## Macroeconomic Overview

This past week, all major U.S. indices declined on a weekly basis, after strong U.S. job reports increased the possibility of the Federal Reserve to raise interest rates earlier than expected. In effect, the Dow Jones Industrial Average and the NASDAQ Composite declined on a weekly basis by 1.52% and 0.73% respectively, while the S&P 500 decreased by 1.58% during the last week. Small cap stocks measured by the Russell 2000 index followed the bearish trend with returns throughout the week of -1.29%. The VIX week-to-date change of 13.94% indicates that volatility levels start to increase and show a different trend compared to its year-to-date change of -20.83%. The yield of the 10-year U.S. T-note increased by 24 basis points to 2.24%. In addition, after increasing at the start of the week, the price of oil declined to a price of \$49.61. Throughout the week the decline in oil rig count has doubled compared to the previous weeks. Overall, 40% less oil rigs are in use than four months ago and hitting the lowest level since 2011.

U.S. Stocks										
Index	% Change Week- to-Date	% Change Year- to-Date								
DJIA	-1.52%	0.19%								
S&P 500	-1.58%	0.60%								
NASDAQ Composite	-0.73%	4.04%								
Russell 2000	-1.29%	1.12%								
VIX	13.94%	-20.83%								

This week's decline in stock prices was primarily driven by the assumption of an increase in interest rates by the Federal Reserve rather earlier than later. The recent stretch of job additions in the U.S. economy has been the strongest in the past two decades, lowering the unemployment rate to 5.5%

within the Federal Reserve's target zone of 5.2%-5.5%. For now 12 straight months more than 200,000 jobs have been added to the U.S. economy, making it the best streak of job additions since 1995. The outlook of the upcoming hike in interest rates caused a decline in the major U.S. indices due to the expected higher borrowing costs and a cut in corporate profits related to an increase in interest rates. Friday's strong job report also had an effect on the dollar price of the euro. The euro fell to an 11-year low against the dollar below \$1.09.

After declining at the end of the week as all major U.S. indices, the Nasdaq Composite Index reached the 5,000 mark for the first time since 2000, outlining the current superior performance of the technology sector which has the largest share in the index. Spending in the construction sector has declined by 1.1% in January, for only the second time during the last seven months. The Institute of Supply Management reported that the manufacturing sector recorded its slowest growth rate in 13 months. The nonmanufacturing sector however continues with strong growth.

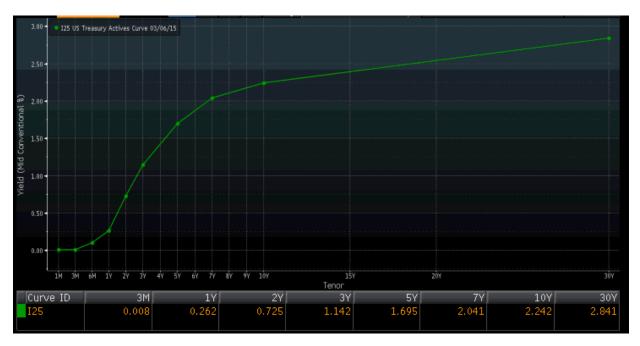
Last week the People's Bank of China further plans on cutting interest rates mainly due to the economy's slowdown in the past quarters. For 2015, Chinese authorities announced a reduction of their economy's growth target to 7%, while the International Monetary Fund forecasted a growth target for China of 6.8%. On Thursday, the European Central Bank has raised the economy's growth forecast for 2015 and 2016, expecting growth of 1.5% and 1.9% respectively, as the economy is gaining strength ahead of the launch of the stimulus package on Monday.

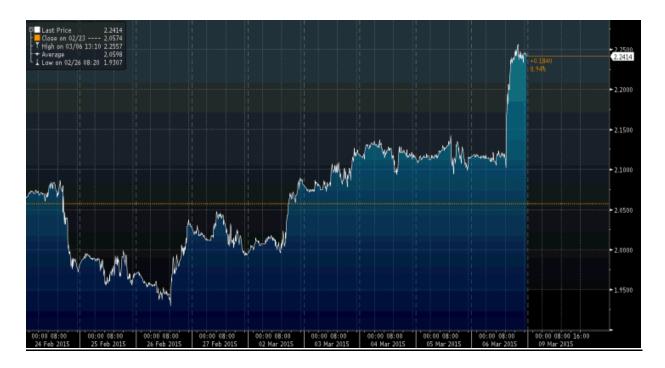
Next week, investors will be looking forward to see data from different economic reports that will have an impact on the global markets. On Monday 9th, The ECB will launch their stimulus package. The same day, China will report on their Consumer Price Index (CPI) YoY for February. On Tuesday 10th, Governor Carney from the Bank of England will speak and report on short-term interest rate movements. The

following day, Wednesday 18th, ECB President Draghi will speak and China will report on their economy's industrial production YoY. On Friday 13th, Canada will report on their country's employment change.

# **Bond Report**

On Friday, March 6th, the Bureau of Labor Statistics released their most unemployment and job outlook report for the month of February. The report exceeded the expectations of many investors, announcing a 5.5% unemployment rate and an additional 295,000 jobs created in February. Economists had expected this number to be in the area of 240,000 – exceeding their estimates by more than 55,000 additional jobs. The unemployment rate reported this past January was 5.7%, but with a .2% decrease, it is now at its lowest rate since May of 2008. With a very strong labor outlook disclosed in this report, investors are continuing to solidify their views of an interest rate hike by the Feds as early as June. As a result of this, Friday was also subject to the largest one-day sell off of U.S. government bonds since November of 2013. The yield on benchmark 10-year Treasury notes on Friday was a reported at a high 2.24%, compared to 2.11% on Thursday. The yield on 10 year notes has not been this high since December 26<sup>th</sup>, 2014. Even with the continuous rise in yields in the beginning of this year, investors still identify bond yields as low. In January of 2013 10 year yields were at 3.03%, compared to 2.17% at the end of 2014. The U.S. bond market's prices and yields will continue to be extremely volatile as the Fed's expectations of interest rate hikes change, as well as the economic outlook of foreign countries and their government treasuries. The European Central Bank is set to begin its bond-buying strategy this coming week in their attempt of recovering their economy through a €1.1 trillion quantitative easing program. The bond buying program aims to stimulate the Eurozone recovery and raise the rate of inflation from a dangerously low negative .3 percent.





# What's Next & Key Earnings

On Tuesday, March 10<sup>th</sup>, the JOLT's Job Openings readings will be released. This is a survey done by the US Bureau of Labor Statistics to help measure job vacancies. It collects data from employers about their businesses' employment, job openings, recruitment, hires and separations.

On Wednesday, March 11<sup>th</sup>, there will be a 10 Year Note Auction. Yield fluctuations should be monitored closely as an indicator of the government debt situation. Investors compare the average rate at auction to the rate at previous auctions of the same security.

On Thursday, March 12<sup>th</sup>, the Core Retail Sales MoM report will be released. Core Retail Sales measures the change in the total value of sales at the retail level in the U.S., excluding automobiles. It is an important indicator of consumer spending and is also considered as a pace indicator for the U.S. economy. U.S. Retail sales will also be released; this is a measure in the change in the total value of inflation-adjusted sales at the retail level. It is the foremost indicator of consumer spending, which accounts for the majority of overall economic activity.

On Friday, March 13<sup>th</sup>, the Producer Price Index (PPI) will be released. The Producer Price Index (PPI) measures the change in the price of goods sold by manufacturers. It is a leading indicator of consumer price inflation, which accounts for the majority of overall inflation.

Symbol	Company	EPS	Forecast	Prev.	lmp.	Period End				
		Monday, March	n 9, 2015							
<b>URBN</b>	Urban Outfitters		0.3	0.35	<u>a</u> , <u>a</u> , <u>a</u> ,	01/2015				
	Wednesday, March 11, 2015									
ESLT	Elbit Systems		-	0.82	<b>A</b> , <b>A</b> , <b>A</b> ,	12/2014				
	Thursday, March 12, 2015									
PZE	Petrobras Argentina		0.16	0.27	A, A, A,	12/2014				

Ryan Ahlers



## Core Laboratories N.V.

NYSE:CLB Sector: Energy

BUY

Price Target: \$134.43

## Key Statistics as of 3/3/2015

Market Price: \$110.02

Industry: Oil and Gas Equipment and Services

Market Cap: \$4,774.1

52-Week Range: \$221.00 - \$87.27

Beta: 1.10

# Thesis Points:

 High demand for Core's technology and services during low commodity price period will fuel revenue growth

Analyst:

- Volatile market and decrease in oil companies' CAPEX spending not a major threat for Core
- Industry leading financials with extreme attention on building shareholder value

# **Company Description:**

Core Laboratories N.V. provides reservoir description, production enhancement, and reservoir management services to the oil and gas industry in the United States, Canada, and internationally. The services and products offered by Core focus on maximizing production rates and ultimate reserves of oil reservoirs to maximize their clients return on investment. All business units assist oil companies along each phase of the oil well decline curve analysis. Their first business unit, reservoir description, analyzes the reservoir rocks and fluids to provide detailed data that accurately characterizes what the reservoirs consists of. Core's next business unit, production enhancement, provides products and services designed to minimize formation damage and maximize production of the reservoirs. Their third business unit, reservoir management, focuses on maintaining the efficiency of the reservoirs and resolving issues clients may have by using the information gathered from reservoir description and production enhancement units. With these services, Core Laboratories has the ability to assist oil production companies throughout the life of an oil reservoir.





#### **Thesis**

Core Laboratory N.V. is a unique and leading company in the Oil and Gas Equipment and Services industry. Core is different than your average oil equipment and service company because of the unique technologies and services that they provide. The market is overestimating the negative impact that the low commodity prices will have on the business. Core Laboratories will continue to have high demand for their products and services in the future and are protected more than an average oil related company because of where their revenues derive from.

## **Industry Outlook**

The energy sector and the industries within this sector are heavily influenced by the price of oil. Exploration and Production companies are most directly affected by commodity market prices, but this trickles down to the Equipment and Services industry that does direct business with the E&P industry. Over the past 8 months oil prices have plummeted from a high of about \$100/barrel to a low of about \$44/barrel. This volatility in the market and decrease in oil price puts stress on oil related companies, specifically companies that cannot pay their interest payments. Going forward, it is unclear whether oil prices will continue to decrease or if the floor has been hit and prices will start to rebound.

# High Demand for Core's Business

The technology and services that Core Laboratories provides will be in high demand in today's low priced commodity market. Currently, oil companies are putting new drilling projects on hold and putting more attention towards optimizing existing wells and reservoirs. The rationale behind this? The drilling of new wells represents 60% of the overall cost associated with a well, a high expense during a time of decreased revenues among oil producing companies. Producing and expanding on a pre-drilled known oil source with production facilities already in place, is a much more economical choice. This is where Core Laboratories comes into play because the services offered by Core are an alternative to risky and expensive exploration projects. Core Laboratories taps into the undiscovered potential of old oil reservoirs and allows their clients to increase the amount of oil extracted from their reservoirs. In other words, Core has the technologies to boost daily production and maximize the estimated recovery rates from wells. Going forward, with commodity prices being unknown, Exploration and Production companies will continue to try and extract the most oil they can from the reservoirs they have currently operating.

As mentioned, Core Laboratories are able to deliver these results through the technology and expertise they hold. For instance, a patented technology such as the KODIAK Enhanced Perforating System<sup>TM</sup> creates the deepest perforation tunnels in the world, which is essential in fracking for the ultimate goal of retrieving the most hydrocarbons available. Core has other technologies, that they are currently in the process of developing, that will increase shale recovery rates from 9% to the low teens that are anticipated to be in high demand among the shale boom companies. Core Laboratories believes the technology and services that it provides is the future of the reservoir fluid business and is expanding its facilities and equipment to fulfill future demand and position themselves as the main provider of these services. This assures continued revenue growth for Core Laboratories, a main value driver.

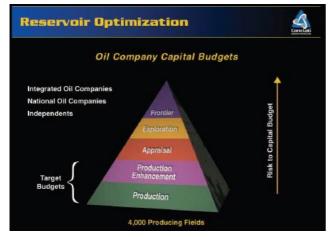
#### **Overestimated Threats**

#### Decrease in Oil Companies' CAPEX Spending

Exploration Recently, among and Production companies, capital expenditures have been substantially decreased for the 2015 fiscal year due to the decrease in oil prices, resulting in a decrease in revenue. The market views this as a substantial threat to Core Laboratories business because of their direct relationship to oil production companies, but as one looks closer at Core's business model it is clear that they are much more shielded from the low commodity prices than one would think. This is because Core's revenue comes from existing oil wells. Exploration and Production oil company capital expenditure cuts for 2015 are primarily expense cuts in the exploration and drilling of new wells, the most expensive investments, not current operating wells. As well, Core Laboratories targets the more stable, less volatile, components of oil companies' budgets: the production and production enhancement segments. These two segments are the least likely to have expense cuts during a reduction of capital expenditures because of their necessity for the production of oil. Exploration and Production companies can afford to cut back on



other segments, such as exploration, because they can focus on the reservoirs they currently have operating during the low priced commodity market. This is a huge advantage for Core Laboratories heading into a low oil priced environment for 2015.



#### **Volatile Commodity Market**

As mentioned earlier in the industry outlook, oil is currently at an extremely low price of around \$50/barrel. With Core Laboratories being in the Oil and Gas Equipment and Services industry, the low commodity price has negatively affected their stock price, but as discussed earlier, Core Laboratories is better protected from the commodity price than the average company due to their source of revenue. Core Lab's customer base, with the largest reduction in activity, is the United States, but as Chairman, President and CEO David Demshur states, "Core Lab is very internationally based...70% of our revenue comes from reservoirs and oil fields outside of the U.S." In an attempt to relieve some of the negative effects of the U.S. market on Core's bottom line, there are talks of potential right sizing of the production enhancement segment, in an effort to lower costs. Even though commodity market volatility is greatly affecting U.S. oil producers, Core Laboratories revenue sources are diversified and a minority of revenues comes from the U.S. Investors may also be concerned about the exposure Core has internationally, but company executives stress in interviews and earnings calls that they are longer and larger scaled projects that will not be affected nearly as much by the market volatility.

To benchmark and project future performance of Core Laboratory in a volatile market, they can be compared to their past performance during the 2008 – 2009 downturn of oil. Management uses this as a benchmark because today's oil downturn was similar to 2008 - 2009 because the decline was mainly caused by slacking demand and not from overwhelming supply growth. During the past

commodity downturn, Core Laboratories was able to increase operating and free cash flow. Compared to a much larger company, such as Exxon Mobil, their operating cash flow was cut in about half and their free cash flow more than four times. Core Laboratories is much more shielded from the volatile commodity and is less of a threat than the market believes.

## **Industry Leading Financials**

Core Laboratories prides themselves on creating shareholder value as much as possible every year. The board of Core Labs established their own internal performance metric of achieving a return on invested capital (ROIC) in the top decile of the service companies listed as their peers by Bloomberg Financial. Due to this internal performance metric, Core Laboratories has averaged a ROIC of 36.6% over the past decade. Currently, they are undergoing a share repurchase program which is supported from their high free cash flow and revolving line of credit. As well, they increased their dividend by 10% from the previous year, regardless of the low oil price environment. Return on Common Equity for 2012, 2013, and 2014 was 120, 140.5 and 205.3, respectively. Core's 35% EBITDA margin is much higher than peer's median of 19% and their interest coverage of 32.9x trumps peer's median of 7.0x. Core Laboratories continues to put shareholder value at top priority, resulting in industry leading financials.

#### Conclusion

Core Laboratories is a growing business, regardless of the short term commodity downturn. They provide a very unique optimization business to the oil production industry that no other company can rival. The optimization of oil reservoirs will become increasingly important in the future as oil prices rebound, demand increases and, ultimately, supply will begin to diminish. As the appreciation of oil occurs, Core Labs technology will appreciate along with it and by the end of 2015 management is predicting a V shaped recovery in stock price. The majority of publicly traded companies in the energy sector have seen a decrease in stock price with the decrease in oil price and that's exactly what has happened with Core Laboratories. The current stock price reflects the decline in oil prices and industry activity, but not a change in Core Laboratories underlying business. For these reasons, Core Laboratories BUY. is a



		CENTER FO	R GLOBAL	FINANCIAL ST	<b>TUDIES</b>			
Core Laboratories NV		Analyst Ryan Ahlers	Current Price \$110.02	Intrinsic Value \$122.90	Target Value \$134.33	Divident Yield 2%	Target Return 24.12%	NEUTRAL
Gene	eral Info	<u>Peers</u>	Market Cap.		Man	agement		
Sector	Energy	Frank's International N.V.	\$2,729.11	Professional	Title	Comp. FY2012	Comp. FY2013	Comp. FY2014
Industry	Energy Equipment and Services			Demshur, David	Chairman of Supervisory Board,	\$ 6,507,174.00	\$ 5,878,115.00	\$ -
Last Guidance	Jan-28-2015	Forum Energy Technologies, Inc.	\$1,742.89	Bergmark, Richard	Chief Financial Officer, Executive	\$ 2,987,626.00	\$ 2,335,318.00	\$ -
Next earnings date	NM	Dril-Quip, Inc.	\$2,841.54	Davis, Monty	Chief Operating Officer and Seni	\$ 2,872,612.00	\$ 2,474,181.00	\$ -
<u>Mark</u>	ket Data	Helix Energy Solutions Group, Inc.	\$1,596.02	Miller, C.	Chief Accounting Officer, Vice Pt	\$ -	\$ -	\$ -
Enterprise value	\$5,057.92			Elvig, Mark	Vice President, Secretary and Gen	\$ -	\$ -	\$ -
Market Capitalization	\$4,717.77	Mullen Group Ltd.	\$1,895.54	Gresham, James	Vice President of Business Devel	\$ -	\$ -	\$ -
Daily volume	0.41	Hunting plc	\$715.07	Historical Performance				
Shares outstanding	43.32	Calfrac Well Services Ltd.	\$776.63		clb	Peers	Industry	All U.S. firms
Diluted shares outstanding	44.60			Growth	11.4%	8.9%	13.0%	6.0%
0		0 10 110		<del> </del>				
% shares held by institutions	102.67%	Current Capital S		Retention Ratio	5.8%	88.0%	71.8%	50.0%
% shares held by insiders	1.88%	Total debt/market cap	7.06%	ROIC	246.3%	20.2%	22.8%	14.6%
Short interest	12.21%	Cost of Borrowing	3.40%	EBITA Margin	27.4%	14.9%	17.8%	13.7%
Days to cover short interest	5.36	Interest Coverage	3291.87%	Revenues/Invested capital	236.2%	78.9%	114.7%	202.3%
52 week high	\$221.00	Altman Z	11.98	Exœss Cash/Revenue	3.2%	16.6%	17.6%	18.5%
52-week low	\$87.27	Debt Rating	A	Unlevered Beta	0.93	1.33	1.20	0.95
5v Beta	1.11	Levered Beta	1.06	TEV/REV	4.9x	2.4x	2.2x	2.4x
6-month volatility	43.61%	WACC (based on market value weights)	8.26%	TEV/EBITDA	15.8x	10.3x	10.1x	11.3x
, , , , , , , , , , , , , , , , , , ,		ning Surprises		TEV/EBITA	17.7x	14.9x	14.9x	15.4x
	Revenue	EBITDA	Norm, EPS	TEV/UFCF	24.8x	12.9x	40.6x	26.8x
Last Quarter	0.1%	1.3%	0.0%	12.17 61 61		P Adjustments	10104	20101
Last Quarter-1	-3.0%	-0.2%	0.0%	Operating Leases Capitalization	0%	N/A	N/	A
Last Quarter -2	0.3%	-0.1%	0.7%	R&D Exp. Capitalization	100%	Straightline	10 ye	
~	-6.9%	-4.7%	-0.7%	Expl./Drilling Exp. Capitalization		N/A	N/A	
Last Quarter -3	-0.9% -1.0%	2.1%	1.4%	SG&A Capitalization	3%	Straightline	10 ye	
Last Quarter -4	-1.0%		1.4%	SG&A Capitalization	3%			ars
		Proforma Assumptions Period	Rev. Growth	Adj. Op. Cost/Rev	Revenue	Forecasted Profi	Invested capital	UFCF
Operating. Cash/Cash	0.0%	LTM	1%	63%	\$1,085.22	\$284.20	\$437.40	\$290.71
Unlevered Beta	1.00	LTM+1Y	-5%	63%	\$1,030.96	\$272.01	\$430.84	\$285.09
					- 3			
Rev/Invested Capital	167.0%	LTM+2Y	14%	63%	\$1,177.36	\$312.81	\$447.98	\$295.66
Continuing Period Revenue Growth		LTM+3Y	14%	63%	\$1,344.54	\$359.41	\$469.56	\$337.82
Long Term ROIC	56.7%	LTM+4Y	8%	63%	\$1,452.11	\$389.07	\$483.90	\$374.73
Invested Capital Growth	Equals to Maintenance	LTM+5Y	7%	63%	\$1,553.75	\$417.01	\$497.84	\$403.07
Justified TEV/REV	3.2x	LTM+6Y	6%	63%	\$1,646.98	\$442.56	\$510.84	\$429.56
Justified TEV/EBITDA	10.3x	LTM+7Y	5%	63%	\$1,729.33	\$465.05	\$522.46	\$453.43
Justified TEV/EBITA	13.0x	LTM+8Y	4%	63%	\$1,798.50	\$483.82	\$532.34	\$473.94
Justified TEV/UFCF	13.0x	LTM+9Y	3%	63%	\$1,859.67	\$500.32	\$541.14	\$491.52
	ROIC	WACC	<u>Valuati</u> EVA	on Enterprise Value	Total Debt	Other claims	Equity	Adjusted Price
LTM	64.0%	8.3%	\$243.88	\$5,639.10	\$357.08	-\$5.12	\$5,287.13	\$123.86
LTM+1Y	62.2%	8.8%	\$230.23	\$5,815.85	\$357.08	-\$277.71	\$5,736.48	\$135.08
LTM+2Y	72.6%	9.0%	\$284.93	\$6,061.64	\$357.08	-\$601.71	\$6,306.26	\$148.10
		9.3%	\$333.29	\$6,297.72	\$357.08	-\$1,002.46	\$6,943.10	\$162.97
LTM+3Y	80.2%			\$6,521.78	\$357.08	-\$1,457.04	\$7,621.74	\$178.86
	80.2% 82.9%	10.0%	\$352.55					
LTM+4Y	82.9%	10.0% 10.4%	\$352.55 \$377.05					
LTM+4Y LTM+5Y	82.9% 86.2%	10.4%	\$377.05	\$6,755.03	\$357.08	-\$1,959.06	\$8,357.01	\$196.51
LTM+4Y LTM+5Y LTM+6Y	82.9% 86.2% 88.9%	10.4% 10.4%	\$377.05 \$400.79	\$6,755.03 \$6,981.69	\$357.08 \$357.08	-\$1,959.06 -\$2,504.75	\$8,357.01 \$9,129.35	\$196.51 \$213.89
LTM+4Y LTM+5Y LTM+6Y LTM+7Y	82.9% 86.2% 88.9% 91.0%	10.4% 10.4% 10.4%	\$377.05 \$400.79 \$421.09	\$6,755.03 \$6,981.69 \$7,201.58	\$357.08 \$357.08 \$357.08	-\$1,959.06 -\$2,504.75 -\$3,089.33	\$8,357.01 \$9,129.35 \$9,933.82	\$196.51 \$213.89 \$232.59
LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y	82.9% 86.2% 88.9% 91.0% 92.6%	10.4% 10.4% 10.4% 10.4%	\$377.05 \$400.79 \$421.09 \$437.39	\$6,755.03 \$6,981.69 \$7,201.58 \$7,417.76	\$357.08 \$357.08 \$357.08 \$357.08	-\$1,959.06 -\$2,504.75 -\$3,089.33 -\$3,710.76	\$8,357.01 \$9,129.35 \$9,933.82 \$10,771.45	\$196.51 \$213.89 \$232.59 \$252.06
LTM+4Y LTM+5Y LTM+6Y LTM+7Y	82.9% 86.2% 88.9% 91.0%	10.4% 10.4% 10.4% 10.4% 10.4%	\$377.05 \$400.79 \$421.09 \$437.39 \$452.10	\$6,755.03 \$6,981.69 \$7,201.58	\$357.08 \$357.08 \$357.08	-\$1,959.06 -\$2,504.75 -\$3,089.33 -\$3,710.76 -\$4,366.59	\$8,357.01 \$9,129.35 \$9,933.82 \$10,771.45 \$11,644.89	\$196.51 \$213.89 \$232.59 \$252.06 \$268.80
LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y	82.9% 86.2% 88.9% 91.0% 92.6% 94.0%	10.4% 10.4% 10.4% 10.4% Monte Carlo Simulation As	\$377.05 \$400.79 \$421.09 \$437.39 \$452.10	\$6,755.03 \$6,981.69 \$7,201.58 \$7,417.76 \$7,635.38	\$357.08 \$357.08 \$357.08 \$357.08 \$357.08	-\$1,959.06 -\$2,504.75 -\$3,089.33 -\$3,710.76 -\$4,366.59	\$8,357.01 \$9,129.35 \$9,933.82 \$10,771.45 \$11,644.89 e Carlo Simulation Res	\$196.51 \$213.89 \$232.59 \$252.06 \$268.80
LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y	82.9% 86.2% 88.9% 91.0% 92.6% 94.0%	10.4% 10.4% 10.4% 10.4% Monte Carlo Simulation As Stdev	\$377.05 \$400.79 \$421.09 \$437.39 \$452.10 sumptions Min	\$6,755.03 \$6,981.69 \$7,201.58 \$7,417.76 \$7,635.38	\$357.08 \$357.08 \$357.08 \$357.08 \$357.08	-\$1,959.06 -\$2,504.75 -\$3,089.33 -\$3,710.76 -\$4,366.59	\$8,357.01 \$9,129.35 \$9,933.82 \$10,771.45 \$11,644.89 e Carlo Simulation Res Intrinsic Value	\$196.51 \$213.89 \$232.59 \$252.06 \$268.80 aults
LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y	82.9% 86.2% 88.9% 91.0% 92.6% 94.0% Base	10.4% 10.4% 10.4% 10.4% 10.4% 10.4%  Monte Carlo Simulation As Stdev 10%	\$377.05 \$400.79 \$421.09 \$437.39 \$452.10 sumptions Min N/A	\$6,755.03 \$6,981.69 \$7,201.58 \$7,417.76 \$7,635.38 Max N/A	\$357.08 \$357.08 \$357.08 \$357.08 \$357.08 \$357.08 Distribution	-\$1,959.06 -\$2,504.75 -\$3,089.33 -\$3,710.76 -\$4,366.59 Mean est.	\$8,357.01 \$9,129.35 \$9,933.82 \$10,771.45 \$11,644.89 e Carlo Simulation Res Intrinsic Value \$123.86	\$196.51 \$213.89 \$232.59 \$252.06 \$268.80 ************************************
LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  Revenue Variation Op. Costs Variation	82.9% 86.2% 88.9% 91.0% 92.6% 94.0% Base 0	10.4% 10.4% 10.4% 10.4% 10.4% 10.4%  Monte Carlo Simulation As Stdev 10%	\$377.05 \$400.79 \$421.09 \$437.39 \$452.10 ssumptions Min N/A N/A	\$6,755.03 \$6,981.69 \$7,201.58 \$7,417.76 \$7,635.38 Max N/A	\$357.08 \$357.08 \$357.08 \$357.08 \$357.08 \$357.08 Distribution Normal	-\$1,959.06 -\$2,504.75 -\$3,089.33 -\$3,710.76 -\$4,366.59 Mean est. σ(ε)	\$8,357.01 \$9,129.35 \$9,933.82 \$10,771.45 \$11,644.89 e Carlo Simulation Res Intrinsic Value \$123.86 \$0.32	\$196.51 \$213.89 \$232.59 \$252.06 \$268.80 ************************************
LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  Revenue Variation Op. Costs Variation Market Risk Premium	82.9% 86.2% 88.9% 91.0% 92.6% 94.0% Base 0 0	10.4% 10.4% 10.4% 10.4% 10.4% 10.4%  Monte Carlo Simulation As Stdev  10% 10%	\$377.05 \$400.79 \$421.09 \$437.39 \$452.10 ssumptions Min N/A N/A 5%	\$6,755.03 \$6,981.69 \$7,201.58 \$7,417.76 \$7,635.38 Max N/A N/A N/A	\$357.08 \$357.08 \$357.08 \$357.08 \$357.08 \$357.08 Distribution Normal Normal Triangular	-\$1,959.06 -\$2,504.75 -\$3,089.33 -\$3,710.76 -\$4,366.59 Mean est. σ(ε) 3 σ(ε) adjusted price	\$8,357.01 \$9,129.35 \$9,933.82 \$10,771.45 \$11,644.89 e Carlo Simulation Res Intrinsic Value \$123.86 \$0.32 \$122.90	\$196.51 \$213.89 \$232.59 \$252.06 \$268.80 aults 1y-Target \$135.08
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# Energy Focus Inc.

NasdaqCM:EFOI

Analyst: Sector: Skyler Scavone Consumer Discretionary

BUY

Price Target: \$5.9

# Key Statistics as of 3/4/2014

Market Price:

\$4.68

Industry:

Electrical Equipment

Market Cap:

\$44.2 M

52-Week Range:

\$3.95-10.71

Beta:

2.31

#### Thesis Points:

- Strategic repositioning to capitalize on industry trends
- Enough addressable market in the military and maritime segment alone to drive growth
- Introduction of performance based compensation

# **Company Description:**

Energy Focus, Inc. (incorporated 2007) and its subsidiaries designs, develops, manufactures, and markets energy-efficient LED lighting products in the United States and internationally. It is also a leading provider of turnkey, energy-efficient lighting retrofit solutions. The "product" segment offers energy-efficient LED lightings for commercial and industrial markets, as well as militaries. The other main segment, "solutions", focuses on providing turnkey, high-quality, energy-efficient LED lighting application alternatives. Through its two segments the company is seeking to continue to penetrate the existing building and military and maritime lighting markets, while selecting only the most economically compelling options.





