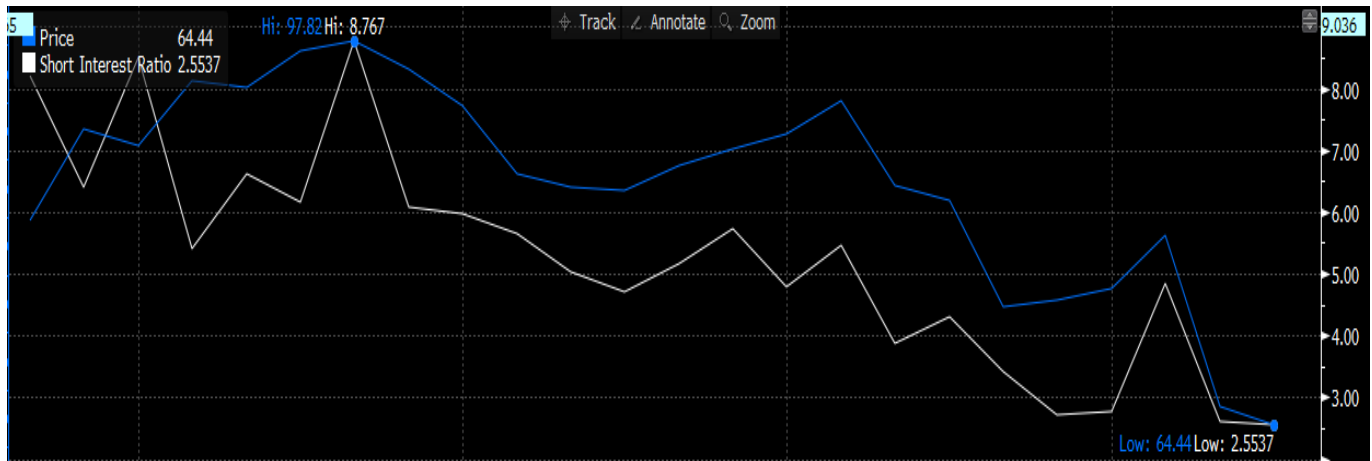
WACC		
	History	LTM
ALK	9.9%	7.6%
Competitors	8.2%	7.5%
Target	7.6%	

ROC /WACC		
	History	LTM
ALK	0.99	1.93
Competitors	1.09	1.09
Target	1.85	

Ownership Summary:

The majority of holders of Alaska Air Group common stock consist of Investment Advisors and Hedge Funds. Over the last three months, the percentage change of ownership has stayed relatively flat. Investment advisors have decreased their position to 80.43% of float, a decrease of 1.01% over the three-month period. Hedge Fund managers have increased their positions in Alaska Air Group over the last three months to 12.01% of float. This represents a slight increase of 0.13% over the period. The largest holders of Alaska Air Group consist of Vanguard, T Rowe Price Group and Blackrock funds. There has been a mix in investment advisors both entering and exiting their positions over the last three months. There is not a single entity who controls over 10% of the float outstanding; which puts the threat of management takeover low. The short interest is currently at twelve-month lows. The short interest ratio is currently 2.55%, while the short interest is 4.10% of float. Short interest ratio has historically followed the price decline of Alaska Air Group over the course of the year and is currently at yearly lows. In my analysis, I believe investors have exited their short positions as price dropped, taking profits. Due to the current low short interest, I believe investor sentiment is now that share price has hit a bottom and is expected to appreciate over the next year.





Conclusion:

In conclusion, I recommend a buy for Alaska Air Group at current price levels. The difficulty management has experienced with the acquisition of Virgin America has been troublesome, but I believe that the low cost, low fare business model, along with the competence of management will create synergies from this merger. Alaska Air Group has historically shown that they are industry leaders in cost management and has experienced significant value creation over the LTM as seen in industry leading ROIC and ROIC/WACC. I believe that the Virgin America acquisition will grow capacity and recognition in the growing West Coast market and along with positive trends in the United States economy, share price will appreciate over the next year in the double digits.

Alaska Air Group, Inc. (ALK)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Connor Morelli

Current Price:

\$69.11

Intrinsic Value

\$82.15

Target 1 year Return: 21.7%

11/30/2017

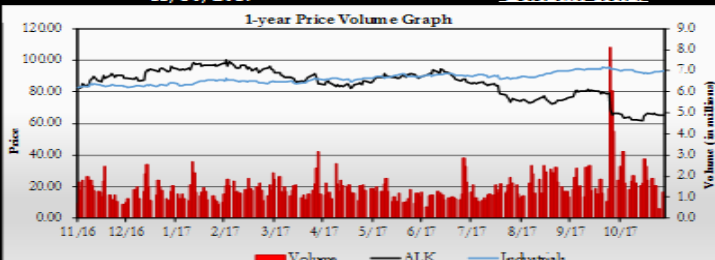
Divident Yield:

1.9%

Target Price

\$82.77

Probability of Price Increase: 87%

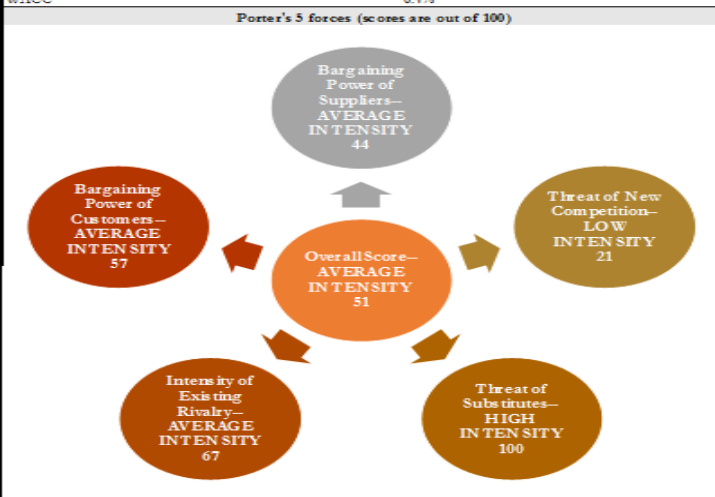
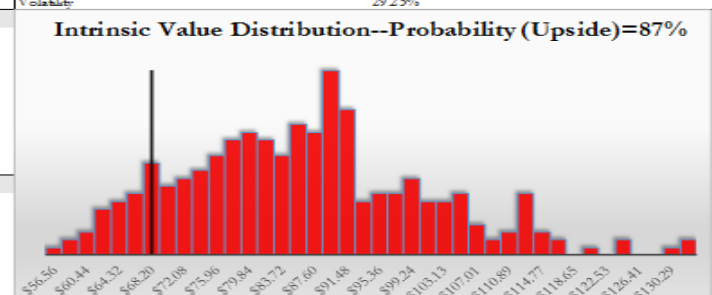


Description	
Alaska Air Group, Inc., through its subsidiaries, provides passenger and cargo air transportation services primarily in the United States.	
General Information	
Sector	Industrials
Industry	Airlines
Last Guidance	November 3, 2015
Next earnings date	January 23, 2018
Estimated Country Risk Premium	4.12%
Effective Tax rate	24%
Effective Operating Tax rate	24%

Market Data	
Market Capitalization	\$8,503.63
Daily volume (mil)	2.88
Shares outstanding (mil)	123.04
Diluted shares outstanding (mil)	124.35
% shares held by institutions	11.6%
% shares held by investment Managers	71%
% shares held by hedge funds	11%
% shares held by insiders	0.33%
Short interest	4.08%
Days to cover short interest	2.69
52 week high	\$101.43
52-week low	\$61.10
Volatility	29.25%

Past Earning Surprises	
Quarter ending	Revenue
9/30/2016	0.39%
12/31/2016	6.76%
3/31/2017	0.05%
6/30/2017	0.14%
9/30/2017	-0.07%
Mean	1.45%
Standard error	1.3%
EBITDA	
9/30/2016	3.30%
12/31/2016	0.16%
3/31/2017	-22.53%
6/30/2017	-10.67%
9/30/2017	-14.66%
Mean	-8.88%
Standard error	4.8%
Position	
Management	Chairman, CEO & President
Tilden, Bradley	CFO & Executive VP of Finance
Pedersen, Brandon	President of Alaska Airlines
Maniowski, Benito	Chief Executive Officer of H
Campbell, David	Chief Commercial Officer of
Harrison, Andrew	Managing Director of Account
Thal, Kevin	
Profitability	
Return on Capital (GAAP)	20.7%
Operating Margin	9%
Revenue/Capital (GAAP)	2.34
ROE (GAAP)	30.4%
Net margin	10.6%
Revenue/Book Value (GAAP)	2.87
Invested Funds	
Cash/Capital	-7.1%
NWC/Capital	-38.3%
Operating Asset/Capital	108.4%
Goodwill/Capital	37.1%
Capital Structure	
Total Debt/Market Capitalization	0.76
Cost of Existing Debt	3.4%
CGFS Rating (F-score, Z-score, and default Probability)	BB
WACC	6.4%

Peers	
JetBlue Airways Corporation	
Southeast Airlines Co.	
Spirit Airlines, Inc.	
American Airlines Group Inc.	
United Continental Holdings, Inc.	
Delta Air Lines, Inc.	
Allegiant Travel Company	
Hawaiian Holdings, Inc.	
Total return to shareholders	
10.18% per annum over 5y	8.21% per annum over 5y
22.29% per annum over 5y	8.21% per annum over 5y
15.84% per annum over 5y	8.21% per annum over 5y
N/M	N/M
61.07% per annum over 1y	36.06% per annum over 1y
N/M	N/M
ALK (5 years historical average)	
15.42%	10.17%
7.57%	7.48%
2.04	1.36
31.8%	21.1%
10.1%	6.7%
3.14	3.15
ALK (5 years historical average)	
34.2%	21.2%
-16.4%	-17.6%
82.2%	89.5%
0.0%	7.0%
ALK (5 years historical average)	
0.58	0.58
5.8%	4.0%
A	BBB
9.9%	7.5%



Porter's 5 forces (scores are out of 100)	
Period	Revenue Growth Forecast
Base Year	30%
9/30/2018	14%
9/30/2019	8%
9/30/2020	2%
9/30/2021	2%
9/30/2022	2%
9/30/2023	2%
9/30/2024	3%
9/30/2025	3%
9/30/2026	3%
9/30/2027	3%
Continuing Period	4%
Return on Capital Forecast	
Base Year	21.0%
9/30/2018	11.1%
9/30/2019	16.9%
9/30/2020	17.9%
9/30/2021	17.7%
9/30/2022	17.4%
9/30/2023	16.9%
9/30/2024	16.3%
9/30/2025	15.4%
9/30/2026	14.8%
9/30/2027	13.7%
Continuing Period	13.0%

Valuation	
NO PAT Margin Forecast	Revenue to Capital Forecast
7.8%	2.68
7.1%	1.56
9.1%	1.85
9.8%	1.82
9.6%	1.84
9.3%	1.86
9.0%	1.87
8.7%	1.84
8.3%	1.89
8.0%	1.89
7.5%	1.84
7.1%	1.82
WACC Forecast	
6.4%	\$79.91
6.0%	\$79.58
6.0%	\$79.33
6.6%	\$78.87
6.6%	\$79.61
6.6%	\$81.72
6.7%	\$82.74
6.7%	\$85.11
7.1%	\$87.57
7.1%	\$91.05
7.5%	\$94.75
7.6%	

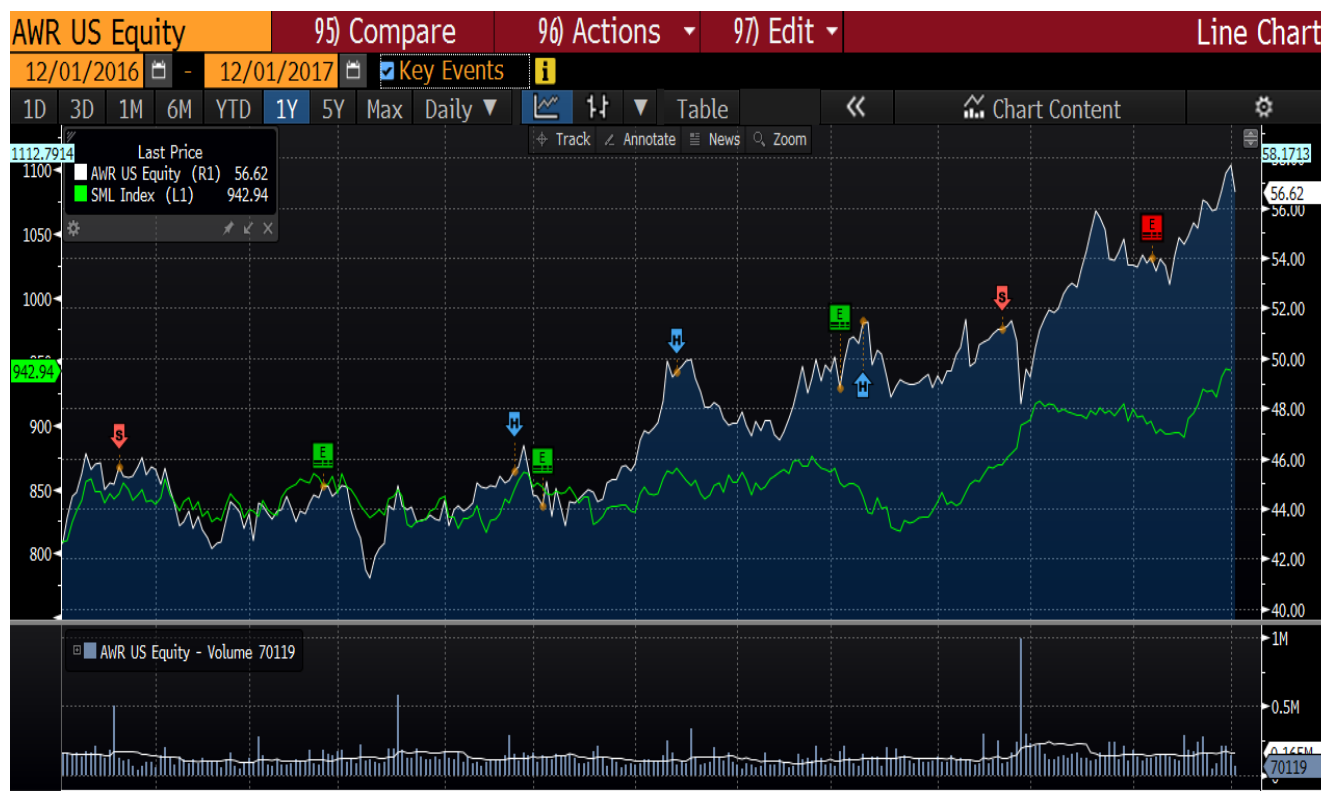
Company Description: American States Water Company, through its subsidiaries, provides water and electric services to customers in the United States. It operates through three segments: Water, Electric and Contracted Services. American States Water Company serves approximately 285,000 customers throughout California. American States Water Company operates a Contracted Services division that serves 11 military bases in the United States.

BUY/HOLD/SELL

Current Price:	\$56.79
Target Price:	\$60.62
Market Cap:	2.1 B
Dividend Yield:	1.75%
ROIC:Y:	8.43%
WACC:	6.69%
ROE:	12.20%
OPM:Y:	26.31%

Catalysts:

- Short Term(within the year): The increase in water and electric rates being approved by the CPUC
- Mid Term(1-2 years): Increase in revenue from the Fort Riley Contract
- Long Term(3+): New contracts for U.S. Military bases from the U.S. Government



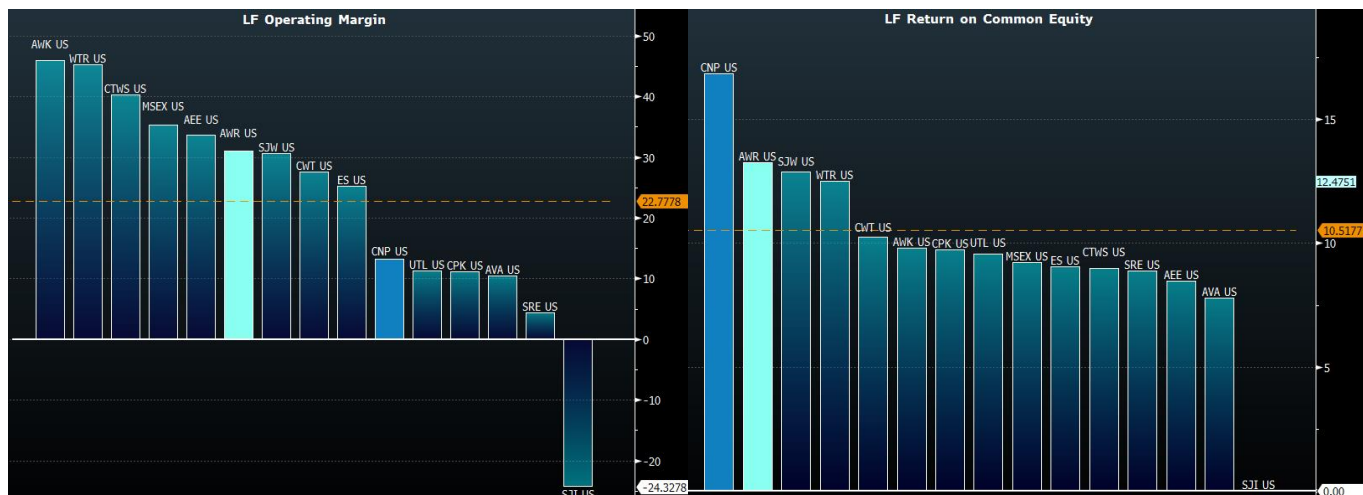
Source: Bloomberg

Thesis:

American States Water Company will continue to increase their revenue through both of their segments. Golden State Water Company will continue to increase their revenue through new water and electric contract agreements that will be implemented January 1, 2018. American States Utility Services will continue to increase their revenue by adding more United States Military bases to their management portfolio. With both segments set for an increase in revenue, AWR's stock price will increase in the short and long term.

Earnings Performance:

American States Water Company is most affected by revenue. In the third quarter earnings call, American States Water Co. recorded revenue of \$124.42 million, which increased 0.5% year over year. This missed earnings estimates by \$21.36 million. This was a large miss but can be attributed a new rates decision in 2016 and the sale of the Ojai water system. AWR recorded a downward adjustment of \$5.2 million because of the rates decision issued in December 2016. The Ojai water system was sold to Casitas Municipal Water District for \$34.4 million to resolve Eminent Domain Action. As a result of the sale, AWR has lost revenue from no longer operating this system. However, several positives can be taken out of the earnings call. The first is that ASUS, a segment of AWR was awarded a 50-year contract at Fort Riley, which is worth approximately \$601 million over the life of the contract and is subject to annual economic price adjustment. The next is that operating expenses decreased by \$2 million in the quarter due to lower construction activity at ASUS. Future revenue performance it expected to pick up in the coming years, which shows that AWR is expanding. AWR has an operating margin of 31, which is above the industry average of 22.78. AWR has a return on common equity of 13.26, which is above the industry average of 10.52. While these margins are above industry average AWR can still do better by continuing to cut costs. I expect AWR to improve their margins and exceed earnings in the next periods, which will increase the stock price.



Measure	Revenue					
	2014	2015	2016	2017	2018	2019
Q1 Mar	101.95M	100.93M	93.53M	98.81M	102.50M	106.50M
Q2 Jun	115.64M	114.62M	111.95M	113.20M	120.00M	125.50M
Q3 Sep	138.33M	132.98M	123.81M	124.42M	136.00M	143.00M
Q4 Dec	109.88M	110.12M	106.80M	121.00M	110.50M	115.50M
Year	465.79M	458.64M	436.09M	454.75M	472.00M	495.67M
Cal Yr	465.79M	458.64M	436.09M	454.75M	472.00M	495.67M

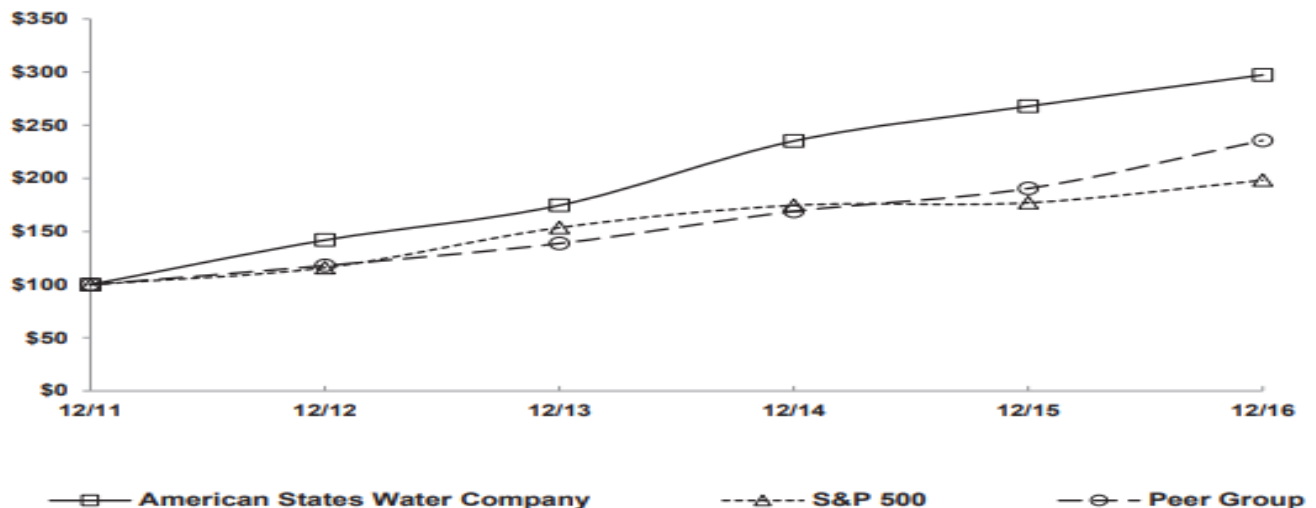
(Fiscal Period: Reported, Estimated)

Source: Bloomberg

Industry Outlook:

American States Water Company is well positioned in the water utility industry because of the locations that they currently serve. Under California state law, AWR can operate in their service areas with minimal interruption from competitors. California statutory laws provide that no other investor-owned public utility may operate in the public utilities' service areas without first obtaining from the regulator a certificate of public convenience and necessity. With this statute in place, it is extremely difficult for a competitor to enter the space thus making AWR's pumps, distribution facilities and reservoirs valuable. The water utility business is capital-intensive because of the repairs that must be made for aging infrastructure. AWR is maintaining their water systems to avoid more costly expenditures such as broken pipes. AWR plans to spend between \$110 and \$120 million on capital improvements. From 2011 to 2015, the S&P 500 has increased from \$100 to \$198 and peer group has increased from \$100 to \$235. Over the same time period, AWR has outperformed both of these indexes by returning \$297. This shows that AWR continues to grow and add value as a company.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
Among American States Water Company, the S&P 500 Index,
and a Peer Group



Source: AWR 10K






Segment Breakdown:

AWR is broken down into two segments: Golden State Water Company (GSWC) and American States Utility Services (ASUS). Within GSWC, there are water and electric segments. The water segment serves approximately 261,000 customers and the electric segment serves approximately 24,000 customers for 285,000 customers. Both segments have retained relatively the same percentage of revenue. In the last fiscal year, the Water Segment decreased 2.1% while the Electric Segment grew 0.3%. The water segment makes up the majority of the revenue. AWR operates an expansive network of pumps, distribution facilities and reservoirs as seen on the chart below. With continued a continued expansion of this network, revenue should increase.

Pumps		Distribution Facilities			Reservoirs	
Well	Booster	Mains*	Services	Hydrants	Tanks	Capacity*
247	399	2,825	261,059	26,065	147	115,765 (1)

Source: AWR 10K

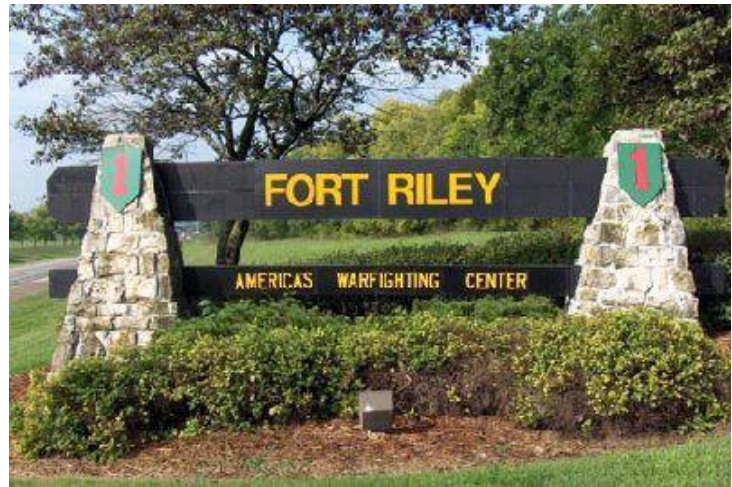
The growth in AWR should be in the contracted services industry. With new contracts up for United States Military bases in the United States, AWR is likely to be in prime position to win these contracts. ASUS could make up to 40% of revenue in the coming years.

In Millions of USD except Per Share		FY 2013		FY 2014		FY 2015		FY 2016	
12 Months Ending		12/31/2013		12/31/2014		12/31/2015		12/31/2016	
	Revenue	472.1	100.0%	465.8	100.0%	458.6	100.0%	436.1	100.0%
	GSWC	358.5	75.9%	361.1	77.5%	364.6	79.5%	338.7	77.7%
	Water	320.1	67.8%	326.7	70.1%	328.5	71.6%	302.9	69.5%
	Electric	38.4	8.1%	34.4	7.4%	36.0	7.9%	35.8	8.2%
	ASUS- Contracts	113.5	24.1%	104.7	22.5%	94.1	20.5%	97.4	22.3%

Source: Bloomberg

Contracted Services:

The contracted services segment is where the growth is for AWR. Currently, ASUS provides water and/or waste water utility services to 11 military bases, including the four biggest in the United States. The most recent contract that ASUS received from the United States was the contract for Fort Riley, which is for 50 years, valued at approximately \$601 million, and is subject to annual economic price adjustment. ASUS will expect to assume operations in 2018 after a six-to-twelve month transition period. This is going to drive revenue because it is a large contract that is guaranteed for 50 years as long as ASUS maintains its end of the agreement. AWR expects this contract to contribute earnings of \$0.03 to \$0.05 per share starting in 2019. ASUS assumed operations of Eglin Air Force base in Florida in June 2017.



This contract was for 50 years and \$702 million. This shows that ASUS has the trust of the United States by continuing to win contracts for their military bases. ASUS is involved in various stages of the proposal process at a number of other bases considering privatization. Winning these contracts will drive revenue growth because they are large contracts. The U.S. Government is expected to release additional bases for bidding over the next several years so ASUS should be in prime position for the contracts because of their current relationship with the U.S. Government. The CEO of AWR, Robert Sprowls, said in the last earnings call that he expects ASUS will represent between 30 and 40% of AWR in the future. This shows that this segment is growing and profitable.

Ownership Summary:

The insider ownership has remained the same year over year. This shows that insiders are confident in the growth of the company and as a result are not selling off shares of the company.

Compare Current Stats Against		11/28/16		
Insider		11/27/16	Curr	Change
11) % of Shares Held		1.44	1.44	0.00

The ownership in AWR has not had any drastic changes in the last year. The most significant change in ownership of stocks is that Governments have reduced their shares by 1.45%. This is relatively insignificant because to start the year they only held 1.79% of outstanding shares. When they sold off shares, it has not dropped the stock price. A Corporation and Sovereign Wealth Fund have both entered the ownership structure thus showing that they see a potential for growth while owning a relatively safe stock. Pension funds, insurance companies, corporations, banks and sovereign wealth funds have all increased positions thus showing a stable investment. I expect the stock to increase in price.

Compare Current Stats Against		11/28/16	
Ownership Type		11/27/16	Curr ↓ Change
11) Investment Advisor		87.24	86.34 -0.90
12) Hedge Fund Manager		4.50	4.24 -0.26
13) Pension Fund		2.33	2.55 +0.22
14) Individual		1.91	1.90 -0.01
15) Insurance Company		1.16	1.42 +0.26
16) Corporation			1.05
17) Bank		0.55	0.86 +0.31
18) Sovereign Wealth Fund			0.69
19) Government		1.79	0.34 -1.45
20) Brokerage		0.30	0.30 0.00
21) Venture Capital		0.12	0.15 +0.03

Source: Bloomberg

AWR vs. Competitors:

AWR has mostly above average margins. AWR is good at creating value. It is important to note that their ROIC is higher than their WACC, which means that the projects they are investing in are creating value for the company. It is also important to note that their ROE of 12.20% is higher than the industry average of 9.68%. The one concern could be that revenue growth was negative last year. However, this can be nullified because revenue growth is positive this year and is expected to grow in the coming years. Their operating margin is on par with its competitors. I expect the operating margin to increase once AWR fully implements all their cost-cutting measures. This chart shows that AWR is in the upper class of the water utilities industry.

Name (BICS Best Fit)	Mkt Cap (USD)	Last Px	Rev - 1 Yr Gr:Y	EPS - 1 Yr Gr:Y	P/E	ROE	Dvd 12M Yld	ROIC:Y	WACC	OPM:Y
Median	2.14B	56.67	2.73%	6.62%	31.30	9.68%	1.88%	6.39%	5.81%	26.31%
100) AMERICAN STATES WATER...	2.08B	56.67	-4.92%	1.25%	33.71	12.20%	1.75%	8.43%	6.69%	26.31%
101) CHESAPEAKE UTILITIES C...	1.39B	84.85	8.63%	6.62%	31.72	9.68%	1.48%	7.13%	6.53%	16.83%
102) MIDDLESEX WATER CO	732.96M	44.84	5.46%	13.11%	35.87	9.23%	1.91%	7.40%	7.71%	30.57%
103) CALIFORNIA WATER SERV...	2.14B	44.60	3.57%	8.15%	31.36	10.26%	1.61%	6.33%	6.04%	16.57%
104) AMEREN CORPORATION	15.49B	63.85	-0.36%	4.69%	24.77	8.65%	2.76%	4.49%	4.34%	22.73%
105) AMERICAN WATER WORKS...	15.98B	89.57	4.53%	6.56%	31.35	9.52%	1.81%	4.83%	4.90%	34.37%
106) AQUA AMERICA INC	6.54B	36.79	0.70%	9.58%	27.76	12.51%	2.15%	8.59%	5.65%	39.62%
107) CONNECTICUT WATER SV...	744.01M	61.65	2.73%	3.79%	29.94	9.00%	1.88%	6.39%	5.81%	29.42%
108) AVISTA CORP	3.35B	52.00	-2.85%	14.51%	25.85	7.87%	2.72%	4.89%	4.97%	20.09%
109) SJW GROUP	1.38B	67.20	11.35%	19.54%	31.30	10.29%	1.55%	7.16%	6.30%	27.41%

Source: Bloomberg

Rate Increases:

In July 2017, Golden State Water filed its water general rate case application with the California Public Utilities Commission (CPUC). This will determine new water rates for the years 2019, 2020 and 2021. GSWC has requested an application average of \$125 million per year for capital budgets. In the last earnings call, operating cash flows for the year increased to \$120.2 million from \$77.5 million. This is partially due to CPUC-approved surcharges. This shows that GSWC has a good working relationship with the CPUC so that they can regain higher revenue with surcharges in peak times. GSWC also filed its water cost to capital application in April. The application recommends an overall weighted return on rate base of 9.11%, including an updated cost of debt of 6.6% and a return on equity or ROE of 11%. The current authorized return on

Sum of the Parts Analysis:

[illegible]

Conclusion:

In conclusion, I am proposing a BUY for American States Water Company (AWR). AWR is well positioned in all their market segments. The increase in rates in 2018 will drive revenue further. With ASUS set to take over Fort Riley in the coming months, ASUS has made themselves the premier contract service provider for the United States Military. With new military contracts coming out in the coming years, ASUS has a clear advantage to win these contracts. AWR's margins are above the industry average. A target price of \$60.62 can easily be achieved.

American States Water Company (awr)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by Niall McGeever

Current Price:

\$56.76

Intrinsic Value

\$59.42

Target 1 year Return: 8.7%

12/1/2017

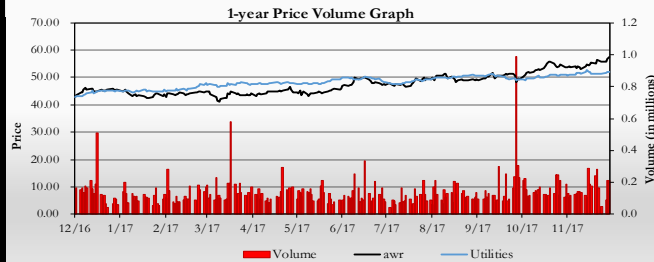
Divident Yield:

1.9%

Target Price

\$60.62

Probability of Price Increase: 87%



Description
American States Water Company, through its subsidiaries, provides water and electric services to residential, industrial, and other customers in the United States.

