

Stock	Buy / Sell	Thesis	Current Price	Target Price
BIP	Buy	Brookfield distributes non-discretionary services across a broad base of diverse sectors as they specialize in the movement of goods, people, data, energy, water, and more. They utilize their competitive advantage in a non-elastic field by specializing in their ability to acquire significant portions of competing firms, or those that they believe will add momentum in order to achieving their objectives. Besides their tremendous access to capital, Brookfield's assets in various geographic areas across the globe allow them to capitalize in markets where privatization of infrastructure is necessary and sought after as well as diversify global risk. Looking forward, BIP will bring safe returns based off of their growing financials, upcoming projects, and their ability to penetrate the market with the latest and most innovative influences. On top of everything, Brookfield is trading cheaper on a multiple status, than seen within the last four years of the company's history.	\$ 32.22	\$ 38.00
CAA	Buy	CalAtlantic is showing signs of undervaluation especially when comparing what the company has to offer with competitors. The company tries to meet customers' expectations and does more than its peers to grow (merger). The current financials and relative valuation is showing that CAA is more profitable than most of the industry. The company maintains higher margins in a recovering markets. I believe that external macro-economic factor could actually be in favor of the company such as fear in interest hike and future inflation.	\$ 33.33	\$ 44.90
GIG	Buy	GigPeak focuses on the future of certain areas in technology. It is currently the only supplier of specific products that will be needed in the market by early 2017. The company bought 8 companies since 2007 to increase its product lines and to grow, while managing to issue very little debt. It is a growth company with a big potential for further development across the industry.	\$ 2.78	\$ 3.75
JAZZ	Buy	Jazz is a mid-sized player in the pharmaceutical sub industry. It is currently trading near 52 week lows and has lots of upside potential. Jazz outperforms its competitors and is still undergoing rapid growth (as can be seen in the price chart provided in summary). Jazz has a diverse and unique set of products in its portfolio, all of which are patent protected. As well, JAZZ has a very promising pipeline with multiple late stage approval drugs. With insiders buying multiple shares and increased hedge fund interest, now is an ideal time to BUY shares of JAZZ.	\$ 109.25	\$ 128.44
UA	Buy	Under Armour is a growth oriented stock that is currently undervalued because of an overreaction to its proposed strategy of maintaining over 20% growth in revenue while sacrificing short term profits. Investors sold the stock off for a near 25% decline which provides an optimal buying opportunity as the stock is trading at 22.55x EV/EBITDA, 50.69x P/E, and 2.72x P/Sales, the lowest multiples in the past 3 years. CEO and Founder Kevin Plank and his experienced management team are determined to follow the vision of growth that will lead UA in surpassing its competitors while still promoting a healthy lifestyle for its customers. My research and analysis of UA provides reasoning for my proposition of a BUY at \$31.	\$ 30.95	\$ 40.00

## Macroeconomic Overview

	Index	Weekly % Change	YTD % Change
SPX Index	S&P 500	0.81%	6.75%
INDU Index	Dow Jones Industrial	0.11%	8.28%
CCMP Index	NASDAQ Composite	1.61%	6.27%
RTY Index	Russell 2000	2.59%	15.82%
VIX Index	VIX	-12.82%	-29.43%

### U.S. Markets:

Markets experienced moderate movement this week all in positive territory as the country moves into the holiday season. With rate hikes becoming more

and more of a reality, the Russell 2000 prospered the most change this week, sitting at a 2.6% gain. Investors are seeing the upcoming rate hikes as giving small-cap companies more exposure to lending services as they should give institutions the much needed incentive to loan to riskier applicants given a slightly larger window for spreads to grow. Higher bond yields also aid financials to broaden their perspectives of applicants. Along with this, many financials are looking forward to an environment that promotes less regulation standards under a Trump presidency.

Despite the two-week surge in the markets, analysts claim there is still a heavy amount of uncertainty culminating from the early stages of President-Elect Trump's policy plans. Areas such as healthcare haven't gained the trust of investors as the status of the Affordable Healthcare Act is still up in the air. The decision to repeal or amend will have longing effects on other wobbly sectors such as pharmaceuticals.

**Commodities:** The West Texas Intermediate oil futures for delivery in December rose slightly, about .98%, and settled at \$46.14 a barrel. Investors continue to respond to OPEC's decision to cut supply in order to adequately meet demand, a feat not yet conquered in over two years. In light of the committee's decision to shift reduction responsibilities to other nations while appeasing Iran to only cap their production, analysts at Barclays signal that U.S. producers won't hesitate to capitalize on OPEC's decisions, referring to a possible growth in production topping out at \$55 a barrel.

Gold fell on Friday to a five month low to \$1203.52 as the dollar has hit its highest pinnacle in over thirteen years backed by expectations of the Fed's decision to increase rates. The continued strength of the dollar outperformed foreign currencies as exchange traders anticipate the fiscal effects of President-elect Trump's policies in the upcoming term. Futures for December deliveries also settled a measly .7% above their weakest point in eight months. This trend is also seen in the movement of silver and platinum, both of which hit lows since June and February (\$16.42 and \$911) respectively.

**Specific news:** President-elect Trump took full advantage of the week to begin formulating his cabinet to aid the development of alterations in various arenas; healthcare still sits as the main focus for many investors. Regulation bureaus such as the SEC has fallen to only two members as the chairwoman Mary Jo White stepped down earlier this week. Investors see the committee to have less weight as a less regulated economic landscape will soon take shape.

This week also witnessed a remarkable drop in the jobless rate, sinking to a 43-year low as other records within the housing sector proved bright as well. Housing permits were the highest recorded since 1982 as starts spiked 25%.

**Next week ahead:** With a shortened week ahead, market reports of existing home sales will be released on Tuesday and jobless claims will be on Wednesday with the FOMC minutes later in the day. On Friday, the Fed will release its latest balance sheet.

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## International Markets

	Index	Weekly % Change	YTD % Change
BE500 Index	BE 500	0.50%	-8.70%
SXXP Index	Stoxx Europe 600	0.56%	-7.22%
DAX Index	DAX	-0.03%	-0.73%
UKX Index	FTSE 100	0.67%	8.55%
CAC Index	CAC 40	0.34%	-2.86%
NKY Index	Nikkei 225	3.41%	-5.60%
SHCOMP Index	Shanghai Composite	-0.10%	-9.79%
SZCOMP Index	Shenzhen Composite	0.15%	-8.56%

**Europe:** European indices gained minimal momentum facing the looming effects of post-Brexit impacts. A recent forecast conducted by Phillip Hammond claims that the UK will face a 100 million pound deficit in the next five years. Market figures responded in the UK gaining just under

.7%, driven by the uncertainty of the forecast as well as the United Kingdom's next steps into a fiscal stimulus as they emerge from historical measures of one surrounding monetary policy. On the Mediterranean, Italian bond yield skyrocketed to their highest point in over a year due to a major sell off as investors process the possible outcomes of an upcoming vote that would dethrone their prime minister.