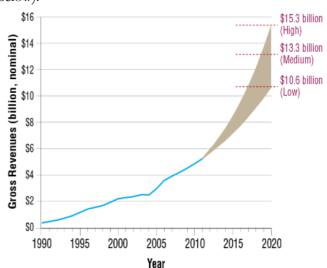
#### **Thesis**

Energy Focus, Inc. is a leading company in the energyefficient lighting business strategically positioned to capitalize on promising industry outlooks. differentiates itself with industry leading technology, in terms of efficiency and cost. The company is a BUY because FY 2015 will be the year profits are generated, as it is time for its investments to generate returns. With recent performance based incentives, and repositioning, the firm is in an ideal position to capture strong market forces and start generating profit. Furthermore this repositioning is not completely reflected in the current price which understates margins. Regardless of the fairness of the current price overall firm growth will drive the price higher than current levels.

## Repositioning for growth

As of FY 2014, Energy Focus began a shift of focus from the solutions segment to the products segment. This means a shift from turnkey LED ESCO (Energy Savings Company) solutions to turnkey LED commercial solutions as evidenced from Q1-Q3 2014; solutions sales went from 45% of total sales to 2.5%, with the product segment percentages inversely shifting. This represents a turning point for the company as it works to align its resources in the production of LED products. Resulting from this transition are additional available resources for a promising commercial, industrial, and military lighting market. Commercial and industrial versus residential energy use in terms of lumen production is ~90% showing huge potential for untapped energy savings. S&P 500 companies reporting sustainability rose from 20% to 72% from 2011-2013, a promising statistic for an LED company that provides a substitute for traditional lighting at an investment that is a fifth of installing solar power (based on CO2 reduced). This changing scope of focus led to a Q3 YoY government net sales increase of 748.9%. Further growth here is anticipated due to successful listing on the GSA schedules, which composed of pre-negotiated contracts with qualified suppliers that have passed stringent standards. Lighting accounts for 25% of total energy usage in government buildings, with 50% energy efficiency savings the carbon footprint could be reduced 10% by switching to LEDs today. The EPA calling for a 30% cut in carbon emissions by 2030 and a payback of

only a few years for EFOI will expedite the adoption of LEDs. Further accelerating implementation is the price of electricity that has risen 50% since 2004. Commercially (expected 14% CAGR 2013-2018, \$3.6b-6.8b), the focus is on five channels: national retailers, property management companies, hospitals, universities and parking garages: each a multi-billion dollar industry. Energy Focus landed Wayne State University one of the first in the country to adopt LEDs; "early wins" provide strong referrals for securing future projects. The agricultural vertical, also a multibillion dollar opportunity, is another area being studied for future penetration; the company seeks to be a leader in a particular vertical before moving on to the next, but having alternative areas for growth is a positive prospect for long term organic growth. This shift to the product (commercial) segment was apparent as early as Q2 2014 when Energy Focus was selected as a preferred LED lighting vendor by a leading global real estate company (500m sq. ft. in the US), indicating optimistic prospects for this young segment. Industrially, (expected 11% CAGR 2013-2018, \$1.4b-2.3b) the company has begun working with parking garages of which a partial case in Louisville is already saving \$410k annually. Furthermore, "on land", the company looks to replace existing FL and HID fixtures (addressable global market \$120b) of which energy savings are 50-75%, current LED adoption here is less than 2%. In addition, this past quarter Energy Focus has closed its Nashville office and opened a Washington D.C. office. Management hopes this will further propel penetration in the ESCO market (growth below):



This geographically strategic office opening coupled with the GSA listing puts the firm in a position to exploit this rapid ESCO growth. Regardless of the fairness of



current market pricing, which will be discussed later, the industry outlook for Energy Focus is encouraging. With the shift in vision, sales, margins and lead times are improving, with profitability in the very near future/

# Vast opportunity in military and maritime verticals

The most intriguing aspect of Energy Focus' future falls in the military and maritime segment. The U.S. Navy, Military Sea Command (MSC) and the Coast Guard represent a \$530m market. Today, the firm is the only approved LED lighting supplier to the U.S. Navy and has received \$53 million in R&D contracts since 2002 (first product on a Navy ship in 2007). In Q3 Navy unit shipments tripled with orders of \$15.6m but only represent 10% penetration. With this news alone the stock price surged 40% to \$10.71 and pulled back to the \$5.50-7\$ range until Q2 earnings sent the stock to current levels. In Q2, Navy penetration was 5% and management expected it "double over the next few quarters", but this order alone brought it up 400%. With 0% failure rate and positive reviews from top to bottom, the Navy is fast tracking its adoption of LEDs. It should be noted that these revenues (\$15.6m) will be recognized upon installation through June of 2015. With the U.S. Navy investing \$2b to increase energy efficiency and to transition to a "Green Fleet" by 2016, there is no reason to believe this won't continue. Following are the annual costs of lightning maintenance for the U.S. Navy:

	<b>Ballast Cost</b>	Lamp Cost
Taken from USN Post Graduate Study for Unit costs	\$ 12.00	\$ 3.95
6% ballast & 100% Lamp failures per year	60,000	1,000,000
2009 GSA Material cost	\$ 720,000.00	\$ 3,950,000.00
2010 E1-E4 Composite pay Labor Cost	\$2,636,100.00	\$14,645,000.00
Annual Costs of Lighting Maintenance	\$3,356,100.00	\$18,595,000.00

Savings from an Intellitube (designed for Navy):

Initial Investment	-\$300,000
Annual Power Savings (1-5 Year)	\$117,180
Annual Power Savings (6-10 Year)	\$143,640
Maintenance (ballast removal at 5 <sup>th</sup> Year)	-\$87,000
Rebate	\$48,825
Simple payback wo. rebate (Yrs)	2.56
Simple payback w. rebate (yrs)	2.14
NPV	\$755,221
IRR	44%

The Navy has invested heavily in Energy Focus' R&D

# 2<sup>nd</sup> week of February 2015

and is now starting to cash in on this investment. In terms of MSC and Coast Guard (\$280m market), during the last earnings call management hinted that significant progress is being made with these two entities as well as the commercial maritime market (\$2.9b market) which is expected to come to fruition in 2015.

# Fundamentals and financials suggest undervaluation

As mentioned previously not only has this shift in scope led to increased future growth opportunity, it has also allowed the firm to improve from a financial standpoint. In only one quarter with a reduced solutions segment, the gross margin in Q3 was up 2 percentage points to 34.5% (excluding the reduced solutions segments). Including the solutions segment gross margin saw a .1 percentage point decrease, which explains the 33% predicted gross margin for Q4. However this margin is a bit understated because already through one quarter of this shift in focus the margin was at 34.5%, surely it has no reason to pull back this quarter with scales only increasing. Additionally, Q4 estimates have gross profit at -2.08; however this number also undervalues the stock. In Q3, NOL was -5.11 but would have been -2.4 excluding the 2.7m onetime cost of divesting the Nashville site. This is not taking into account the drastic change to the sales channel. In the past 2 quarters NOL has decreased by 73.46 and 4.17 percentages points respectfully. Without this onetime cost and continued trends of margin improvement I expect this -2.08 NOL, which is actually only a decrease of .32 percentage points from last quarter's relevant gross profit, to be surpassed this quarter (ER 3/12). Furthermore, FY 2015 estimates are off base. Again, the expected gross margins is below the true level achieved in Q3 2014, which is not likely with the economies of scale to be experienced in 2015. Estimates have Energy Focus turning profitable in 2016, but this is late. Catalysts are happening faster than the firm itself predicted (quicker Navy adoption) and this is not being reflected in next year's estimates. One does not know what the sales levels will be, but I also see the top line as understated. FY 2015 predicts 19% top line growth then jumps up to 49% in 2016. While this 2016 growth might be overstated this is not in the investment horizon of concern. Naval adoption is happening faster than predicted with Coast Guard and MNC adoption happening soon. FY 2016 growth will not be 49%, some



of this top line growth will happen in 2015 suggesting an under estimation. With all of these factors united with the recent implementation of performance based compensation at all levels FY 2015 will be the year Energy Focus reaches profitability.

#### **Performance Based Compensation**

In 2014, for the first time in company history, a bonus incentive plan for employees and executive management has been implemented. Though not as big of a price driver as the previous two thesis points, the timing of this implementation is promising for a company on the verge of profitability. For management these incentives will be based on "performance" and net operating income relative to the 2014 operating plan. This assures shareholders that management and employees will work accomplish what is said to be a goal. With such a shift in scope this year the 2015 operating plan will differ drastically from 2014 but will continue to promote a generation net operating income. Furthermore, executives are also awarded based on established key performance indicators. Giving management incentives to not only produce top line growth but income as well is a positive sign for investors.



		CENTER FO	R GLOBAL	FINANCIAL ST	<b>TUDIES</b>			
Energy Focus, Inc.	EFOI	Analyst Skyler Scavone	Current Price \$4.69	Intrinsic Value \$5.32	Target Value \$5.91	Divident Yield 0%	Target Return 26.12%	NEUTRAL
General	Info	Peers	Market Cap.		1	nagement		
Sector	Industrials	Capstone Companies, Inc.	\$15.63	Professional	Title	Comp. FY2011	Comp. FY2012	Comp. FY201
Industry	Electrical Equipment	Lena Lighting Spólka Akcyjna	\$115.42	Tu, James	Executive Chairman and Chief E	\$ -	\$ 1,071.00	\$ 238,692.00
Last Guidance	Nov-13-2014	Revolution Lighting Technologies, Inc.	\$146.67	Hillard, Eric	President and Chief Operating O	\$ 205,153.00	\$ 183,157.00	\$ 235,711.00
Next earnings date	3/27/2015			Cheng, Simon	Executive Director	\$ -	\$ 10,018.00	\$ 40,886.00
<u>Market</u>	Data	Huayue Electronics, Inc.	\$28.20	Davenport, John	Executive Director	\$ -	\$ -	\$ 64,370.00
Enterprise value	\$38.42	Vu1 Corporation.	\$11.86	Miller, Marcia	Interim Chief Financial Officer	\$ -	\$ -	\$ -
Market Capitalization	\$44.17	TCP International Holdings Ltd.	\$78.10	Matrisciano, Theresa	Vice President of Human Resour	\$ -	\$ -	ş -
Daily volume	0.01			Historical Performance				
Shares outstanding	9.42				EFOI	Peers	Industry	All U.S. firms
Diluted shares outstanding	6.73	Carmanah Technologies Corp.	\$67.74	Growth	-5.6%	7.3%	6.0%	6.0%
% shares held by institutions	21.74%	Current Capital S	tructure	Retention Ratio		207.7%	40.9%	61.6%
% shares held by insiders	24.51%	Total debt/market cap	2.56%	ROIC		2.1%	29.6%	11.8%
Short interest	0.90%	Cost of Borrowing	99.56%	EBITA Margin	-23.6%	5.2%	11.3%	13.7%
Days to cover short interest	1.84	Interest Coverage	-98.33%	Revenues/Invested capital	55.6%	183.1%	153.0%	202.3%
52 week high	\$10.71	Altman Z	-2.34	Excess Cash/Revenue	13.3%	14.5%	15.9%	18.5%
52-week low	\$10.71 \$3.95	Debt Rating	-2.34 D	Unlevered Beta	0.55	0.36	1.19	0.95
	1.38	Levered Beta	1.30	TEV/REV	0.55 1.0x		2.0x	
5y Beta 6-month volatility	1.38 88.67%	WACC (based on market value weights)	9.53%	TEV/KEV TEV/EBITDA	1.0x 267.4x	1.1x 16.6x	2.0x 10.9x	2.4x 11.3x
6-month volatility			9.33%	TEV/EBITA	267.4x	23.1x		11.3x 15.4x
		rning Surprises	N. EDC			23.1x 28.2x	13.4x 26.5x	
1 . 0	Revenue	EBITDA	Norm. EPS	TEV/UFCF	Ni CAA	AP Adjustments	26.5X	26.8x
Last Quarter	0.0%	0.0%	0.0%	0			40	
Last Quarter-1	0.0%	0.0%	0.0%	Operating Leases Capitalization	100%	Straightline		/ears
Last Quarter -2	0.0%	0.0%	0.0%	R&D Exp. Capitalization	100%	Straightline	10 y	
Last Quarter -3	0.0%	0.0%	0.0%	Expl./Drilling Exp. Capitalization		N/A	N/	
Last Quarter -4	0.0%	0.0%	0.0%	SG&A Capitalization	20%	Straightline	10 y	ears
		Proforma Assumptions Period	Rev. Growth	Adj. Op. Cost/Rev	Revenue	Forecasted Prof NOPLAT	itabilityInvested capital	UFCF
Operating. Cash/Cash	0.0%	LTM	19%	96%	\$26.10	-\$5.22	\$29.32	\$4.18
Unlevered Beta	1.20	LTM+1Y	20%	81%	\$31.42	\$2.44	\$47.39	-\$1.72
Rev/Invested Capital	100.0%	LTM+2Y	23%	78%	\$38.62	\$3.94	\$52.13	-\$0,79
Continuing Period Revenue Growth	5.0%	LTM+3Y	20%	77%	\$46.37	\$4.68	\$57.66	-\$0.86
Long Term ROIC	12.8%	LTM+4Y	17%	75%	\$54.45	\$5.81	\$63.67	-\$0.20
Invested Capital Growth	Equals to Maintenance	LTM+5Y	15%	73%	\$62.86	\$7.04	\$71.97	-\$1.27
Justified TEV/REV	1.9x	LTM+6Y	14%	73%	\$71.81	\$7.94	\$79.24	\$0.67
Justified TEV/EBITDA	9.0x	LTM+7Y	12%	73%	\$80.19	\$9.05	\$85.85	\$2.44
Justified TEV/EBITA	12.5x	LTM+8Y	10%	73%	\$88.40	\$9.96	\$92.46	\$3.35
Justified TEV/UFCF	25.0x	LTM+9Y	8%	73%	\$95.20	\$10.56	\$100.08	\$2.94
Justined TEV/ CTCI	LJ.UX	DIM: 71	<u>Valuat</u>	1071	975.20	\$10.50	\$100.00	Q2.74
	ROIC	WACC	EVA	Enterprise Value	Total Debt	Other claims	Equity	Adjusted Price
LTM	-13.5%	9.5%	-\$5.14	\$60.51	\$0.99	\$1.24	\$58.29	\$6.28
LTM+1Y	5.4%	9.7%	-\$1.96	\$67.02	\$0.99	\$5.73	\$60.31	\$6.66
LTM+2Y	8.3%	9.7%	-\$0.60	\$75.83	\$0.99	\$9.17	\$65.68	\$7.29
LTM+3Y	9.0%	9.4%	-\$0.27	\$84.33	\$0.99	\$10.67	\$72.67	\$8.16
LTM+4Y	10.0%	9.4%	\$0.38	\$93.21	\$0.99	\$9.73	\$82.49	\$9.31
LTM+5Y	11.0%	9.5%	\$1.06	\$104.05	\$0.99	\$8.42	\$94.65	\$10.68
LTM+6Y	11.0%	9.6%	\$1.06	\$113.26	\$0.99	\$4.31	\$107.96	\$12.16
LTM+7Y	11.4%	9.7%	\$1.37	\$121.98	\$0.99	-\$2.43	\$123.43	\$13.88
LTM+8Y	11.6%	9.9%	\$1.55	\$130.92	\$0.99	-\$10.82	\$140.76	\$15.73
LTM+9Y	11.4%	9.9%	\$1.40	\$140.08	\$0.99	-\$19.27	\$158.36	\$16.82
		Monte Carlo Simulation Ass	sumptions				te Carlo Simulation Re	sults
Revenue Variation	Base 0	Stdev	Min N/A	Max N/A	Distribution Normal	Mean est.	Intrinsic Value \$6.28	1y-Target \$6.66
Op. Costs Variation	0	10%	N/A N/A	N/A N/A	Normal		\$0.28 \$0.32	\$0.00 \$0.25
Market Risk Premium	6%	10% N/A	N/A 5%	N/A 7%		σ(ε) 3 σ(ε) adjusted price	\$0.32 \$5.32	\$0.25 \$5.91
	6% 5%	•	5% -6%	7% 7%	Triangular	Current Price	\$5.32 \$4.69	\$3.71
Long term Growth Terminal Value	5% 0	N/A 0.1	-6% N/A	N/A	Triangular		\$4.09	\$9.00
1 CHIIITAI VAIUE	U	0.1	IN/A	N/A	Normal	Analysts' median est.		39.00

Benjamin Lunaud



# Grand Canyon Education, Inc.

NasdaqGS: LOPE Sector: Education Services

BUY
Price Target: \$56.2

# Key Statistics as of 3/05/2015

Market Price: \$44.79

Industry: Education Services

Market Cap: \$ 2,103.9 M 52-Week Range: \$36.95-51.99

Beta: 0.93

## **Thesis Points:**

- Demand should increase more than expected
- Revenue per student should increase more than expected

Analyst:

- New investments should lead to more revenues
- Conversion to nonprofit organization

# **Company Description:**

Grand Canyon Education, Inc., together with its subsidiaries, provides postsecondary education services in the United States and Canada. It offers approximately 160 graduate and undergraduate degree programs in the fields of education, healthcare, business, teaching, nursing, professional, and liberal arts. The company offers its programs across eight colleges both online and on ground through campus in Phoenix, Arizona; leased facilities; and facilities owned by third party employers. As of December 31, 2014, it had 67,806 students enrolled in its programs. The company was founded in 1949 and is based in Phoenix, Arizona.





#### **Thesis**

LOPE is undervalued and revenue expectations from management and analysts are underestimated. A new department has been created (IT and engineering) and demand should increase faster than expected. This should lead to an increased number of students in the university. Also, ground students are increasing faster than online students and the percentage of students living on campus is increasing, meaning that revenue per student will increase as well. A possible increase in tuition if necessary is still possible and will generate again more revenue. Therefore, value would be created as LOPE is able to control its costs. Additionally, LOPE is looking for a conversion to a nonprofit organization and should be ready to buy back its shares at a premium.

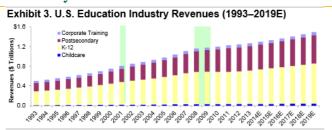
## Management

Brent Richardson (Executive Chairman of the Board), has been serving as LOPE's Executive Chairman since July 1, 2008. From 2000 to 2004, Mr. Richardson served as Chief Executive Officer of Masters Online, LLC, a company that provided online educational programs and marketing services to several regionally and nationally accredited universities.

Brian Mueller (CEO, President and Director) and Dr. W. Stan Meyer (COO) have been serving as the President of the Grand Canyon University Foundation, a foundation formed to benefit public charities.

LOPE management has had previous experiences in the online business education allowing LOPE to benefit from this experience. More importantly, they are involved in a foundation formed to benefit public charities. It makes the university eligible to become a nonprofit organization, which is one of the main goals of Grand Canyon University (GCU).

# **Industry Overview**



Education is representing a \$1 trillion industry or 10% of America's GNP and second in size only to the health care industry. Growth expectations are still bullish in this

#### Siena Market Line 1st week of March 2015

sector on the long term prospect. Growth in the forprofit education sector has slowed, but is expected to grow by 3.8 percent annually for the next five years, to reach \$145 billion in 2019 (see graph). Concerning online education, growth is expecting to be even faster for companies using technology as part of their services delivery and should outperform other traditional models. Online delivery model has become more accepted and the programs' quality is not a problem anymore. Indeed, online classes allow real-time updates and ability for customization. Even if traditional learning classroom will probably be never replaced, the combination of both online courses and traditional education is a real asset for universities.

On the other hand, the industry is threatened by government interventions. Obama has proposed regulations asking for-profit sector to provide tuition assistance to students based on their performances such as graduation rates, student income and debt after graduation. Also, Obama administration proposed a program that would allow students to have two years of free community colleges, meaning a decrease in demand for other universities.

By providing a traditional college experience, LOPE is not really threatened by this last regulation. Also, LOPE is providing an education of quality allowing students to succeed after graduation. This should reduce the risk of the first regulation.

More importantly, LOPE is trying to become a non-profit organization. If they succeed, they will not be affected by such regulations.

#### **Porter Five Forces**

Threat of new entrants is actually low in this industry. There is already too many competitors with a total of 4,599 Title IV-eligible in the US (degree-granting institutions: 2,870 4-year institutions and 1,729 2-year institutions). Also, costs are consequent and require a lot of infrastructures, staffs and teachers. It necessitates expenses in advertising and marketing as well, meaning a lot of SG&A expenditures. LOPE would have to be more competitive with existent competitors but is not really threatened by new entrants. LOPE will still be profitable as it was already able to increase its margins with the existing competition.

Substitutes are probably low as education and diplomas are a requirement to adapt to our current society. There are people looking for an in-home education but it does not really threaten the demand for LOPE. One other substitute for traditional education could be online classes but LOPE is already providing this alternative. Therefore, Grand Canyon University is not threatened



by a decrease in demand.

Suppliers Bargaining Power is low since a lot of universities are providing the same services. With an important source of supplier in this industry, universities are not able to raise considerably their prices. On the other hand, LOPE has not increased its tuition prices over the last 6 years and housing prices over the last 2 years and announced in the last earning call that they will be able to raise their prices and still be competitive as a low cost provider. This is a potential for more revenues per student for LOPE.

Buyer bargaining power is high even if demand for university education is substantial. Universities are asking for high quality students and they have to propose scholarships, reducing considerably their revenues. LOPE managers said at the earning calls that scholarships will increase by 1% as a percentage of revenue but this is not a factor that will reduce considerably their revenues.

Rivalry is important in the education industry and will increase with the apparition of new low cost providers. Also, technology allows universities to reduce considerably their costs and will increase the possibility to see new entrants in the future. It is also likely that current institutions will become more competitive. In addition, geographical location is becoming less a constraint for students, increasing again rivalry amongst universities.

Grand Canyon University main competitors in Arizona are: Arizona State University, Northern Arizona University and University of Arizona. LOPE has some competitive advantages allowing the university to increase its profitability and increase its margins. First, LOPE is a low cost provider. The price of one course starts at only \$350 and the average tuition in Arizona is \$13,000 compared to \$7,000 for Grand Canyon University. Also, a room on campus cost \$6,500 compared to an average of \$11,000 within the US. Also, by providing most of its courses online, materials are providing electronically and it reduces costs for students as they do not have to buy \$200-\$300 books. Another competitive advantage is the quality of the education provided by GCU. 75% of pre-med students receive admission to medical school compared to an average of 42% in other universities. There is 90%-97% nursery pass rate on the NCLEX compared to a national average of 82%. There is 100% placement rate with the traditional nursing graduates, 100% placement rate within the traditional teaching graduates and a 90% placement rate with the traditional business graduates. GCU expects the same rate for its new college of science

### Siena Market Line 1st week of March 2015

with sectors technology and engineering. Finally, GCU has an innovative business method as it provides online courses and it is ranked in the top 30 online schools in the US, allowing it to compete with a majority of traditional schools. It also provides lower costs for online classes than its peers.

These competitive advantages allow LOPE to increase demand for its classes, therefore increasing its number of

	December 3	December 31, 2014(1)		31, 2013(1)	
	# of Students	% of Total	# of Students	% of Total	
Graduate degree (2)	26,319	38.8%	22,476	37.7%	
Undergraduate degree	41,487	61.2%	37,182	62.3%	
Total	67,806	100.0%	59,658	100.0%	
	December 3	1, 2014(1)	December 3	1, 2013(1)	
	# of Students	% of Total	# of Students	% of Total	
Online(3)	55,060	81.2%	49,580	83.1%	
Ground (4)	12,746	18.8%	10,078	16.9%	
Total	67,806	100.0%	59,658	100.0%	

students. Online enrolment grew by 11.1% from 49,580 students in 2013 to 55,060 in 2014 (Chart above). The number of ground students increased faster by 26% between 2013 and 2014 to 12,746 students. By increasing the number of students LOPE was able to increase its revenue even faster.

#### Past performances

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Current/LTM	FY 2015 Est	FY 2016 Est
	2008-12-31	2009-12-31	2010-12-31	2011-12-31	2012-12-31	2013-12-31	2014-12-31	2014-12-31	2015-12-31	2016-12-31
Revenue, Adj	161.3								773.1	851.5
Growth %, YoY										
Gross Profit, Adj									449.8	494.9
Margin %										
EBITDA, Adj									246.7	275.1
Margin %										
Net Income, Adj									126.1	141.0
Margin %										
EPS, Adj									2.65	2.92
Growth %, YoY										
Cash from Operations		61.2	84.1	88.0		118.4			130.5	180.1
Capital Expenditures	-8.4		-62.6	-80.5		-78.9	-168.6		-191.2	-110.1
Free Cash Flow								-1.6	-60.7	70.0

Revenues increased by 15.5% between 2013 and 2014 to \$691.1 million. EBITDA margin increased over the last 5 years to reach 31.1% in 2014. LOPE has been able to control its costs and to increase its revenue faster allowing the university to increase the value of the company. More importantly, LOPE has been able to increase its margins with frozen tuition and housing prices. Cash from operations increased over the last 5 years and increased by 41% in 2014 from \$118.4 million to \$167 million. EPS grew by 23.74% from 2013 to 2014. LOPE has been able to beat analysts' estimates for 17 consecutive quarters and will be able to continue to do so.

# Financials: LOPE vs Industry

LOPE is also doing better than its industry average over the past years. Revenue and EBITDA growth were negative for the industry compared to an increase of 15.5% and 24.4% respectively for LOPE. Net income



growth was 25.65% in 2014 for LOPE compared to 3.60% for the average industry. ROE is 27.15% for LOPE compared to 7.36% for its industry. ROA is 16.24% for LOPE and is higher than the competition with a ROA of 16.25%. According to Bloomberg, ROIC was 24.40% for LOPE better than the industry with a ROIC of 14.85%. Concerning the debt, LOPE has a negative net debt of \$79 million and a TIE of 96.46x, more than 4 times higher than its competitors. Overall, LOPE did better than its industry average over the last few years in term of debt management, liquidity and profitability.

#### Value drivers

LOPE should continue to outperform its industry over the next few years. Revenue growth should be higher than LOPE's estimates and analysts' estimates.

First, demand is increasing every year and is supposed to be higher than LOPE expectations. From 2013 to 2014, the number of students increased by 14%. LOPE is forecasting 75,600 students in 2015 or an increase of only 11.49%. LOPE is proposing attractive programs at low costs and has a growing brand name. LOPE just created for 2015 a new science department with two new sectors being computer engineering and information technology. Looking at other department performances, demand for these two new areas should be high and LOPE expects the same degree of placement rate than in the other areas. This should bring even more students to the university. Also, by announcing that they will be a nonprofit organization, LOPE will not have to pay taxes and will be able to propose even lower costs for students. The demand should increase and the number of students should increase even faster than 11.49%. This will increase the revenue faster than expected.

Then, more students are expecting to live on campus. At the end of 2014, 60% of students were living on campus. LOPE is expecting almost 7,800 new students. Adding more students should reduce the percentage of students living on campus. However, LOPE is expecting 70% of students living on campus increasing considerably revenues per student for the university.

In addition, online enrollment is increasing slower than traditional enrollment. Ground students now represent 18.8%, symbolizing an increase of 2% from 2013. With low house costs and new buildings, ground students should represent more students in the future years to come. They represent higher revenue per student; therefore will generate more revenue for LOPE.

#### Siena Market Line 1st week of March 2015

LOPE revenue guidance has been calculated without taking into account a possible increase in tuition or in housing prices. Over the last 6 years, LOPE did not increase its prices and said for the first time in the last earnings call that they would have the possibility to do it and still be competitive. LOPE is able to increase its tuition by 2% to 3% as well as its housing prices. The university will still be a low cost provider and will be able to increase even more its revenue stream.

All these factors show that LOPE has the possibility to increase its revenue faster than expected.

Concerning costs, LOPE has been able to control them over the past years. Advertising expenses decreased from 2013 to 2014 by 40 basis points and are not expected to grow in the next future years. Marketing expenses are not expected to increase also.

Bad debt expenses decreased to 2.2% from 3.1% due to better quality students. Also, revenue is now recognized only when payment is made. This explains the slower revenue growth from 2013 to 2014.

General and administrative expenses as a percentage of revenues decreased from 6.7% in quarter four of 2013 to 5.5% in quarter four of 2014 primarily due to the company's decision to make contributions to school sponsoring organizations in lieu of state income taxes of \$2.8 million in the third quarter 2014. These costs are not expected to increase either.

On the other hand, instructional and services expenses increased from \$68 million to \$78.6 million between 2013 and 2014, an increase of 15.6%. These costs are expecting to grow over the next year due to the increase in the number of faculty and staff to support the increasing number of students.

LOPE is focusing on improving its existing campus to match demand before going in new areas. CAPEX more than doubled last year to \$168.6 million and is expecting to keep increasing to \$191.2 million in 2015 due to new building, the new science department and new sports areas.

Costs are expecting to increase but revenue is expected to increase much faster. EBITDA margin are expecting to increase again in 2015 from 31.1% to 31.9%. When looking at possible growth, EBITDA margin could increase even faster meaning more value creation for LOPE.