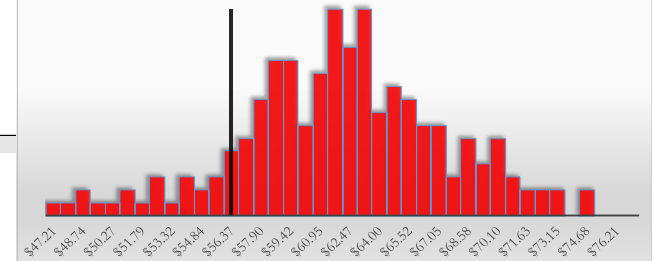
General Information
Sector: Utilities
Industry: Water Utilities
Last Guidance: November 3, 2015
Next earnings date: February 23, 2018
Estimated Country Risk Premium: 5.27%
Effective Tax rate: 24%
Effective Operating Tax rate: 24%

Market Data	
Market Capitalization	\$2,116.02
Daily volume (mil)	0.08
Shares outstanding (mil)	36.68
Diluted shares outstanding (mil)	36.80
% shares held by institutions	116%
% shares held by investments Managers	60%
% shares held by hedge funds	3%
% shares held by insiders	1.43%
Short interest	1.93%
Days to cover short interest	4.21
52 week high	\$58.11
52-week low	\$41.14
Volatility	20.52%

Past Earning Surprises	
Quarter ending	Revenue
9/30/2016	-8.97%
12/31/2016	-14.69%
3/31/2017	7.29%
6/30/2017	-5.06%
9/30/2017	-14.65%
Mean	-7.22%
Standard error	4.1%

Peers	
California Water Service Group	
Aqua America, Inc.	
SJW Group	
American Water Works Company, Inc.	
Middlesex Water Company	
Connecticut Water Service, Inc.	
Artesian Resources Corporation	

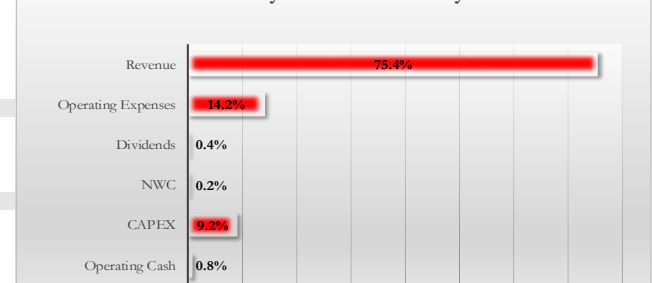
Intrinsic Value Distribution--Probability (Upside)=87%



Management	
Sproles, Robert	CEO, President & Director
Tang, Eva	CFO, Principal Accounting Of
Kruger, Denise	Senior Vice President of Reg
Scanlon, Patrick	Vice President of Water Oper
Cotton, James	SVP of American States Utili
Gallagher, James	Vice President of Management

Total compensations growth	
17.58% per annum over 5y	
6.83% per annum over 5y	
0.89% per annum over 5y	
-1.07% per annum over 5y	
N/M	
N/M	

Sensitivity Attribution Analysis



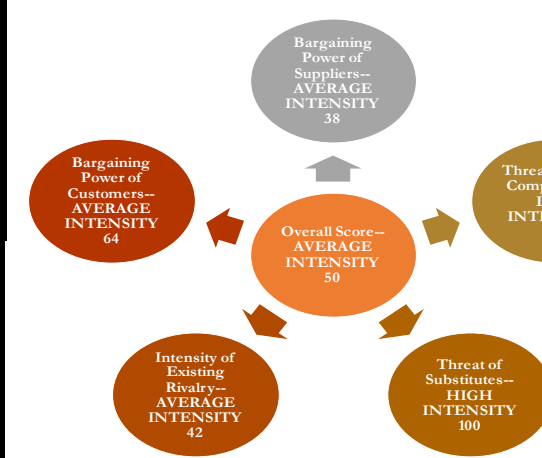
Profitability	
Return on Capital (GAAP)	8.0%
Operating Margin	16%
Revenue/Capital (GAAP)	0.51
ROE (GAAP)	13.7%
Net margin	13.5%
Revenue/Book Value (GAAP)	1.01

awr (LTM)	
7.81%	
12.84%	
0.61	
13.1%	
12.6%	
1.04	

Invested Funds	
Cash/Capital	-5.6%
NWC/Capital	4.6%
Operating Assets/Capital	100.8%
Goodwill/Capital	0.1%

awr (LTM)	
3.0%	
3.6%	
93.3%	
0.1%	

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



Period	
Base Year	1%
9/30/2018	23%
9/30/2019	20%
9/30/2020	17%
9/30/2021	5%
9/30/2022	1%
9/30/2023	1%
9/30/2024	1%
9/30/2025	2%
9/30/2026	2%
9/30/2027	2%
Continuing Period	2%

Valuation	
NOPAT Margin Forecast	
Base Year	22.0%
9/30/2018	18.9%
9/30/2019	14.5%
9/30/2020	9.3%
9/30/2021	1.7%
9/30/2022	-4.7%
9/30/2023	-10.1%
9/30/2024	-15.5%
9/30/2025	-20.8%
9/30/2026	-26.2%
9/30/2027	-31.5%
Continuing Period	-36.8%

Period	
Base Year	12.3%
9/30/2018	11.5%
9/30/2019	11.0%
9/30/2020	10.8%
9/30/2021	11.0%
9/30/2022	11.0%
9/30/2023	11.0%
9/30/2024	11.0%
9/30/2025	11.0%
9/30/2026	11.0%
9/30/2027	11.0%
Continuing Period	11.0%

WACC Forecast	
Base Year	10.0%
9/30/2018	10.0%
9/30/2019	9.8%
9/30/2020	9.7%
9/30/2021	9.6%
9/30/2022	9.5%
9/30/2023	9.5%
9/30/2024	9.5%
9/30/2025	9.5%
9/30/2026	9.5%
9/30/2027	9.5%
Continuing Period	9.5%

November 9th, 2017

Brookline Bancorp, Inc.: BRKL

Timothy Shumsky

Sector: Financial

Industry: Savings & Loans

Current Price: \$16.05

Target Price: \$17.87

BUY

Current Price:	\$16.05
Target Price:	\$17.87
Market Cap:	1.11B
Average Volume:	.360M
ROE:	7.59%
Ke:	11.34%
ROE:	8.28%
KE:	7.91%

Company Description: Brookline Bancorp, Inc. is a localized banking company, which services mostly house loans, commercial loans, and vehicle loans. Brookline is headquartered in Boston, Ma. The company has subsidiaries throughout Massachusetts, with some scattered businesses in Rhode Island.



Thesis: Brookline Bancorp, Inc. is a banking and lending institution, as such its everyday activities are contingent on federal funds rate. With the loss of the LIBOR rate, the spotlight has increasingly grown on the federal funds rate. The rate has been so low for so long I believe that rate hikes will not adversely affect banks as they have done in the past.

Catalysts:

- **Short Term (within the year):** Expectation of a federal funds rate is expected in December. This has been built into the price and if there is no hike then the company will be undervalued.
- **Mid Term (1-2 years):** Corporate tax cuts will mean companies will have a higher ability to run projects. Increased borrowings to initially service these projects is expected.
- **Long Term (3+):** The average car age has increased. Massachusetts also has an average house construction date dating back to the 1980's. This age of house is among the oldest in the United States. These items will need to get serviced and updated at some point.

Business Description:

Aging Demographic:

Brookline Bancorp ([BRKL](#)), which is headquartered in Boston, MA, is an area seemingly due for expansion and revamp. Brookline services about 50% commercial and 50% personal loans. Many of the personal loans are mortgages. Boston, and Massachusetts as a whole, is seemingly the perfect place to be in order to service these types of loans due to aging homes. The average home within the Massachusetts has a construction date in the 1980's according to [Zillow](#). With only 20 states with older construction dates, one could assume that many of these houses are in need of renovation. With the looming increase in rates, many homeowners may see it fit to refinance/ receive loans now in order to service their homes. Another indication of need of housing in Massachusetts is the fact that

Massachusetts population has grown by nearly 500,000 people since 2000. This growth is nearly 8%. If this is true, Massachusetts may be in need of more and new housing should push the average original home construction date up; because this has not happened, one can infer there is a need to build new housing.

Cars on average have a life of 8 years [according to NBC](#). Average cars on the road are at an unprecedented age of [11.4 years](#). This means that the current age of car on the road exceeds the historical average life of the car. This indicates that people have been denying themselves from new cars. Consumers are either denying themselves because they currently do not have the money to buy a new car. Consumers may also be denying themselves a new car in order to save up for a luxury vehicle for the first time. Either way, this data indicates that within the next year there should be an influx of vehicle loans. These loans will need service and they happen to all be within Brookline's geographic region.

Tax Implications:

The company recorded an effective tax rate of 34% for the last three months. The fact that this tax rate is so high is very encouraging. The company has consistently managed to be in line or beat earnings for both EPS and revenue with an effective tax rate of well over the proposed tax rate. Although it is questionable if the proposed tax rate will be passed, it seems likely that there will be reform to lower the tax rate. Companies such as Brookline Bancorp will benefit immensely as the effective tax will have nowhere to go but down, as they will not even be operational in any countries with a tax rate above their current effective tax rate. This means that earnings and margins will be improved by default without any work being done on management's behalf. Another notable trend is that the company has never operated below a 34% effective tax rate and have continually operated within the 34-37% range. The reason for the lowest effective tax rate was due to a change in accounting methods which required the stock compensation be realized instead of expensed when they happen. Brookline pays the majority of their stock compensation in the third quarter. These accounting method changes are not expected to have a material impact like this again. With an expected effective tax rate of 35.4% in the fourth quarter taxes are returning to a more traditional level. With a company never operating below the current specific tax rate and always operating within such a tight window, many investors most likely have this range of tax rate built into their pricing models. With a deduction in taxes many investors may be surprised during earnings; even seasoned investors who have long followed this company.

Efficiency ratio:

Efficiency ratios are essential in determining a bank's ability to make money. Efficiency ratios describe how well a bank is able to use its resources in able to create cash inflows. Recently the bank was able to take its efficiency from 57.9% in the second quarter, all the way down to 56.05% in the most recent quarter. This efficiency ratio is great as it shows the company is getting better at managing the assets it does have. An important note to make is that all competitors with lower or comparable efficiency ratios have a much higher price to book. This could indicate that although the competitors are more efficient all of their upside has been priced in. Although margins are often a useful tool to compare companies I thought it unfair to use in this instance as the company mentioned in their earnings call that they were expecting margin expansion. Instead of issuing a blind guess as to the severity of it, mainly because its acquisition with First Line Bank presents unknowns in the form of synergies, I have decided to exclude it from this ratio analysis.

Name (BICS Best Fit)	Mkt Cap (USD)	Effic Ratio LF	P/B
Median	1.09B	59.93%	1.70
100) BROOKLINE BANCORP INC	1.15B	56.05%	1.44
101) KEARNY FINANCIAL CORP...	1.17B	71.18%	1.16
102) BENEFICIAL BANCORP INC	1.20B	68.36%	1.15
103) LAKELAND FINANCIAL CORP	1.20B	45.11%	2.58
104) STATE BANK FINANCIAL ...	1.09B	58.26%	1.70
105) SEACOAST BANKING COR...	1.08B	59.93%	1.77
106) FIRST BANCORP/NC	1.08B	62.86%	1.73
107) CITY HOLDING CO	1.06B	51.73%	2.11
108) MERIDIAN BANCORP INC	1.04B	46.60%	1.62
109) 1ST SOURCE CORP	1.28B	60.69%	1.79

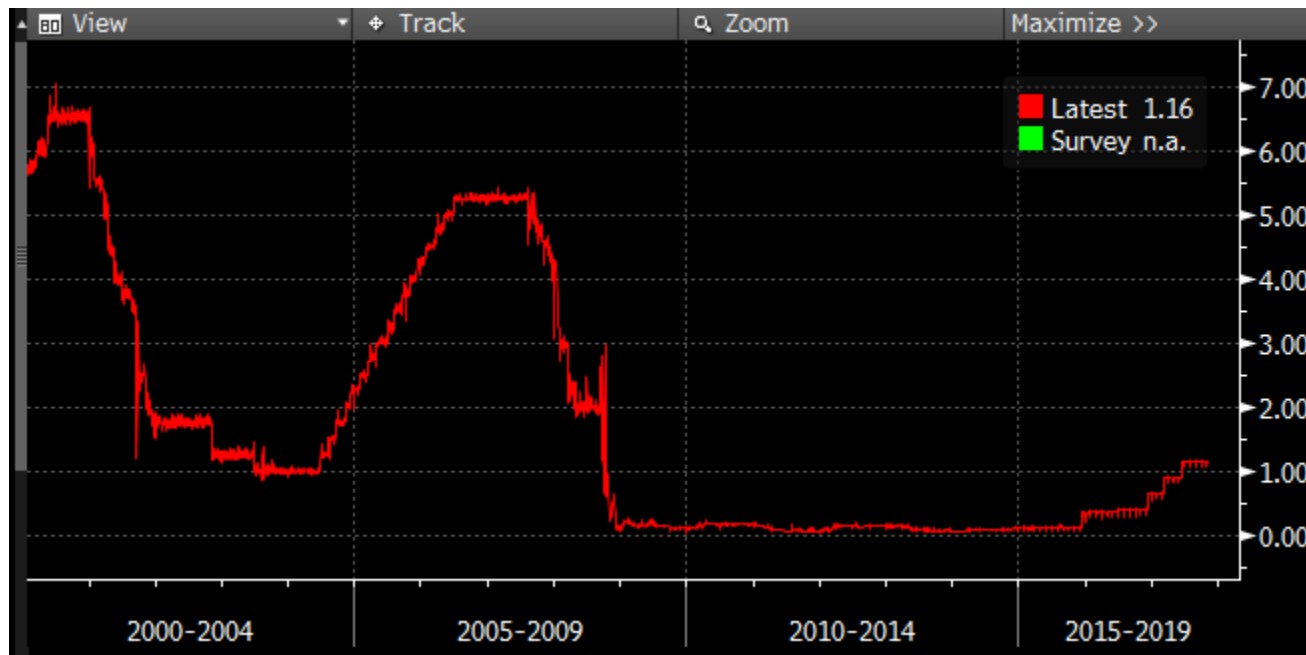
Acquisition:

This quarter brought about the acquisition of First Commons Bank.

The acquisition of First Commons Bank is expected to create exceptional cost synergies within the firm. The company released a statement within the announcement of the acquisition that they believe this acquisition could lead to "Projected cost saves: 50%". First

Commons Bank is based out of eastern Massachusetts so they are familiar with the area in which the bank operates. The acquisition was completed using \$52.5 million in Brookline shares, this is expected to create a share dilution of \$.05. The company is expected to create an additional 2% to EPS on annual basis. This 2% translates to about \$.016 per share in additional earnings per year. Assuming the P/E ratio holds constant at 19.23x, this additional EPS translates to an additional \$.30768 per share. The addition of First Commons thus creates more value than it dilutes and also creates long term cost synergies. When looking at a value for the acquisition on a multiples basis an investor must first discern what the EBITDA of the private company was. In 2016 First Commons bank had an EBITDA of \$13.4 million. The transaction value of the purchase of First Commons Banks was \$55.958 million dollars. This imputes that the TV/EBITDA was 4.145x, this is much lower than 6x which is looked at as the threshold for a cheap acquisition.

Risk Free Rate:



Risk Free Rates are very important in the valuation of the financial companies as their income is nearly solely dependent on lending. Lending is often based around a risk free rate plus a premium for the chance an investor will not be able to repay. The federal funds rate pushes where risk free rates are. Also, federal funds rate rises have the ability to choke off supply to banks. Many investors use federal funds

dot plot in order to create a target of where the federal funds rate will be, and thus, where risk free rates should be placed at. Brookline has essentially safeguarded itself from getting choked off on money supply by becoming deposit rich and tier 1 capital rich.

In recent news relating to the Fed is the fact that Trump has named a successor to Janet Yellen. Janet Yellen has been more passive than Trump has seemingly preferred, because of this many assumed that Trump would replace Yellen with John Taylor. Surprisingly Trump opted to pick Jerome Powell, a much less hawkish and passive choice as perceived by the investors. Currently the federal funds rate is 1.16%; through looking at the dot plot, the consensus is that this rate will be up to 2.125% by 2018. The dot plot consensus was most likely reached with John Taylor winning in mind. Since this is the case, I believe many investors are using models that are far too bearish for the amount of revenues the company will receive. Although I believe markets are bullish on how high rates will get in such a small amount of time, it is hard to contest that rates are inevitably on the rise. Although raising rates usually means less demand for loans, I do not think this company will be affected by this plague. Since the company is located in, an area with a need to update houses and get new cars I believe that demand will not be an issue. The company also services many commercial loans for heavy-duty equipment and again this demand is much more fixed than other types of financial demand. The company has therefore made a decision to focus on increasing efficiencies in existing loan and build up the ability to act on rates when there is the inevitable increase.

Tier 1 Capital:

Brookline has recently been putting themselves in a position to have the ability to service the expected influx of loans. Total deposits have increased \$96.3 million this year; a 2.12% raise in total deposits. The company has done this while reducing investment securities and total borrowings. By reducing investment securities and total borrowings, Brookline has essentially prepared itself for the rate hikes. The company has decided that demand will remain through rate hikes. Since demand will remain constant through rate hikes instead of lending at a lower rate, the company can simply wait for rates to raise and lend at higher rates. Another attempt at raising liquidity was the fact that deposits grew faster than loan balances. In the third quarter loan balances grew \$102 million dollars, a 1.885% increase and deposits grew \$96million, a 2.044% increase. Even through creating liquidity for the future Brookline was able to remain profitable. Brookline was able to realize record EPS of \$.2 per share while accumulating liquidity to loan later. Deposits grew 8.723% faster than loans as a percentage. These added deposits indicate that the company most likely has an outlook of rates raising. Saving account balances has also grown 14%, this can be accounted for from the fourth quarter due to real estate tax deferrals.

Adding to the fact that deposits have grown faster than lending rates, the company is also flush with tier 1 capital. This capital can be viewed as an over-saturation of high end capital. Currently, the tier 1 capital ratio is at 12.38%. A capital ratio like this is far above the minimum ratio required by the FDIC. This leaves room for growth within ROE. The company currently has a GAAP ROE figure of 7.58%, which is low when compared to comparable companies, such as State Bank Financial Corp ([STBZ](#)) who boasts a GAAP ROE of 8.40%. ROE may be low because of the inability to ask higher rates from such credit worthy clients. By systemically getting ROE down to 6% over the next 4 years the company could increase its net income and , assuming a similar payout ratio, pay larger dividends.

Conclusion:

The company is also located in an industry that seemingly will require financing at any given moment. The larger question is: Is the company priced to buy now? Using financial services model one can extrapolate prices in different circumstances. In addition, an assumption has been made that the companies risk free rate is directly linked to the federal funds rate and its movement. If the company continues to grow at the current rate, with the tax premium being held constant as well as the Federal funds rate being held constant a valuation of \$33.34 could be expected. This may be optimistic, as the federal funds rate most likely will increase. If the same analysis is made but the federal funds rate is pushed to the dot plot estimate of 2.125% then the company valuation would be \$13.87. If the federal funds rate is instead made to be 1.8%, a very realistic number, the value of the company is \$17.87. Although are very realistic, in order to take away bias a second model which is not contingent on risk free rates can be used while reaching similar prices. Brookline Bancorp has a tier 1-capital ratio of 12.38%. this is double what is mandated by the FDIC. By having such high quality debt, the company has essentially assured itself it will recoup on these loans. The company has also missed higher interest rates at the lower tiered capital. Brookline can begin to take advantage of these lower Tier opportunities in the future. In my model, I have the company systematically reducing this tier 1 capital ratio to 6% within 4 years. By doing so, my model shows that, there is currently a -.5% discount within the market on its current value. By forecasting this forward one Year, a target of \$15.60 is reached. As stated above, I believe taxes will effect this valuation immensely. Due to recent discussions, I have decided to move taxing implications back to 2019 and have taken a 24% time weighted average of tax rates from this point on. Using this assumption the model returns a price of \$17.36 in one year.

Federal Funds Rate	1.16%		Federal Funds Rate	1.80%	
	Current	Next Year		Current	Next Year
Equity Invested =	\$702,740.00	\$702,740.00	Equity Invested =	\$702,740.00	\$702,740.00
PV of Equity Excess Retu	\$941,356.20	\$1,849,437.01	PV of Equity Excess Retu	\$340,686.07	\$665,150.76
Value of Equity =	\$1,644,096.20	\$2,552,177.01	Value of Equity =	\$1,043,426.07	\$1,367,890.76
Number of shares =	76500	76545	Number of shares =	76500	76545
Value Per Share =	\$21.49	\$33.34	Value Per Share =	\$13.64	\$17.87
Federal Funds Rate	2.13%				
	Current	Next Year			
Equity Invested =	\$702,740.00	\$702,740.00			
PV of Equity Excess Retu	\$180,746.38	\$358,869.85			
Value of Equity =	\$883,486.38	\$1,061,609.85			
Number of shares =	76500	76545			
Value Per Share =	\$11.55	\$13.87			
	No Changes			Tier 1 Capital Movement	
Diluted Shares Outstanding:	76.65		Diluted Shares Outstanding:	76.65	
Implied Share Price:	\$14.82		Implied Share Price:	\$15.60	
Current Share Price	\$16.05		Current Share Price	\$16.05	
Premium/(Discount) to implied price:	7.64%		Return	-2.80%	
	Tier One and Taxes				
Diluted Shares Outstanding:	76.65				
Implied Share Price:	\$17.36				
Current Share Price	\$16.05				
Return	8.17%				

December 1, 2017

Nike, Inc.: NKE

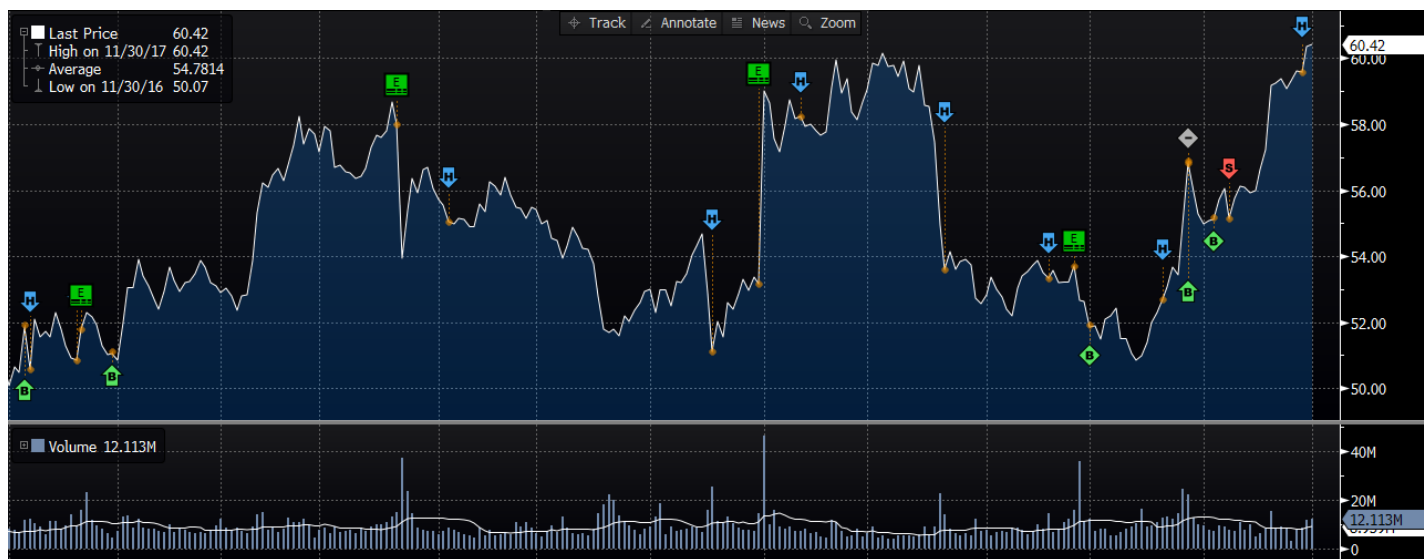
Joseph Carey

Sector: Consumer Discretionary
Industry: Clothing and Footwear
Current Price: \$60.42
Target Price: \$63.84

Company Description: Nike produces and sells athletic apparel, shoes and accessories all over the globe. The focus of the business is offering the highest quality clothing, as well as unmatched innovation through their subsidiaries. Products are distributed to the market through retail accounts, online and brick and mortar locations. The company is experiencing the highest growth in China at a 3-year average of 14.9% growth, and they are increasing their percentage of revenue from that location about a percent per annum.

Limit-Buy

Current Price:	\$60.42
Suggested Limit	\$55.03
Target Price:	\$63.84
Market Cap:	98.576B
Average Volume:	12.113m
WACC:	9.2%
ROIC:	25.11%
EBITA Margin:	14.17%



Thesis: This upcoming year Nike is well-positioned to execute on their new long term growth plan. Considering the industry conditions and global uncertainty, the stock price does not reflect the certainty of success in the growth strategy.

Catalysts:

- **Short Term (within the year):** Industry growth in Americas, the largest segment
- **Mid Term (1-2 years):** Effectiveness of the Consumer Direct Offense strategy and consolidating retailer chain
- **Long Term (3+):** Ability to expand margins and outperform Adidas

Competition:

Nike faces extremely high competition both domestically and internationally. The strongest competitors offer similar products in terms of styles, price and quality. The company lists the main competitors as follows; Adidas, ASICS, Li Ning, Lululemon Athletica, Puma and Under Armor. They all compete in multiple facets of the business models they currently employ. For UA and Adidas specifically, each company desires to create demand and brand loyalty through sponsorship of professional athletes and sports. Each company tries to attract and pay substantial compensation to these athletes they sign to promote the brand, yet there is only a limited number of standout athletes capable of delivering the brand promotion desired by top tier management. Nike has been able to capitalize on the opportunity and has signed some of the biggest names in Basketball, football, and many other sports as well. In the sense getting a positive return on investment, even with significant compensation, Nike has been continually growing their cash based ROIC year over year for the past 6 years. In terms of other facets of the business that they compete in includes market share for apparel and footwear. The consumer's social standards have shifted, creating opportunity for demand to shift as well. People all over the world are becoming more conscious of healthier lifestyles and the importance of exercise. This inherently makes the market that these 7 main competitors currently compete in, larger. Through this opportunity, Nike has held the largest percentage of the sports footwear industry but has lost momentum due to Adidas's ability to create higher demand within their product line. The last facet that they compete in is for retail space currently. Retail space includes shelving in wholesale and direct distributors stores as well as prime real estate for company owned store locations. Companies such as Adidas and Nike both set standards for target real estate with terms of ideal square-footage, foot traffic and demographics. However, as direct competitors they compete for obtaining leases on the same or similar properties at times because of such mirrored guidelines. In terms of shelving, partnering with stores that offer large e-commerce platforms and brick-and-mortar locations helps companies in the industry get further awareness and unmatched customer support in terms of handling inconveniences from sizing or dissatisfaction. Nike faces significant pressure from all facets mentioned, yet has maintained their image and market share.



Growth Strategy:

Nike management seems to understand the market conditions around them, which is allowing them to change their overall vision to strive for continual growth in an unfavorable market. Mid-summer this past year, Nike released a new growth plan to provide customers with unmatched personalization at large scale. The plan is labeled the "Consumer Direct Offense" and will be implemented and developed in the next few years. Part of the plan includes Nike planning to target 12 key cities, 10 of which are overseas. Projections estimate roughly 80% of revenue growth will be tied to these target markets. On top of targeting growth markets, Nike plans to leverage data analytics to deliver higher demanded products to the market faster as well as be ahead of competitors in trends. The products in Nike's focus include men's sportswear, running and the Jordan brand. For the woman's segment, products in focus include sportswear and running as well. These are the key drivers listed in achieving revenue growth targets. Another build off the plan includes the Triple Double strategy to provide double the innovation, double the speed and double the direct connections with consumers. The idea

of the platform is to innovate products that are already staples of the business, reducing the total amount of styles offered by 25%, bringing them to the market in half the time. This will likely help reduce accumulating inventory due to changing trends and products going out of style. The 2x direct strategy is the most interesting as it is Nike's way of creating a personalized experience for every customer, building the essential feeling of the brand in everyday life. Also, the use of mobile applications to support the plan create a membership feel to Nike and offer direct personalized marketing by style, geography, and flash updates. This is a very valid strategy to lower SG&A in the following few years by reducing the costs of demand creation. Investors are highly anticipating this strategy's efficiency in delivering growth and brand revival for Nike.

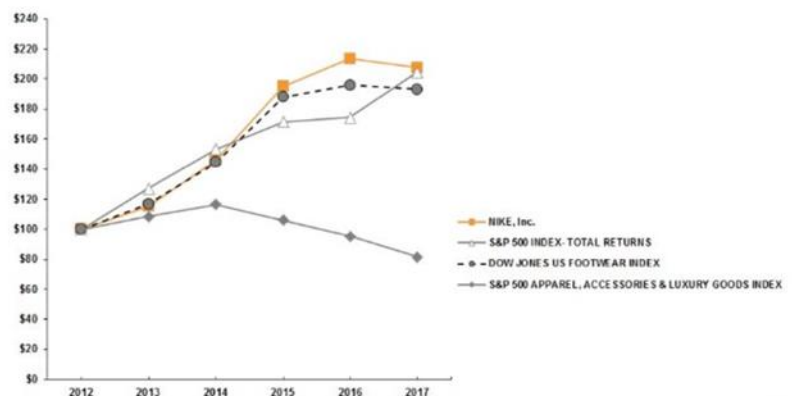
The financial impact of the strategy is a multifaceted expansion of revenue growth and margin expansion. The plan is also expected to lead to a Nike global workforce reduction of roughly 2%. Nike forecasts an average high-single digit growth in revenue, margin expansion and mid-teens growth in EPS over the next five years. Market sentiment is mixed as management is projecting upward growth in a period of a market contraction and uncertainty. However, management has a historically proven track record of implementing customer focused strategies that have spiked long-term growth in the past.

Multiples Valuation:

Currently Nike is trading at roughly 23.5x their LTM earnings. The 5-year average for P/E shows that this is a reasonable price to get into the stock. This however is inflated I believe because of a one-off tax benefit that led to favorable EPS growth, while hiding struggling internal conditions and the struggling external environment. The adjusted EPS should be around \$2.39, which would mean the company is currently trading at 24.7x earnings. This is more in the higher spectrum for current P/E multiples that the company has had in the past three years. In terms of price to book, the company is again trading at a very high level, making this a poor entry time for the stock. Current price-to-book is 7.31x, matching the 5-year normalized P/B. Multiples valuation is inherently poor in nature due to the lack of analysis that justifies the future price estimation for the stock. It is worth noting for using as a quick measure to justify an entry price even if fundamental analysis doesn't match the multiple valuation.

Profitability Margins:

Nike is best in class financially in most instances, compared to their closest competitors, Under Armor and Adidas. In terms of Revenue growth, Nike has underperformed the market this past fiscal year due to delayed new product releases and overall hype behind the brand has fallen. Adidas, the closest competitor to Nike, experienced over two times revenue growth and two times the share price appreciation. Prior to this past year, Nike has been growing close to the double-digit mark while consistently having EBITDA and Net Income grow at faster rates than revenue growth based on three year CAGRs. Nike operates with the largest EBITDA margin in the industry historically, and based on guidance, will continue to expand margins into the future. While most investors see this as an opportunity for value creation, I argue that margin expansion is highly doubtful as they already produce goods at the



industry best margins. It is not likely economically feasible for the required CAPEX to generate further margin expansion. They have historically fluctuated in a 2% range, but anything beyond that is too aggressive in assumptions. Another key financial metric that is worthy of mentioning is the ROIC. Nike for the past 6 years has been creating a higher ROIC every fiscal year, creating more value to be returned to the shareholders in both dividends in share price appreciation. Guidance suggests continued expansion here as they work to continually create higher demand from less invested capital.

