

Company Description:

Pinnacle Foods Inc. manufactures, markets, and distributes branded convenience food products in North America. It operates through four segments: Frozen, Grocery, Boulder, and Specialty. The Frozen segment offers frozen vegetables, frozen complete bagged meals. The Grocery segment provides cake/brownie mixes and frostings, shelf-stable salad dressings, salad dressings, canned meat, table syrups, margarine/spread, pie and pastry fruit fillings, and shelf-stable pickles. The Boulder segment offers gluten-free products, natural frozen meal offerings, plant-based refrigerated and shelf-stable spreads, and plant-based protein frozen products. The company sells its products through supermarkets, grocery wholesalers and distributors, super centers, and more.

SELL

Current Price: \$56.01

Target Price: \$61.89

52 Week Range: \$52.25-\$66.67

EBITDA Margin: 21.9%

Net Margin: 13.8 %

Market Cap: 6.67B

Avg. Volume: 1,833,709

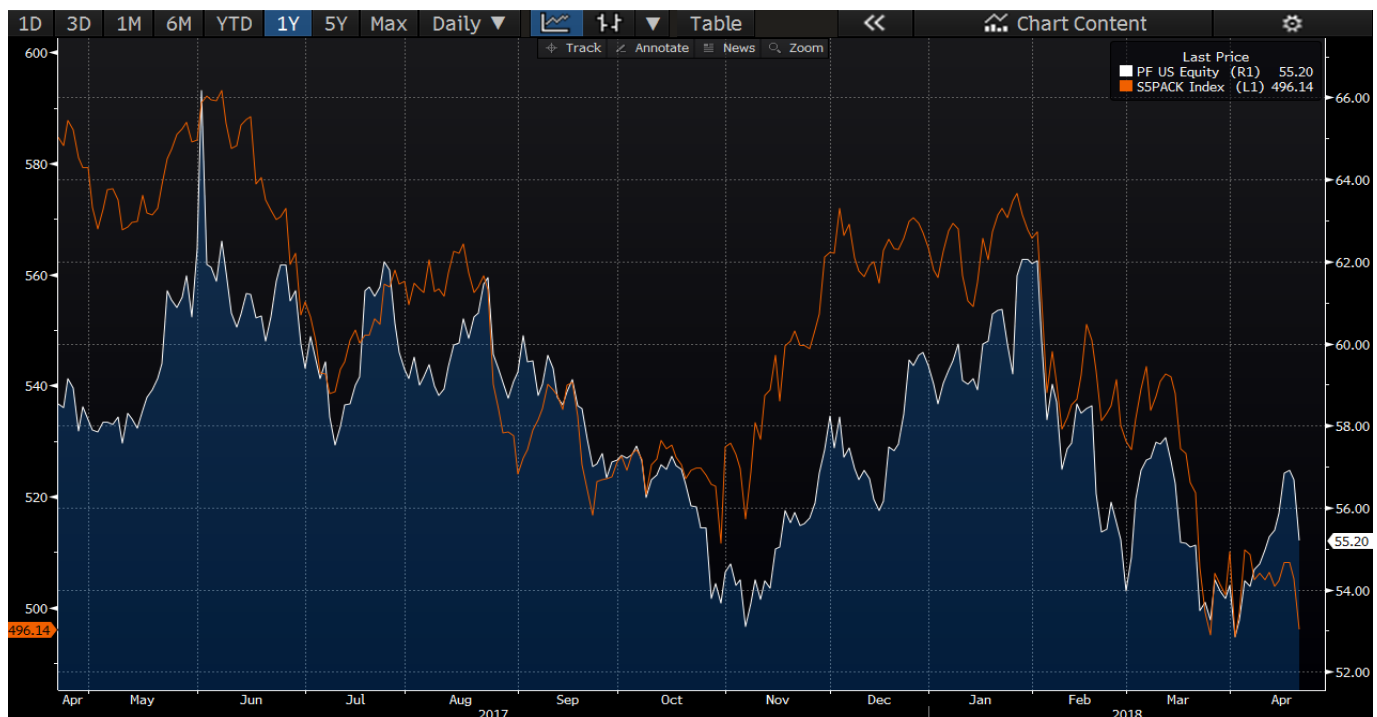
ROIC: 11.0%

WACC: 5.98%

Thesis: Pinnacle Foods proves to have impressive statistics that show consistent growth in revenue, earnings, and cost reduction. Their ability to identify losses in markets and address upcoming segments has shown that their increased measures are backed with business practices that are sustainable for the upcoming time horizon.

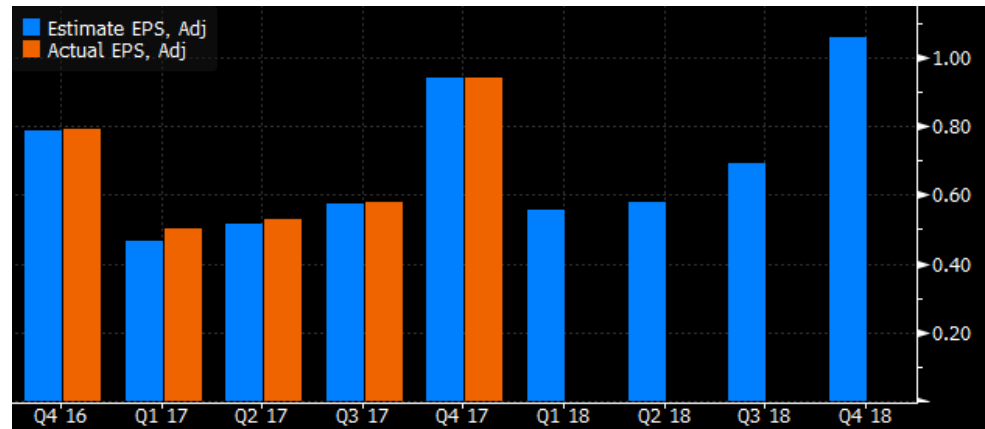
Catalysts:

- Short Term: Market shift to fresh food
- Mid Term: Millennials moving into the market segment
- Long Term: Growth of online grocery shopping

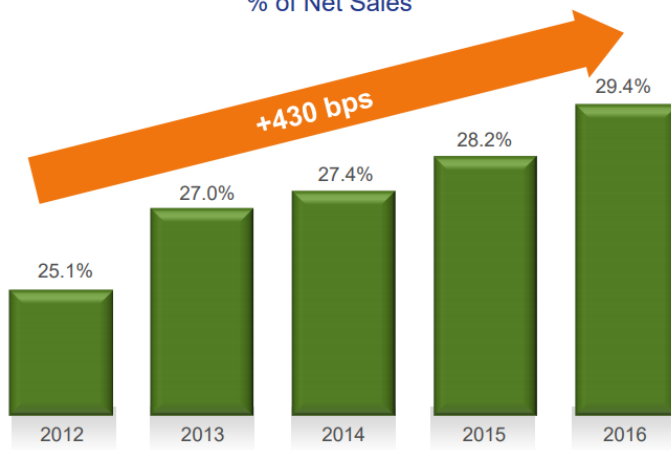


Earnings Performance:

Pinnacle has beaten earnings the past five quarters and looks to post consistent growth which could be attributable to competent corporate structure decisions. Strategic acquisitions and growth into new markets has shown Pinnacle to new opportunities to continue to



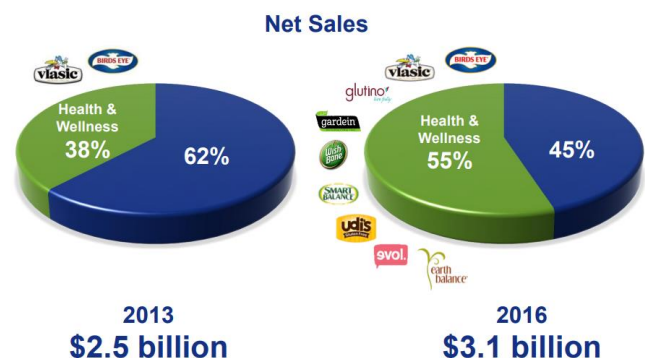
Adjusted Gross Profit % of Net Sales



grow their company. Revenue has increased over the past six years and is estimated to increase for the upcoming year again. Earnings per share increased 148 percent from last year to 2017 from \$1.81 per share to \$4.50 per share. Adjusted diluted earnings per share increased 19% to \$2.55 in 2017. Business segments have had an improved year despite some bumps in the road with one subsidiary leaving the market. Pinnacle has been able to continue strong growth that they have seen the past five years as seen in their adjusted gross profit growth. Future earnings should continue to increase due to macroeconomic facts like the U.S. tax reform.

Packaged Foods Health:

As a whole, the packaged foods market has moved in many different directions based on new societal eating trends and the popularity of “farm-fresh” food. Pinnacle has brands like Bird’s Eye that, even though they are frozen food brands, have taken a position in the fresh food category with their adaptation of steam-able frozen vegetables. Surveys have shown a movement away from processed foods and back to fresher food and ingredients. The number one category of food for growth in consumption is vegetables. With more people looking to live healthier lifestyles, Pinnacle has multiple brands to obtain market share. Other Pinnacle brands such as Smart Balance and gardein are in balance with new demand for fresh alternatives in the market. The growth of the Health and Wellness market is clear when looking at the difference of market segments that Pinnacle has revenue streams in. From 2013 to 2016, Pinnacle moved 17 percent of their net sales from other food categories to health and wellness.



Pinnacle vs. Competitors:

Pinnacle's competitors range across many different food markets from frozen entrees to canned goods. The diversity in product offerings through its subsidiaries that Pinnacle offers gives it a competitive advantage that only few other companies have. Their leading brands, Bird's Eye and Vlasic, lead their competition by significant margins and prove to be key factors in the growth of other Pinnacle brands. The combination of brands spread across different market segments gives Pinnacle reduced risk to changing consumer behaviors. Pinnacle has been making strides to develop new products among all of their subsidiaries. Duncan Hines introduced their instant dessert in a cup products and additional breakfast foods. Vlasic launched their bit-sized Snack'mms, a four-item line of pickled snacks. Another Pinnacle brand, Udi, released their own new line of products. Udi's new line of breads includes a new formula to improve the taste and texture of their gluten-free products. Pinnacle has shown large strides in improving their current line of products among their subsidiaries. Over the past six years, Pinnacle foods has grown exponentially. When compared to other

COMMON SIZE VIEW				
	6-year Historical Median		Last 12 Months	
	PF	Competitors	PF	Competitors
COR/Rev	73.0%	67.9%	70.9%	66.6%
(SGA+Other)/Rev	13.7%	19.9%	13.2%	20.8%
DPR/Rev	2.6%		2.6%	0.0%
EBITA Margin	10.7%	12.2%	13.3%	12.6%
Interest exp/Rev	5.1%	1.5%	4.0%	1.9%
AMORT/Rev	0.6%		0.4%	0.0%
SBC/REV	0.5%		0.6%	0.0%
Other Non-Operating Exp/Rev	-0.5%	-2.9%	-10.5%	-6.8%
Taxes/Rev	1.4%	2.6%	5.1%	3.7%
Net Margin	3.7%	10.8%	13.8%	13.8%
Cash/Capital	3.5%	4.3%	4.6%	5%
NWC/Capital	6.0%	11.0%	5.1%	6%
Operating Assets/Capital	50.6%	52.9%	50.7%	56%
Goodwill/Capital	39.9%	31.8%	39.6%	33%
Debt/Capital	63.8%	49.6%	55.7%	56%
Other Claims/Capital	0.0%	0.6%	0.0%	0%
Book Value/Capital	36.2%	49.9%	44.3%	43.3%

competitors in their market, it can be observed that Pinnacle has made significant strides towards increased returns. Pinnacle increased their net margin from 3.7 percent at their six year median to 13.8 percent in the last 12 months. In the same period, competitors increased from 10.8 percent to 13.8 percent. Pinnacle has also improved their ability to retain their revenue and turn it to income. The six year median EBITA margin was 10.7 percent and the net margin was 3.7 percent for Pinnacle. In the last 12 months, they have become more profitable with an EBITA of 13.3 percent and net margin of 13.8 percent.

Tax Reform:

Pinnacle executives had stated that Pinnacle foods stands to benefit from the U.S. tax reform. The savings from the reduced taxes that they recover will be used to invest in their brands and employees. Some of the reinvested capital will be used to fund SG&A back to levels they had in 2016.

Pinnacle's Market Footprint:

Pinnacle has a vast footprint that stretches across the nation in many different distributors. With products in frozen, canned, or packaged foods, Pinnacle keeps themselves in the eye of the consumer no matter where they may be in a grocer. The new trend of grocery shopping is online purchasing of any foods you may need. Pinnacle had made strides in integrating their brands' websites to be more consumer friendly to encourage online shopping growth. In the past year, Pinnacle has seen growth in online sales of over 20 percent CAGR. As retail stores show pull backs from consumers for more time efficient ways of shopping, Pinnacle stands ready to benefit on all fronts of the food industry. Pinnacle's growth in the past few years has led to a lack of ability to meet their demand. This led Pinnacle to their acquisition of the Beaver Dam manufacturing plant. Beaver Dam is a large plant that has expanded Pinnacle's ability to create the goods that they lacked before. Specifically, Beaver Dam is engaged in the production of goods for Bird's Eye. Pinnacle's growth has allowed them to grow their employee population, expand their brands value, and expand the amount of manufacturing plants under their ownership.

Enhanced Scale and Capabilities

UNLEASHING
BRAND
POTENTIAL

	2013	2017
 # of \$100m+ Brands	6	8
 # of Employees	3,700	5,500
 Temperature Classes	Frozen Dry Grocery	Frozen Dry Grocery Refrigerated
 Retail Distribution Channels	Traditional	Traditional Natural & Organic E-commerce
 # of Manufacturing Plants	10	17

Conclusion:

Pinnacle Foods has shown an ability to create value through the purchasing of new resources, increasing profitability measures, and adapting to new market trends. Their year over year growth against their competitors makes them a strong consideration for an investment. Reinvesting has given Pinnacle a stronger position to grow than its competitors as seen over the past few years.



Pinnacle Foods Inc. (PF)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by Jacob Perry

4/19/2018

Current Price:

\$56.01

Dividend Yield:

2.4%

Intrinsic Value

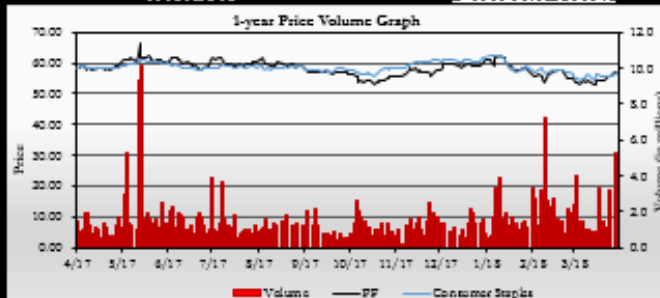
\$56.92

Target Price

\$61.89

Target 1 year Return: 12.85%

Probability of Price Increase: 78%



Description	
Pinnacle Foods Inc. manufacturer, marketer, and distributor branded convenience food products in North America.	
General Information	
Sector	Consumer Staples
Industry	Food Products
Last Guidance	February 12, 2018
Next earnings date	May 3, 2018
Market Assumptions	
Estimated Equity Risk Premium	5.08%
Effective Tax rate	27%

Market Data	
Market Capitalization	\$6,570.60
Daily volume (mil)	6.48
Shares outstanding (mil)	119.03
Diluted shares outstanding (mil)	119.55
% shares held by institutions	109%
% shares held by investment managers	74%
% shares held by hedge funds	27%
% shares held by insiders	0.86%
Short interest	3.50%
Days to cover short interest	2.27
52 week high	\$66.67
52 week low	\$52.25
Volatility	18.09%

Quarter ending	
12/25/2016	0.69%
3/26/2017	0.03%
6/25/2017	-2.56%
9/24/2017	-0.54%
12/31/2017	-1.08%
Mean	-0.69%
Standard error	1.0%

Part Earning Surprises	
Revenue	EBITDA
12/25/2016	15.15%
3/26/2017	-1.18%
6/25/2017	-8.00%
9/24/2017	-2.76%
12/31/2017	-11.21%
Mean	-1.60%
Standard error	4.8%

Market and Credit Scores	
Recommendation (STARS) Value--4	
Recommendation (STARS) Description--Buy	
Quality Ranking Value--NR	
Quality Ranking Description--Not Ranked	
Short Score--0	
Market Signal Probability of Default % (Non-Rating)--1.152%	
Credit Model Score (Non-Rating)--bb+	

Management	
Clawson, Mark	CEO & Director
Steenock, Craig	Executive VP, CFO & Principal Accounting Officer
Schiller, Mark	Executive VP, Chief Commercial Officer & International
Bauer, Christopher	Chief Customer Officer and Executive Vice President
Wittman, David	Chief Supply Chain Officer and Executive Vice President
Mosgr, Michael	Executive VP, General Counsel & Secretary

Partitions	
Revenue	EBITDA
12/25/2016	15.15%
3/26/2017	-1.18%
6/25/2017	-8.00%
9/24/2017	-2.76%
12/31/2017	-11.21%
Mean	-1.60%
Standard error	4.8%

Industry and Segment Information	
LTM Revenue by Geographic Segment	LTM Revenue by Business Segment
United States--98%	Frozen--41%
Canada--5%	Grainery--35%
Intercompany--3%	Bakery--13%
	Specialty--10%

Profitability	
PF (LTM)	PF Historical
Return on Capital (GAAP)	6.2%
Operating Margin	13%
Revenue/Capital (GAAP)	0.47
ROE (GAAP)	21.6%
Net margin	13.8%
Revenue/Book Value (GAAP)	1.56

Peer's 5 forces (Scores are percentiles)	
Bargaining Power of Suppliers--MIDDLE TIER 33	
Bargaining Power of Customers--MIDDLE TIER 64	
Threat of New Competition--LOWEST TIER 29	
Intensity of Existing Rivalry--MIDDLE TIER 42	
Threat of Substitution--HIGHEST TIER 100	

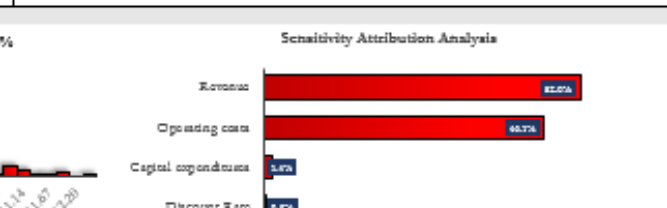
Invested Funds	
PF (LTM)	PF Historical
Cash/Capital	4.6%
NWC/Capital	5.1%
Operating Assets/Capital	50.7%
Goodwill/Capital	39.6%

Capital Structure	
PF (LTM)	PF Historical
Total Debt/Market Capitalization	0.56
Cost of Debt	5.5%
CGFS Rating (F+care, Z+care, and default Probability)	CCC
WACC	5.1%

Peer's 5 forces (Scores are percentiles)	
Bargaining Power of Suppliers--MIDDLE TIER 33	
Bargaining Power of Customers--MIDDLE TIER 64	
Threat of New Competition--LOWEST TIER 29	
Intensity of Existing Rivalry--MIDDLE TIER 42	
Threat of Substitution--HIGHEST TIER 100	

Valuation	
Explicit Period (4 years)	Continuing Period
Revenue Growth CAGR	2%
Average Operating Margin	22%
Average Net Margin	12%
Growth in Capital CAGR	4%
Growth in Claims CAGR	0%
Average Return on Capital	7%
Average Return on Equity	10%
Average Cost of Capital	5%
Average Cost of Equity	8%

Forecast Assumptions	
Revenue Growth CAGR	2%
Average Operating Margin	22%
Average Net Margin	12%
Growth in Capital CAGR	4%
Growth in Claims CAGR	0%
Average Return on Capital	7%
Average Return on Equity	10%
Average Cost of Capital	5%
Average Cost of Equity	8%



April 20, 2018

Cummins Inc: (CMI)

George Brockmann

Sector: Industrials

Industry: Diversified Industrials/Engine and Turbine Manufacturing

Current Price: \$170.5

Target Price: \$188.41

Company Description:

Cummins Inc designs, manufactures, distributes, and services diesel and natural gas engines, engine-related components, and electric power generation systems worldwide for a multitude of industries.

BUY

Current Price:

\$170.5

Target Price:

\$188.41

Market Cap:

27B

Beta:

0.95

Avg. Volume:

1,719,872

Adj. ROE: 25.03

Ke: 11.51%

Adj. EBITDA

Margin: 14.4%

Adj. ROIC: 17.46

WACC: 11.01%



Thesis:

After a year of consistent margin growth, CMI's stock price has decreased dramatically over fears of international macro issues, along with large one time abnormal costs effecting earnings. For the first time in the year CMI is underperforming the industry while still posting positive numbers, leading to conclusion that the company is currently undervalued. Once the repercussions of the macro related sell-off have passed, along with a new quarter without the abnormal charges, CMI's margin and overall company growth over the year will reflect in an increased stock price that outperforms the market.

Catalysts:

Short Term(within the year):

Recovery from abnormal costs that plagued the 4th quarter of 2017.

Recovery from macro related sell-off as a result of talk of trade wars with China.

Possible acquisition of GE's Jenbacher engine company.