#### Another reason to buy

LOPE considers a conversion back to a nonprofit status. This will allow enhancing shareholders value, improving value proposition to students through lower tuition; they will be able to obtain grants and other tax deductible donation and will avoid for-profit organization regulations. They had continued conversations with the department of education and Moody's about potential structures. A take-private transaction will be done as a premium and will beneficiate shareholders. LOPE management is confident about the conversion. They will have to do it with debt because donation won't be enough to cover the conversion. LOPE has a negative net debt; therefore they will probably not have any problems to have access to debt financing. LOPE will give more information in April but seems determined to do the conversion. Buying back their shares at a premium could be a real opportunity for investors.

#### Valuation

Revenue has been increased from 10.7% (Analyst estimates) in 2015 to 12% and from 8.3% in to 10.5% in 2014. The long term growth is expecting to be 3.5%. These increases of growth are due to higher expected demand, higher revenue per students and a possible increase in prices.

Operating costs have been increased from 69.6% to 75% over the long term due to a future increase in instructional and services expenses. It is lower than the overall industry as 81% of students are online students allowing reducing the university's costs.

Unlevered beta has been raised from 0.84 (0.57 in the last 5years) to 0.90 due to uncertainty in regulations and to be closer to the industry beta over the long run.

ROIC has been reduced to 12% compared to 28% the previous year to be conservative.

#### Conclusion

As a result, LOPE's intrinsic value is calculated at \$52 per share and the 1 year target price is \$56.2 per share, a potential upside of 25.53%. Revenue is the most important driver of value creation for the years to come. ROIC is expected to grow as well with the capital invested in the university. The company is mainly focused on investing free cash flows in the university and focused on doing the conversion to a nonprofit organization. The stock price of \$44.79 per share is considered undervalued. The recommendation is a **buy**.



		CENTER FOI	R GLOBAL	FINANCIAL ST	<b>TUDIES</b>			
Grand Canyon Education, Inc.	lope	Analyst Benjamin Lunaud	Current Price \$44.79	Intrinsic Value \$52.01	Target Value \$56.23	Divident Yield 0%	Target Return 25.53%	NEUTRAL
General		Peers	Market Cap.		·	nagement		
Sector	Consumer Discretionary			Professional	Title	Comp. FY2012	Comp. FY2013	-
Industry	Diversified Consumer Services	Strayer Education Inc.	\$646.91	Richardson, Brent		\$ 206,494.00		
Last Guidance	Feb-18-2015			Mueller, Brian	Chief Executive Officer, Presiden			\$ -
Next earnings date	5/5/2015	<del>-</del>		Bachus, Daniel	Chief Financial Officer and Princi			
<u>Market</u>		Capella Education Co.	\$798.84	Meyer, W.	Chief Operating Officer	\$ 1,375,171.00		\$ -
Enterprise value	\$2,024.89			Mildenhall, Joseph		\$ 1,390,322.00		
Market Capitalization	\$2,103.93	DeVry Education Group Inc.	\$2,287.58	Roberts, Brian	Senior Viœ President, General Co	\$ 537,713.00	\$ 810,443.00	\$ -
Daily volume	0.10	K12, Inc	\$664.53	Historical Performance		_		
Shares outstanding	46.70	Apollo Education Group, Inc.	\$3,053.92		lope		Industry	All U.S. firms
Diluted shares outstanding	47.01			Growth	41.6%	7.8%	10.1%	6.0%
% shares held by institutions	100.31%	Current Capital Str	<u>ucture</u>	Retention Ratio	8.7%	45.4%	68.6%	61.6%
% shares held by insiders	1.52%	Total debt/market cap	4.30%	ROIC		21.9%	13.1%	11.8%
Short interest	2.77%	Cost of Borrowing	2.41%	EBITA Margin	18.5%	21.1%	14.6%	13.7%
Days to cover short interest	5.92	Interest Coverage	10039.70%	Revenues/Invested capital	190.0%	159.2%	219.7%	202.3%
52 week high	\$51.99	Altman Z	7.00	Excess Cash/Revenue	#DIV/0!	16.8%	16.6%	18.5%
52-week low	\$36.95	Debt Rating	AA	Unlevered Beta	0.57	0.57	0.71	0.95
5y Beta	0.84	Levered Beta	0.94	TEV/REV	3.0x	2.0x	2.2x	2.4x
6-month volatility	26.13%	WACC (based on market value weights)	7.65%	TEV/EBITDA	10.9x	7.9x	11.2x	11.3x
0-month volumey		rning Surprises	7.0570	TEV/EBITA	12.9x	9.3x	14.1x	15.4x
	Revenue	EBITDA	Norm. EPS	TEV/UFCF	53.6x	39.1x	23.1x	26.8x
Last Quarter	2.6%	0.6%	4.5%	TEV/UPCF		P Adiustments	23.1X	20.6X
*	3.3%	14.9%	24.1%	OtiI		,	10 ye	70040
Last Quarter-1				Operating Leases Capitalization	100%	Straightline		
Last Quarter -2	1.5%	10.2%	17.8%	R&D Exp. Capitalization	100%	Straightline	10 ye N/	
Last Quarter -3	1.3% 2.1%	5.9% 3.8%	11.5% 17.3%	Expl./Drilling Exp. Capitalization	0%	N/A	N/	
Last Quarter -4	2.1%	Proforma Assumptions	17.5%	SG&A Capitalization	0%	N/A Forecasted Profit	,	Λ
		Period	Rev. Growth	Adj. Op. Cost/Rev	Revenue	NOPLAT	Invested capital	UFCF
Operating. Cash/Cash	0.0%	LTM	15%	68%	\$691.06	\$129.67	\$463.14	\$129.67
Unlevered Beta	0.90	LTM+1Y	12%	68%	\$773.98	\$134.98	\$480.63	\$117.49
Rev/Invested Capital	149.0%	LTM+2Y	11%	69%	\$855.25	\$143.47	\$476.02	\$148.08
Continuing Period Revenue Growth	3.5%	LTM+3Y	7%	69%	\$915.12	\$149.54	\$473.64	\$151.93
Long Term ROIC	12.0%	LTM+4Y	5%	70%	\$960.87	\$154.49	\$472.41	\$155.72
Invested Capital Growth	Equals to Maintenance	LTM+5Y	5%	70%	\$1,004.88	\$159.93	\$471.30	\$161.03
Justified TEV/REV	2.0x	LTM+6Y	4%	70%	\$1,047.63	\$165.01	\$486.81	\$149.50
Justified TEV/EBITDA	7.9x	LTM+7Y	4%	70%	\$1,089.78	\$170.63	\$486.65	\$170.80
Justified TEV/EBITA	9.3x	LTM+8Y	4%	70%	\$1,131.73	\$176.20	\$485.26	\$177.59
Justified TEV/UFCF	23.1x	LTM+9Y	4%	70%	\$1,173.74	\$181.87	\$482.74	\$184.39
,			Valuat		. ,			
	ROIC	WACC	EVA	Enterprise Value	Total Debt	Other claims	Equity	Adjusted Price
LTM	28.0%	7.6%	\$94.24	\$2,481.63	\$86.99	-\$48.39	\$2,443.04	\$52.97
LTM+1Y	29.1%	7.8%	\$102.81	\$2,550.77	\$86.99	-\$154.84	\$2,618.62	\$56.98
LTM+2Y	29.9%	7.9%	\$104.69	\$2,610.28	\$86.99	-\$295.52	\$2,818.81	\$61.06
LTM+3Y	31.4%	8.0%	\$111.08	\$2,653.25	\$86.99	-\$442.52	\$3,008.78	\$65.15
LTM+4Y	32.6%	8.1%	\$116.00	\$2,697.71	\$86.99	-\$595.25	\$3,205.98	\$69.41
LTM+5Y	33.9%	8.2%	\$121.11	\$2,743.93	\$86.99	-\$754.96	\$3,411.90	\$74.04
LTM+6Y	35.0%	8.3%	\$130.23	\$2,805.97	\$86.99	-\$905.30	\$3,624.28	\$78.42
LTM+7Y	35.1%	8.4%	\$130.23 \$129.89	\$2,856.47	\$86.99	-\$1,078.71	\$3,848.19	\$83.24
LTM+8Y	36.2%	8.5%	\$134.63	\$2,906.57	\$86.99	-\$1,260.90	\$4,080.47	\$88.24
LTM+9Y	37.5%	8.6%	\$139.61	\$2,954.46	\$86.99	-\$1,451.94	\$4,000.47	\$92.49
22171.71	31.370	Monte Carlo Simulation Assu		φ <b>2</b> ,73π.πυ	a00.22		e Carlo Simulation Res	100000
ı	Base	Stdev	Min	Max	Distribution	Wione	Intrinsic Value	1y-Target
Revenue Variation	0	10%	N/A	N/A	Normal	Mean est.	\$52.97	\$56.98
Op. Costs Variation	0	10%	N/A	N/A	Normal	σ(ε)	\$0.32	\$0.25
Market Risk Premium	6%	N/A	5%	7%	Triangular	3 σ(ε) adjusted price	\$52.01	\$56.23
Market Kisk Preimum								
Long term Growth	4%	N/A	3%	42%	Triangular	Current Price	\$44.79	

Jarret Reaume



# King Digital Entertainment plc

NYSE:KING Sector: Technology

BUY

Price Target: \$22.20

# Key Statistics as of 3/5/2015

Market Price: \$14.85 Industry: Software Market Cap: \$4.69 B

52-Week Range: \$10.68 - \$23.48

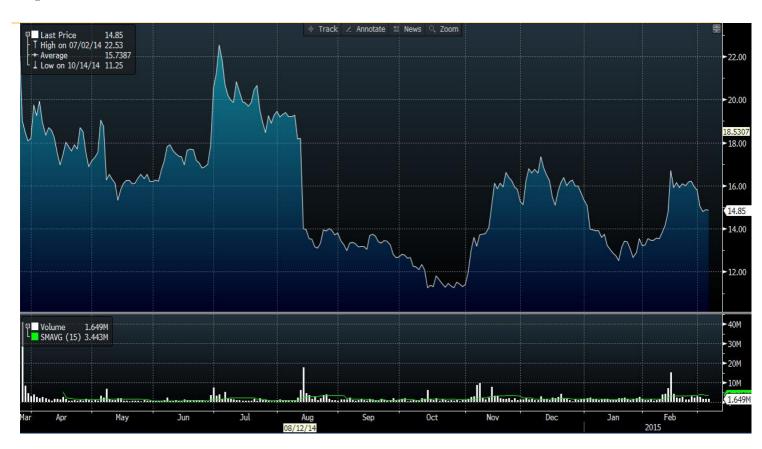
## **Thesis Points:**

- Leader in a Rapidly Growing Industry
- Zero Debt Position
- Diversification by Acquisition
- Improving Margins
- Value added from ROIC being much higher than WACC

Analyst:

# **Company Description:**

King Digital Entertainment plc is an interactive entertainment company that produces and distributes digital games in several countries including the United States, United Kingdom and Germany. The games run on several mobile platforms such as Facebook, iOS, Android, king.com and royalgames.com. The company's titles include Candy Crush Saga, Candy Crush Soda Saga, Farm Heroes Saga and Pet Rescue Saga. King's game titles are developed to be fun and easy to learn. The company says its games are meant to have a broad appeal while being easy to learn and challenging to master. The games are free to download, but players are given the option to purchase virtual items that can enhance the gaming experience. Over the last several years, Candy Crush Saga has served as the firm's top grossing product. King Digital Entertainment is based in Dublin, Ireland.



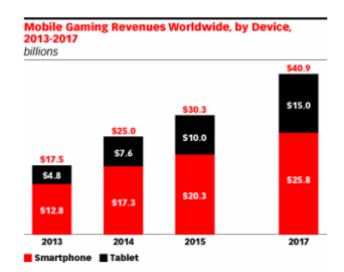


#### **Thesis**

King Digital Entertainment plc is a leading developer of mobile application software. Its strong titles rank amongst the top mobile apps for both iOS and Android. However, there is plenty of doubt in the marketplace regarding the future of the company. Many believe that once revenues and bookings from Candy Crush Saga begin to seriously dwindle, then King will not be a valuable company. The market is wrong to think this way because King has set itself up for life after Candy Crush Saga. The company has a staggering amount of cash and cash equivalents along with zero debt. These aspects should keep King flexible in its endeavor to develop the next great mobile game. Also, strong acquisitions have given King diversification in its game offerings. Until recently, King has only released simple games that don't require too much thought. While the response has been very positive, there is only so much that can be done in one genre. King has acquired firms that specialize in strategy games which will help the firm reach consumers that desire to think more when playing games on their mobile devices. The combination of developing new simple games and acquiring other types of games will help King maintain the strong free cash flows it has generated since it released Candy Crush Saga. The stock price will increase significantly once the market realizes that this company isn't going away anytime soon.

# **Rapidly Growing Industry**

The mobile application industry is one that has grown rapidly over the last few years and looks to get even bigger in the near future. Some say the mobile gaming industry will reach \$40 billion by 2017. While this growth expectation is likely already factored into the stock prices of companies in this industry, no firm is better positioned than King to capitalize on the growth. Currently, the market is underestimating King's ability to continue producing great games. Many believe the company has peaked because of the great success of the Candy Crush Saga and the fact that its users and bookings are finally beginning to decline.



The positive outlook for the mobile gaming industry will only help King continue to generate free cash flows. Many young who consumers who may be getting their first smartphone or tablet will naturally gravitate towards games that King releases. Teenagers will dominate new customers in the industry because they are already accustomed to technology. On the other hand, it is unlikely that older people will contribute to the growth of the industry because they did not grow up with the technology. Because of this, King will have an advantage over its competitors that don't specialize in kid-friendly games that feature a small learning curve.

#### **Zero Debt Position**

King Digital Entertainment plc currently holds no debt. This gives the company flexibility as well as virtually no chance of going bankrupt. It is a reflection of the firm's ability to use its own earnings to pay for its operations and capital expenditures. It also shows the high quality of King's products because they have been so profitable in such a short amount of time. The only way to achieve zero debt as such a young company is to release great products that sell at a fast pace. A no-debt position also bodes well for the future of the company because money will not have to be thrown away towards interest payments. King will be able to retain its earnings so that it can develop apps that will build on the success of the Candy Crush Saga. In a growing industry, King will remain dominant as long as it can consistently create top-notch content and having no debt is a great advantage for the company.



## Diversification by Acquisition

King has been able to make several acquisitions of promising studios recently with its large amount of cash reserves. These acquisitions should make King more diversified in the mobile gaming marketplace and shed the company's label as a one-trick pony. The main patterns of King's games that have been released to this point have consisted of matching three of a like object. This game design is simple, yet addicting. It is the pattern of Candy Crush Saga, Candy Crush Soda Saga, Pet Rescue Saga and Farm Heroes Saga. While all of these are highly-rated games, the same type of game can get old for consumers no matter how high the quality is.

King's acquisition of NonStop Games allows King to step outside of the realm of simple games without having to start completely from scratch. Along with the acquisition of NonStop Games comes a strategy game titled Heroes of Honor: War of Kings. It is fairly easy to tell from the title that this game is markedly different from the typical game King releases. Heroes of Honor is a strategy game for iOS and requires much more thinking than Candy Crush Saga. Now, King has a top game in a completely different genre. This contradicts the notion from many people that King only has one type of game and will struggle to create value after the interest in Candy Crush Saga is gone.

Another acquisition King made is a \$150 million purchase of Z2Live, a development studio based in Seattle, Washington. The acquisition is unique in the fact that King only paid \$45 million up front to acquire the studio and all its games. The remaining \$105 million is tied to the future performance of Z2Live's games. Z2Live produces strategy games much like NonStop Games. Therefore, King must have decided to acquire proven, profitable titles in this genre rather than developing them from scratch. Z2Live boasts two strong strategy titles, MetalStorm Online and Battle Nations. According to ThinkGaming, Battle Nations is already generating over \$10,000 in average daily sales from iPhone users in the United States. This gives King a competitive advantage over companies like Zynga who are developing their own strategy games. King's method eliminates a lot of risk and leaves more time for the development of new simple games that will take the place of Candy Crush Saga. This is a smart strategy by King that will help them prove the market wrong and continue to develop top-selling games.

# **Improving Margins**

King has grown rapidly over the last four years and has been able to achieve very profitable margins. For example, King's EBITDA margin has been over 30% which is very strong when compared to its peers. For example, Zynga, arguably King's top competitor, has never come close to the same EBITDA margin. In FY2014, Zynga actually reported a -14.6% EBITDA margin compared to 33.2% for King. This shows that King is operating efficiently and is in a great position to generate free cash flows. As shown below, Bloomberg



estimates that King's EBITDA margin will increase in the future. By FY 2016, margins are expected to top 40%. These expectations are partly due to the economies of scale from King's acquisitions. Now, more of King's development time and resources are spent more wisely and effectively. King will have several studios with impressive track records churning out games at a fast rate. With decreasing margins, the pressure on King to grow its revenues won't be as great because the company will make money even if revenue stays flat. As we know, the mobile gaming industry is growing very quickly; so increasing sales should not be a problem for King.

#### Value Added from ROIC

King has been able to make the most of its invested capital during the last few years of rapid growth. For example, in 2014 King reported ROIC of 49.13% and weighted average cost of capital (WACC) of merely 6.3. This shows that King was able to add much more value to the firm than what it cost to issue its equity. The WACC could be even lower if King issued debt, but as mentioned earlier, a zero debt position is very desirable for a company like this.

In a competitive industry, no firm can expect its ROIC to beat its WACC by a multiple of 8 for any time longer than a few years. The only way it would be possible is for the company to have a major competitive advantage. While King does have several advantages over its peers like zero debt and a diverse library of games, there is always a threat of a new company to enter and take serious market share.

Since King has reached the point where sales growth will



have to be much slower than in the recent past, ROIC will have to remain above WACC for any value creation. Luckily, King's ROIC looks to be in no danger of falling all the way down to 6%. The company has done a good job turning its invested capital into games that millions of consumers want to play.

#### Conclusion

King Digital Entertainment plc is a company that is at a crossroads at the current moment. Its bookings and users for Candy Crush Saga, its most successful release, are finally beginning to decline. Many people believe that this is the end for the company's value creation. In an industry where one good idea can change the entire landscape, it is difficult to blame those that think King's time at the top is coming to an end. However, there is no company in a better position to come up with that next great game that will own the top spot on iOS and Android for a significant amount of time. King already has a solid formula for simple games that are easy to learn and difficult to quit. Also, the companies King has acquired help to diversify its game library so that revenues shouldn't fall once Candy Crush users look for something else.

At a low price of \$14.85, it is an easy decision to buy stock in this company. The combination of a booming industry, large amounts of cash, and no debt give King Digital Entertainment plc every advantage and opportunity to remain the king of mobile gaming.



		CENTER FO	R GLOBAL	FINANCIAL ST	<b>'UDIES</b>			
King Digital Entertainment	KING	Analyst Jarret Reaume	Current Price \$14.80	Intrinsic Value \$23.55	Target Value \$22.18	Divident Yield 0%	Target Return	BULLISH
Genera	al Info	Peers	Market Cap.	\$25.33		nagement	49.83 / 0	•
Sector	Information Technology	Activision Blizzard, Inc.	\$16,699.41	Professional	Title	Comp. FY2012	Comp. FY2013	Comp. FY20
Industry	Software	Zynga, Inc.	\$2,142.38	Zacconi, Riccardo	Co-Founder, Chief Executive Of		ş -	\$ -
Last Guidanœ	Feb-12-2015	Electronic Arts Inc.	\$17,620.76	Knutsson, John	Co-Founder, Chief Creative Office	\$ -	\$ -	\$ -
Next earnings date	NM	GameStop Corp.	\$4,197.38	Cochran, Hope	Chief Financial Officer	\$ -	\$ -	\$ -
Marke	t Data	iDreamSky Technology Limited	\$476.98	Kurgan, Stephane	Chief Operating Officer and Dire	\$ -	\$ -	\$ -
Enterprise value	\$3,689.65	Boyaa Interactive International Limited	\$3,589.91	Ryder, Aliœ	Vice President of Investor Relation	\$ -	\$ -	\$ -
Market Capitalization	\$6,161.77			Miller, Robert	Chief Legal Officer and Corporat	\$ -	\$ -	\$ -
Daily volume	6.74			Historical Performance				
Shares outstanding	314.43	ESTsoft Corp.	\$157,927.26		KING	Peers	Industry	All U.S. firms
Diluted shares outstanding	320.30	Entraction Holding AB		Growth		18.4%	11.8%	6.0%
% shares held by institutions	120.27%	Current Capital Str	ructure	Retention Ratio	0.0%	328.7%	80.6%	61.6%
% shares held by insiders	28.82%	Total debt/market cap	0.00%	ROIC		0.0%	15.8%	11.8%
Short interest	5.24%	Cost of Borrowing	0.00%	EBITA Margin	0.0%	13.7%	14.9%	13.7%
Days to cover short interest	7.88	Interest Coverage	81224.64%	Revenues/Invested capital	539.7%	84.3%	144.4%	202.3%
52 week high	\$23.48	Altman Z	10.98	Excess Cash/Revenue	#DIV/0!	30.1%	38.4%	18.5%
52-week low	\$23.48 \$10.68	Debt Rating	AAA	Unlevered Beta	#151 V / UI	1.24	1.17	0.95
5y Beta	0.00	Levered Beta	1.37	TEV/REV	1.7x	1.5x	3.9x	2.4x
6-month volatility	45.88%		10.15%	*	5.3x	17.5x	16.8x	11.3x
0-month volatility		WACC (based on market value weights) ning Surprises	10.1370	TEV/EBITDA TEV/EBITA	5.3x 5.4x	17.5x 23.0x	20.1x	11.3x 15.4x
	Revenue	EBITDA	Norm. EPS	TEV/UFCF	J.+X	23.0x 81.3x	20.1x 32.2x	15.4x 26.8x
Last Quarter	6.7%	23.8%	21.3%	TEV/ OPCF	Non GAA	AP Adjustments	32.2x	20.6x
Last Quarter-1	4.9%	14.0%	19.1%	Operating Leases Capitalization	100%	Straightline	10 y	TOO PC
Last Quarter -2	-2.0%	2.8%	-1.7%	R&D Exp. Capitalization	30%	Straightline	10 y	
Last Quarter -2 Last Quarter -3	1.8%	6.4%	7.0%	Expl./Drilling Exp. Capitalization		N/A	N/	
Last Quarter -4	0.0%	0.0%	0.0%	SG&A Capitalization	20%	Straightline	10 y	
Last Quarter -4	0.070	Proforma Assumptions	0.076	SOCE Capitalization	2070	Forecasted Profit		cars
		Period	Rev. Growth	Adj. Op. Cost/Rev	Revenue	NOPLAT	Invested capital	UFCF
Operating. Cash/Cash	0.0%	LTM	0%	52%	\$2,269.40	\$805.35	\$169.51	\$1,056.37
Unlevered Beta	1.35	LTM+1Y	-4%	56%	\$2,180.90	\$634.15	\$571.00	\$483.68
Rev/Invested Capital	100.0%	LTM+2Y	-3%	59%	\$2,119.83	\$554.20	\$711.66	\$413.54
Continuing Period Revenue Growth	1.0%	LTM+3Y	6%	61%	\$2,253.38	\$537.72	\$840.84	\$408.54
Long Term ROIC	12.0%	LTM+4Y	1%	64%	\$2,275.92	\$500.05	\$961.09	\$379.80
Invested Capital Growth	Follows Forward Rev. Growth	LTM+5Y	1%	66%	\$2,298.67	\$466.00	\$1,069.10	\$357.99
Justified TEV/REV	2.0x	LTM+6Y	1%	66%	\$2,321.66	\$467.80	\$1,175.86	\$361.04
Justified TEV/EBITDA	13.0x	LTM+7Y	1%	66%	\$2,344.88	\$471.11	\$1,247.52	\$399.46
Justified TEV/EBITA	19.0x	LTM+8Y	1%	66%	\$2,368.33	\$475.56	\$1,300.37	\$422.71
Justified TEV/UFCF	22.0x	LTM+9Y	1%	66%	\$2,392.01	\$480.52	\$1,335.38	\$445.51
	ROIC	WACC	<u>Valuatio</u> EVA	Enterprise Value	Total Debt	Other claims	Equity	Adjusted Price
LTM	191.5%	10.2%	\$307.42	\$6,990.62	\$0.00	-\$756.49	\$7,747.11	\$24.51
LTM+1Y	374.1%	10.0%	\$2,079.02	\$7,738.31	\$28.47	\$195.33	\$7,514.52	\$22.93
LTM+2Y	97.1%	10.0%	\$619.56	\$6,201.25	\$356.45	\$189.71	\$5,655.09	\$17.99
LTM+3Y	75.6%	10.0%	\$551.24	\$6,167.44	\$356.45	\$142.58	\$5,668.41	\$17.91
LTM+4Y	59.5%	10.0%	\$475.45	\$6,186.14	\$564.47	\$174.79	\$5,446.89	\$17.31
LTM+5Y	48.5%	10.0%	\$411.46	\$6,268.72	\$682.85	\$167.00	\$5,418.86	\$17.31
LTM+6Y	43.8%	10.0%	\$396.93	\$6,420.73	\$769.74	\$176.37	\$5,474.62	\$17.42
LTM+7Y	40.1%	10.0%	\$375.07	\$6,556.70	\$905.76	\$168.09	\$5,482.85	\$17.46
LTM+8Y	38.1%	10.0%	\$365.67	\$6,704.25	\$1,015.91	\$157.44	\$5,530.90	\$17.62
LTM+9Y	37.0%	10.0%	\$359.92	\$6,853.13	\$1,123.51	\$141.87	\$5,587.75	\$17.77
		Monte Carlo Simulation Assu	umptions	. ,			e Carlo Simulation Re	sults
•	Base	Stdev	Min	Max	Distribution		Intrinsic Value	1y-Target
Revenue Variation	0	10%	N/A	N/A	Normal	Mean est.	\$24.51	\$22.93
Op. Costs Variation	0	10%	N/A	N/A	Normal	σ(ε)	\$0.32	\$0.25
Market Risk Premium	6%	N/A	5%	7%	Triangular	3 σ(ε) adjusted price	\$23.55	\$22.18
					- · ·		***	
Long term Growth	5%	N/A	3%	18%	Triangular	Current Price	\$14.80	

Analyst:



KKR & Co. L.P.

Brian Johnke Financials **Sector:** NYSE: KKR

**BUY** Price Target: \$28.30

# Key Statistics as of 2/12/2014

Market Price: \$23.67

Industry: Capital Markets Market Cap: \$10.175 B 52-Week Range: \$18.84-25.58

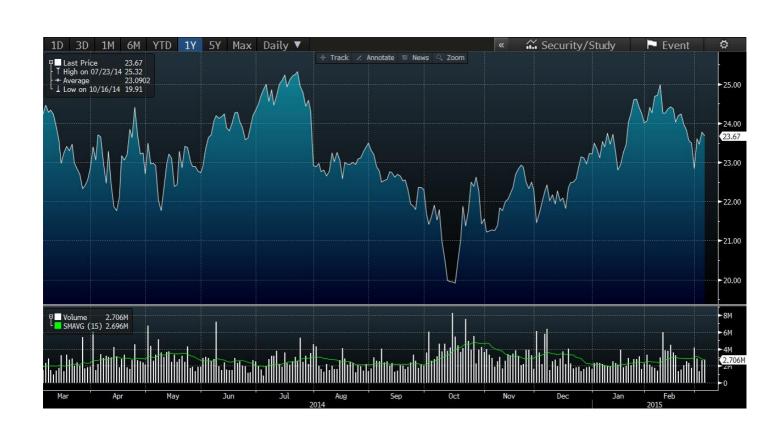
Beta: 0.49

#### **Thesis Points:**

- High Yield Distributions
- Exposure to Energy
- Diversified Portfolio
- Ability to Raise Capital

# **Company Description:**

KKR & Co., a global investment firm, was founded in 1976 by Jerome Kohlberg, Henry Kravis, and George Roberts. The firm manages its assets by using a variety of investment funds and accounts that cover multiple asset classes. Through monitoring and active oversight, KKR helps deliver capital solutions to the companies in its portfolio. KKR currently has over \$98 billion in assets under management and \$83 billion in fee paying assets under management diversified across private equity, energy, infrastructure, real estate, credit and hedge funds. KKR sponsors and manages private equity funds and has raised capital for multiple investment funds in the United States, Europe, and Asia. The firm specializes in in leveraged buyouts and since its inception, when adjusted for inflation, KKR has played a part in five of the ten largest leveraged buyouts in history.





#### Recommendation

As a global investment leader specialized in private equity and leveraged buyouts, KKR is a BUY with a one year target price of \$28.30, which combined with its high yield cash distributions (nearly 9% in 2014) KKR provides a great investment opportunity. Look for advance in 2015 as energy prices start to settle. Moving forward, KKR's diverse portfolio and ability to raise capital when necessary will play a key role as the company continues to grow.

#### Management

KKR is led by co-chairman & co-chief executive officers Henry R. Kravis and George R. Roberts. The duo founded KKR in 1976 with former boss Jerome Kohlberg Jr. The three worked together at Bear Sterns in the corporate finance division. They were pioneers in the field of what today are known as leveraged buyouts, they referred to them as boot-strap investments, with the goal being to acquire companies that they felt were operating below their potential and turn them around. When bear sterns denied their request to form a division dedicated solely to these types of investments they left and formed KKR. Kohlberg ultimately left the company in 1987. In 1988, Under Kravis and Roberts, KKR executed a leveraged buyout of RJR Nabisco for nearly \$25 billion which, when adjusted for inflation, is the largest leveraged buyout in history. Kravis and Roberts continue to use their experience and knowledge to identify lucrative investment opportunities.

# **High Yield Distributions**

The amount of cash distributions paid by KKR to shareholders has continued to grow since the company went public in 2010.