Name (BICS Best Fit)	Ticker	Mkt Cap	Rev - 1 Yr Gr:Y	T12M EBITDA Mrgn LF	FCF/Sh Gr:Y	ROIC LF	ROIC/WACC Ratio
Median		5.20B	6.10%	12.23%	31.20%	14.25%	1.35
100) NIKE INC -CL B	NKE US	93.37B	6.10%	15.54%	32.94%	25.45%	2.81
101) SKECHERS USA INC-CL A	SKX US	5.20B	13.22%	10.95%	110.46%	15.70%	1.35
102) ADIDAS AG	ADS GR	45.59B	14.05%	11.41%	22.37%	17.91%	2.09
103) PUMA SE	PUM GR	6.80B	7.06%	--	--	--	1.58
104) COLUMBIA SPORTSWEAR CO	COLM US	4.56B	2.19%	13.05%	800.14%	13.06%	1.14
105) UNDER ARMOUR INC-CLA...	UAA US	5.28B	21.75%	8.07%	52.63%	5.34%	-0.18
106) TOD'S SPA	TOD IM	2.14B	-3.18%	17.49%	77.49%	6.89%	0.63
107) REGINA MIRACLE INTERN...	2199 HK	1.16B	-7.97%	7.86%	1.34%	2.93%	0.29
108) STEVEN MADDEN LTD	SHOO US	2.30B	-0.40%	13.08%	23.42%	15.45%	1.49

Concerns with Inventory Management:

Nike has been growing their inventory on the balance sheet for seven straight years, showing a problem with demand creation across their entire product line. In 5 of the 7 years, the inventory growth has outpaced the revenue growth. The inventory problem is also shown in a decreasing turnover, lowering towards the industry average of 3.26x. This is a valid reason for concern, especially considering the specific identification methods used to value inventory. The current inventory growth can be linked to expansion in product offering too large rather than focusing on the best sellers. Also, trends heavily influence the buying patterns of customers. The only way to liquidate the unwanted and outdated inventory that Nike is currently sitting on is to sell at large discounts to wholesalers or through factory outlet stores. The inventory problem extends to more than just a loss from mark downs. It brings out concern in management's ability to truly innovate and deliver products that consumers can't get enough of. Currently, Nike understands the inventory problem, implied through the new growth strategy. It is entirely about innovating deeply, focusing on key products for revenue growth, and reducing addition to inventory through DTC practices. The DTC will hopefully combat the inventory issue in the future. Currently, ability to execute on the strategy is too soon to tell, so the only uncertainty on the process and thus share price movement is based on news of the strategies effectiveness.

Industry Analysis:

The global retail industry is in different stages based on economic development and cultural affluences. In the North American region, there is a significant shock in the retail market leading to store closures and bankruptcies. This means the direct store distributors in terms of wholesale are shrinking from under the top manufacturers feet. With this, there is a shift to e-commerce and more personalized buying experiences in order to retain a customer base. The focus and demands from consumers has shifted to now expect the highest levels in all respects of the products demanded. Inventory management and trend setting practices are shaping the industry and pushing those out if they are incapable of meeting those practices. With the shrinking retail industry domestically and demand not being recaptured through e-commerce currently, estimates suggest mature levels of growth in the footwear and sports apparel industry. In Europe, the market

for athletic apparel and footwear is also nearing a mature phase with a CAGR of roughly 5% through 2021. Nike themselves are projecting high single digit growth with their implied strategy, using the industry as a base case. The overall consumer sentiment towards athletic apparel in everyday lifestyles is much different abroad than it is domestically. Consumers in Europe tend to wear athletic apparel only for the intended purpose of physical activity or heading to the gym. The lifestyle apparel image is not as heavily portrayed and common as it is in the United States, resulting in more stagnant growth in the next 5 years. Two main geographic areas for this industry moving forward include the greater Asian markets. China has been growing at four times the rate of the U.S. economy and the footwear and athletic apparel industry has been experiencing very high growth above that. Based on corporate reporting from competitors, the Chinese market has been experiencing revenue growth between 20-30%. Nike forecast expects to see growth continue in the low to mid-teens in this geographic area. Currently, China and Japan are the fastest growing markets, yet combined only account for 15.3% of LTM Revenue. This is a potential area for increased investment to spike revenue growth, however recent political instability between the U.S. and North Korea acts against the continuation of growth in these two highly anticipated areas. Overall, the current international political instability and overall industry reaching mature levels of growth is an area for concern moving forward, especially when companies are still forecasting revenue growth above industry expectations.

Board Analysis and Management Analysis:

The board of Directors has a strong independent component to them with 75% independent members. Of the current Board in place, most are very well qualified to offer valuable insight for corporate governance and aligning shareholders' interests. However, they have significant weight in directors with marketing or production backgrounds, which I don't believe is the focused shift of the current company strategic plan. One notable board member is John Donahue II, that fueled mid 2000 growth in eBay's global e-commerce business as the president and CEO. He also helped grow PayPal's digital payments platform to be much more widely accepted as a form of e-commerce payment stream. Beyond that, again the board is well qualified but the interests are fully aligned with management based on historical positions held by most independent members. Another level of concern develops with the co-founder's son holding a position on the board of directors, with almost 12% interest in class A shares and 3% in class B shares as part of an irrevocable trust. He is also the weakest link in terms of qualifications because his past roles were for running a feature film company. One thing that may silence the varying degrees of concern is that since 2013, all non-employee directors are required to hold five times their annual retainer in stock. That ensures a level of commitment to growth, better aligning shareholder values coming from the greater percentage of the entire Board.

Management compensation inside Nike is geared towards growth and beating set target objectives. Base salary compensation is competitive with other blue chip corporations, as to be expected. The depth of breakdown within target objectives is very limited for annual compensation packages. It states that the awards are supportive of delivering sustainable and profitable growth, but specific details are vague minus legal proceedings. The award is capable of reaching multiples of the base salary, and is rewarded based on the judgement of the impact created in each role. In the past, missing target goals still leads to sizeable bonuses that are just a reduction of expected payouts. That can be concerning that strict adherence to the compensation packages aren't followed. Nike also offers a long-term incentive plan based on revenue and EPS growth. Again, the compensation is multiples of base salary and missing target goals tends to lead to a reduced bonus, instead of foregoing a bonus. It is an area for concern because management in most cases will still end up with 2 or 3

times base salary regardless of operating performance because of weak adherence to pay nothing if goals aren't met.

Conclusion:

Based on multiples, the company is priced too high to justify entering a position currently. I propose a limit buy of Nike with the limit set at \$55.03. The company is well set to be a growth stock that will likely match industry growth based on a worst-case basis. Based on success of the growth initiative, Nike may see roughly 10% growth in Revenue and a better bottom line from increased margins. I believe this is optimistic on the projections, and faith in the new demand creation initiative is high. That is my reasoning for waiting a little, as the optimism is priced in. Currently, the justification for entering a position in Nike is not there at the current share price as the downside potential highly outweighs the likelihood of outperforming already aggressive guidance. The projected 1-year return if exercised can be expected to be roughly \$63.84

NIKE, Inc. (nke)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by Joseph Carey
11/30/2017

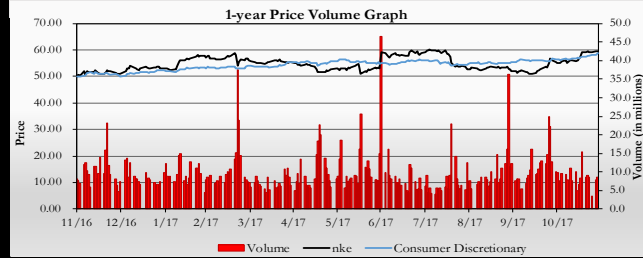
Current Price:
Divident Yield:

\$60.42
1.2%

Intrinsic Value
Target Price

\$58.23
\$63.84

Target 1 year Return: 6.84%
Probability of Price Increase: 74.6%

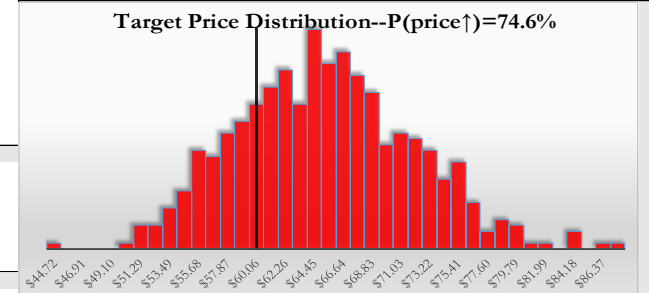


Description	
NIKE, Inc., together with its subsidiaries, designs, develops, markets, and sells athletic footwear, apparel, equipment, and accessories worldwide.	
General Information	
Sector	Consumer Discretionary
Industry	Textiles, Apparel and Luxury Goods
Last Guidance	November 3, 2015
Next earnings date	December 21, 2017
Estimated Country Risk Premium	9.13%
Effective Tax rate	18%
Effective Operating Tax rate	-4%

Market Data	
Market Capitalization	\$98,576.34
Daily volume (mil)	12.02
Shares outstanding (mil)	1631.52
Diluted shares outstanding (mil)	1684.00
% shares held by institutions	32%
% shares held by investments Managers	53%
% shares held by hedge funds	2%
% shares held by insiders	21.16%
Short interest	2.23%
Days to cover short interest	3.61
52 week high	\$60.63
52-week low	\$50.06
Levered Beta	0.60
Volatility	20.86%

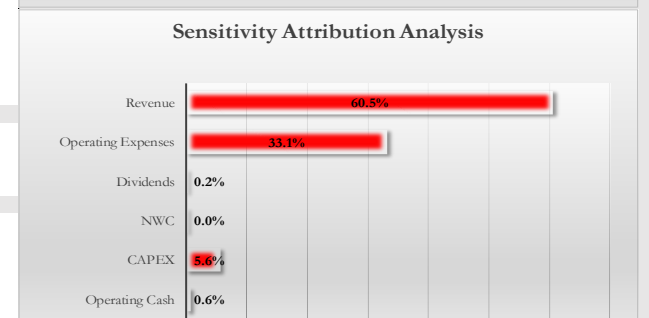
Past Earning Surprises	
Quarter ending	Revenue
8/31/2016	0.64%
11/30/2016	-0.66%
2/28/2017	-2.11%
5/31/2017	-1.39%
8/31/2017	-1.31%
Mean	-0.96%
Standard error	0.5%

EBITDA	
8/31/2016	-5.94%
11/30/2016	8.69%
2/28/2017	0.21%
5/31/2017	-3.67%
8/31/2017	2.30%
Mean	0.32%
Standard error	2.5%



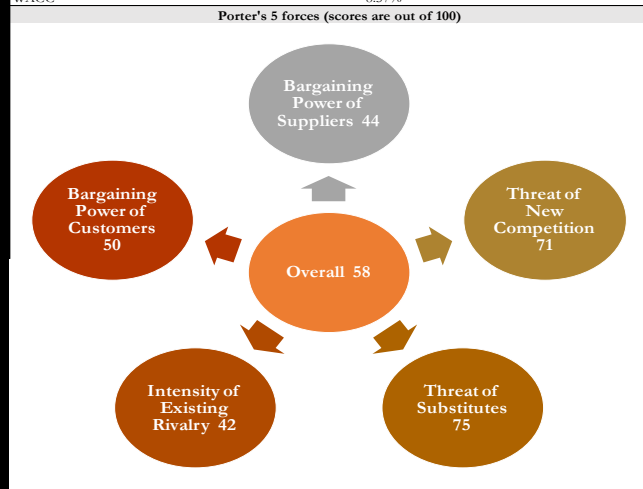
Management	
Parker, Mark	Chairman, CEO & President
Campion, Andrew	CFO & Executive VP
Sprunk, Eric	Chief Operating Officer
Edwards, Trevor	President of NIKE Brand
Spillane, Michael	President of Categories & Pr
Knight, Philip	Co-Founder and Chairman Emer

Total compensations growth	
Parker, Mark	-14.4% per annum over 6y
Campion, Andrew	-9.76% per annum over 2y
Sprunk, Eric	-0.02% per annum over 6y
Edwards, Trevor	1.94% per annum over 6y
Spillane, Michael	N/M
Knight, Philip	N/M



Profitability	
ROIC	33.4%
NOPAT Margin	19%
Revenue/Invested Capital	1.73
ROE	44.2%
Adjusted net margin	18%
Revenue/Adjusted Book Value	2.39
Invested Funds	
Total Cash/Total Capital	23.2%
Estimated Operating Cash/Total Capital	14.4%
Non-cash working Capital/Total Capital	20.9%
Invested Capital/Total Capital	89.7%
Capital Structure	
Total Debt/Common Equity (LTM)	0.10
Cost of Existing Debt	4.61%
Estimated Cost of new Borrowing	5.80%
CGFS Risk Rating	D
Unlevered Beta (LTM)	0.56
WACC	8.57%

Industry (LTM)	
ROIC	20.46%
NOPAT Margin	13.25%
Revenue/Invested Capital	1.54
ROE	21.79%
Adjusted net margin	12.75%
Revenue/Adjusted Book Value	1.71
Industry (LTM)	
Total Cash/Total Capital	26.9%
Estimated Operating Cash/Total Capital	15.1%
Non-cash working Capital/Total Capital	20.1%
Invested Capital/Total Capital	86.3%
Industry (LTM)	
Total Debt/Common Equity (LTM)	0.07
Cost of Existing Debt	4.84%
Estimated Cost of new Borrowing	5.80%
CGFS Risk Rating	D
Unlevered Beta (LTM)	0.62
WACC	9.48%



Porter's 5 forces (scores are out of 100)	
Period	Revenue growth
Base Year	4.0%
8/31/2018	2.9%
8/31/2019	4.6%
8/31/2020	6.7%
8/31/2021	13.1%
8/31/2022	11.7%
8/31/2023	10.4%
8/31/2024	9.0%
8/31/2025	7.6%
8/31/2026	6.2%
8/31/2027	4.9%
Continuing Period	3.5%
Period	Invested Capital
Base Year	\$14,427.97
8/31/2018	\$14,506.94
8/31/2019	\$16,827.97
8/31/2020	\$18,226.06
8/31/2021	\$19,868.02
8/31/2022	\$21,315.36
8/31/2023	\$21,554.49
8/31/2024	\$22,370.46
8/31/2025	\$23,227.57
8/31/2026	\$25,053.24
8/31/2027	\$27,268.42
Continuing Period	

Valuation	
NOPAT margin	ROIC/WACC
Base Year	19.3%
8/31/2018	12.2%
8/31/2019	12.4%
8/31/2020	14.2%
8/31/2021	15.0%
8/31/2022	15.4%
8/31/2023	15.7%
8/31/2024	16.0%
8/31/2025	16.3%
8/31/2026	16.6%
8/31/2027	17.0%
Continuing Period	17.3%
Net Claims	Price per share
Base Year	\$57.71
8/31/2018	\$63.11
8/31/2019	\$68.76
8/31/2020	\$74.67
8/31/2021	\$80.87
8/31/2022	\$87.19
8/31/2023	\$96.40
8/31/2024	\$102.89
8/31/2025	\$109.38
8/31/2026	\$115.79
8/31/2027	\$122.08
Continuing Period	

Company Description:

Under Armour, Inc. was founded in 1996 by Kevin Plank, who is still the CEO today, in Baltimore, Maryland. When Kevin first started the company, he had one idea, which was to make synthetic performance apparel. Now the company has grown significantly throughout North America, and even into International countries. The company now is in the footwear, athletic, and lifestyle industry with many of the top athletes in the world supporting and wearing their products.

BUY

Current Price:	\$13.20
Target Price:	\$15.52
Market Cap:	7.1B
ROIC:	8.3
WACC:	11.66
EBITDA Margin:	8.07



Thesis: This company has been showing the world for the past 7 years (almost 27 quarters) that they were a company not to mess around with when it came to growth, but during the past year, and last quarter of 2016, they seemed drop off, but still came away with growth around 13%. Analysts may blame the major drop that this stock has seen due to the very big drop in growth in a short time. Also, they may blame that retail companies are losing because everyone is riding the wave that Amazon has created in this industry. The CEO said in their Q2 2017 Earnings Call that there needs to be restructuring of the company and that they need to stop growing to points and then hitting pivots. So with this, he decided to welcome Patrik Frisk to the team at Under Armour and make him the new President and Chief Operating Officer. This is a position where they believe needed improvements to help

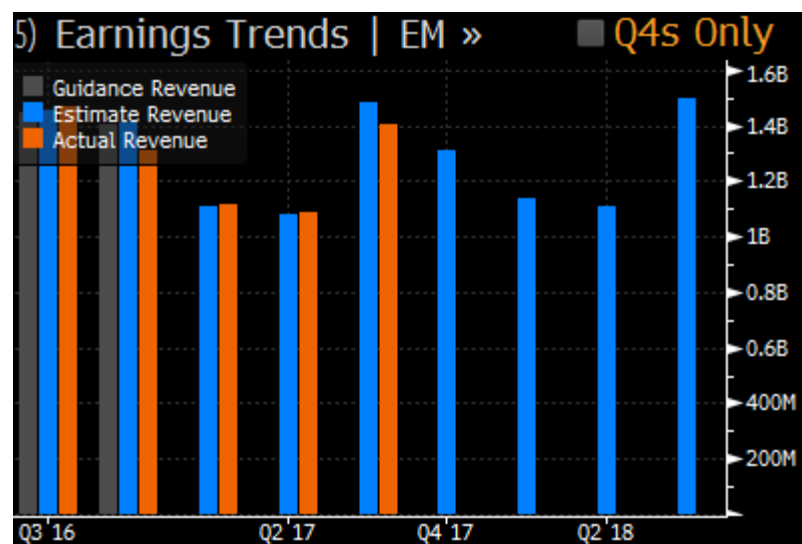
Catalysts:

- **Short Term(within the year):** Finish launching their customized footwear program known as Icon, which includes shoe lines in both training, lifestyle, and basketball.
- **Mid Term(1-2 years):** Finish building their integrated global model, which in turn will help operations to increase speed across all parts of the company.
- **Long Term(3+):** Continue to innovate great products, sign more top athletes throughout the world, and to grow the relationships with their global consumers.

make the company more efficient and to jump the hurdle that they keeping hitting, and enter their next chapter of major growth.

Earnings Performance:

UAA has had a major focus in the international part of their business. They saw a huge potential to grow their product in international waters and some analysts believe this is the reason why they lost so much business in North America. Revenue to wholesale customers declined 13% to \$880 million and direct-to-consumer revenue was up 15% to \$468 million. North America challenges impacted results with revenue down 12%. Strong international momentum continued with revenue up 35%, representing 22% of total revenue. For their international business, revenue in EMEA was up 22%, up 52% in Asia-Pacific (up 53% currency neutral) and up 33% in Latin America. Apparel revenue decreased 8% to \$939 million, as growth in golf and sport style was more than offset by declines in outdoor, women's training and youth. Footwear revenue was up 2% to \$285 million, driven by strength in running and outdoor, offset by basketball and youth. Accessories revenue increased 1% to \$123 million led by golf and men's training, tempered by a decline in outdoor. Like all consumer retail companies, Under Armour, Inc. has been experiencing some fluctuations during certain parts of the year. They see their best returns during the holiday seasons, which we are approaching shortly. I cannot see UAA's stock price fall any farther and with such a huge drop in stock price before the holiday season, I can only see it going back up slowly.



Strategy:




Under Armour, Inc. works in what some analysts would say is the toughest industry to enter. Under Armour started in 1996 when the top sports brands had already been around, with the last big one being Nike (NYSE: NKE). In the past 15 years, Under Armour has proven to North America that they can steal some of the major companies' market share. In the past few years, they have dipped into the international market for athletic apparel. With that being said, one of Under Armour's largest focus is to jump back into the huge growth numbers and to expand on the international market, where they believe they can see the most growth (3-year

growth estimates at 74.98%). In just the past couple months, the CEO was happy to say that the tours of Asia by top athletes Tom Brady and Stephen Curry went extremely well. Both athletes got to interact with thousands of fans in training sessions, retail appearances, and not to mention major product launches. CEO Kevin Plank said they are “...truly just getting started in Asia.” In another segment, UAA is still positive with their apps that track a person’s health. This segment alone increased revenue 320% from 2014 to 2016 and now occupies nearly 2% of total company sales. UAA also sees potential in the wearable market, which means going beyond the wrist wear, and to embedding sensors into clothing that track fitness metrics for anyone. This project is being managed in Austin, Texas.

8) Geo Seg FA GEO »	2016 Rev	3Yr Gr
North America	4.0B	22.22%
International	741.0M	74.98%
Connected Fitness	80.4M	N.A.

Debt:

In Under Armour, Inc.’s most recent Earnings call, the CFO David Bergman talked about how they were starting to finance a new integrated global model that is supposed to speed up operations and make the company more efficient. This may set back Under Armour, Inc. for the rest of the year, where they plan on taking on most of the financing of this project, and this explains why their debt has grown a lot in the past three quarters. Under Armour, Inc. has not released specifics to this project; however, they plan on implementing it as soon as possible. This will not only bring down margins, but also make the company better in operations says Bergman.

In Millions of USD except Per Share	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017
3 Months Ending	03/31/2016	06/30/2016	09/30/2016	12/31/2016	03/31/2017	06/30/2017
 Short and Long Term Debt	934.5	1,015.1	1,073.8	817.4	861.1	954.7
 Short-Term Debt	167.0	177.0	277.0	27.0	77.0	177.0
 Long Term Debt	767.5	838.1	796.8	790.4	784.1	777.7

New and Future Products:

Under Armour, Inc., and all other major companies that deal with professional athletes, rely on athletes to do most of their marketing to the youth of our world. Most children at a young age look up to professional athletes, and they tend to always choose the best athletes in whatever sport that they enjoy to watch or play. Under Armour, Inc. has done an outstanding job in finding and selecting whom they think will not only be the best sponsors on the field, but also off the field. Some of these athletes include Tom Brady, Cam Newton, Stephen Curry, Bryce Harper, Jordan Spieth, Lindsey Vonn, Carey Price, etc. With that being said, CEO Kevin Plank has done a great job in diversifying their athletes, with Under Armour being in almost every professional sport known to man. Like I mentioned earlier with Under Armour, Inc., they are releasing a new product line, Icon. Cam Newton is releasing his first signature training shoe called C1N, which also blends into the lifestyle industry. Bryce Harper's new launch for Under Armour, Inc. is called the Harper 2. Also with baseball, Under Armour, Inc. is looking to start working with Aaron Judge who has been sensational this year in the MLB. With the NBA and starting soon, they plan to release the Bandit 3 and the Curry 4. Stephen Curry's shoes have always brought positive results for Under Armour, Inc. considering he has been every young child idol who loves basketball. For apparel, Jordan Spieth has been trying out Under Armour, Inc.'s new Lightweight Fleece and this has been taken to notice by not only the youth, but also all ages that play golf. With all these new releases coming out, this can only help Under Armour, Inc. for the rest of the year and into the next year.

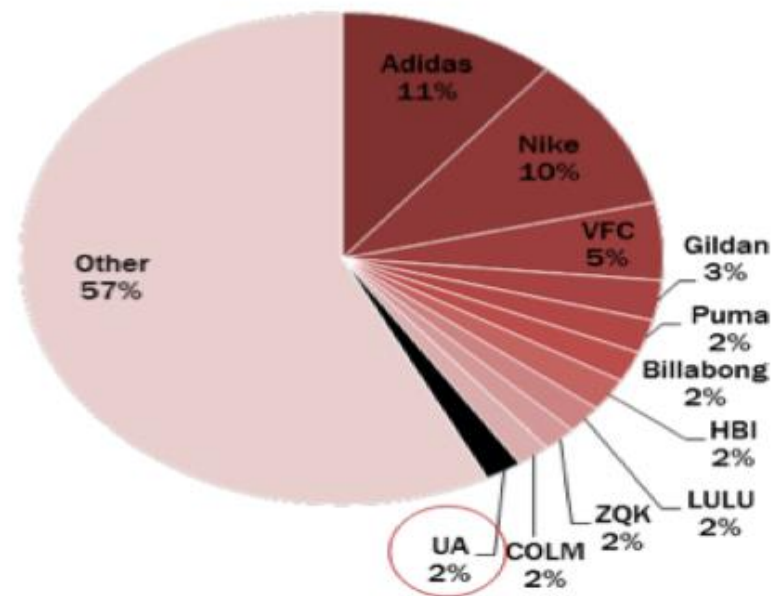


Competitors and Lawsuit:

Under Armour, Inc. has joined a sector in sports that already had many top competitors that have established their market share. Under Armour, Inc. has done just fine getting into the market share, but obviously take advantage when competitors make mistakes in their own business. Within the past few weeks, the top apparel and footwear competitor, Adidas, has entered waters in the justice system at such a huge scale that no business would ever want to happen to them. Adidas was recently caught by the NCAA in bribing players and coaches for college basketball. Across the country, 10 people, including Louisville's Rick Pitino,

were arrested after a federal probe revealed hundreds of thousands of dollars in bribes to influence star athletes' choice of schools, shoe sponsors, agents, even tailors. Obviously this is a sad moment for schools that trusted Adidas as a company, but if you're going to be in a big time market, you need to jump on opportunities like this and go to these schools and make contracts to try and create more revenue as a company.

Global Athletic Apparel Market Share



Direct-to-Customer:

For Under Armour, this segment of their business is a huge factor in their revenue, and all analysts and even the CFO, David Bergman, will say Q4 is their best DTC quarter, and is expected to deliver growth. With that being said, DTC revenue grew a great amount in Q2 at 20% to \$386 million in three different segments combined (Factory, Brand House, and e-commerce) in every region in the world. A big contributing factor to why they had such a good DTC quarter was because of the 11% growth in apparel revenue in the men's and women's golf segment. CEO Plank gave a big thanks in the Earnings Call to one of Under Armour's golfers (one of the best golfers in the world) saying, "First off, a huge congratulations to Jordan Spieth for winning the British Open and securing a historic third grand slam leg, as the second youngest golfer ever to achieve that milestone. Being that he is young will only help promote Under Armour and help revenue growth in the golf sector, which is a worldwide sport."



Conclusion:

Under Armour, Inc. has seen a great decline within the past year due to how their growth has started to slow down, but when looking at many analyst ideas, they tell people to hold if you already own the stock. I already know that this class owns shares and I believe that it would be in our best interest to hold it before cutting losses. If we look back to earlier into the year when we first bought the stock, we purchased the stock when it was still on its downfall at about \$21, which is not bad, but it has started hitting prices that are more consistent with a company going through restructuring. This company has hired a new COO/President who believes in this company and how they can grow more into the international market and improve the company's efficiencies. This company will stop hitting pivots with projects and hit their new chapter of growth and continue to grab more market share.

Under Armour, Inc. (UAA)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by RICK

12/1/2017

Current Price:

\$13.15

Divident Yield:

0.0%

Intrinsic Value:

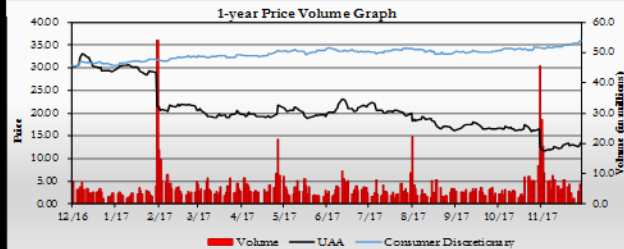
\$13.10

Target Price:

\$15.52

Target 1 year Return: 17.99%

Probability of Price Increase: 91%

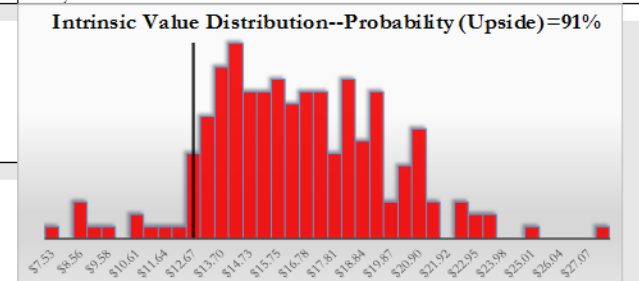


Description	
Under Armour, Inc., together with its subsidiaries, develops, markets, and distributes branded performance apparel, footwear, and accessories for men, women, and youth primarily in North America, Europe, the Middle East, Africa, the Asia-Pacific, and Latin America.	
General Information	
Sector	Consumer Discretionary
Industry	Textiles, Apparel and Luxury Goods
Last Guidance	November 3, 2015
Next earnings date	January 31, 2018
Estimated Country Risk Premium	5.12%
Effective Tax rate	19%
Effective Operating Tax rate	19%

Market Data	
Market Capitalization	\$5,492.92
Daily volume (mil)	5.88
Shares outstanding (mil)	441.70
Diluted shares outstanding (mil)	448.04
% shares held by institutions	64%
% shares held by investment managers	51%
% shares held by hedge funds	3%
% shares held by insiders	16.33%
Short interest	12.52%
Days to cover short interest	8.83
52 week high	\$33.45
52-week low	\$11.40
Volatility	41.24%

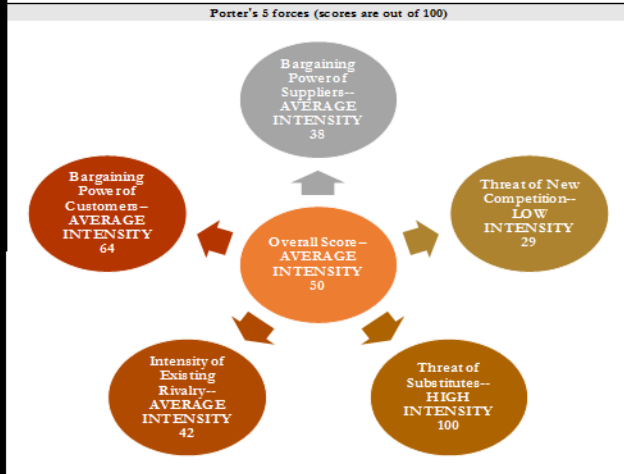
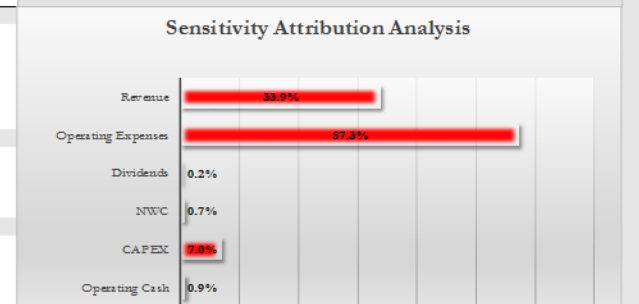
Past Earning Surprises	
Quarter ending	Revenue
9/30/2016	1.42%
12/31/2016	-7.16%
3/31/2017	0.81%
6/30/2017	0.99%
9/30/2017	-5.03%
Mean	-1.80%
Standard error	1.8%

Peers	
Tapstry, Inc.	
Hanesbrands Inc.	
Michael Kors Holdings Limited	
Ralph Lauren Corporation	
V.F. Corporation	
Lululemon Athletica Inc.	
Fossil Group, Inc.	
PVH Corp.	



Management	
Blank, Kevin	Founder, CEO & Chairman
Maurath, Karl-Heinz	Chief Revenue Officer
Brown, Colin	Chief Supply Chain Officer
Fisk, Patrick	President & COO
Bergman, David	Chief Financial Officer
Fipps, Paul	Chief Technology Officer
Profitability	
Return on Capital (GAAP)	6.1%
Operating Margin	5%
Revenue/Capital (GAAP)	1.34
ROE (GAAP)	9.9%
Net margin	4.0%
Revenue/Book Value (GAAP)	2.49
Invested Funds	
Cash/Capital	-4.0%
NWC/Capital	41.4%
Operating Assets/Capital	46.7%
Goodwill/Capital	15.9%
Capital Structure	
Total Debt/Market Capitalization	0.41
Cost of Existing Debt	3.1%
CGFS Rating (F-score, Z-score, and default Probability)	BB
WACC	8.0%

Total compensation growth	
13.04% per annum over 3y	
-11.29% per annum over 3y	
N/M	
N/M	
N/M	
N/M	
N/M	
Total return to shareholders	
8.75% per annum over 3y	
34.71% per annum over 3y	
N/M	
N/M	
N/M	
N/M	
N/M	
UAA (LTM)	
UAA (5 years historical average)	UAA (5 years historical average)
UAA (LTM)	UAA (LTM)
UAA (5 years historical average)	UAA (5 years historical average)
UAA (LTM)	UAA (LTM)
UAA (5 years historical average)	UAA (5 years historical average)
UAA (LTM)	UAA (LTM)
UAA (5 years historical average)	UAA (5 years historical average)
UAA (LTM)	UAA (LTM)



Period		Revenue Growth Forecast		Valuation	
Base Year		5%		7.4%	
9/30/2018		3%		1.0%	
9/30/2019		7%		1.8%	
9/30/2020		9%		2.0%	
9/30/2021		11%		2.7%	
9/30/2022		10%		4.2%	
9/30/2023		10%		4.9%	
9/30/2024		11%		5.6%	
9/30/2025		11%		6.2%	
9/30/2026		12%		6.9%	
9/30/2027		6%		7.3%	
Continuing Period		3%		7.8%	
Period		Return on Capital Forecast		WACC Forecast	
Base Year		13.7%		8.0%	
9/30/2018		1.4%		8.5%	
9/30/2019		2.6%		8.5%	
9/30/2020		3.0%		8.5%	
9/30/2021		4.4%		8.4%	
9/30/2022		7.0%		8.4%	
9/30/2023		8.1%		8.2%	
9/30/2024		9.3%		8.3%	
9/30/2025		10.5%		8.3%	
9/30/2026		11.7%		8.2%	
9/30/2027		11.7%		8.2%	
Continuing Period		11.4%		8.2%	
Period		Revenue to Capital Forecast		Price per share Forecast	
Base Year		1.55		\$13.35	
9/30/2018		1.40		\$15.97	
9/30/2019		1.44		\$17.70	
9/30/2020		1.50		\$19.57	
9/30/2021		1.59		\$21.54	
9/30/2022		1.65		\$23.63	
9/30/2023		1.67		\$25.80	
9/30/2024		1.68		\$28.09	
9/30/2025		1.69		\$30.49	
9/30/2026		1.70		\$32.95	
9/30/2027		1.60		\$35.46	
Continuing Period		1.46			

November 30, 2017

Company Name: TOL

Michael Diotalevi

Sector: Consumer Discretionary

Industry: Household Durables

Current Price: 50.18

Target Price: 57.52

Founded in 1967, Toll Brothers are an industry leader in the luxury homebuilding segment. The Toll brothers continue to prove their excellence as they have just been awarded The World's Most Admired Companies- #1 Homebuilder by *Fortune Magazine* for the third consecutive year. The Toll Brothers build in 20 states and operate in approximately 50 "high-end" housing markets and apartment living facilities nationwide. The company maintains a balanced footprint across the East, West and Southern regions of the United States. The company constructs approximately 8,000 homes annually with a majority of the homes being single-family luxury developments. The Toll Brothers are managed by a team of individuals who founded the company in 1967.