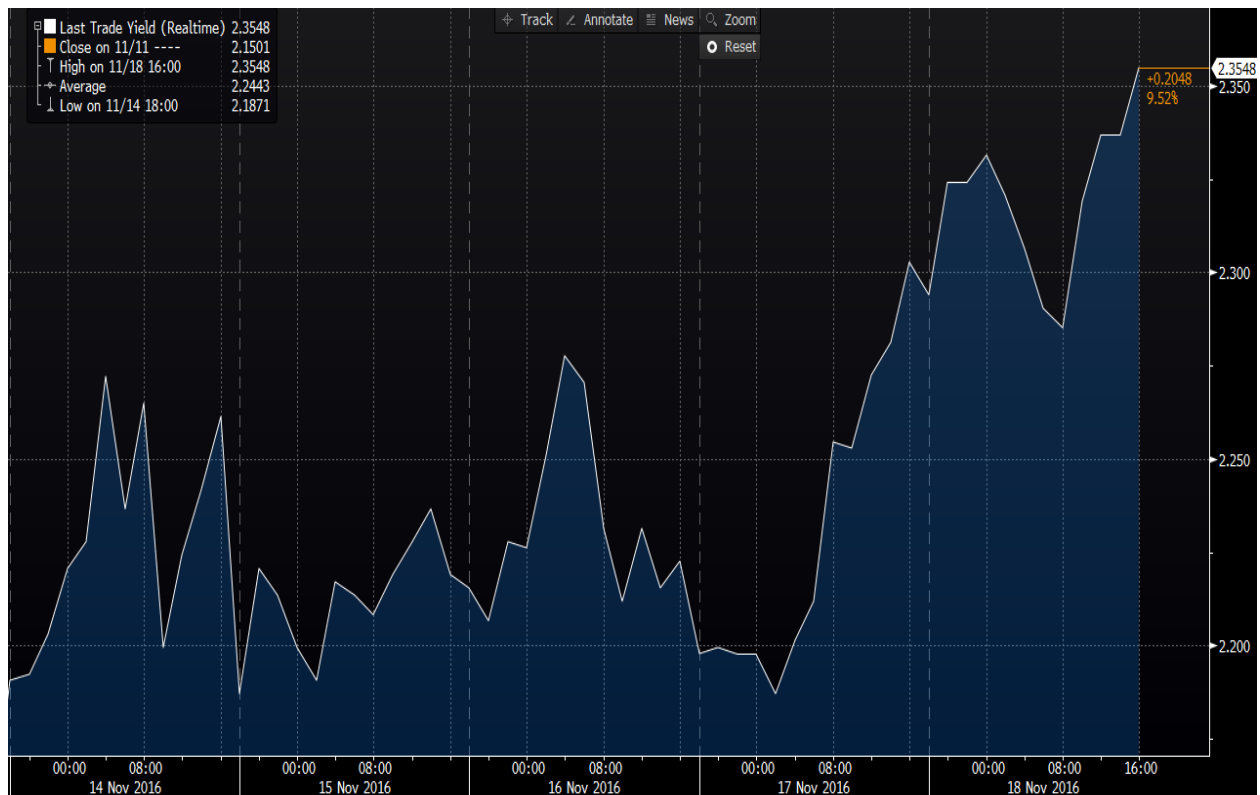
In other bond news, ECB President Draghi announced that in light of the Eurozone's continued state of economic weakness, the bank's bond purchasing program may extend into the next month until substantial inflation improvement is realized. Despite the dark prospects throughout Europe, consumer sentiment, much like the slow recovery across the pond, has remained buoyant. Confidence surveys claim that retail sales figures grew at their fastest rate in fourteen years, signaling a brighter future for UK's growth prospects.

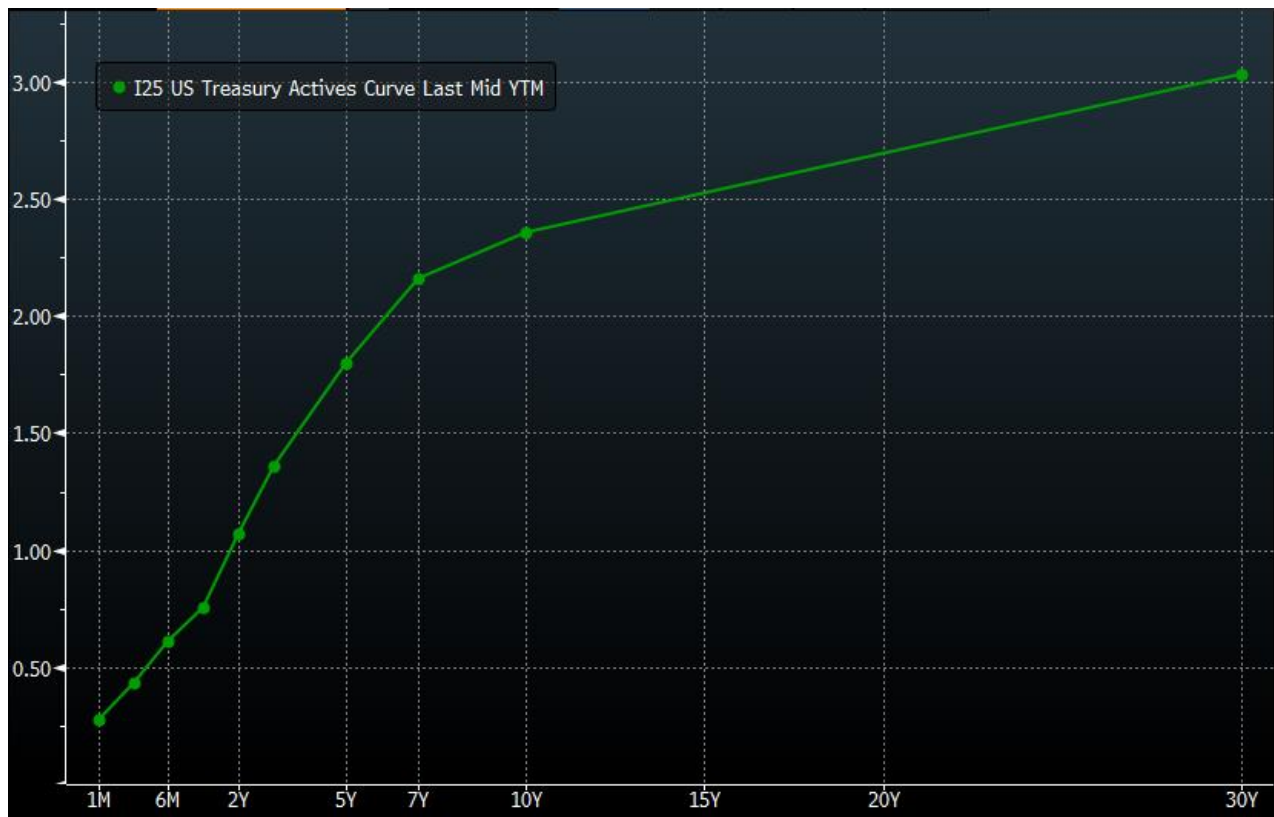
**Asia:** The Nikkei index finished strongly deep into the green this week as Japan witnesses a much stronger-than-expected GDP growth with a YoY figure of 2.2%, toppling the .8% forecast. Economists attribute the gain to increased exports rather than private consumption which correlates with overall consumer sentiment in the country as negative rates are still a reality. The BoJ has taken measures to influence the rates on two-year bond yields and five-year yields by implementing its first fixed rate debt buying policy. On Friday, the ten year bond yield hit positive territory, clearing .04% by week's end, the first seen since the central bank's attempt to control the yield curve, an implementation effective Sep. 21.