KKR paid \$2.03 per share in cash distribution for the fiscal year 2014, representing a yield of close to 9%. The firm has a history of making quarterly cash distributions that consist of nearly all cash earnings on its investment management business and approximately 40% of the net cash proceeds from realized principal investments. KKR recently announced a cash distribution of \$0.35 payable on March 6, 2015. This amount is lower than the cash distributions in each of the previous four quarters; partially due to lower than expected performance in its energy investments.

## Exposure to Energy

KKR released its quarter four and fiscal year 2014 earnings results on February 10th and reported a GAAP net income (loss) of (\$.6) million and \$477 for the quarter and year ending December 31, 2014, both down from the comparable periods in 2013 (\$277.9 and \$691.2) million respectively). KKR reported a quarter four earnings per share of \$.05 and revenue of \$212 million, missing analyst estimates by \$ .4 and \$46.87 million respectively. Part of the reason for these misses was the performance of KKR's energy holdings. At the end of quarter three, KKR had approximately 6 percent (currently 7%) of its \$13.5 billion total balance sheet in energy. The sharp decline in crude oil and natural gas resulted in a \$240 million write down of KKR's energy portfolio in private markets. Although the decline in energy negatively affected the performance of KKR in 2014, specifically quarter 4, it presents a great investment opportunity as prices begin to stabilize. The firm has positioned itself to take advantage of this opportunity by focusing on drilling partnerships and private credit opportunities. KKR is specifically looking at companies that have drilling rights but not enough capital to actually drill. The drilling partnerships will serve as a protection



in relation to the price of the underlying commodity. KKR currently has \$1.4 billion invested and \$2.5 billion in cash reserves across its energy focused pools of capital, which leaves them well positioned to take advantage of the opportunity in energy. Although the decline in energy impacted KKR's fourth quarter results, it was their diverse portfolio that helped prevent additional losses.

#### **Diversified Portfolio**

KKR's assets under management consist of private market, public market, capital market and other investments. Their investments are globally diversified across all primary sectors.

KKR's Invesments by Sector						
Consumer Discretionary	20.2%					
Information Technology	15.0%					
Financials	14.7%					
Industrials	14.3%					
Healthcare	7.8%					
Consumer Staples	7.8%					
Energy	5.7%					
Materials	5.2%					
Utilities	4.8%					
Telecomunication Services	4.5%					

KKR's private equity investments include more than 90 companies that generate over \$200 billion in annual revenues. The firms approach to private equity investments is to select "high-quality investments that may be made at attractive prices, applying rigorous standards of due diligence when making investment decisions, implementing strategic and operational changes that drive growth and value creation in acquired businesses, carefully monitoring investments, and making informed decisions when developing exit strategies." (10-k) KKR's public market investments have increased substantially over the last ten years from \$800 million assets under management in 2004 to \$37.1 billion in 2014. The two biggest segments in KKR's public market investments are its leveraged credit and hedge fund investments which combined make up nearly 75 percent of KKR's public market assets under management. The diversity of KKR's portfolio will serve to minimize the downside when individual sectors lag behind the market.

# Ability to Raise Capital

KKR's Proven track record has made their funds very

attractive to investors; this has helped them raise capital when necessary. As of December 31, 2014 KKR has 820 investors, which includes the addition of 100 investors in 2014.

Investor Base by Ty	Investor Base by G	eography		
Public Pension & Agency	51%	то по		
Financial Institutions	18%	Americas	62%	
Insurance	10%	Asia Pacific	18%	
Corporate	7%	Asia Facilic	10/0	
Family Office/HNW	6%	Europe	16%	
FoF	6%			
Endowment/Foundation	2%	Middle East	4%	

KKR's Client & Partner Group, comprised of 80 executives and professionals, is responsible for the raising of capital globally for all of KKR's products. The Client & Partner Group is also responsible for the expansion of KKR's client relationships by developing products to meet client needs. KKR also invests in funds through its stakes business and provides fundraising services to these fund managers. The firms experience in raising capital will prove beneficial as they continue to add new investment pools to their portfolio.



		CENTER FOR	R GLOBAL	FINANCIAL S'	TUDIES			
KKR & Co. L.P.	CKR	Analyst	Current Price	Intrinsic Value	Target Value	Divident Yield	Target Return	NEUTRAL
		Brian Johnke	\$23.83	\$29.07	\$28.29	8%	26.72%	NEOTHAL
General		Peers	Market Cap.			agement		
Sector	Financials	The Blackstone Group L.P.	\$23,257.58	Professional	Title	Comp. FY2012	Comp. FY2013	Comp. FY2014
Industry	Capital Markets	Franklin Resources, Inc.	\$33,162.03	Roberts, George	Co-Chairman of KKR Mana		\$ 44,108,078.00	\$ 64,375,416.00
Last Guidance	(Invalid Identifier)	Invesco Ltd.	\$17,314.93	Kravis, Henry	Co-Founder, Co-Chairman		\$ 44,205,435.00	\$ 64,451,272.00
Next earnings date	NM NM	BlackRock, Inc.	\$61,617.54	Janetschek, William	Chief Financial Officer of Kk		\$ 5,178,980.00	\$ 6,509,957.00
Market I	<b>⊔aca</b> \$0.00	T. Rowe Price Group, Inc.	\$21,490.41 \$3,834.81	Fisher, Todd Sorkin, David	Global Chief Administrative General Counsel of KKR M.		\$ 15,564,057.00	\$ 16,530,664.00
Enterprise value Market Capitalization	\$0.00 \$10,304.84	Apollo Global Management, LLC The Carlyle Group LP	\$3,839.79 \$1,839.79	Bookmyer, Scott	Member, Chief Operating OI		\$ 3,490,993.00 \$	\$ 5,135,077.00 \$ -
Daily volume	\$10,304.64 1.81	Legg Mason Inc.	\$6,421.39	Historical Performance		• .	· ·	ъ ·
Shares outstanding	433.52	Affiliated Managers Group Inc.	\$11,615.09	HIStorical Ferrormance	KKR	Peers	Industre	All U.S. firms
-	412.05			Growth	KKII	13.2%	8.6%	
Diluted shares outstanding		Och-Ziff Capital Management Group	\$2,220.82		0.00			6.0%
% shares held by institutions	59.84%	Current Capital S		Retention Ratio	0.0%	41.6%	58.4%	61.6%
% shares held by insiders	1.15%	Total debt/market cap	#DIV/0!	ROIC		25.7%	15.0%	11.8%
Short interest	2.09%	Cost of Borrowing	0.00%	EBITA Margin	22.2%	61.2%	21.8%	13.7%
Days to cover short interest	3.56	Interest Coverage		Revenues/Invested capital	121.5%	65.2%	84.5%	202.3%
52 week high	\$25.58	Altman Z		Excess Cash/Revenue	#DIV/0!	99.7%	39.6%	18.5%
52-week low	\$18.84 4.70	Debt Rating	A	Unlevered Beta	1.65	1.53	0.83	0.95
5y Beta	1.72 22.92%	Levered Beta	2.50 9.61%	TEV/REV		4.0x	3.6x	2.4%
6-month volatility		VACC (based on market value weig	3.61%	TEVIEBITOA		8.8x 9.1x	12.9x 13.9x	11.3x 15.4x
	Past Earr Revenue	ning Surprises EBITDA	Norm. EPS	TEWEBITA TEWUFCF		9.1x 10.3x	13.5% 21.5%	15.4% 26.8%
Last Quarter	-7.3%	0.0%	-88.4%	TEVIOPER	Non GAA	P Adiustments	21.08	26.0X
Last Quarter-1	8.0%	0.0%	13.6%	Operating Leases Capitalization		Straightline	10 ue	Pars
Last Quarter -2	-13.5%	29.2%	-14.9%	R&D Exp. Capitalization	100%	Straightline	10 ye	
Last Quarter -3	12.3%	0.0%	45.3%	Expl./Drilling Exp. Capitalizatio		N/A	N/	
Last Quarter -4	10.6%	0.0%	21.3%	SG&A Capitalization	0%	N/A	Ni	IA.
		D( A						
		Proforma Assumptions Period	Rev. Growth	Adi. Op. Cost/Rev	Revenue	Forecasted Pro		UFCF
Operating Cash/Cash	0.0%	Period		Adj. Op. Cost/Rev		NOPLAT	Invested capital	
Operating, Cash/Cash	0.0% 150	Period	-21%	18%	\$7,654.76	*5,744.52	Invested capital \$10,907.40	\$5,744.52
Unlevered Beta	1.50	Period LTM LTM+1Y	-21% 10%	18% 18%	\$7,654.76 \$8,420.23	\$5,744.52 \$5,188.14	\$10,907.40 \$12,279.64	\$5,744.52 \$3,815.91
Unlevered Beta Rev/Invested Capital	1.50 100.0%	Period	-21%	18%	\$7,654.76 \$8,420.23 \$9,178.05	\$5,744.52 \$5,188.14 \$5,044.82	\$10,907.40 \$12,279.64 \$12,988.01	\$5,744.52 \$3,815.91 \$4,336.45
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Gro	1.50 100.0% 3.0%	Period CHM LTM LTM-1Y LTM-2Y LTM-2Y LTM-3Y	-21% 10% 9% 8%	18% 18% 18% 18%	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95	\$10,907.40 \$12,279.64 \$12,988.01 \$13,671.75	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro Long Term ROIC	1.50 100.0% 3.0% 11.3%	Period  LTM  LTM-1Y  LTM-2Y  LTM-3Y  LTM-4Y	-21% 10% 9%	18% 18% 18%	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,298.82	\$10,907.40 \$12,279.64 \$12,988.01 \$13,671.75 \$14,315.63	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Gro	1.50 100.0% 3.0%	Period CHM LTM LTM-1Y LTM-2Y LTM-2Y LTM-3Y	-21% 10% 9% 8% 7%	18% 18% 18% 18% 19%	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95	\$10,907.40 \$12,279.64 \$12,988.01 \$13,671.75	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21
Unlevered Beta RevVlnvested Capital Continuing Period Revenue Gro Long Term ROIC Invested Capital Growth	1.50 100.0% 3.0% 11.3% Equals to Maintenance	Period  LTM  LTM-IY  LTM-2Y  LTM-3Y  LTM-4Y  LTM-5Y	-21% 10% 9% 8% 7% 6%	18% 18% 18% 18% 19%	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,238.82 \$5,518.60	\$10,907.40 \$12,279.64 \$12,988.01 \$13,671.75 \$14,315.63 \$14,906.36	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV	1.50 100.0% 3.0% 11.3% Equals to Maintenance 3.4%	Period  LTM  LTM-1Y  LTM-2Y  LTM-3Y  LTM-4Y  LTM-6Y  LTM-6Y	-21% 10% 9% 8% 7% 6% 5%	18% 18% 18% 18% 19% 19%	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,298.82 \$5,518.60 \$5,734.56	\$10,907,40 \$12,279,64 \$12,988,01 \$13,671,75 \$14,315,63 \$14,906,36 \$15,558,98	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA	1.50 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6%	Period  LTM  LTM-1Y  LTM-2Y  LTM-3Y  LTM-4Y  LTM-5Y  LTM-6Y  LTM-7Y	-21x 10x 9x 8x 7x 6x 5x 4x 3x 3x	18% 18% 18% 19% 19% 19% 19% 19% 20%	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,298.82 \$5,518.60 \$5,734.56 \$5,928.76	Invested capital \$10,907.40 \$12,279.64 \$12,988.01 \$13,671.75 \$14,315.63 \$14,906.36 \$15,558.98 \$16,010.71	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,477.03
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITOA Justified TEV/EBITA	1.50 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3%	Period  LTM  LTM-1Y  LTM-2Y  LTM-3Y  LTM-4Y  LTM-5Y  LTM-6Y  LTM-7Y  LTM-8Y	-21% 10% 9% 8% 7% 6% 5% 4% 3%	18% 18% 18% 19% 19% 19% 19% 19% 20%	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,645.14	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,298.82 \$5,518.60 \$5,734.56 \$5,928.76 \$6,080.83	\$10,907,40 \$12,279,64 \$12,988.01 \$13,671,75 \$14,315.63 \$14,908.36 \$15,558,98 \$16,010.71 \$16,360.93	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,477.03 \$5,730.62
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITOA Justified TEV/EBITA	1.50 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3%	Period  LTM  LTM-1Y  LTM-2Y  LTM-3Y  LTM-4Y  LTM-5Y  LTM-6Y  LTM-7Y  LTM-8Y  LTM-9Y	-21% 10% 9% 8% 7% 6% 5% 4% 3% 3%	18% 18% 18% 18% 19% 19% 19% 19% 20%	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,645.14 \$13,024.50	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,238.82 \$5,518.60 \$5,734.56 \$5,928.76 \$6,080.83 \$6,244.21	Invested capital \$10,907.40 \$12,279.64 \$12,298.01 \$13,671.75 \$14,315.63 \$14,906.36 \$15,558.98 \$16,010.71 \$16,360.93 \$16,713.11	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,477.03 \$5,730.62 \$5,892.03
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITOA Justified TEV/EBITA Justified TEV/UPCF	1.50 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3%	Period  LTM  LTM-1Y  LTM-2Y  LTM-3Y  LTM-5Y  LTM-5Y  LTM-6Y  LTM-7Y  LTM-8Y  LTM-9Y  VACC	-21% 10% 9% 8% 7% 6% 5% 4% 3% 3% <b>Yaluati</b>	18% 18% 18% 18% 19% 19% 19% 19% 20% On Enterprise Value	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,276.84 \$12,645.14 \$13,024.50	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,238.82 \$5,518.60 \$5,734.56 \$5,928.76 \$6,080.83 \$6,244.21	Invested capital \$10,907.40 \$12,279.64 \$12,298.01 \$13,671.75 \$14,315.63 \$14,906.33 \$16,010.71 \$16,360.93 \$16,713.11 Equity	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,477.03 \$5,730.62 \$5,892.03
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF	1.50 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3% POIC	Period  LTM  LTM-1Y  LTM-2Y  LTM-3Y  LTM-4Y  LTM-5Y  LTM-6Y  LTM-6Y  LTM-7Y  LTM-8Y  LTM-9Y  VACC  9.6%	-21½ 10½ 9½ 8½ 7½ 6½ 5½ 4½ 3% 3½ <b>Yaluati</b>	18% 18% 18% 18% 19% 19% 19% 19% 20%  Enterprise Value \$68,958.44	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,645.14 \$13,024.50 Total Debt \$10,384.89	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,298.82 \$5,518.60 \$5,734.56 \$5,928.76 \$6,080.83 \$6,244.21 Other claims \$44,857.41	Invested capital	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,770.03 \$5,730.62 \$5,892.03 <b>Adjusted Price</b> \$30.03 \$29.04 \$29.35
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF	150 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3% ROIC 52.7% 47.6% 41.1% 39.4%	Period  LTM-1Y  LTM-1Y  LTM-2Y  LTM-3Y  LTM-4Y  LTM-5Y  LTM-5Y  LTM-7Y  LTM-8Y  LTM-9Y  VACC  9.6%  9.8%  9.8%  9.8%	-21½ 10½ 9% 8% 7% 6% 5% 4% 3% 3% 3% <b>Yaluati</b> \$4,696.48 \$4,643.39	18% 18% 18% 18% 19% 19% 19% 19% 20%  Enterprise Value \$68,958.44 \$70,618.76	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,276.84 \$13,024.50  Total Debt \$10,984.89 \$11,063.73 \$12,166.71 \$12,835.85	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,238.82 \$5,518.60 \$5,734.56 \$5,928.76 \$6,080.83 \$6,244.21 Other claims \$44,857.41 \$46,932.72	Invested capital \$10,907.40 \$12,279.64 \$12,298.01 \$13,671.75 \$14,315.63 \$14,906.36 \$15,558.98 \$16,010.71 \$16,360.93 \$16,713.11  Equity \$13,116.14 \$12,562.31	\$5,744.52 \$3,815.91 \$4,336.45 \$4,455.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,477.03 \$5,730.62 \$5,892.03 Adjusted Price \$30.03 \$29.04 \$29.35 \$32.21
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM-1Y LTM-2Y LTM-3Y LTM-4Y	150 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3% ROIC 52.7% 47.6% 41.1% 39.4% 38.8%	Period  LTM  LTM-1Y  LTM-2Y  LTM-3Y  LTM-4Y  LTM-5Y  LTM-6Y  LTM-6Y  LTM-8Y  LTM-9Y	-21% 10% 9% 8% 7% 6% 5% 4% 3% 3% <b>Yaluati</b> <b>EVA</b> \$4,696.48 \$4,696.48 \$4,643.39 \$4,064.29	18% 18% 18% 18% 18% 19% 19% 19% 19% 20%  Enterprise Value \$68,958.44 \$70,618.76 \$71,716.62 \$73,571.35 \$75,626.57	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,276.84 \$12,645.14 \$13,024.50  Total Debt \$10,984.89 \$11,063.73 \$12,166.71 \$12,835.85 \$13,236.52	\$5,744.52 \$5,784.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,238.82 \$5,518.60 \$5,724.56 \$5,928.76 \$6,080.83 \$6,244.21 Other claims \$44,857.41 \$46,992.72 \$47,023.94	Invested capital \$10,907.40 \$12,279.64 \$12,298.01 \$13,671.75 \$14,315.63 \$14,306.36 \$15,558.98 \$16,010.71 \$16,360.93 \$16,713.11  Equity \$13,116.14 \$12,562.31 \$12,525.97 \$13,683.91 \$15,314.58	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,770.62 \$5,730.62 \$5,832.03 Adjusted Price \$30.03 \$23.04 \$29.35 \$32.21 \$36.17
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITDA Justified TEV/UFCF  LTM LTM-1Y LTM-2Y LTM-3Y LTM-5Y	1.50 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3% POIC 52.7% 47.6% 41.1% 39.4% 38.8% 38.5%	Period  LTM  LTM-1Y  LTM-2Y  LTM-3Y  LTM-4Y  LTM-5Y  LTM-6Y  LTM-7Y  LTM-8Y  LTM-9Y	-21% 10% 9% 8% 7% 6% 5% 4% 3% 3%  EVA  \$4,643.39 \$4,064.29 \$4,03.55 \$4,216.04	18% 18% 18% 18% 18% 19% 19% 19% 19% 20%  CON Enterprise Value \$68,958.44 \$70,618.76 \$71,716.62 \$73,571.35 \$75,626.57 \$77,779.94	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,276.84 \$13,024.50  Total Debt \$10,934.89 \$11,063.73 \$12,166.71 \$12,835,85 \$13,236.52 \$13,255.74	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,238.82 \$5,518.60 \$5,734.56 \$5,928.76 \$6,080.83 \$6,244.21 Other claims \$44,857.41 \$46,992.72 \$47,023.94 \$47,075.57	Invested capital \$10,907.40 \$12,279.64 \$12,298.01 \$13,671.75 \$14,315.63 \$14,906.36 \$15,558.98 \$16,010.71 \$16,360.93 \$16,713.11  Equity \$13,116.14 \$12,562.31 \$12,562.31 \$12,525.97 \$13,683.91 \$15,314.58 \$17,426.62	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,477.03 \$5,730.62 \$5,892.03 Adjusted Price \$30.03 \$29.04 \$29.35 \$32.21 \$36.17 \$41.31
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM-1Y LTM-2Y LTM-2Y LTM-5Y LTM-5Y LTM-5Y LTM-6Y	150 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3% ROIC 52.7% 47.6% 41.1% 39.4% 38.8% 38.5%	Period  LTM  LTM-1Y  LTM-2Y  LTM-3Y  LTM-4Y  LTM-6Y  LTM-6Y  LTM-7Y  LTM-8Y  LTM-9Y  WACC  9.6%  9.8%  9.8%  9.8%  9.9%  10.1%  10.3%  10.4%	-21% 10% 9% 8% 7% 6% 5% 4% 3% 3%  *** *** *** *** *** *** *** ***	18% 18% 18% 18% 18% 19% 19% 19% 19% 20%  Paterprise Value  \$68,958.44 \$70,618.76 \$71,716.62 \$73,571.35 \$75,626.57 \$77,779.94 \$80,118.53	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,276.84 \$13,024.50  Total Debt \$10,984.89 \$11,063.73 \$12,166.71 \$12,835.85 \$13,236.52 \$13,255.74 \$13,255.74	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,238.82 \$5,518.60 \$5,734.56 \$5,928.76 \$6,080.83 \$6,244.21 Other claims \$44,857.41 \$46,992.72 \$47,023.94 \$47,051.59 \$47,075.47 \$47,075.47	Invested capital \$10,907.40 \$12,279.64 \$12,298.01 \$13,671.75 \$14,315.63 \$14,906.36 \$15,558.98 \$16,010.71 \$16,360.93 \$16,713.11  Equity \$13,116.14 \$12,562.31 \$12,525.97 \$13,683.91 \$15,314.58 \$17,426.62 \$13,943.43	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,477.03 \$5,730.62 \$5,892.03 Adjusted Price \$30.03 \$29.04 \$29.35 \$32.21 \$36.17 \$41.31 \$47.11
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM-1Y LTM-2Y LTM-2Y LTM-5Y LTM-5Y LTM-5Y LTM-5Y LTM-6Y LTM-7Y	150 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3%  ROIC 52.7% 47.6% 41.1% 38.4% 38.8% 38.5% 38.5% 38.5% 38.1%	Period  LTM  LTM-1Y  LTM-1Y  LTM-2Y  LTM-3Y  LTM-4Y  LTM-5Y  LTM-6Y  LTM-7Y  LTM-8Y  LTM-9Y  VACC  9.6%  9.8%  9.8%  9.8%  9.9%  10.1%  10.3%  10.4%  10.6%	-21% 10% 9% 8% 7% 6% 5% 4% 3% 3%  EVA  \$4,696.48 \$4,643.39 \$4,064.29 \$4,031.79 \$4,103.55 \$4,216.04 \$4,360.12 \$4,402.95	18% 18% 18% 18% 18% 19% 19% 19% 19% 20%  Paterprise Value  \$68,958.44 \$70,618.76 \$71,716.62 \$73,571,35 \$75,626.57 \$77,779.94 \$80,118.53 \$82,350.40	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,645.14 \$13,024.50  Total Debt \$10,984.89 \$11,063.73 \$12,166.71 \$12,835.85 \$13,236.52 \$13,255.74 \$13,255.74 \$13,255.74	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,298.82 \$5,518.60 \$5,734.56 \$5,928.76 \$6,080.83 \$6,244.21 Other claims \$44,857.41 \$46,992.72 \$47,025.99 \$47,075.47 \$47,075.47 \$46,919.35 \$46,312.24	Invested capital \$10,907,40 \$12,279,64 \$12,298.01 \$13,671.75 \$14,315.63 \$14,906.36 \$15,558.98 \$16,010.71 \$16,360.93 \$16,713.11  Equity \$13,116.14 \$12,562.31 \$12,525.97 \$13,683.91 \$15,314.58 \$17,426.62 \$19,943.43 \$22,763.42	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,477.03 \$5,730.62 \$5,892.03 Adjusted Price \$30.03 \$29.04 \$29.35 \$32.21 \$36.17 \$41.31 \$47.11 \$53.77
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM-1Y LTM-2Y LTM-2Y LTM-3Y LTM-5Y LTM-6Y LTM-6Y LTM-7Y LTM-8Y	1.50 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3%  ROIC 52.7% 47.6% 41.1% 39.4% 38.8% 38.5% 38.5% 38.5% 38.5% 38.1% 38.0%	Period  LTM  LTM-1Y  LTM-1Y  LTM-2Y  LTM-3Y  LTM-5Y  LTM-6Y  LTM-6Y  LTM-7Y  LTM-8Y  LTM-9Y   VACC  9.6%  9.8%  9.8%  9.8%  9.8%  10.1%  10.3%  10.4%  10.6%  10.8%	-21½ 10½ 9% 8% 7% 6% 5% 4½ 3% 3% <b>Yaluati EVA</b> \$4,696.48 \$4,643.39 \$4,064.29 \$4,031.79 \$4,103.55 \$4,216.04 \$4,360.12 \$4,402.95 \$4,444.9.15	18% 18% 18% 18% 18% 19% 19% 19% 20%  Enterprise Value \$68,958.44 \$70,618.76 \$71,716.62 \$73,571.35 \$75,626.57 \$77,779.94 \$80,18.53 \$82,350.40 \$84,638.32	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,276.84 \$12,645.14 \$13,024.50  Total Debt \$10,984.89 \$11,063.73 \$12,166.71 \$12,835.85 \$13,236.52 \$13,255.74 \$13,255.74 \$13,255.74	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,238.82 \$5,518.60 \$5,734.56 \$5,928.76 \$6,080.83 \$6,244.21 Other claims \$44,857.41 \$46,992.72 \$47,023.94 \$47,055.59 \$47,075.47 \$47,097.57 \$46,313.24 \$45,459.02	Invested capital  \$10,907.40 \$12,279.64 \$12,298.01 \$13,671.75 \$14,315.63 \$14,906.36 \$15,558.98 \$16,010.71 \$16,360.93 \$16,713.11  Equity \$13,116.14 \$12,562.31 \$12,529.97 \$13,683.91 \$15,314.58 \$17,426.62 \$19,943.43 \$22,763.42 \$25,983.56	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,477.03 \$5,730.62 \$5,892.03 Adjusted Price \$30.03 \$29.04 \$29.35 \$32.21 \$36.17 \$41.31 \$47.11 \$53.77 \$61.34
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM-1Y LTM-2Y LTM-2Y LTM-5Y LTM-5Y LTM-5Y LTM-5Y LTM-6Y LTM-7Y	150 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3%  ROIC 52.7% 47.6% 41.1% 38.4% 38.8% 38.5% 38.5% 38.5% 38.1%	Period  LTM  LTM-1Y  LTM-2Y  LTM-3Y  LTM-6Y  LTM-6Y  LTM-7Y  LTM-8Y  LTM-9Y   WACC  9.6%  9.8%  9.8%  9.8%  10.1%  10.3%  10.4%  10.6%  10.8%  10.9%	-21½ 10½ 9% 8½ 7% 6% 5½ 4½ 3% 3%  *** **EVA** \$4,696.48 \$4,643.39 \$4,064.29 \$4,03.79 \$4,103.55 \$4,216.04 \$4,360.12 \$4,402.95 \$4,449.15 \$4,454.58	18% 18% 18% 18% 18% 19% 19% 19% 19% 20%  Paterprise Value  \$68,958.44 \$70,618.76 \$71,716.62 \$73,571,35 \$75,626.57 \$77,779.94 \$80,118.53 \$82,350.40	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,645.14 \$13,024.50  Total Debt \$10,984.89 \$11,063.73 \$12,166.71 \$12,835.85 \$13,236.52 \$13,255.74 \$13,255.74 \$13,255.74	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,238.82 \$5,518.60 \$5,724.56 \$5,928.76 \$6,080.83 \$6,244.21 Other claims \$44,857.41 \$46,992.72 \$47,023.94 \$47,075.47 \$47,075.47 \$47,097.57 \$46,919.35 \$46,312.4 \$45,459.02 \$44,405.72	Invested capital \$10,907.40 \$12,279.64 \$12,298.01 \$13,671.75 \$14,315.63 \$14,906.36 \$15,556.98 \$16,010.71 \$16,360.93 \$16,713.11  Equity \$13,116.14 \$12,562.31 \$12,525.97 \$13,683.91 \$15,314.58 \$17,426.62 \$19,943.43 \$22,763.42 \$25,983.56 \$29,574.05	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,770.02 \$5,892.03 Adjusted Price \$30.03 \$29.04 \$29.35 \$32.21 \$36.17 \$41.31 \$47.11 \$53.77 \$61.34 \$88.22
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM-1Y LTM-2Y LTM-2Y LTM-3Y LTM-5Y LTM-6Y LTM-6Y LTM-7Y LTM-8Y	1.50 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3%  ROIC 52.7% 47.6% 41.1% 39.4% 38.8% 38.5% 38.5% 38.5% 38.5% 38.1% 38.0%	Period  LTM  LTM-1Y  LTM-1Y  LTM-2Y  LTM-3Y  LTM-5Y  LTM-6Y  LTM-6Y  LTM-7Y  LTM-8Y  LTM-9Y   VACC  9.6%  9.8%  9.8%  9.8%  9.8%  10.1%  10.3%  10.4%  10.6%  10.8%	-21½ 10½ 9% 8½ 7% 6% 5½ 4½ 3% 3%  *** **EVA** \$4,696.48 \$4,643.39 \$4,064.29 \$4,03.79 \$4,103.55 \$4,216.04 \$4,360.12 \$4,402.95 \$4,449.15 \$4,454.58	18% 18% 18% 18% 18% 19% 19% 19% 20%  Enterprise Value \$68,958.44 \$70,618.76 \$71,716.62 \$73,571.35 \$75,626.57 \$77,779.94 \$80,18.53 \$82,350.40 \$84,638.32	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,276.84 \$12,645.14 \$13,024.50  Total Debt \$10,984.89 \$11,063.73 \$12,166.71 \$12,835.85 \$13,236.52 \$13,255.74 \$13,255.74 \$13,255.74	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,238.82 \$5,518.60 \$5,724.56 \$5,928.76 \$6,080.83 \$6,244.21 Other claims \$44,857.41 \$46,992.72 \$47,023.94 \$47,075.47 \$47,075.47 \$47,097.57 \$46,919.35 \$46,312.4 \$45,459.02 \$44,405.72	Invested capital  \$10,907.40 \$12,279.64 \$12,298.01 \$13,671.75 \$14,315.63 \$14,906.36 \$15,558.98 \$16,010.71 \$16,360.93 \$16,713.11  Equity \$13,116.14 \$12,562.31 \$12,529.97 \$13,683.91 \$15,314.58 \$17,426.62 \$19,943.43 \$22,763.42 \$25,983.56	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,770.02 \$5,892.03 Adjusted Price \$30.03 \$29.04 \$29.35 \$32.21 \$36.17 \$41.31 \$47.11 \$53.77 \$61.34 \$88.22
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Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITOA Justified TEV/EBITOA Justified TEV/UFCF  LTM LTM-1Y LTM-2Y LTM-2Y LTM-4Y LTM-5Y LTM-5Y LTM-6Y LTM-6Y LTM-7Y LTM-7Y LTM-8Y LTM-8Y LTM-8Y LTM-8Y LTM-8Y LTM-8Y LTM-8Y	150 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3%  ROIC 52.7% 47.6% 41.1% 39.4% 38.8% 38.5% 38.5% 38.5% 38.1% 38.0% 38.2%  Base	Period  LTM-17  LTM-17  LTM-27  LTM-37  LTM-47  LTM-57  LTM-57  LTM-67  LTM-77  LTM-87  LTM-97   VACC  9.6%  9.8%  9.8%  9.8%  9.8%  10.1%  10.3%  10.4%  10.6%  10.8%  10.9%  Monte Carlo Simulation As Steev  10%	-21% 10% 9% 8% 7% 6% 5% 4% 3% 3%  EVA  \$4,696.48 \$4,643.39 \$4,064.29 \$4,031.79 \$4,103.55 \$4,216.04 \$4,360.12 \$4,402.95 \$4,449.15 \$4,554.58  ssumptions Min	18% 18% 18% 18% 18% 19% 19% 19% 19% 19% 20%  Enterprise Value \$68,958.44 \$70,618.76 \$71,716.62 \$73,571.35 \$75,626.57 \$77,779.94 \$80,118.53 \$82,350.40 \$84,698.32 \$87,235.51	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,276.84 \$12,645.14 \$13,024.50  Total Debt \$10,984.89 \$11,063.73 \$12,166.71 \$12,835.85 \$13,236.52 \$13,255.74 \$13,255.74 \$13,255.74 \$13,255.74	\$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,238.82 \$5,518.60 \$5,734.56 \$5,928.76 \$6,080.83 \$6,244.21 Other claims \$44,857.41 \$46,992.72 \$47,023.94 \$47,051.59 \$47,075.47 \$47,075.57 \$46,313.24 \$45,459.02 \$44,405.72 Monte (	Invested capital	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,730.62 \$5,730.62 \$5,892.03 Adjusted Price \$30.03 \$29.04 \$29.35 \$32.21 \$36.17 \$41.31 \$47.11 \$53.77 \$61.34 \$68.22 Besults 19-Target \$29.04 \$0.05
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM-1Y LTM-2Y LTM-2Y LTM-5Y LTM-5Y LTM-5Y LTM-6Y LTM-7Y LTM-8Y LTM-9Y LTM-9Y LTM-9Y LTM-9Y LTM-9Y LTM-9Y LTM-9Y LTM-SY LTM	150 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3%  ROIC 52.7% 47.6% 41.1% 39.4% 38.8% 38.5% 38.5% 38.5% 38.1% 38.0% 38.2%  Base 0 0 6%	Period  LTM  LTM-1Y  LTM-2Y  LTM-3Y  LTM-4Y  LTM-5Y  LTM-6Y  LTM-6Y  LTM-7Y  LTM-8Y  LTM-9Y   VACC  9.6%  9.8%  9.8%  9.8%  9.8%  10.1%  10.3%  10.4%  10.6%  10.8%  10.8%  10.9%  Monte Carlo Simulation As Stdev  10%  N/A	-21% 10% 9% 8% 7% 6% 5% 4% 3% 3%  Yaluati EVA  \$4,696.48 \$4,643.39 \$4,064.29 \$4,031.79 \$4,103.55 \$4,216.04 \$4,360.12 \$4,402.95 \$4,449.15 \$4,554.58  SSUMPTIONS MIN N/A N/A 5%	18% 18% 18% 18% 18% 19% 19% 19% 19% 19% 20%  On Enterprise Value \$68,958,44 \$70,618,76 \$71,716,62 \$73,571,35 \$75,626,57 \$77,779,94 \$80,118,53 \$82,350,40 \$84,698,32 \$87,235,51  Max N/A N/A 7%	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,645.14 \$13,024.50  Total Debt \$10,984.89 \$11,063.73 \$12,166.71 \$12,835.85 \$13,236.52 \$13,255.74 \$13,255.74 \$13,255.74 \$13,255.74 \$13,255.74 \$13,255.74	**NOPLAT** \$5,744.52 \$5,18.14 \$5,044.82 \$5,118.95 \$5,299.82 \$5,518.60 \$5,734.56 \$5,928.76 \$6,080.83 \$6,244.21  **Other claims** \$44,857.41 \$46,992.72 \$47,025.99 \$47,075.47 \$47,097.57 \$46,919.35 \$46,331.24 \$45,459.02 \$444,405.76 **Monte !**  **Mean est. σ(ε) σ(ε) adjusted pric.	Invested capital  \$10,907.40 \$12,279.64 \$12,298.01 \$13,671.75 \$14,315.63 \$14,306.36 \$15,558.98 \$16,010.71 \$16,360.93 \$16,713.11  Equity \$13,116.14 \$12,562.31 \$12,525.97 \$13,683.91 \$15,314.58 \$17,426.62 \$19,943.43 \$22,763.42 \$25,983.56 \$22,574.342 \$22,763.42 \$25,983.56 \$22,574.343 \$22,763.42 \$25,983.56 \$30,033 \$30.03 \$30.03 \$30.03 \$30.03 \$\$30.03 \$\$30.03 \$\$30.03	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,477.03 \$5,730.62 \$5,892.03 Adjusted Price \$30.03 \$29.04 \$29.35 \$32.21 \$36.17 \$41.31 \$47.11 \$53.77 \$61.34 \$68.22 Results 19-Target \$29.04
Unlevered Beta Revilnvested Capital Continuing Period Revenue Gro- Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM-1Y LTM-2Y LTM-2Y LTM-5Y LTM-5Y LTM-5Y LTM-6Y LTM-7Y LTM-8Y LTM-8Y LTM-8Y LTM-9Y  Revenue Variation Op. Costs Variation	150 100.0% 3.0% 11.3% Equals to Maintenance 3.4% 11.6% 13.3% 21.3%  ROIC 52.7% 47.6% 41.1% 39.4% 38.8% 38.5% 38.5% 38.1% 38.0% 38.2%  Base 0 0	Period  LTM-17  LTM-17  LTM-27  LTM-37  LTM-47  LTM-57  LTM-57  LTM-67  LTM-77  LTM-87  LTM-97   VACC  9.6%  9.8%  9.8%  9.8%  9.8%  10.1%  10.3%  10.4%  10.6%  10.8%  10.9%  Monte Carlo Simulation As Steev  10%	-21% 10% 9% 8% 7% 6% 5% 4% 3% 3%  EVA \$4,696,48 \$4,696,48 \$4,643,39 \$4,064,29 \$4,031,79 \$4,103,55 \$4,216,04 \$4,360,12 \$4,402,95 \$4,449,15 \$4,554,58 \$ssumptions Min N/A	18% 18% 18% 18% 18% 19% 19% 19% 19% 19% 20%  On  Enterprise Value  \$68,958.44 \$70,618.76 \$71,716.62 \$73,571.35 \$75,626.57 \$77,779.94 \$80,118.53 \$82,350.40 \$84,698.32 \$87,235.51  Max N/A N/A	\$7,654.76 \$8,420.23 \$9,178.05 \$9,912.30 \$10,606.16 \$11,242.53 \$11,804.65 \$12,276.84 \$12,276.84 \$12,2645.14 \$13,024.50  Total Debt \$10,984.89 \$11,063.73 \$12,166.71 \$12,835.85 \$13,236.52 \$13,255.74 \$13,255.74 \$13,255.74 \$13,255.74 \$13,255.74  Distribution  Normal Normal	**NOPLAT** \$5,744.52 \$5,188.14 \$5,044.82 \$5,118.95 \$5,238.82 \$5,518.60 \$5,724.56 \$5,928.76 \$6,080.83 \$6,244.21  **Other claims** \$44,857.41 \$46,992.72 \$47,023.94 \$47,075.47 \$47,075.47 \$47,097.57 \$46,919.35 \$46,312.4 \$45,459.02 \$44,405.72  **Monte !**  **Mean est.** σ(ε)	Invested capital	\$5,744.52 \$3,815.91 \$4,336.45 \$4,435.21 \$4,654.94 \$4,927.87 \$5,081.94 \$5,477.03 \$5,730.62 \$5,892.03 Adjusted Price \$30.03 \$29.04 \$29.35 \$32.21 \$36.17 \$41.31 \$47.11 \$53.77 \$61.34 \$68.22 Besults 19-Target \$29.04 \$29.05