Release of X12 engine, an engine with "best in class power to weight ratio"

Mid Term(1-2 years):

Increased investment into electric powertrains

Further company and product segment growth through planned acquisitions to be done with excess of cash in balance sheet

Long Term(3+):

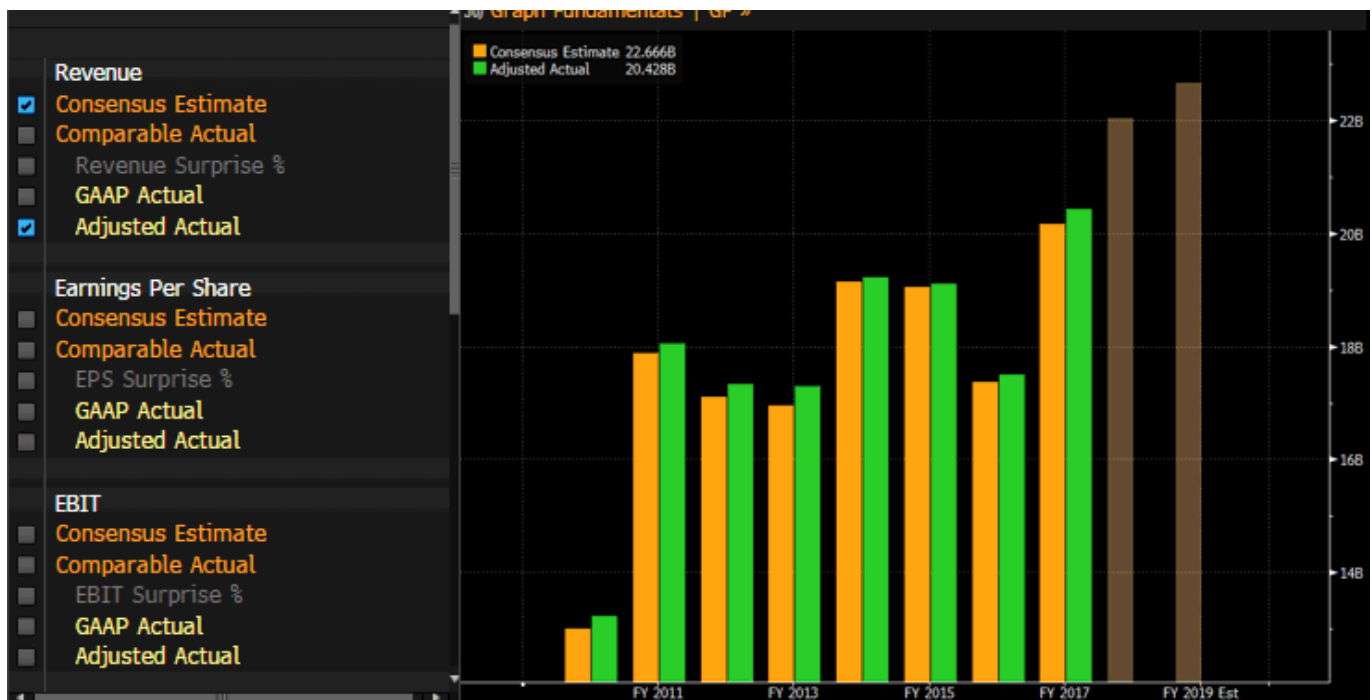
Planned release of electric powertrain.

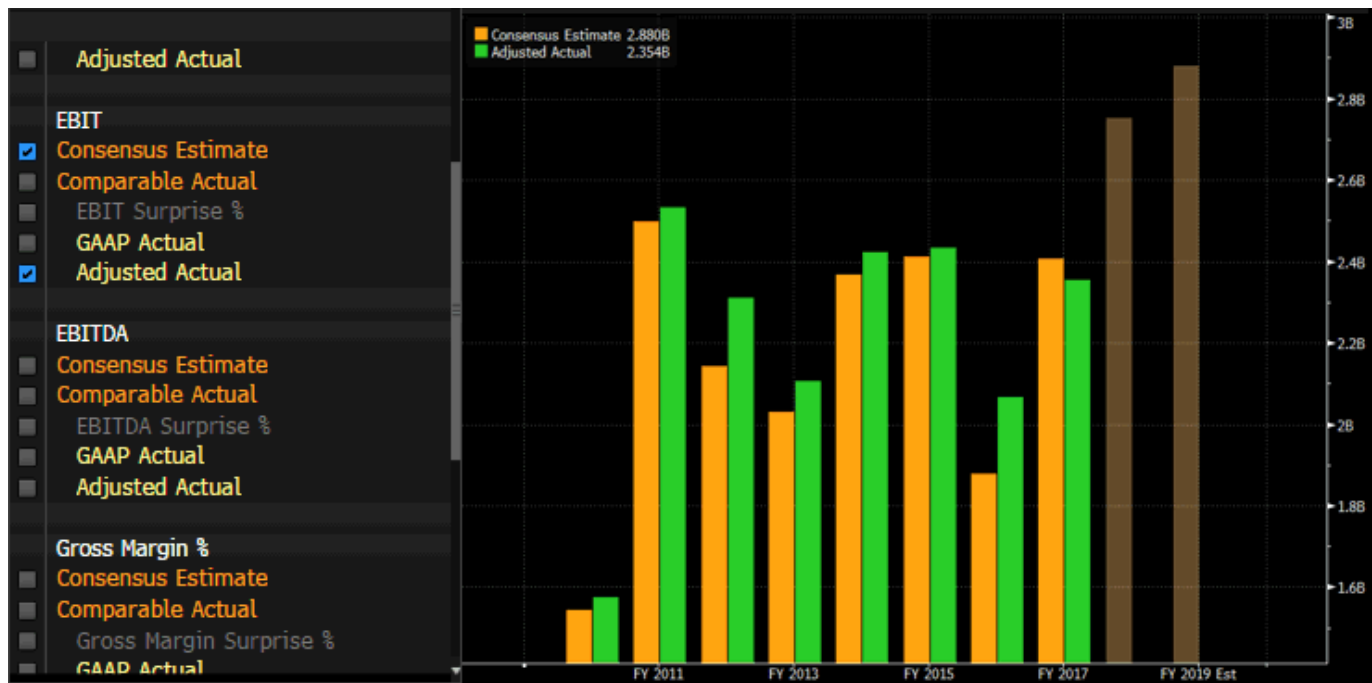
Continued growth of company along with geographic and product line expansion.

Earnings Performance:

CMI ended their fiscal year on 12/31/2017, the year was ended with positive performance in certain sectors, while less than desirable performance in other sectors. Adj. Revenue grew by 16.7% to a company record \$20,428M, this is up from growth of -8.4% in 2016. Adj. Gross Margin decreased to 24.9% from 25.4%, and Adj. EBIT hit \$2,354M however Adj. EBIT Margin decreased to 11.52% from 11.81%. Adj. EBITDA hit \$2940M and the margin decreased from 14.8% to 14.4%. Adj. Net Income hit \$1768.9M from \$1474.6M and Adj. EPS increased from 8.71 to 10.57. CMI increased their short-term debt from \$288M to \$418M and marginally increased their long term debt to \$1588M from \$1568M.

EBIT, Gross Profit, and Net Income Margins are all projected to increase into 2018. The stock price saw a high percentage of growth over 2017 until January 2018 where CMI hit a large amount of abnormal expenses from tax legislation that passed and resulted in great decreases of GAAP reported numbers like net income or EPS, resulting in a large decrease in stock price, even through strong earnings performance. However, when this abnormal expense is factored out through the adjusted numbers, it shows that the company is performing very strongly. However higher costs associated with warranties, acquisitions, and large projects have also negatively affected some of the numbers and margins, these are expected to decrease into the 2018 year. Along with this there is investor sentiment that a possible trade war with China could negatively impact CMI's operations, however as the majority of CMI's products that are sold in China are produced in the borders, a trade war's impact would be negated.





Industry Outlook:

CMI operates in the Industrials segment under the Engine and Turbine Manufacturing Industry. Because of the engine portion of this industry, one of the main drivers for demand is the demand for heavy-duty trucks. This is generally determined by the age and replacement rate of existing fleets of trucks, replacement rates frequently change when new requirements are placed on these trucks that older ones do not have. This was seen in China in 2017 as new regulations were released to increase safety and resulted in new trucks being ordered, positively effecting CMI. This is also effected by positive economic activity as it can lead to increases in road freight activity, which likewise increases demand. Demand is also linked to industrial production and manufacturing, as these industries use the largest engines and use their turbine and power generator equipment, in particular the mining, logging, and long haul freight industries. Anything that affects construction growth also increases demand in this sector, for example strong economic growth or low interest rates.

In 2017 this industry saw higher demand for off-highway units in North America and China, along with higher truck demand as well. Increased demand from mining customers and gas and oil customers led to increases in the power generation section of the industry. There was also increased infrastructure investment and property construction that led to higher sales.

Looking ahead to 2018, it is expected that the industry will benefit from an increase in domestic freight volumes and greater industrial and manufacturing activity will positively affect demand across multiple product segments. This will be driven by US economic expansion along with expected increases in private investment in industrial equipment. This private investment increase will be spurred by a corporate profit that is expected to rebound in 2018, along with rising consumer spending will positively affect private investment in industrials. However there is a possibility of interest rate increases that could negate some of this growth. Another factor that will affect the Industrials segment as a whole is the world price of steel. In 2017 global demand for steel sharply increased and prices did as well, prices are expected to decrease into 2018 as a result of US policies and contraction from previous years price increases.

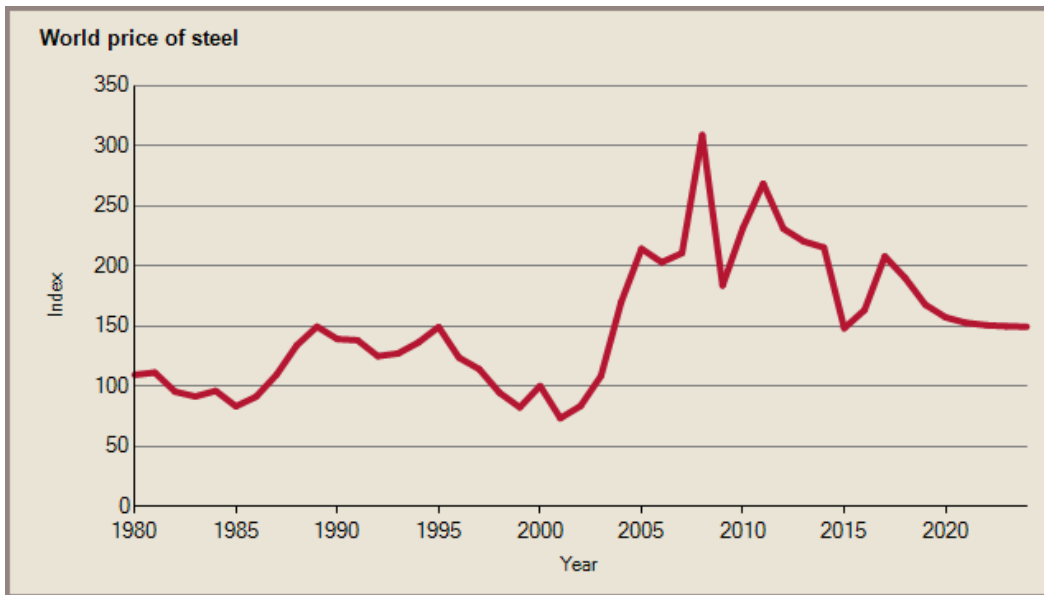
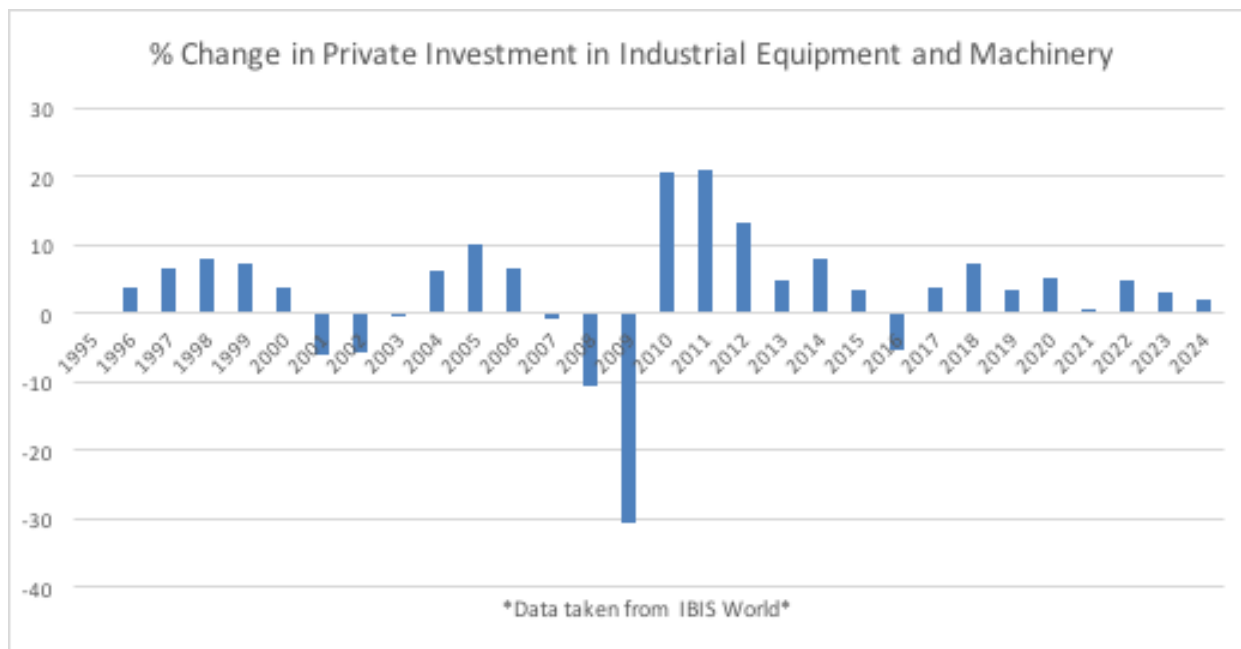


Chart from IBIS World



Mirroring other industries like automotive and the commercial vehicle, the Engine and Turbine Manufacturing Industry is also pushing away from standard engine design and moving towards higher levels of technologies in the engines as fuel emission standards become increasingly stringent. This has also resulted in large amounts of investment in electric engine technologies for this segment.

Recent worries in the industry around a trade war between the United States and China have had a negative impact on companies inside this industry as of recent. However in relation to CMI, if this trade war did occur it would have a negligible effect on their revenue. This is as a result of the fact that the majority of products sold by CMI in China are not shipped there. CMI owns a number of facilities inside the borders of China that produce their products, as well as a number of joint ventures with Chinese companies to produce their products. As a result this possible trade war would not impact CMI majorly.

Business Model:

CMI is a global power leader that designs, manufactures, distributes and services diesel and natural gas engines and engine-related component products, including filtration, aftertreatment, turbochargers, fuel systems, controls systems, air handling systems, transmissions and electric power generation systems. CMI sells their products to original equipment manufacturers (OEMs), distributors and other customers worldwide. They serve their customers through a network of approximately 500 wholly-owned and independent distributor locations and over 7,500 dealer locations in more than 190 countries and territories. CMI has four complementary operating segments: Engine, Distribution, Components and Power Systems. These segments share technology, customers, strategic partners, brand recognition and their distribution network in order to compete more efficiently and effectively in their respective markets. In each of CMI's operating segments, they compete worldwide with a number of other manufacturers and distributors that produce and sell similar products. CMI's products compete primarily on the basis of performance, fuel economy, speed of delivery, quality, customer support and price. CMI also has long-standing relationships with many of the leading manufacturers in the markets they participate in, including PACCAR Inc, Daimler Trucks North America, Navistar International Corporation and Fiat Chrysler Automobiles.

Segment Analysis:

CMI has 4 reportable segments; Engine which makes up 32.6% of revenue, Distribution which is 34.4%, Components creates 21.4% of revenue, and Power Systems which is 11.6% of revenue. CMI is an international company and they sell their products in many different countries around the world. CMI breaks up their geographic areas for revenue into 3 sections; United States which brings in 53.9% of revenue, Other Foreign Countries is 35.6% of revenue, and China which is 10.5% of revenue.








Although it did not bring in the most revenue in 2017, the Engine segment is still the most profitable as it brought in 40.1% of operating income over the year. This segment manufactures and markets a broad range of diesel and natural gas powered engines under the Cummins brand name, as well as certain customer brand names, for the heavy- and medium-duty truck, bus, recreational vehicle (RV), light-duty automotive, construction, mining, marine, rail, oil and gas, defense and agricultural markets. This segment is also split up into 4 sections based on the size of the engine and its use. The Heavy-Duty Truck section manufactures diesel and natural gas engines that range from 310 to 605 horsepower serving global heavy-duty truck customers, and made up 15.1% of revenue in this segment. The Medium-Duty Truck and Bus section manufactures diesel and natural gas engines ranging from 130 to 450 horsepower serving medium-duty truck and bus customers worldwide, applications include pickup and delivery trucks, vocational truck, school bus, transit bus and shuttle bus. Diesel engines are also produced for Class A motor homes in this section, this section produced 42.1% of revenue. The Light-Duty Automotive manufactures 105 to 385 horsepower diesel engines, including engines for the pickup truck market for Fiat Chrysler Automobiles (Fiat Chrysler) and Nissan in North America and it generated 40.5% of revenue in the segment. The final section is the Off-Highway Section which manufactures diesel engines that range from 48 to 715 horsepower to global markets including mining, marine, rail, oil and gas, defense, agriculture and construction equipment and also to the power generation business for standby, mobile and distributed power generation solutions throughout the world and this section produced 2.3% of revenue. After seeing a decrease in sales and revenue from 2015-2016, this segment had a strong year with revenues increasing by 15.3% mostly driven by 20% increase in








sales of medium and heavy unit sales. Over 2017, the Engine segment increased its revenue from \$5774M to \$6661M.

The Distribution segment brought in the most revenue from CMI, but was not the most profitable bringing in 16.1% of operating income. The Distribution segment consists of 28 wholly-owned and 10 joint venture distributors that service and distribute the full range of CMI's products and services to end-users at roughly 450 locations in over 90 distribution territories. CMI's wholly-owned distributors are located in key markets, including North America, Australia, Europe, China, Africa, Russia, Japan, Brazil, Singapore and Central America, while they have joint venture distributors located in key markets, including South America, the Middle East, India, Thailand and Singapore. CMI's distribution network consists of independent, partially-owned and wholly-owned distributors which provide parts and service to their customers. These full-service solutions include maintenance contracts, engineering services and integrated products, where they customize their products to cater to specific needs of end-users. CMI's distributors also serve dealers in their territories by providing new products, technical support, tools, training, parts and product information. This segment is responsible for managing the operations of CMI's distributors as well as their relationships with independent distributors. The Distribution segment serves a diverse customer base with roughly 38 percent of its 2017 and 2016 sales being generated from new engines and power generation equipment, with its remaining sales generated by parts and service revenue. The Distribution segment's revenue increased from \$6157M to \$7029M in 2017.

The Components Segment brought in 21.4% of revenue and 31.5% of operating income, this segment also saw a notable increase in goodwill over 2017 as it tripled as a result of acquisitions. The Components segment supplies products which complement CMI's Engine and Power Systems segments, including aftertreatment systems, turbochargers, transmissions, filtration products and fuel systems for commercial diesel applications. They manufacture filtration systems for on- and off-highway heavy-duty and medium-duty equipment, and are a supplier of filtration products for industrial vehicle applications. In addition, CMI develops aftertreatment systems and turbochargers to help their customers meet increasingly stringent emission standards and fuel systems which have also supplied their Engine segment as well as their joint venture partners. The Emissions Solutions section of this segment involves designing, manufacturing and integrating aftertreatment technology and solutions for their engine markets and making the products more environmentally friendly. The Turbo Technology section of this segment includes the design, manufacturing and marketing of turbochargers for CMI's engine markets. They provide air handling technologies for engines to meet performance requirements and worldwide emission standards. The Filtration section is the design, manufacture and sale of filters, coolant and chemical products. CMI's filtration business offers over 8,300 products for first fit and aftermarket applications including air filters, fuel filters, fuel water separators, lube filters, hydraulic filters, coolants, fuel additives and other filtration systems. CMI produces and sells Fleetguard branded products through this segment as well. In the Electronic and Fuel System section CMI designs and manufactures new, replacement and remanufactured fuel systems primarily for heavy-duty on-highway engines. This segment also develops and supplies electronic control modules, sensors and harnesses for the on-highway, off-highway, and power generation applications. The final section of this segment is the Automated Transmission section, which develops and supplies automated transmissions to the heavy-duty and medium-duty commercial vehicle markets. This section was formed in 2017 from a joint venture with the Eaton Cummins Automated Transmission Technologies and it is consolidated a 50/50 joint venture between Cummins Inc. and Eaton Corporation Plc. In the 2017 year this segment's revenue increased from \$3514M to \$4363M.

The final reportable segment that CMI has is Power Systems segment. This segment researches emerging technologies and provides integrated power generation products. CMI uses their own research and development capabilities along with business partnerships to develop cost-effective and environmentally sound power solutions. In 2017 this segment made up 11.6% of revenue and 12.3% of operating income. The Power Systems segment is organized around 3 different product lines; power generation, industrials, and generator technologies. The power generation line designs, manufactures, sells and supports back-up and prime power generators ranging from 2 kilowatts to 3.5 megawatts, as well as controls, paralleling systems and transfer switches, for multiple applications. CMI also provides solutions for energy management applications using natural gas or biogas as a fuel. CMI also serves global rental accounts for diesel and gas generator sets. The Industrial line designs, manufactures, sells and supports diesel and natural gas high-horsepower engines up to 5,500 horsepower for a wide variety of equipment in the mining, rail, defense, oil and gas, and commercial marine applications throughout the world. The final line of Generator Technologies designs, manufactures, sells and supports A/C generator and alternator products for internal consumption and for external generator set assemblers. CMI's products in this line are sold under the Stamford, AVK and Markon brands. Over 2017 this segments revenue increased from \$2064M to \$2375M.