BUY/HOLD/SELL

Current Price: \$50.18
 Target Price: \$56.13
 Market Cap: 7.9B
 Volume: 2.52M
 WACC: 5.3
 ROIC: 5.6
 Sales Growth: 18.35%
 EBITDA Margin Growth: 19.41%



Thesis: As confidence continues to gain for the future housing industry, the Toll Brothers corporation will continue to increase revenues as the group diversifies its' portfolio into new housing markets. The company will enter new, high demand housing markets while continuing to complete work within their strong pipeline of backlog. Taking advantage of a newly incorporated business segment the company is prepared for demand from an emerging market with high value. Maintaining strong operating margins will contribute to the Toll Brother's ability to outperform its competitors in a "bottom line" analysis.

Catalysts:

- Short Term: Expansion of the *Suburban High Density* segment.
- Mid Term: Increasing demand within the housing sector.
- Long Term: Median housing prices upward trend and the contribution to revenue.

Earnings Performance:

Ending quarter three on August 22nd, the Toll Brothers have continued to produce stronger results compared to the company's previous quarters, year over year. Revenues have increased at a stable rate while operating margins continue to increase and outperform the industry and the companies competitor average. "The Toll Brothers reported a better-than-expected quarterly profit, helped by strong demand for it's' homes in an improving job market (B.Insider)". The company narrowed its full-year revenue forecast range to \$5.6

billion-\$6.0 billion from \$5.4 billion-\$6.1 billion. Revenues for the quarter totaled \$1.5 billion and the 1,899 units of homes delivered rose 18% in dollars and 26% in units compared to quarter three of 2016. The company appears to be on track for revenue projections as quarter four nears its end (12/05/2017). Third quarter net income rose 41% compared to third quarter 2016 results. Net income for the quarter totaled \$148.6 million. Toll Brother shares gained 48% within the last year, while the rest of the industry recognized gains of 41.5%.

Net signed contracts for the quarter increased 26% in units compared to the fiscal year 2016 third quarter. For the company, this past quarter was the, 12th consecutive quarter of year-over-year growth in total contract dollars and units. Third quarter backlog of \$5.31billion and 6,282 units rose 21% in dollars and units sold compared to the previous year's correlating quarter. For 2017's third quarter, contract signings and contract dollars were the highest third quarter totals in the past 12 years for the Toll Brothers. The Toll Brothers have a strong pipeline of backlog work to complete within the upcoming quarters, which will contribute to an upward momentum in revenue. Looking at third quarter demographics of construction the company recognized a 63% increase in contract units from California, and a 39% increase in units from the western region. The Toll Brothers expansion of demographic presence will be further evaluated later on in this analysis. The company is also recognizing rapidly increasing sign-ups within their *community living* segments and *apartment-style living* segment introduced in previous quarters. Further expanding into these highly influential markets is something the Toll Brothers are expected to do in upcoming quarters.

Looking at the Toll Brother's last twelve months, adjusted to cash basis EBITDA margin, the Toll Brothers have maintained an EBITDA margin above its most similar competitors. Bloomberg projections for the remaining 2017 fiscal year, and the 2018 fiscal year suggest the Toll Brother's to outperform their competitors and industry average. It is important to recognize that because of the most recent natural disasters, supply costs are inflated for the entire market. It is expected that the inflated costs of materials will rebalance during 2018, but this is an industry wide occurrence effecting all competitors EBITDA margins as well. With current costs inflated I believe this more strongly demonstrates how efficient the Toll Brother's operations are, as they outperform their competitors during an inflated period. The following chart shows the Toll Brother's adjusted EBITDA margin compared to their competitor's EBITDA margin. The chart compares the Toll Brother's performance to their corresponding industries' average, for current results and future projections as well.

EBITDA Performance and Estimates:

	LTM Ebitda Margin		FY 2017 Estimate	FY 2018 Estimate
Toll Brothers Inc.	10.00		15.6	15.1
CalAtlantic Group Inc.	8.53		10.5	11
Lennar Corp-A	9.06		10.8	11.9
Tri Pointe group Inc.	7.92		12.6	10.9
NVR Inc	10.32		14.1	12.4
Industry Average	9.17	Industry Average:	10.72	10.26

The Toll Brother's performance is highlighted above in yellow and the industry average is highlighted above in orange. With stronger projections of EBITDA performance ending FY2017, and increased FY2018

EBITDA projections, the Toll Brothers will outperform its competitors from the nation-wide economies of scale. I assume that when the costs of materials rebalances from the previous natural disasters the Toll Brothers will perform at higher margins.

Strategic Target Locations for Millennial Investors:

Traditionally, the Toll Brothers have offered high-end housing developments for luxury residential housing consumers. The company once catered to consumers with an annual income of ~\$800,000 and above. Originally, the company only catered to move-up, empty-nester, active adult, and second-home buyers in the United States. In October 2016, the Toll Brothers were operating in 19 states. After acquiring substantially all of the assets of Coleman Real Estate Holding in November of 2016 the company has expanded into new states and an additional market segment. This was an acquisition preformed through cash for \$85.2 million. The acquisition included 1,750 homes sites either owned or controlled through land purchase agreements.

Ending the previous quarter the Toll Brothers inventory consisted of the following:

	July 31, 2017	October 31, 2016
Land controlled for future communities	\$ 81,512	\$ 71,729
Land owned for future communities	1,153,712	1,884,146
Operating communities	6,398,344	5,398,092
	<u>\$ 7,633,568</u>	<u>\$ 7,353,967</u>

The company has expanded their community and residential living segments while newly introducing their *Suburban High Density* segment back in 2017. Expanding this segment is something to Toll Brothers expect to do within the FY 2018 and continuing periods. The Toll Brothers have shifted their focus toward a millennial demand based model as the company looks to capture as much demand as possible from the newly emerging millennial market. In their most recent investor's presentation a member of management mentions, "With the millennial generation now entering their thirties and forming families, we are starting to benefit from the desire for home ownership from the affluent leading edge of this huge demographic wave. In Q1 FY 2017, approximately 26% of our settlements included one primary buyer thirty-five years of age or under." This strategy is something the company will continue to pursue looking to the future as the company continues to gain market share.

The following map is a demonstration of the geographical locations of where the Toll Brothers have already introduced, and plan to introduce their *Suburban High Density* segment.



To meet the demand from millennial consumers the Toll Brothers have identified demographic trends targeting the baby boomers looking for “city living” environments. Currently the Toll Brothers occupy communities in NYC, North Jersey’s Gold Coast, Philadelphia, and Urban Metro DC. The Toll Brothers have completed construction on 30 buildings, totaling ~3,900 units. Their 2018 pipeline consists of six buildings, totaling ~1000 units available for sale. The company looks to expand their geographic offering of apartment style living as the Toll Brothers are currently exploring Boston, San Francisco & Miami.

Directing their focus on meeting millennial expectat the 50-200 unit range located in upper scale neighborhoods. Shifting their focus from the “Super Luxury” as in the past, to more median-upper income range consumers, the Toll Brothers will capture more of the millennial target market. Using their well-established brand the company will maintain their reputation in the market place, while expanding their market share from the millennial population. The Toll Brothers have a goal of controlling land for an additional 5,254 future apartments throughout the Northeast/Mid-Atlantic, Dallas, Fort Worth, Atlanta, Phoenix & Fremont, CA within the FY2017 – FY2018. In their most recent investor conference there was no reference as to how the Toll Brothers will fund these investments in the future years. The investor presentation does mention that the Toll brothers have ~\$1.3 billion of available liquidity with a strong credit rating of BBB+. The presentation did mention that management updated their guidance with regard to homes and apartments delivered to 7,000 and 7,300 in FY2017 compared to the previous guidance of 6,950-7,150 units.

The following charts demonstrate what the Toll Brothers have done to target the millennial buyers, along with what the company projects to complete by 2018 with regard to the units in development. The chart refers to the Toll Brothers City Living Condos and Apartment Living Rental facilities.

City Living (Condo for Sale)	Apartment Living (Rental)*
<ul style="list-style-type: none"> - Manhattan, Brooklyn, and Queens, NYC - Hoboken and Jersey City, NJ - Metro Washington, DC - Philadelphia, PA 	<ul style="list-style-type: none"> - Located in Urban and Suburban locations - 6 projects (2,961 units) stabilized - 2 projects (598 units) leasing - 4 projects (1,430 units) under development - 18 projects (5,254 units) in the pipeline

Industry Demand:

The Toll Brothers preform business in an industry where demand and supply have strong correlation with one another. Supply plays a strong role in the valuation of the industry and the pricing of homes in the market. Supply’s correlation to demand can either positively affect or negatively affect the pricing of the homes the Toll Brothers offer. Currently the housing industry has entered a state where supply is beginning to tighten,

but demand is increasing and expected to continue throughout 2018. A tightening supply of the physical homes available for sale, land availability, number of building permits available, and lowered interest rates should all be considered when analyzing the health of the housing industry.

Fortunately, for the Toll Brothers, these characteristics look favorable. The housing industry itself is prevailing from the limited inventory within the United States. Strong employment, income growth, growing interest from first-time homebuyers, relatively low mortgage interest rates and low inventory of new and existing homes are some of the factors that have been supporting sustained growth in housing market.

Job creation is one of the main determinants in investment rates in the housing industry. Currently the employment market has averaged almost 200,000 jobs created each month since the start of 2016. In addition, employment among the critical 25-34-year-old has improved dramatically and is hovering near a post-recession peak.

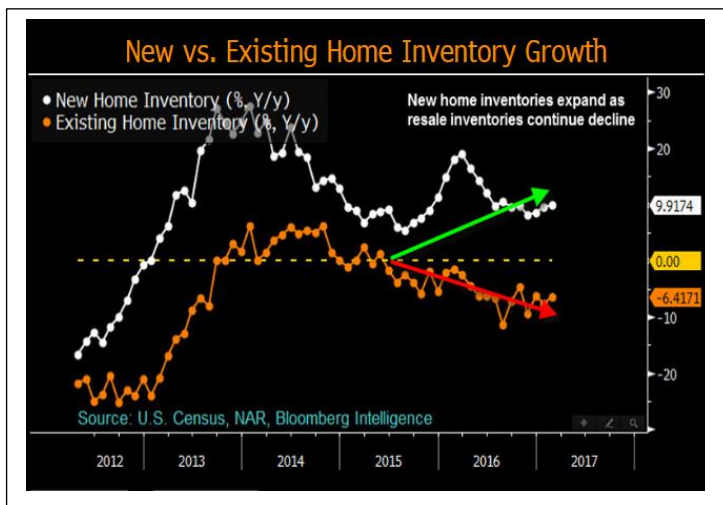
For interest rates the “30-year fixed mortgage rate remains favorable at 3.91% and isn’t expected to reach 5% until 2020 at the earliest.(Mortgage Bankers Association)” These low rates are helping to maintain affordability as housing prices rise by mid-single-digits. Along with low mortgage rates, credit availability continues to expand. New down payment plans have been introduced by creditors and builders allowing more buyers to enter the market. This is something the Toll Brothers have focused on in the past quarter.



Existing home inventories have continued to remain at historically low levels. There is strong potential that as demand continues to rise, new-home markets will emerge and further expand. Resale inventories have been declining consistently since 2015. Optimism for the new-homes market is high as the industry attempts to meet the market’s demand. The following chart is a representation of the existing home inventory and the new-home inventory statistics and projections. I believe that the Toll Brothers will experience strong revenue growth throughout 2018 and the following years due to the previously mentioned influences of demand.

The Commerce Department reports the following:

- Housing starts rose to 1,290k vs 1,135k in the prior month.
- Starts rose 13.7% in Oct. An upward trend is projected for November and December.
- Single family starts rose to 877K: multifamily starts rose to 413k in October.
- Building permits rose to 1,297k vs 1,225k in September.



The Toll Brothers are well prepared for the rising demand within the housing industry. The Company has positioned themselves to maintain an adequate supply of land for construction of homes within regions the company deems most profitable. “The Toll Brothers have secured some of the most sought-after urban locations in the country, where the land is scarce and approvals are not easy to obtain.(E.Statment)” Acquiring land in these highly demanded locations can contribute to higher pricing for the Toll Brothers to offer. Strategically these land acquisitions are deemed, “the most profitable and highly demanded by consumers” mentions a member of management in the most recent investor conference.

The Toll Brothers have a unique strategy as to how the company acquires land for development. The company uses land option agreements and joint partnership to lower capital expenses associated with acquiring the land for developments. After extensive market research, management will obtain the desired land. JLand options allow the Toll Brothers to prolong acquiring portions of properties owned by the sellers until the group has determined when to exercise the contract, and when to begin construction. The Toll Brothers will only exercise an agreement once they have received a down payment from the buyer for the portion of land. Strategically this prevents the Toll Brothers from purchasing any land that may not be executed in development.

The Toll Brothers will continue to secure urban locations in areas such as New York City, Northern New Jersey, Washington D.C, California, and Philadelphia. The Toll Brothers will continue to outperform their applicable housing niche competitors by strategically identifying their target markets, and continuing to offer a product designed for their target markets. The Toll Brothers will shift their focus more toward the smaller-family housing developments and community living centers to meet the demands from millennial consumers.

The following chart represents the locations where the Toll brothers either own or have optioned the purchase of land for future development. The data provided is from the 10-K statement.

	Number of communities	Number of home sites
Traditional Home Building:		
North	39	3,733
Mid-Atlantic	49	4,522
South	20	2,035
West	81	8,373
California	33	4,108
Traditional Home Building	222	22,771
City Living	8	1,250
Total	230	24,021

The market has recognized a strong increase in demand for single-living housing and apartment complex living. The U.S Census Bureau states, “Per the latest jointly released report by the U.S. Census Bureau and the U.S. Department of Housing and Urban Development, constructions for new homes increased 13.7% in October 2017 to 1.29 million units (seasonally adjusted annual rate) from the prior month. This also marks the biggest surge in 12 months as housing starts witnessed big gains in single-family homes and apartments. (Y.Finance)” As the Toll Brothers have done within the fiscal year, they will continue to introduce new apartment and single-family living complexes throughout fiscal year 2018. The group has recognized high returns on the implementation of apartment living facilities.

For example, with regard to their newly included New York City market, looking at the Grove Street PATH station apartment complex the company has taken 49 agreements since opening six weeks ago. The companies apartment living platform has continued to grow at the Toll Brothers expect to reach 100% occupancy in the roughly 3,000 units in six separate communities. Past performance suggests that the company has establish preforming guidelines as to recognizing where new developments should be located, and how effective the

company will be at selling the units. Ending FY 2017, the company projects in their Q3 earning report that their “apartment living segment will produce \$22.8 mm of profit compared to \$4.6mm in FY2016.”

Demand Driven, Rising Value:

Increasing demand within the industry will have a direct correlation on the median pricing of homes within the sector. These increasing rates of demand will cause the median price of homes to increase as the market has already seen within the previous quarters. “U.S. **home prices** rose by 7% from September 2016 to September 2017, according to CoreLogic. The firm expects home values to continue to land in the “plus” category in 2018, at a growth rate of ~5%. (WSJ)” Limited inventory within the sector has contributed to the upward movement of pricing.

Demand within the industry has recently spiked from locations known as high-demand pockets. These pockets are city locations, which are experiencing higher rates of demand by millennials and new buyers. High-demand pocket housing prices are expected to grow at double-digit growth rates throughout 2018, ~10%. A vast majority of the Toll Brothers backlogged inventory and current land ownership occupy the regions of Los Angeles, New York City, and Florida.

As previously mentioned Boston is another high-demand pocket for consumers, and a location where the Toll Brothers will expand their operations. For these pocket locations, I expect the Toll Brothers to receive increased revenue due to increasing prices of homes fueled by rising rates of demand. I have projected revenue for the year 2018 to grow by ~24% with a strong portion driven by these pocket locations. Currently the CAGR for *City Living* is 19%, I expect the segment to see the strongest growth in revenue in 2018, performing higher than the current CAGR.

The following chart demonstrates my analysis explained above.

Business Segments								
For the Fiscal Period Ending	12 months Oct-31-2011 USD	12 months Oct-31-2012 USD	Reclassified 12 months Oct-31-2013 USD	12 months Oct-31-2014 USD	12 months Oct-31-2015 USD	12 months Oct-31-2016 USD	CAGR	Average CAGR
Currency								
Revenues								
Traditional Home Building - North	320.8	350.6	485.1	662.7	702.2	814.5	0.204853335	
		9.3	38.3	36.6	6.0	16.0		
Traditional Home Building - Mid-Atlantic	465.1	535.7	652.9	817.3	845.3	895.7	0.140036863	
		15.2	21.9	25.2	3.4	6.0		
Traditional Home Building - South	273.3	361.8	641.3	836.5	892.3	849.5	0.254609884	
		32.4	77.3	30.4	6.7	(4.8)		
Traditional Home Building - West (Excl. California)	-	-	369.7	517.9	665.3	903.7	0.195734627	
				40.1	28.5	35.8		
Traditional Home Building - California	-	-	354.7	795.8	750.0	1,448.5	0.325015115	
				124.4	(5.8)	93.1		
City Living	107.1	196.7	170.7	281.3	316.1	257.5	0.191785542	
		83.7	(13.2)	64.8	12.4	(18.6)		
Traditional Home Building - West	309.6	437.9	-	-	-	-		0.218672561
Total Revenues	1,475.9	1,882.8	2,674.3	3,911.6	4,171.2	5,169.5		6,299.94

The following chart represents the Toll Brothers current city living pipeline. The locations listed are of operations the Toll Brothers have completed, but have remaining collectable revenue due to unoccupied units. It is important to notice that a majority of these locations are in these high-demand pocket locations as previously mentioned. I believe these locations, and expansion locations will be the main drivers for the Toll Brothers increasing growth in revenue. The outlook for upcoming quarters looks favorable for the Toll Brothers. I believe it is fair to assume the Toll Brothers will experience increased revenue from increasing prices at each location displayed below.

CURRENT CITY LIVING PIPELINE*								
	Total Units	Settled Units	Sold (Not Settled) Units	Units Left to Sell	Estimated Remaining Revenue	Estimated Timing		
						Construction Start	Open for Sale	1st Settlement
400 Park Ave South (Manhattan)	81	77	1	3	\$17.5 - \$20.3 million	Q3 2012	Q4 2014	Q4 2015
Pierhouse at BBP (Brooklyn) [†]	106	84	2	20	\$112.5 - \$134.9 million	Q3 2013	Q2 2014	Q4 2016
1110 Park Ave (Manhattan)	9	7	0	2	\$28.8 - \$32.0 million	Q3 2013	Q3 2014	Q4 2015
The Sutton (Manhattan) ^{††}	89	68	7	14	\$75.4 - \$90.6 million	Q3 2014	Q1 2015	Q4 2016
Hampden Row (Bethesda)	55	23	7	25	\$44.0 - \$52.0 million	Q1 2015	Q1 2015	Q2 2017
55 W 17th Street (Manhattan)	52	24	8	20	\$113.7 - \$129.5 million	Q1 2015	Q4 2015	Q2 2017
1400 Hudson (Hoboken)	236	55	155	26	\$188.7 - \$195.2 million	Q1 2015	Q4 2015	Q3 2017
100 Barrow Street (Manhattan) [§]	25	0	8	17	\$116.0 - \$130.4 million	Q2 2015	Q3 2016	Q4 2017
121 East 22nd Street (Manhattan) ^{§§}	140	0	31	109	\$414.8 - \$506.9 million	Q2 2016	Q1 2017	Q4 2018
10 Provost Street (Jersey City)	242	0	29	213	\$185.5 - \$226.7 million	Q2 2016	Q3 2017	Q3 2018
Total	1,035	338	248	449	\$1.30 - \$1.52 billion			

With regard to expansion into new locations the Toll Brothers will continue to expand into these high-demand pocket locations. The company specifically looks to further expand into the locations of New York, New Jersey, and Boston for the years 2018 and 2019. The Toll Brothers have not yet disclosed any information for Boston locations, but the following chart represents the company's future expectations of revenue for the new city locations. These locations are either nearing completion, or will be completed within the next two years.

FUTURE CITY LIVING PIPELINE*					
	Total Units	Estimated Revenue	Estimated Timing		
			Construction Start	Open for Sale	1st Settlement
Provost Square III (Jersey City)	259	\$182.8 - \$223.5 million	Q4 2018	Q3 2019	Q4 2020
91 Leonard (Manhattan) ^{**}	111	\$272.8 - \$333.4 million	Q3 2016	Q4 2017	Q2 2019
1451 Hudson (Hoboken)	99	\$104.6 - \$127.8 million	Q3 2017	Q2 2018	Q2 2019
1000 Maxwell Lane (Hoboken)	58	\$57.4 - \$70.2 million	Q4 2017	Q4 2018	Q4 2019
77 Charlton (Manhattan)	162	\$295.4 - \$361.1 million	Q4 2017	Q1 2018	Q1 2020
Total	689	\$1.10 - \$1.34 billion			

Increased pricing will directly affect the Toll Brother's operations and revenue cash flows. Increasing prices of homes will cause increased costs of operations with regard to raw materials necessary for construction. The Toll Brothers have prepared for this through integrated construction systems. The company has established panel and truss manufacturing locations nationwide. At these locations, the company manufactures and distributes wall panels, floor and roof trusses, signature millwork, windows, and doors. This strategy has been effective in improving the timeliness, quality, costs, and waste control of operations. The strategy also reduces the company's dependence on skilled carpenters in times of labor shortages and increasing market costs of labor. This will be a crucial contributor in increasing bottom line profits as I expect costs of operations to increase in upcoming quarters. My assumption comes from the increasing costs the entire industry is expected to encounter during a time of rising values.

Conclusion:

In conclusion, I recommend the Toll Brothers stock as a buy at the current price of \$50.18. I have projected a one year target price for the stock of \$57.52 generating a one year target return of 15.01%. Based on my analysis I have projected the Toll Brothers to experience higher than expected growths in revenue as the industry itself is predicted to experience growth in upcoming quarters. Real estate analysts have projected that the housing industry will experience increased pricing due to higher demand and favorable market conditions. Increased pricing will contribute to strong revenue growth for the company within the segments of operations. I believe that the company already has strong operating margins with the ability to handle increasing rates of revenues, leading to value creation for the firm.

Restructuring and developing a newly introduced strategic plan to meet the demand from the millennial market will highly contribute to the growth of margins. The Toll Brothers have strong representation in high demand locations expected to grow the fastest as millennials enter the market place. Expansion into new locations is backed by extensive research prior to committing to any location. Meeting the changing characteristics of the market, the company is well positioned to meet the variables of demand within the industry. Shifting their focus to the millennial market share while maintaining all other segments of business, I expect the company to be an industry leader in the upcoming quarters.

Toll Brothers, Inc. (TOL)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by Michael Diotalevi
12/1/2017

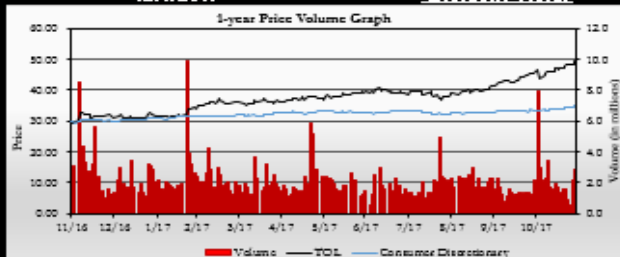
Current Price:
Dividend Yield:

\$50.18
0.4%

Intrinsic Value
Target Price:

\$51.49
\$57.52

Target 1 year Return: 15.01%
Probability of Price Increase: 97.5%

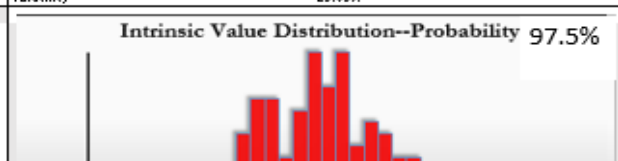


Description	
Toll Brothers, Inc., together with its subsidiaries, designs, builds, markets, and arranges finance for detached and attached homes in luxury residential communities.	
General Information	
Sector	Consumer Discretionary
Industry	Household Durable
Last Guidance	November 3, 2015
Next earnings date	December 5, 2017
Estimated Country Risk Premium	5.56%
Effective Tax rate	24%
Effective Operating Tax rate	24%

Market Data	
Market Capitalization	\$7,926.99
Daily volume (mil)	2.62
Shares outstanding (mil)	158.26
Diluted shares outstanding (mil)	171.27
% shares held by institutions	89%
% shares held by investment Managers	73%
% shares held by hedge funds	3%
% shares held by insiders	7.65%
Short interest	5.08%
Days to cover short interest	4.29
52 week high	\$50.46
52 week low	\$29.12
Volatility	25.03%

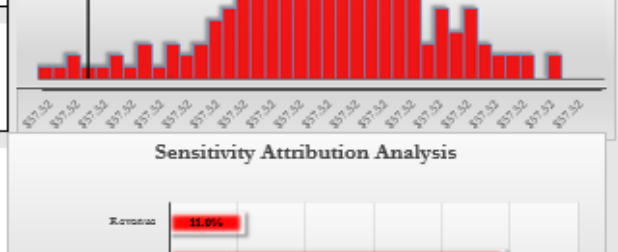
Quarter ending	
7/31/2016	2.23%
10/31/2016	3.42%
1/31/2017	2.53%
4/30/2017	9.01%
7/31/2017	0.23%
Mean	3.52%
Standard error	1.5%

Part Earning Surprises	
Revenue	EBITDA
7/31/2016	-31.73%
10/31/2016	-56.98%
1/31/2017	-53.72%
4/30/2017	-30.75%
7/31/2017	-23.01%
Mean	-40.44%
Standard error	6.1%



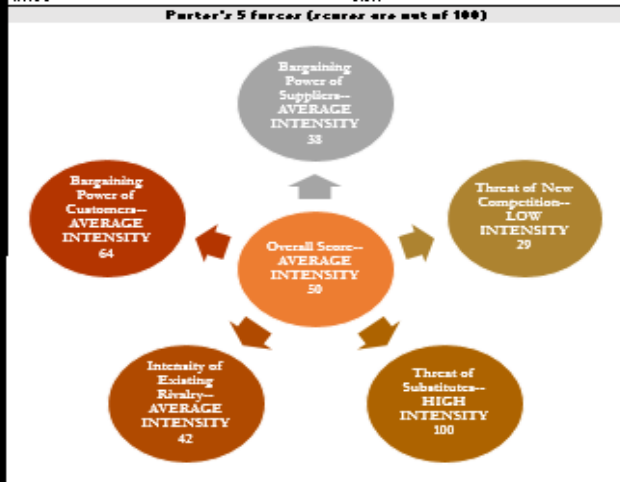
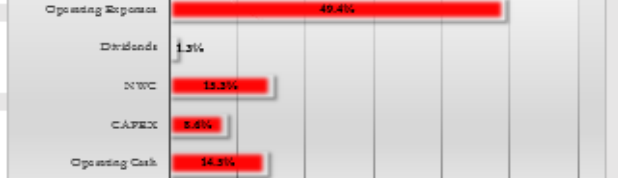
Management	
Toll, Robert	Co-Founder and Executive Cha
Yorley, Douglas	Chief Executive Officer and
Hartman, Richard	President and Chief Operatin
Cannan, Martin	Chief Financial Officer and
Sicree, Joseph	Chief Accounting Officer and
McDonald, John	Chief Compliance Officer Sen

Part Earning Surprises	
Revenue	EBITDA
7/31/2016	-31.73%
10/31/2016	-56.98%
1/31/2017	-53.72%
4/30/2017	-30.75%
7/31/2017	-23.01%
Mean	-40.44%
Standard error	6.1%



Profitability	
Return on Capital (GAAP)	5.6%
Operating Margin	7%
Revenue/Capital (GAAP)	0.76
ROE (GAAP)	10.5%
Net margin	8.3%
Revenue/Book Value (GAAP)	1.27

Invested Funds	
Carh/Capital	20.0%
NWC/Capital	72.1%
Operating Assets/Capital	7.9%
Goodwill/Capital	0.0%



Porter's 5 Forces (scores are out of 100)	
Bargaining Power of Suppliers--AVERAGE INTENSITY	33
Bargaining Power of Customers--AVERAGE INTENSITY	64
Threat of New Competition--LOW INTENSITY	29
Intensity of Existing Rivalry--AVERAGE INTENSITY	42
Threat of Substitutes--HIGH INTENSITY	100
Overall Score--AVERAGE INTENSITY	50

Period	
Base Year	19%
7/31/2018	23%
7/31/2019	21%
7/31/2020	19%
7/31/2021	17%
7/31/2022	11%
7/31/2023	9%
7/31/2024	8%
7/31/2025	6%
7/31/2026	5%
7/31/2027	5%
Continuing Period	2%

Period	
Base Year	5.4%
7/31/2018	12.4%
7/31/2019	14.2%
7/31/2020	15.5%
7/31/2021	15.0%
7/31/2022	14.0%
7/31/2023	13.0%
7/31/2024	11.9%
7/31/2025	10.8%
7/31/2026	9.8%
7/31/2027	8.9%
Continuing Period	7.8%

November, 30, 2017

Chipotle: CMG

Timothy Cousin

Sector: Consumer Discretionary

Industry: Hotels, Restaurants and Leisure

Current Price: \$285.86

Target Price: \$323.33

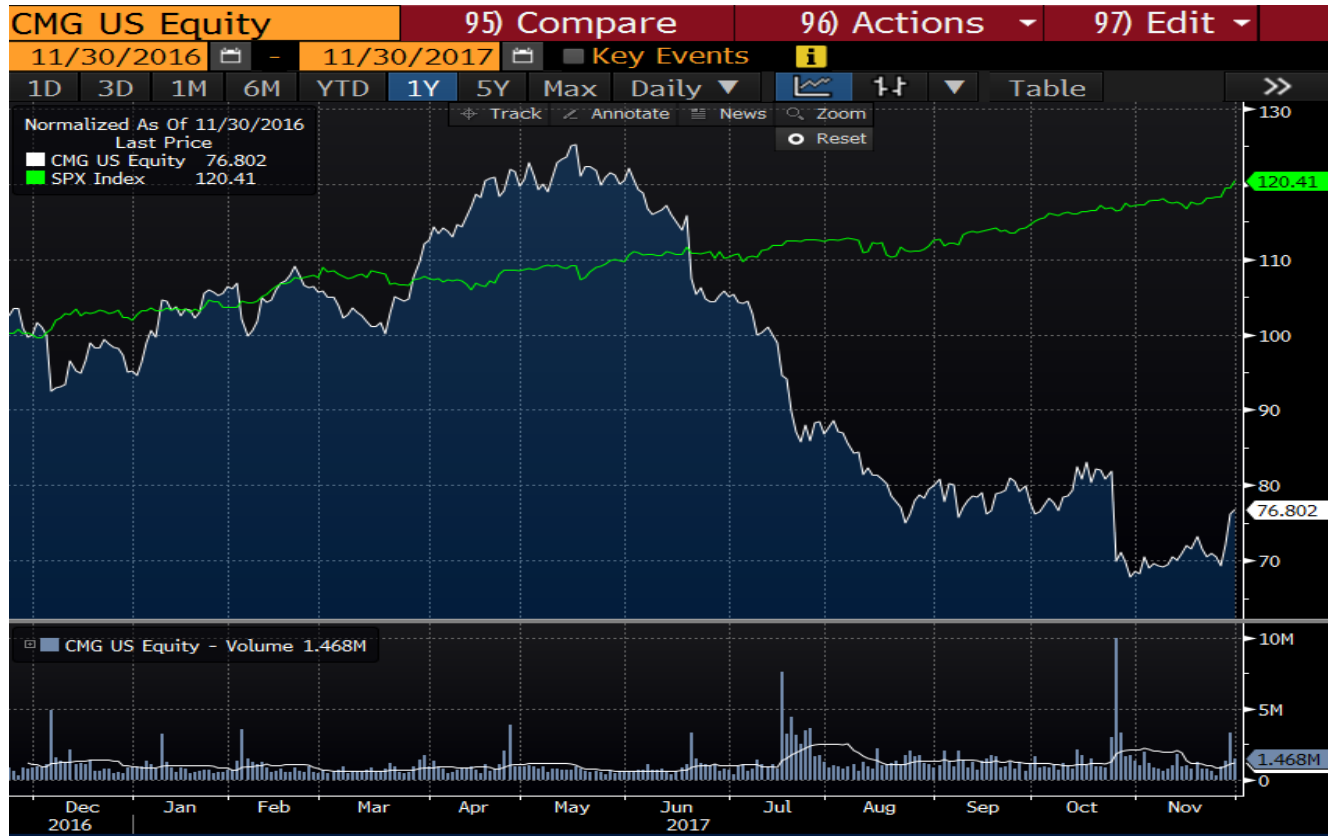
Company Description: Chipotle is widely known for their ability to serve Mexican fast food. The company has been operating through the United States since 1993.