China suffered greatly this week as the Yuan hits an eight year low versus the dollar, with no help from the USD's surge in value this week. The direct rate fell to \$.1455 as uncertainty of trade relationships with the U.S. loom over consumers. Trump's campaign proposed to pin tariffs on Chinese imports into the U.S and contributed to testify against the nation's methods of influencing the value of its currency.

## Bond Report

Treasury prices continue to be under downward pressure driven by expectations of economic stimulus by the Trump Administration. The 2-year Treasury yield ends the week at 1.058% while the 10 Year yield is up to 2.337% and the 30 year up to 3.017. Investors are leaving the safety of Treasury bills and other fixed income securities to take advantage of the economic stimulus by investing in equities. Infrastructure spending by the government means higher supply of Treasuries and higher yields which have been steadily rising since the outcome of the election last week because of new inflation outlook and interest rates which will most likely begin to rise in December. Many believe the bond sell off is not done yet because if inflation starts to happen faster than expected, bond prices will fall further. Fed Chairwoman Janet Yellen's hawkish remarks drove bond prices down later in the week as she states that a rate increase will happen relatively soon given that upcoming economic data will provide them with enough evidence of an improving economy. Yields end the week higher on the inflation trend. Near certainty that fed will raise rates.





### Key Events and what to look for:

The President elect continues to influence investor sentiment which is what caused most of the declining bond prices; continuing into this week Trump will announce more cabinet members which will have investors' attention. Positive inflation for the month of October and improving new home construction help FED Chairwoman Yellen's case of raising rates in December. In the coming week, there are several indicators investors will be waiting for. Existing Home Sales, Jobless claims, New Home Sales, and the Bloomberg Consumer Comfort Index should give us an idea of major consumer spending trends and outlook. The PMI Manufacturing index, Durable goods orders, and International Trade in goods should indicate that we are on a trend of improving economic health. Lastly, on Wednesday the Federal Open Market Committee will give us their economic outlook in the FOMC Minutes.

## Brookfield Infrastructure Partners, LP

NASDAQ:BIP

**Analyst:** James Hannahs

**Sector:** Utilities

**BUY**

Price Target: \$38

### Key Statistics as of 11/28/2016

Market Price: \$32.81  
 Industry: Electric Utilities  
 Market Cap: \$11.9B  
 52-Week Range: \$20.33-35.03  
 Beta: 1.08

### Catalysts:

- Inevitable Federal Reserve rate hike
- Increasing sub-sector competition
- Telecommunication Innovations
- Aftermath of shale oil discoveries in Texas

### Company Description:

Brookfield Infrastructure Partners, LP (BIP) specializes in the distribution of non-discretionary infrastructure networks including energy storage, water, freight, passengers, and data. They operate globally across five continents with a supreme strategy to acquire businesses and sell assets to reinvest in the business's capital. This allows them to corner specific segments within their operations to invest in breakthrough technologies that help diversify their revenue streams. Currently, BIP has their hand in domestic pipelines, mega infrastructure grids in nations that desperately need quality roads, and telecommunication services that will assimilate into the next era of communications; all of which are led down paths of success due to their contrarian growth strategy. Lastly, BIP is a child company of the world's oldest and arguably most effective management team, Brookfield Asset Management (BAM). BAM diversifies their revenue base beyond BIP's range of business including real estate, renewable power, and private equity on a global basis.



## Sub-Sector Breakdown

BIP operates five main sub-sectors within their operations:

- **Utilities:** This branch alone covers four continents as their overall presence within North and South America alone outlasts a century. According to their website, BIP manages over 10,500 km of electricity transmission, 2.6m electricity and gas connections, and 85m tons of coal handling capacity on an annual basis. Currently, the utilities sub-sector is present in the U.S., U.K., Chile, Colombia, and Australia.
- **Transport:** Mainly, BIP moves essential items and people throughout diverse infrastructure networks. Under operations are 38 ports in four continents, 3600 km of toll roads across isolated regions such as South America and India, and host rail traffic in Australia and South America as well.
- **Energy:** BIP's capacity to facilitate the transmission of energy is reinforced by long-term contracts associated with large-scale clientele. On home soil, BIP's assets include a vast network of natural gas and pipeline systems, storage centers for natural gas, and expansive heating and cooling systems (also in Canada). Overseas in Australia, BIP operates gas distribution networks that are unregulated, as well as storage centers and other heating and cooling systems.
- **Communications Infrastructure:** This is where BIP provides networks to broadcasting and telecom sectors. Much like the energy aspect of the company, their communications assets provide stable cash-flows through long-term contracts with well-established clientele. In fact, BIP owns and operates 7,000 multi-purpose towers as well as 5,000km of fiber-optic networks in France alone.
- **Sustainable Resources:** BIP provides the raw materials needed to produce various goods, both discretionary and non-discretionary. Their share in the timberland and agriculture operations over two continents covers over 4.2 million acres, collectively.

## How Did BIP Get There?

Through BIP's contrarian investment strategy, their main focus is geared in acquiring assets that they value as an integral part of their operations. In doing so, they are able to further branch their global positions. Below is a list and short description of major transactions:

- 2016:  
***Nova Transportadora do Sudeste S.A. (NTS)*** – A system of natural gas transmission networks located in Brazil. BIP and conglomerates agreed to buy 90% of the company for a total of US\$5.2B; BIP individual representation of \$825m.  
***Asciano Limited*** – Australian based, high quality port and rail logistics company. Conglomerates agreed to acquire the company in its entirety for approximately A\$12B; BIP individual contribution of US\$350m.
- 2015:  
***Natural Gas Pipeline Company of America LLC (NGPL)*** – One of the largest interstate pipeline system, boasting 9,200 miles of pipelines. BIP jointly bought the remaining share of the pipeline with Kinder Morgan (KMI) to increase their shares from 27% to 50%, and 23% to 50% respectively. Total purchase price of \$242m, \$106m from BIP.

Also, earlier this year, BIP acquired a California water developer in its late stages. The plan is to build a water desalination plant in Orange County and estimate a total \$800m once the operation is up and running.