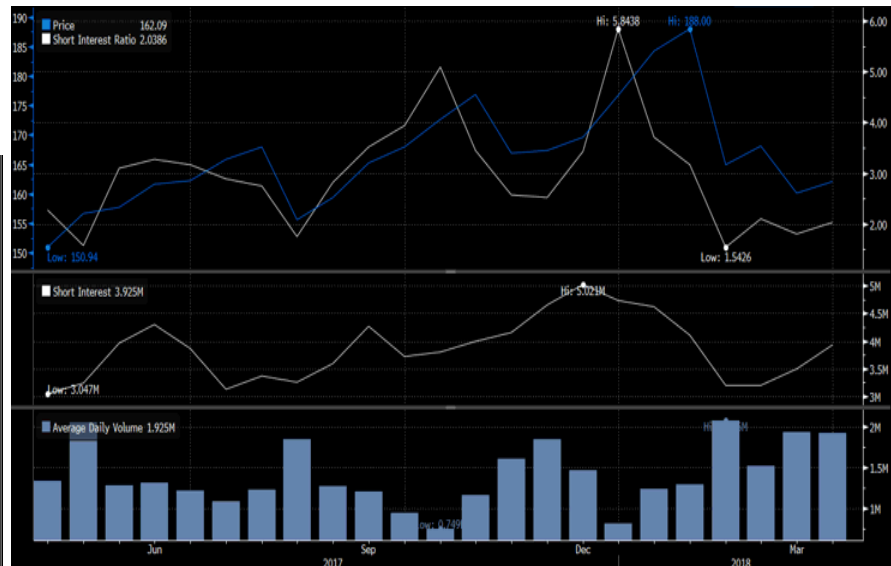
In Millions of USD except Per Share		2014 Y		2015 Y		2016 Y		2017 Y	
12 Months Ending		12/31/2014		12/31/2015		12/31/2016		12/31/2017	
	Revenue	19,221.0	100.0%	19,110.0	100.0%	17,509.0	100.0%	20,428.0	100.0%
	■ Distribution	5,135.0	26.7%	6,198.0	32.4%	6,157.0	35.2%	7,029.0	34.4%
	■ Engine	7,462.0	38.8%	6,733.0	35.2%	5,774.0	33.0%	6,661.0	32.6%
	■ Components	3,791.0	19.7%	3,745.0	19.6%	3,514.0	20.1%	4,363.0	21.4%
	■ Power Systems	2,833.0	14.7%	2,434.0	12.7%	2,064.0	11.8%	2,375.0	11.6%
	■ Non-segment items	—		—		—		—	
	■ Power Generation	—		—		—		—	

	Operating Income	2,498.0	100.0%	2,090.0	100.0%	1,999.0	100.0%	2,446.0	100.0%
	■ Engine	1,031.0	40.2%	636.0	30.1%	686.0	34.6%	959.0	40.1%
	■ Components	684.0	26.6%	727.0	34.5%	641.0	32.3%	754.0	31.5%
	■ Distribution	491.0	19.1%	412.0	19.5%	392.0	19.8%	384.0	16.1%
	■ Power Systems	361.0	14.1%	335.0	15.9%	263.0	13.3%	294.0	12.3%
	■ Non-Segment Items	-69.0		-20.0		17.0		55.0	
	■ Power Generation	—		—		—		—	

Management/Ownership:

CMI is primarily owned by investment advisors with 83.94% of ownership which is an increase of 2.21% since last year. After this is banks with 2.79% of ownership which is a decrease of 0.74% in the past year. Hedge Fund Managers own 2.78% and their positions have decreased by 1.52% in the past year. The majority holder is State Street Corporation with 7.25% of ownership, followed by BlackRock at 7.08%, and Vanguard Group with 6.81%. CMI has 97.24% of their shares freely floated. When CMI's stock price was at their 52 week high in January, short interest was also at the highest of the year at 5.843. Since the stock price decreased rapidly to what it is currently, short interest hit its yearly low of 1.542 and is now hovering around 2.

Top Ownership Type (%)				
54) Ownership Type	04/16/17	Curr	Change	
41) Investment Advisor	81.73	83.94	+2.21	
42) Bank	3.53	2.79	-0.74	
43) Hedge Fund Manager	4.30	2.78	-1.52	
44) Pension Fund	2.98	2.61	-0.37	
45) Corporation	1.65	2.53	+0.88	
46) Insurance Company	1.58	1.73	+0.15	
47) Sovereign Wealth Fund	1.42	1.55	+0.13	
48) Government	1.80	1.21	-0.59	
49) Brokerage	0.41	0.37	-0.04	



Chairman and CEO Thomas Linebarger was appointed in 2012, and when he began his tenure the price of CMI was around \$90. Although the price has seen large fluctuations over the years due to macro effects, it is currently around the highest it has ever been. Linebarger graduated from Stanford with a MBA and was hired by CMI shortly after. He was named VP/CFO in 2001, President/COO in 2008, and Chairman/CEO in 2012. His compensation has grown 12.44% over the past 6 years, and the stock price has increased 4.83% over the past 6 years.

Management	Position	Total Compensations Growth	Stock Price Growth During Tenure
Linebarger, N.	Chairman & CEO	12.44% per annum over 6y	4.83% per annum over 6y
Freeland, Richard	President, COO & Director	3.33% per annum over 6y	4.83% per annum over 6y
Ward, Patrick	VP & CFO	2.22% per annum over 6y	4.83% per annum over 6y
Rose, Marya	VP & Chief Administrative Officer	20.31% per annum over 2y	45.53% per annum over 2y
Satterthwaite, Livingston	VP & President of Distribution Business	-6.05% per annum over 5y	5.88% per annum over 5y
Clulow, Christopher	Principal Accounting Officer, VP & Corp		

Capital Allocation Comparison:

CMI has a Total Debt to Total Asset Ratio of 11.10%, which is much lower than the competitor average of 38.27%. CMI currently has 5 bonds out, the average maturity is the year 2048 as all the bonds are long term, and the average coupon of these bonds is 5.61%, the bonds total \$1,473M. CMI has a WACC of 11.01% which is above the competitor average of 8.44%, CMI also has a ROIC of 17.84% which is much higher than the competitor median of 8.38%. Other notable numbers include a Adj. Return on Common Equity of 25.03% for CMI and the competitor average is 16.67%.

	Name	Ticker	Mkt Cap	EBITDA Mrgn Adj:Y	OPM:Y	NI Mrgn Adj:Y	ROIC:Y	ROA Adj:Y	Rtrn on CE Adj:Y	Debt/Assets:Y
	Median		57.15B	12.19%	8.33%	7.42%	8.38%	4.24%	16.67%	38.27%
100)	CUMMINS INC	CMI US	28.20B	14.38%	11.52%	8.66%	17.84%	10.69%	25.03%	11.10%
101)	NAVISTAR INTERNATIONAL	NAV US	3.95B	7.78%	5.18%	0.76%	985.67	--	--	82.44%
102)	GENERAL ELECTRIC CO	GE US	118.62	13.07%	8.81%	8.88%	5.95%	2.88%	14.64%	35.61%
103)	CATERPILLAR INC	CAT US	93.20B	19.44%	13.12%	9.07%	8.79%	5.44%	30.73%	45.32%
104)	DAIMLER AG-REGISTERE	DAI GR	86.09B	11.30%	7.85%	6.19%	6.08%	4.08%	16.67%	40.93%
105)	HINO MOTORS LTD	7205 J	7.32B	7.26%	4.23%	2.91%	7.97%	4.24%	10.96%	16.37%

(Accounting Adjustments: Adjusted for Abnormal Items When Applicable)

[10 Analyze List](#)

Profitability Comparison:

CMI has seen revenues fluctuate in the past number of years, even experiencing declines at points, however in the past year their revenue hit an all-time high, coupled with this CMI has also seen consistent margin growth. The margin growth comes as a result of the quality of their product and expansion of product segments through internal product innovations as well as a number of acquisitions over the past few years. The fluctuations in revenue come because of the cyclicity of the industry CMI is in and this fluctuation is shared amongst their competitors. However, CMI's 5 year CAGR of revenue of 3.34% is still well above the competitor median of -.09%.

In Millions of USD	2014 Y	2015 Y	2016 Y	2017 Y	Current/LTM	2018 Y Est	2019 Y Est
12 Months Ending	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2017	12/31/2018	12/31/2019
Market Capitalization	26,109.2	15,340.1	22,892.2	29,180.9	28,200.1		
- Cash & Equivalents	2,394.0	1,811.0	1,380.0	1,567.0	1,567.0		
+ Preferred & Other	344.0	344.0	299.0	905.0	905.0		
+ Total Debt	1,686.0	1,639.0	1,856.0	2,006.0	2,006.0		
Enterprise Value	25,745.2	15,512.1	23,667.2	30,524.9	29,544.1		
Revenue, Adj	19,221.0	19,110.0	17,509.0	20,428.0	20,428.0	22,070.0	22,676.4
Growth %, YoY	11.1	-0.6	-8.4	16.7	16.7	8.0	2.7
Gross Profit, Adj	4,861.0	4,947.0	4,452.0	5,090.0	5,090.0	5,845.9	6,051.9
Margin %	25.3	25.9	25.4	24.9	24.9	26.5	26.7
EBITDA, Adj	2,878.0	2,947.0	2,597.0	2,937.0	2,940.0	3,486.6	3,603.7
Margin %	15.0	15.4	14.8	14.4	14.4	15.8	15.9
Net Income, Adj	1,608.8	1,654.5	1,474.6	1,768.9	1,770.8	2,090.1	2,173.6
Margin %	8.4	8.7	8.4	8.7	8.7	9.5	9.6
EPS, Adj	8.79	9.27	8.71	10.57	10.58	12.73	13.47
Growth %, YoY	11.2	5.5	-6.1	21.4	24.9	20.4	5.9
Cash from Operations	2,266.0	2,065.0	1,939.0	2,277.0	2,277.0		
Capital Expenditures	-743.0	-744.0	-531.0	-506.0	-506.0	-718.3	-706.9
Free Cash Flow	1,523.0	1,321.0	1,408.0	1,771.0	1,771.0	1,648.7	1,847.1

Gross and profit margin are both ahead of the competitor median with CMI's being 24.92% and 8.66% compared to 19.39% and 7.42%. Asset and Inventory Turnover are both slightly above the competitor median of 0.95 and 5.25. The cash conversion cycle of CMI is 73.01 which is much lower than the competitor

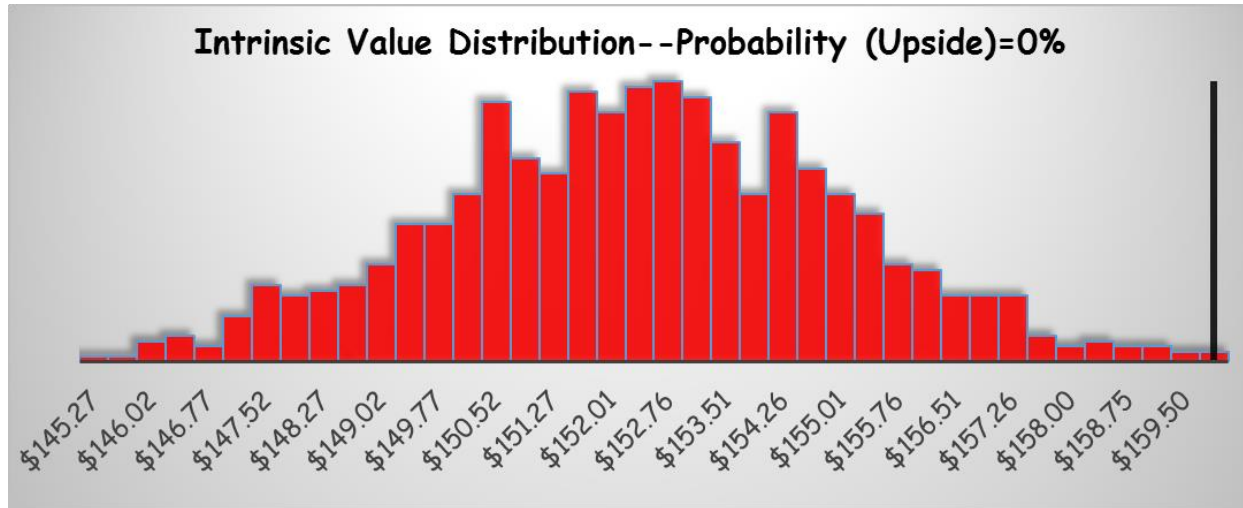
average of 102.56. These numbers imply that CMI is using their working capital efficiently and this is backed up by the margin growth they have seen.

Name	Ticker	Mkt Cap	GM:Y	PM:Y	Ast TO:Y	Inv turnover:Y	A/P Turnover:Y	Cash Conversion Cycle:Y	Rev Gr Adj 5Y CAGR:Y
Median		56.78B	19.39%	7.42%	0.95	5.17	6.55	102.56	-0.09%
100) CUMMINS INC	CMI US	27.93B	24.92%	8.66%	1.23	5.25	7.14	73.01	3.34%
101) CATERPILLAR INC	CAT US	92.29B	30.28%	9.07%	0.60	3.40	5.96	166.91	-7.15%
102) DAIMLER AG-REGISTERED SHA	DAI GR	85.63B	20.89%	6.19%	0.66	5.09	10.84	148.64	7.53%
103) NAVISTAR INTERNATIONAL CO	NAV US	3.85B	17.89%	0.76%	1.45	7.81	5.78	62.11	-7.56%
104) HINO MOTORS LTD	7205 JP	7.37B	16.19%	2.91%	1.46	7.14	5.48	48.67	5.07%
105) GENERAL ELECTRIC CO	GE US	126.14B	9.54%	8.88%	0.32	4.92	7.34	132.10	-3.52%

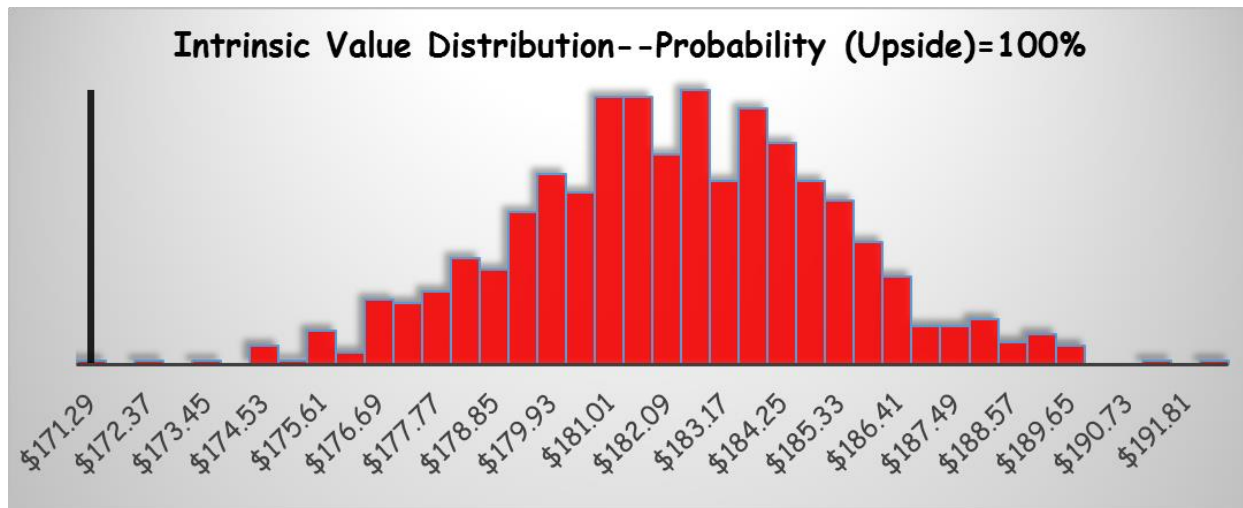
Sensitivity Analysis:

CMI's stock price value is very sensitive to the level revenue and expenses. The base, bear, and bull case valuation are evaluated using a Monte Carlo simulation with different assumptions. Under the bear case there is a 0% intrinsic value probability upside. This creates an intrinsic value of \$152.15, a 1 year target price of \$165.2, and would result in a return of -3%. This is due to making the assumption that operating expenses and costs of revenue increase, resulting in CMI's EBITDA margin not only missing next year's estimates, but decreasing to 14% from the current year's 14.4%. This decrease is reflected in the projections until the continuing period as this delays the anticipated growth of the margin in the years after, and it does not reach the level it would have if CMI met expectations, this decrease was also reflected in the continuing period EBITDA margin as it was lowered to the historical average. Based on historical financial performance, it is highly unlikely that CMI's EBITDA margin would shrink at this rate. Although their margin has fluctuated in the past, based on the current state of the industry and CMI's recent financial success this scenario is unlikely to occur. The bull case involves the assumptions that operating expenses and costs of revenue decrease, resulting in a intrinsic value probability upside of 100%, and giving an intrinsic value of \$182.07, a 1 year target price of \$198.29, creating a return of 16.6%. This comes as a result of CMI beating their EBITDA targets by 5%, this increase is reflected in the projections as the margins reach higher levels than they would have otherwise, the increase over what is expected is also reflected in the EBITDA margin for the continuing period. While this case is optimistic, the assumptions made are not extraordinary and it is very possible that they could be reached if the industry for 2018 is more positive than expected. The most likely case however is the base case, which has an intrinsic value probability upside of 78.56%. This is as a result of the assumptions that EBITDA margin for the next two years hits their targets of 15.8% and 15.9% respectively, this is also reflected in the continuing period EBITDA margin which is equivalent to their estimate of 15.8%, this number is 1.85% higher than the historical average. This case gives CMI a intrinsic value of \$173.14, a 1 year target price of \$188.41, and a target return of 10.5%. Based on their financial performance this scenario is the most likely based on the positive numbers CMI has been reporting and the positive estimates about the direction the industry is set to head in 2018. Once macro worries have subsided along with abnormal expenses being absent from the most recent quarter, it is highly likely that CMI will reach the levels included in this case.

Bear Case



Bull Case



Summary:

In conclusion, CMI is a buy at their current price. This is due to the fact that the company is still posting positive numbers in light of a very tough quarter in regards to expensive abnormal costs and one that was heavy with macro worries. CMI stock price has dropped substantially as of recent as a result of these variables, even though their financials point towards a company that is doing well. This is also backed up by the fact that CMI is outperforming their competitors who are also feeling the sting of macro effects. Along with this, CMI has made recent acquisitions to branch into the electric power segment of this industry, and strong cash positions place them in a good spot for further acquisitions over the coming year. Based on analysis, the upside of CMI is much greater than the downside as upside probabilities are a much more likely occurrence. CMI's 1 year target price is \$188.41 with a return based on current stock price of 10.5%, which is reasonable based on their financials performance. CMI appears to be in strong position to re-approach their 52 week high.

Cummins Inc. (CMI)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by George Brockmann
4/20/2018

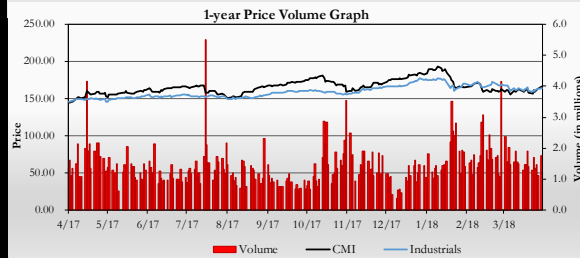
Current Price:
Divident Yield:

\$170.83
2.6%

Intrinsic Value
Target Price:

\$172.81
\$188.12

Target 1 year Return: 12.7%
Probability of Price Increase: 78.56%



Description	Market Data
Cummins Inc. designs, manufactures, distributes, and services diesel and natural gas engines, and engine-related component products worldwide.	Market Capitalization \$28,114.64
	Daily volume (mil) 1.69
	Shares outstanding (mil) 164.58
	Diluted shares outstanding (mil) 167.27
	% shares held by institutions 109%
	% shares held by investments Managers 72%
	% shares held by hedge funds 3%
	% shares held by insiders 0.29%
	Short interest 2.38%
	Days to cover short interest 2.29
	52 week high \$194.18
	52-week low \$143.83
	Volatility 22.89%

General Information	Market Assumptions
Sector Industrials	Estimated Equity Risk Premium 5.61%
Industry Machinery	Effective Tax rate 27%
Last Guidance February 12, 2018	
Next earnings date NM	

	Past Earning Surprises
Quarter ending	Revenue
12/31/2016	3.10%
4/2/2017	10.53%
7/2/2017	5.82%
10/1/2017	9.98%
12/31/2017	5.53%
Mean	6.99%
Standard error	1.0%

Management	Position	Total Compensations Growth	Stock Price Growth During Tenure
Linebarger, N.	Chairman & CEO	12.44% per annum over 6y	4.83% per annum over 6y
Freeland, Richard	President, COO & Director	3.33% per annum over 6y	4.83% per annum over 6y
Ward, Patrick	VP & CFO	2.22% per annum over 6y	4.83% per annum over 6y
Rose, Marya	VP & Chief Administrative Officer	20.31% per annum over 2y	45.53% per annum over 2y
Satterthwaite, Livingston	VP & President of Distribution Business	-6.05% per annum over 5y	5.88% per annum over 5y
Clulow, Christopher	Principal Accounting Officer, VP & Corporate Co		

Profitability	CMI (LTM)	CMI Historical	Peers' Median (LTM)
Return on Capital (GAAP)	11.9%	9.90%	16.28%
Operating Margin	9%	8.31%	10.97%
Revenue/Capital (GAAP)	1.39	1.19	1.48
ROE (GAAP)	13.5%	13.4%	14.6%
Net margin	6.1%	7.1%	6.4%
Revenue/Book Value (GAAP)	2.22	1.88	2.27

Invested Funds	CMI (LTM)	CMI Historical	Peers' Median (LTM)
Cash/Capital	12.6%	16.7%	23.3%
NWC/Capital	16.4%	20.4%	10.7%
Operating Assets/Capital	62.7%	59.2%	51.5%
Goodwill/Capital	8.3%	3.7%	14.5%

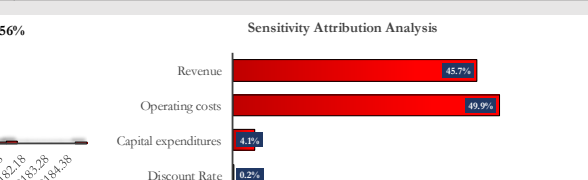
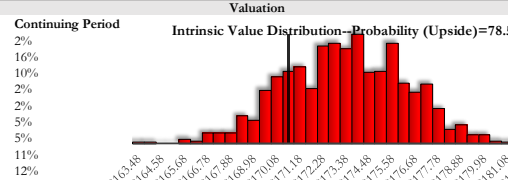
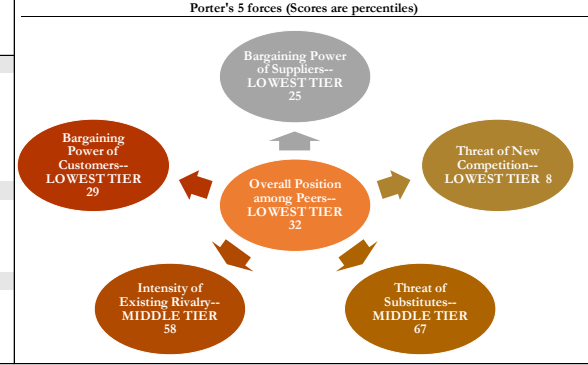
Capital Structure	CMI (LTM)	CMI Historical	Peers' Median (LTM)
Total Debt/Market Capitalization	0.22	0.18	0.68
Cost of Debt	4.4%	4.6%	4.6%
CGFS Rating (F-score, Z-score, and default Probability)	BB		
WACC	10.9%	9.8%	8.2%

Forecast Assumptions	Explicit Period (6 years)	Continuing Period
Revenue Growth CAGR	3%	2%
Average Operating Margin	20%	16%
Average Net Margin	13%	10%
Growth in Capital CAGR	9%	2%
Growth in Claims CAGR	1%	2%
Average Return on Capital	10%	5%
Average Return on Equity	12%	5%
Average Cost of Capital	11%	11%
Average Cost of EquityKc	12%	12%

Market and Credit Scores
Recommendation (STARS) Value--5
Recommendation (STARS) Description--Strong Buy
Quality Ranking Value--B+
Quality Ranking Description--Average
Short Score--0
Market Signal Probability of Default % (Non-Ratings)
CreditModel Score (Non-Ratings)--a+

Industry and Segment Information	
LTM Revenues by Geographic Segments	LTM Revenues by Business Segments
United States--54%	Engine--44%
China--10%	Distribution--35%
Other International Countries--36%	Components--29%
--	Power Systems--20%
--	Intersegment Eliminations--27%
Peers	
PACCAR Inc	Hinoak Motors Limited

Caterpillar Inc.	Oshkosh Corporation
Navistar International Corporation	MAN SE
General Electric Company	Komatsu Ltd.
Daimler AG	Allison Transmission Holdings, Inc.