#### MasTec Inc.

NYSE: MTZ

Analyst: Kyle White
Sector: Industrials

BUY

Price Target: \$27.00

# Key Statistics as of 3/04/2015

Market Price: \$21.16

Industry: Engineering & Construction

Market Cap: \$1.7 B

52-Week Range: \$17.95-44.80

Beta: 1.00

## Thesis Points:

- Strong fundamentals in terms of revenue and EBITDA growth
- Increasingly diversified portfolio
- Significant unrealized potential in future critical infrastructure development projects
- Unfairly sold off because of connections to oil

# **Company Description:**

MasTec, Inc., an infrastructure construction company, provides engineering, building, installation, maintenance, and upgrade services for energy, utility, and communications infrastructure primarily in the United States. It operates in five segments: Communications, Oil and Gas, Electrical Transmission, Power Generation and Industrial, and Other. The company builds pipelines for natural gas, crude oil, and refined product transportation; underground and overhead distribution systems comprising trenches, conduits, and cable and power lines that provide wireless and wireline communications; electrical power generation, transmission, and distribution systems; power generation infrastructure, including renewable energy; heavy industrial plants; and compressor and pump stations, and treatment plants. It also installs electrical and other energy distribution and transmission systems, power generation facilities, buried and aerial fiber optic cables, coaxial cables, copper lines, and satellite dishes in various environments. In addition, the company provides maintenance and upgrade support services that consist of maintenance of distribution facilities; and networks and infrastructure, including natural gas and petroleum pipelines, wireless, power generation, and electrical distribution and transmission infrastructure, as well as emergency services for accidents or storm damage, and routine replacements and upgrades to overhauls.





#### **Thesis**

MasTec is an incredibly diverse engineering and construction firm, having gone from a company that primarily deals in communications to one that deals in communications, power generation, industrials, oil and gas field services, and power transmission systems. While the company has access to a diverse and robust backlog, as well as prospective future projects in all of its segments, the market has misjudged the impact that declining commodity prices should have had on the company. As a result, MasTec has declined from a 52 week high of \$44.80 to \$21.16, only 17% above a low of \$17.95. The exaggerated selloff however presents an excellent buying opportunity. The stock's current fair value is approximately \$24, showing that it has indeed been oversold, but with an estimated 1-year target of \$27, a 29.5% return is possible on this truly cheap stock.

# **Strong Fundamentals**

MasTec is a buy for many reasons but few are more compelling than its stellar revenue streams, EBITDA growth, reasonable debt levels, and its ability to generate cash through strong free cash flows. Starting in 2007, the company begins to exhibit strong revenue growth brought on by exposure to opportunities in new sectors. From 2004 to 2006 the company only exhibited a growth rate of 1.7% in its primary operating arena of communications with major clients like AT&T and Verizon. In 2007, now in the capable hands of newly appointed CEO Jose Mas, a new direction was realized in that the company's future couldn't lie in telecom alone. Through a series of strategic acquisitions starting in 2007 the company began to realize increased revenue streams exhibiting a CAGR of 21% over the last 6 years. Looking towards the future it is the consensus that this strong year over year growth should continue, lending to the fact that the company makes for a sound investment. The majority of this growth in revenues can be attributed to communications and oil, but a significant portion of the company's revenue streams are derived from transmission and power generation contracts. Going beyond revenue streams, the company has managed to make impressive process in terms of its EBITDA growth. Pre- 2007 the company's EBITDA did experience significant growth, but those results are hardly comparable, seeing that as of today, growth in EBITDA has been nearly been 600% of 2007 levels. On top of this improvement, EBITDA has managed to outpace growth in revenue by 1.5x, meaning the company has been able to drive down its operating cost of the years, a promising sign moving towards the future. Not all of this growth was supported purely by equity however. The company which was to purchase increasingly equipment as it expanded into new segments, forced the company to take on a sizable amount of debt, and the company has move from a D?E ratio of .46 to 1.0 as of 2013. With ability to service debt at 6 ½ times though, the company exhibits a credit rating of AAA, meaning that company is in a strong position to take on more debt if necessary. One of the most attractive areas of MasTec's financials is its ability to generate cash flows, which in 2014 represented 244 million dollars. This strong cash generation means that future growth can in large part be sponsored out of the companies current operations, meaning less reliance on debt and equity issues, which could serve to drive down the value of the firm. All of these aspects serve to make MasTec very attractive.

# **Increasing Diversification**

This is one of the company's strongest drivers of value moving into the future. Currently the company has contracts in communications, oil and gas, power transmission, and power generation, industrial, and what is written down as other (civil engineering projects). Of these telecommunications represents the largest percentage of revenue as well as its highest margin business, followed sequentially by the others. The level of diversification the company has adopted allows the company some degree of freedom as it moves through various business cycles, as none of the industries it serves are highly correlated with one another meaning that an otherwise cyclical business has some degree of protection. Diversification allows other benefits as well though. As mentioned previously, major companies revenue streams communication and energy development, which have experienced tremendous growth in recent years



lending to the companies increased revenue and EBITDA, a major benefit is it allows the company to engage in power transmission, power development, and civil engineering projects, which currently have smaller EBITDA margins and revenue streams. While this might seem at first a

detriment, as the companies experience grows in these areas, cost should go down as competencies increase, and margins should improve which is extremely valuable as activity in these areas is likely to increase significantly over the next decade. As oil and telecommunication are winding down this year, the ability for MasTec to achieve these goals would be extremely valuable.

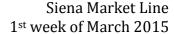
# Growth Potential in Infrastructure Upgrades

As mentioned previously, as MasTec diversifies itself in terms of operations, it engages itself increasingly in power transmission, industrials, and civil projects. A major benefit associated with this play is that it has the potential to capitalize on a situation that has recently started plaguing America, and must be addressed sooner than later in order to support continued economic growth. In a recent report by American Society of Civil Engineers, America received a overall average "GPA" of D+. This score is largely weighed down our Energy grid, roads, and wastewater facilities, which receive a D+, D, and D respectively, all of which MasTec has significant experience in dealing with. What does this mean for MasTec? Well running through the report, the following details can be weeded out, and the sleeping giant that is America's misfortune could prove to be a massive tailwind for MasTec. According to the report prepared by the ASCE, wastewater, which indirectly affects America's access to fresh water resources, is perhaps the most important piece of infrastructure available to it. As a result, the government requires a great deal of spending on wastewater systems by cities nationwide, approximately \$15 billion yearly in maintenance. What is more compelling is that in addition to this maintenance, over the next 20 years, America will need a 300 billion dollar overhaul in these critical system to prepare for projected population growth. While none of the firms in this space command a

significant portion of market share, MasTec's ability to create productive lasting relationships with its clients, and it tendency to pursue higher rate of return projects means that the company is not out of the race to take the lions share, or at least a valuable portion of it. Contending with wastewater for most debilitated infrastructure in America is roads, which on average, due to insufficient capacity cost the American public \$101 billion annually. Across America it is estimated that per annum, road maintenance and building costs will amount to \$170 billion, representing an incredible opportunity for the company. Of all the opportunities available to MasTec is the aging electrical grid and the ability to move into the renewable energy market, both of which they have significant experience in. Laying down some number, opportunities look like this in a quote from the ARRA "As the United States' transmission and distribution infrastructure ages, it is requiring more extensive maintenance and upgrades to avoid delivery failure. Furthermore, as the population increases and demand for electricity continues to grow modifications to the current infrastructure will become a necessity. As seen in the 2010 Annual Energy Outlook, energy consumption is expected to rise by 14% in conjunction with an increase in population of 28% from 2008 to 2035. In order to satisfy this increase, NERC estimated that over 34,000 miles of additional circuit must be added to current infrastructure. It is expected that this infrastructure will require investments of nearly \$27 billion from 2009 to 2013, and approximately \$300 billion by 2030. This offers a substantial opportunity for firms in the specialty contracting industry to obtain a steady source of revenue." This only represents the beginning tip of the iceberg, in terms of power development; smart grid upgrades, which are a major project for many power companies, are expected to be in the neighborhood \$10 billion annually and are likely to increase significantly. On top of this, renewables in the from of solar and wind represent another \$150 billion annually combined. All of these prospects look to provide steady revenue streams far into the future fro a company like MasTec.

# **Unfairly Sold**

While all of the above reasons demonstrate why





MasTec should and will continue to generate value into the future, it does not demonstrate why it is a buy in the current market. Has the company exhibited a substantial drop in stock price, anyone can see this, but that may be justified, so again, what makes this stock a buy. Well to put it simply, MasTec's exposure to the oil and gas industry was for many investors, too much. Many of those who invested in the company misinterpreted just in what way MasTec is actually connected to the industry. While overall, it is true, most of the oil industry is suffering right now, companies biggest hit are those connected to oil and gas exploration and production. MasTec does have relationships with many of these companies but not as much as investors would think. The company does have significant relationships with midstream companies that will be far less affected by the oil sell off. Many of the contracts slated in this pipeline industry are still very much on track for completion, with much of the companies backlog still set to move ahead. Reiterating the pro forma, the companies estimated fair value is approximately \$24, and with the price steadily climbing over the past few days.

#### **Forecasts**

Having recently posted earning last week, MasTec beat earning, surprising many analysts, yet the company provided only mild guidance for the remainder of 2015, although they were extremely optimistic concerning 2016. The company's management has suggested in a certain number of words that oil and gas may have significant impact on the stock throughout the course of the year, meaning that if things don't exactly pan out revenues could remain flat over the next few years. In a reserved estimation there 30% likelihood that this will happen, and in that instance the company will likely trade not much above what it does now, perhaps \$24, which is its fair value now. What is much more likely however is that the company will perform as adequately, with a probability of anywhere between 50 and 60%. In a dream scenario, the oil and gas industry will recover much more quickly than anticipated, and more contracts will flow towards MasTec, meaning revenue beats throughout the company should enjoy a lofty boost as well. As a final recommendation, MasTec is an extremely attractively priced security for many of the reason listed above, and given its overselling in the market, it looks to be remain that way, but not for much longer. Given the

1 year target price of \$27, this stock has a healthy return of around 30% with limited downside given the companies strengths and attractive positioning. This is a stock that shouldn't go overlooked.

# **CENTER FOR GLOBAL FINANCIAL STUDIES**

Current Price \$21.12

Analyst Kyle White Intrinsic Value \$24.36 Target Value \$27.35 Divident Yield 0%

General Info		Peers	Market Cap.		Mana	agement			
Sector	Industrials	Dycom Industries Inc.	\$1,564.74	Professional	Title	Comp. FY2012	Comp. FY2013	Comp. FY2014	
Industry	Construction and Engineering	Quanta Services, Inc.	\$5,938.31	Mas, Jose	Chief Executive Officer and Direct		\$ 5,375,658.00	\$ -	
Last Guidance	Feb-26-2015	AECOM	\$4,672.05	Apple, Robert	Chief Operating Officer	\$ 1,791,889.00	\$ 1,923,171.00	\$ -	
Next earnings date	NM	EMCOR Group Inc	\$2,784.35	de Cardenas, Albert	Executive Vice President, Genera	\$ 1,301,093.00	\$ 1,265,498.00	\$ -	
<u>Marke</u>	et Data	KBR, Inc.	\$2,285.28	Pita, George	Chief Financial Officer, Principal .	\$ -	\$ -	\$ -	
Enterprise value	\$2,754.84	Tutor Perini Corporation	\$1,108.24	Lewis, J.	Vice President of Investor Relatic		\$ -	\$ -	
Market Capitalization	\$933.35	Primoris Services Corporation	\$922.94	Smith, Gary	Senior Viœ President of Commu S	\$ -	\$ -	\$ -	
Daily volume	0.86	Jacobs Engineering Group Inc.	\$5,617.19	Historical Performance					
Shares outstanding	81.88	Granite Construction Incorporated	\$1,308.85		MTZ	Peers	Industry	All U.S. firms	
Diluted shares outstanding	86.20	MYR Group, Inc.	\$562.28	Growth	24.3%	8.2%	8.2%	6.0%	
% shares held by institutions	77.02%	Current Capital St	tructure	Retention Ratio	90.8%	172.1%	55.9%	61.6%	
% shares held by insiders	18.81%	Total debt/market cap	38.52%	ROIC		2.8%	19.1%	11.8%	
Short interest	5.25%	Cost of Borrowing	5.41%	EBITA Margin	6.0%	4.7%	8.4%	13.7%	
Days to cover short interest	3.53	Interest Coverage	474.27%	Revenues/Invested capital	115.9%	225.9%	274.5%	202.3%	
52 week high	\$44.80	Altman Z		Excess Cash/Revenue	0.8%	9.3%	8.2%	18.5%	
52-week low	\$17.95	Debt Rating	AAA	Unlevered Beta	0.92	1.23	1.26	0.95	
5y Beta	1.38	Levered Beta	1.94	TEV/REV	0.7x	0.5x	0.7x	2.4x	
6-month volatility	56.06%	WACC (based on market value weights)	9.34%	TEV/EBITDA	7.9x	8.8x	9.9x	11.3x	
,	Past Earn	ning Surprises		TEV/EBITA	11.9x	10.8x	14.0x	15.4x	
	Revenue	EBITDA	Norm. EPS	TEV/UFCF	29.8x	32.6x	22.5x	26.8x	
Last Quarter	1.1%	1.8%	5.3%	,	Non GAAI	P Adjustments			
Last Quarter-1	0.2%	1.5%	1.8%	Operating Leases Capitalization	100%	Straightline	10	rears	
Last Quarter -2	1.1%	2.0%	0.0%	R&D Exp. Capitalization	100%	Straightline	10	rears	
Last Quarter -3	4.6%	0.6%	5.0%	Expl./Drilling Exp. Capitalization		N/A		/A	
Last Quarter -4	6.5%	0.3%	2.0%	SG&A Capitalization	0%	N/A		/A	
		Proforma Assumptions				Forecasted Prof			
		Period	Rev. Growth	Adj. Op. Cost/Rev	Revenue	NOPLAT	Invested capital	UFCF	
Operating. Cash/Cash	0.0%	LTM	7%	91%	\$4,614.84	\$234.72	\$2,184.91	\$234.72	
Unlevered Beta	1.40	LTM+1Y	5%	91%	\$4,845.58	\$217.79	\$2,367.76	\$34.93	
Rev/Invested Capital	100.0%	LTM+2Y	10%	90%	\$5,330.14	\$227.50	\$2,423.23	\$172.03	
Continuing Period Revenue Growth	3.0%	LTM+3Y	9%	90%	\$5,809.85	\$244.27	\$2,490.88	\$176.62	
Long Term ROIC	11.9%	LTM+4Y	8%	90%	\$6,274.64	\$265.30	\$2,554.06	\$202.12	
Invested Capital Growth	Follows Forward Rev. Growth	LTM+5Y	7%	90%	\$6,713.87	\$288.16	\$2,611.19	\$231.03	
Justified TEV/REV	2.0x	LTM+6Y	6%	90%	\$7,116.70	\$310.23	\$2,689.10	\$232.32	
Justified TEV/EBITDA	8.0x	LTM+7Y	5%	90%	\$7,472.53	\$331.07	\$2,758.48	\$261.68	
Justified TEV/EBITA	12.0x	LTM+8Y	4%	90%	\$7,771.44	\$349.55	\$2,819.77	\$288.26	
Justified TEV/UFCF	18.0x	LTM+9Y	3%	90%	\$8,004.58	\$364.70	\$2,873.91	\$310.56	
			Valuati						
	ROIC	WACC	EVA	Enterprise Value	Total Debt	Other claims	Equity	Adjusted Price	
LTM	10.7%	9.3%	\$30.71	\$3,074.59	\$1,061.16	-\$24.06	\$2,037.49	\$25.32	
LTM+1Y	10.0%	9.5%	\$10.00	\$3,309.14	\$1,061.16	\$7.62	\$2,240.36	\$28.10	
LTM+2Y	9.6%	9.8%	-\$3.60	\$3,489.17	\$1,061.16	-\$119.56	\$2,547.57	\$31.74	
LTM+3Y	10.1%	9.9%	\$3.94	\$3,639.83	\$1,061.16	-\$263.68	\$2,842.35	\$35.44	
LTM+4Y	10.7%	10.1%	\$14.43	\$3,805.42	\$1,061.16	-\$439.98	\$3,184.24	\$39.66	
LTM+5Y	11.3%	10.2%	\$27.50	\$3,963.29	\$1,061.16	-\$648.90	\$3,551.03	\$44.25	
LTM+6Y	11.9%	10.4%	\$40.63	\$4,108.75	\$1,061.16	-\$862.30	\$3,909.90	\$48.60	
LTM+7Y	12.3%	10.5%	\$50.08	\$4,272.78	\$1,061.16	-\$1,107.76	\$4,319.38	\$53.64	
LTM+8Y	12.7%	10.6%	\$57.53	\$4,424.78	\$1,061.16	-\$1,382.55	\$4,746.18	\$58.88	
LTM+9Y	12.9%	10.7%	\$62.93	\$4,564.23	\$1,061.16	-\$1,682.79	\$5,185.86	\$63.34	
	P	Monte Carlo Simulation Ass		M	Distribution	<u>Mon</u>	te Carlo Simulation Ro		
D W	Base	Stdev	Min	Max	Distribution		Intrinsic Value	1y-Target	
Revenue Variation	0	10%	N/A	N/A	Normal	Mean est.	\$25.32	\$28.10	
Op. Costs Variation	0	10%	N/A	N/A	Normal	σ(ε)	\$0.32	\$0.25	
Market Risk Premium	6%	N/A	5%	7%	_	3 σ(ε) adjusted price	\$24.36	\$27.35	
Long term Growth	3%	N/A	3%	24%	Triangular	Current Price	\$21.12	#2C 55	
Terminal Value	0	0.1	N/A	N/A	Normal	Analysts' median est.		\$28.55	

Sofian Belhadi



# Network-1 Technologies, Inc.

NYSEMKT: NTIP Sector: Technology

BUY

Price Target: \$3.10

## **Key Statistics** as of 3/4/2015

Market Price: \$2.24

Industry: Security Software & Services

Market Cap: \$54.88 M 52-Week Range: \$2.00 - 2.40

Beta: 0.39

## **Thesis Points:**

Additional patents acquired and effective for coming settlements

Analyst:

- Additional royalties will boost the growth
- Net operating loss carryforwards expiring in 2029

# **Company Description:**

Network-1 is focused on the acquisition, development, licensing and general enforcement of its intellectual property portfolio. We identify and acquire intellectual property from companies and inventors and implement industry-wide licensing programs on reasonable terms to enable widespread adoption. In this manner, Network-1 is able to maximize the value of the technologies and generate returns for the inventor's research and development investments. Inventors and firms that sell their intellectual property to Network-1 may retain a stake in the royalties generated by our licensing efforts. This enables them to protect and monetize their technology without the considerable expense and effort required to enforce intellectual property rights. Network-1 goal is to maximize the value of our portfolio for the benefit of shareholders and partners by generating high margin licensing revenues with limited operating risk and expenses. Network-1's current portfolio consists of six patents issued by the U.S. Patent Office that were originally developed and assigned to Merlot Communications. They relate to two rapidly growing technology spaces: delivery of Power over Ethernet (PoE) and quality of service (QoS) measures for delivery of multi-media traffic. Current licensing efforts are focused on providers of PoE source equipment and powered devices based on the IEEE 802.3af standard, which was ratified in June 2003. These devices are used for such emerging applications as Voice over IP (VoIP) phones, wireless access points, RFID sensors and networked security cameras, among others. PoE technology delivers tremendous cost savings, reliability and network consolidation benefits that have an immediate and substantial impact on a business's bottom line.





## Management

Network-1 is composed of three full time employees. The management is led by M. Horowitz 60 years old, Chief Executive Officer since December 2003. M. Horowitz has also helped Network-1 for financial advisory in the past with its other company CMH Capital Management Corp. M. Horowitz has a great expertise as an executive in the intellectual property field with his background in private equity and corporate transaction.

Mr. Kahn, CPA became Chief Financial Officer of the Company in January 2004. Since December 1989, Mr. Kahn has provided accounting and tax services on a consulting basis to private and public companies.

Mr. Greene is the Executive Vice President since 2013 is providing technical and marketing analysis for Network-1's intellectual property.

Network-1 has two consultants that are working closely with the CEO, CFO, and the EVP. Mr. Pearlman is the CEO of Liberation Investment Group and Mr. Harizman is the managing member of Tyto Capital Partners LLC.

The management of the company is very experienced with an average age of 58 years old. The management is more likely to act in the best interest of the company, as their interests are right in line with that of the shareholders. Insiders own 24.90% of NTIP's stock as of today.



#### **Thesis**

Network-1 is looking for opportunity as it develops patents and licenses intellectual properties. The company is a disruptive patent troll that buys relevant patents such as "remote power patent" and then run a patent infringement and potentially receives royalties from infringers companies. The company has been able to generate profitable revenues from licensing agreement in

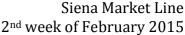
the past with only one U.S. Patent No. 6,218,930 acquired in 2003. Presently the company owns a patent portfolio that has the potential to payoff in the coming year. The company has not appeared in analyst radar since previously it was a microcap and was traded over the counter. The company is a BUY because of its high liquidity, gross profit increase, and lower capital expenditures to come.