## Supplemental Financials

BIP proves itself to be a different animal both through operations and through financials. Using the standard free-cash-flows model cannot be attributed to a company that holds so much value with its various assets. Instead, the cash flows are measures as funds-from-operations (FFO) instead of general cash flows. The main reason being that companies like BIP have large amounts of assets that increase in value whereas typical companies take depreciation as an expense because of the products' shelf lives. FFO takes net income and adds back D&A as well as gains/losses on properties, then subtracting CapEx to come to an even more accurate figure of adjusted-funds-from-operations (AFFO). Below is a table depicting LFY AFFO figures:

Metric	Q3 2016	Q3 2015	YoY Change	YTD 2016	YTD 2015	YoY Change
Revenue	\$522 million	\$468 million	11.5%	\$1.438 billion	\$1.4 billion	2.7%
FFO	\$235 million	\$210 million	11.9%	\$699 million	\$604 million	15.7%
AFFO	\$183 million	\$171 million	7.0%	\$581 million	\$508 million	14.4%
Units Outstanding	345.3 million	346.4 million	-0.3%	345.2 million	334.8 million	3.1%
AFFO/Unit	\$0.53	\$0.49	7.4%	\$1.68	\$1.52	10.9%
Forward Distribution	\$0.39	\$0.353	10.5%	\$1.17	\$1.06	10.5%
AFFO Payout Ratio	73.6%	71.5%	2.9%	69.5%	69.8%	-0.4%

### Seeking Alpha

AFFO per unit has grown double digits over the past year, indicating the most crucial aspect to investors' pockets. BIP's target circles around 5% - 9% and they have continued their streak of outperforming. Not only does FFO and AFFO stand as a key profit metric, but also a strong proxy to forecast future growth.

Those funds go towards implementing the company's attractive dividend distribution strategy of 60-70% of FFO, a figure that has maintained a 12% CAGR figure since inception.

USE, UNAUDITED	2008	2009	2010	2011	2012	2013	2014	2015	2016F
Annual Distribution <sup>1</sup>	\$ 0.59*	\$ 0.71	\$ 0.73	\$ 0.88	\$ 1.00	\$ 1.15	\$1.28	\$1.41	\$1.55
Growth	N/A	—	4%	20%	14%	15%	12%	10%	10%

According to Seeking Alpha, BIP offers one of the highest dividend payout percentages in the entire utilities industry, which has a slow growth rate anyway. Beyond the payouts, the buying capacity of BIP is remarkable, solely based on their ability to acquire capital to invest in large-scale asset purchases. This year alone, BIP has been able to increase capital backlog by over 50%, to their highest levels to date.

## Siena Market Line 3<sup>rd</sup> week of November 2016

The following table outlines their detailed liquidity structure:

Total liquidity was \$3.0 billion at September 30, 2016, comprised of the following:

US\$ MILLIONS, UNAUDITED	As of	
	Sep 30, 2016	Dec 31, 2015
Corporate cash and financial assets	\$ 326	\$ 286
Committed corporate credit facility	1,975	1,875
Subordinated corporate credit facility	500	500
Draws under corporate credit facility	(482)	(407)
Commitments under corporate credit facility	(49)	(83)
Proportionate cash retained in businesses	345	257
Proportionate availability under subsidiary credit facilities	434	472
Total liquidity	\$ 3,049	\$ 2,900

The liquidity measures prove that BIP stays prepared to take advantages of upcoming opportunities across the globe that will further increase cash flows. In fact, with an immense amount of liquidity that BIP holds, there is a clear indication of growing AFFO for continuing periods.

As far as the company's debt structure is concerned, their D/E for the LFY was marginally above the last five year average, as their total line of credit has increased approximately 2.7x since 2011. This shows the immense amount of equity the firm has been able to balance with the increasing amount of debt. Furthermore, the company finances most of their transactions on an unlevered basis, allowing them to utilize the largest amount of backlog in the company's history. By the end of 2017, BIP will meet maturing debt obligations consisting of a \$424m bond principle, an outstanding term loan of \$100m, and satisfy the remainder of a bond principle maturing by year's end in total of \$12m.

Finally, below is a list of crucial margins and growth percentages:

Sub-Sector	2016 (Nine mo. End 9/30)		2015		2014		2013	
	Adj. EBITDA	Margin	Adj. EBITDA	Margin	Adj. EBITDA	Margin	Adj. EBITDA	Margin
Utilities	399	87%	524	75%	519	71%	547	66%
Transport	441	49%	555	49%	599	48%	497	47%
Energy	202	55%	166	48%	139	45%	137	42%
Comm. Infr.	67	54%	66	54%	-	-	-	-
Corp./Other	(122)	-	(134)	-	(115)	-	(71)	-
Total	987	-	1,177	-	1,142	-	1,110	-
Revenue	1,893	-	1,855	-	1,924	-	1,826	-
Adj. EBITDA Margin	52%	-	63%	-	59%	-	61%	-

With a quarter left in BIP's fiscal year, they are optimistically advancing their EBITDA margin to become comparable with LFY's figures, suggesting growth is expanding beyond historical estimates.

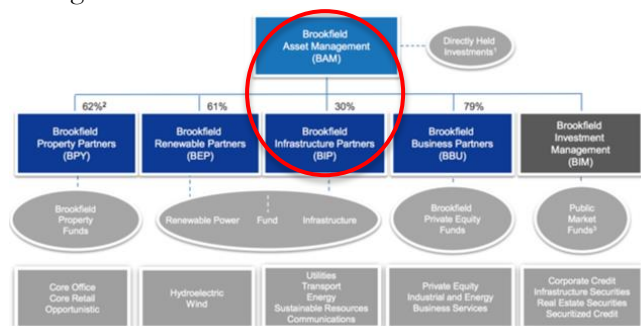
	NINE MONTH ENDED 9/30		
	2016	2015 YTD	2014 YTD
Net Income	312	273	117
% Change	14%	133%	-15%

Despite the obvious jump into '15 from '14, BIP is still clearing double digit growth figures in net income, a far cry from industrial single digit moves.



## Ownership and Management

Brookfield Asset Management, BIP's parent company, holds a 30% stake in the infrastructure arm, the lowest weight among the sibling companies. BAM provides superior management and guidance towards key investments and acquisitions as both companies remain supreme in the industry of infrastructure management.



The remaining 70% is open for trade on the NYSE. Below is a summary of various investors provided by the Bloomberg:

Ownership Type	11/13/16	Cur 1	Change
Investment Advisor	77.19	76.65	-0.54
Bank	9.11	9.52	+0.41
Brokerage	5.14	5.38	+0.24
Private Equity	3.36	3.33	-0.03
Insurance Company	2.58	2.66	+0.08
Individual	1.05	1.08	+0.03
Hedge Fund Manager	1.06	0.81	-0.25
Pension Fund	0.38	0.39	+0.01
Unclassified	0.12	0.12	0.00
Corporation		0.03	
Other	0.01	0.01	0.00

The majority of that 70% is owned by Investment Advisors, as of 11/13/16, the last reported on the terminal. While there was a minor unloading trend coming from the advisors dropping their holdings by about half of a percentage (from 77.19% to 76.65%), banks helped offset the blow. The Bank of Montreal increased its ownership by over 500,000 shares around the time of the third quarter. This increased overall bank ownership by about .4% and settled at around 9.52%, clearly indicating an investment in the security, diversity, and innovation that BIP brings to the table.