April 13, 2018

PDC Energy Inc: (PDCE)

Keusseyan Nelson

Sector: Energy

Industry: Oil and Gas

Current Price: 50.25

Target Price: 55.25

PDC Energy (PDCE) Inc is an exploration company. The headquarters of PDCE Inc is located in Denver, Colorado. The company's operations are production, exploration and marketing crude oil, natural gas and natural gas liquid (NGLs). Operation of PDC Energy is located only in the United States: Wattenberg Field in Colorado, Delaware Basin in Texas and the Utica Shale in Ohio.

BUY

Current Price: \$50.25

Target Price: \$55.14

Market Cap: 3.6B

EBITDAX: \$608.3

EBITDAX Margin : 64.8%



Thesis:

This report will explain why we should buy the stock of PDCE because after analysis of the company, the stock PDCE is undervalued. To support this position, the report will discuss how companies in the energy sector are affected by the prices of oil and gas, especially the company PDC Energy Inc. This report will describe how the prices of oil and gas are linked to the profitability of PDC Energy Inc, as well as how the forecast of the production of the company will impact the revenue in the future along with the future of oil prices.

Catalysts:

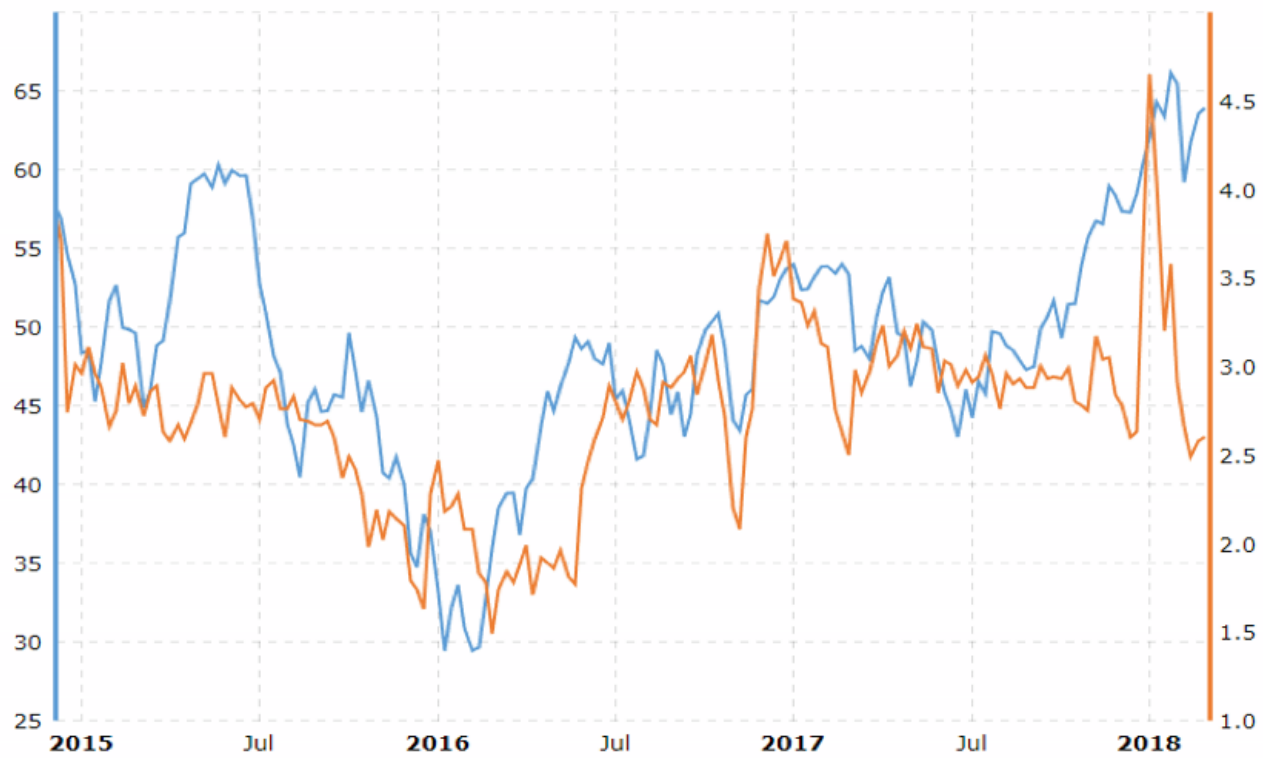
- Short Term (within the year): The company just released the annual report of 2017.
- Mid Term (1-2 years): Oil price is going to increase. Thus, the growth profit is going to increase dramatically.
- Long Term: The company will expand its operation

Major development from previous years:





In 2016, the company increased its production by 44% to reach 22.2 barrels of oil equivalent (MMBoe) from the Wattenberg Field composed of 61 % crude oil and natural gas liquid, and 39 % natural gas. Furthermore, the Company has proved reserves of 341 million barrels of oil equivalent and owned an interest in 2,900 gross productive wells. According to the 10-K, at the end of December 2017, PDCE owned approximately 2,800 gross (2,300 net) productive Wells, and 32% of this acquisition are horizontal. The company produced 31.8 MMBoe in 2017. It means that the company increased its production by 44% compared to 2016. The average production in 2017 was 97 MBoe per day. It represents an increase of 33% compared to 2016. PDCE had 452.9 MMboe of proved reserves, and 32% are proved developed reserves. 58% of their reserves in 2017 were liquid, which includes crude oil and natural gas liquid. Indeed, their 452.9 MMBoe of their total proved reserves represented an increase of 111.5 MMBoe (33% compared to 2016). At the beginning of 2018 (January 5), PDCE closed an acquisition in Wattenberg Field from Bayswater Exploration and Production, LLC. The cost of this acquisition was \$186 million. In addition to this \$186 million, PDCE invested \$15 million during 2017 to complete drilled but uncompleted wells acquired in this acquisition.

Industry Outlook:

As shown by the chart below, the oil price at the beginning of 2015 was \$53.45 and it collapsed to \$34.73 at the end of the year. The drop off for the oil price during this period was a result of several factors. The price of the oil is determined by the supply and demand. Moreover, the demand is closely linked to the economic activity. Therefore, during this period the supply was much higher than the demand. The demand was low due to slowing global growth. Also, the American production increased thanks to unconventional hydrocarbon. Concerning the natural gas price in 2015 it followed the oil price for many reasons. First, the natural gas price is indexed by the oil price. This means if the oil price goes down the natural gas will go down and if the oil price goes up, the price of the natural gas will go up. However, oil price is not the only cause for the decrease of the natural gas. The natural gas price is linked by five other factors. First, the natural gas is driven by the outside temperature. Secondly, it is linked by electricity consumption. Thirdly, the price of natural gas is impacted by the supply. Fourthly, the natural gas follows the currency exchange rate of two currencies. Finally, the natural gas is driven by the global macro environment. As we can see from the chart, the natural gas went down in the same way as the oil price for the reasons listed below. So, in the past two years, the company saw a drop in its revenue especially due to the drops in the oil and natural gas prices. So, energy producers are confined to two risks. The first risk is the price risk, and second risk is the volume of production. Thus, energy producers have to focus on these two risks when they have to choose a coverage strategy. The price risk can be covered by the derivative assets, while the volume risk can be covered by weather derivatives.



Segment:

In Millions of USD except Per Share 12 Months Ending	2014 Y 12/31/2014	2015 Y 12/31/2015	2016 Y 12/31/2016	2017 Y 12/31/2017
 Revenue	545.9 100.0%	631.1 100.0%	716.8 100.0%	938.9 100.0%
 Oil and Gas Exploration and Pr...	784.6 91.6%	584.4 98.2%	374.2 97.7%	913.1 97.3%
 Commodity price risk manage...	—	—	—	13.3 1.4%
 Well operations, pipeline incom...	—	—	—	12.5 1.3%

The main activity of PDC Energy is the oil and gas production and exploration. It represents 97.3 % of their revenue (\$913.1 million). Secondly, the commodity price risk management represent 1.4% of their revenue, and well operation and pipeline income represent 1.3 % of the revenue. The crude oil represents \$625 million (68.45%) of the revenue in 2017. The natural gas represents 17.34% (\$158.3 million), and the natural gas liquid allowed the company to earn \$129.9 million representing 14.21% of revenue.

Earning Performance:

As I stated earlier, during 2015 and 2016 the oil and gas prices saw a decrease. This decrease has resulted in a negative impact to companies that are in the industry. However, as we can notice in the graph, PDCE has continued to increase its net income while other oil energy companies saw a huge decrease for their net income.

It means that PDCE is able to deal with volatile markets. However, the company saw a decrease in its net income in 2016 (-1.5 million). It was the first time in six years that the net income was negative. This negative net income was principally due to abnormal derivatives. The company lost \$333.88 million because of abnormal derivatives. The abnormal derivatives were composed of a loss of \$125,681,000 in commodity price risk management and a loss of \$208,200,000 for the net settlement on commodity derivatives. Concerning the estimates net income for the next few years, analysts are optimistic. As we can see in the graph, the net income is going to increase to reach approximately \$550 million in 2021.

PDCE's revenue saw its highest increase in 2014 due to the price of oil. However, in 2015 the revenue of the company saw a decrease due to the decrease of oil prices. Moreover, the revenue remained good compared to its competitors, because of their position in derivatives in 2015. In fact, in 2016, the revenue of PDCE increased compared to 2015 even if the oil prices did not increase. This increase is mostly due to their gain realized on derivatives. Concerning the estimate revenue for the next years, analysts are bullish about it. The revenue should increase to reach approximately \$2 billion in 2021. This increase in revenue, will allow the company to increase its EBITDAX. EBITDAX forecast are very positive. The EBITDAX of the company should increase to reach \$1.2 Billion in 2019 and \$1.5 billion in 2021.



Potential Business Growth:

The long-term strategy of PDC Energy is focused on generating stockholder value. This strategy is possible through acquisitions, explorations, and development of crude oil and natural gas properties. The company is focused on the growth of their reserves, production, and their cash flow. Their activities are focused mainly in two areas: Wattenberg Field and the Delaware Basin.

Their inventory drilling locations support their planned growth over the next coming years.

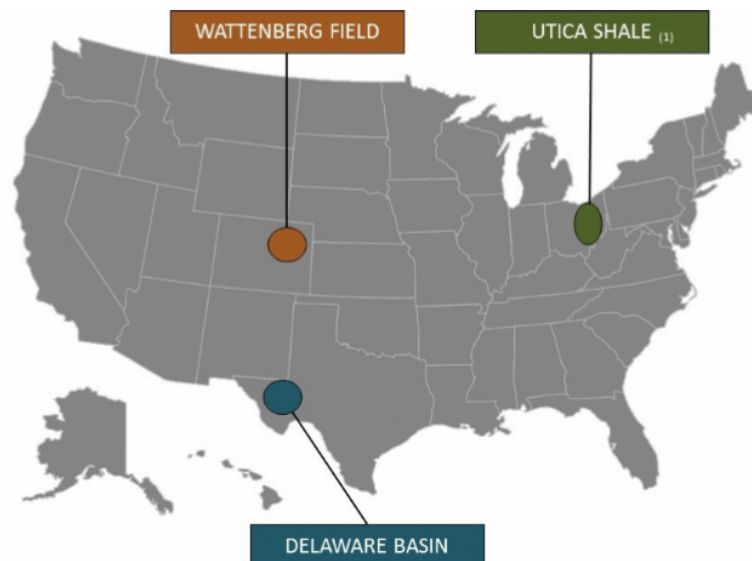
According to the 10-K, the company is expecting thanks to this, to increase their proved reserves, production, and cash flows. Furthermore, PDCE believes they can extract more value from some acquisition thanks to optimization opportunities and improve in their working interests in their development drilling locations.

In 2017, the company completed two huge acreage exchanges in the Wattenberg Field, creating two development areas: Prairie and Plains.

When they closed the transaction, it received an aggregate of 15,900 acres in exchange of an aggregate of 16,200 net acres. In addition, according to the company and as it stated earlier, the company closed the Bayswater acquisition at the beginning of 2018. The company acquired 7,400 net acres or 24 operating horizontal wells. The strategic acquisitions of PDCE show their objectives to growth and to create value. Indeed, PDC Energy examines and evaluates acquisition opportunities that will allow them to growth. PDCE seek properties with large undeveloped drilling upside where it believes they can utilize complete small bolt on acquisitions to optimize their portfolio.

Development drilling

The following map presents the general locations of our development and production activities as of December 31, 2017:



(1) In February 2018, we entered into a PSA to sell the Utica Shale properties.

Strength of the company:

The company has an experienced team of management, engineering, geoscience and commercial professionals who identify and evaluate acquisition. The strengths of the company are numerous. First, they have multi-year project inventory in crude oil, natural gas and natural gas liquid plays. Second, the company has a strong liquidity position. Furthermore, they are going to increase their strong liquidity position through investment in projects

with attractive rate of return. Third, they are using highly competitive technology to focus on efficiency. This strength will allow the company to decrease their operating cost and to go in areas that are less risky for them. Finally, they have a commodity derivative program that allow them to protect their investment returns and cash flow. This program was very important particularly during the recent decrease in the oil price (2015-2016). The commodity program allows them to protect their cash flow, borrowing base, and liquidity during bad periods for the oil prices. For example, in 2017, this program allowed them to cover 11.9 MMBbls and 6.6 MMBbls of crude oil for 2018 and 2019.

Profitability:

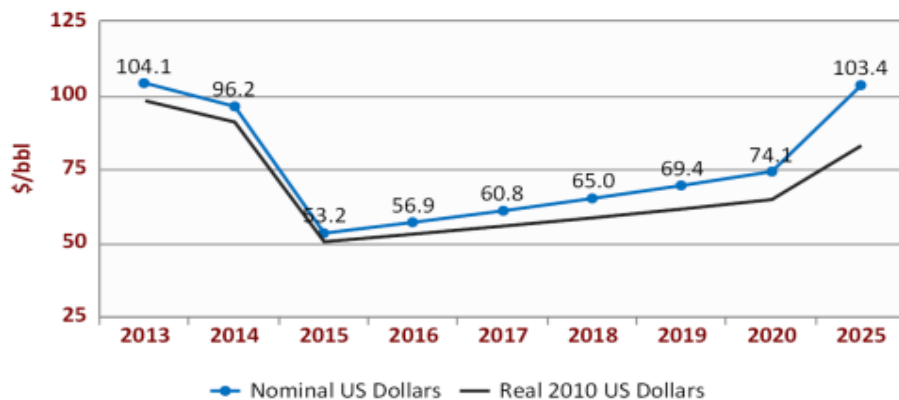
PDCE	2017	2018	2019	2020
EBITDAX MARGIN	0.74	0.74	0.74	0.79
Return on Invested capital	-3.00%	10.00%	11.00%	9.00%
WACC	8.42%	5.30%	5.36%	5.34%
Return on equity	-4.90%	13.10%	14.40%	10.70%
Capex	758,000	876,000	995,000	1,061,000
Revenue	745,848	974,791	1,083,447	1,203,584
Revenue/Capex	0.98	1.11	1.09	1.13

Total volume production in M	2018	2019	2020	2021
Crude oil	16,580.00	19,896.00	20,890.80	21,935.34
NGLs	7,805	9,366	9,834.30	10,326
Natural Gas	13,345	16,014	16,814.70	17,655
Average Realized prices	2018	2019	2020	2021
Crude oil Price	65	69.4	80	95
NGLs	20.37	20.37	20.37	20.37
Natural Gas	3.00	2.94	2.97	3.17
Total revenues in M	1,276,723	1,618,649	1,921,528	2,350,253

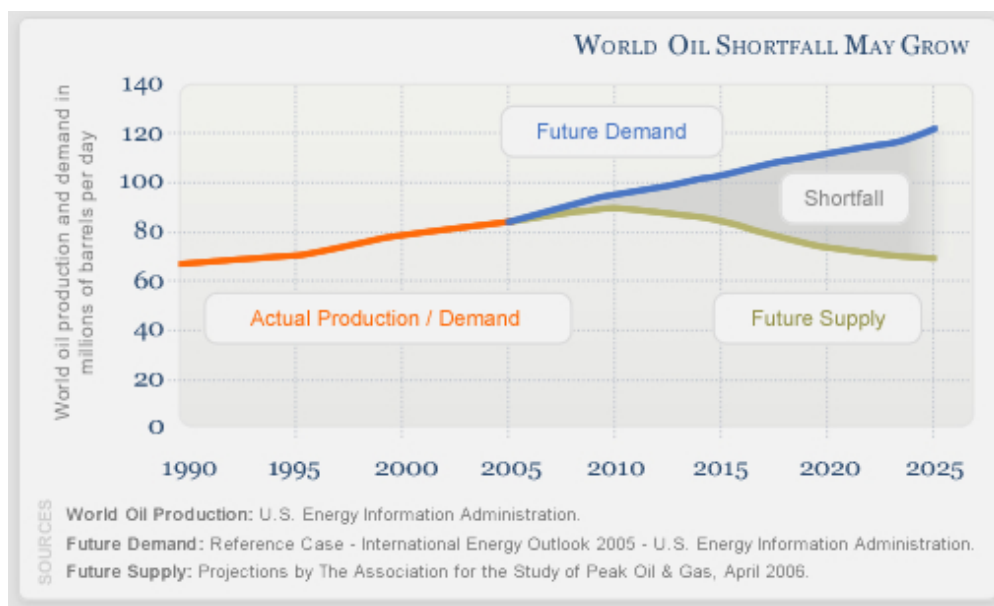
Based on my own model and my forecast thanks to the forecast of the oil price by the World Bank, I can predict that the company will create value for the next few years. Indeed, in 2017 the company PDC Energy destroyed value because the WACC was higher than the Return on Invested Capital (ROIC). However, we can notice from the next few years the ROIC will be higher than the WACC. This means PDCE will create value and so it will mean the company is growing.

World Bank: Crude oil, \$/barrel

avg. spot price (Brent, Dubai, WTI)



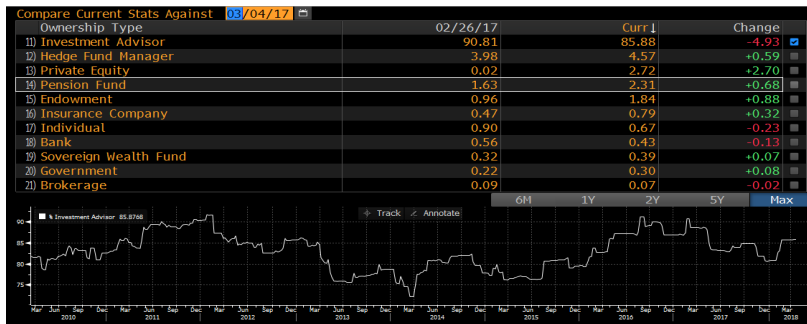
Source: World Bank Commodity Forecast Price data, January 2015



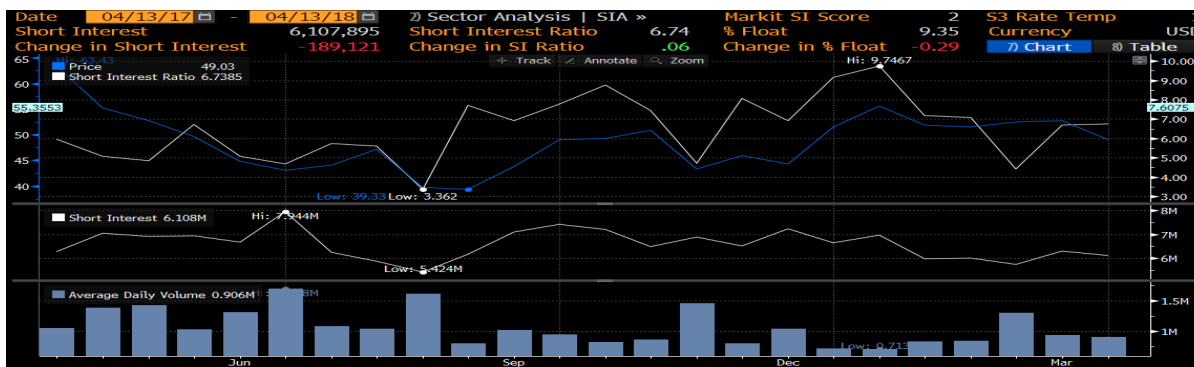
Furthermore, if we compare PDCE with its competitors we can notice PDCE has higher percentage growth. However, as it stated in the previous paragraph, PDCE will increase its return on capital and Return on Invested Capital in the next years. Currently, the ROIC and ROC of the company is lower than its competitors. Moreover, PDCE is above the average concerning some profitability ratios as it shows on the table. This means PDCE is better than its competitors in terms of profitability. The operating income margin is 3.71 pts higher than the average of its competitors, and the EBITDAX margin is also higher by 11.57 pts higher.