## Additional Patents acquired

Network-1 Technologies, Inc. had invested in 2010 in U.S. Patent 6,218,930 which is a solution to power equipment over Ethernet network. The company was able to label it IEEE 802.3af Power Ethernet standard and made the patent unavoidable for most of equipment makers due to the trend in the industry. Cisco (NASDAQ:CSCO) settled with Network-1 on the patent usage for a royalties agreement for up to \$8 million dollar per year until 2015 and up to \$9 million until 2020 when the patent would expire. At this point Cisco accounted for 77% of Network-1 revenues.

The U.S. Patent 6,218,930 provides detection of devices that are ready to receive power. This is essential to Power of Ethernet commercial viability because it simplifies management and prevents power from being sent to a device that cannot handle it, potentially damaging the device or creating a safety risk. The technology detained by Network-1 has still 5 years of usage until the patents expire. Therefore NTIP is on litigation with 12 users of the patents and the verdict has not yet being pronounced for Allied Telesis Inc., Avaya Inc., Axis Communication, Dell Inc., Hewlett Packard Company, Huawei Technologies Inc., Juniper Networks Inc., Nec Corporation, Polycom Inc., Electronics America. Shoretel Inc. and Corporation. On top of that the two USTTPo would be re-examined.

Network-1 is presently earnings revenue from the remote power patent and especially with Cisco royalties and could also create upfront payments from the 12 users of the patent. Considering the coming year NTIP add two patents in their portfolio. As of today those patents are not generating revenues, they have been bought in 2013. The Cox patent is a patent covering the identification of media content on the internet. The other patents added to the portfolio Mirror Worlds patents, the patents cover fundamental technologies that



pay an additional \$3.3 million.

In addition, the remote patent infringement is still under the loop for 12 companies; this can provide revenue stream in royalties or damages compensation for the coming year as Cisco did in 2010 and provide 19.3 million in EBITDA.

# Net operating loss and repurchasing share program

As of Dec 31, 2013 the company had net operating loss carryforwards (NOL) totaling approximatively \$25 million expiring through 2029 with a future tax benefit of \$8,581,000. The management is continuously evaluating the recoverability of the NOL. The income tax will be 0% due to the large net operating loss pool that is available

Since June 2014, Network- 1 had increased its repurchasing share program with up to 5 million of shares of the company common stock over the next 12 months. The company is sending a more aggressive signal to potential investors with a buyback program.

#### Conclusion

Network-1 Technologies is financially solid compared to other intellectual property companies. NTIP has an interesting existing portfolio of patents especially with the new patents acquired in 2013. Investors are either not aware of the company because it has just recently been listed on the NYSE, or probably because investors do not know that Network-1 has its main patent until 2020. Many companies are using the NTIP power patent because it is integrated directly into their products but do not pay for that right, an enforcement of the law would be beneficial.

Network-1 is sitting on 19.2 million of cash and a significant 24.9% of ownership. The NOL could enable the company to increase their profitability. The dispute over the "content ID" against Apple and Microsoft has the potential to create a sustainable growth for investors. Consider the company as growing opportunities because revenues from big players are increasing over the year. NTIP receive royalties over a percentage of products sales, the Power over Ethernet is growing with Cisco and other competitors which means that NTIP has substantial revenues on the line.

enable unified search and indexing, displaying and archiving of documents in computer systems. Network-1 is accusing "Mac OS, Windows operating system and personal computers and tablets that include versions of

enable unified search and indexing, displaying and archiving of documents in computer systems. Network-1 is accusing "Mac OS, Windows operating system and personal computers and tablets that include versions of those operating systems, and by encouraging others to make, sell and use the products" and seek for damages. As an example the jury awarded \$208.5 million in damages but the court has not yet ruled on this motion. There is different type of source of revenues for Network-1 over the coming year either in royalties or in upfront payment. On December 4th 2014, NTIP started a patent litigation against Google (NASDAQ:GOOG) and YouTube for a newly issued patent covering the tagging of media contents. The management continues its addition to patent in their portfolio in order to insure their intellectual property is strong enough for the future.

# Additional royalties

Network-1 Technologies, Inc. has a market capitalization of 56.3M with 19.7 million in cash and no debt. The company has revenue growth YoY of 11.4% with a gross profit that is increasing over the last three years and reached 8.4 million during the last quarter. The EBITDA is also increasing over the last three years with 5.5 million. The free cash flow in 2014 is recovering from capital expenditure that Network-1 made to purchase the additional portfolio in 2013 with <4.5 million >. The company is very liquid with a current ratio of 26.91 for 2013.

10 Profitability 10 Growth 10 Credit	A Liquidity 19	Working Capital	10 Yield Ana	lysis 1/1 DuPo	ont Analysis	
In Millions of USD except Per Share	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
12 Months Ending	2008-12-31	2009-12-31	2010-12-31	2011-12-31	2012-12-31	2013-12-31
■ Cash Ratio	13.31	5.17	9,84	12.26	27.31	25,48
■ Current Ratio	13,75	5,49	10.50	12.79	28.52	26.91
■ Quick Ratio	13.31	5.17	9.84	12.26	27.31	25,48
	-4,00	-3.17	14.51	1.01	2.09	3,43
■ Common Equity/Total Assets	92.89	82.33	90.51	94.06	97.23	97.58

The revenue of network come from infringement of the patents, Cisco agreed to pay \$8M in 2015 and \$9M over the 2016-2020 period. It is relevant to note that Cisco infringement had been updated; Network-1 asked for a reexamination the royalties paid in 2003, Cisco agreed to



#### **Forecasts**

The valuation on the next page assumes a year over year growth rate in revenue of 2% for FY2014, 1000% for FY2015. It assumes a conservative long term growth rate of 3.2% and multiples lower than the peer group. It assumes that total operating costs will be 48.7% of the revenues in FY2014, will decrease to 47.4% FY2015 to reach a long term of 50% which is lower than every peer. NTTP is mispriced due to poor coverage, misunderstanding of the industry and NTTP quality patent portfolio with pending lawsuit development with 11 large cap companies. Based on these assumptions, the 1 year target price of \$4.42 seems to be a fair valuation of Network-1 Technologies.



		CENTER FO	OR GLOBAL	FINANCIAL ST	ΓUDIES			
Network-1 Technologies,	NTIP	Analyst Sofian Belhadj	Current Price \$2.29	Intrinsic Value \$4.21	Target Value \$4.42	Divident Yield 0%	Target Return	BULLISH
Gener	ral Info	Peers	Market Cap.	Ψ1.21		nagement	72.0070	
Sector	Information Technology	Marathon Patent Group, Inc.	\$101.73	Professional	Title	Comp. FY2011	Comp. FY2012	Comp. FY2013
Industry	Communications Equipment	ITUS Corporation	\$19.75	Horowitz, Corey	Chairman and Chief Executive C			
Last Guidanœ	(Invalid Identifier)	Document Security Systems, Inc.	\$18.66	Kahn, David	Chief Financial Officer, Principal	. , ,	\$ 193,000.00	. , ,
Next earnings date	4/2/2015	Pendrell Corporation	\$274.83	Greene, Jonathan	Executive Vice President and Me	- /	\$ 294,000.00	- /
	tet Data	r charca corporation	\$274.05	Olsen, Robert	0			\$ -
Enterprise value	\$36.34			Ranum, Marcus	Other Professional			\$ -
Market Capitalization	\$861.31	Zhone Technologies Inc.	\$43.55	Randin, Marcus	Other Froressional	· -	-	-
Daily volume	1.17	Zhone reamologies me	943.33	Historical Performance				
	24.47	Calix Inc.	\$434.64	HISTOFICAL PERFORMANCE	NTIP	Peers	Industry	All U.S. firms
Shares outstanding		Calix Inc	\$434.04					
Diluted shares outstanding	28.07			Growth	206.3%	4.2%	10.4%	6.0%
% shares held by institutions	78.69%	Current Capital	Structure	Retention Ratio	4.8%	-32.1%	70.4%	61.6%
% shares held by insiders	38.66%	Total debt/market cap	0.00%	ROIC		-3.7%	17.1%	11.8%
Short interest	0.07%	Cost of Borrowing	0.00%	EBITA Margin	0.0%	-4.7%	12.1%	13.7%
Days to cover short interest	0.89	Interest Coverage		Revenues/Invested capital	114.8%	58.3%	127.2%	202.3%
52 week high	\$2.40	Altman Z	42.94	Excess Cash/Revenue	#DIV/0!	55.6%	44.2%	18.5%
52-week low	\$1.46	Debt Rating	AAA	Unlevered Beta	0.98	1.58	1.26	0.95
5v Beta	0.93	Levered Beta	1.01	TEV/REV	2.6x	3.5x	2.2x	2.4x
6-month volatility	26.66%	WACC (based on market value weights)	8.28%	TEV/EBITDA	1.8x	J.JA	14.2x	11.3x
0-month volatility		ning Surprises	0.2070	TEV/EBITA	1.8x		17.8x	15.4x
	Revenue	EBITDA	Norm, EPS	TEV/UFCF	1.3x	59.8x	25.4x	26.8x
Last Quarter	0.0%	0.0%	0.0%	TEV/ OFCF		AP Adiustments	2J.4X	20.0X
				0 3 1 6 5 5 3			10 ye	
Last Quarter-1	0.0%	0.0%	0.0%	Operating Leases Capitalization	100%	Straightline		
Last Quarter -2	0.0%	0.0%	0.0%	R&D Exp. Capitalization	0%	N/A	N/	
Last Quarter -3	0.0%	0.0%	0.0%	Expl./Drilling Exp. Capitalization		N/A	N/	
Last Quarter -4	0.0%	0.0%	0.0%	SG&A Capitalization	0%	N/A	N/	A
		Proforma Assumptions Period	Rev. Growth	Adj. Op. Cost/Rev	Revenue	Forecasted Profi NOPLAT	itability Invested capital	UFCF
								20.44
Operating Cash/Cash	0.0%	LTM	34%	28%	\$11.84	\$6.43	\$10.02	
Operating. Cash/Cash	0.0%	LTM LTM+1V	34% 754%	28%	\$11.84 \$101.17	\$6.43 \$38.04	\$10.02 \$16.66	\$8.61 \$32.58
Unlevered Beta	1.00	LTM+1Y	754%	43%	\$101.17	\$38.04	\$16.66	\$32.58
Unlevered Beta Rev/Invested Capital	1.00 115.0%	LTM+1Y LTM+2Y	754% -66%	43% 43%	\$101.17 \$34.70	\$38.04 \$13.02	\$16.66 \$11.10	\$32.58 \$18.57
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth	1.00 115.0% 3.2%	LTM+1Y LTM+2Y LTM+3Y	754% -66% -92%	43% 43% 42%	\$101.17 \$34.70 \$2.64	\$38.04 \$13.02 \$0.95	\$16.66 \$11.10 \$8.61	\$32.58 \$18.57 \$3.44
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC	1.00 115.0% 3.2% 11.9%	LTM+1Y LTM+2Y LTM+3Y LTM+4Y	754% -66% -92% 1%	43% 43% 42% 42%	\$101.17 \$34.70 \$2.64 \$2.66	\$38.04 \$13.02 \$0.95 \$0.95	\$16.66 \$11.10 \$8.61 \$8.62	\$32.58 \$18.57 \$3.44 \$0.95
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth	1.00 115.0% 3.2% 11.9% Equals to Maintenance	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y	754% -66% -92% 1% 1%	43% 43% 42% 42% 43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV	1.00 115.0% 3.2% 111.9% Equals to Maintenance 2.6x	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y	754% -66% -92% 1% 1%	43% 43% 42% 42% 43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.95 \$0.96	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA	1.00 115.0% 3.2% 11.19% Equals to Maintenance 2.6x 7.0x	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y	754% -66% -92% 1% 1% 1% 1%	43% 43% 42% 42% 43% 43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA	1.00 115.0% 3.2% 11.9% Equals to Maintenance 2.6x 7.0x 8.0x	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+6Y LTM+7Y LTM+8Y	754% -66% -92% 1% 1% 1% 1% 1% 1%	43% 43% 42% 42% 43% 43% 43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA	1.00 115.0% 3.2% 11.19% Equals to Maintenance 2.6x 7.0x	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y	754% -66% -92% 1% 1% 1% 1% 1% 1%	43% 43% 42% 42% 43% 43% 43% 43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA	1.00 115.0% 3.2% 11.9% Equals to Maintenance 2.6x 7.0x 8.0x	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+6Y LTM+7Y LTM+8Y	754% -66% -92% 1% 1% 1% 1% 1% 1%	43% 43% 42% 42% 43% 43% 43% 43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA	1.00 115.0% 3.2% 111.9% Equals to Maintenance 2.6x 7.0x 8.0x 13.0x	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+7Y LTM+8Y LTM+9Y	754% -66% -92% 1% 1% 1% 1% 1% 1% 1% 1% 1%	43% 43% 42% 42% 43% 43% 43% 43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77 \$2.80	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97 \$0.97	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68 \$8.71	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96 \$0.95
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF	1.00 115.0% 3.2% 11.19% Equals to Maintenance 2.6x 7.0x 8.0x 13.0x	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+7Y LTM+8Y LTM+9Y	754% -66% -92% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%	43% 43% 42% 42% 43% 43% 43% 43% 43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77 \$2.80	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97 \$0.97	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68 \$8.71 Equity \$110.01	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96 \$0.95
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM+1Y	1.00 115.0% 3.2% 11.9% Equals to Maintenance 2.6x 7.0x 8.0x 13.0x ROIC 52.7% 351.2%	LTM+1Y LTM+2Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+7Y LTM+8Y LTM+9Y  WACC  8.3% 8.4%	754% -66% -92% 1% 1% 1% 1% 1% 1% 1% 4% 1% 54:12 \$63:00	43% 43% 42% 42% 43% 43% 43% 43% 43% 43%  Enterprise Value \$55.81	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77 \$2.80 Total Debt \$0.00 \$0.00	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97 \$0.97 Other claims  -\$14.21 -\$43.29	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68 \$8.71 Equity \$110.01 \$148.58	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96 \$0.95 <b>Adjusted Price</b> \$5.17
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM+1Y LTM+2Y	1.00 115.0% 3.2% 11.9% Equals to Maintenance 2.6x 7.0x 8.0x 13.0x ROIC 52.7% 351.2% 117.1%	LTM+1Y LTM+2Y LTM+3Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC  8.3% 8.4% 8.5%	754% -66% -92% 1% 1% 1% 1% 1% 1% 1% \$\frac{1}{2}\$ \$\frac{5}{3}.00 \$\\$20.44	43% 43% 42% 42% 43% 43% 43% 43% 43%  43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77 \$2.80 Total Debt \$0.00 \$0.00 \$0.00	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97 \$0.97 Other claims -\$14.21 -\$43.29 -\$60.05	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68 \$8.71 <b>Equity</b> \$110.01 \$148.58 \$95.86	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96 \$0.95 <b>Adjusted Price</b> \$5.17 \$5.17 \$3.62
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM+1Y LTM+2Y LTM+3Y	1.00 115.0% 3.2% 11.9% Equals to Maintenance 2.6x 7.0x 8.0x 13.0x  ROIC 52.7% 351.2% 117.1% 9.6%	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC  8.3% 8.4% 8.5% 8.6%	754% -66% -92% 1% 1% 1% 1% 1% 1%  EVA  \$4.12 \$63.00 \$20.44 \$0.08	43% 43% 42% 42% 43% 43% 43% 43%  43%  50 43% 43% 43% 43% 43% 43% 43% 43% 43% 43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77 \$2.80 Total Debt \$0.00 \$0.00 \$0.00 \$0.00	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97 \$0.97 <b>Other claims</b> -\$14.21 -\$43.29 -\$60.05 -\$63.49	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68 \$8.71 <b>Equity</b> \$110.01 \$148.58 \$95.86 \$78.71	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96 \$0.95 <b>Adjusted Price</b> \$5.17 \$5.17 \$3.62 \$3.19
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITTA Justified TEV/UFCF  LTM LTM+1Y LTM+2Y LTM+3Y LTM+4Y	1.00 115.0% 3.2% 11.9% Equals to Maintenance 2.6x 7.0x 8.0x 13.0x ROIC 52.7% 351.2% 117.1% 9.6% 11.1%	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC  8.5% 8.4% 8.5% 8.6% 8.6% 8.7%	754% -66% -92% 1% 1% 1% 1% 1% 1%	43% 43% 42% 42% 43% 43% 43% 43% 43% 43% 50 43% 43% 43% 43% 43% 43% 43% 43% 43% 43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77 \$2.80 Total Debt \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97 \$0.97 Other claims  -\$14.21 -\$43.29  -\$60.05 -\$63.49  -\$64.57	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.71 <b>Equity</b> \$110.01 \$148.58 \$95.86 \$78.71 \$77.21	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96 \$0.95 Adjusted Price \$5.17 \$5.17 \$3.62 \$3.19 \$3.18
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITDA Justified TEV/UFCF  LTM LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+4Y LTM+5Y	1.00 115.0% 3.2% 11.9% Equals to Maintenance 2.6x 7.0x 8.0x 13.0x  ROIC 52.7% 351.2% 117.1% 9.6% 11.1%	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+7Y LTM+8Y LTM+9Y  WACC  8.3% 8.4% 8.5% 8.6% 8.7% 8.6% 8.7% 8.8%	754% -66% -92% 1% 1% 1% 1% 1% 1% 1% \$4.12 \$63.00 \$20.44 \$0.08 \$0.20 \$0.19	43% 43% 42% 42% 43% 43% 43% 43% 43% 43% 55.81 \$105.30 \$35.81 \$15.22 \$12.65 \$12.69	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77 \$2.80 Total Debt \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97 \$0.97 Other claims -\$14.21 -\$43.29 -\$60.05 -\$63.49 -\$64.57 -\$65.71	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68 \$8.71 <b>Equity</b> \$110.01 \$148.58 \$95.86 \$78.71 \$77.21	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96 \$0.95 <b>Adjusted Price</b> \$5.17 \$5.17 \$3.62 \$3.19 \$3.18 \$3.24
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+6Y	1.00 115.0% 3.2% 11.9% Equals to Maintenance 2.6x 7.0x 8.0x 13.0x  ROIC 52.7% 351.2% 117.1% 9.6% 11.1% 11.1% 11.1%	LTM+1Y LTM+2Y LTM+3Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC  8.3% 8.4% 8.5% 8.6% 8.7% 8.8% 8.8% 8.9%	754% -66% -92% 1% 1% 1% 1% 1% 1% 1% EVA  \$4.12 \$63.00 \$20.44 \$0.08 \$0.20 \$0.19 \$0.18	43% 43% 42% 42% 43% 43% 43% 43% 43% 55.81 \$105.30 \$35.81 \$15.22 \$12.65 \$12.69 \$12.78	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77 \$2.80 Total Debt \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97 \$0.97 Other claims -\$14.21 -\$43.29 -\$60.05 -\$63.49 -\$64.57 -\$65.71 -\$66.94	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68 \$8.71 <b>Equity</b> \$110.01 \$148.58 \$95.86 \$78.71 \$77.21 \$78.40 \$79.73	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96 \$0.95 <b>Adjusted Price</b> \$5.17 \$5.17 \$3.62 \$3.19 \$3.18 \$3.24 \$3.28
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM+1Y LTM+2Y LTM+3Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+5Y LTM+6Y LTM+6Y LTM+6Y LTM+7Y	1.00 115.0% 3.2% 11.9% Equals to Maintenance 2.6x 7.0x 8.0x 13.0x  ROIC 52.7% 351.2% 117.1% 9.6% 11.1% 11.1% 11.1%	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+4Y LTM+5Y LTM+6Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC  8.3% 8.4% 8.5% 8.6% 8.7% 8.8% 8.8% 8.9% 9.0%	754% -66% -92% 1% 1% 1% 1% 1% 1%	43% 43% 42% 42% 42% 43% 43% 43% 43%  43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77 \$2.80 Total Debt \$0.00	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97 \$0.97 <b>Other claims</b> -\$14.21 -\$43.29 -\$60.05 -\$63.49 -\$64.57 -\$65.71 -\$66.94 -\$66.94	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68 \$8.71 Equity \$110.01 \$148.58 \$95.86 \$78.71 \$77.21 \$78.40 \$79.73 \$81.14	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96 \$0.95 Adjusted Price \$5.17 \$5.17 \$3.62 \$3.19 \$3.18 \$3.24 \$3.28 \$3.34
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITTA Justified TEV/UFCF  LTM LTM+1Y LTM+2Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+6Y LTM+6Y LTM+7Y LTM+7Y LTM+8Y	1.00 115.0% 3.2% 11.9% Equals to Maintenance 2.6x 7.0x 8.0x 13.0x  ROIC 52.7% 351.2% 117.1% 9.6% 11.1% 11.1% 11.1% 11.1% 11.1%	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC  8.3% 8.4% 8.5% 8.6% 8.7% 8.8% 8.9% 9.0% 9.0% 9.1%	754% -66% -92% 1% 1% 1% 1% 1% 1%  EVA  \$4.12 \$63.00 \$20.44 \$0.08 \$0.20 \$0.19 \$0.18 \$0.17	#3% #43% #42% #42% #43% #43% #43% #43% #43% #5% #5% #5% #5% #5% #5% #5% #5% #5% #5	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77 \$2.80 Total Debt \$0.00	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97 \$0.97 Other claims  -\$14.21 -\$43.29 -\$60.05 -\$63.49 -\$64.57 -\$65.71 -\$66.94 -\$68.27 -\$69.67	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68 \$8.71 Equity \$110.01 \$148.58 \$95.86 \$78.71 \$77.21 \$78.40 \$79.73 \$81.14 \$82.64	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96 \$0.95 Adjusted Price \$5.17 \$5.17 \$3.62 \$3.19 \$3.18 \$3.24 \$3.28 \$3.34 \$3.40
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA lustified TEV/UFCF  LTM LTM+1Y LTM+2Y LTM+3Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+5Y LTM+6Y LTM+6Y LTM+6Y LTM+7Y	1.00 115.0% 3.2% 11.9% Equals to Maintenance 2.6x 7.0x 8.0x 13.0x  ROIC 52.7% 351.2% 117.1% 9.6% 11.1% 11.1% 11.1%	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC  8.3% 8.4% 8.5% 8.6% 8.7% 8.6% 8.7% 8.8% 9.0% 9.0% 9.1% 9.2%	754% -66% -92% 1% 1% 1% 1% 1% 1% 1% EVA  \$4.12 \$63.00 \$20.44 \$0.08 \$0.20 \$0.19 \$0.18 \$0.17 \$0.17 \$0.16	43% 43% 42% 42% 42% 43% 43% 43% 43%  43%	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77 \$2.80 Total Debt \$0.00	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97 \$0.97 Other claims  -\$14.21 -\$43.29 -\$60.05 -\$63.49 -\$64.57 -\$65.71 -\$66.94 -\$68.27 -\$69.07 -\$71.14	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68 \$8.71 <b>Equity</b> \$110.01 \$148.58 \$95.86 \$78.71 \$77.21 \$78.40 \$79.73 \$81.14 \$82.64 \$84.21	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96 \$0.95 Adjusted Price \$5.17 \$3.62 \$3.19 \$3.18 \$3.24 \$3.28 \$3.34 \$3.40 \$3.44
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITTA Justified TEV/UFCF  LTM LTM+1Y LTM+1Y LTM+2Y LTM+3Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+6Y LTM+7Y LTM+7Y LTM+8Y	1.00 115.0% 3.2% 11.9% Equals to Maintenance 2.6x 7.0x 8.0x 13.0x  ROIC 52.7% 351.2% 117.1% 9.6% 11.1% 11.1% 11.1% 11.1% 11.1%	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC  8.3% 8.4% 8.5% 8.6% 8.7% 8.8% 8.9% 9.0% 9.0% 9.1%	754% -66% -92% 1% 1% 1% 1% 1% 1% 1% EVA  \$4.12 \$63.00 \$20.44 \$0.08 \$0.20 \$0.19 \$0.18 \$0.17 \$0.17 \$0.16	#3% #43% #42% #42% #43% #43% #43% #43% #43% #5% #5% #5% #5% #5% #5% #5% #5% #5% #5	\$101.17 \$34.70 \$2.64 \$2.66 \$2.69 \$2.72 \$2.75 \$2.77 \$2.80 Total Debt \$0.00	\$38.04 \$13.02 \$0.95 \$0.95 \$0.95 \$0.96 \$0.96 \$0.97 \$0.97 Other claims  -\$14.21 -\$43.29 -\$60.05 -\$63.49 -\$64.57 -\$65.71 -\$66.94 -\$68.27 -\$69.07 -\$71.14	\$16.66 \$11.10 \$8.61 \$8.62 \$8.65 \$8.67 \$8.68 \$8.68 \$8.71 Equity \$110.01 \$148.58 \$95.86 \$78.71 \$77.21 \$78.40 \$79.73 \$81.14 \$82.64	\$32.58 \$18.57 \$3.44 \$0.95 \$0.92 \$0.94 \$0.95 \$0.96 \$0.95 Adjusted Price \$5.17 \$3.62 \$3.19 \$3.18 \$3.24 \$3.28 \$3.34 \$3.40 \$3.44
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Etienne Lehideux Consumer Goods



# Pilgrim's Pride Corporation

NasdaqGS:PPC

BUY
Target Price: \$40

# Key Statistics as of 3/4/2014

Market Price: \$28.03

Industry: Food – Major Diversified

Market Cap: \$7,340 M 52-Week Range: \$38.64 - 17.18

Beta: 0.12

# **Thesis Points:**

- Favorable industry outlook
- Strong Management and efficient strategy
- Diversified product portfolio that resists industry's peaks and troughs

Analyst:

Sector:

Excessively low valuation

# **Company Description:**

Pilgrim's Pride Corporation engages in the production, processing, marketing, and distribution of fresh, frozen, and value-added chicken products to retailers, distributors, and foodservice operators in the United States, Mexico, and Puerto Rico. It offers fresh chicken products comprising pre-marinated or non-marinated, and prepackaged refrigerated (nonfrozen) whole or cut-up chicken in various combinations of refrigerated whole chickens and chicken parts. The company also provides prepared chicken products, such as portion-controlled breast fillets, tenderloins and strips, delicatessen products, salads, formed nuggets and patties, and bone-in chicken parts. In addition, it exports whole chickens and chicken parts to approximately 95 countries. Pilgrim's Pride Corporation sells its products to foodservice market, including chain restaurants, food processors, broad-line distributors, and other institutions; and retail market customers that primarily include grocery store chains, wholesale clubs, and other retail distributors. The company was founded in 1946 and is headquartered in Greeley, Colorado. As of December 28, 2014, Pilgrim's Pride Corporation operates as a subsidiary of JBS USA Holdings, Inc.



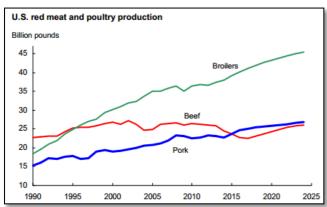


#### **Thesis**

Pilgrim's Pride Corporation is the second largest producer of chicken products in the U.S. The company was saved from bankruptcy in 2011 by JBS S.A., the largest food processing company in the world. Since then, a new management took over the company and the strategy they have been applying is very successful so far. Margins are improving at all levels, their market share is growing, and the company seeks overseas expansion acquisitions through product portfolio diversification. The favorable industry outlook, as well as the increase in chicken products' price and production, position Pilgrim's Pride Corporation on track to become the top company in the industry. Moreover, the debt-free company rewards its shareholders with the strong cash flows it generates. Finally, the recent short interest spike scared away many investors, who left the stock undervalued. PPC is currently trading at 9.88x earnings while its main competitor, Tyson Foods, trades at 17.59x earnings.

# **Industry Overview**

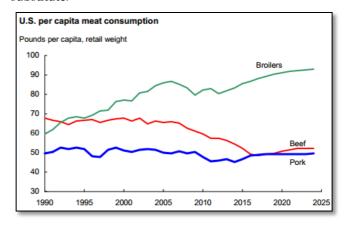
The U.S. is the world's largest producer of chicken and is projected to produce approximately 39.2 billion pounds of ready-to-cook broiler meat in calendar year 2015, representing 20.3% of the total world production. Brazil and China produce the second and third most broiler meat, with 15.0% and 14.9% of the world market, respectively, according to the USDA. Based on their long term projections, poultry production in the U.S. should expand faster than beef and pork until 2025. USDA affirms that production growth is expected to come from both higher numbers of birds and higher average weights at slaughter.



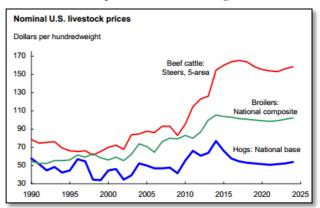
The chicken industry in the U.S. is vertically integrated, with main producers operating feed mills and processing

plants while contracting out breeding and broiler production to independent farmers.

Poultry consumption in the U.S. is expected to increase faster than other meats. In 2014, Priceonomics reported that American ate more chicken than beef for the first time. These trends can be explained by American becoming more health conscious but also by the increasing price of beef. Poultry is also a cheaper protein substitute.



Prices of poultry reached a peak in the end of 2014, and analysts do not expect them to rise much further. The graph below shows that poultry prices are expected to remain stable compared to beef and hogs.



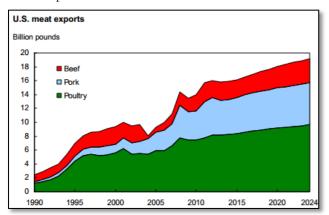
The table below provides updated production and prices data. The increased number of chicks placed for grow out anticipates for increased slaughters in the coming months.