Thanks to a superior management team, BIP can provide the secure returns that dividend investors are looking for. Let's introduce the masterminds behind the books:

- **Sam Polluck** – *Senior Managing Partner* – While Polluck sits as a partner for overall Brookfield, he acts as the CEO of the Infrastructure branch. He brings over 20 years of experience with the company and expertise from an accounting background paired with the knowledge of serving on the board at TWC Enterprises.

- **Brian Baker** – *Managing Partner, Infrastructure, Energy* – Baker is in charge of overseeing foreign affairs, specifically in Europe, and guides investment strategies within transportation, utilities, and energy sectors; the backbone of BIP. Baker joined BIP in 2007, bringing expertise from advising financial expenditures within the oil and gas arenas for various companies in Western Canada. Before his work there, he specialized on advisory work for an accounting firm focused on the oil and gas sector. Baker knows the ins-and-outs of cash flows within these sectors, and where to go to find them.
- **Ben Vaughan** – *Senior Managing Partner/COO* – Bringing 15 years of Brookfield experience to the table, Vaughan has been successful in increasing the cash flows of BIP by guiding the company's portfolio through numerous growth opportunities and initiatives, all while diversifying risk. He has spent time in numerous positions within the company across the different segments of BAM, and even spent time living in Brazil, an experience that proved instrumental with the company's plans for establishment within the developing company.

The three managers described above will be providing the guidance through earnings call transcripts and investor-day presentations. Investors feel confident with their levels of expertise in management, finance, and accounting that allow them to optimize the position of BIP safely and lucratively.

## Effects of Catalysts

- **Federal Reserve Rate Hike** – With rates almost certain to rise come December, many municipalities and governments will be looking to deleverage their operations due to an increased expense to borrow. BIP stands at the perfect threshold to absorb the privatization of infrastructure that governments will seemingly unload. Given their capabilities and capacities to generate long-standing and quality assets, opportunities stand for BIP to slide in and take advantage of a possible deleveraging scenario.
- **Increasing Sub-Sector Competition** – We see this mostly within the MNO (mobile network

operator, i.e. – Verizon, etc.) arena. Currently, 50% of the market for mobile towers is taken up by MNOs. These operators are taking a long and hard look to the necessity of the tower assets within their portfolios, especially when much of their CapEx should be going towards the rollout of innovative networks such as 4G and 5G. A conglomerate within BIP's investing syndicate is attempting to secure a large amount of these towers, indicating a healthy pipeline of organic growth.

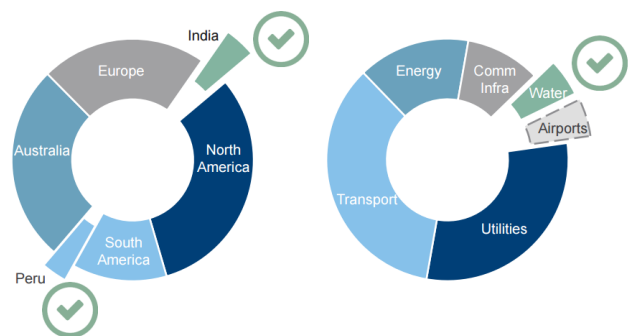
- Telecommunication Innovation – Mentioned in the sub-sector breakdown section, BIP has over 5,000km of fiber-optic networks located in France. BIP sees the demand for major broadband within the fiber-optics networks will be increasing, delivering a great opportunity to BIP. In order for them to optimize their capitalization, they can take advantage of the sheer costs to break the entry barriers of such industry, a region where the capital backlog and leveraging statistics of BIP works in their favor. The fiber-in-home aspect is still a developing concept, and with their feet already deep in the water in France, BIP has a strategic advantage over competing firms to penetrate this market share.
- Aftermath of oil discoveries in Texas – BIP's collection of energy storage facilities have opportunities for growth as they forecast structural demand to increase over the next five years. Mostly, this will be driven into Gulf Coast refineries through conglomerate access lines to Mexico, where emerging demand is also likely. On a simplistic level, due to reversals within the structure of continental pipelines, BIP's subsidiary NGPL is within the crosshairs to connect growing supply basins to emerging demand centers. With the recent discoveries of shale within the Permian region, BIP's lines are in the perfect spot for further transports, a key to increase the growth of the business.

Gas sector transformation underway...

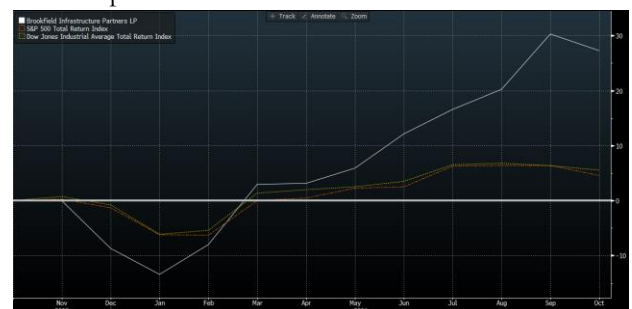


## Conclusion and Thesis

Brookfield sits on the brink of continued growth. Their increasing FFO and AFFO numbers, diverse spectrum of geographic presence, and being a leader in non-discretionary services allow them to utilize their financial capacity to invest in the most valuable firms tailoring to their various sub-sectors. With a superior management team and opportunities arising from global economic factors, BIP has proven to utilize their contrarian investment strategies to capitalize in arenas others wouldn't. Between Peruvian and Indian toll roads, Australian ports, telecomm networks in France, continental U.S. pipeline systems, water transporting and desalination centers, and many more projects in the works, BIP has been able to capitalize globally.



Therefore, given the level of returns BIP has brought to the market compared to both the S&P 500 as well as the Dow, the company outperforms both markets. With their level of security and attractive rates of distribution, BIP would be the most productive asset in one's portfolio for the level of risk.



Formal Thesis - Brookfield distributes non-discretionary services across a broad base of diverse sectors as they specialize in the movement of goods, people, data, energy, water, and more. They utilize their competitive advantage in a non-elastic field by specializing in their ability to acquire significant portions of competing firms, or those that they believe will add momentum in order to achieving their objectives. Besides their tremendous access to capital, Brookfield's assets in various geographic areas across the globe allow them to capitalize in markets where privatization of infrastructure is necessary and sought after as well as diversify global risk. Looking forward, BIP will bring safe returns based off of their growing financials, upcoming projects, and their ability to penetrate the market with the latest and most innovative influences. Based on the NAV of BIP, using assumed cap-rates corresponding to the magnitude of each segment's EBITDA margin, the company is currently undervalued by a 14.8% discount.