Name	Sales Growth (%)	EBITDA Growth (%)	EBITDA Margin	Operating Income Margin	Net Income Growth	Net Profit apex/Sales (%)	Return on Invested
Average	25.16%	46.02%	53.22%	11.12%	62.00%	3.94%	3.16%
PDC ENERGY INC	30.99%	28.55%	64.79%	14.83%	48.15%	5.07%	2.17%
DENBURY RESOURCES INC	2.23%	-8.16%	36.18%	16.73%	--	7.80%	2.28%
SM ENERGY CO	6.78%	49.57%	46.28%	2.08%	69.39%	-8.47%	0.22%
WHITING PETROLEUM CORP	11.16%	31.42%	56.74%	-6.96%	68.47%	-11.89%	0.06%
MATADOR RESOURCES CO	74.62%	128.74%	62.12%	28.91%	--	27.18%	11.06%

Ownerships:



As the chart shows us, 85.88% is owned by Investment Advisor and 4.57% by the hedge funds managers. In one year, the percentage owned by the hedge funds increased by 0.59%. It means that the hedge funds have an interest in buying the stock because they are optimistic for the future of the stock and in the company growth. Furthermore, the short interest of PDCE is 6.74 which shows that investors are bullish concerning this stock.



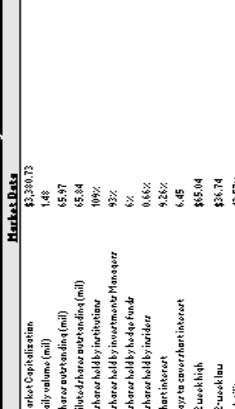
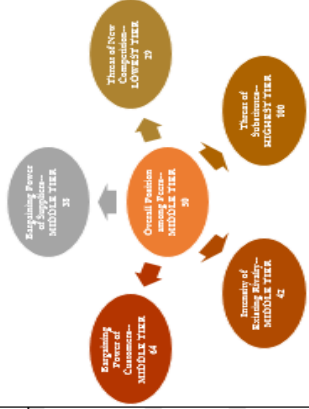
Conclusion:

PDC Energy Inc is a company in the energy company specialized in the oil and gas production. As the paper demonstrated, the company is very sensitive to the price of the oil and gas. In 2015 and 2016, the revenue and the EBITDAX of the company decreased because of the drop off of the oil and gas prices. However, the forecasts of the production for the company and the forecast of the oil and gas prices should increase the revenue of PDCE and the EBITDAX should increase too in a mid-term range. As the write-up showed the stock of PDCE will increase thanks to the rise of the oil and gas prices in few years and thanks to the strategy of the company.

NEUTRAL

\$50.91

\$55.14

Probability of Price Increase: 57%[illegible]

Factor	Percentage
Revenue	43.2%
Operating costs	49.8%
Capital expenditures	1.7%
Discount Rate	4.3%

April 10, 2018

Fabrinet: (FN)

David Blanco

Sector: Consumer Discretionary

Industry: Electronic Equipment

Current Price: \$31.30

Target Price: 36.44

Company Description: Fabrinet provides precision optical, electro-mechanical and electronic manufacturing services to companies for both production and design consulting. They offer space for customers to develop their own products or develop it themselves using their cutting edge technology.

BUY/HOLD/SELL

Current Price: \$31.30

Target Price: \$36.44

Market Cap: 1.2B

ROE: 11.9%

Ke: 7%



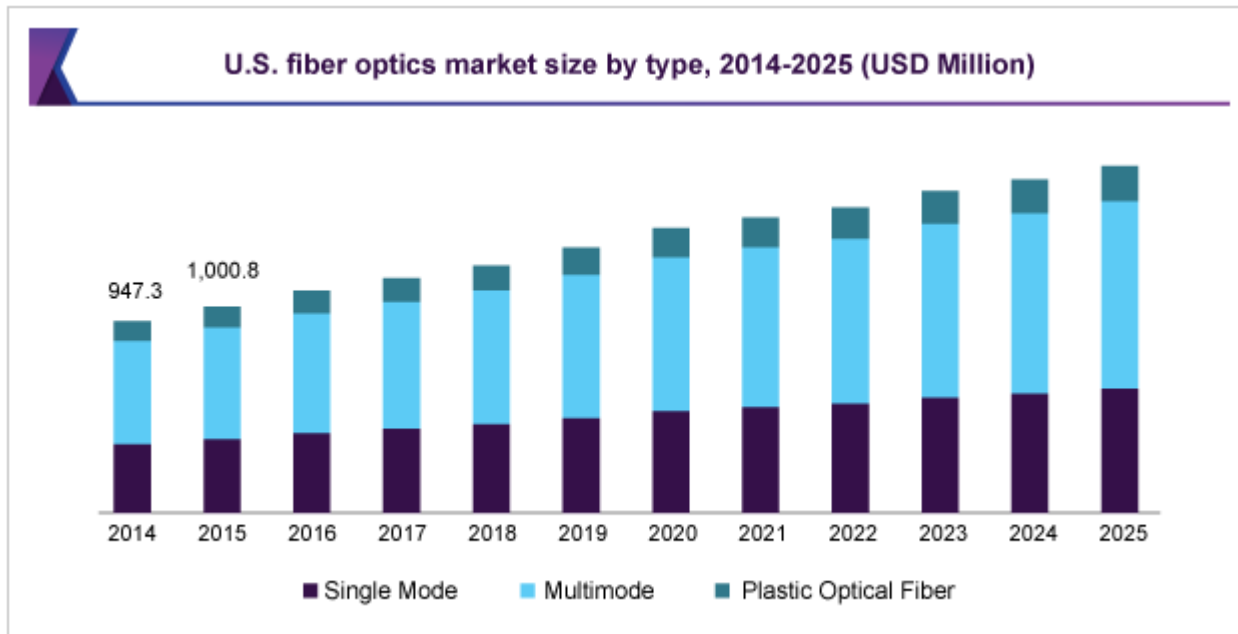
Thesis: Fabrinet is currently in a growing industry that will become even more heated in the following years. Fabrinet is prepared and willing financially to begin expansion both organically and inorganically to capture the future market share created in America, Europe, and emerging markets.

Catalysts:

- Short Term(within the year): Appreciating dollar versus the Thai Baht
- Mid Term(1-2 years): Growing international optics market
- Long Term (3+): China's optics market is expected to become 30% of the international market by 2022.

Optics Industry:

The optics industry has become crucial over the past decade due to its usage for technology, internet, and data storage. The transfer of information through light is becoming central to all industries, as it can drastically reduce time lags and improve communications between all parties. More than ever, the optics industry is becoming hotter due to the economies of scale and cost cutting that new technologies in the field can provide.



Within the US alone, the fiber optics market size is expected to increase from \$5.41 M to \$8.20 M within the next decade, an increase of 52%. Given the current bullish market, companies are more than ever investing in R&D to improve their technology to improve speed and precision. Laser innovations, in particular, are growing in demand for its applications in semiconductor processing for the biotech industry. Improved precision is needed in the automotive, medical, and industrial end markets, which reduce the amount of defects, boosts the production cycle and reduce costs of production. As it stands, with low interests and a bullish market, companies of all industries are more willing than ever to invest in the optics industry for their own operations. Additionally, as interest rates increase and the labor market heats up, such investments seem attractive, as they would drive down costs that offset this likely future cost increases. Fabrinet works as an electronic manufacturing company, but 52% of its manufacturing is in the optics industry, making this expected growth great for their future revenue.

Revenue & Operating Income:

Fabrinet's revenue is particular for a variety of reasons. Their services for patent development and manufacturing can go from creating a prototype for a company to manufacturing the company's product as a contractor. Regardless of their function, Fabrinet's revenue comes from a small number of customers. So much that one customer accounted 20% of their revenue in 2017. Having few customers is a liability due to






the potential loss from losing a few customers. However, with the acquisition of Global CEM Solutions LTD, Fabrinet has been able to expand its reach and has boosted its revenue significantly.

12 Months Ending	06/24/2016	06/30/2017	12/29/2017	06/30/2018	06/30/2019
Revenue	976.7	1,420.5	1,431.7	1,348.0	1,434.5
+ Sales & Services Revenue	976.7	1,420.5	1,431.7		
+ Other Revenue	—	—	—		
- Cost of Revenue	856.2	1,249.0	1,265.4		
+ Cost of Goods & Services	856.2	1,249.0	1,265.4		
Gross Profit	120.5	171.5	166.3	159.7	174.3
+ Other Operating Income	0.0	0.0	0.0		
- Operating Expenses	48.5	63.3	60.7		
+ Selling, General & Admin	48.4	63.3	60.7		
+ Research & Development	0.0	0.0	0.0		
+ Other Operating Expense	0.1	0.0	0.0		
Operating Income (Loss)	72.1	108.2	105.6	119.3	134.7

Fabrinet has stated its desire to pursue acquisitions and joint ventures to diversify markets and customer base as well as accelerate entrance into other markets. With Global CEM's acquisition, Fabrinet not only boosted its revenue but also penetrated the European EMS (Electronics Manufacturing Services). Since Global CEM's operations are 80% in Europe, Fabrinet has been able to begin its expansion towards the international scene. It also has stated its desire to expand its client base in Asia-Pacific and Eastern Europe. Additionally, it wants to offer advanced manufacturing services in emerging markets, given how they usually lag behind in manufacturing technology. Fabrinet is not simply dreaming of going international. Even if most of their revenue is from US companies, most of their production is in Thailand. Thus, expanding to any market is a simple logistics problem, as they already specialize in exporting their goods. It is hard to quantify Fabrinet's goals. However, given how much the company emphasizes growth either organically or through acquisitions and joint ventures, it seems Fabrinet will be focused on aggressive revenue growth for the foreseeable future.

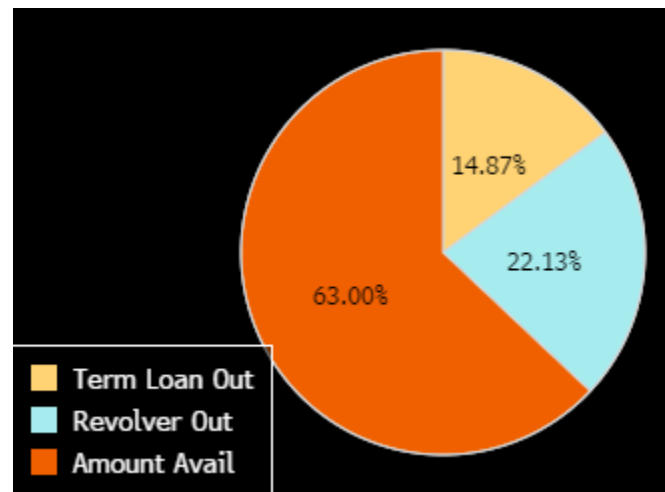
Peer Analysis:

It is not surprising that Fabrinet focuses on growth instead of value creation. Currently, its profitability outperforms the industry. Both its EBITDA margin and operating margin demonstrate Fabrinet's ability to exploit business opportunities, or at least more than its peers do. This is crucial given how willing Fabrinet has been to seek aggressive expansion for the past three years. Even if they wish to expand, they will only pursue high-yielding ventures, something that is evident given their balance sheet status (discussed later).

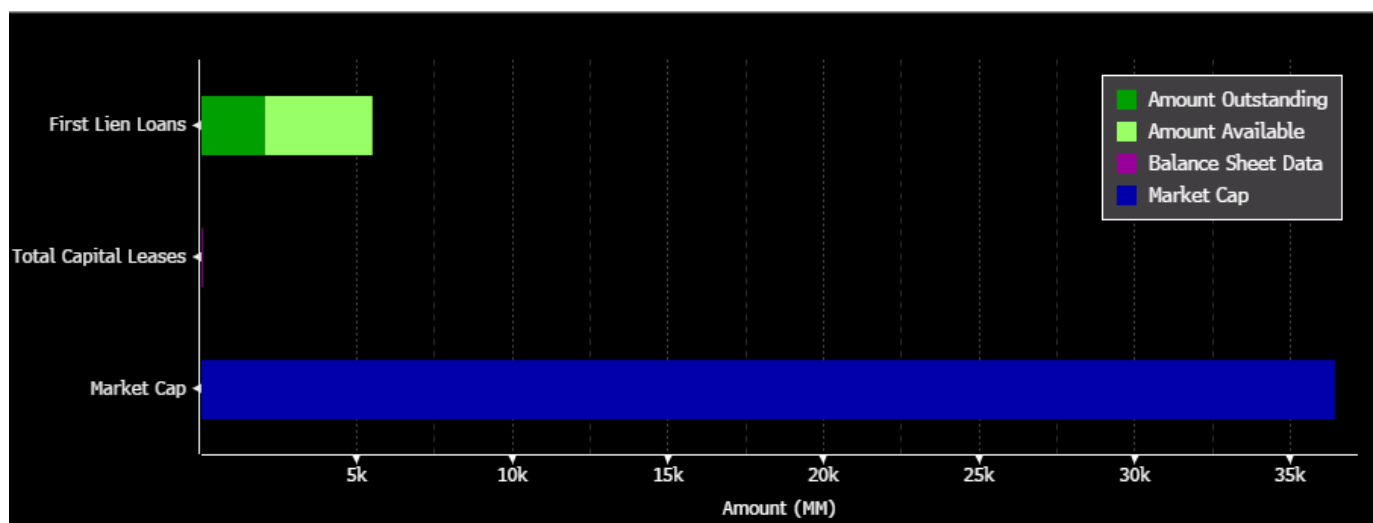
Metric	FN	Low	Comp Range	High
Est P/E Current Yr	10.73	9.29		19.09
EV/T12M EBITDA	7.17	4.15		47.13
Sales Growth Yoy (%)	45.43	-2.28		93.81
EBITDA Margin (%)	9.29	-1.37		11.36
Operating Margin (%)	7.62	-2.79		10.62
				

Growth and debt (BS):

One would assume Fabrinet's outstanding growth was being boosted by debt financing, but it is not. It has access to \$150 M worth of debt as a revolving credit facility, as well as an additional \$50 M in the form of delayed draw term-loan. Of the revolving credit facility alone, it still has 63% available for use.



Fabrinet mostly uses this credit facility to finance short-term liabilities. It avoids long-term debt for the most part, as it can be seen below. Its capital structure is mostly debt, and that is why for the purposes of this analysis, ROE and Ke were used to gauge value creation.



12 Months Ending	06/28/2013	06/27/2014	06/26/2015	06/24/2016	06/30/2017
Total Assets					
+ Cash, Cash Equivalents & STI	149.7	233.5	255.8	284.5	285.3
+ Cash & Cash Equivalents	149.7	233.5	113.0	142.8	133.8
+ ST Investments	0.0	0.0	142.9	141.7	151.5
+ Accounts & Notes Receiv	118.5	101.2	135.0	196.1	264.3
+ Accounts Receivable, Net	118.5	101.2	135.0	196.1	264.3
+ Notes Receivable, Net	0.0	0.0	0.0	0.0	0.0
+ Inventories	89.0	124.6	130.6	181.5	238.7
+ Raw Materials	34.6	40.9	46.1	58.2	88.6
+ Work In Process	43.8	56.4	69.2	94.8	105.7
+ Finished Goods	12.7	29.9	18.3	31.0	47.0
+ Other Inventory	-2.1	-2.6	-3.0	-2.4	-2.7
+ Other ST Assets	7.4	5.3	5.6	11.1	10.5
+ Derivative & Hedging Assets	0.0	0.0	0.0	0.2	0.0
+ Deferred Tax Assets	1.9	1.6	1.7	1.4	0.0
+ Misc ST Assets	5.4	3.7	4.0	9.6	10.5
Total Current Assets	364.5	464.5	527.0	673.3	798.8

12 Months Ending	06/28/2013	06/27/2014	06/26/2015	06/24/2016	06/30/2017
Total Current Assets	364.5	464.5	527.0	673.3	798.8
+ Property, Plant & Equip, Net	97.2	97.2	140.7	178.4	216.9
+ Property, Plant & Equip	167.9	167.5	222.7	275.6	338.7
- Accumulated Depreciation	70.7	70.2	82.1	97.2	121.8
+ LT Investments & Receivables	0.0	0.0	0.0	0.0	0.0
+ Other LT Assets	3.2	2.8	4.8	4.7	17.4
+ Total Intangible Assets	0.2	0.1	0.1	0.5	9.6
+ Goodwill	0.0	0.0	0.0	0.0	3.8
+ Other Intangible Assets	0.2	0.1	0.1	0.5	5.8
+ Deferred Tax Assets	2.9	1.8	2.2	1.8	2.9
+ Derivative & Hedging Assets	0.0	0.0	0.0	-	0.0
+ Misc LT Assets	0.1	1.0	2.4	2.4	4.9
Total Noncurrent Assets	100.4	100.1	145.5	183.2	234.3
Total Assets	464.9	564.6	672.5	856.5	1,033.1

On the asset side, it is hard to tell that this is one of the most profitable companies in its industry. Over 77% of total assets are current assets, of which cash and STI compose 36%. The rest are mostly accounts receivables and inventory. However, these numbers are actually strong indicators of Fabrinet's performance. Contractually, Fabrinet's customers are required to purchase their finished goods. Its customers sign a contract of up to three years depending on whether Fabrinet is required to create and produce or simply manufacture goods. Therefore, unless Fabrinet's goods are defective, their inventory is as good as revenue. Additionally, given how Fabrinet has a small number of customers who place large orders, its accounts receivable account is not really too much of a concern. The interesting part is actually cash and STI. It is an indicator of two factors. First, Fabrinet's management is very vocal regarding their desire to acquire companies or create joint ventures, and they seem to be saving money to do exactly that, just as they did for Global GEM. Additionally, it once again proves that Fabrinet is not rash in its pursuit of additional growth, since it seems to only take profitable projects and clients. As the economy and the industry continues to grow, Fabrinet not only has the liquidity to quickly enter into production, it has access to large amount of debt financing if the demand is ridiculously high. Fabrinet is a company that flourishes on its own, but has the capability and intent to grow aggressively and strategically in an industry that is expected to grow significantly in the future.

Future Growth:





How realizable is this potential growth? In August of 2017, China's Ministry of Commerce conducted a yearlong expiry review on optical fiber imports. It imposed tariffs and restrictions on imports from the US and Japan, which send companies' stock such as Fabrinet plummeting. Fabrinet was particularly hurt given how much business it had in China. However, China's new five-year plan seeks to promote the domestic industry, aiming to become 30% of the global market by 2022. Given how China has always lagged in terms of high-end processors and memory chips, it is expected that the demand China will create will lead to a shortage of supply. Since Fabrinet already has operations set within China, this expected growth is more than likely to benefit Fabrinet. This does not even take into account the expected growth in usage of fiber-optic networks, data centers and cloud computing services. As the economy continues to rely more and more on computers and optics communications, Fabrinet's expected revenue growth is not a crazy idea, and management's desire to expand now just shows how much they understand the potential market share they will be able to gain.

Cash Flow Analysis:

In Millions of USD except Per Share	2014 Y	2015 Y	2016 Y	2017 Y	Last 12M
12 Months Ending	06/27/2014	06/26/2015	06/24/2016	06/30/2017	12/29/2017
Cash from Operating Activities					
+ Net Income	91.7	43.6	61.9	97.1	89.4
+ Depreciation & Amortization	10.7	12.9	17.4	23.8	27.3
+ Non-Cash Items	-28.1	15.4	22.6	29.7	22.5
+ Stock-Based Compensation	5.5	8.0	9.9	26.5	24.7
+ Deferred Income Taxes	0.1	-0.9	0.9	0.8	-0.3
+ Other Non-Cash Adj	-33.7	8.2	11.8	2.5	-1.9
+ Chg in Non-Cash Work Cap	-7.7	-19.3	-54.7	-79.7	-50.9
+ (Inc) Dec in Accts Receiv	17.4	-33.8	-61.0	-64.1	-17.7
+ (Inc) Dec in Inventories	-36.1	-6.4	-50.6	-53.8	-25.6
+ Inc (Dec) in Accts Payable	17.7	20.5	56.3	38.3	-6.4
+ Inc (Dec) in Other	-6.8	0.4	0.6	-0.1	-1.3
+ Net Cash From Disc Ops	0.0	0.0	0.0	0.0	0.0
Cash from Operating Activities	66.6	52.6	47.1	70.9	88.3

It is important to mention Fabrinet's operating cash flow, even if only briefly. Operating cash flows indicate long-term sustainability, and Fabrinet's cash flows show that its business is not only profitable, but also sustainable. Another interesting factor that is seen in the cash flow analysis is the stock-based compensation. The dilution from stock-based compensation is so significant that diluted earnings per share are preferred to gauge return on equity.

Dupont Analysis:

Operating Margin					
 EBIT/Revenue %	11.37	13.85	6.24	7.15	7.55
Asset Turnover					
 Revenue/Avg Assets	1.39	1.32	1.25	1.28	1.50
Leverage Ratio					
 Avg Assets/Avg Equity	1.61	1.37	1.37	1.48	1.53
 Adjusted Return on Equity	18.53	16.85	9.87	12.29	15.96

While Fabrinet is not targeting value creation currently, it is important to mention the possibility of further value creation since Fabrinet outperforms its rivals already. Fabrinet's improved ROE (GAAP) is mostly due to its operating margins and asset turnover, indicating that the positive effect of financial leverage is possible in the future if the industry starts to heat. Operating margins seem to be able to increase even further, given how in 2014 it was at 11.37% and it is currently at 7.55%. Fabrinet is currently seeking to expand its facilities, given how they believe economies of scale are possible as they scale up their customer orders in terms of size. Interestingly, asset turnover improved significantly, but it may be able to increase even further. TAT has a major flaw; it fails to account employees' value. In an industry where the workers' expertise is valued even more than fixed assets, it seems imprudent to believe the current TAT shows the real current and potential value creation from Fabrinet's assets. It is still possible for the company to improve its TAT, and through that, its ROE. Overall, it seems Fabrinet is still capable of increasing its value creation, a positive sign for the company.