Production	December 2013	December 2014	% Change
Monthly Chicks placed for growout	774,784	795,735	2.7%
Number of birds slaughtered	687,163	728,227	6.0%
Average live-weight (lbs)	5.99	6.10	1.8%
Stocks at end of month	668,673	680,262	1.7%
Prices	January 2014	January 2015	% Change
National Composite Weighted Average, wholesale price (US\$/lb)	\$0.97	\$1.00	2.9%
Boneless/skinless breast meat (Northeast price, US\$/lb)	\$1.26	\$1.35	7.4%
Leg quarters (Northeast price, US\$/lb)	\$0.42	\$0.42	-2.1%

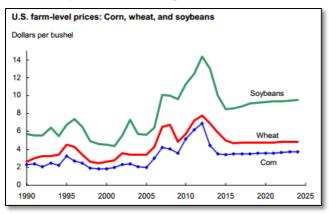
Finally, USDA projects U.S. broiler exports to rise



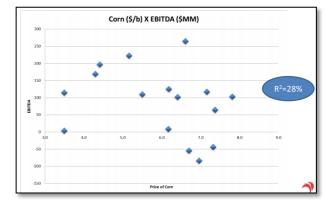
through 2025. The main export markets are China, Mexico, and other countries which economic growth will support the demand for poultry products. Brazil is the third largest producer of broiler and the main competitor on the export side.



All in all, the outlook for chicken production and consumption is fairly positive. Also, the recent drop in corn and soybeans prices allowed poultry producers to decrease their feeding costs and increase their margins. Although USDA projects grains prices to stabilize in the coming years, a surge in price could negatively impact the industry's margins; therefore the trend has to be carefully monitored. Although, investors should be confident with the stable outlook for the near future, as yields and stocks for both the US and South America were recently at near record highs.

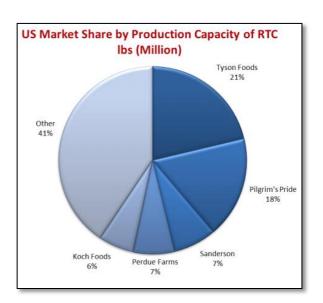


It should be noted that certain investors believe the earnings of companies similar to PPC are linked to corn prices, because of their direct impact on feed costs. Such reasoning is dubious as PPC hedges against commodities' price fluctuations by investing in futures contracts. The chart below shows that there is no correlation between PPC's EBITDA and corn prices.



# Competitive advantages

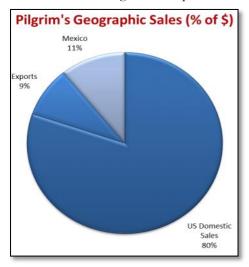
Pilgrim's Pride Corp. is the second largest chicken company in the world. According to the company's latest 10-K filing, PPC's main competitive advantage are its leading market position (18% of the U.S. market share) in a growing industry, a broad product portfolio, its Blue Chip and diverse customer base across all industry segments, the efficiency and synergy brought by being a subsidiary of JBS USA, robust cash flow generation with disciplined capital allocation, and an experienced management team and results oriented corporate culture.



PPC's main competitor is Tyson Foods, Inc., which owns 21% of the U.S. chicken market share. The company is increasing its branded product portfolio, notably with the acquisition in 2014 of Hillshire Brands Co., owner of Jimmy Dean sausages and Ball Park hot dogs. Tyson recently closed three plants in the U.S. in an effort to reduce costs. It is important to note that Tyson's relationship with Wal-Mart Stores, Inc. accounted for 14.6% of their fiscal 2014 consolidated sales. Therefore, any extended discontinuance of sales to this customer could have a material impact on their operations.



PPC has operations in Mexico, where it is the third largest producer and owns a 10% market share. There, the company owns 3 poultry complexes and 7 sales offices, employs 5,400 persons working on all segments from live chicken to fully cooked products, and owns the Del Dia brands. Their expansion in Mexico has been strong thanks to the strategic acquisition of Tyson's local poultry business in 2014. This acquisition allows PPC to have presence in Northern Mexico, which provides the company with geographic diversity. Also, Tyson agreed to sell its Brazilian poultry business to PPC, a transaction that will occur during the first quarter of fiscal 2015.



PPC has relationships with very powerful companies in different consumer segments, that include Chick-fil-A, Sysco, US Foods, Yum! Brands, Kroger, Wal-Mart, Costco, Publix, Sam's Club and ConAgra Foods. It sells its products to a large and diverse customer base, with over 5,000 customers and no single one accounting for more than 10% of total sales.



Finally, PPC is a majority-owned subsidiary of JBS USA, an indirect subsidiary of Brazil-based JBS S.A., which beneficially owns approximately 75.5% of PPC's outstanding common stock. As such, the company works closely with JBS USA's management to identify areas where both companies can achieve synergies. As part of the integration plan, PPC moved its headquarters

to Greeley, Colorado, the headquarters of JBS USA. In addition to cost savings through the integration of certain corporate functions and the rationalization of facilities, the relationship with JBS USA allows PPC to its several advantages given diversified enjoy international operations and strong record in commodity risk management. PPC also leverages JBS USA's international network by expanding into untapped international markets and strengthening its presence in geographies in which it already operates. In addition, JBS USA's expertise in managing the risk associated with volatile commodity inputs helps PPC to improve its operations and strengthen its margins.

# **Products and Segments**

Pilgrim's Pride Corp. produces and markets three types of chicken products.

The *fresh chicken products* are sold to the foodservice and retail markets. Fresh chicken products consist of refrigerated (non-frozen) whole or cut-up chicken, either pre-marinated or non-marinated and prepackaged caseready chicken. Fresh chicken sales accounted for 66.2% of PPC's total U.S. chicken sales in 2014.

The company also sells *prepared chicken products*, including portion-controlled breast fillets, tenderloins and strips, delicatessen products, salads, formed nuggets and patties and bone-in chicken parts. These products are sold either refrigerated or frozen and may be fully cooked, partially cooked or raw. In addition, these products are breaded or non-breaded and either pre-marinated or non-marinated. Prepared chicken products sales accounted for 25.1% of PPC's total U.S. chicken sales in 2014.

Finally, value-added export and other chicken products primarily consist of whole chickens and chicken parts sold either refrigerated for distributors in the U.S. or frozen for distribution to export markets. PPC sells U.S.-produced chicken products for export to Mexico, the Middle East, Asia, countries within the Commonwealth of Independent States (the "CIS") and other world markets. Value-added export and other chicken products sales accounted for 8.7% of PPC's total U.S. chicken sales in 2014.



# Management & Strategy

Pilgrim's Pride Corp. has a proven senior management team with long time experience in the chicken industry.

Mr. William W. Lovette, (Bill) has been the Chief Executive Officer and President of Pilgrim's Pride Corporation since January 3, 2011. Mr. Lovette served as the President and Chief Operating Officer of Case Foods, Inc. from october 2008 to December 2010. He has more than 29 years of industry leadership experience. He spent 25 years with Tyson Foods in various roles in senior management, including President of its International Business Unit.

The CEO's main focus since he took office in 2011 is to make PPC the top operator in the poultry industry. First, he applies a portfolio diversification strategy that enables the company not to follow the full peaks and troughs of the broader industry pricing trends. The company's diversified sales mix ensures they can adapt quickly to the market supply and mitigate volatility. For example, high spot prices for parts such as boneless skinless breasts and wings benefit their large bird deboning business. When these prices decline, other businesses such as prepared foods benefit from the change. In the Q3 earnings call transcript, the CEO says he thinks PPC is the only company in the industry to achieve such positioning. The executive also insists that he is far from having reached his goal. Management's focus is currently on strengthening customers' relationships, exiting unprofitable business, diversifying customer base and maximizing product mix.

Mr. Fabio Sandri has been the Chief Financial Officer of Pilgrim's Pride Corporation since June 3, 2011 and serves as its Principal Accounting Officer. He has several other experiences as CFO at other companies and holds an MBA from Wharton school at University of Pennsylvania.

His focus has been to reduce the company's SG&A expenses trying to reach "operational excellence", ehich he managed to reach with 2.2% of revenues in Q4 2014. His current concern is to manage the impressive growth in free cash flow the company is generating. His goal is to increase his plans for capital projects throughout 2015, while continuing to focus on opportunities with a rapid return on investment and projects that increase the

company's efficiency, quality, and safety. The company announced earlier this year a special dividend of \$5.77 per share outstanding. The CFO mentioned a capital restructuring in Q3 2014 earnings call, which should increase shareholders value should it take the form of a share buyback.

Overall, the management is implementing a strategy, originally thought of back in 2011, which has proven to be very efficient. Improvements are being made on the product side, the customer base side, the operational side, and on the financial side. Should the strategy continue to benefit the company, it seems like the management knows how to build and grow valuable businesses.

#### **Financials**

As introduced earlier, the company took a sharp turn in 2011 when the new management took office. Revenues grew almost 14% since 2011 to reach \$8,583.4 in FY 2014. As a comparison, Tyson Foods' chicken segment only grew its sales by 10% over the same period. But the main improvement is on the operational side. Before the new management took office, PPC was filing for bankruptcy due to its debt load and bad management of feed prices. The table below shows great improvement at all levels of the income statement. Gross margins tripled to reach 16.2% during FY 214. Operating margins grew to 14% in FY 214, while Tyson Foods' chicken segment is lagging below 10%. Finally, the bottom line margin for Pilgrim's Pride Corp. is strong with 8% in FY 2014. As a comparison, Tyson Foods' overall net income margin was 2.3% during FY 2014.

	FY	2011	FY	2012	FY	2013	FY	2014
Pilgrim's Pride Corp.								
Revenues	\$	7,535.7	\$	8,121.4	\$	8,411.1	\$	8,583.4
Gross Margin		-1.90%		5.40%		10.10%		16.20%
Operating margin		-5%		3%		8%		14%
SG&A		2.7%		2.1%		2.1%		2.2%
Net Margin		-7%		2%		7%		8%
Tyson Foods' Chicken Segment								
Revenues	\$	11,017.0	\$	11,368.0	\$	10,988.0	\$	11,116.0
Operating margin		1%		4%		6%		8%

PPC is almost debt free, and has more than \$550 million in cash on hand. Its current ratio and quick ratio are very healthy, with 2.53 and 1.29 respectively. As the reimbursement of their debt is almost terminated, their D/E ratio as of end of FY 2014 is 0.19. The fact that the company recovered its financial stability in the past three years helped them gaining access to almost \$1 billion worth of credit facility, which will help with capital



expenditures, among others.

Finally, PPC's free cash flows are increasing at an impressive rate. The company's FCF in FY 2011, 2012, 2013 and 2014 were respectively (265), 109, 762, and 895 million dollars.

#### Valuation

It is important to notice the aggressive short interest on CPP's shares. The short interest ratio is currently 11.28%, and 69% of the float. The dividend paid in January 2015, coupled with the surge in short interest, scared many investors away and led the stock to trade in the \$25-30 range, down from its \$36 levels.

There is noise among the analysts community that Steve Cohen-led hedge fund Point72 Asset Management, formerly SAC Capital, may be betting on a long/short play with Pilgrim's Pride Corp. and Tyson Foods. Indeed, the money management firm's latest 13-F filings (available here) show that during 2014, the company increased its position in Tyson Foods, Inc from \$92 Million to almost \$300 million. The table below shows a recap of Point72's position in TSN shares, and reveals that this position became the second largest long position in the company's portfolio:

Position in Tyson Foods	8/14/2014		11/14/2014	2/17/2015		
Number of shares		2,447,600	7,422,400		5,176,100	
Value	\$	91,883,000	\$ 292,220,000	\$	207,510,000	
% of float		0.8%	2.5%		1.7%	
% of long positions		0.59%	2.20%		1.46%	
Position Size Ranking		#28	#2		#2	

The theory is that with a huge bet on Tyson Foods, Point72 AM is betting on the company's product portfolio efficiency. Indeed, Tyson would be less impacted than PPC in a decrease in chicken prices, as the food giant also sells beef and pork. A decrease in currently record high chicken prices would more severely impact PPC, hence the Short PPC/Long Tyson play. Even if this theory revealed to be true, prices in chicken are expected to remain stable without suffering a big drop in price. Moreover, even if PPC is a chicken "pure player", its product mix is constituted such as that the company's sales are hedged against chicken prices fluctuations. It is important to note that there is no proof of the short

position, as the SEC does not require reporting them.

Investors who enter the position now could benefit from the short squeeze that will eventually happen. The whopping short interest on PPC may require these investors to hang on to their hats.

The image below shows trading multiples for PPC compared to its peers. It appears largely undervalued as the average discount based on the below multiples is 39%.

Summary of Current Multiples					
Name	Mkt Cap (USD)	NTM P/E	NTM EV/EBITDA	NTM EV/EBIT	NTM EV/Rev
21) PILGRIM'S PRIDE CORP	7.28B	9.4x	4.9x	5.7x	0.7x
Current Premium to Comps Mean		-43%	-44%	-52%	-17%
Mean (Including PPC US)	7.88B	16.6x	8.8x	12.0x	0.9x
Median	4.51B	16.9x	8.1x	12.4x	0.7x
Low	N.A.	8.6x	4.2x	5.3x	0.3x
High	29.86B	22.0x	12.5x	15.9x	1.5x

PPC's current P/E ratio is 9.88x, versus 26.13x for its peers and 17.6x for Tyson Foods. PPC's forward P/E shows investors are paying even cheaper for next year's earning, with 8.87x.

The next page of this report includes a screenshot of the valuation model for PPC. The assumptions used are very conservative. Even using negative growth for the next five year results in a 40% upside potential. Because of the high short interest, financial valuation is not taken into account in the current price of PPC.

As the saying goes, if you can't stand the heat, get out of the kitchen; meanwhile, more aggressive investors may want to look into this interesting play against the short sellers.

#### Sources:

10-K
Investor Presentations
Bloomberg
Capital IQ
US Department of Agriculture
SEC



		CENT	<u>ER FOR GL</u>	<u>OBAL FINAN</u>	CIAL STUDIES			
Pilgrim's Pride Corporation	PPC	Analyst Etienne Lehideux	Current Price \$28.03	Intrinsic Value \$40.33	Target Value \$42.46	Divident Yield	Target Return	BULLISH
General I	nfo	Peers	Market Cap.	Ψ10.55	Management	070	31.1070	
Sector	Consumer Staples	Hormel Foods Corporation	\$15,277.82	Professional	Title	Comp. FY2012	2 Comp. FY2013	Comp. FY2014
Industry	Food Products	Sanderson Farms, Inc.	\$1,941.52	Lovette, William	Chief Executive Officer, President, Director and Member of JBS Nominating	\$ 1,502,223.00	\$ 5,148,318.00	ş -
Last Guidance	Feb-11-2015	Campbell Soup Company	\$14,510.91	Sandri, Fabio	Chief Financial Officer and Principal Accounting Officer	\$ 888,990.00	\$ 1,618,014.00	\$ -
Next earnings date	4/27/2015	Dean Foods Company	\$1,533.78	Penn, Jayson	Executive Vice President of Sales & Operations	\$ -	\$ -	\$ -
Market D		Tyson Foods, Inc.	\$16,839.73	Miner, James	Senior Vice President of Technical Services	\$ -	\$ -	\$ -
Enterprise value	\$6,710.40	The J. M. Smucker Company	\$11,625.36	Schult, Douglas		\$ -	\$ -	\$ -
Market Capitalization	\$7,279.40			Snyder, William	Chief Restructuring Officer	\$ -	\$ -	\$ -
Daily volume	1.73			Historical Performance				
Shares outstanding	259.70				PPC	Peers	Industry	All U.S. firms
Diluted shares outstanding	259.47			Growth	16.0%	3.8%	8.7%	6.0%
% shares held by institutions	35.53%	Current Capital St	ructure	Retention Ratio	0.0%	42.9%	59.5%	61.6%
% shares held by insiders	0.15%	Total debt/market cap	0.06%	ROIC		12.4%	13.5%	11.8%
Short interest	13.88%	Cost of Borrowing	18.94%	EBITA Margin	0.0%	6.7%	11.6%	13.7%
Days to cover short interest	15.53	Interest Coverage	1468.26%	Revenues/Invested capital	383.0%	223.3%	178.1%	202.3%
52 week high	\$38.64	Altman Z	9.05	Excess Cash/Revenue	#DIV/0!	3.3%	6.4%	18.5%
52-week low	\$17.73	Debt Rating	BAA	Unlevered Beta	0.76	0.50	0.64	0.95
5y Beta	0.88	Levered Beta	0.73	TEV/REV	0.4x	0.8x	1.5x	2.4x
6-month volatility	64.46%	WACC (based on market value weights)	6.82%	TEV/EBITDA	6.1x	9.3x	12.1x	11.3x
	Past Earning	• 17 /		TEV/EBITA	8.8x	12.1x	15.3x	15.4x
	Revenue	EBITDA	Norm, EPS	TEV/UFCF	7.9x	18.6x	28.3x	26.8x
Last Quarter	-3.5%	4.8%	-17.9%		Non GAAP Adjustments			
Last Quarter-1	2.8%	22.5%	22.2%	Operating Leases Capitalization	0%	N/A	N/	'A
Last Quarter -2	-0.3%	7.0%	9.0%	R&D Exp. Capitalization	100%	Straightline	10 y	ears
Last Quarter -3	0.3%	-0.9%	-5.0%	Expl./Drilling Exp. Capitalization	n 0%	N/A	N/	'A
Last Quarter -4	-2.0%	3.6%	16.7%	SG&A Capitalization	0%	N/A	N/	'A
		Proforma Assumptions Period	Rev. Growth	Adj. Op. Cost/Rev	Forecasted Revenue	d Profitability NOPLAT	Invested capital	UFCF
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Operating. Cash/Cash	0.0%	LTM	2%	84%	\$8,583.37	\$917.63	\$1,718.90	\$917.63
Unlevered Beta	0.73	LTM+1Y	1%	90%	\$8,583.37 \$8,669.44	\$917.63 \$508.80	\$1,718.90 \$1,701.23	\$526.43
Unlevered Beta Rev/Invested Capital	0.73 120.0%	LTM+1Y LTM+2Y	1% 1%	90% 90%	\$8,583.37 \$8,669.44 \$8,756.13	\$917.63 \$508.80 \$489.51	\$1,718.90 \$1,701.23 \$1,701.45	\$526.43 \$489.28
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth	0.73 120.0% 3.0%	LTM+1Y LTM+2Y LTM+3Y	1% 1% 1%	90% 90% 89%	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70	\$917.63 \$508.80 \$489.51 \$538.26	\$1,718.90 \$1,701.23 \$1,701.45 \$1,709.89	\$526.43 \$489.28 \$529.82
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC	0.73 120.0% 3.0% 8.0%	LTM+1Y LTM+2Y LTM+3Y LTM+4Y	1% 1% 1% 1%	90% 90% 89% 89%	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45	\$1,718.90 \$1,701.23 \$1,701.45 \$1,709.89 \$1,721.71	\$526.43 \$489.28 \$529.82 \$524.64
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth	0.73 120.0% 3.0% 8.0% Reverts to Maintenance	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y	1% 1% 1% 1% 1%	90% 90% 89% 89% 88%	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41	\$1,718.90 \$1,701.23 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV	0.73 120.0% 3.0% 8.0% Reverts to Maintenance 0.8x	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y	1% 1% 1% 1% 1% 1%	90% 90% 89% 89% 88% 88%	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08	\$1,718.90 \$1,701.23 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$585.63
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Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UPCF  LTM LTM+1Y	0.73 120.0% 3.0% 8.0% Reverts to Maintenance 0.8x 6.1x 8.8x 20.0x  ROIC 53.4% 29.6%	LTM+1Y LTM+2Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+6Y LTM+8Y LTM+9Y  WACC 6.8% 6.9%	1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 5% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%	90% 90% 89% 88% 88% 88% 87% 86%  Valuation Enterprise Value \$10,156.61 \$9,896.82	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67 \$9,202.78 \$9,202.78 \$9,294.81 \$9,387.76 Total Debt \$4.24 \$4.24	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08 \$659.91 \$665.43 \$729.44 Other claims -\$496.39 -\$1,155.77	\$1,718.90 \$1,701.23 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91 \$1,758.96 \$1,770.20 \$1,780.24 Equity \$10,648.76 \$11,048.34	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$885.63 \$647.86 \$654.19 \$719.40 Adjusted Price \$41.29 \$43.21
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Lustified TEV/UFCF  LTM LTM+1Y LTM+2Y	0.73 120.0% 3.0% 8.0% Reverts to Maintenance 0.8x 6.1x 8.8x 20.0x  ROIC 53.4% 29.6% 28.8%	LTM+1Y LTM+2Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC 6.8% 6.9% 7.0%	1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 5799.17 \$385.78	90% 90% 89% 89% 88% 88% 87% 87% 86%  Valuation Enterprise Value \$10,156.61 \$9,896.82 \$10,013.85	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67 \$9,202.78 \$9,294.81 \$9,387.76 Total Debt \$4.24 \$4.24	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08 \$659.91 \$665.43 \$729.44 Other claims -\$496.39 -\$1,155.77 -\$1,817.00	\$1,718.90 \$1,701.23 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91 \$1,758.96 \$1,770.20 \$1,780.24 Equity \$10,648.76 \$11,048.34 \$11,826.61	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$585.63 \$647.86 \$654.19 \$719.40 Adjusted Price \$41.29 \$43.21 \$46.19
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM+1Y LTM+2Y LTM+3Y	0.73 120.0% 3.0% 8.0% Reverts to Maintenance 0.8x 6.1x 8.8x 20.0x  ROIC 53.4% 29.6% 28.8% 31.6%	LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+4Y LTM+5Y LTM+5Y LTM+7Y LTM+8Y LTM+9Y  WACC  6.8% 6.9% 7.0% 7.1%	1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 5% 1% 1% 1% 1% 4% 1% 5799.17 \$385.78 \$370.05 \$419.10	90% 90% 89% 88% 88% 88% 87% 86%  Valuation Enterprise Value \$10,156.61 \$9,896.82 \$10,013.85 \$10,189.57	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67 \$9,202.78 \$9,202.78 \$9,294.81 \$9,387.76 Total Debt \$4.24 \$4.24 \$4.24 \$4.24	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08 \$659.91 \$665.43 \$729.44 Other claims -\$496.39 -\$1,155.77 -\$1,817.00 -\$2,576.36	\$1,718.90 \$1,701.23 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91 \$1,758.96 \$1,770.20 \$1,780.24 Equity \$10,648.76 \$11,048.34 \$11,826.61 \$12,761.69	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$585.63 \$647.86 \$654.19 \$719.40 Adjusted Price \$41.29 \$43.21 \$46.19 \$49.79
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+6Y	0.73 120.0% 3.0% 8.0% Reverts to Maintenance 0.8x 6.1x 8.8x 20.0x  ROIC 53.4% 29.6% 28.8% 31.6% 31.4%	LTM+1Y LTM+2Y LTM+3Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+7Y LTM+8Y LTM+9Y  WACC  6.8% 6.9% 7.0% 7.1% 7.2% 7.3% 7.4%	1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 5799.17 \$385.78 \$370.05 \$419.10	90% 90% 89% 88% 88% 88% 87% 86%  Valuation Enterprise Value \$10,156.61 \$9,896.82 \$10,013.85 \$10,189.57 \$10,342.29	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67 \$9,202.78 \$9,202.78 \$9,294.81 \$9,387.76  Total Debt \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08 \$659.91 \$665.43 \$729.44 Other claims -\$496.39 -\$1,155.77 -\$1,817.00 -\$2,576.36 -\$3,351.35	\$1,718.90 \$1,701.23 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91 \$1,758.96 \$1,770.20 \$1,780.24 Equity \$10,648.76 \$11,048.34 \$11,826.61 \$12,761.69 \$13,669.41	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$585.63 \$647.86 \$654.19 \$719.40 Adjusted Price \$41.29 \$43.21 \$46.19 \$49.79 \$53.45
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITOA Justified TEV/EBITOA Justified TEV/UPCF  LTM LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+5Y LTM+6Y LTM+6Y LTM+7Y	0.73 120.0% 3.0% 8.0% Reverts to Maintenance 0.8x 6.1x 8.8x 20.0x  ROIC 53.4% 29.6% 28.8% 31.6% 31.4% 34.5% 34.5% 37.8%	LTM+1Y LTM+2Y LTM+2Y LTM+3Y LTM+4Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC  6.8% 6.9% 7.0% 7.0% 7.1% 7.2% 7.3% 7.4% 7.5%	1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 5799.17 \$385.78 \$370.05 \$419.10 \$415.77 \$471.76 \$472.67 \$532.10	90% 90% 89% 88% 88% 88% 87% 86%  Valuation Enterprise Value \$10,156.61 \$9,896.82 \$10,013.85 \$10,189.57 \$10,342.29 \$10,521.41 \$10,659.93 \$10,814.12	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67 \$9,202.78 \$9,202.78 \$9,294.81 \$9,387.76 Total Debt \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08 \$659.91 \$665.43 \$729.44 Other claims -\$496.39 -\$1,155.77 -\$1,817.00 -\$2,576.36 -\$3,351.35 -\$4,235.19 -\$5,142.13 -\$6,166.66	\$1,718.90 \$1,701.23 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91 \$1,758.96 \$1,770.20 \$1,780.24 Equity \$10,648.76 \$11,048.34 \$11,826.61 \$12,761.69 \$13,689.41 \$14,752.37 \$15,797.82 \$16,976.54	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$585.63 \$647.86 \$654.19 \$719.40 Adjusted Price \$41.29 \$43.21 \$46.19 \$49.79 \$53.45 \$57.69 \$61.64 \$66.17
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+6Y	0.73 120.0% 3.0% 8.0% Reverts to Maintenance 0.8x 6.1x 8.8x 20.0x  ROIC 53.4% 29.6% 28.8% 31.6% 31.4% 34.5%	LTM+1Y LTM+2Y LTM+3Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+7Y LTM+8Y LTM+9Y  WACC  6.8% 6.9% 7.0% 7.1% 7.2% 7.3% 7.4%	1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 538.78 \$370.05 \$419.10 \$415.77 \$471.76	90% 90% 89% 88% 88% 88% 87% 86%  Valuation Enterprise Value \$10,156.61 \$9,896.82 \$10,013.85 \$10,189.57 \$10,342.29 \$10,521.41 \$10,659.93	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67 \$9,202.78 \$9,294.81 \$9,387.76  Total Debt \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08 \$659.91 \$665.43 \$729.44 Other claims -\$496.39 -\$1,155.77 -\$1,817.00 -\$2,576.36 -\$3,351.35 -\$4,235.19 -\$5,142.13	\$1,718.90 \$1,701.23 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91 \$1,758.96 \$1,770.20 \$1,780.24 Equity \$10,648.76 \$11,048.34 \$11,826.61 \$12,761.69 \$13,689.41 \$14,752.37 \$15,797.82	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$585.63 \$647.86 \$654.19 \$719.40 Adjusted Price \$41.29 \$43.21 \$46.19 \$49.79 \$53.45 \$57.69 \$61.64
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UFCF  LTM LTM+1Y LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+5V LTM+5V LTM+6V LTM+6Y LTM+7Y	0.73 120.0% 3.0% 8.0% Reverts to Maintenance 0.8x 6.1x 8.8x 20.0x  ROIC 53.4% 29.6% 28.8% 31.6% 31.4% 34.5% 34.5% 37.8%	LTM+1Y LTM+2Y LTM+3Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC  6.8% 6.9% 7.0% 7.1% 7.2% 7.3% 7.4% 7.5% 7.6% 7.6% 7.7%	1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1	90% 90% 89% 88% 88% 88% 87% 86%  Valuation Enterprise Value \$10,156.61 \$9,896.82 \$10,013.85 \$10,189.57 \$10,342.29 \$10,521.41 \$10,659.93 \$10,814.12	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67 \$9,202.78 \$9,202.78 \$9,294.81 \$9,387.76 Total Debt \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08 \$659.91 \$665.43 \$729.44 Other claims -\$496.39 -\$1,155.77 -\$1,817.00 -\$2,576.36 -\$3,351.35 -\$4,235.19 -\$5,142.13 -\$6,166.66 -\$7,221.22 -\$8,402.35	\$1,718.90 \$1,701.23 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91 \$1,758.96 \$1,770.20 \$1,780.24 Equity \$10,648.76 \$11,048.34 \$11,826.61 \$12,761.69 \$13,689.41 \$14,752.37 \$15,797.82 \$16,976.54 \$18,137.36 \$19,430.63	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$585.63 \$647.86 \$654.19 \$719.40 Adjusted Price \$41.29 \$43.21 \$46.19 \$49.79 \$53.45 \$57.69 \$61.64 \$66.17 \$70.73 \$74.82
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITDA Justified TEV/UFCF  LTM LTM+IY LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+6Y LTM+6Y LTM+6Y LTM+7Y LTM+8Y	0.73 120.0% 3.0% 8.0% Reverts to Maintenance 0.8x 6.1x 8.8x 20.0x  ROIC 53.4% 29.6% 28.8% 31.6% 31.4% 34.5% 37.8% 41.2%	LTM+1Y LTM+2Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+7Y LTM+8Y LTM+9Y  WACC  6.8% 6.9% 7.0% 7.1% 7.2% 7.3% 7.4% 7.5% 7.6% 7.6% 7.7%	1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1	90% 90% 89% 88% 88% 88% 87% 87% 86%  Valuation Enterprise Value \$10,156.61 \$9,896.82 \$10,013.85 \$10,189.57 \$10,342.29 \$10,521.41 \$10,659.93 \$10,814.12 \$10,920.38 \$11,032.52	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67 \$9,202.78 \$9,294.81 \$9,387.76  Total Debt \$4.24	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08 \$659.91 \$665.43 \$729.44 Other claims -\$496.39 -\$1,155.77 -\$1,817.00 -\$2,576.36 -\$3,351.35 -\$4,235.19 -\$5,142.13 -\$6,166.66 -\$7,221.22 -\$8,402.35	\$1,718.90 \$1,701.23 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91 \$1,758.96 \$1,770.20 \$1,780.24  Equity \$10,648.76 \$11,048.34 \$11,826.61 \$12,761.69 \$13,689.41 \$14,752.37 \$15,797.82 \$16,976.54 \$18,137.36 \$19,430.63 *Carlo Simulation Resul	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$885.63 \$647.86 \$654.19 \$719.40 Adjusted Price \$41.29 \$43.21 \$46.19 \$49.79 \$53.45 \$57.69 \$61.64 \$66.17 \$70.73 \$74.82
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITA Justified TEV/UPCF  LTM LTM+1Y LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+5V LTM+6Y LTM+6Y LTM+7Y LTM+8Y LTM+8Y LTM+8Y LTM+8Y LTM+8Y LTM+8Y LTM+8Y LTM+8Y LTM+8Y LTM+9Y	0.73 120.0% 8.0% 8.0% Reverts to Maintenance 0.8x 6.1x 8.8x 20.0x  ROIC 53.4% 29.6% 28.8% 31.6% 31.4% 34.5% 34.5% 37.8% 37.8% 41.2% Base	LTM+1Y LTM+2Y LTM+2Y LTM+3Y LTM+4Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC 6.8% 6.9% 7.0% 7.1% 7.2% 7.3% 7.4% 7.5% 7.6% 7.5% 7.6% 7.7%  Monte Carlo S Stdev	1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1	90% 90% 89% 88% 88% 88% 87% 86%  Valuation Enterprise Value \$10,156.61 \$9,896.82 \$10,013.85 \$10,189.57 \$10,342.29 \$10,521.41 \$10,659.93 \$10,814.12 \$10,920.38 \$11,032.52  Max	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67 \$9,202.78 \$9,294.81 \$9,387.76  Total Debt \$4.24	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08 \$659.91 \$665.43 \$729.44 Other claims -\$496.39 -\$1,155.77 -\$1,817.00 -\$2,576.36 -\$3,351.35 -\$4,235.19 -\$5,142.13 -\$6,166.66 -\$7,221.22 -\$8,402.35	\$1,718.90 \$1,701.23 \$1,701.45 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91 \$1,758.96 \$1,770.20 \$1,780.24  Equity \$10,648.76 \$11,048.34 \$11,826.61 \$12,761.69 \$13,689.41 \$14,752.37 \$15,797.82 \$16,976.54 \$18,137.36 \$19,430.63 *Carlo Simulation Resul Intrinsic Value	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$585.63 \$647.86 \$654.19 \$719.40 Adjusted Price \$41.29 \$43.21 \$46.19 \$49.79 \$53.45 \$57.69 \$61.64 \$66.17 \$70.73 \$74.82
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITDA Justified TEV/UPCF  LTM LTM+1Y LTM+1Y LTM+2Y LTM+3Y LTM+3Y LTM+5Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+8Y LTM+8Y LTM+9Y Revenue Variation	0.73 120.0% 3.0% 8.0% Reverts to Maintenance 0.8x 6.1x 8.8x 20.0x  ROIC 53.4% 29.6% 28.8% 31.6% 31.4% 34.5% 34.5% 37.8% 47.8% 41.2%  Base 0	LTM+1Y LTM+2Y LTM+3Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  WACC  6.8% 6.9% 7.0% 7.1% 7.2% 7.3% 7.4% 7.5% 7.5% 7.6% 7.7% Monte Carlo S Stdev	1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1	90% 90% 89% 88% 88% 88% 87% 86%  Valuation Enterprise Value \$10,156.61 \$9,896.82 \$10,013.85 \$10,189.57 \$10,342.29 \$10,521.41 \$10,659.93 \$10,814.12 \$10,920.38 \$11,032.52  Max N/A	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67 \$9,202.78 \$9,294.81 \$9,387.76  Total Debt \$4.24	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08 \$659.91 \$665.43 \$729.44  Other claims -\$496.39 -\$1,155.77 -\$1,817.00 -\$2,576.36 -\$3,351.35 -\$4,235.19 -\$5,142.13 -\$6,166.66 -\$7,221.22 -\$8,402.35  Monte  Mean est.	\$1,718.90 \$1,701.23 \$1,701.45 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91 \$1,758.96 \$1,770.20 \$1,780.24  Equity \$10,648.76 \$11,048.34 \$11,826.61 \$12,761.69 \$13,689.41 \$14,752.37 \$15,797.82 \$16,976.54 \$18,137.36 \$19,430.63 *Carlo Simulation Resul Intrinsic Value \$41.29	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$585.63 \$647.86 \$654.19 \$719.40 Adjusted Price \$41.29 \$43.21 \$46.19 \$49.79 \$53.45 \$57.69 \$61.64 \$66.17 \$70.73 \$74.82
Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITDA Justified TEV/UFCF  LTM LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+7Y LTM+8Y LTM+8Y LTM+9Y  Revenue Variation Op. Costs Variation	0.73 120.0% 3.0% 8.0% Reverts to Maintenance 0.8x 6.1x 8.8x 20.0x  ROIC 55.4% 29.6% 28.8% 31.6% 31.4% 34.5% 37.8% 37.8% 41.2%  Base 0 0	LTM+1Y LTM+2Y LTM+3Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+7Y LTM+8Y LTM+9Y  WACC  6.8% 6.9% 7.0% 7.1% 7.2% 7.3% 7.4% 7.5% 7.6% 7.7%  Monte Carlo S  10%	1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1	90% 90% 89% 88% 88% 88% 87% 87% 86%  Valuation Enterprise Value \$10,156.61 \$9,896.82 \$10,013.85 \$10,189.57 \$10,342.29 \$10,521.41 \$10,659.93 \$10,814.12 \$10,920.38 \$11,032.52  Max N/A	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67 \$9,202.78 \$9,294.81 \$9,387.76  Total Debt \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$5.24 \$4.24 \$5.25 \$5.26 \$5.27 \$5	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08 \$659.91 \$665.43 \$729.44  Other claims -\$496.39 -\$1,155.77 -\$1,817.00 -\$2,576.36 -\$3,351.35 -\$4,235.19 -\$5,142.13 -\$6,166.66 -\$7,221.22 -\$8,402.35  Monte  Mean est. $\sigma(\mathbf{e})$	\$1,718.90 \$1,701.23 \$1,701.45 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91 \$1,758.96 \$1,770.20 \$1,780.24  Equity \$10,648.76 \$11,048.34 \$11,826.61 \$12,761.69 \$13,689.41 \$14,752.37 \$15,797.82 \$16,976.54 \$18,137.36 \$19,430.63 •Carlo Simulation Resul Intrinsic Value \$41.29 \$0.32	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$585.63 \$647.86 \$654.19 \$719.40  Adjusted Price \$41.29 \$43.21 \$46.19 \$49.79 \$53.45 \$57.69 \$61.64 \$66.17 \$70.73 \$74.82   18 1y-Target \$43.21 \$0.25
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Unlevered Beta Rev/Invested Capital Continuing Period Revenue Growth Long Term ROIC Invested Capital Growth Justified TEV/REV Justified TEV/EBITDA Justified TEV/EBITDA Justified TEV/UPCF  LTM LTM+1Y LTM+2Y LTM+3Y LTM+4Y LTM+5Y LTM+6Y LTM+6Y LTM+7Y LTM+8Y LTM+9Y  Revenue Variation Op. Costs Variation	0.73 120.0% 3.0% 8.0% Reverts to Maintenance 0.8x 6.1x 8.8x 20.0x  ROIC 55.4% 29.6% 28.8% 31.6% 31.4% 34.5% 37.8% 37.8% 41.2%  Base 0 0	LTM+1Y LTM+2Y LTM+3Y LTM+3Y LTM+4Y LTM+5Y LTM+5Y LTM+7Y LTM+8Y LTM+9Y  WACC  6.8% 6.9% 7.0% 7.1% 7.2% 7.3% 7.4% 7.5% 7.6% 7.7%  Monte Carlo S  10%	1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1	90% 90% 89% 88% 88% 88% 87% 87% 86%  Valuation Enterprise Value \$10,156.61 \$9,896.82 \$10,013.85 \$10,189.57 \$10,342.29 \$10,521.41 \$10,659.93 \$10,814.12 \$10,920.38 \$11,032.52  Max N/A	\$8,583.37 \$8,669.44 \$8,756.13 \$8,843.70 \$8,932.13 \$9,021.45 \$9,111.67 \$9,202.78 \$9,294.81 \$9,387.76  Total Debt \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$4.24 \$5.24 \$4.24 \$5.25 \$5.26 \$5.27 \$5	\$917.63 \$508.80 \$489.51 \$538.26 \$536.45 \$594.41 \$598.08 \$659.91 \$665.43 \$729.44  Other claims -\$496.39 -\$1,155.77 -\$1,817.00 -\$2,576.36 -\$3,351.35 -\$4,235.19 -\$5,142.13 -\$6,166.66 -\$7,221.22 -\$8,402.35  Monte  Mean est. $\sigma(\mathbf{e})$	\$1,718.90 \$1,701.23 \$1,701.45 \$1,701.45 \$1,709.89 \$1,721.71 \$1,734.46 \$1,746.91 \$1,758.96 \$1,770.20 \$1,780.24  Equity \$10,648.76 \$11,048.34 \$11,826.61 \$12,761.69 \$13,689.41 \$14,752.37 \$15,797.82 \$16,976.54 \$18,137.36 \$19,430.63 •Carlo Simulation Resul Intrinsic Value \$41.29 \$0.32	\$526.43 \$489.28 \$529.82 \$524.64 \$581.66 \$585.63 \$647.86 \$654.19 \$719.40 Adjusted Price \$41.29 \$43.21 \$46.19 \$49.79 \$53.45 \$57.69 \$61.64 \$66.17 \$70.73 \$74.82 19 19-Target \$43.21 \$0.25