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Equity REIT - Sample Net Asset Value Model				
(\$ in Millions Except Per Share Data)				
		Assumed	12-Month	Current
		Cap Rate:	Forward NOI:	Value:
<b>Capitalized Income:</b>				
<b>NOI Contribution from:</b>				
Utilities		11.0%	\$ 382	\$ 3,473
Transportation		6.0%	350	5,833
Energy		6.0%	51	850
Communications Infrastructure		8.0%	54	\$ 675
Corporate and Other		0.0%	(62)	-
				\$ 10,831
		Balance Sheet	% of BS	Current
		Value:	Value:	Value:
<b>Balance Sheet Assets:</b>				
<b>Non-Operating Assets:</b>				
Investment Properties		153	110.0%	168
PPE		7,632	100.0%	7,632
Assets Held for Sale		580	105.0%	580
<b>Other Balance Sheet Assets:</b>				
Inventories		13	100%	13
Cash & Cash-Equivalents:		199	100.0%	199
Financial Assets		2,352	100.0%	439
Investments in Affiliates/Joint Ventures		2,973	100.0%	2,973
Deferred Income Tax		72	100.0%	72
Intangibles:		3,296	100.0%	3,296
Goodwill		79	100.0%	79
Accounts Receivable, Net:		322	100.0%	322
Other Assets:		64	100.0%	64
<b>Total Asset Value:</b>				<b>\$ 26,655</b>
<b>Liabilities:</b>				
Total Debt, Net of Discounts:		\$ 10,085	100.0%	\$ 10,085
Accounts Payable:		474	100.0%	474
Accrued Expenses & Other:		-	100.0%	-
<b>Total Liabilities Value:</b>				<b>10,559</b>
<b>Other Claims on Equity:</b>				
General Partners		23	100.0%	23
Limited Partners		3838	100.0%	3,838
Noncontrolling Interests (Excl. OP):		3,126	100.0%	3,126
Preferred Stock:		189	100.0%	189
<b>Total Other Claims on Equity Value:</b>				<b>7,176</b>
<b>Net Asset Value:</b>				<b>\$ 8,920</b>
Diluted Shares:				239.0
OP Units & Restricted Shares:				
<b>Total Diluted Shares &amp; Units Outstanding:</b>				<b>239.0</b>
<b>Net Asset Value Per Share:</b>				<b>\$ 37.32</b>
<b>Current Stock Price:</b>				<b>\$ 31.80</b>
<b>Premium / (Discount) to NAV Per Share:</b>				<b>(14.8%)</b>

## CalAtlantic Group, Inc.

NYSE:CAA

**Analyst:** Alexandre Thiam

**Sector:** Consumer Goods.

**BUY**

Price Target: \$44.90

### Key Statistics as of 11/18/2016

Market Price: \$33.33  
Industry: Home Builders  
Market Cap: \$3.98b  
52-Week Range: \$26.97-\$43.24  
Beta: 1.40

### Catalysts:

- **Short-term:** Potential increase in interest rate would cause people to buy now.
- **Medium-term:** Positive Economic and Real Estate Outlook.
- **Long-Term:** Inflation could involve a housing market recovery.

### Company Description:

CalAtlantic Homes Group was born in 2015 from the merger of two experienced homebuilders called Ryland and Standard Pacific. Both company developed themselves separately since their inception in the 1960's. The merger aimed at "gain both geographic and product diversification, expanding our reach and enhancing our growth prospects in the entry level, move-up and luxury market segments.". It is a California based firm that operates in 17 different states from California to New Jersey and as much as 41 major markets. The company not only build houses it also sells properties. It is reported that CalAtlantic is the fourth largest homebuilder in the country. Combining both companies CalAtlantic Group, Inc. built more than 450,000 houses in total. In the 12 months ended June 30, 2015, the pro forma combined company delivered more than 12,786 homes in the aggregate with combined pro forma revenues of \$5.2 billion



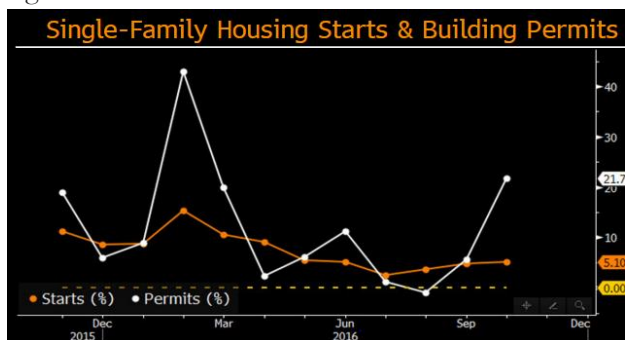


## Thesis

- CalAtlantic is showing signs of undervaluation especially when comparing what the company has to offer with competitors. The company tries to meet customers' expectations and does more than its peers to grow (merger).
- The current financials and relative valuation is showing that CAA is more profitable than most of the industry. The company maintains higher margins in a recovering markets.
- I believe that external macro-economic factor could actually be in favor of the company such as fear in interest hike and future inflation.

## Industry Outlook

CalAtlantic is a home builder and therefore depends heavily on the Real Estate outlook as well as the global economic outlook. Smaller factors such as construction and permits allocations, as well as starts are also driving the industry. Recently, Bloomberg reported that single-family housing starts rose by 22% on a year to year basis to 869,000 homes. It is said to be the fastest pace since 2007, nearly 9 years. The building permits on the other hand increased by 7% YTD which shows good signs for the future.



On a more global view, the economic growth is said to be moderate with low interest rates. Having said that IR could observe an increase in the following month with a potential Fed interest hike. The table below shows the call current rate for short and long maturity mortgage.

Housing and Interest Rate Forecast, 10/28/2016							
	2012	2013	2014	2015	2016	2017	2018
<b>Housing Activity (000s)</b>							
Total Housing Starts	784	928	1,001	1,108	1,143	1,258	1,312
Single Family	537	620	647	713	773	873	912
Multifamily	247	308	355	395	369	385	400
New Single Family Sales	368	430	440	502	574	647	688
Existing Single-Family Home Sale	4,125	4,475	4,338	4,627	4,790	4,879	5,012
<b>Interest Rates</b>							
Federal Funds Rate	0.13%	0.13%	0.13%	0.38%	0.44%	1.00%	2.00%
90 day T Bill Rate	0.09%	0.06%	0.03%	0.05%	0.34%	0.87%	1.75%
<b>Treasury Yields:</b>							
One Year Maturity	0.18%	0.13%	0.12%	0.32%	0.63%	1.21%	2.00%
Ten Year Maturity	1.80%	2.35%	2.54%	2.14%	1.74%	2.10%	2.75%
<b>Freddie Mac Commitment Rates:</b>							
Fixed Rate Mortgages	3.66%	3.98%	4.17%	3.85%	3.56%	3.79%	4.00%
ARMs	2.69%	2.88%	3.02%	2.94%	2.79%	3.05%	3.25%
Prime Rate	3.25%	3.25%	3.25%	3.26%	3.53%	4.00%	4.25%

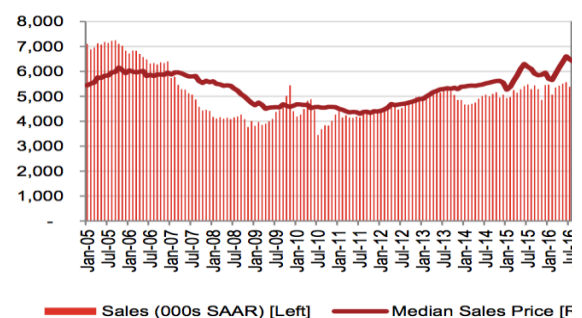
The world economy environment for the past few years is likely to continue in 2016, and will therefore support moderate growth in commercial rents and investment sales.