Conclusion:

The world economy is currently roaring as companies seek to expand their operations and are currently investing in technology to improve their revenue and reduce their costs. Fabrinet provides a great service by serving as a consultant, creator or even manufacturer for these companies. As the optics industry continues to become more central to all businesses and governments in order to communicate, companies that specialize in these fields will benefit the most. Fabrinet has been able to diversify itself through the acquisition of Global CEM solutions and now expanding both in terms of products and services it provides and geographical reach. Fabrinet not only beats its peers in terms of growth, but also value creation, and is able to improve both. Its lack of debt and large liquidity shows they are ready to jump as soon as supply cannot catch up to the growing demand, especially given China's new five-year plan that boosts optics and other electronic manufacturing production. Currently, it is slightly underpriced since its discounted cash flows have slighter than appropriate WACC (debt premium should be lower). Added to that, the potential in the next year of revenue growth from industry demand and acquisitions is almost impossible to calculate, but Fabrinet's management seems to be ready to scale up as soon as the opportunity presents itself. With that being said, Fabrinet's stock is undervalued for what its worth.

Fabrinet (fn)

CENTER FOR GLOBAL FINANCIAL STUDIES

NEUTRAL

Analysis by Blanco
4/17/2018

Current Price:
Dividend Yield:

\$31.30
0.0%

Intrinsic Value
Target Price

\$33.30
\$36.44

Target 1 year Return: 16.41%
Probability of Price Increase: 1



Description	
Fabrinet provides optical packaging and precision optical, electro-mechanical, and electronic manufacturing services to original equipment manufacturers of optical communication components, modular and sub-systems, industrial lasers, medical devices, and sensors.	
General Information	
Sector	Information Technology
Industry	Electronic Equipment, Instruments and Components
Last Guidance	February 12, 2018
Next earnings date	May 4, 2018
Market Assumptions	
Estimated Equity Risk Premium	5.10%
Effective Tax rate	22%

Market Data	
Market Capitalization	\$1,167.77
Daily volume (mil)	0.58
Shares outstanding (mil)	37.31
Diluted shares outstanding (mil)	38.15
% shares held by institutions	109%
% shares held by investment Managers	82%
% shares held by hedge funds	13%
% shares held by insiders	2.51%
Short interest	9.85%
Days to cover short interest	5.22
52 week high	\$47.02
52 week low	\$24.02
Volatility	34.48%

Part Earning Surprises	
Quarter ending	Revenue
12/30/2016	4.96%
3/31/2017	1.34%
6/30/2017	2.05%
9/29/2017	-0.22%
12/29/2017	2.14%
Mean	2.06%
Standard error	1.0%

Market and Credit Scores	
Recommendation (STARS) Value	0
Recommendation (STARS) Description	0
Quality Ranking Value	NR
Quality Ranking Description	Not Ranked
Short Score	-4
Market Signal Probability of Default	(Non-Rating) -0.68%
Credit Model Score (Non-Rating)	bb+

Industry and Segment Information	
LTM Revenue by Geographic Segment	LTM Revenue by Business Segment
North America - 47%	Optical Networking Equipment - 100%
Asia-Pacific - 38%	
Europe - 15%	

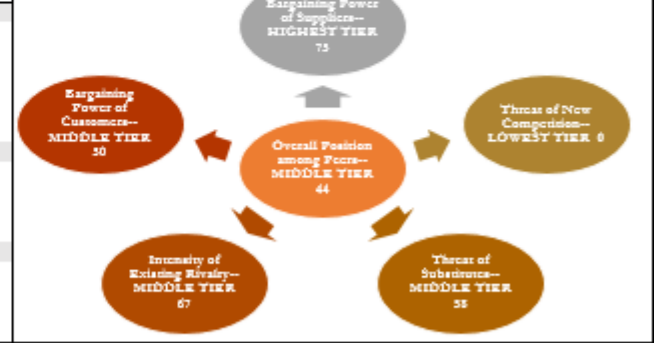
Management	
Mitchell, David	Founder & Executive Chairman
Gill, Harpal	President & COO
Ng, Tai-Seng	Executive VP & CFO
Hau, Hanq	Executive VP & CTO
Grady, Seamus	CEO & Director
Campbell, Colin	VP & General Counsel

Total Compensation Growth	
26.05% per annum over 6y	
20.16% per annum over 6y	
30.07% per annum over 6y	
-6.19% per annum over 2y	

Peers	
Benchmark Electronics, Inc.	Jabil Inc.
Finisar Corporation	Integrated Micro-Electronics, Inc.
Venture Corporation Limited	Infinera Corporation
Lumentum Holding Inc.	Oclaro, Inc.
Celastec Inc.	Ciena Corporation

Profitability	
fn (LTM)	fn Historical
Return on Capital (GAAP)	24.5%
Operating Margin	9%
Revenue/Capital (GAAP)	2.76
ROE (GAAP)	11.9%
Net margin	5.1%
Revenue/Book Value (GAAP)	2.32

Peer's Median (LTM)	
10.68%	
10.64%	
1.00	
14.5%	
9.2%	
1.57	



Invested Funds	
fn (LTM)	fn Historical
Cash/Capital	42.4%
NWC/Capital	34.3%
Operating Assets/Capital	22.9%
Goodwill/Capital	0.5%

Peer's Median (LTM)	
28.1%	
16.5%	
45.6%	
9.8%	

Capital Structure	
fn (LTM)	fn Historical
Total Debt/Market Capitalization	0.10
Cost of Debt	4.5%
CGFS Rating (F+care, Z+care, and default Probability: BBB)	
WACC	15.8%

Peer's Median (LTM)	
0.25	
4.9%	
10.4%	

Forecast Assumptions	
Revenue Growth CAGR	5%
Average Operating Margin	12%
Average Net Margin	8%
Growth in Capital CAGR	11%
Growth in Claims CAGR	14%
Average Return on Capital	12%
Average Return on Equity	11%
Average Cost of Capital	15%
Average Cost of Equity	17%



April 22, 2018

Trupanion: (TRUP)

Peter Galante

Sector: Financials

Industry: Life and Health Insurance

Current Price: \$27.74

Target Price: \$33.60

Company Description: Trupanion provides medical insurance plans for cats and dogs throughout North America. The company utilizes a data driven, vertically integrated approach to provide customers with high quality pet insurance.

HOLD

Current Price: \$27.74
 Target Price: \$33.60
 Market Cap: \$836 Million
 5 Year Rev CAGR: 34%
 Average Monthly Retention: 98.63%
 Policy Benefits/Revenue: 70%
 2017 Cash EBITDA: 1.1%



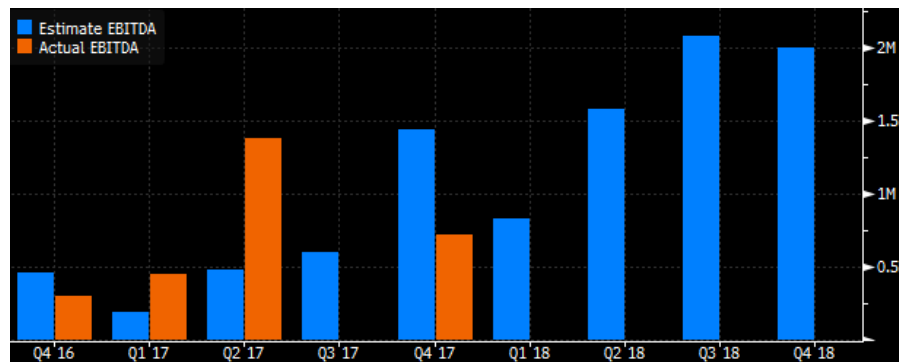
Thesis: Trupanion operates in an underpenetrated market and has a platform that will likely capture a large portion of the market. I believe that they are facing downward pressure due to a lack of cash flow, I recommend TRUP as a hold until financial results indicate a shift towards profitability.

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

- Short Term (within the year): Continuation of strong revenue growth, increasing market penetration.
- Mid Term(1-2 years): Reductions in operating costs and a shift towards profitability
- Long Term(3+): Potential to be the top player in the North American Pet Insurance Market

Earnings Performance:

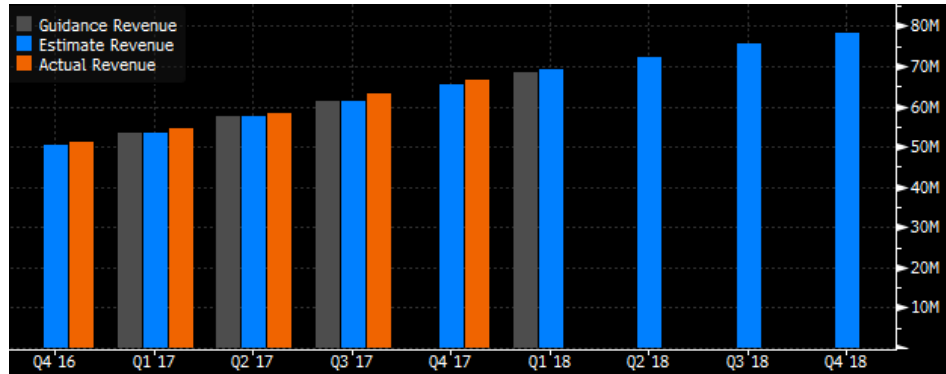
Trupanion has had varied success compared to earnings estimates over the past two years. For reported EBITDA, they have beaten 5 of their last 7 estimates, with analysts anticipating an increase in quarterly EBITDA to around \$2M quarterly by Q4 2018. This is nearly double what Q1 EBITDA estimates are, and is a sign that analysts expect to see an increase in operational efficiencies.



Source: Bloomberg Terminal

Trupanion has consistently operated at a 70% Policy Benefits to Policy Revenues ratio. Out of every dollar of revenue they take in, they are paying \$.70 to cover the medical costs for a client's pets. This pricing model indicates that significant improvements to margin are attainable with scale. A major operating cost is the cost to acquire customers. From 2013 to 2017 the cost of acquiring customers has improved from 10% of revenues to 8% of revenues.

Revenue growth has been a strong and consistent factor for TRUP, with 41 consecutive quarters of over 25% revenue growth, and beating estimate revenue in 8 of the 8 last earnings releases. Guidance and estimates have historically been accurate when compared to actual results, with none of the earnings surprises being a major deviation.



Source: Bloomberg Terminal

Business Model

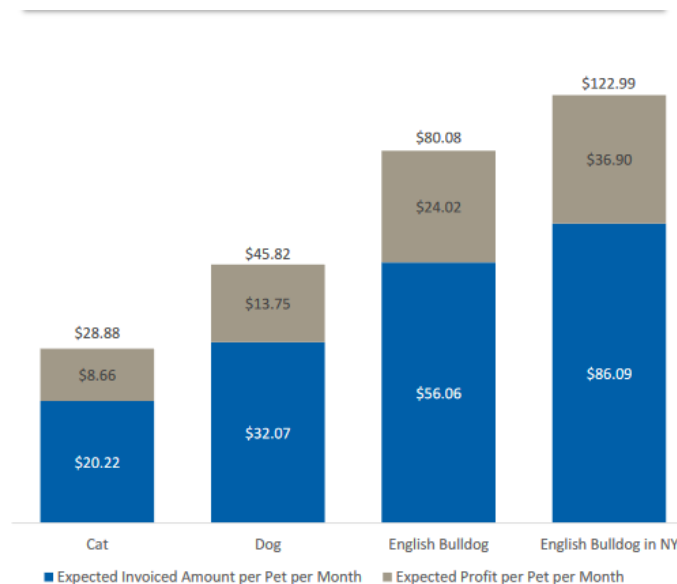
Trupanion operates with a competitive business model that positions them among the highest quality pet insurers in the market. With Trupanion service, pets are covered for life. Aside from pre-existing conditions, TRUP comprehensively covers hereditary and congenital conditions, which are the most likely conditions to occur. The Policy owner is allowed to choose any location for the treatment of pet, and 90% of the veterinary costs are covered by TRUP, with no payout limits. They offer competitive services by not increasing pricing as pet's age or require treatment. This quality service has led to a 98.63% client retention ratio in 2017.

Over 49% of client acquisition is driven by veterinary leads, who are able to treat pets more effectively when it is covered by insurance. An additional 27% of new pets come from existing members getting new pets or

referring Trupanion to another pet owner. As of 2016, over 8000 vets were actively recommending Trupanion's services.

Pricing Model

Trupanion has an adjustable and customizable pricing model that allows them to appropriately price different plans for the wide variety of cats and dogs covered. Utilizing data from over 18 years of claims data, TRUP has developed millions of unique pricing categories. Factors such as breed, postal code, and age are among the different factors used to measure the risk of insuring each individual pet. Based on these risk factors, TRUP calculates a monthly fee that allows them to make a 30% return after policy costs are incurred. The average monthly cost for each cat or dog is \$52.95



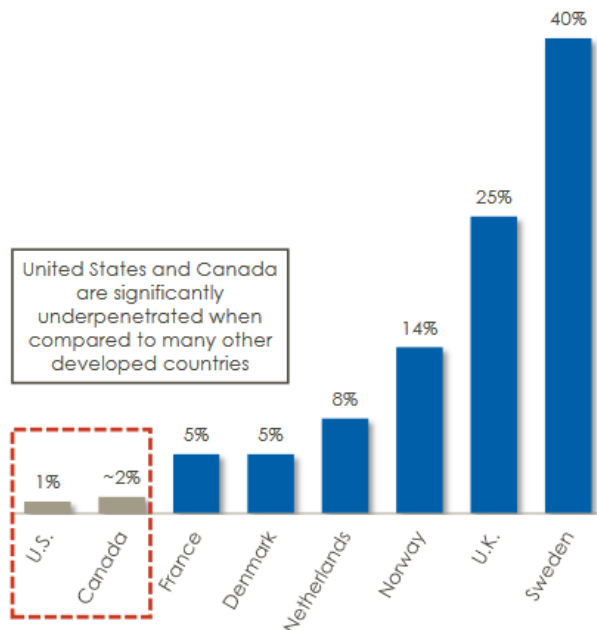
Source: TRUP Investor Presentation

Revenue Forecast

In their February investor presentation, TRUP outlined the massively unpenetrated market (Pictured Below). While I agree that there is a significant opportunity to grow into this market, I do not agree with the use of the pet insurance market in the U.K. as a proxy. Based on information presented by TRUP, they believe that the market in the U.K. can be mimicked in the United States as they offer a similar type of product to the services offered abroad. Due to the geographical and sociocultural differences between the North American market and the U.K. I have conducted research on the American veterinary market, and created my own revenue and market share forecast.

Massive Underpenetrated Market ^{1,2,3,4}

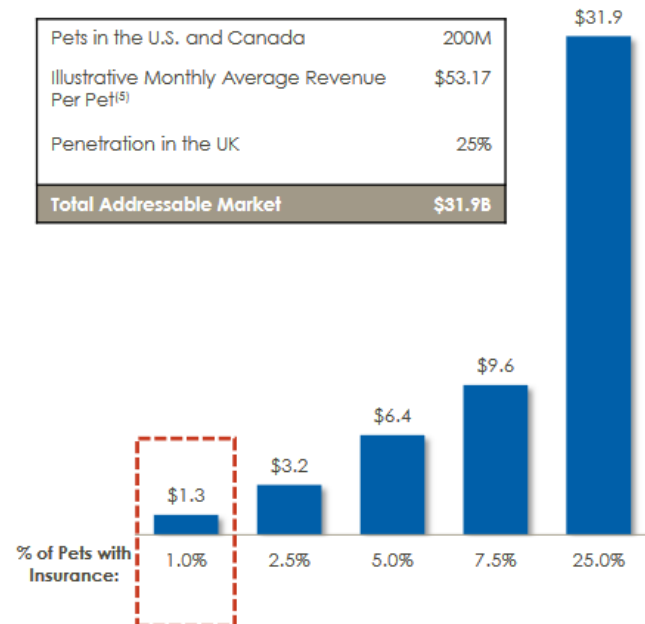
200 Million Pets in U.S. & Canada



Potential Market Size by Penetration Rate

(\$ in billions)

Pets in the U.S. and Canada	200M
Illustrative Monthly Average Revenue Per Pet ⁽⁵⁾	\$53.17
Penetration in the UK	25%
Total Addressable Market	\$31.9B



- 1 APAA, National Pet Owners Survey, 2017 - 2018.
- 2 Kynetec on behalf of the Canadian Animal Health Institute, CAHI Estimate of Canadian Dog and Cat Population Survey, 2016.
- 3 Packaged Facts, a division of Market Research Group, LLC, Pet Insurance in North America, 3rd Edition, October 2013.
- 4 Munich RE, How to Unlock the Potential of Pet Health?, May 2013.
- 5 Represents our monthly average revenue per pet for the three month period ended December 31, 2017.

8

Source: TRUP Investor Presentation

In my forecast, I took an estimate that there were 190 million cats and dogs as pets in the U.S. and Canada, with that number holding steady through the forecast (Data from Statista). Based on that number, I calculated that 75% of those pets actually visit the vet at least 1 time per year. This is based on a publication from the American Veterinary Medical Association. From that portion of pets, I found the % of pets likely to be insured by taking 63.2% of that number. This is based on a publication from the American Veterinary Medical Association that states that 63.2% of pets are considered to be members of the family they are owned by. Using this a base to build TRUP's market penetration as well as the \$52.95 of revenue per pet per month, I was able to forecast their revenues for the continuing period of my Pro-Forma.

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Number of Pets in US/CAN	184	190	190	190	190	190	190	190	190	190	190	190	190	190
Number of Pets Visiting Vets	138	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5
Pets Potentially Insured (Millions)	87.22	90.06	90.06	90.06	90.06	90.06	90.06	90.06	90.06	90.06	90.06	90.06	90.06	90.06
Pets Insured by TRUP (Millions)	0.44	0.68	0.90	1.35	1.80	2.03	2.25	2.48	2.70	2.93	3.15	3.38	3.60	3.83
Market Penetration	0.50%	0.75%	1.00%	1.50%	2.00%	2.25%	2.50%	2.75%	3.00%	3.25%	3.50%	3.75%	4.00%	4.25%
Annual Insurance Revenue (Millions)	\$277.09	\$429.18	\$572.24	\$858.36	\$1,144.48	\$1,287.54	\$1,430.60	\$1,573.66	\$1,716.72	\$1,859.78	\$2,002.84	\$2,145.90	\$2,288.96	\$2,432.03

Target Margins

With a 30% margin after policy benefits are paid, TRUP has the opportunity to improve bottom line margins as they gain efficiency. The cost of acquiring new clients is a major factor that drives down margins, but this has been improving over the past few years. After the cost of acquiring a pet (\$184 on average), Trupanion is

able to breakeven after 18 months. With operating margins being negative in the past, they have given guidance on future margins upon achieving economies of scale. After taking out the cost of acquiring new clients, they had a 9.6% operating margin in 2017. They have indicated a long term target for this margin to be 15%. If they are able to attain this 15% margin, and the cost of acquiring clients remains steady at 8% of revenues, the expected EBITDA margin is 7%.

% of Revenue	2012	2013	2014	2015	2016	2017	Long-term Target
Revenues	100%	100%	100%	100%	100%	100%	100%
Cost of goods	68%	67%	69%	70%	71%	70%	70%
Variable expenses	12%	14%	14%	12%	11%	12%	10%
Fixed expenses ⁽²⁾	15%	14%	17%	15%	10%	8%	5%
Adjusted Operating Margin	5.3%	5.1%	0.7%	2.4%	7.9%	9.6%	15%
Acquisition cost	12%	10%	10%	10%	8%	8%	
Adjusted EBITDA	-7%	-5%	-9%	-8%	0%	2%	
Net (loss) income	-12%	-10%	-18%	-12%	-4%	-1%	

Source: TRUP Investor Presentation

Sensitivity Analysis

Trupanion is highly sensitive to shifts in margin assumptions. The base case that my price target is based on is what I have determined to be the most likely option as a result of my analysis. The revenue forecast in the base case assumes a 17% CAGR over the next 14 years, and a 2% CAGR in the continuing period. The target operating margin this this scenario is 6% by the end of the continuing period. This yields an expected return of around 20%.

In the bear case, I reduced the target operating margin to 4%. This assumes that the Operating margin without the acquisition cost of new clients only reaches 12% instead of their stated target of 15%. In this scenario, the expected 1 year return is around -20%.

In the bullish forecast, I assume that TRUP is able to reach their stated goal of 15% operating margin before the costs of acquiring new clients. This means that the target operating margin in my forecast is 7%. The expected 1 year return in this scenario is around 41%

Conclusion:

Despite the clear potential for outstanding returns, I am rating TRUP a hold until there is further evidence of margin improvements in line with management's long term targets. They operate in an underpenetrated market, and have a platform that will allow them to capture a significant share of the potential market. They have indicated financial targets that will see them operating at a healthy margin in the future, but at the current time, my sensitivity analysis indicates that there is too much risk associated with margin assumptions in the long term to recommend a buy for the Bjorklund Fund.

Trupanion, Inc. (TRUP)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Peter

4/22/2018

Current Price:

\$27.74

Divident Yield:

0.0%

Intrinsic Value

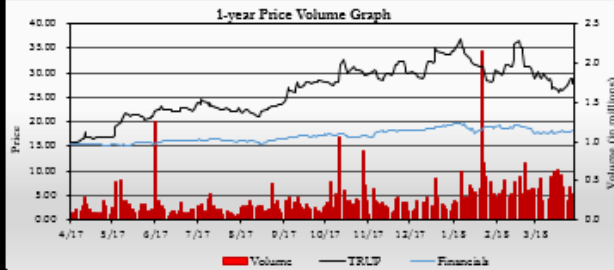
\$31.24

Target Price:

\$33.60

Target 1 year Return: 21.11%

Probability of Price Increase: 100%



Description
Trupanion, Inc., together with its subsidiaries, provides medical insurance for cats and dogs on monthly subscription basis in the United States, Canada, and Puerto Rico. The company operates through Subscription Business and Other Business segments.