Xoom Corp.

NYSE:XOOM

Analyst: Tom Kaczmarek
Sector: Technology

BUY

Price Target: \$22.11

# Key Statistics as of 3/5/2015

Market Price: \$16.09

Industry: Consumer Finance

Market Cap: \$622.7M

52-Week Range: \$13.14 - \$28.20

Beta: 2.05

## **Thesis Points:**

- Underestimated international growth
- Heavily oversold in last five months
- Implementation of profitable new product
- Growing market share

# **Company Description:**

Xoom Corporation (XOOM) was founded in 2001 as a digital money transfer service which specializes in international transactions. Unlike many competitors, all Xoom transactions occur digitally, transferring funds from customers' bank accounts to over 30 countries around the world. Xoom has developed a primary customer base of immigrants who require a low cost transfer service in order to send funds to their family abroad. Currently, XOOM shares are trading at a 35% discount from one year ago, as a result of external theft and management issues. With these short-term issues resolved, continued international expansion and efficiency improvements will allow the company to return to a more stable price.





#### **Thesis**

Xoom Corporation is in the early stages of recovering from a turbulent 2014. Over the past twelve months, stock price has fallen over 35%, despite robust organic growth and a successfully proven expansion model. This company has been strongly oversold due to unfavorable press which has little long-term impact on the firm's ability to operate and thrive. The partnerships which Xoom has made with utility companies and international banks to meet the needs of the remittance funds market has made the small company a strong competitor against large legacy rivals. This niche company has created the most convenient and cost-effective way for their customers to transfer funds, and is growing considerably with that trend expected to continue in 2015. Investor sentiment is beginning to recover from sour (and overexaggerated) notes in the press, but investor uncertainty has kept stock price suppressed over the past five months. At this time a BUY is recommended.

#### Growth

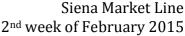
Date	Revenue, Adj: Growth %, YoY	Gross Profit, Adj: Margin %
FY2014	30.1769	71.4522
FY2013	52.727	68.8379
FY2012	59.968	66.5329
FY2011	52.3282	63.8645

Xoom's market share in the remittance market is a testament to the company's continued growth. Xoom has grown from serving nearly 1% of the market in 2010 to a 7% market share at the end of 2013, with over 20% growth in 2014. Xoom Corp has expanded rapidly in the past five years due to strong marketing efforts and an increasingly developed list of partner banks. Xoom's exposure has increased to serve 31 countries, with most customers using the service to transfer funds to family members in Latin America and Asia. With the exception of the \$30 M loss of cash as a result of theft, the company would have continued to see profit in 2014 for the third straight year. While Xoom is growing its topline at a rate of 30% annually, the company has also done a surprisingly good job increasing efficiency. While long term guidance for gross profit margin was given as 65-70%, this company has already exceeded that benchmark in three of the last four quarters. Following the acquisition of BlueKite in February 2014, Xoom invested heavily into adopting and converting the existing BlueKite headquarters in Guatemala City into a Xoom office. Following the completion of the project, Xoom relocated 50 of the firm's 295 employees. This has proven to be a cost savings measure, while also helping to increase Xoom's Latin American expansion. This has proven tremendously successful as in Q4 Mexico was proven to be the fastest growing nation for Xoom transactions. Revenue growth is expected to be 22% for the year 2015, primarily as a result of increased marketing efforts and the introduction of Xoom's Bill Pay service.

#### Expansion

While Xoom is growing rapidly in the 31 countries currently serviced, the company has identified other significant markets which will allow for continued organic growth in the coming years. Globally, the World Bank predicts an 8% CAGR in remittance transfers through 2016. While this represents healthy organic macro-level growth, Xoom is poised to further grow through international expansion. On September 22nd, Xoom announced a partnership with ICICI, the largest bank in India. In February, Xoom continued investing in India, announcing partnerships with the Bank of Baroda and the Union Bank of India. These partnerships will allow Xoom's customers to deposit money into recipients' bank accounts anytime, any day, including bank holidays. By developing an extensive network of bank partners in India, this market now accounts for over 13% of Xoom's revenue. This is a model which the company has proven to be successful, and plans to replicate in other nations. In the company's Q1 2014 Earnings Call, John Kunze (President and CEO) stated "We certainly hope to build or open up more receive market in the next six to 12 months, with a first priority on China". Service is now available in China, although the company will not give any guidance for revenue through China for the next year. Analyst expectations are considering the Chinese market to not be material for the next twelve months for Xoom, so any realized gains sooner than 2016 will be unforeseen.

Xoom has seen outstanding growth in both Mexico and India in the past year, growing at 48% and 40% respectively. Although some critics believe that Xoom has reached near maturity in these markets, growth for both segments is estimated at 20% for the next year due



loss of value which occurred on the following day.

# SIENAcollege

to increasing customer acquisition and reacquisition of old customers. Currently operating in 31 countries, Xoom is exposed to \$97 B of the \$549 B remittance market, more than enough room for this low priced convenience service provider to grow and thrive in.



# Litigation

Although Q3 EPS achieved a 207% surprise over expectations, the price of shares plummeted 25% in next day trading as a result of slightly lowered guidance and resignation of CFO Ryno Blignaut. Although over the earnings call it was stated that Mr. Blignaut was not leaving based on disagreement with the firm, Rosen Law Firm announced an investigation of Xoom Corp. the next day on claims of issuing misleading business information. While this report was concerning and significantly impacted the stock price of the company, not material evidence has been presented and the case has stagnated. Stock price has still not recovered from the report, which may represent a market which has not adjusted for a false alarm.

On December 30, 2014, Xoom Corp announced that the firm had been a victim of fraud which resulted in a \$30.8 M loss. This fraud was the result of email fraud which entered the companies finance department and managed to steal \$30 M of corporate cash. While this act of fraud was embarrassing to the company, customer data had not been breached and additional security measures have been taken by the company. On the same day, the company's new CFO Matt Hibbard, who had been actively in his position for 30 days, announced his resignation. It was announced that former CFO Ryno Blignaut would assume the position until a replacement was found. This timeline indicates that Hibbard's resignation (which came one day after the fraud discover) is most likely related to the embarrassing employee impersonation fraud which managed to steal \$30 M from the company, but does not equate to a 16%

## **Increasing Retention**

Revenue calculations for Xoom can be estimated using a similar model to a subscription based business due to the high rate of customer retention. Xoom customers make on average 2.7 transactions per quarter, roughly once per month. This figure strongly correlates to the primary customer base of immigrants who send remittance payments to their home country on a monthly basis. Xoom fills a niche in this market by providing convenience and safety. In many developing countries where a majority of remittance funds are traveling to, it is either inconvenient or unsafe for recipients to travel to wire transfer stations like Western Union offices to receive cash. It is not uncommon for recipients to be robbed in certain countries by criminals who prey on wire transfer users. Additionally, many recipients live in rural areas or areas where it is difficult to travel to a wire transfer station. By remotely paying utility bills from the U.S., the amount of funds to be received in cash is eliminated by directly depositing the funds to the recipients' bank account.

Xoom is continuing to meet the needs of this audience through integration of the company's Bill Pay option which launched successfully in the last two quarters. Bill Pay has established direct connections with a network of utility companies around the world, which allows bills to be paid remotely and instantly from a mobile phone or desktop. Xoom is utilizing a well-developed and growing network of utility companies to create an additional revenue stream for the firm while also creating a more convenient experience for the user. By further developing the Bill Pay option, Xoom has been able to further capitalize on a major current use of the company's services. Each bill paid through Bill Pay charges a flat \$2.99 charge, which will create material earnings expected in Q2 and Q3.

While Bill Pay will help continue consistent revenue and spur short term growth, this service also helps to retain users. By creating the most convenient international bill payment option at a lower cost than many competitors, Xoom has experienced tremendous customer retention levels. Due to Xoom offering the ability to pay utility bills in foreign countries through their services, it is unlikely that customers would abandon the company's services due to: the company's competitive rates, ease of



use, and inconvenience of migrating to a different service. Xoom has seen mobile app usage increase dramatically, now accounting for 55% of transactions. Customer reviews indicate that the mobile application is generating more frequent transactions and also increasing customer retention.

# Competition

Xoom Corp faces competition from other boutique money transfer services as well as the current industry dominator, Western Union. Unlike Western Union and traditional brick and mortar money wiring services, Xoom transactions do not use cash. Xoom transactions are exclusively executed through checking accounts and credit/debit cards. This allows for several competitive advantages, most prominently being lower overhead. Since Xoom transactions are entirely electronic, lower base rates for transactions can be established. Considering that the typical transaction through Xoom is \$200-\$300, it is important to the customer to keep transaction costs as low as possible. The typical Xoom transaction will cost \$5-\$6 for transfers under \$2,500. This is in contrast to Western Union fees which can average 9% of the total remittance value.

Other direct competitors include:

- MoneyGram International (MGI)
- VersaPay (VPY)
- Bitcoin (Privately Held)
- Cashpin Corp (Privately Held)

While these companies also offer money transfer services both domestically and abroad, these US based companies have had difficulty expanding internationally. Cashpin Corp. has faced tremendous difficulty reaching a broad market, while Bitcoin has been perceived as unreliable due to its non-centralization and complex interface. By having a user-friendly and adaptive product with a money back guarantee which is enforced by inception to completion tracking, Xoom has been able to not only adopt but retain a loyal customer base.

#### Summary

strong sell off following a CFO resignation and a case of external theft and fraud. As a result, share price has fallen 35% and is now in the process of recovering. Short interest in the company has been declining significantly over the past two months, reaching 8.36 from an all-time high of 15.15 in January. While Xoom has not yet achieved the same level of profitability as larger competitors, the company's product has been proven to be useful in the marketplace. The number of active users has increased 21% year-over-year, and high retention levels will allow for consistent revenue. Gross margin long term guidance has been guided up to 71.5%, with long-term plans to create bottom line growth from a rapidly growing topline. Xoom has met the needs of a very particular group of customers which larger competitors have not had interest in meeting the needs of. Xoom's growing network of utility companies and banks will solidify revenue expectations for the company. Additionally, over the next twelve months, Xoom will begin realizing material gains from the Bill Pay service and new business in China. For these reasons, a BUY is recommended with a target price of \$22.11.

Xoom Corporation is a company which has faced a



Market Cap.: 622.7M Shares Out.:38.7M Description: Xoom Corporation  ASSUMPTIONS FISCAL YEAR FISCAL QUARTER REV Growth (QOQ) COR/REV SGA/REV R&D/REV Other Op. Exp./REV DPR/REV OCA/REV OCL/REV INCOME Total Revenue Cost of Revenues SG&A Exp. R&D Exp.	Beta: 1.45	Short Int.: 4.1% Short Cov.: 8.06 ital consumer-to- 3/31/2015 2015 Q1 0% 28% 44% 23% 0%	Last Div.: Next Div.: Consumer onli  6/30/2015 2015 Q2 11% 27% 42%	NM	Instit. Hold.: Insiders Hold.: nsfers services wo 12/31/2015 2015	3.8% orldwide. IPO o	Analysts' Rec.: Analysts' Target: n 2/15/2013.	_	Poison Pill: nt+Capex Cov.:	
Description: Xoom Corporation  ASSUMPTIONS  FISCAL YEAR  FISCAL QUARTER  REV Growth (QOQ)  COR/REV  SGA/REV  Other Op. Exp./REV  DPR/REV  OCA/REV  OCA/REV  OCL/REV  INCOME  Total Revenue  Cost of Revenues  SG&A Exp.	12/31/2014 2014 LTM 30% 29% 45% 23% 0% 2% 60%	3/31/2015 2015 2016 0% 28% 44% 23%	6/30/2015 2015 202 11% 27%	9/30/2015 2015 23	nsfers services wo 12/31/2015	rldwide. IPO o		\$21.73	nt+Capex Cov.:	С
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REV Growth (QOQ) COR/REV GA/REV SGA/REV Other Op. Exp./REV DPR/REV DOCA/REV DOCA/REV NCOME Total Revenue Cost of Revenues G&A Exp.	30% 29% 45% 23% 0% 2% 60%	0% 28% 44% 23%	11% 27%			2015 NTM	2016 NTM+1Y	2017 NTM+2Y	2018 NTM+3Y	2019 NTM+4Y
COR/REV GA/REV GA/REV UNDERFOREV OPERFOREV OCA/REV OCL/REV NCOME Total Revenue G&A Exp.	29% 45% 23% 0% 2% 60%	28% 44% 23%	27%	U/7/a	<u>Q</u> 4 9%	22%	18%	10%	8%	6%
A&D/REV Other Op. Exp./REV OPR/REV OCA/REV OCA/REV NCOME Total Revenue Cost of Revenues G&A Exp.	23% 0% 2% 60%	23%	42%	27%	26%	27%	26%	26%	26%	26%
Other Op. Exp./REV DPR/REV DCA/REV DCA/REV NCOME Total Revenue Cost of Revenues G&A Exp.	0% 2% 60%		.2.70	42%	40%	42%	41%	41%	41%	41%
DPR/REV DCA/REV DCL/REV NCOME Fotal Revenue Cost of Revenues G&A Exp.	2% 60%		22%	22%	21%	23%	22%	22%	22%	22%
OCA/REV OCL/REV NCOME Total Revenue Cost of Revenues G&A Exp.	60%		0%	0%	0%	0%	0%	0%	0%	0%
OCL/REV NCOME Total Revenue Cost of Revenues G&A Exp.		2%	2%	2%	2%	2% 55%	2% 53%	2% 51%	2% 50%	2% 48%
NCOME l'otal Revenue Cost of Revenues G&A Exp.						16%	16%	16%	16%	16%
Cost of Revenues G&A Exp.	12/31/2014	3/31/2015	6/30/2015	9/30/2015	12/31/2015	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/201
G&A Exp.	\$159.08	\$43.86	\$48.86	\$48.67	\$53.16	\$194.54	\$229.56	\$252.52	\$272.72	\$289.08
•	\$45.42	\$12.30	\$13.05	\$13.00	\$13.79	\$52.14	\$60.08	\$65.63	\$71.03	\$75.37
OXD Exp.	\$70.88	\$19.20	\$20.38	\$20.29	\$21.52	\$81.39	\$93.78	\$102.43	\$110.86	\$117.63
Other Op. Exp.	\$36.78 \$0.00	\$9.96 \$0.00	\$10.57 \$0.00	\$10.53 \$0.00	\$11.17 \$0.00	\$42.23 \$0.00	\$50.50 \$0.00	\$55.17 \$0.00	\$59.70 \$0.00	\$63.35 \$0.00
Other Op. Exp. O&A Exp.	\$3.93	\$1.08	\$1.21	\$1.20	\$1.31	\$4.81	\$5.67	\$6.24	\$6.74	\$7.14
Op. Exp. (excl. D&A)	\$149.15	\$40.39	\$42.80	\$42.62	\$45.16	\$170.96	\$198.69	\$216.99	\$234.85	\$249.21
BITDA	\$9.94	\$3.47	\$6.06	\$6.06	\$8.00	\$23.59	\$30.87	\$35.53	\$37.87	\$39.87
Net Interest Exp.	-\$1.09	\$0.26	\$0.26	\$0.26	\$0.26	\$1.02	\$1.92	\$2.92	\$4.01	\$5.28
Other "non-op." Exp.	-\$0.22	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Jnusual Items	-\$30.97	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ncome Tax Exp.  Earn. from Cont. Ops.	\$0.05 -\$26.31	\$0.99 \$1.65	\$1.92 \$3.19	\$1.92 \$3.19	\$2.60 \$4.34	\$7.43 \$12.38	\$10.17 \$16.95	\$12.08 \$20.13	\$13.18 \$21.97	\$14.25 \$23.75
Ext. earnings (loss)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
vlin. Int. in Earnings	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Net Income	-\$26.31	\$1.65	\$3.19	\$3.19	\$4.34	\$12.38	\$16.95	\$20.13	\$21.97	\$23.75
Total Dividends Paid	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FIN. POSITION	12/31/2014	3/31/2015	6/30/2015	9/30/2015	12/31/2015	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/20
Cash & ST Investments	\$178.99					\$178.99	\$178.99	\$178.99	\$178.99	\$178.99
Receivables nventory	\$18.59 \$0.00					\$20.90 \$0.00	\$23.77 \$0.00	\$25.16 \$0.00	\$26.63 \$0.00	\$27.10 \$0.00
Other CA	\$76.58					\$86.10	\$97.90	\$103.63	\$109.73	\$111.66
Operating CA	\$95.17					\$107.00	\$121.67	\$128.78	\$136.36	\$138.76
Net PP&E	\$15.67					\$16.11	\$16.51	\$16.88	\$17.22	\$17.51
ntangibles	\$14.16					\$14.16	\$14.16	\$14.16	\$14.16	\$14.16
Other Assets	\$11.73					\$11.73	\$11.73	\$11.73	\$11.73	\$11.73
Total Assets	\$315.72					\$327.99	\$343.06	\$350.55	\$358.46	\$361.15
Accounts Payable	\$0.98					\$1.20	\$1.41	\$1.55	\$1.68	\$1.78
Accrued Exp. Other CL	\$12.05 \$13.04					\$14.74 \$15.95	\$17.39 \$18.82	\$19.13 \$20.70	\$20.66 \$22.35	\$21.90 \$23.70
Operating CL	\$26.07					\$31.88	\$37.62	\$41.39	\$44.70	\$47.38
Total Debt	\$28.00					\$17.35	\$9.73	\$0.00	\$0.00	\$0.00
Other Liabilities	\$5.89					\$5.89	\$5.89	\$5.89	\$5.89	\$5.89
Total Liabilities	\$59.96					\$55.12	\$53.24	\$40.60	\$26.55	\$5.48
Preferred Equity	\$0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Common Equity	\$255.77					\$272.87	\$289.82	\$309.95	\$331.91	\$355.67
Minority Interest  Cotal Equity	\$0.00 \$255.77					\$0.00 \$272.87	\$0.00 \$289.82	\$0.00 \$309.95	\$0.00 \$331.91	\$0.00 \$355.67
CASH FLOW	12/31/2014					12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/201
NWC Spending	-\$33.82					-\$6.01	-\$8.93	-\$3.35	-\$4.26	\$0.28
CAPEX	-\$14.51					-\$5.25	-\$6.07	-\$6.61	-\$7.07	-\$7.43
ale of intangible	\$0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
tock-Based Comp.	\$9.42					\$9.42	\$9.42	\$9.42	\$9.42	\$9.42
Jnlevered FCF	-\$31.23 3/9/2015					\$14.70 12/31/2015	\$15.84 12/31/2016	\$23.99 12/31/2017	\$24.27 12 /31 /2018	\$29.87
WACC as of Weight of Equity	3/9/2013 94.1%					<b>12/31/2015</b> 97.4%	98.8%	12/31/2017 100.0%	12/31/2018 100.0%	12/31/20 100.0%
veignt or Equity Seta	1.45					1.45	1.45	1.45	1.45	1.45
Cost of Equity	14.5%					14.7%	15.0%	15.2%	15.5%	15.7%
Estimated Rating	С					BAA	BAA	BAA	BAA	BAA
Cost of Debt	0.0%					0.0%	0.0%	0.0%	0.0%	0.0%
WACC	14.2%					14.4%	14.8%	15.2%	15.5%	15.7%
VALUATION as of	3/9/2015					12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/20
mplied Ent. Val.	\$471.67 \$150.00					\$673.20 \$161.64	\$798.25 \$160.26	\$899.89 \$185.66	\$985.26	\$1,073.52 \$226.79
Net Debt Pref. Eq. & Min. Int.	-\$150.99 \$0.00					-\$161.64 \$0.00	-\$169.26 \$0.00	-\$185.66 \$0.00	-\$203.03 \$0.00	-\$226.78 \$0.00
mplied Market Cap.	\$622.67					\$834.84	\$967.51	\$1,085.55	\$1,188.29	\$1,300.30
Diluted Shares	38.70					38.70	38.70	38.70	38.70	38.70
Price per Share	\$16.09					\$21.57	\$25.00	\$28.05	\$30.71	\$33.60
AIR VALUE as of	3/9/2015					3/8/2016	3/8/2017	3/8/2018	3/8/2019	3/7/202