BUY

Current Price:	\$285.86
Target Price:	\$323.33
Market Cap:	8.5B
Operating Margin	4%
WACC	11.3%
ROE	6.0%
Return on Capital	7.1%
Beta:	1.0
Cost of Existing Debt	4.5%
Days to Cover	5.0
Range	\$263.00 to \$499.00

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

- Short Term (within the year): The ability to order off their application.
- Mid Term (1-2 years): The company regains the trust of their customers after the e-coli outbreak.
- Long Term (3+): Chipotle looking to expand in areas such as Europe.



Thesis:

Chipotle is a quick serve restaurant chain that has been able to do well since 1993. Chipotle has seen controversy in the news especially in 2016 with the e-coli outbreak. Chipotle has taken a hit in the short term, but there is a positive upside for this company.

This is almost the lowest point the company has hit throughout the year, the company will have a positive upside due to the fact of being able to regain their customers trust, the launch of their mobile application, and since they are looking to expand into areas such as Europe. I understand we already purchased this company, but believe it is a good time to buy more due to the fact it is near the yearly low, and I do not see it as a restaurant people will stop going.

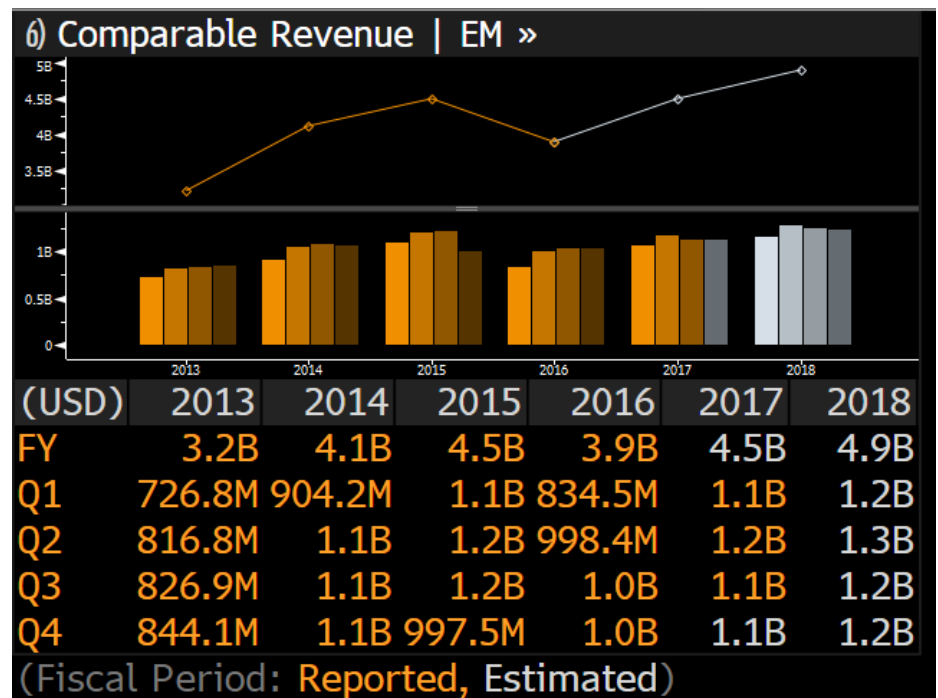
Earnings Performance:

Chipotle is able to make their money due to the fact they are a quick serve restaurant. The way the store is set up has a lot to do with their earnings. They store is set up in an assembly line with many different servers taking peoples orders, increasing efficiency.

Starting from the year 2013 Chipotle has seen an increase in revenue from 3.2 billion dollars to 4.5 billion dollars in 2015. When it came to 2016, they saw a decrease in revenue due to breakouts of e-coli, but revenue was still at 3.9 billion dollars.

Looking ahead, they were able to bounce back in 2017 having a total revenue of 4.5 billion dollars. The quarters throughout the year have been consistent for 2017 earning around 1.1 billion dollars per quarter. This is important in the sense that Chipotle was able to tame the outbreak, and earn the trust of their competitors. Looking even further, Chipotle estimates to have a total revenue for the year of 2018 at 4.9 billion dollars.

Revenue has remained consistent for the most part beside 2016. Chipotle estimating that they will receive 4.9 billion in revenue for 2018, and an average quarter of 1.2 billion shows the company has been able to get the trust back from their customers.



Industry Overview:

Restaurant operators have been seeing some challenges when it comes to growth, leading to sales to decrease. Many analysts relate this to the fact of a saturated market, rising labor costs. A couple of different areas that the restaurant business will be able to improve on sales has to do with the fact of the expanding catering business, and delivery.




The positive outlook is that many restaurants will be able to see positive sales growth in the sense when it comes to technology. Restaurant stocks outperformed the S&P 500 in the period of delivery and mobile. Technology has had an important impact in the sense; it has made it convenient for customers to order efficiently.

When it comes to restaurants, they can be broken down into three main segments such as full service restaurants, quick service restaurants, and cafeterias and buffets. Restaurants like Chipotle own the largest share of the market at 55%. Full service restaurants have a market share of 44%, and bars and taverns only make up 1% of the market.

Profitability:

Chipotle is a company that has been able to bring in revenue streams since they established themselves 1993.

 Revenue, Adj	3,214.6	4,108.3	4,501.2	3,904.4	4,400.9
 Growth %, YoY	17.7	27.8	9.6	-13.3	13.8
 Gross Profit, Adj	854.8	1,117.8	1,174.3	498.2	730.8
 Margin %	26.6	27.2	26.1	12.8	16.6
 EBITDA, Adj	635.5	828.3	907.2	204.8	413.1
 Margin %	19.8	20.2	20.2	5.2	9.4
 Net Income, Adj	331.8	449.9	484.2	37.0	156.1
 Margin %	10.3	11.0	10.8	0.9	3.5
 EPS, Adj	10.61	14.27	15.37	1.24	5.43
 Growth %, YoY	19.9	34.5	7.7	-91.9	81.1




When it came to revenue growth starting at, 2013 they were able to climb from 3.2 million in 2013 to 4.5 million in 2015. After the hit on 2016, they were able to bounce back and see revenue increase from 3.9 million in 2016 to 4.4 million dollars in 2017. This is a growth of 13.8% from the year 2016. Previously before that, they were at a negative 13.3%. Going into 2017, not only have they been able to get their customers trust back, and have the ability to have positive feedback in the market when it comes to their application the company launched.

Chipotle has not only been able to increase in areas such as revenue, they have been able to grow in net income each year starting at 2013 from a margin of 10.3% in 2013, to 10.8% in 2015. They took a hit in 2016 going down to 0.9%, but then climbed back up to 3.5%.

Not only has net income been able to see a steady growth, but also EBITDA has as well. Starting in 2013 EBITDA started out at a margin of 19.8% and climbed up to 20.2%. After 2016, EBITDA was able to climb back up to a margin of 3.5% after being down at 0.9%.









Segment Breakdown:

Chipotle is interesting when it comes to

12 Months Ending	12/31/2013	12/31/2014	12/31/2015
 Revenue	3,214.6 100.0%	4,108.3 100.0%	4,501.2 100.0%
 Restaurant Sales	3,214.6 100.0%	4,108.3 100.0%	4,501.2 100.0%
 Franchise Royalties & Fees	—	—	—

their segment breakdown. They are interesting in the sense that they only rely on their restaurant sales. They are a company that has not decided to go into franchising yet, and rely on their restaurant sales starting at 3.2 million in 2013, and reaching 4.5 million in 2015. In 2016, they took a hit falling back down to 3.9 million. They are a company that believes they are in a good spot with the sales of their restaurants and do not need to go into franchising.

Chipotle is has a competitive advantage in the sense, they have had the ability to perform in international territory. For the most part, they are strong in the United States accounting for 99.4 percent of their sales.

 Number of Locations	1,595 100.0%	1,783 100.0%	2,010 100.0%
 North America	1,586 99.4%	1,773 99.4%	1,998 99.4%
 United States	1,579 99.0%	1,766 99.0%	1,987 98.9%
 Canada	7 0.4%	7 0.4%	11 0.5%
 International	9 0.6%	10 0.6%	12 0.6%
 United Kingdom	6 0.4%	6 0.3%	7 0.3%
 France	2 0.1%	3 0.2%	4 0.2%
 Germany	1 0.1%	1 0.1%	1 0.0%

The other locations that Chipotle has the opportunity to operate includes the United Kingdom which accounts for .4% of their sales in 2013, France which accounts for .1% of their sales, and Germany which accounts for .1% of their sales. Throughout the years this percentages have been able to increasing at a slow rate. This is significant in the sense it will be able a starting point for Chipotle to try to expand. They have been able to get some revenue in their stores internationally, leading an opportunity for the company to expand.

Comparable:

Chipotle is a company that has had the opportunity to do well against some of their competitors. One of their main competitors is Shake Shack in the sense it was the same style of service.

Chipotle has been able to outperform Shake Shack in a number of different areas.

	Name (BI Peers)	Mkt Op Cap	ROIC	ROE LF	ROA LF	NI T12M
	Median	2.33B	20.35	13.34%	8.46%	133.41M
100)	CHIPOTLE MEXICAN GRIL...	8.59B	17.89	10.50%	7.19%	156.14M
101)	POTBELLY CORP	318.73M	12.05	1.86%	1.30%	9.65M
102)	NOODLES & CO	207.65M	6.40	-169.28%	-38.61%	3.21M
103)	SHAKE SHACK INC - CLA...	1.51B	16.64	10.06%	2.89%	16.00M
104)	DOMINO'S PIZZA INC	8.14B	144.17	--	34.47%	261.04M
105)	PAPA JOHN'S INTL INC	2.05B	44.04	--	20.27%	99.39M
106)	STARBUCKS CORP	82.27B	40.01	50.90%	20.12%	3.06B
107)	DUNKIN' BRANDS GROUP...	5.39B	17.70	--	6.73%	211.95M
108)	WENDY'S CO/THE	3.61B	8.39	11.15%	1.55%	97.56M
109)	JACK IN THE BOX INC	3.05B	32.04	--	10.50%	132.75M

To start out, they have a bigger market cap than Shake Shack in the sense that Chipotle operates at 8.59 billion dollars, while Shake Shack only operates at 1.51 billion dollars. Chipotle also has a higher net income

in the past twelve months, bringing in 156.14 million dollars. Shake shack has only had the opportunity to bring in 16.0 million dollars.

When it comes to return on investment, Chipotle has been able to operate at 17.89%. They have been able to see a decent return on their investment within the last twelve months. Shake Shack has only been able to see a return of investment of 16.64%. When it comes to return on assets, Chipotle has been able to see an advantage in the sense they are operating at 7.19% and Shake Shack is only operating at 2.89%.

Chipotle has had a couple of good years from 2013 leading up to 2015. After the e coli breakout, they have seen a decrease in all aspects of their company. Within the past twelve months however, they have been able to recover at a moderate pace and still do better in certain categories against one of their main competitors.

Ownership:

Chipotle was recently in the news a couple days ago for firing their CEO. The market did not react too strong to this decision; the stock only dropped four dollars.

The previous CEO at the time was Steve Ells and he was with the company for 13 years. The company is recently looking to replace him. Jack Hartung is the chief financial officer, and has been with the company for 16 years. Finally, Scott Boatwright is the chief operating officer and has been with the company for two years. They are a veteran staff, and will have the CEO replaced within the next couple of weeks.

When it comes to ownership of shares. Chipotle is mostly in the United States. About 84.01% of their shares are owned in the United States, and that number has increased since November 26. Britain owns 6.43% of the shares, and France owns 1.07%. Great Britain and France having the opportunity to own shares is important for Chipotle to have the opportunity to expand their company, and if people are interested, it will only help their process.

Even though Chipotle has been in the news recently due to the firing of their CEO, the number of sellers only changed from 268 to 269. Not only did the stock drop four bucks, but also this statistic illustrates that many people are not worried about the future of the company, and still see value.

Top Geographic Ownership (%)				
53) Geographic	11/26/17	Curr	Change	
31) UNITED STATES	84.01	84.05	+0.04	↗
32) BRITAIN	6.43	6.41	-0.02	↘
33) JAPAN	1.73	1.73	0.00	↔
34) Unknown	1.46	1.46	0.00	↔
35) FRANCE	1.07	1.07	0.00	↔
36) NORWAY	0.98	0.98	0.00	↔
37) SWITZERLAND	0.95	0.95	0.00	↔
38) CANADA	0.84	0.83	-0.01	↘
39) LUXEMBOURG	0.71	0.71	0.00	↔

Compare Current Stats Against 11/26/17				
Institutional - Based on Current Filings				
51) Institutional	11/26/17	Curr	Change	
11) % of Shares Held	102.16	102.49	+0.33	↗
12) % of Float Held	103.74	104.06	+0.32	↗
13) # of Institutions	845	844	-0.12%	↘
14) # of Buyers	256	257	+0.39%	↗
15) # of Sellers	268	269	+0.37%	↗
16) # of New Buyers	83	87	+4.82%	↗
17) # of Selloffs	152	152	0.00%	↔
18) % Chg in Inst Positions	-6.97	-6.69	+0.28	↗

Conclusion:

Chipotle is a company that has been in the news within the past couple of years. Some of it being positive, while at times negative. It would be a great time to double down with Chipotle in the sense that it is the lowest point they have been at all year, they have a strong mobile application that makes it easier to take orders, and they are a company that is looking to expand.

Chipotle is a restaurant that people will not stop going to. Even though they took a hit in 2016 with the e coli outbreak, they started to pick up again reaching revenue of 4.5 billion dollars. During this time, Chipotle has been able to outperform one of their main competitors Shake Shack. Chipotle has been able to recover from a poor year in 2016, and outperform one of their competitors makes it a great opportunity to double down.

Chipotle Mexican Grill, Inc. (CMG)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by Timothy Cousin
11/30/2017

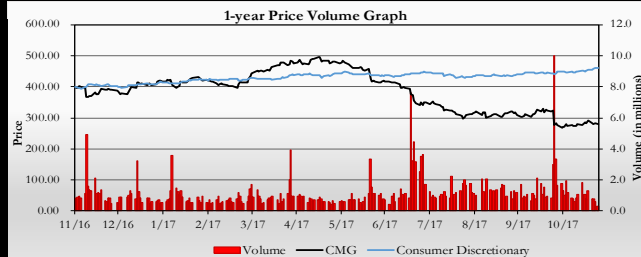
Current Price:
Divident Yield:

\$285.86
0.0%

Intrinsic Value
Target Price:

\$273.17
\$323.33

Target 1 year Return: 13.11%
Probability of Price Increase: 91%

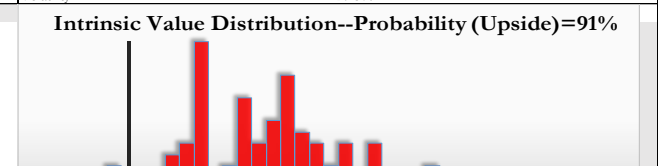


Description	
Chipotle Mexican Grill, Inc., together with its subsidiaries, develops and operates Chipotle Mexican Grill restaurants.	
General Information	
Sector	Consumer Discretionary
Industry	Hotels, Restaurants and Leisure
Last Guidance	November 3, 2015
Next earnings date	February 2, 2018
Estimated Country Risk Premium	7.08%
Effective Tax rate	24%
Effective Operating Tax rate	24%

Market Data	
Market Capitalization	\$8,070.66
Daily volume (mil)	1.33
Shares outstanding (mil)	28.23
Diluted shares outstanding (mil)	28.95
% shares held by institutions	116%
% shares held by investments Managers	66%
% shares held by hedge funds	17%
% shares held by insiders	1.51%
Short interest	19.35%
Days to cover short interest	4.04
52 week high	\$499.00
52-week low	\$263.00
Volatility	29.57%

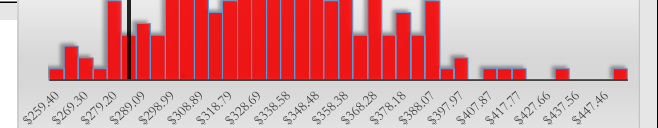
Past Earning Surprises	
Quarter ending	Revenue
9/30/2016	-4.33%
12/31/2016	-0.04%
3/31/2017	1.34%
6/30/2017	-1.19%
9/30/2017	-0.36%
Mean	-0.92%
Standard error	0.9%

EBITDA	
9/30/2016	-42.53%
12/31/2016	3.92%
3/31/2017	15.18%
6/30/2017	6.14%
9/30/2017	-33.16%
Mean	-10.09%
Standard error	11.6%



Management	Position
Ellis, M.	Founder, Chairman and Chief
Hartung, John	Chief Financial Officer
Crumpacker, Mark	Chief Marketing & Strategy O
Boatwright, Scott	Principal Operating Officer
Garner, Curtis	Chief Digital and Informatio
Schalow, Laurie	Chief Communications Officer

Total compensations growth	Total return to shareholders
-0.37% per annum over 5y	9.97% per annum over 5y
1.43% per annum over 5y	9.97% per annum over 5y
18.84% per annum over 5y	9.97% per annum over 5y
N/M	N/M
N/M	N/M
N/M	N/M



Profitability	CMG (LTM)
Return on Capital (GAAP)	7.1%
Operating Margin	4%
Revenue/Capital (GAAP)	1.65
ROE (GAAP)	6.0%
Net margin	3.0%
Revenue/Book Value (GAAP)	2.02

CMG (5 years historical average)	Peers' Median (LTM)
23.14%	13.31%
9.09%	11.31%
2.55	1.18
26.9%	7.2%
11.6%	11.5%
2.32	0.63

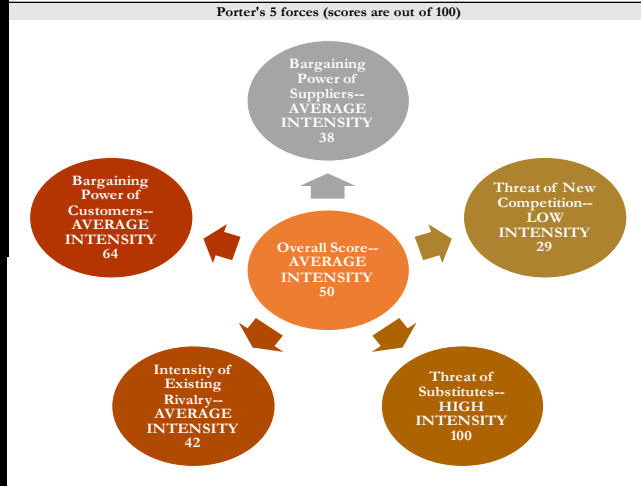
Invested Funds	CMG (LTM)
Cash/Capital	15.7%
NWC/Capital	-8.3%
Operating Assets/Capital	92.0%
Goodwill/Capital	0.7%

CMG (5 years historical average)	Peers' Median (LTM)
34.6%	8.5%
3.9%	-4.5%
60.5%	78.0%
1.0%	17.9%

Capital Structure	CMG (LTM)
Total Debt/Market Capitalization	0.30
Cost of Existing Debt	4.5%
CGIS Rating (F-score, Z-score, and default Probability)	B
WACC	11.3%

CMG (5 years historical average)	Peers' Median (LTM)
0.31	1.49
7.6%	4.5%
A	A
13.3%	8.2%

Valuation	
NO PAT Margin Forecast	Revenue to Capital Forecast
Base Year	1.64
9/30/2018	2.40
9/30/2019	2.00
9/30/2020	1.72
9/30/2021	1.51
9/30/2022	1.36
9/30/2023	1.18
9/30/2024	1.03
9/30/2025	0.93
9/30/2026	0.85
9/30/2027	0.78
Continuing Period	0.73



Period	Revenue Growth Forecast
Base Year	14%
9/30/2018	10%
9/30/2019	9%
9/30/2020	10%
9/30/2021	8%
9/30/2022	8%
9/30/2023	2%
9/30/2024	2%
9/30/2025	3%
9/30/2026	3%
9/30/2027	4%
Continuing Period	4%

Period	Return on Capital Forecast
Base Year	15.0%
9/30/2018	25.2%
9/30/2019	21.8%
9/30/2020	17.3%
9/30/2021	16.2%
9/30/2022	15.6%
9/30/2023	13.9%
9/30/2024	13.0%
9/30/2025	12.4%
9/30/2026	11.9%
9/30/2027	11.5%
Continuing Period	11.2%

December, 1, 2017

**Lear Corporation
(LEA)**

Marco Kloster



Sector: Consumer Cyclicals

Industry: Auto Parts and Equipment

Current Price: \$181.37

Target Price: 222.56

Company Description:

Lear Corporation (Lear), incorporated on January 13, 1987, is a supplier to the global automotive industry. The Company is engaged in supplying seating, electrical distribution systems and electronic modules, as well as related sub-systems, components and software, to automotive manufacturers. The Company's segments include Seating and E-Systems. The Company serves the automotive and light truck market. As of December 31, 2016, the Company had 243 manufacturing, engineering and administrative locations in 37 countries.

BUY

Current Price: \$181.37

Target Price: \$222.56

Market Cap: \$12.04B

Gross Profit Margin: 8.0%

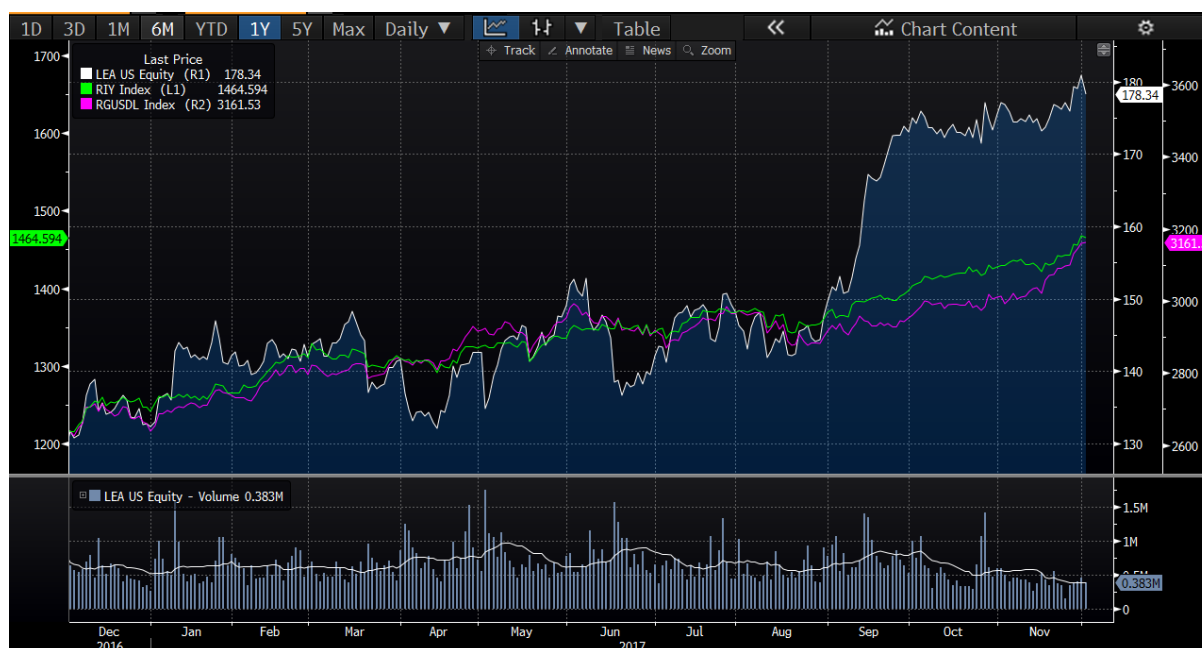
EBITA Margin: 10.4%

ROIC: 18.1%

WACC: 9.9%

Catalysts:

- **Short Term (within the year):** Increase of SUV and Crossover global production will lead to an increase in demand for intelligent seating systems, resulting in a revenue growth.
- **Mid Term (1-2 years):** increase in demand for luxury vehicles will favor E-systems demand, making the company more diversified and cost efficient.
- **Long Term (3+):** Increase in China automobile manufacturing will lead to an increase of demand the LEA products all around.



Thesis:

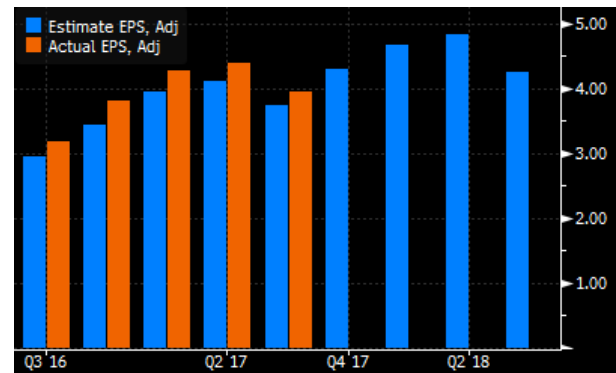
Lear Corporation (LEA) is the leading global supplier of automotive seating and electrical systems to automakers around the world. The company's was able to expand its at a CAGR of 8.8% between 2010-2015, while the global vehicle production grew by a nominal rate of 4% during the same period. Lear's revenue growth has continued outpaced the global vehicle production due to its well-diversified portfolio of customers around different markets around the globe and for its ability to increase revenue per unit vehicle across both of its operating segments, seating and electrical systems.



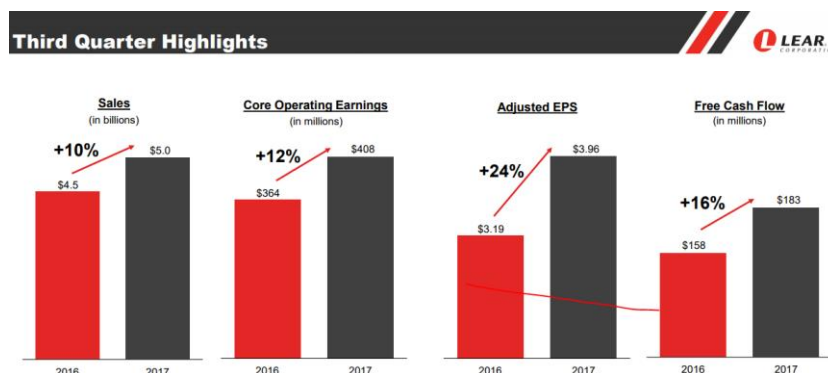
Lately, the company has managed to integrating its production and growing faster than the global vehicle production, and they will continue to gain market share across all major car manufacturers. Strong financial performance, benefits from share repurchase program, lower tax rates and consistent annual growth in both segments have influenced the increase of 24% in Q3's EPS compared to the previous year.

3rd Quarter Earnings Performance:

Lear Cooperation presented their last “best ever third quarter results” according to Matt Simoncini, Lear's president and chief executive officer. Strong Q3 results are associated with record sales, earnings and free cash flow. Such high performance had enabled Lear to increase their financial outlook for the full year, catching the eyes of many investors. An improved cost structured company alongside vertically integrated segments allow LEA to convert cash at a high level, promoting future operating costs and profitability.



In the quarter, LEA total sales was \$5.0 billion, up 10% from a year the previous year, while the Net income of \$295 million, increased by 38% in comparison to 2016. This increase reflects the addition of new business in both product segments and the acquisition of Grupo Antolin's seating business, partially offset by lower production volumes on key Lear platforms, primarily in North America. Core operating earnings of



\$408 million, increased by 12% from a year ago as well as its margin mainly due to the increase in sales. Earnings per share of \$3.96 increased a surprisingly 33% from a year ago, reflecting the improved operating earnings, a reduced share count and a lower effective tax rate. Free cash flow increased to \$183

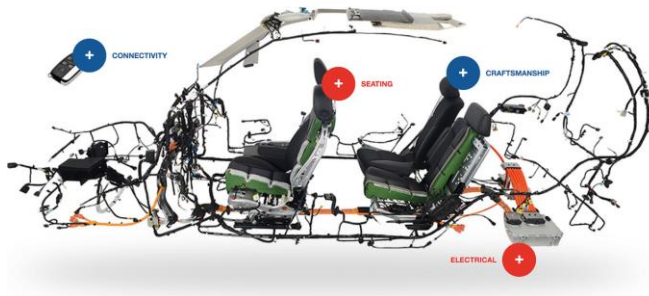
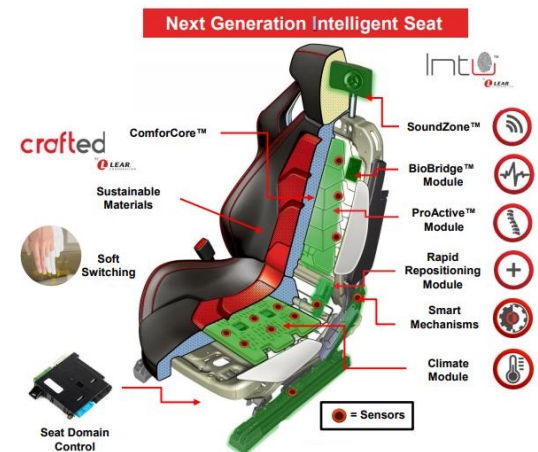
million, an increase of 16% in comparison to the previous year.

Business Model:

Lear Corporation has 243 manufacturing, engineering and administrative locations in 37 countries and are continuing to grow the business in all automotive producing regions of the world, both organically and through complementary acquisitions. LEA's manufacturing footprint reflects more than 143 facilities in 22 low cost countries. The business is organized under two reporting segments: Seating and E-Systems (formerly Electrical). Each of these segments has a varied product range across a number of component categories:

Seating Segment — It consists of the design, development, engineering, and delivery of complete seat systems, as well as the design, development, engineering and manufacture of all major seat components, including seat covers and surface materials such as leather and fabric, seat structures and mechanisms, seat foam and headrests. Over the last five years, Lear has taken significant steps to expand our seating innovation and it is one of the most advanced companies in its industries, due to the amount of new capabilities added every year.

The next generation of intelligent seating will advance these products into a complete system that includes electrification, drawing on our capabilities and expertise in E-Systems. Lear is the most vertically integrated seat supplier in the industry. Lear has an unmatched position in service materials that will soon enable to decrease production costs and efficiency, driving profitability higher than ever before. Since 2012, Lear has delivered seating sales growth 5 percentage point above the industry and has become the fastest growing and most profitable automotive seating. They have achieved market share gains by leveraging both our superior product capabilities and our industry leading cost structure and it is expected to become more and more profitable as the years go by.



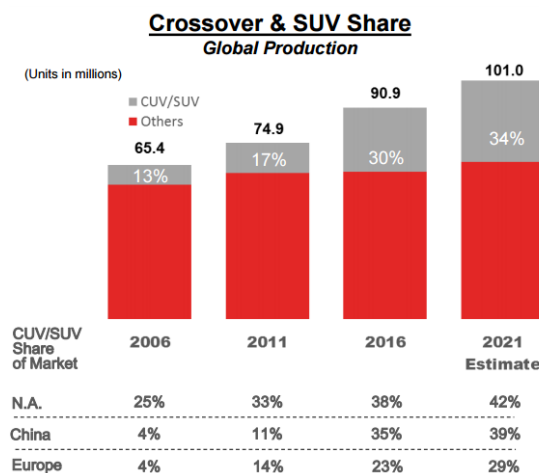
E-Systems —The E-Systems segment consists of the design, development, engineering and manufacture of complete electrical distribution systems that route electrical signals and manage electrical power within the vehicle for traditional vehicle architectures, as well as high power and hybrid electric systems. Key components in the electrical distribution system include wiring harnesses, terminals and connectors and junction boxes, including components for high power and hybrid electric systems. Lear Corporation is expect electrical content per vehicle to increase by approximately 3% to 5% per year on their traditional products, driven by growing consumer demand for additional features in the vehicle that require power and signal management. Industry penetration rates over the next 10 years are estimated to reach 75% or more for connected vehicles, and approximately 40% for electrified vehicles. These two trends followed by the trend of autonomy represent a significant content growth opportunity for Lear across their 35 vehicle nameplates with six customers serving three continents.