General Information
Sector: Financials
Industry: Insurance
Last Guidance: February 12, 2018
Next earnings date: May 1, 2018

Market Assumptions
Estimated Equity Risk Premium: 5.20%
Effective Tax rate: 22%

Market Data	
Market Capitalization	\$835.76
Daily volume (mil)	0.33
Shares outstanding (mil)	30.13
Diluted shares outstanding (mil)	29.53
% shares held by institutions	103%
% shares held by investments Managers	45%
% shares held by hedge funds	11%
% shares held by insiders	6.03%
Short interest	22.03%
Days to cover short interest	16.66
52 week high	\$37.13
52-week low	\$15.40
Volatility	0.00%

Past Earning Surprises	
Quarter ending	Revenue
12/31/2016	1.06%
3/31/2017	2.30%
6/30/2017	3.06%
9/30/2017	2.93%
12/31/2017	1.61%
Mean	2.19%
Standard error	1.0%

Market and Credit Scores	
Recommendation (STARS) Value--0	
Recommendation (STARS) Description--0	
Quality Ranking Value--0	
Quality Ranking Description--0	
Short Score--5	
Market Signal Probability of Default % (Non-Ratings)--0.143%	
CreditModel Score (Non-Ratings)--bb-	

Industry and Segment Information	
LTM Revenues by Geographic Segments	LTM Revenues by Business Segments
United States--80%	Subscription Business--90%
Canada--20%	Other Business--10%
--	--
--	--
--	--

Management	
Rawlings, Darryl Graham	Founder, President, CEO & Director
Plouf, Tricia	CFO & Principal Accounting Officer
Moffat, Ian	Chief Operating Officer
Rubin, Howard	Consultant and Non-Employee Director
Boerman, Asher	Chief Administrative Officer and Secretary
Bainbridge, Laura	Managing Director

Total Compensation Growth	
41.87% per annum over 3y	
28.33% per annum over 3y	

Peers	
Zillow Group, Inc.	--
--	--
--	--
--	--

Profitability	
Return on Capital (GAAP)	123.8%
Operating Margin	0%
Revenue/Capital (GAAP)	304.33
ROE (GAAP)	
Net margin	
Revenue/Book Value (GAAP)	

TRUP (LTM)	
123.8%	
0%	
304.33	

Peers' Media (LTM)	
10.86%	
33.63%	
0.32	

Invested Funds	
Cash/Capital	84.7%
NWC/Capital	-36.6%
Operating Assets/Capital	51.9%
Goodwill/Capital	0.0%

TRUP (LTM)	
84.7%	
-36.6%	
51.9%	
0.0%	

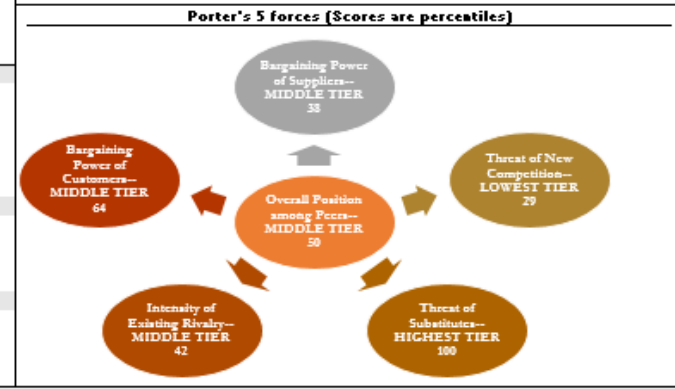
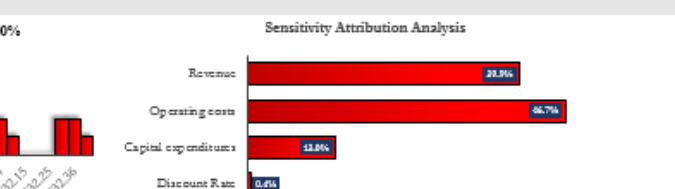
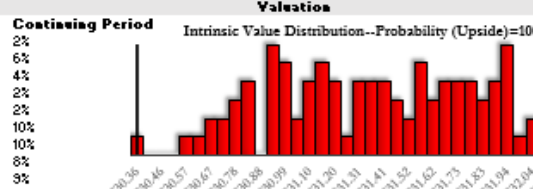
Peers' Media (LTM)	
17.8%	
-0.8%	
27.2%	
55.8%	

Capital Structure	
Total Debt/Market Capitalization	0.24
Cost of Debt	7.6%
CGFS Rating (F-score, Z-score, and default Probability)	A
WACC	9.5%

TRUP (LTM)	
0.24	
7.6%	
A	
9.5%	

Peers' Media (LTM)	
0.13	
5.2%	
12.2%	

Forecast Assumptions	
Revenue Growth CAGR	17%
Average Operating Margin	6%
Average Net Margin	4%
Growth in Capital CAGR	19%
Growth in Claims CAGR	12%
Average Return on Capital	17%
Average Return on Equity	21%
Average Cost of Capital	8%
Average Cost of EquityKc	9%



April 16, 2018

Carter's Inc. (NYSE:CRI)

Eric Bjorklund

Sector: Consumer Staples

Industry: Textiles & Apparel

Current Price: \$106.69

Target Price: \$131.60

Carter's Inc. (CRI) is a retail and wholesale company that specializes in infant through early childhood clothing. CRI maintains a 15% market share in the U.S. as well as 3% through its affiliate, OshKosh. CRI was founded in 1865.

BUY

Current Price: \$106.69

Target Price: \$131.60

Market Cap: 5.102B

Beta: .76

Other key Metrics/Ratios

Fiscal year 2017: February 2017- February 2018

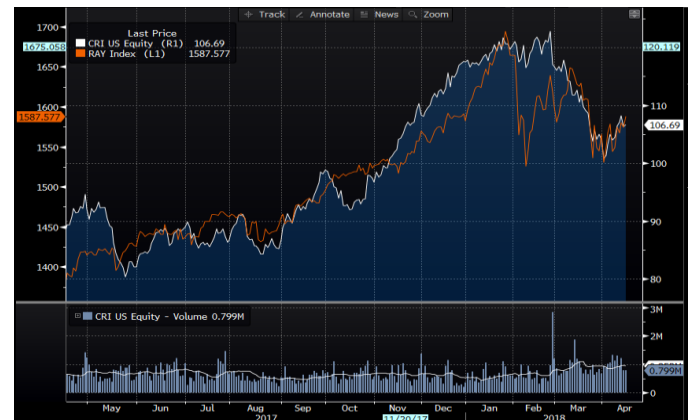
EBITDA Margin 14.7%

TEV/EBITDA 10.9x

Debt/Equity 72%

Credit Rating BB+

Volume .799M



Thesis:

Carter's Inc. is an internationally loved brand of children's clothing, that has had growth in 29 straight years, regardless of economic factors. We can look for the 30th consecutive year of positive results due to several outstanding reasons, coupled with the strength of the company. CRI is currently underpriced due to a negative reaction to certain aspects of the Q4 year-end report in February. Margins seemed less than stellar due to strategic acquisitions and expansion, but we can look to these events as value generating catalysts in the near and long term future. A continuing aggressive approach to new Ecommerce technology, as well as strategic partnerships with Amazon, Mexican Licensees, and Chinese Wholesalers, will provide fast growing revenue streams. CRI has noticed it is a dynamic world of retail and wholesale, and thus is continuously innovating its business model, inventory management, and growth initiatives to ensure success.

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

- Short Term(within the year): Ecommerce initiatives increasing sales, convenience for shoppers. Skewed low margin due to acquisitions produced a negative reaction by the market which will correct on the 4/26 earnings call
- Mid Term(1-2 years): International expansion (Mexico, Canada and China primarily)
- Long Term(3+): Gains from operating margin expansion driven by direct sourcing, inventory management and scaling of growth initiatives through partnerships and recent acquisitions



Earnings Performance:

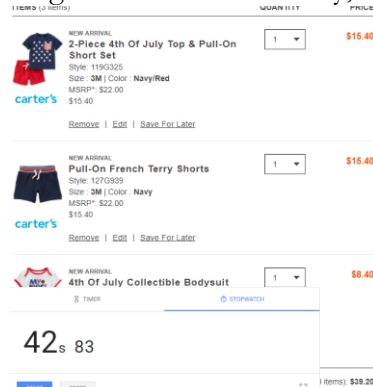
CRI is coming off their 29th consecutive year of sales growth. They improved their sales 6% when compared to 2016. This is among a turbulent wholesale and retail segment. The international segment achieved sales in excess of \$400 million. Adjusted EPS was a strong 2017 metric as it has grown at 12%. CRI beat expected EPS by \$.012 as of their most recent earnings call on 2/17/18. Their next call is scheduled for 4/26/18 with expected EPS at \$0.98. In Q4 2017, net sales reached \$1.03 billion at a growth rate of 10%. Adjusted Diluted EPS was \$2.32 at a growth of 30%. The company announced a \$500 million share repurchase program, and a 22% increase in quarterly dividends to \$0.45/share. Due to the Tax Cuts and Jobs act of 2017, CRI was able to implement a \$20mm program in the form of enhanced benefits to employees. CRI also plans to use this benefit to invest \$20mm in new marketing as well as increased Ecommerce abilities, more to follow on that later. Cash flow from operations in fiscal 2017 decreased from \$369.2mm to \$329.6mm. This was due in part to unfavorable changes in net working capital, per the 2017 10K. This caused a drop in price, which we will see recouped by the next earnings call.

Ecommerce & Amazon:

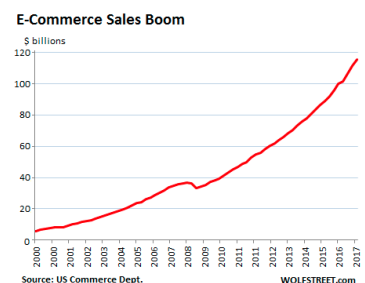
One of the largest threats to retailers, especially in the clothing segment, has been the emergence of Ecommerce and its effect on physical locations. CRI noticed this trend, and aggressively hedged against this risk. Their two main initiatives to address this were to create an easy to use, efficient system for customers to purchase through their website, and a partnership with Ecommerce giant, Amazon.com (NYSE:AMZN). Ecommerce sales have grown 15.5% in 2017 and make up 9.1% of all retail. CRI expects 30% of all childhood clothing to be purchased online by 2022 with a growth in online sales by \$1billion leading up to that same year.

Carters.com E-store

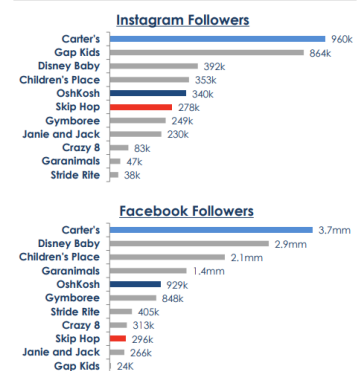
The first thing seen when searching for CRI is a link to their web page, which immediately advertises their current offers as well as an easy to use interface. Babies grow very fast and thus need different sizing throughout their first 3 years of life. Carter's website allows customers to select a tab for their age range as one of their top toolbars. As an experiment, I chose an age range of a 3 month old boy, and tested how long it would take me to select, and



purchase an outfit. Immediately, the website led me towards certain styles and a mere 43 seconds later, I was at checkout with a day and night 4th of July outfit. CRI is also investing \$20mm into their Ecommerce in 2018, so this experience will most likely become more efficient, secure and user friendly. This allows their target market of busy parents to easily buy their product and have it shipped to their door. With an industry



Carters, OshKosh, and Skip Hop - Strong Consumer Following on Instagram & Facebook



Source: Instagram and Facebook (followers as of 2/23/18). Third-party engagement scoring firm.

wide shift to online sales, this puts CRI at the front of the pack in terms of this innovation. As well as Carter's products, they also allow customers to shop for acquired brands Oshkosh B'Gosh(2005) and Skip Hop(2017). They currently rank #105 out of all Ecommerce retailers in the world per the "Internet Retailer 2017 Top 500. In Q4 2017, Net Ecommerce sales increased 17% In terms of overall internet presence; CRI has the highest social media engagement in Young Children's Apparel of all competitors.

Amazon.com Partnership

CRI expects Amazon to grow to be one of their largest customers over the next 5 years per their Q4 2017 earnings call. According to a 2016 study, 52% of online shoppers start with a search on Amazon.com. When I searched the Carter's brand (not including Oshkosh and Skip Hop) narrowed down in the baby section of Amazon's search engine, it returned 302 pages of Carter's branded products. This ranged from single articles of clothing, to outfit packages. An interesting thing CRI did to differentiate their products through amazon is released a collection of outfits exclusively for Amazon Prime members. CRI plans to expand its product scope on Amazon in the next year, following a successful first year of partnership. While Amazon can be seen as a threat to other brick and mortar retailers, CRI has put themselves in a place to leverage the success of the online shopping giant for their own gain.

Segments:

Wholesale

- Set to grow nationwide after several rough years
- 8 out of 15 customers that CRI wholesales to are expected to grow positively this year, 2 set to report comparable growth
- 5 remaining are either mall based or Babies "R" US, CRI is monitoring health and hedging against failure
- CRI expects their investment in Ecommerce to hedge against wholesaler decline again

Ecommerce and Retail

- Amazon partnership set to exponentially increase online sales
- Set to drive over 50% of 2018 revenue
- Online sales set to represent ~\$900mm
- Q4 2017 Ecommerce sales increased 18% compared to Q4 2016
- Retail sales growth of \$38mm in Q4 2017
- CRI will cull underperforming stores and innovate the successful stores to control operating costs

International Expansion and Acquisitions:

International wholesale sales grew 41% in Q4 2017, total international sales grew 21%

China:

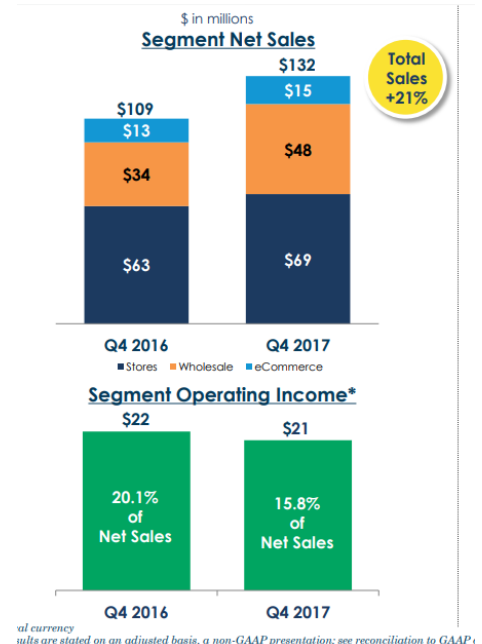
- \$12 Billion market, expected to double over next 10 years
- 16 million children born every year (4x USA rates)
- Currently heavily weighted to Ecommerce via Ali Baba
- Wholesale to Pou Sheng, a \$2 Billion publicly traded retailer, 51 stores operated in China
- Still a work in progress, but a bright future is ahead.

Mexico:

- CRI's largest international licensee
- Projected \$30mm of business in 2018, will double over next 5 years

Skip Hop:

- Acquired in Q1 2017, integrated onto website in July
- Contributed \$96mm to consolidated sales in under a year even with integration
- Expanding Skip Hop merchandise in all Carters/Oshkosh stores in 2018 after a positive result from a holiday trial run
- Acquired a low margin business, innovation and integration to fix this will show results in the next year



Management & Insider Transactions:

Name	Position	History	Compensation Growth	Price Growth During Tenure
Michael Casey	Chairman & CEO	Upper Management with CRI since 1993. Senior PWC manager for 11 years before CRI	4.13% pa over 6yrs	6.51% pa over 6 yrs
Brian Lynch	President	Upper Management with CRI since 2005, VP in several aspects of company	9.03%pa over 6yrs	6.51% pa over 6 yrs
Richard Westenberger	CFO and Exec. VP	Experienced in retail, distribution companies, potential next in line for CEO	2.87% pa over 6 yrs	6.51% pa over 6 yrs
Kevin Corning	Exec. VP of International	Experience in SA markets with Fortune 500 companies	-13.52% pa over 4 yrs	6.85% pa over 4 yrs

- Strong, results driven management

- Each executive fits role due to past experience
- Plenty of history in distribution, supply chain management

Compare Current Stats Against		04/15/17			
Insider		04/09/17	Curr	Change	
1) % of Shares Held		1.91	1.92	+0.01	<input checked="" type="checkbox"/>
12) % Chg Insider Positions		-4.17	+2.51	+6.68	<input type="checkbox"/>
13) # of Insiders		18	19	+5.56	<input type="checkbox"/>

Little Planet Products for Millennial Moms:

- Millennials are trending towards socially responsible, environmentally friendly products
- This demographic is reaching the age where the majority of Americans have children
- CRI is one of the most popular brands amongst millennials
- Little Planet is based around fair trade and sustainable clothing making materials and processes

Conclusion:

Carter's Inc. is currently a buy. The market has underpriced it due to misguided analysis from the Q4 2017 earnings call. CRI is affected the most by its operating expenses. Recent restructures including closing underperforming brick and mortar stores, as well as heavily turning to Ecommerce, show a conscious effort to mitigating this risk. CRI continues to prove its wealth generating properties by increasing the dividend and repurchasing shares. The long term business model, as well as short term synergies from recent ventures provide a profitable footprint for me to base my analysis on. The earnings call on 4/26/18 stands to increase the price by instilling confidence in the company's ability to innovate and integrate new, efficient ways of revenue generation and cost reduction. Extremely proficient directors, who know what they are doing in terms of expansion and adaptation, manage CRI. Wholesalers are expected to recover from a decline in the past few years, which will only increase CRI's profitability. CRI's partnership with Amazon is possibly the most important catalyst to buy now. Amazon has shown no signs of slowing down its growth and while other retailers can be hurt by the company, CRI will continue to grow with them. The world is changing how they purchase goods, and Carter's Inc. is making sure the consumer comes to them first.

Carter's, Inc. (CRI)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Eric Bjorklund
4/16/2018

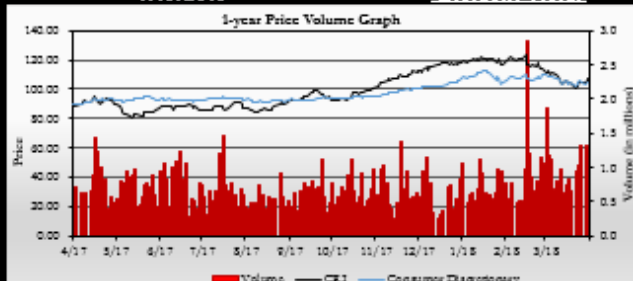
Current Price:
Dividend Yield:

\$108.22
1.7%

Intrinsic Value
Target Price:

\$111.23
\$130.78

Target 1 year Return: 22.52%
Probability of Price Increase: 94%



Description
Carter's, Inc., together with its subsidiaries, designs, sources, and markets branded childrenswear under the Carter's, Child of Mine, Just One You, Precious Firsts, Simple Joys, OrkKarb, Skip Hop, and other brands.

General Information
Sector: Consumer Discretionary
Industry: Textiles, Apparel and Luxury Goods
Last Guidance: February 12, 2018
Next earnings date: April 24, 2018

Market Assumptions
Estimated Equity Risk Premium: 5.77%
Effective Tax Rate: 22%

Market Data	
Market Capitalization	\$5,102.51
Daily volume (mil)	1.21
Shares outstanding (mil)	47.15
Diluted shares outstanding (mil)	48.15
% shares held by institutions	109%
% shares held by investment managers	71%
% shares held by hedge funds	14%
% shares held by insiders	2.02%
Short interest	3.38%
Days to cover short interest	1.94
52-week high	\$129.00
52-week low	\$79.76
Volatility	22.39%

Part Earning Surprises	
Quarter ending	Revenue
12/31/2016	2.13%
4/1/2017	2.34%
7/1/2017	1.63%
9/30/2017	-0.14%
12/30/2017	0.04%
Mean	1.20%
Standard error	1.0%

Market and Credit Scores	
Recommendation (STARS) Value--3	
Recommendation (STARS) Description--Hold	
Quality Ranking Value--B+	
Quality Ranking Description--Average	
Short Score--1	
Market Signal Probability of Default % (Non-Rating)--0.278%	
Credit Model Score (Non-Rating)--a-	

Industry and Segment Information	
LTM Revenue by Geographic Segment	LTM Revenue by Business Segment
United States--88%	U.S. Retail--52%
Canada--8%	U.S. Wholesale--36%
Other International--4%	International--12%
--	--
--	--

Management	
Carey, Michael	Chairman & CEO
Lynch, Brian	President
Wertenberger, Richard	Executive VP & CFO
Canning, Kevin	Executive Vice President of International
Smith, Peter	Executive Vice President of Supply Chain
Wu, Michael	SVP of Legal & Corporate Affairs, General Counsel

Total Compensation Growth	
Chairman & CEO	4.13% per annum over 6y
President	9.03% per annum over 6y
Executive VP & CFO	2.87% per annum over 6y
Executive Vice President of International	-13.52% per annum over 4y
Executive Vice President of Supply Chain	11.54% per annum over 3y

Peers	
The Children's Place, Inc.	--
The Gap, Inc.	--
--	--
--	--
--	--

Profitability	
Return on Capital (GAAP)	14.0%
Operating Margin	9%
Revenue/Capital (GAAP)	1.59
ROE (GAAP)	43.3%
Net margin	10.0%
Revenue/Book Value (GAAP)	4.31

CRI Historical	
Return on Capital (LTM)	14.36%
Operating Margin	8.56%
Revenue/Capital (LTM)	1.68
ROE (LTM)	29.9%
Net margin	8.4%
Revenue/Book Value (LTM)	3.57

Peers' Median (LTM)	
Return on Capital (LTM)	14.53%
Operating Margin	12.50%
Revenue/Capital (LTM)	1.16
ROE (LTM)	28.8%
Net margin	6.1%
Revenue/Book Value (LTM)	4.74

Invested Funds	
Cost of Capital	8.4%
NWC/Capital	23.5%
Operating Assets/Capital	57.2%
Goodwill/Capital	10.9%

CRI Historical	
Cost of Capital	18.6%
NWC/Capital	28.4%
Operating Assets/Capital	42.3%
Goodwill/Capital	10.8%

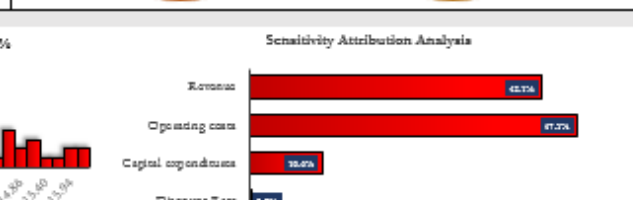
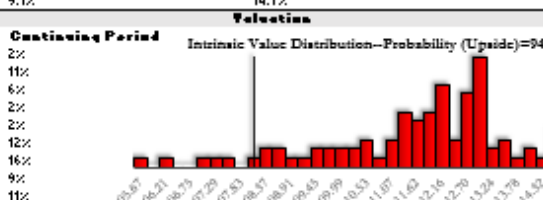
Peers' Median (LTM)	
Cost of Capital	22.6%
NWC/Capital	4.4%
Operating Assets/Capital	72.4%
Goodwill/Capital	0.6%

Capital Structure	
Total Debt/Market Capitalization	0.60
Cost of Debt	5.0%
CGFS Rating (F=care, Z=care, and default Probability: BB	
WACC	11.0%

CRI Historical	
Total Debt/Market Capitalization	0.53
Cost of Debt	4.0%
CGFS Rating (F=care, Z=care, and default Probability: BB	
WACC	9.1%

Peers' Median (LTM)	
Total Debt/Market Capitalization	0.62
Cost of Debt	5.9%
CGFS Rating (F=care, Z=care, and default Probability: BB	
WACC	14.7%

Forecast Assumptions	
Revenue Growth CAGR	10%
Average Operating Margin	11%
Average Net Margin	6%
Growth in Capital CAGR	10%
Growth in Claims CAGR	6%
Average Return on Capital	13%
Average Return on Equity	19%
Average Cost of Capital	9%
Average Cost of Equity Ke	11%



April 13, 2018

Tutor Perini: (TPC)

Emilien MARY

Sector: Materials

Industry: Construction

Current Price: \$21.60

Target Price: \$31.80

Company Description: Tutor Perini Corporation and its subsidiaries provide general contracting, construction management and design-build services to private clients and public agencies throughout the United States and selected overseas areas.