In 2016, the prime rent are expected to grow at a CAGR of 2.2% for the next 5 years, according to CBRE global rent index. Global real estate investment markets are expected to remain active in 2016, but the pace of growth is expected to slightly decrease after six years of recovery and price appreciation.

Overall, home prices continue to increase in almost every city in the United States. The price have risen at a CAGR of 4.8% for the past two years particularly in the Northwest part of the country. PwC reported that homebuilder could see an increase of demand in the coming month due to a shortage in current level of homes available.

*"The lack of homes available for sale and high prices were enough to offset any boost that low mortgage rate might have provided the market. Affordability remains a problem despite data from the U.S. Census bureau showing strong household income growth. Home prices are still outpacing incomes in many markets because of the shortage of new and existing homes for sale."* - PwC

### Existing Home Sales





## Efficiencies and Cost Savings

In 2015 slightly after the merger, CalAtlantic had to cut about 50 jobs representing the totality of the employees working at Westlake Village home builder (Ryland Group Inc.). In addition to this, the company announced that it will close more office formerly ran by Ryland by the end of 2016, to solely operates from Irvine California based facilities owned by Standard Pacific Corp. When both companies agreed to merge they also both agreed in a 10% cut in workforce. The complete restructuring anticipated annual cost-savings of \$50 to \$70 million. CalAtlantic expect to realize the majority of the estimated savings by late 2016.

One Selling point of CalAtlantic is that they highly focus on energy and other operating efficiencies. A majority of their new homes are tested by independent third parties in order to effectively measure the energy efficiency of each home. On average the company receives a 51 to 60 rating on the HERS index that measure efficiency. The model takes a 100 as basis to do the rating with lower number expressing efficiencies and higher inefficiencies. The current average rating for CalAtlantic shows that on average the new home built by the firm are 40 to 49% more efficient than a standard new home (Base 100, rate 51-60).



Energy Efficiency is part of CalAtlantic's HouseWorks program that is a tool that clients can use to optimize and customize the purchased property. For home interiors the HouseWorks program allows clients to choose from a wide range of appliances and options, among them the "GE Energy Star" appliances which are home appliance that offers considerable savings on energy bills. In addition to the Energy efficiency the houses are equipped with energy saving insulation made out of sand and recycled glass that reduce the need of Air Conditioning or heaters. Houses are also equipped with faucets that use 30 percent less water, and flooring techniques that uses 50% less wood. All in all, these houses offer a higher

level of comfort than the majority of competition, for and affordable price

## Financials/Relative Valuation

The company is showing promising financials and especially as compared to competitors. As I have mentioned earlier the outlook of the industry looks quite optimistic but the increasing possibility in an Interest Rate hike by the end of 2016 might slightly offset the outlook. Currently the company show signs of undervaluation, with a P/E ratio of 10.48 below the industry average at 12.81. As the merged company is fresh (2015) historical data's are those from Standard Pacific's therefore it might relevant to take a look at the multiples. The FY 2017 forward P/E multiples is at 8.48. The trend is at decrease as the P/E was at 14.07 in 2014. It takes some time for the markets to readjust but I strongly believe that P/E would increase in the coming years. EPS for the firm decrease last year due to the slow demand for the construction of new houses and the increasing prices of new home. The EV/EBITDA multiples are also expected to decreased with a FY 2017 forward at 7.71 as compared to 9.86 trailing twelve-month. The company recently decided to pay dividends of \$0.04 per share and have dividend yields of 0.48% so the forward level that are less than current are not expressing a negative outlook but more a steadier and more stable growth in the future.

20 Overview 20 Comp Sheets 20 Markets 20 EPS Preview 20 Ownership 20 Credit 20 Custom										
20 Equity Valuation		20 Op Stats		20 Profitability		20 Balance Sheet		20 ESG		
Name (BT Peers)	Sales Growth (%)	FCF Yield	Gross Margin	EBITDA Margin	Operating Margin	Return on Assets	Return on Equity (%)	Return on Capital	Effective Tax Rate (%)	Sales per Employee
Average	30.46%	3.64	19.68%	19.68%	8.81%	5.18%	12.26%	6.96%	36.01%	1.50M
001 CALATLANTIC GROUP INC	157.08%	2.86	22.79%	22.79%	13.39%	6.63%	14.69%	--	37.12%	1.24M
002 TAYLOR MORRISON HOME...	7.17%	--	19.39%	19.39%	9.06%	1.21%	2.54%	--	35.08%	1.86M
003 NVR INC	9.64%	4.15	19.53%	19.53%	11.74%	15.61%	32.16%	22.55%	36.55%	1.20M
004 MERITAGE HOMES CORP	12.32%	-7.79	18.51%	18.51%	7.67%	5.60%	12.06%	6.70%	31.44%	1.84M
005 PULTEGROUP INC	28.95%	-6.84	22.59%	22.59%	13.27%	6.49%	13.07%	8.25%	38.94%	1.32M
006 DR HORTON INC	17.93%	4.72	22.09%	22.09%	11.23%	8.05%	14.41%	--	33.97%	1.74M
007 MDC HOLDINGS INC	27.09%	1.05	17.51%	17.51%	5.63%	3.69%	7.01%	--	30.73%	1.56M
008 KB HOME	8.32%	7.15	16.49%	16.49%	5.87%	2.41%	7.21%	2.93%	38.51%	1.80M
009 HUNANIAN ENTERPRISE...	32.60%	74.24	14.45%	14.45%	4.49%	0.48%	--	2.91%	79.56%	1.03M

On the other hands CAA achieved to maintain good margins as compared to competition. As you can see above, the company has a Gross margin of 22.79% above peer's average at 19.68%, the company actually ranks as a Best-in-class. EBITDA margins are also encouraging for CalAtlantic currently twice the industry with 16.09% compared to 9.10%. Furthermore, Operating margins are higher with 13.79% as compared to 8.81% on average. It doesn't stop year, as a result of the merger Sales Growth YoY are also close to 10% higher than peer's average at 37.58%. All in all, the company as low P/E but keep

on showing encouraging results that go against the current stock price at \$33.33.