Industry Position and Outlook:

Based on independent market studies and management estimates, we believe that LEA holds the #2 position in seat systems assembly globally on the basis of revenue with strong positions in all major markets. LEA management team estimates the global seat systems market at more than \$64 billion in 2016. We believe that they are also among the leading suppliers of various components produced for complete seat systems. They also estimate the global target market for our E-Systems business to be over \$70 billion, representing nearly 20% of Lear's total income. In terms of competitors, Ford and General Motors, two of the largest automotive and light truck manufacturers in the world, each accounted for 21% of LEA's net sales. In addition, BMW accounted for approximately 10% of net sales. Lear has a global market share of ~22% in seating assembly, which is valued at around \$64 billion currently. Global vehicle production is estimated to grow at a CAGR of 3% between 2016-2021. According to the Q3 earning call, LEA estimates its own market share in the automotive seating industry to rise to ~27% by 2021. Lear is well positioned for future growth on the back of strong presence in growing markets such as China, and a leading position in categories such as luxury seating and SUV/Crossover seating, which are fast-growing categories in the seat assembly market.

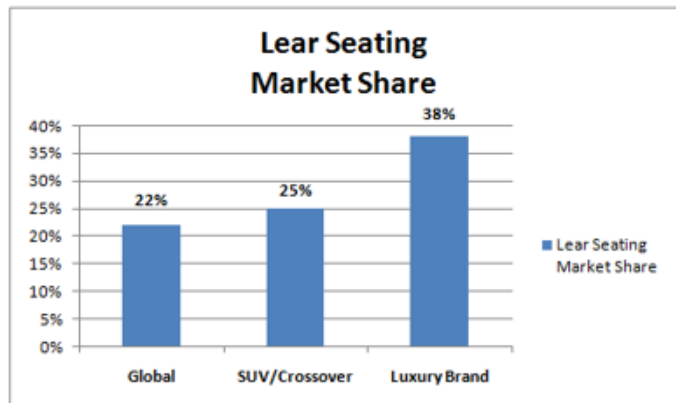
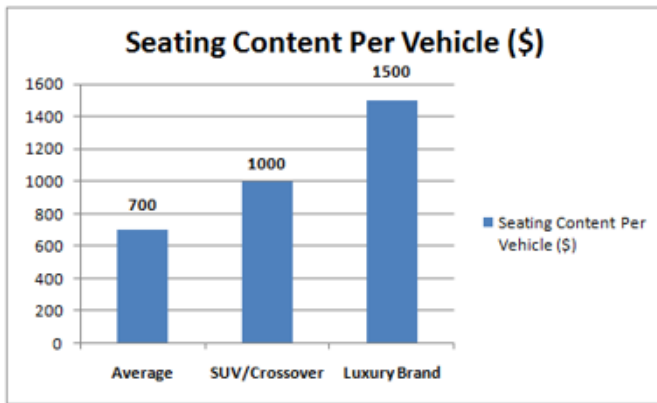
Luxury Seating and Seating in SUVs/Crossovers Opportunity:

Customers are opting for SUVs and Crossovers, which combines the looks of a car with the functionality of a utility vehicle, increasing the demand for the large cars. Crossover and sport utility vehicle production has grown to approximately 30% of total vehicle production in 2016, up from 17% of total vehicle production five years ago. China has been a major driver of this trend, where crossover and sport utility vehicle production now comprises approximately 35% of total vehicle production, up from 11% of total vehicle production on five years ago.

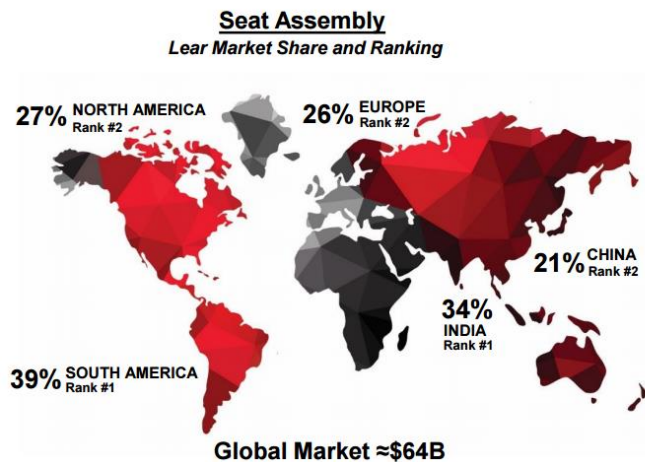


This is a great opportunity to Lear because these types of vehicles usually bring more revenue per unit to Lear in comparison to other vehicle types. An increase of SUVs and Crossover global production in the next year will ensure Lear to continue to grow above industry average.

Premium vehicle sales is also outpacing the overall automobile industry, in which current represents 20% of the market. Lear has an expertise in this market due to one of its subsidiaries Eagle Ottawa, the world's largest supplier of automotive premium leather. Eagle Ottawa only helps with the vertical integration of seating parts but also increases Lear's total share on luxury cars. An increase of global luxury vehicle production would certainly boost Lear's revenue as the seating segments represents nearly 80% of their total revenue. Moreover, LEA's E-Systems segment has the highest EBITDA margin within the company, and an increase in luxury cars global production would make Lear corporation more diversified and more profitable. Growth in these segments would ensure growth in Lear's seating market share, as well as content per vehicle going forward.



Geographic Segments:



Over the years, Lear have increased its global presence to other parts of the globe in order to diversify income streams and generate profit from markets that are manufacturing cars at higher rates. LEA is the #1 seat Assembly Company in South America (39% market share) and India (34% of market share). In other markets, such as Europe, North America and China, LEA has 26%, 27% and 21% of market share in each market respectively.

As mentioned before, Crossover and sport utility vehicle production has grown and China has been a major driver of this trend. Currently, Lear Cooperation has a moderate presence in China, but these numbers are changing and Lear is taking advantage of the Chinese automotive manufacturing market growth. Through its vertical integration and production efficiency, Lear increased revenue coming from China by 55% over the last 5 years. An increase of market share in China will allow success in the near future by revenue increase and content by vehicle content.

Geographic Segment	% of Total Revenue	2012	2013	2014	2015	2016	5YR Growth
Unit	%	USD	USD	USD	USD	USD	%
Revenues							
United States	22.6%	2,891.40	3,046.00	3,708.40	4,252.30	4,186.00	45%
Mexico	14.5%	1,991.80	2,225.90	2,373.90	2,777.30	2,684.40	35%
China	12.3%	1,467.60	1,842.90	2,092.90	2,141.90	2,277.60	55%
Germany	11.2%	2,142.40	2,204.60	2,327.70	1,987.30	2,076.00	-3%
Other Countries	39.5%	6,073.80	6,914.60	7,224.40	7,052.60	7,333.60	21%
Total Revenues	100.0%	14,567.00	16,234.00	17,727.30	18,211.40	18,557.60	27%

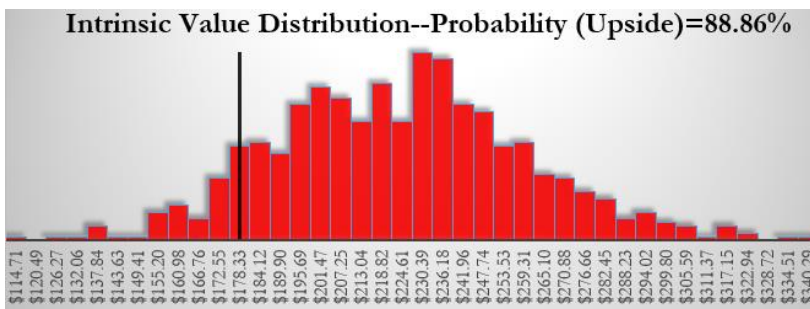
Ownership and Short Interest Facts:

Compare Current Stats Against		11/10/16		
Ownership Type		11/06/16	Curr ↓	Change
11) Investment Advisor		80.32	75.05	-5.27
12) Hedge Fund Manager		6.77	7.58	+0.81
13) Sovereign Wealth Fund			5.33	
14) Bank		6.79	5.01	-1.78
15) Pension Fund		2.92	3.08	+0.16
16) Government		1.54	1.56	+0.02
17) Insurance Company		0.90	1.36	+0.46
18) Brokerage		0.35	0.59	+0.24
19) Individual		0.25	0.22	-0.03
20) Holding Company		0.04	0.08	+0.04
21) Corporation		0.08	0.07	-0.01

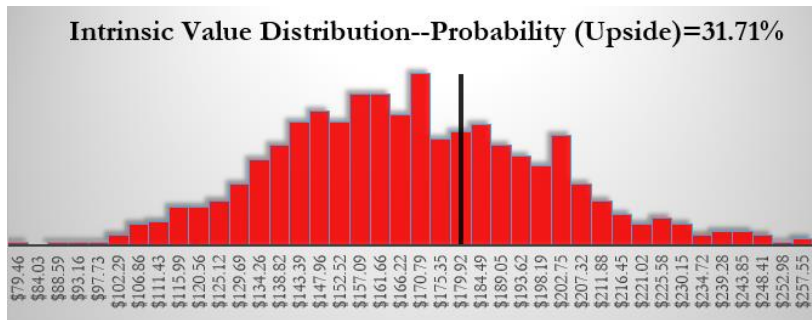
The ownership type chart is shown above. Investment Advisors hold the majority of LEA's shares outstanding at 75.59% and Hedge Fund Managers at 8.18%. In the past year there has been a decrease in the Investment Advisor's ownership by 5.27%, while Hedge Fund ownership slightly increased by 0.81%. I believe that the slight increase of Hedge Fund ownership over the past year shows that the market is recognizing the opportunity that China's SUV production is offering to Lear, while recent acquisitions will continue to decrease operating costs over time. The chart below shows short interest in the company. Currently Lear Corporation has an average SI of 4.8%, while it is relatively low compared to the rest of its industry.

Sensitivity Forecast

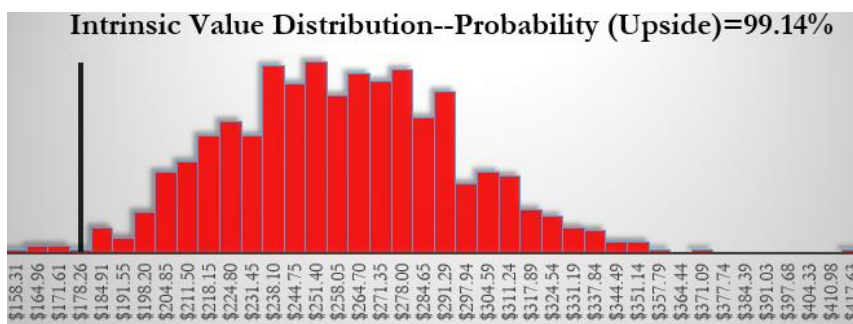
The LEA's stock price is very sensitive to changes of operating costs, followed by changes on revenues. I made a couple scenarios that picture a different outcome compared to my expected prediction. My realistic scenario I assumed that with an increase of SUV and Crossover global production, Lear would increase market share into growing markets, such as China, increasing revenue by 4% and tapering down to 2% in 2016. Additionally, a vertically integrated company would produce more efficiently over time. I assumed that there would be a decrease in operating costs by 88.5% over time, a 1% decrease from current prices. This would result in a 1-year target price of \$222.56, nearly a 23% change from current price of \$181.37.



According to my bearish assumption, I assumed that there would be operational change that would result in a 0.5% increase in operating cost compared to my realistic assumption. Additionally, I assumed that the company face a slowdown in SUV and Crossover global production, resulting in a 2% increase in revenue year after year. In this bearish scenario, I assumed that would be a decrease of 1% in total revenue and an increase of 3% operating costs. This would bring the stock value down to \$144.63, a 17.71% decrease from the current price of \$175.76.



On the other hand, assuming that the company would be able to integrate s-systems with seating, scaling the business with an increase in market share in the Chinese market they would be able to reduce production costs even more than what was expected in my realistic scenario. Moreover, if luxury vehicle production continues to grow over time, there would be an increase of s-system share of total revenue. E-Systems segment is more profitable than the seating business segment, and a more diversified company would result in a decrease of total operating costs. My bullish assumption adopts an decrease of 2.6% in operating costs over the course of 10 years, remaining revenue growth the same as my expected values. My bullish scenario would result in an increase of the stock price from \$1811.37 to \$225.04, generating a potential income of 40.03% over the course of one-year target.



Conclusion:

In summary, I believe LEA has a bright future ahead of them. The increase of automobile production in China, specially for the SUV's, Crossovers and luxury brands will allow Lear Corporation to expand its market share and continue to increase revenue over the next few years. Additionally, vertical integration and joint ventures from their Seating and E-systems will allow the company to have a higher EBITDA margin and become more profitable. Economies of scale will allow the company to decrease operation costs and drive price higher than ever before. Strong financial performance and lower tax rates will continue to increase EPS over time. I am long LEA, expecting a 1-year target of \$222.56 in my assumptions.

Lear Corporation (LEA)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by MARCO
12/1/2017

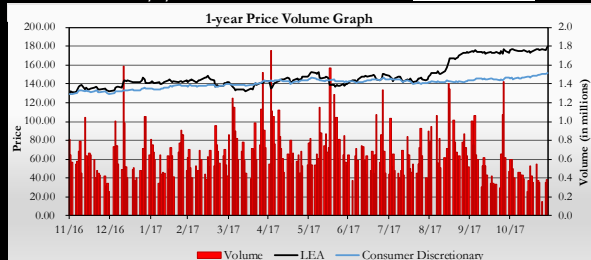
Current Price:
Divident Yield:

\$181.37
1.1%

Intrinsic Value
Target Price

\$197.50
\$222.56

Target 1 year Return: 23.77%
Probability of Price Increase: 92.29%



Description	
Lear Corporation designs, develops, engineers, manufactures, assembles, and supplies automotive seating, electrical distribution systems, and related components primarily to automotive original equipment manufacturers worldwide.	
General Information	
Sector	Consumer Discretionary
Industry	Auto Components
Last Guidance	November 3, 2015
Next earnings date	January 26, 2018
Estimated Country Risk Premium	7.04%
Effective Tax rate	26%
Effective Operating Tax rate	26%

Market Data	
Market Capitalization	\$12,100.13
Daily volume (mil)	0.28
Shares outstanding (mil)	67.56
Diluted shares outstanding (mil)	69.92
% shares held by institutions	116%
% shares held by investments Managers	80%
% shares held by hedge funds	6%
% shares held by insiders	0.22%
Short interest	4.08%
Days to cover short interest	4.52
52 week high	\$180.11
52-week low	\$129.84
Volatility	22.81%

Past Earning Surprises		
Quarter ending	Revenue	EBITDA
10/1/2016	1.28%	0.05%
12/31/2016	-1.83%	-6.44%
4/1/2017	1.32%	0.61%
7/1/2017	4.33%	0.15%
9/30/2017	2.92%	-0.35%
Mean	1.61%	-1.20%
Standard error	1.0%	1.3%

Peers	
Delphi Automotive PLC	
Adient plc	
BorgWarner Inc.	
Autooliv, Inc.	
Tenneco Inc.	
Visteon Corporation	

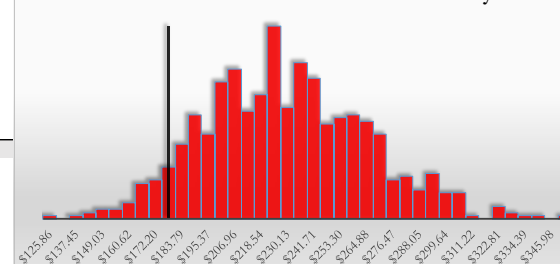
Management	Position	Total compensations growth	Total return to shareholders
Simoncini, Matthew	CEO, President & Director	36.95% per annum over 5y	-1.88% per annum over 5y
Vanneste, Jeffrey	Senior VP & CFO	1.12% per annum over 3y	29.36% per annum over 3y
Larkin, Terrence	Executive Vice President of	10.4% per annum over 5y	-1.88% per annum over 5y
Scott, Raymond	Executive Vice President and	9.6% per annum over 5y	-1.88% per annum over 5y
Orsini, Frank	Senior Vice President and Pr	3.52% per annum over 1y	26.25% per annum over 1y
Doyle, Amy	Principal Accounting Officer	N/M	N/M

Profitability	LEA (LTM)	LEA (5 years historical average)	Peers' Median (LTM)
Return on Capital (GAAP)	20.2%	22.16%	13.46%
Operating Margin	5%	3.16%	5.01%
Revenue/Capital (GAAP)	3.93	7.01	2.69
ROE (GAAP)	30.6%	26.2%	17.9%
Net margin	5.6%	3.9%	6.3%
Revenue/Book Value (GAAP)	5.50	6.68	2.84

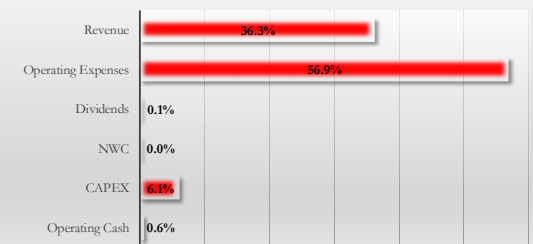
Invested Funds	LEA (LTM)	LEA (5 years historical average)	Peers' Median (LTM)
Cash/Capital	16.7%	35.2%	20.5%
NWC/Capital	2.9%	3.5%	2.0%
Operating Assets/Capital	61.3%	43.5%	65.0%
Goodwill/Capital	19.2%	17.8%	12.5%

Capital Structure	LEA (LTM)	LEA (5 years historical average)	Peers' Median (LTM)
Total Debt/Market Capitalization	0.34	0.36	0.31
Cost of Existing Debt	4.3%	6.3%	3.6%
CGFS Rating (F-score, Z-score, and default Probability)	A	A	A
WACC	9.9%	12.3%	9.5%

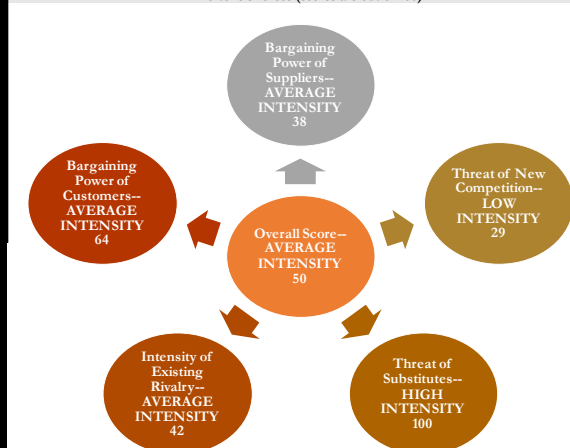
Intrinsic Value Distribution--Probability



Sensitivity Attribution Analysis



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



Period	Revenue Growth Forecast	NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	6%	7.1%	3.35
9/30/2018	4%	5.4%	2.84
9/30/2019	6%	5.5%	2.56
9/30/2020	4%	5.4%	2.32
9/30/2021	3%	5.3%	2.11
9/30/2022	2%	6.4%	1.93
9/30/2023	2%	6.5%	1.75
9/30/2024	2%	6.5%	1.60
9/30/2025	2%	6.6%	1.48
9/30/2026	2%	6.7%	1.37
9/30/2027	2%	6.8%	1.28
Continuing Period	2%	6.8%	1.21
Period	Return on Capital Forecast	WACC Forecast	Price per share Forecast
Base Year	23.8%	9.9%	\$196.23
9/30/2018	15.4%	9.9%	\$221.66
9/30/2019	14.1%	10.0%	\$246.55
9/30/2020	12.5%	10.0%	\$272.14
9/30/2021	11.2%	10.0%	\$298.29
9/30/2022	12.5%	10.0%	\$325.04
9/30/2023	11.4%	10.0%	\$352.29
9/30/2024	10.5%	10.0%	\$380.06
9/30/2025	9.8%	10.0%	\$408.37
9/30/2026	9.2%	10.0%	\$437.16
9/30/2027	8.7%	10.0%	\$466.49
Continuing Period	8.2%	10.0%	

Thor Industries is the US market leader in recreational vehicles, owning 48.5% of the market share. The company operates in two segments, towable vehicles and motorized vehicles. Towable vehicles include both travel trailers and fifth wheelers while the motorized segment includes class A, B and C motorhomes.

BUY

Current Price:	\$151.59
Target Price:	\$172.61
Target Return:	14.99%
Market Cap:	7.9B
Rev. Growth YoY	58.2%
EBITDA Growth YoY:	45%
ROIC:	22.1%
WAAC:	9.2%
D/E:	0.053



Thesis: Thor will capitalize on economic and demographic trends, which currently place the company in a scenario of potential exponential growth. An elevated capital expenditure in production facilities, along with the improvement in operating efficiencies and the rising demand for RV's and Motorhomes has allowed the company to undertake an impressive CAGR on both Revenue and EBITDA. The faster growth of the towable segment will allow the company to increase its profitability as such segment currently demonstrates the highest operating margin. The company has also invested in delevering its balance sheet, decreasing the amount of debt by 75% in the last two fiscal years, reducing substantially its interest expense and driving up its net income. Greater returns are forecast ahead as the company will successfully secure a portion of this new wave of first time buyers through its expanded capacity and therefore will capitalize on its increased profitability.

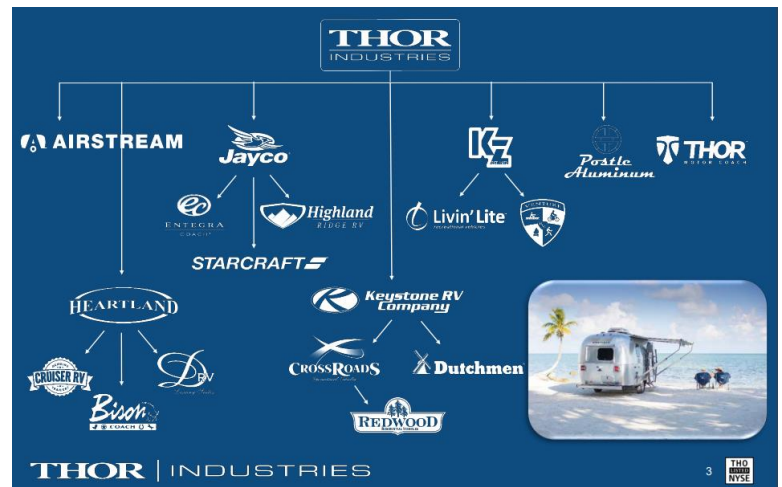
Catalysts:

- While both segments of the company grow at a rapid pace, the faster growth of the towable segment will drive up the company's EBITDA margin, increasing the company's profitability.
- In response to a rising demand, Thor Industries has invested heavily on the expansion of their current facilities and on the construction of new plants.
- Demographic and macro-economic trends are favorable at the moment and will lead Thor to an exponential growth



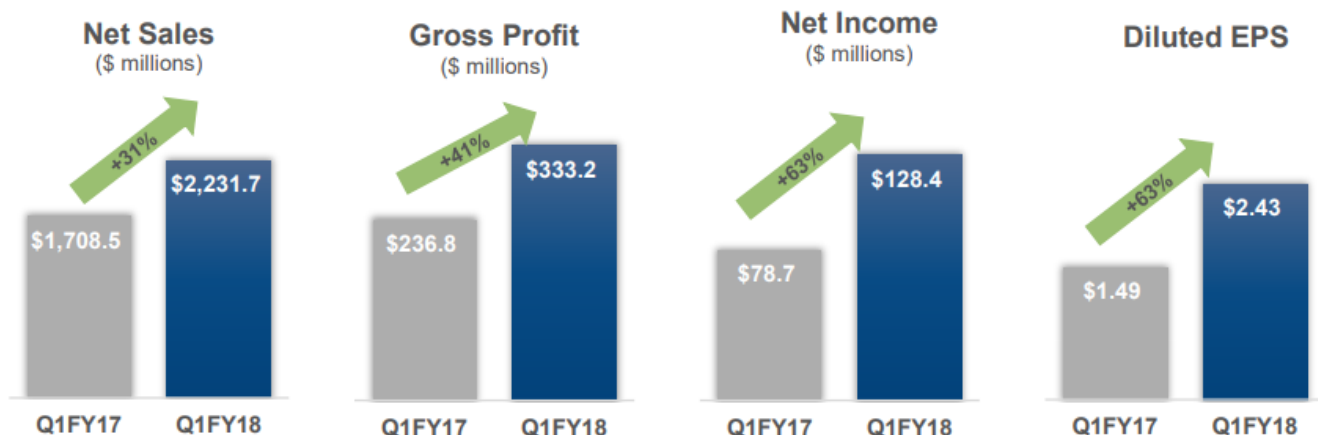
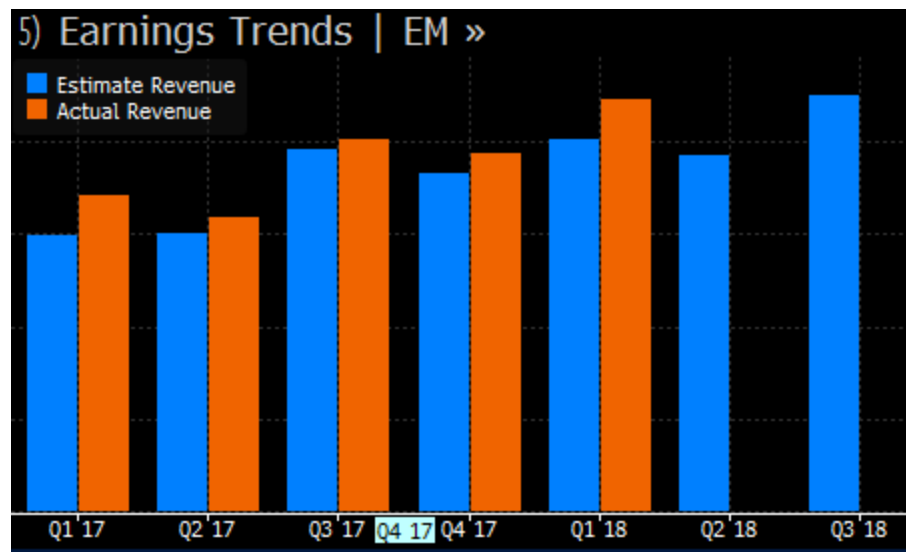
Business Overview:

Thor Industries is the largest manufacturer of RV's in North American holding 50.9% of the market for travel trailers and fifth wheels and 39.6% of the market share for motorhomes between United States and Canada. The company was founded in 1980, with the acquisition of Airstream, a predominant RV manufactures at the time, and went public in 1984. Since then, the company has grown exponentially through organic growth and strategic acquisitions to increase its market share. It currently operates through 17 subsidiaries, who manufacture and sell products to non-franchise dealers who retail them to the public. The company is subdivided in two segments: towables and motorized vehicles. The towable segment makes up for 71% of the total revenue while the motorized segment consist on 27%. THO is currently traded at \$151.59 and has grown by roughly 50% since the beginning of the year, still showing significant margins to increase even more.



Q1 Performance and Q2 Guidance:

Thor Industries recorded an outstanding start of its 2018 fiscal year, as it beat estimates on both sales and net income, setting up quarterly records on both metrics. The company achieved a record sales of \$2.23 billion, up 30.6% from Q1 2017 and a record net income of \$128.4 million, registering an increase of 63.1% from a year ago. This record was driven by double-digit sales growth in both segments; towables grew at a rate of 33.7% from a year ago while motorized increased by 22.8%. In particular, this growth is marked by a faster growth in towables, which has historically been growing at a lower rate relative to the other segment. Such factor enabled an enhancement in the company's margin year-over-year. The quarter was marked by the launch of the company's new marketing campaign, "Go Your Own Way. Such campaign aims to target younger families and a more diverse consumer base, as demographic trends indicate a shift in RV buyers. As part of the campaign, Thor provides a variety of tools to aid on the planning of a family trip such as advices and ranks on best parks, hiking trails and campgrounds in the US along with several videos displaying the benefits of an adoption of the "RV Lifestyle". A continuous capital expenditure has been dedicated to capacity expansion. Throughout Q1 2018, \$34 million have already been invested on facility enhancement and such investment is predicted to reach a total of \$185 million by the end of the fiscal year in order to ride along the forecast increase in demand. In addition, robust increase in consumer demand was noticed as consolidated RV backlogs rose substantially throughout the quarter. The towables segment increased its backlog by 75% while the motorized segment's backlog rose by 59%. Such backlog is being addressed with the previously mentioned investments in capacity expansion, as an attempt to keep up with the growing RV popularity.



Analysis by Segment:

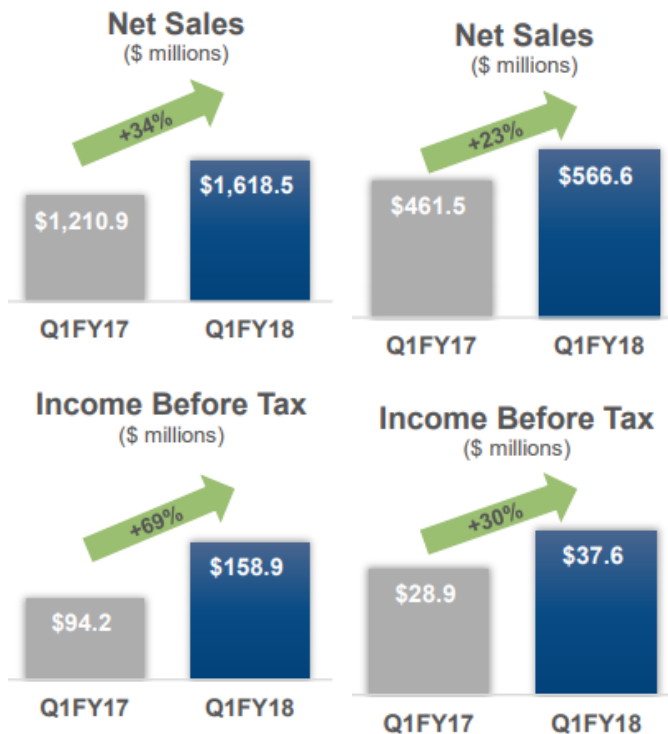
Both segments of the company have been growing at an impressive CAGR, significantly outpacing the market. While the RV Wholesale market of towable units have grown at a 5-year CAGR of 10.2%, Thor's towable segment has grown at a 5-year CAGR of 18%. Similarly, the motorized segment has been growing at

a 5-year CAGR of 41%, substantially above the 16.4% 5-year CAGR undertaken by the RV Wholesale market of motorized vehicles. However, a change in consumer focus was perceived during the last year as, since Q1 2017, towables grew by 34%, while the motorized segment grew by the lower rate of 23%. The increased growth in the segment of towables turns out to be extremely significant as the profitability of the company increases as its most profitable segment outpaces the other, while both are growing. In addition, the EBITDA margins of both segments have been constantly increasing, surpassing historical CAGRs. In particular, towables' EBITDA grew 69% from Q1 2018, compared to a 5 year CAGR of 24%. Moreover, such growth has a significant impact in the profitability of the company if compared to the 34% increase in sales also from Q1 2018. Investments aiming to achieve operational efficiencies through and optimize production, along with a better production planning process has contributed to a positive outcome as EBITDA has been growing twice as fast as sales and as Net income has grown three times faster than sales due to actions taken to pay off debt. Taking into account the heavy increase in backlog, particularly in the towable segment, the faster growth of this segment relative to motorized vehicles, and the move of customers towards more affordable options, I forecast an increase in EBITDA as moving forward the most profitable segment will increase in a faster rate. The growth of both segments will obviously be lower than the one presented in this quarter due to the seasonality of the products and it will taper off as time goes on.