BUY

Current Price: \$21.60
 Target Price: \$31.80
 Market Cap: 1,070.5M
 Beta: 1.61
 ROIC: 5.89%
 Gross Profit margin: 9.6%
 EBITDA margin: 4.9%
 NI margin: 3.1%
 Backlog yoy: 16.96%
 Debt/Com Eq: 43%

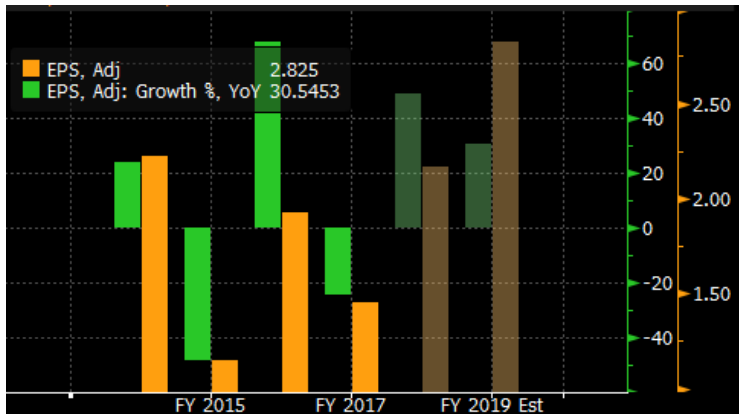
Catalysts: Forward looking projections that call for positive/negative outlook that will strengthen your thesis. Example:

- Short Term(within the year): Ability to take profitable investment
- Mid Term(1-2 years): Demand for Civil projects
- Long Term(3+): US market is stimulate by the Trump's government fiscal policy and the requirement of maintenance of infrastructures



Thesis: Tutor Perini Corporation is concentrating its revenue on a new segment with 6.5 to 7.5 higher margin compared to previous years. This segment, civil construction, is a secured way to improve significantly the financial health of the company. It is strengthened by the recent earning performance and by the long-term revenue upside which it records.

Earnings Performance:



The company earnings has lowered by 24.5% in 2017 compared to the previous year. However, EPS is expected to increase by 45% in 2018 and by 30% in 2019. This significant increase in earnings are due to the significance increase of 54% yoy in civil segment backlog growth, a significant indicator of performance in this industry.

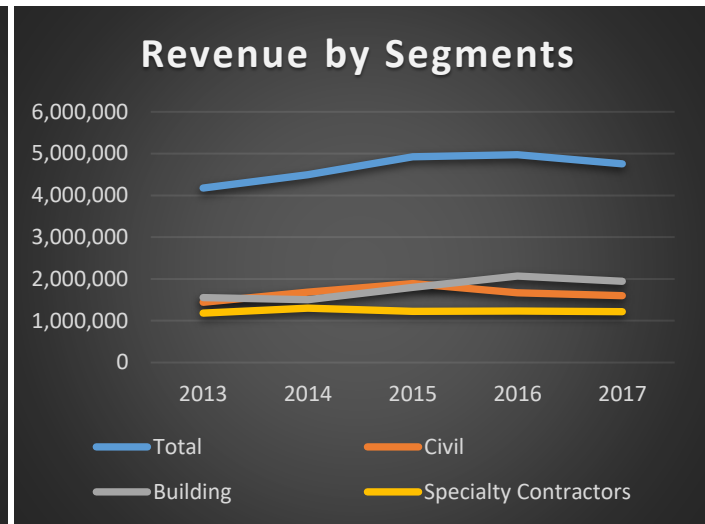
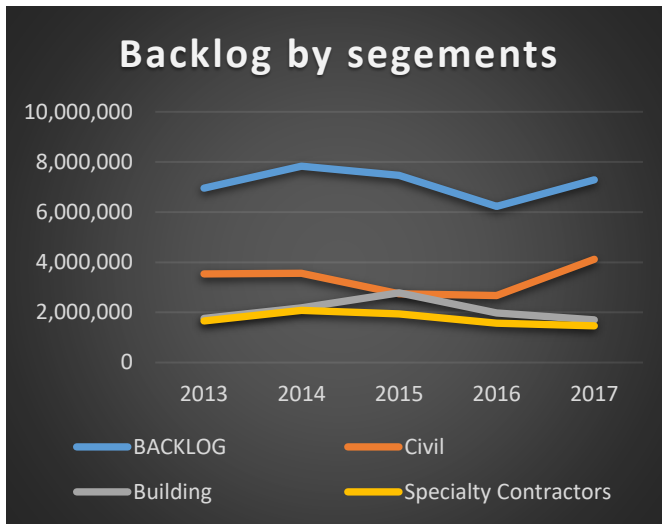
This backlog impact on the company performance is even more significant due to the TPC's highest margin segment with a 12.0% operating margin while Building segment and Specialty Contractors segments stand at 1.8% and 1.6% of operating margin, respectively.

Earnings performance went down mainly due to the decrease of 4.3% in revenue, adj. to \$4,757.2M compared to a revenue of \$4,973.1M in 2016. As a result, Net Income decrease from \$96.1M to \$74.0M during the same period and income margin decrease by 30bps to 1.6%.

However, the Cash flow from operations has significantly increased by 44.4% between 2016 and 2017 from \$113.3M to \$163.6M mainly due to the tax benefit of the Trump's tax cut.

Long-term Revenue Upside:

While revenue has decreased for the first year since 2010, long-term revenue upside is strengthened by the recent backlog records of \$4.1 billion the company has recently provide for the Civil segment, the highest margin division for Tutor Perini company. As a result, backlog increased for the first time since 2014 at \$7.3 billion. The impact of this backlog is generally seen on the total revenue after one or two years.



The government transportation spending has been decreasing under Obama's administration to \$82.7 billion in 2016 from \$86.0 billion in 2013 (source: federal-budget.insidegov.com). As a result, the gap between the requirement fund needed for surface transportations and the fund allocated has significantly increased to 1.1 trillion dollars needed for the period 2016-2025 (source: ASCE). This underinvestment leads to additional cost of maintenance such as more frequent inspection on aging infrastructure.

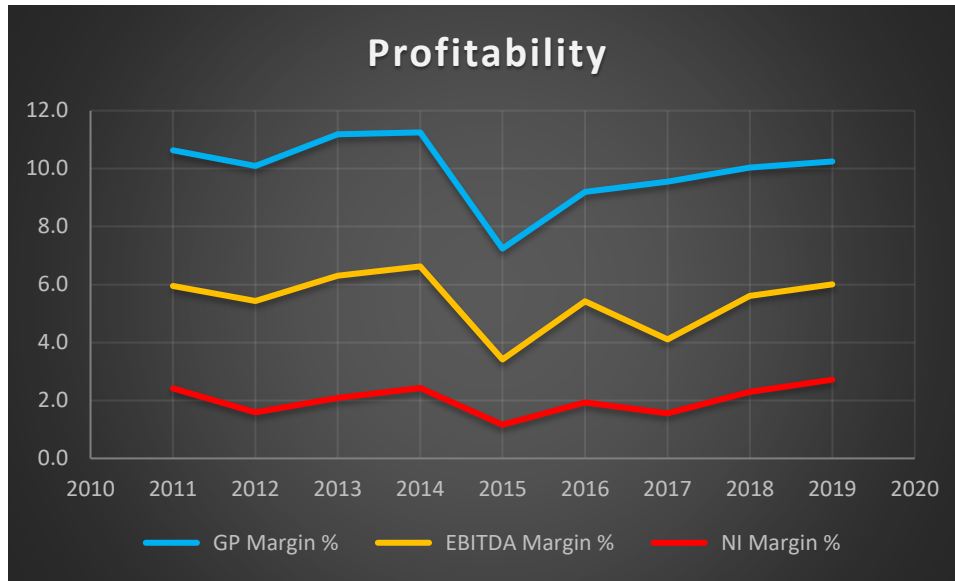
However, the first year of the Trump's government has marked a turning point in the industry. This emphasis the logic of the trump's government policy to increase the transportation spending with an increase of 6.65% in 2017 to \$88.2 billion and to prepare an infrastructure bill around \$1.1/1.7 trillion, a cash cow for this industry if the bill is approved. The materials industry is now able to see a bright future, one of the first time since the crisis, a decade ago.

And this industry growth has already started. The Fast Act, Fixing Americas Surface Transportation Act, is the first long-term transportation funding bill signed by the government for a decades. It will provide long-term contract with funding of \$305 billion between 2016 and 2020. Public and private bridge spending is forecast to increase from \$149.7 billion to \$167.2 billion.

In addition, States have taken measure to increase future spending in transportation and infrastructure and this result are planned to impact the market in the coming years. In 2017, Texas approved two laws that increased transportation from \$4.0 to \$4.5 billion annually. In 2016, Utah approved a gas tax increase of five cents/gallon that should result in an increase of over \$75 to \$85 million in additional spending. In addition, the state of Utah also approved in 2017 a \$1 billion bond package for infrastructure improvements. In California, the states approved in 2016 a \$3 billion bill a year for local road, bridge and transit projects.

All these law approvals are long-term opportunities for the infrastructure market and Tutor Perini Corporation and they will drive the long-term growth to the business over time.

Margin Upside:



The recent increase of the backlog should climb NI margin by a significant way. Because the civil segment contribute to the highest margin of the firm, the backlog record in this segment should contribute to increase the margin by a significant way as the margin is 6.5 to 7.5 time higher compare to the other segment of the firm. In addition, the company has a better controlling cost especially due to a better bidding activity and bid pipeline over the last years. Gross profit margin is forecasted to increase by 40 bps in 2018 and 30 bps in 2019 to 10.3%. EBITDA margin is forecasted to increase by 190 bps over the next 2 years leading to an increase of the NI margin by 120bps, a record since 2011.

Moreover, the vertical integration of the company through civil, building and specialty service capabilities provide a competitive advantage for Tutor Perini Corporation. The greater control over the schedule and the greater visibility into price bring to the company a better collaborative bidding approach, making project more profitable and leading the margin up.

Financial Improvement:

The finance health of the company is forecasted to increase. The unprecedented civil project bidding activity and pipeline of prospective projects reflect an increase in the demand of the most profitable division of the company. As a result, the revenue and income provided by civil project should increase at faster rate than its other division, leading to a better profitability of Tutor Perini Corporation.

In addition, the performance of the company's cash flow could lead the company to take advantage on other more profitable projects. In 2017, free cash flow stand at \$133.3M, the highest since 2007 since 2007. Tutor Perini Corporation plan to increase its capital expenditure to \$50M in 2018, to strengthen its leading position in the industry and catch the new opportunities provided by the increase in demand of civil projects.

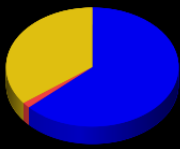
Since 2015, ROIC has increased by a stunning 2.43 times from 2.41 to 5.89. This significant increase show the company efficiency to use their capital under more profitable investment.

Competitors Comparison:

Name (BICS Best Fit)	Mkt Cap (USD)	Last Px	Rev - 1 Yr Gr:Y	WACC Ratio	P/E	ROIC LF	Grs Mrgn Adj:Y	OPM:Y	EBITDA Mrgn Adj:Y	NI Mrgn Adj:Y	ROIC LF
Median	2.40B	30.94	14.76%	0.61	17.96	9.74%	9.55%	4.06%	6.84%	3.01%	9.74%
TUTOR PERINI COR	1.08B	21.60	-4.34%	0.56	14.89	5.95%	9.55%	3.02%	4.11%	1.56%	5.95%
FLUOR CORP	8.10B	57.92	2.54%	0.48	19.90	5.35%	3.17%	3.52%	4.67%	2.04%	5.35%
PRIMORIS SERVICE	1.36B	26.34	19.18%	0.99	17.96	9.74%	11.70%	4.06%	6.84%	3.01%	9.74%
MASTEC INC	3.72B	45.20	28.67%	1.27	16.67	14.76%	13.04%	5.95%	8.80%	3.38%	14.76%
KBR INC	2.40B	17.05	-2.27%	0.57	12.09	31.51%	8.20%	7.07%	8.22%	5.07%	31.51%
MYR GROUP INC/D	509.50M	30.94	22.83%	0.61	27.49	7.14%	8.91%	1.87%	4.62%	0.80%	7.14%
DYCOM INDUSTRIE	3.29B	105.41	14.76%	1.26	31.43	11.60%	21.59%	8.97%	13.79%	4.81%	11.60%

While almost all Tutor Perini's Competitors have a positive revenue growth, the company has faced the worst growth in 2017 with a negative 4.34%, far from the median of 14.76%. This emphasizes the significant upside for the company through better management. As mentioned early, even if their ROIC has significantly increased since 2015, it is far from the company's competitor of 9.74% and the upside will be achieved by completing more profitable projects with a stronger cash flow. The recent improvement should easily lead the company to reach the median industry in the next years. Gross Profit margin is already at the median of the industry and the SG&A expenses are expected to decrease proportionally to revenue, which is going to increase EBITDA margin and NI margin in the futures.

Cost of Capital:

Cost of Capital - Current Market Value				Capital Structure (Millions of USD)		
	Weight	Cost	W x C			
3) Equity	63.2%	14.4%	9.1%		Market Cap	1,261.9 63.2%
4) Debt Cost (A-T)	36.8%	4.6%	1.7%		ST Debt	30.7 1.5%
5) Preferred Equity	0.0%	0.0%	0.0%		LT Debt	705.5 35.3%
WACC			10.8%		Pref. Eqty	0.0 0.0%
					Total	1,998.2 100.0%

The capital structure of the company is principally based on equity with a weight of 63.2% for a relative high cost of 14.4%. On the other hand, the company uses only 36.8% debt to finance its operation for a cost of 4.6%, rated ba3 by Moody's. The WACC of the company is at a high 10.8%. Since January 2016, the economic value added spread has been significantly better, even if it stays negative, from -9.50% to -4.80%. The future of this ratio is reinforced by the strong balance sheet of the company.

Conclusion:

Tutor Perini Corporation has faced difficult period in the last 5 years but the company has shifted its strategy during the last two years and bring strong financial health to the company. The increase in demand in higher margin segment provides a bright forecast for the company.

Tutor Perini Corporation (tpc)

CENTER FOR GLOBAL FINANCIAL STUDIES

BULLISH

Analysis by Al Capone

4/15/2018

Current Price:

\$21.60

Divident Yield:

0.0%

Intrinsic Value

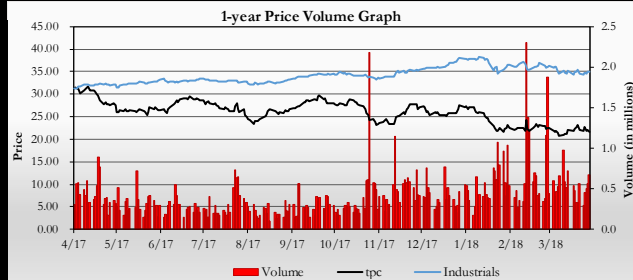
\$39.64

Target Price

\$31.80

Target 1 year Return: 47.22%

Probability of Price Increase: 100%



Description	
Tutor Perini Corporation, a construction company, provides diversified general contracting, construction management, and design-build services to private customers and public agencies worldwide.	
General Information	
Sector	Industrials
Industry	Construction and Engineering
Last Guidance	February 12, 2018
Next earnings date	May 3, 2018
Market Assumptions	
Estimated Equity Risk Premium	5.00%
Effective Tax rate	29%

Market Data	
Market Capitalization	\$1,075.49
Daily volume (mil)	0.67
Shares outstanding (mil)	49.79
Diluted shares outstanding (mil)	50.76
% shares held by institutions	109%
% shares held by investments Managers	81%
% shares held by hedge funds	2%
% shares held by insiders	20.79%
Short interest	12.41%
Days to cover short interest	10.12
52 week high	\$32.30
52-week low	\$20.20
Volatility	43.76%

Past Earning Surprises	
Quarter ending	Revenue
12/31/2016	-8.71%
3/31/2017	-1.43%
6/30/2017	-13.09%
9/30/2017	-21.89%
12/31/2017	-14.56%
Mean	-11.94%
Standard error	0.9%

EBITDA	
12/31/2016	-9.49%
3/31/2017	14.00%
6/30/2017	-37.23%
9/30/2017	-36.15%
12/31/2017	5.09%
Mean	-12.76%
Standard error	4.6%

Market and Credit Scores	
Recommendation (STARS) Value--0	
Recommendation (STARS) Description--0	
Quality Ranking Value--B-	
Quality Ranking Description--Lower	
Short Score--4	
Market Signal Probability of Default % (Non-Ratings)	--
--	-7.192%
CreditModel Score (Non-Ratings)--bb+	

Management	
Tutor, Ronald	Chairman & CEO
Frost, James	President, COO & Director
Smalley, Gary	Executive VP, CFO & Principal Accounting Officer
Shaw, Craig	Executive Vice President
Casado, Jorge	Vice President of Investor Relations & Corporat
Barrett, John	Executive VP, Treasurer & Corporate Secretary

Total Compensations Growth	
Chairman & CEO	4.35% per annum over 5y
President, COO & Director	15.82% per annum over 5y
Executive VP, CFO & Principal Accounting Officer	54.24% per annum over 1y
Executive Vice President	-5.13% per annum over 5y

Industry and Segment Information	
LTN Revenues by Geographic Segments	LTM Revenues by Business Segments
United States--97%	Civil (Including Management Services)--39%
Foreign and U.S. Territories--3%	Building (Including Management Services)--42%
--	Specialty Contractors--26%
--	Elimination of Intersegment Revenue--6%
--	--

Profitability	
tpc (LTM)	tpc Historical
Return on Capital (GAAP)	6.4%
Operating Margin	4%
Revenue/Capital (GAAP)	1.66
ROE (GAAP)	9.6%
Net margin	3.1%
Revenue/Book Value (GAAP)	3.06

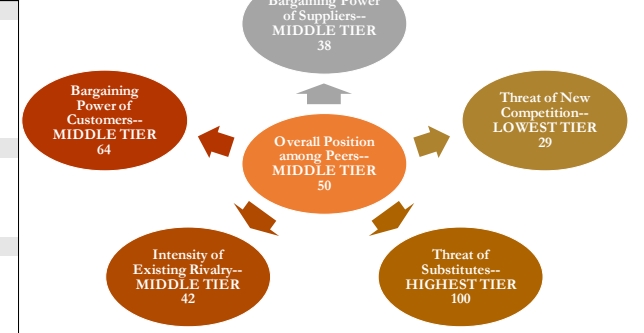
Peers' Median (LTM)	
Return on Capital (GAAP)	9.37%
Operating Margin	5.82%
Revenue/Capital (GAAP)	1.61
ROE (GAAP)	18.7%
Net margin	3.9%
Revenue/Book Value (GAAP)	4.82

Invested Funds	
tpc (LTM)	tpc Historical
Cash/Capital	7.6%
NWC/Capital	52.1%
Operating Assets/Capital	17.2%
Goodwill/Capital	23.1%

Peers' Median (LTM)	
Cash/Capital	17.5%
NWC/Capital	10.0%
Operating Assets/Capital	37.3%
Goodwill/Capital	35.2%

Capital Structure	
tpc (LTM)	tpc Historical
Total Debt/Market Capitalization	0.33
Cost of Debt	9.3%
CGFS Rating (F-score, Z-score, and default Probability)	BB
WACC	11.4%

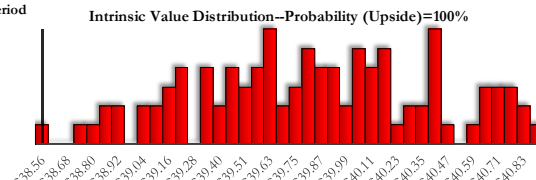
Peers' Median (LTM)	
Total Debt/Market Capitalization	0.42
Cost of Debt	3.9%
CGFS Rating (F-score, Z-score, and default Probability)	
WACC	7.9%



Forecast Assumptions	
Revenue Growth CAGR	11%
Average Operating Margin	4%
Average Net Margin	2%
Growth in Capital CAGR	7%
Growth in Claims CAGR	2%
Average Return on Capital	8%
Average Return on Equity	8%
Average Cost of Capital	9%
Average Cost of Equity	11%

Explicit Period (10 years)	
Revenue Growth CAGR	11%
Average Operating Margin	4%
Average Net Margin	2%
Growth in Capital CAGR	7%
Growth in Claims CAGR	2%
Average Return on Capital	8%
Average Return on Equity	8%
Average Cost of Capital	9%
Average Cost of Equity	11%

Continuing Period	
Revenue Growth CAGR	2%
Average Operating Margin	4%
Average Net Margin	2%
Growth in Capital CAGR	2%
Growth in Claims CAGR	2%
Average Return on Capital	9%
Average Return on Equity	10%
Average Cost of Capital	10%
Average Cost of Equity	11%



Sensitivity Attribution Analysis