Revenue and EBITDA per Segment								
TOWABLES	2012	2013	2014	2015	2016	2017	5 year CAGR	3- year CAGR
Revenue	\$2,285.90	\$ 2,650.30	\$ 2,721.60	\$ 3,096.40	\$ 3,338.70	\$5,127.50	18%	29%
Revenue Growth		16%	3%	14%	8%	54%		
EBITDA	\$ 159.00	\$ 205.70	\$ 221.10	\$ 259.10	\$ 321.90	\$ 458.90	24%	33%
EBITDA Growth		29%	7%	17%	24%	43%		
EBITDA Margin		7.76%	8.12%	8.37%	9.64%	8.95%		
MOTORIZED								
Revenue	\$ 353.90	\$ 591.50	\$ 803.80	\$ 870.80	\$ 1,094.30	\$1,971.50	41%	50%
Revenue Growth		67%	36%	8%	26%	80%		
EBITDA	\$ 18.50	\$ 43.90	\$ 57.30	\$ 66.70	\$ 88.50	\$ 125.30	47%	37%
EBITDA Growth		137%	31%	16%	33%	42%		
EBITDA Margin		7.42%	7.13%	7.66%	8.09%	6.36%		
TOTAL								
Revenue	\$2,639.80	\$ 3,241.80	\$ 3,525.50	\$ 4,006.80	\$ 4,582.10	\$7,247.00	22%	34%
Revenue Growth		23%	9%	14%	14%	58%		
EBITDA	165.4	222	252.8	292.9	383.3	556.4	27%	38%
EBITDA Growth		34%	14%	16%	31%	45%		
EBITDA Margin	6.27%	6.85%	7.17%	7.31%	8.37%	7.68%		

	3 Year Rev and EBITDA Forecast			
TOWABLES	2018	2019	2020	3-Year Forecast CAGR
Revenue	\$ 6,409.38	\$ 7,691.25	\$ 8,460.38	14.89%
Revenue Growth				
EBITDA	\$ 688.35	\$ 860.44	\$ 946.48	17.26%
EBITDA Growth	50%	25%	10%	
EBITDA Margin	10.74%	11.19%	11.19%	
MOTORIZED				
Revenue	\$ 2,267.23	\$ 2,493.95	\$ 2,618.64	7.47%
Revenue Growth				
EBITDA	\$ 150.36	\$ 172.91	\$ 181.56	9.89%
EBITDA Growth	20%	15%	5%	
EBITDA Margin	6.63%	6.93%	6.93%	
TOTAL				
Revenue	\$ 8,955.56	\$10,478.11	\$11,374.86	12.70%
Revenue Growth				
EBITDA	\$ 873.39	\$ 1,071.50	\$ 1,166.57	15.57%
EBITDA Growth				
EBITDA Margin	9.75%	10.23%	10.26%	2.55%

TOWABLES VS MOTORIZED



Capital Expenditure:

Due to a sharp increase in consumer demand, evident by the increase in backlog on both segments, Thor Industries has invested heavily in capacity expansion, willing to increase its production rates and match the current high demand. During fiscal year of 2017, the company completed facility enhancements at several of its subsidiaries, totaling \$115 million in capital expenditure. During the first semester of fiscal year 2017, Thor opened two new Heartland facilities in Elkhart, IN and added a second production line to the existing facility in Nampa, Idaho. In addition, the company also opened a new manufacturing Jayco facility in Middlebury, IN and expanded the existing facility. During Q4 2017, Thor also added two new production facilities of the Keystone subsidiary in Goshen, IN and expanded its Thor Motor Coach (TMC) facility in Wakarusa, IN. Also during that quarter, TMC expanded its current facility by adding a second production line to its gas Class A motorhomes. Additionally, other three expansion projects were completed during Q1 2018. Both Heartland and Jayco opened a new production facilities in Middlebury, IN, and TMC added a new line to its production facility in Bristol, IN. In total, \$34.3 million were spent during the first quarter of 2018 on expansion projects. Looking forward, there are several more projects scheduled to be executed by the end of fiscal year 2018. Heartland is scheduled to open two new production facilities in Howe, IN and Jayco is also scheduled to open a mega facility in Middlebury, IN. Capital expenditure for 2018 is forecast to be around \$185 million. Out of the 12 project expansions mentioned above, 9 of them were directed to the towable segment and will be responsible for the production of travel trailers and fifth wheels. Therefore, the fact that 75% of the expansion has been directed to add to the towable segment supports its rapid growth in relation to the motorized segment, which will be beneficial to the company in the future taking into account the profitability of the segment. On average, a new plant will take from nine to twelve months to reach full consistent production, while a new line added to an existing facility may take a shorter period of time in order to launch. With that said, consistent returns on capital expenditures are still to be gained and sales are forecast to increase in the future as expansions on facilities begin to contribute. Backlogs will be fulfilled and the rising demand will be matched, giving Thor an opportunity to increase its market share even more and solidify its position as market leader.

Macro-Economic Favorable Trends:

As the purchase of Thor products requires a substantial financial capital from consumers, the current economic scenario has aided to an increased demand. The favorable employment and wage trend, along with relatively low interest rates, extended credit availability and stable fuel prices has allowed consumers to take advantage of such features and commit to purchase RVs, which will provide them with several cost savings in future vacations. As per demographic trends, 3.4 million of households have started camping in 2014, bringing a substantial addition to the already significant camping population. Among new campers in 2016, 72% of those were Gen X and millennials campers, a positive feature for the industry given that young campers support forecast of additional sales in the future. Out of the whole camping population in 2016, only 22% were RV campers, therefore indicating that there is an opportunity to convert a high percentage of campers into RV campers. In addition, the current trend towards a more active and healthy lifestyle along with the growing interest in activities such as equestrian events and pet shows have increased the demand for RVs. RVs provide to families the opportunity to take on unplanned vacations without significant expenses, avoiding costs related to renting vehicles, staying in hotels and eating at restaurants, and the more affordable prices presented in the market have driven families to commit to the RV lifestyle. The market is currently

reflecting this favorable scenario, as sales have been growing at a CAGR of 10.9% over the past 5 years. Such CAGR is forecast to increase as innovative products are constantly being released at affordable prices and as the increase in technology within RVs is attracting more campers. Thor Industries will capitalize on this upward trend as the company is well positioned across all products offered in the market through its subsidiaries, being the leader in the industry in the US and the preferred option of all first time buyers.



Competition:

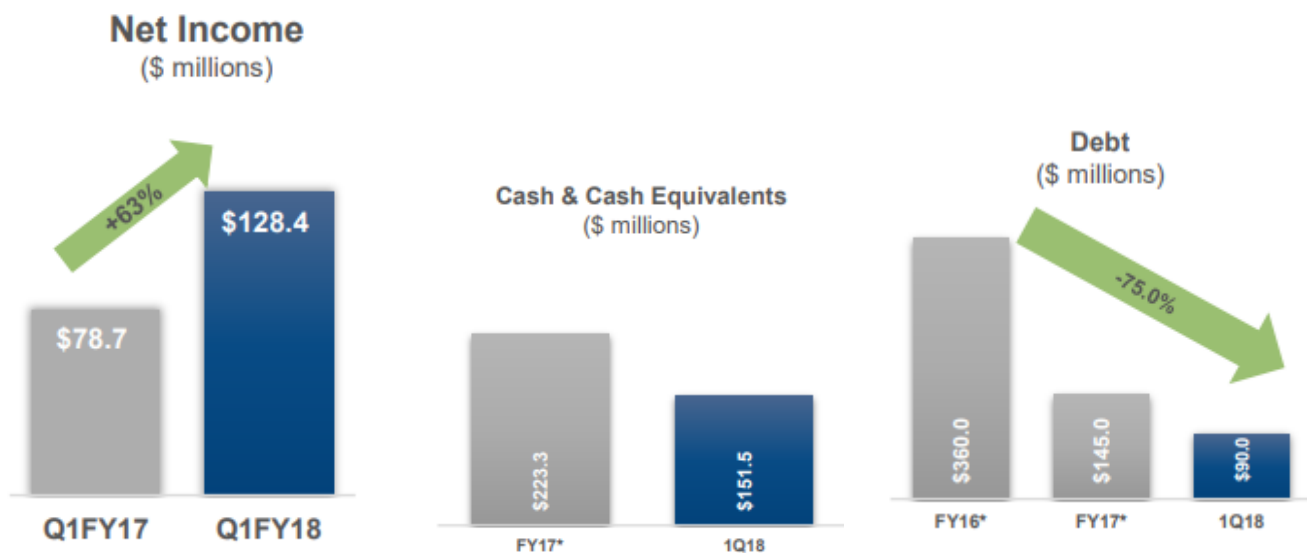
Thor Industries is currently well placed in the market, being the industry leader with 48.5% of the market share. The only substantial competitor is Forest River (not publicly traded), who makes up for 34.6% of the market. The remaining competitors make up for less than 4% of the market each, therefore imposing a small threat on the predominance of THO. Out of Thor's five main competitors, only two are currently publicly traded. Being a company of significantly lower size, Winnebago Industries is the company who presents the highest metrics, with an impressive growth in sales and EBITDA. However, Thor Industries is computing higher Capital Expenditures as a percent of sales and a higher return on invested capital, therefore placing themselves in a better position to deal with the increasing consumer demand. With the constant investment in capacity expansion, Thor is forecast to increase even more its market share and capitalize on this predicted wave of new first time buyers, which will enable them to maintain its position as market leaders and secure a significant share of future sales.

Name	Sales Growth (%)	EBITDA Growth (%)	EBITDA Margin	Operating Income Margin	Net Income Growth (%)	Net Profit Margin	Netpex/Sales (%)	Return on Invested Capital	Return on Assets	Return on Equity
Median	47.71%	79.92%	9.29%	8.08%	45.65%	4.96%	1.59%	18.22%	11.86%	21.61%
100) THOR INDUSTRIES INC	47.71%	45.49%	9.29%	8.08%	45.65%	5.44%	1.59%	24.23%	16.61%	28.10%
101) WINNEBAGO INDUSTRIES	58.64%	114.35%	10.69%	8.62%	56.00%	4.96%	0.90%	18.22%	11.86%	21.61%
102) REV GROUP INC	15.42%	--	5.25%	3.64%	-4.06%	1.65%	2.52%	8.22%	3.24%	8.85%

	YTD 9/30/17		Y/E 12/31/16		Y/E 12/31/15		Y/E 12/31/14	
	Total	Share %	Total	Share %	Total	Share %	Total	Share %
THOR*	184,795	48.5%	195,973	47.4%	178,520	47.6%	160,663	48.9%
Forest River**	131,851	34.6%	144,909	35.1%	132,923	35.4%	112,979	34.4%
Grand Design	14,121	3.7%	11,717	2.8%	7,000	1.9%	4,174	1.3%
Winnebago	12,031	3.2%	13,093	3.2%	12,143	3.2%	10,395	3.2%
Gulfstream	4,546	1.2%	5,129	1.2%	4,806	1.3%	4,562	1.4%
REV Group	3,115	0.8%	3,237	0.8%	3,382	0.9%	4,888	1.5%
Subtotal	350,459	92.0%	374,058	90.5%	338,774	90.3%	297,661	90.5%
All Others	30,864	8.0%	39,211	9.5%	36,646	9.7%	31,205	9.5%
Grand Total	381,323	100.0%	413,269	100.0%	375,420	100.0%	328,866	100.0%

Debt:

Thor Industries took on a substantial amount of debt in 2016 for the acquisition of Jayco, an RV manufacturer who act now as a subsidiary of the company. On that year, Thor incurred a total of \$360 million in debt. Through the usage of available cash on hand, Thor has put effort in order to quickly pay down the debt. Such effort turned out to be successful as the total debt decreased by 75% during the last two fiscal years. A payment of \$55 million was made towards the existing debt during the first quarter of 2018, lowering the remaining balance to \$90M. Subsequent to the end of the first quarter, an additional payment of \$10 million was executed, thus bringing the remaining value to a total of \$80 million. With the execution of this payments, total interest expense was brought down to \$1.4M for the first quarter of 2018, compared to the \$2.6 million value computed in the same period of fiscal year 2017. In conclusion this decrease in interest expense was very significant to the profitability of the company, who computed a 63% increase in net income from a year ago. Although the company is now focused on organic growth and on the expansion of current facilities, the company remains opportunistic when it comes to evaluating future acquisitions and this quick pay down of debt is encouraging as the company may not be hesitant in taking on debt in order to finance future acquisitions that will allow the company to expand even more its client outreach.



Ownership:

Thor Industries's securities are mainly owned by Investment Advisors, who currently own 74.71% of shares outstanding. The second major owners are Hedge Fund managers, currently owning 13.70 %. The remaining securities are split among individuals, banks, pension funds and so forth. Compared to a year ago, Hedge Fund ownership increased by 6.86%, therefore expressing their believe in a expected growth of the company. Another change to be noticed is the substantial increase in ownership of insiders, who increased its percentage of securities by 11.27% from a year ago. Such increase was mainly caused by Peter Orthwein, the President of the company, and Robert Martin, the CEO, who purchased several securities over the last year. Since July 31st 2017, deferred compensation plan assets increased by 11.5%, which represent investments in

securities. The company has a stock based compensation within its compensation system. As a matter of fact, CEO Robert Martin received 4.3M in restricted stock award during fiscal year of 2017. This compensation system is attractive to shareholders as it serves as an incentive to managers to grow the company, combining both individual and shareholder's interest.

Compare Current Stats Against 12/01/16			
Ownership Type	11/27/16	Curr ↓	Change
11) Investment Advisor	80.85	72.71	-8.14
12) Hedge Fund Manager	6.84	13.70	+6.86
13) Individual	4.30	4.08	-0.22
14) Bank	1.40	2.90	+1.50
15) Pension Fund	2.09	2.42	+0.33
16) Foundation	1.96	1.85	-0.11
17) Sovereign Wealth Fund		0.86	
18) Insurance Company	1.05	0.74	-0.31
19) Brokerage	0.28	0.38	+0.10
20) Government	1.05	0.18	-0.87
21) Endowment	0.07	0.06	-0.01

Compare Current Stats Against 12/01/16			
Insider	11/27/16	Curr	Change
11) % of Shares Held	4.30	4.37	+0.07
12) % Chg Insider Positions	-9.28	+1.99	+11.27
13) # of Insiders	11	11	0.00
14) # of Buyers Opn Mkt	0	0	
15) # of Sellers Opn Mkt	1	3	+200.00
16) # of Shrs Bought Opn Mkt	0	0	
17) # of Shrs Sold Opn Mkt	4,672	6,784	+45.21
18) Avg Opn Mkt Buy Price	0	0	
19) Avg Opn Mkt Sell Price	85.69	116.23	+35.64

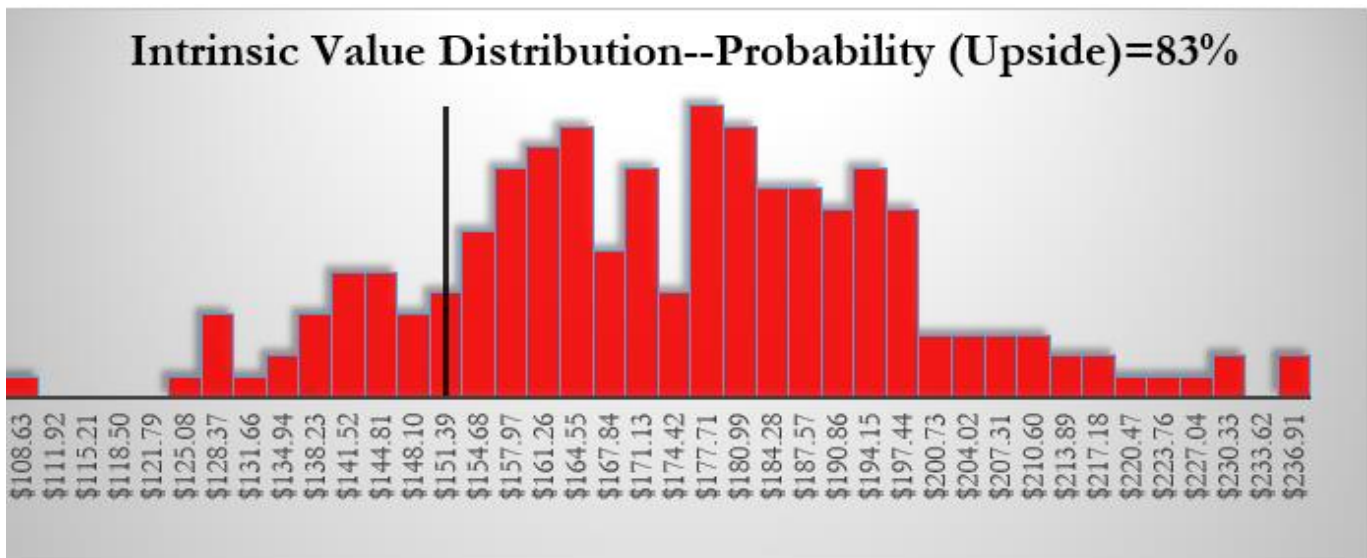
Holder Name	Portfolio Name	Opt	Source	Position ↓	% Out	Latest Chg	File Dt
		All ▾	Insider ▾				
1. ORTHWEIN PETER B			Form 4	2,029,230	3.85	-2,784	09/18/17
2. MARTIN ROBERT W			Form 4	126,367	0.24	23,638	10/10/17
3. ZUHL COLLEEN A			Form 4	31,815	0.06	9,437	10/10/17
4. JULIAN KENNETH D			Form 4	30,974	0.06	5,495	10/10/17
5. WOELFER W TODD			Form 4	27,597	0.05	7,145	10/10/17

What-If Analysis:

Realistic Case Scenario:

Revenue from Towables segment increasing at a faster rate compared to motorized segment. Rev growth of 24%, 17% and 9% on the next 3 years, tapering of to 2% within 10 years. Cost of Revenue decreasing from 90.9 to 89% due to operational efficiencies achieved with all synergies associated with the Jayco acquisition and with the capacity expansion.

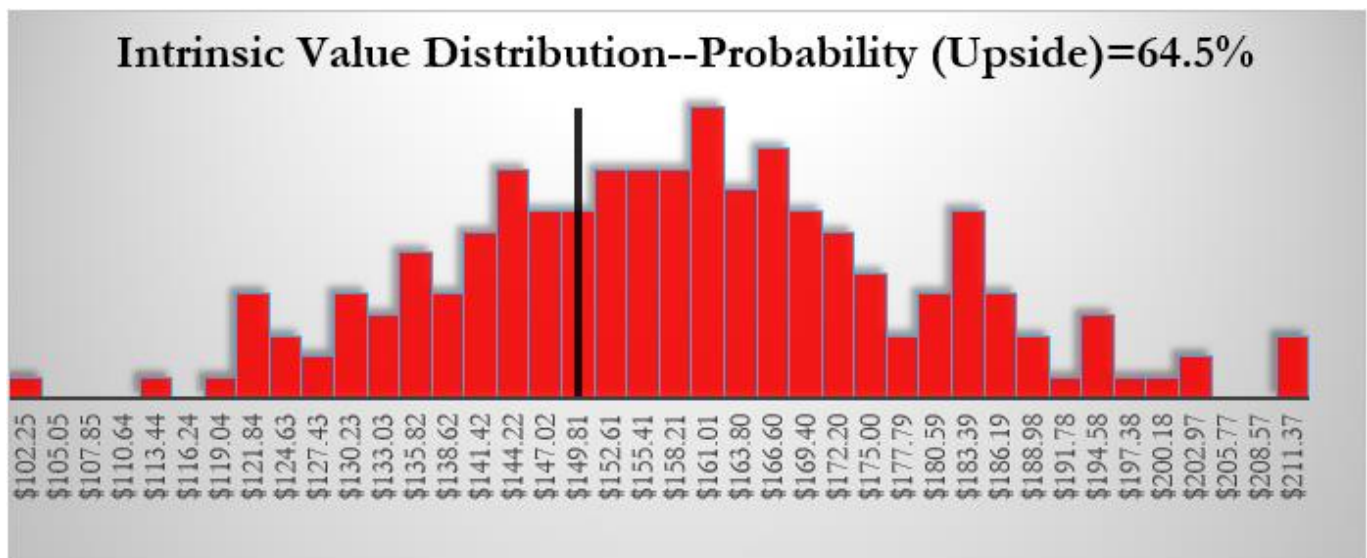
Return: 14.99%



Worst Case Scenario:

Revenue growth slows down to 15% within the next year, with a continued CAGR of the motorized segment outpacing the towable segment. Growth tapers off to 2% on the continuing period.

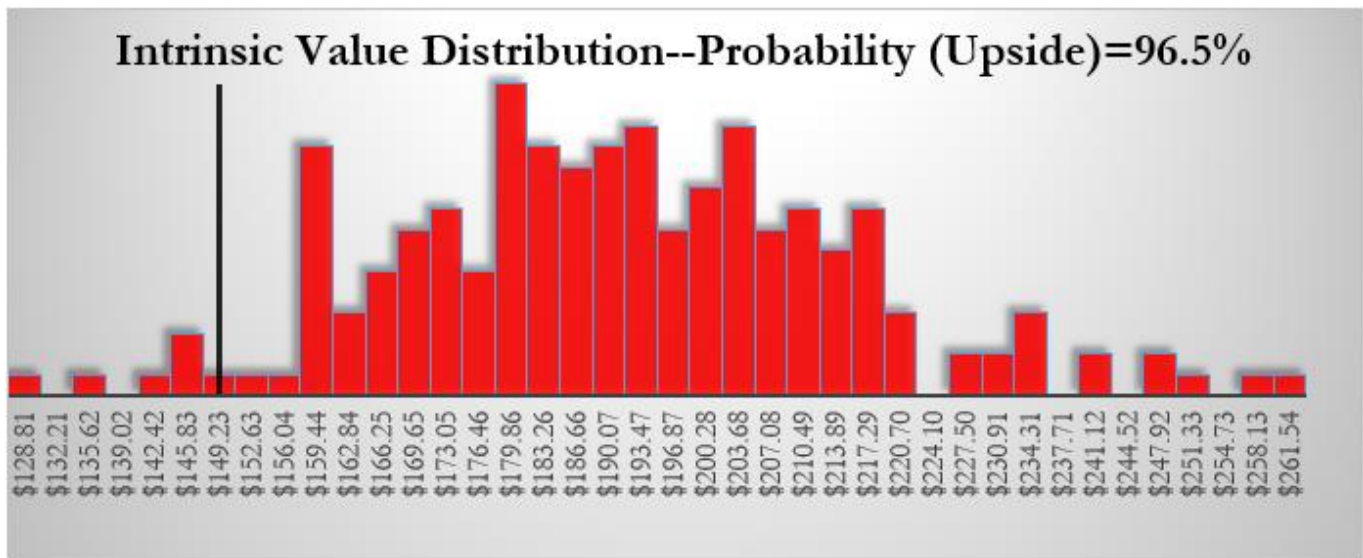
Return: 5.57%



Best Case Scenario:

Greater operational efficiencies are achieved due to an exponential growth of the towable segment and additional operational efficiencies expected from capacity expansion turn out as above expected. Revenues increase by 30% on the following year, tapering off to 2% within the next 10 years for the continuing period.

Return: 24.72%



Conclusion:

A bright future is ahead for Thor industries as macro-economic favorable scenario lays the foundation to a substantial increase in consumer demand, added to the also favorable change in demographics within buyers in the market. Thor Industries is working to capitalize on this increased demand by investing heavily in the expansion of its facilities and in the construction of new facilities that will support the increased backlog orders and the continuing increase in demand. In addition, Q1 of 2018 expressed positive signs forecasting and increase in the profitability of the company in the near future as the most profitable segment (towable) have outpaced the growth of the motorized segment and is forecast to continue this growth, as consumers are shifting to more affordable options.

Thor Industries, Inc. (tho)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by RICK

12/2/2017

Current Price:

\$151.59

Dividend Yield:

1.1%

Intrinsic Value:

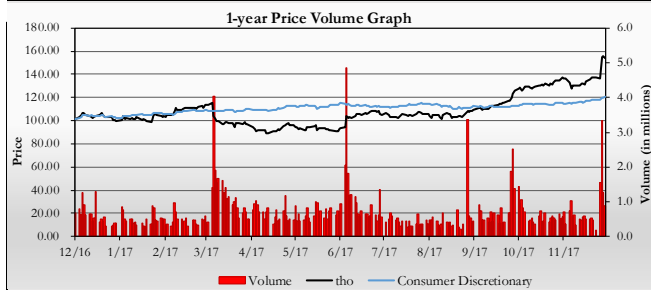
\$146.71

Target Price:

\$167.80

Target 1 year Return: 11.82%

Probability of Price Increase: 83%



Description	
Thor Industries, Inc., through its subsidiaries, designs, manufactures, and sells recreational vehicles, and related parts and accessories primarily in the United States and Canada.	
General Information	
Sector	Consumer Discretionary
Industry	Automobiles
Last Guidance	November 3, 2015
Next earnings date	March 6, 2018
Estimated Country Risk Premium	5.74%
Effective Tax rate	24%
Effective Operating Tax rate	24%

Market Data	
Market Capitalization	\$7,987.94
Daily volume (mil)	0.83
Shares outstanding (mil)	52.69
Diluted shares outstanding (mil)	52.79
% shares held by institutions	93%
% shares held by investments Managers	69%
% shares held by hedge funds	10%
% shares held by insiders	4.14%
Short interest	4.19%
Days to cover short interest	3.03
52 week high	\$156.86
52-week low	\$87.96
Volatility	25.23%

Past Earning Surprises	
Quarter ending	Revenue
10/31/2016	13.83%
1/31/2017	5.10%
4/30/2017	3.49%
7/31/2017	4.07%
10/31/2017	12.80%
Mean	7.88%
Standard error	2.3%

EBITDA	
10/31/2016	14.90%
1/31/2017	1.70%
4/30/2017	9.87%
7/31/2017	9.01%
10/31/2017	20.48%
Mean	11.19%
Standard error	3.1%

Management	
Management	Position
Orthwein, Peter	Co-Founder & Executive Chair
Martin, Robert	CEO, President & Director
Zuhl, Colleen	CFO & Senior VP
Julian, Kenneth	Senior Vice President of Adm
Woelfer, W.	Senior VP, General Counsel &
Byots, Bruce	Senior Director of Investor

Total compensations growth	
Orthwein, Peter	4.06% per annum over 6y
Martin, Robert	28.15% per annum over 5y
Zuhl, Colleen	50.99% per annum over 4y
Julian, Kenneth	37.87% per annum over 3y
Woelfer, W.	32.44% per annum over 4y
Byots, Bruce	N/M

Profitability	
tho (LTM)	tho (5 years historical average)
Return on Capital (GAAP)	22.1%
Operating Margin	4%
Revenue/Capital (GAAP)	4.9%
ROE (GAAP)	37.1%
Net margin	5.8%
Revenue/Book Value (GAAP)	5.90

Total return to shareholders	
Orthwein, Peter	5.29% per annum over 6y
Martin, Robert	14.87% per annum over 5y
Zuhl, Colleen	4.93% per annum over 4y
Julian, Kenneth	19.38% per annum over 3y
Woelfer, W.	4.93% per annum over 4y
Byots, Bruce	N/M

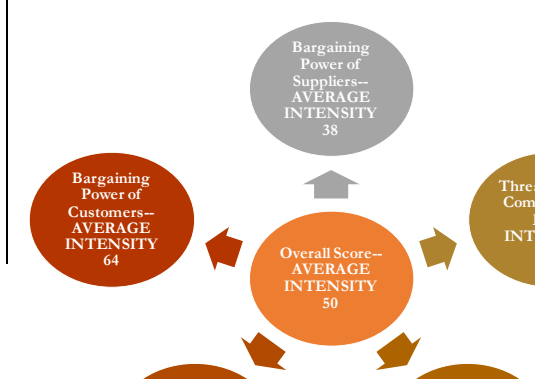
Invested Funds	
tho (LTM)	tho (5 years historical average)
Cash/Capital	10.8%
NWC/Capital	10.9%
Operating Assets/Capital	58.4%
Goodwill/Capital	19.9%

Peers' Median (LTM)	
Return on Capital (GAAP)	12.99%
Operating Margin	2.81%
Revenue/Capital (GAAP)	4.62
ROE (GAAP)	19.2%
Net margin	4.8%
Revenue/Book Value (GAAP)	4.02

Capital Structure	
tho (LTM)	tho (5 years historical average)
Total Debt/Market Capitalization	0.06
Cost of Existing Debt	4.0%
CGFS Rating (F-score, Z-score, and default Probability)	BBB
WACC	9.2%

Peers' Median (LTM)	
Total Debt/Market Capitalization	0.33
Cost of Existing Debt	4.7%
CGFS Rating (F-score, Z-score, and default Probability)	CCC
WACC	9.3%

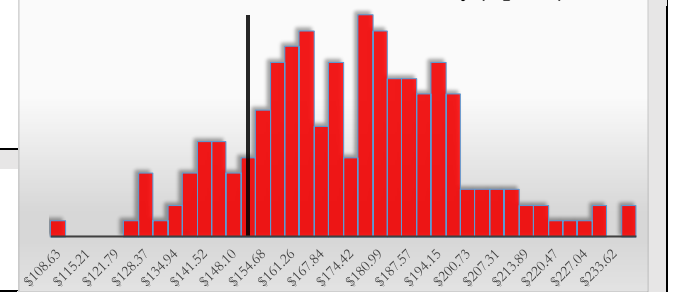
Porter's 5 forces (scores are out of 100)



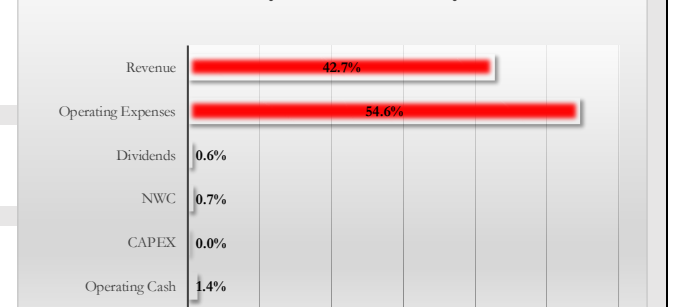
Revenue Growth Forecast	
Period	Revenue Growth Forecast
Base Year	48%
10/31/2018	24%
10/31/2019	17%
10/31/2020	9%
10/31/2021	8%
10/31/2022	7%
10/31/2023	6%
10/31/2024	5%
10/31/2025	5%
10/31/2026	4%
10/31/2027	3%
Continuing Period	2%
Return on Capital Forecast	
Period	Return on Capital Forecast
Base Year	31.9%
10/31/2018	34.4%
10/31/2019	31.9%
10/31/2020	25.8%
10/31/2021	23.5%

Valuation	
NOPAT Margin Forecast	Revenue to Capital Forecast
Base Year	4.65
10/31/2018	5.18
10/31/2019	4.57
10/31/2020	3.91
10/31/2021	3.48
10/31/2022	3.12
10/31/2023	2.81
10/31/2024	2.54
10/31/2025	2.31
10/31/2026	2.10
10/31/2027	1.91
Continuing Period	1.74
Price per share Forecast	
Period	Price per share Forecast
Base Year	\$149.61
10/31/2018	\$170.76
10/31/2019	\$192.30
10/31/2020	\$214.61
10/31/2021	\$237.58

Intrinsic Value Distribution--Probability (Upside)=83%



Sensitivity Attribution Analysis



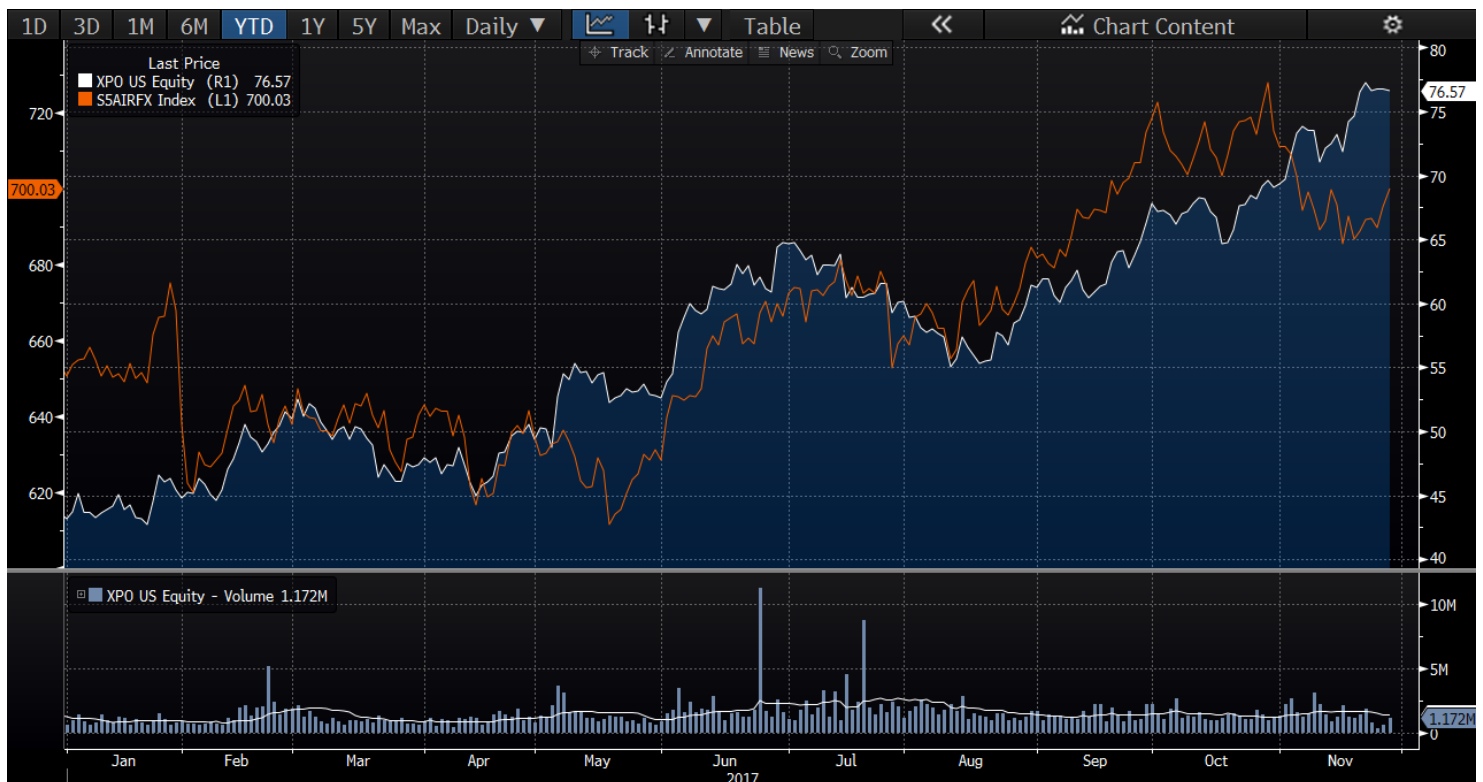
Company Description: XPO Logistics Inc. is a leading provider of transportation and logistics services to companies globally. The company operates as a highly integrated network of people, technology and physical assets. Through their two segments, Transportation and Logistics, XPO has built robust service offerings that are positioned to capitalize on fast growing areas of customer demand.

BUY

Current Price:	\$76.57
Target Price:	\$95.65
Market Cap:	9.2B
EBIDA Margin:	8.81%
EBITDA Growth:	11.95%
ROIC:	6.5%
WACC:	11.2%
D/E:	1.4

Catalysts:

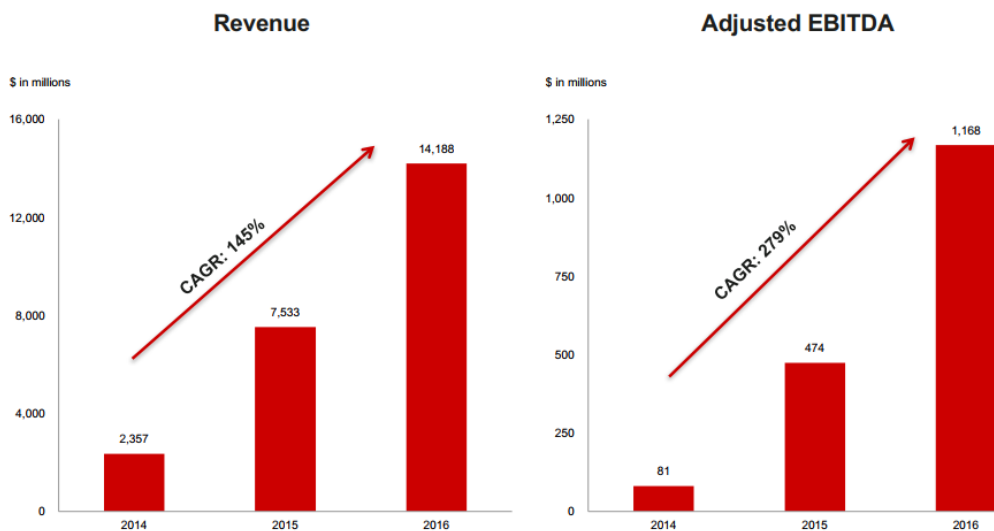
- **Short Term (within the year):** Q4 Earnings Report and benefits of 2015 acquisitions
- **Mid Term (1-2 years):** EBITDA growth through cost cutting focus
- **Long Term (3+):** Continued focus on expanding business through acquisitions



Thesis: In just a couple years, XPO has transformed itself from a company with an 800 million market cap to a major player in global freight and logistics. Through acquisitions in 2015, XPO has fostered a diverse product package that meets the many needs of their customers. The benefits of these acquisitions have just started to effect the stock price this year. We can continue to see these effects throughout the rest of the year and into 2018. While management is still looking into acquisitions for long-term growth, the company will maintain focus on internal operations. Cutting costs across the company will lead to a higher EBITDA margin that will offset any chance of stagnant sales. XPO's global share of their industry is growing fast and their strategy moving forward will be imperative to their future success.

Earnings Performance:

Industry-Leading Growth in Revenue and EBITDA



XPO Earnings have increased dramatically over the past few years. Revenues increased from \$702 million in 2013 to nearly \$15 billion in 2016. The company is starting to see the effects of past large acquisitions on their performance. Q3 2017 was no different, XPO reported record highs in revenues, net income and cash flow. Other historically negative metrics, such as EPS and Operating Income, have maintained positive numbers over the last two years. This quarter,

revenues increased 5% year-over-year to \$3.9 billion, including an organic revenue growth rate of 6.4%. Net income to common shareholders increased from \$14 million to \$58 million year-over-year. This equates to an increase in EPS from \$.11 to \$.44 over this same period. Operating income increased 15.8% to \$145 million and adjusted EBITDA increased by 4.6% to \$265 million. Both Transportation and Logistics experienced mid-single digit sales growth, demonstrating the company's consistency across their business segments. Management expects to maintain this sales growth while at the same time steadily improving margins. This year's goal of Adjusted EBITDA growth of 17% is well within reach and expected to be achieved by management. Overall, the quarter was quite successful and has given expectations for steady improvements across the board.

Business Segments:

Transportation:

The Transportation segment of XPO operates using the following lines of service: truck brokerage and transportation, last mile, less-than-truckload (LTL), intermodal and drayage, expedite and global forwarding. They are the second largest brokerage provider globally, including industry-leading positions in North America and Europe. In North America, they are the largest provider of last mile for heavy goods and second in LTL transportation. In Europe, XPO has the largest owned road transportation fleet. They are the leading LTL transportation and cover the regions that produce 90% of the Eurozone's GDP. This segment is the larger of the two, contributing to 63% of revenue. In Q3 2017, Transportation increased revenues 2.5% year-over-year to \$2.47 billion. Adjusted EBITDA also increased by 2.6% year-over-year to \$265 million. Management looks toward LTL and intermodal and drayage for additional growth opportunities. LTL covers 99% of all U.S. zip codes, delivering nearly 20 billion pounds of freight a year. Adjusted operating income here has nearly doubled in the past two years to \$433 million. Part of this is because of \$190 million run rate of savings. This success of cost control is a reason why management believes that LTL will reach \$1 billion of adjusted EBITDA within the next five years. In intermodal and drayage, XPO has one of the largest drayage networks in the country with access to over 25,000 drayage trucks. This market is favorable for XPO because of their Rail Optimizer technology. This growth engine and differentiator helped the company win its largest contract of all-time. With sales trends continuing to improve here, an opportunity for growth is well within XPO's grasp.

Leading Positions in Fast-Growing Industry Sectors

		As Percent of XPO's Gross Revenue ⁽¹⁾	Projected Industry Growth Rate X GDP ⁽²⁾
Contract Logistics	<ul style="list-style-type: none"> Second largest provider of contract logistics globally Largest outsourced e-fulfillment provider in Europe 	37%	2 – 3x
North American Less-Than-Truckload	<ul style="list-style-type: none"> Second largest LTL provider in North America More same-day and next-day lanes than any other provider 	24%	1 – 1.5x
European Transport	<ul style="list-style-type: none"> Largest provider of truck brokerage and largest owned fleet in Europe Leading provider of LTL in Western Europe 	17%	1 – 1.5x
Truck Brokerage, Expedite, Forwarding	<ul style="list-style-type: none"> Second largest freight brokerage firm globally Largest manager of expedited shipments in North America, with largest web-based auction TMS for expedite 	10%	2 – 4x
Intermodal and Drayage	<ul style="list-style-type: none"> Third largest intermodal provider in North America and a drayage leader A leader in cross-border Mexico freight movements by rail 	6%	3 – 5x
Last Mile Logistics	<ul style="list-style-type: none"> Largest last mile logistics provider for heavy goods in North America Expanding U.S. network hubs to 55 in 2017 and a targeted 85 in 2018 	6%	5 – 6x

Logistics:

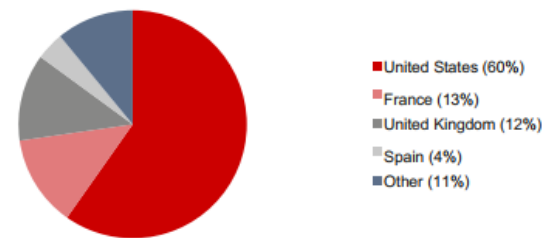
The Logistics segment operates through contract logistics, which build long-term relationships with customers. XPO is the second largest provider of contract logistics globally. This segment requires low CAPEX and leads to a strong free cash flow and ROIC. In Q3 2017, Logistics increased revenues 8.1% year-over-year to \$1.46 billion. This revenue increase can be attributed to the current high demand for contract logistics in Europe and North America. Adjusted EBITDA also increased by 7.4% year over year. This lower growth in Adjusted EBITDA growth can be due to higher direct operating costs related to new contract startups. With XPO's global position in this \$120 billion segment, the company expects to profit tremendously as contract logistics are expected to grow 2-3 times GDP. This business is also consistent and reliable, as XPO boasts a 95% renewal rate from their customers. Contract wins in late 2016 and early 2017 are ramping up now and will start to drive revenue growth when they come online in early 2018.

Industry Analysis:

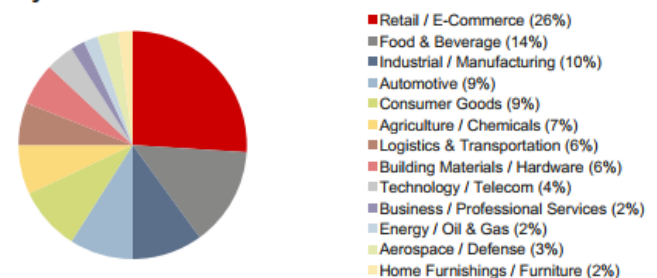
XPO is an industrial company that operates more specifically in the freight and logistics industry. This industry is large, growing and contains many unpenetrated market sectors. Many companies are seeking to consolidate their supply chain relationships, especially large companies with multinational footprints. XPO has strengths in scale, density, range and technology that are helpful in capturing this \$1 trillion opportunity. They currently have a 1.5% share of this addressable opportunity, which leaves them plenty of room to expand and capture a larger share. Since XPO has customers in different industries, their business can rely on the success of those industries. XPO believes they are not reliant on any one single industry because their customer base is so well diverse. Their largest customer industry is only 26% with many other areas of business to balance any low producing industry. XPO believes that their world-class service through technology and innovation will benefit them tremendously in an industry that requires precision.

Gross Revenue Profile

By Country of Operation



By Customer Vertical



Growth Strategy:

The stock price of XPO has done quite well this year, increasing just over 83% YTD. This large increase in price is a testament to the success and growth strategy of the company. Part of their past strategy has been to invest in mergers and acquisitions. Two of the company's biggest acquisitions occurred in 2015,

	Before*	After^
Revenue	\$702.3 million	\$15.1 billion
Ebitda	-\$17 million	\$1.3 billion
Profit Margin	17.6%	47.2%
Market Value	\$802.8 million	\$9 billion

where they bought Norbert Dentressangle (ND) for \$2.2 billion cash and Con-way for \$3 billion. These acquisitions have had tremendous effects on the company as revenue and EBITDA have grown 2,050% and 7,747% respectively. These massive changes in earnings have transformed XPO's business. Originally investors were skeptical of these massive deals and the

stock price took a large hit. However, mainly over the past year the price has started to reflect the benefits of these deals. We can expect to see these benefits continue to flow throughout the rest of the year as these acquisitions continue to ascend to maturity phases. While management is still rigorously vetting possible acquisitions, they also have taken a great focus on their internal operations. The company recognizes areas within pricing, utilization, sales and workforce productivity, data analytics and warehouse automation as opportunities to cut costs and increase EBITDA Margin. Reported EBITDA Margin for 2016 was 8.2% and management expects that, with these initiatives, this number will rise to 10% by the end of 2018. These projected numbers stem from single digit sales growth over the next few years. This shows that management does not believe they need to rely heavily on sales to increase their EBITDA. Any unexpected drop in sales

would not be as dramatic as it would be for other companies. XPO's sales organization is also much larger and more integrated than it was a year ago. They're maintaining a pipeline of over \$3 billion, while closing a record amount of new business. With these areas of growth recognized by management, they expect to outperform their industry going forward.

Competition:

XPO has performed relatively pedestrian when compared to their competition. They are hovering around the industry average for sales growth and EBITDA Margin. However, their EBITDA is growing twice as fast as their competitors which is where they want to continue their focus going forward. If they can follow through with their strategy and keep growing this margin it will give investors the confidence to invest and will improve the overall health of the company. Net Income growth was an astounding 205.31%. This can be attributed to lower interest rates and lower expenses for unusual items. XPO has been paying off their debt from acquisitions which is a reason why interest rates would be significantly lower. While we cannot rely on this major growth in net income going forward, the lower interest expenses are a great sign.

Name	Sales Growth (%)	EBITDA Growth (%)	EBITDA Margin	Net Income Growth (%)	Net Profit Margin
Median	7.80%	5.26%	10.83%	8.56%	4.03%
100) XPO LOGISTICS INC	4.05%	11.95%	8.81%	205.31%	1.62%
101) ARCBEST CORP	5.41%	14.19%	5.50%	55.51%	1.16%
102) ECHO GLOBAL LOGISTICS...	5.00%	-32.26%	2.04%	--	-0.41%
103) EXPEDITORS INTL WASH ...	10.07%	0.73%	10.83%	0.51%	6.50%
104) FEDEX CORP	15.55%	9.09%	13.64%	9.76%	5.21%
105) FORWARD AIR CORP	8.76%	5.26%	12.60%	-3.13%	4.66%
106) HUB GROUP INC-CL A	10.51%	-16.61%	3.79%	-30.78%	1.46%
107) OLD DOMINION FREIGHT ...	7.80%	11.81%	23.30%	11.81%	10.44%
108) SAIA INC	9.92%	12.58%	13.00%	8.56%	4.03%
109) UNITED PARCEL SERVICE...	6.57%	2.44%	16.44%	1.24%	8.20%

Ownership:

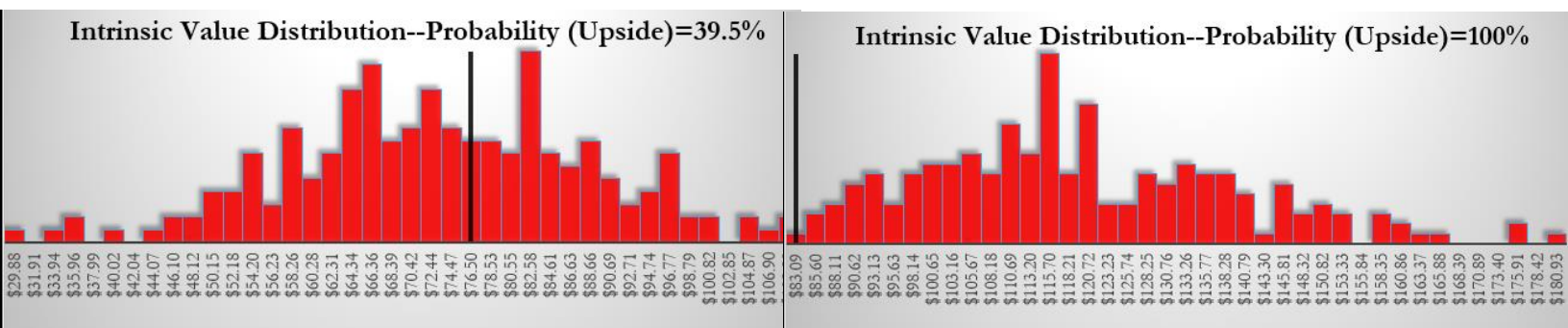
Compare Current Stats Against		11/26/16	
Ownership Type	11/20/16 ↓	Curr	Change
11) Investment Advisor	71.36	73.49	+2.13
12) Hedge Fund Manager	10.01	14.21	+4.20
13) Sovereign Wealth Fund	9.35	6.49	-2.86
14) Pension Fund	6.30	3.58	-2.72
15) Individual	1.12	0.84	-0.28
16) Brokerage	0.72	0.22	-0.50
17) Government	0.60	0.24	-0.36
18) Insurance Company	0.31	0.38	+0.07
19) Bank	0.15	0.46	+0.31
20) Holding Company	0.04	0.03	-0.01
21) Corporation	0.03	0.02	-0.01

XPO is owned mainly by Investor Advisors with 73.49% ownership. Hedge funds also have a sizeable position in the company with 14.21% ownership. Over the past year, these two categories of ownership have increased by 2.13% and 4.20% respectively. This shows that XPO's largest investors have remained confident in the company's ability to increase share price and want a greater chunk of the pie. Since

XPO's latest Q3 2017 earnings call hedge funds have increased their ownership by 1.63%. This reflects that hedge funds valued the information and results from the previous quarter. While short interest is relatively high at 13.56%, this figure has been steadily decreasing throughout the past few months.

What-If Analysis:

Using the Proforma, I was able to determine the extreme effects that the XPO stock price could face. In the bullish case I determined that we could see the one year target price increase to \$115.38 or a 50.68% return. In this scenario, I increased the continuing period revenue growth by .5% to 2.5% and decreased the Operating Cost/Revenue by 1% to 87.5%. This reflects the possibility that XPO will outperform the economy and increase sales greater than expected. If they are able to successfully complete their cost saving strategy they may also to increase EBITDA margin more than expected. In the bullish case I determined that we could see the one year target price decrease to \$69.25 or a -9.56% return. In this scenario, I decreased the continuing period revenue growth by .5% to 1.5% and increased the Operating Cost/Revenue by 2% to 90.5%. If sales slowdown faster than expected it is possible we can see this lowered continuing period revenue growth. This scenario also takes into the account that management cannot reach their goal of double digit EBITDA margin and it remains in the high single digits.



Conclusion:

XPO is a great opportunity looking forward in the global freight and logistics sector. They have a premier product package that caters to the needs of their customers and creates relationships moving forward. With their focused strategy at cutting costs and their history of acquiring companies, I see no reason why would not continue to grow at a fast pace.

Analysis by Kevin Boland

12/1/2017

Current Price:

\$76.57

Dividend Yield:

0.0%

Intrinsic Value

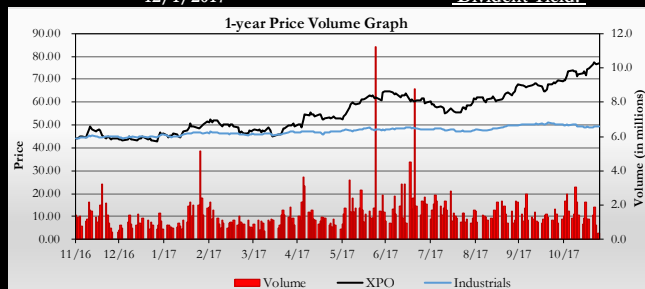
\$82.00

Target Price

\$95.65

Target 1 year Return: 24.91%

Probability of Price Increase: 91.5%



Description

XPO Logistics, Inc. provides transportation and logistics services in the United States, North America, France, the United Kingdom, Europe, Asia, and internationally.

General Information

Sector Industrials

Industry Air Freight and Logistics

Last Guidance November 3, 2015

Next earnings date February 21, 2018

Estimated Country Risk Premium 5.35%

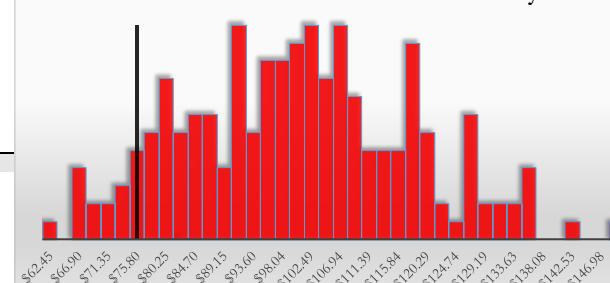
Effective Tax rate 23%

Effective Operating Tax rate 23%

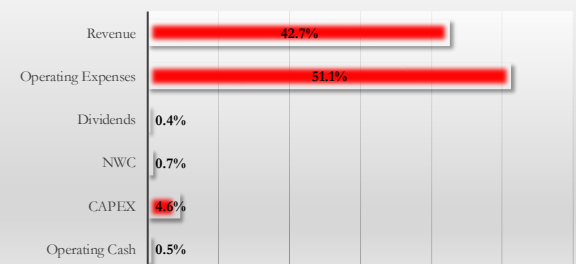
Market Data	
Market Capitalization	\$9,179.46
Daily volume (mil)	1.17
Shares outstanding (mil)	119.88
Diluted shares outstanding (mil)	128.05
% shares held by institutions	116%
% shares held by investments Managers	72%
% shares held by hedge funds	22%
% shares held by insiders	1.20%
Short interest	13.43%
Days to cover short interest	11.18
52 week high	\$77.90
52-week low	\$42.07
Volatility	44.02%

Past Earning Surprises			
Quarter ending	Revenue	EBITDA	
9/30/2016	-1.68%	-5.30%	C.H. Robinson Worldwide, Inc.
12/31/2016	1.58%	-15.10%	United Parcel Service, Inc.
3/31/2017	-0.32%	-1.14%	FedEx Corporation
6/30/2017	0.08%	-5.34%	Expeditors International of Washington, Inc.
9/30/2017	2.65%	-3.77%	Echo Global Logistics, Inc.
Mean	0.46%	-6.13%	Hub Group, Inc.
Standard error	0.8%	2.4%	Forward Air Corporation
			Atlas Air Worldwide Holdings, Inc.
Management		Peers	
Position		Total compensations growth	Total return to shareholders
Jacobs, Bradley	Chairman and Chief Executive	31.69% per annum over 4y	12.91% per annum over 4y
Hardig, John	Chief Financial Officer	-1.02% per annum over 3y	15.48% per annum over 3y
Cooper, Troy	Chief Operating Officer and	49.32% per annum over 1y	-33.34% per annum over 1y
Malat, Scott	Chief Strategy Officer	17.67% per annum over 4y	12.91% per annum over 4y
Robinson, Lance	Chief Accounting Officer	N/M	N/M
Harik, Mario	Chief Information Officer	-100% per annum over 2y	1.81% per annum over 2y
Profitability		XPO (LTM)	
Return on Capital (GAAP)	3.1%	-0.28%	12.64%
Operating Margin	3%	-0.95%	4.22%
Revenue/Capital (GAAP)	1.04	0.30	3.00
ROE (GAAP)	5.3%	0.0%	105.1%
Net margin	1.2%	0.4%	4.0%
Revenue/Book Value (GAAP)	4.53	0.09	26.19
Invested Funds		XPO (LTM)	
Cash/Capital	1.0%	5.4%	12.3%
NWC/Capital	2.8%	1.3%	13.7%
Operating Assets/Capital	62.8%	79.3%	51.3%
Goodwill/Capital	33.4%	14.0%	22.8%
Capital Structure		XPO (LTM)	
Total Debt/Market Capitalization	0.47	0.17	0.46
Cost of Existing Debt	5.9%	7.5%	4.0%
CGFS Rating (F-score, Z-score, and default Probability)	AA	BB	BBB
WACC	6.9%	11.7%	8.5%

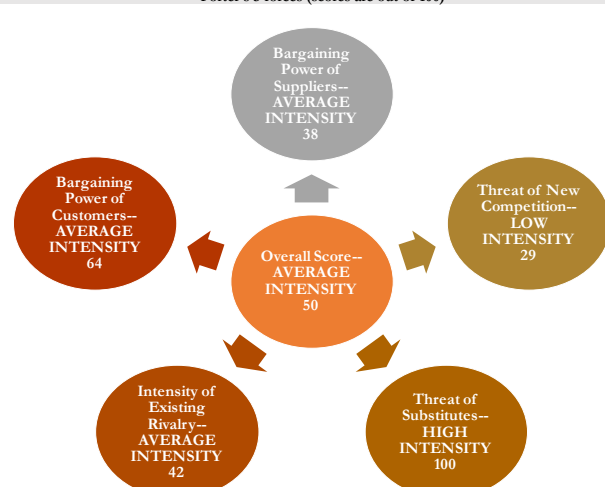
Intrinsic Value Distribution--Probability



Sensitivity Attribution Analysis



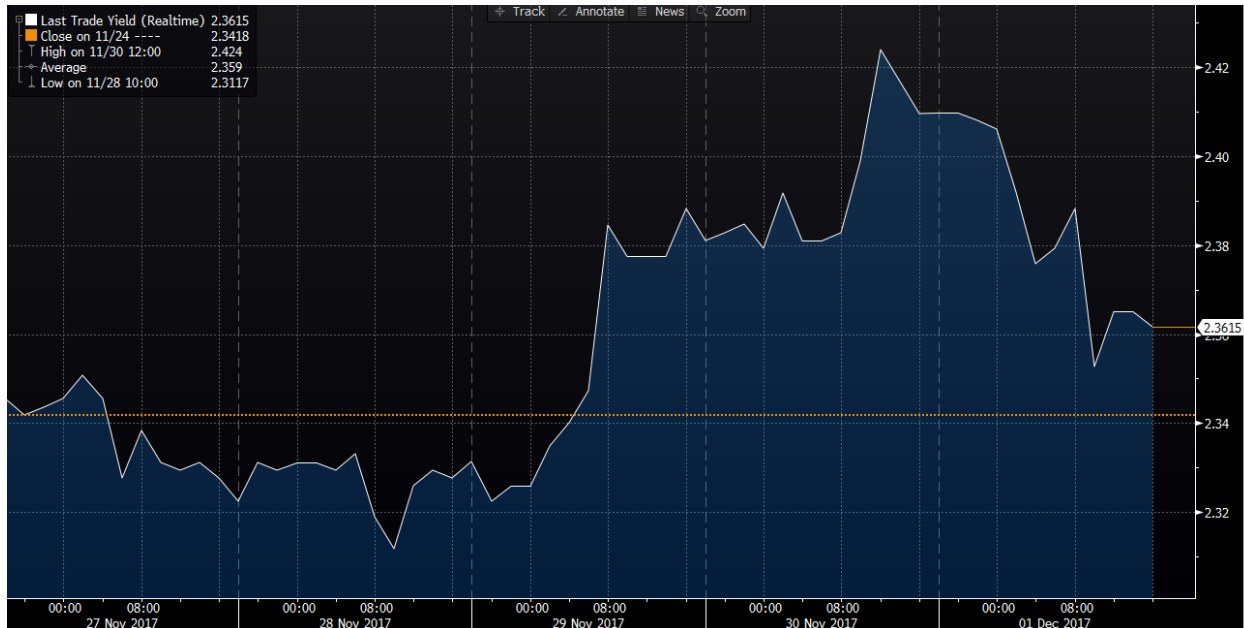
Porter's 5 forces (scores are out of 100)

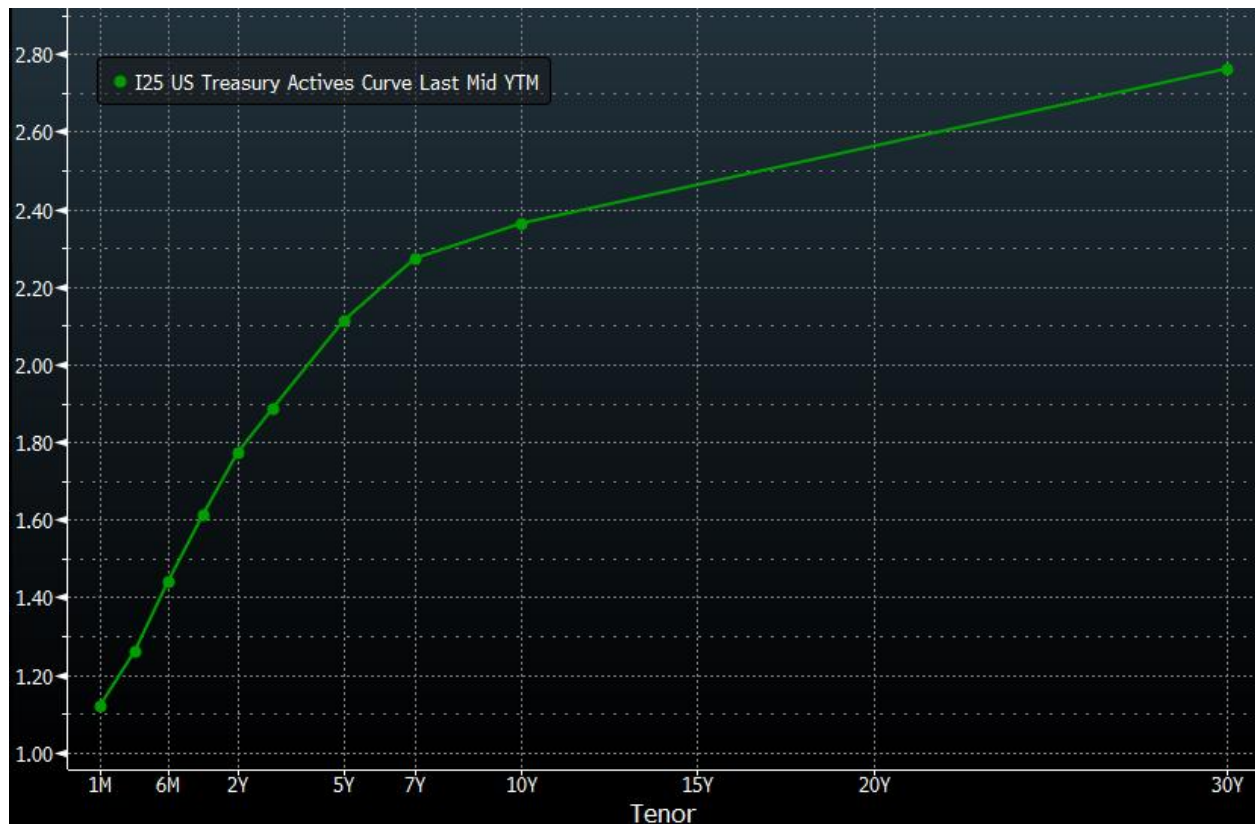


Period		Revenue Growth Forecast		Valuation	
Base Year		NOPAT Margin Forecast		Revenue to Capital Forecast	
9/30/2018		4%		6.2%	
9/30/2019		5%		3.4%	
9/30/2020		5%		3.9%	
9/30/2021		1%		3.9%	
9/30/2022		1%		4.1%	
9/30/2023		1%		4.3%	
9/30/2024		2%		4.4%	
9/30/2025		2%		4.6%	
9/30/2026		2%		8.4%	
9/30/2027		2%		8.5%	
Continuing Period		2%		8.6%	
Period		Return on Capital Forecast		WACC Forecast	
Base Year		Price per share Forecast			
9/30/2018		10.7%		6.9%	
9/30/2019		5.1%		8.0%	
9/30/2020		5.7%		8.1%	
9/30/2021		5.6%		8.1%	
9/30/2022		5.7%		8.2%	
9/30/2023		5.9%		8.3%	
9/30/2024		6.0%		8.4%	
9/30/2025		6.0%		8.5%	
9/30/2026		10.8%		8.6%	
9/30/2027		10.2%		8.7%	
Continuing Period		9.7%		8.8%	
		9.2%		8.9%	

Bond Report

Bond yields rose as there was optimism that the tax bill would eventually get passed. The tax bill saw increasing probability throughout the week, this being mirrored in yields. Bond investors may be forward looking in the fact that if the tax bill does go through then the likelihood of increasing budget deficit is there. The overlaying question is how will this budget deficit be paid for? Bond investors seemingly think that the government will have to issue more government debt to cover the difference, thus de-valuing new debt and increasing the value of the debt coming into existence prior to the passing. Also with an increasing deficit, there is in theory less certainty about the bonds and the future. In addition, Core inflation grew very slightly, at a rate of .21%. This small increase in inflation seems to have the FED excited and optimistic about the future and where the economy is headed. This small victory in the field of inflation could give raise to justification to large federal funds rate hikes.





What's next and key events?

The tax bill was passed and the numbers were laid out showing that there will indeed be an increase in the budget deficit. This budget deficit funding will most likely come from government debt as the individual tax rate has not and is not expected to increase in the future. This means that the market may be flooded with new issues of government debt in the future. Also, the core inflation numbers look promising but should not lead to as much optimism as they seemingly have. There is a changing of seats set to come between Powell and Yellen in the near future. Yellen may understand that her successor is not as hawkish as some may have liked and take action of large rate hikes on her own in the near future. Markets should also look at the employment situation discussion on Friday. This discussion may give leading indicators about economies health, average individual disposable income, and also a leading indicator of inflation which will dictate the FED's next move.