## Growth Prospects

As I mentioned above, the company secured strong revenue growth last year with a roughly 45% increase, but the company is also outperforming its peers in other area. For instance, orders are important driver of the well-being of a firm and therefore an indicators for investors. As you can see below, CalAtlantic also recorder more orders for 2016 than the competitors for a total amount of \$1.52 billion.

20 Overview 22 Comp Sheets 23 Markets 24 EPS Preview 25 Ownership 26 Credit 27 Custom										
10 Equity Valuation 11 Op Stats 12 Profitability 13 Balance Sheet 14 ESG										
Name (BI Peers)	Sales Growth Yoy (%)	EBITDA Margin (%)	Sales per employee	Orders per employee	Orders (\$)	Avg Orders Price	Backlog (\$)	Avg Backlog Price	Closings	Closings (\$)
Average	37.58%	9.10%	1.50M	2.25k	1,188	434.58k	3,80k	1,688	474.83k	2,37k
00 CAL ATLANTIC GROUP INC	45.37%	16.09%	1.24M	3.53k	1,528	430.57k	7,31k	3,31B	453.66k	3,68k
01 TAYLOR MORRISON HOME...	9.91%	9.34%	1.86M	1.95k	918.62M	471.08k	3,86k	1,878	485.57k	1,74k
02 NVR INC	16.07%	12.55%	1.20M	3.48k	1,378	392.80k	7,66k	2,988	389.40k	3,92k
03 MERITAGE HOMES CORP	18.35%	8.78%	1.84M	1.74k	715.56M	411.95k	3,25k	1,388	423.21k	1,80k
04 PULTEGROUP INC	2.74%	14.23%	1.32M	4.78k	1,838	383.53k	9,42k	3,708	392.79k	5,04k
05 DR HORTON INC	12.32%	11.74%	1.74M	8.74k	2,628	299.77k	11,48k	3,448	299.61k	12,25k
06 MDC HOLDINGS INC	12.66%	5.41%	1.56M	1.30k	570.26M	440.02k	3,45k	1,618	467.53k	1,29k
07 KB HOME	26.28%	5.24%	1.80M	2.51k	929.59M	370.65k	5,23k	1,858	353.73k	2,49k

On other hand the average order price is lower for CAA at \$430k against 434k for the industry showing that the company somehow achieve to sell their property at a lower price than peers. In an environment where prices are increasing it is most likely the best cost provider that will gain market shares over competitors. With that being said, if the demand for new home increase considerably the builders will have more orders and the total amount of available houses would increase causing the prices of housing to go down. With 76,000 owned-and controlled home sites, this single enterprise has strengthen its positions in its homebuilding segments. The plan is to aim at retiring "Baby Boom" adults with discretionary means to buy their lifestyle dream home, and young adult "Millennials," who are gaining traction in their careers after a slow start in the teeth of the Great Recession. A part from the product-line diversity, the merger gives CalAtlantic operational presence, 17 states and gives the firm a top-five status in 15 of those markets.

## Summary

Despite the recent slowdown, housing construction should remain a positive contributor to the U.S. economy. The lack of inventory and the rising prices should normally results in a rise in new construction activity. Therefore home builders are feeling optimistic about the market. The current strong sales and the positive outlook over the next six months seems to be behind the rise in the index. This coincides with the outlook for stronger demand for new home. Having said all that, the like hood of seeing and increase in CalAtlantic is real. To conclude I believe that people would tend to buy and purchase new home now fearing the rising interest in the future.

**CalAtlantic Group, Inc.**  
**(CAA)**

Analysis by Alexandre Thiam

11/18/2016

**CENTER FOR GLOBAL FINANCIAL STUDIES**

**BULLISH**

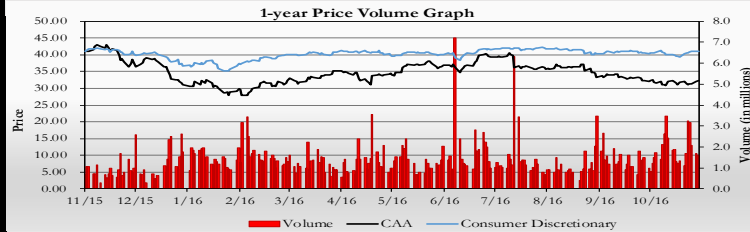
Current Price: **\$33.33**

Divident Yield: **1.6%**

Intrinsic Value: **\$38.78**

Target Price: **\$44.90**

**Target 1 year Return: 36.33%**  
**Probability of Price Increase: 94.2%**



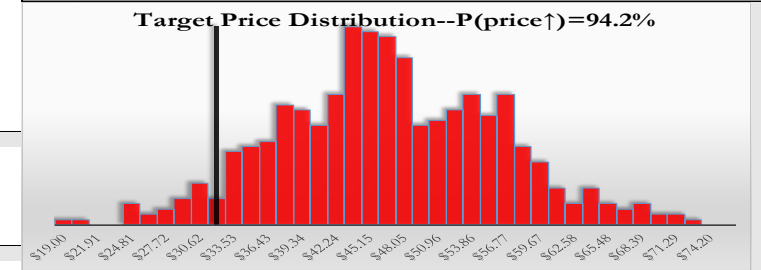
**Description**  
CalAtlantic Group, Inc. builds single-family attached and detached homes in the United States.

**General Information**  
Sector: Consumer Discretionary  
Industry: Household Durables  
Last Guidance: November 3, 2015  
Next earnings date: February 18, 2017  
Estimated Country Risk Premium: 6.25%  
Effective Tax rate: 40%  
Effective Operating Tax rate: 31%

Market Data	
Market Capitalization	\$3,867.49
Daily volume (mil)	1.16
Shares outstanding (mil)	116.04
Diluted shares outstanding (mil)	137.53
% shares held by institutions	74%
% shares held by investments Managers	55%
% shares held by hedge funds	13%
% shares held by insiders	1.29%
Short interest	9.85%
Days to cover short interest	7.85
52 week high	\$43.24
52-week low	\$26.97
Levered Beta	1.57
Volatility	36.47%

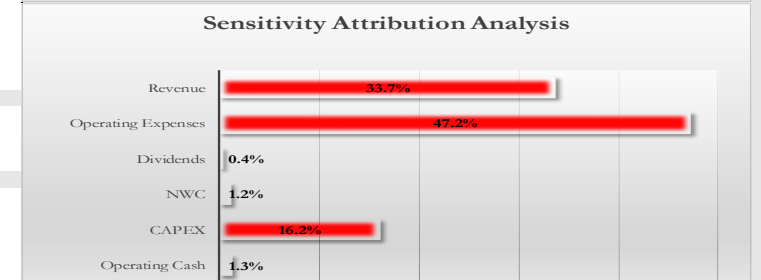
Past Earning Surprises	
Quarter ending	Revenue
9/30/2015	-23.45%
12/31/2015	-12.36%
3/31/2016	-2.58%
6/30/2016	2.04%
9/30/2016	-2.29%
Mean	-7.73%
Standard error	4.6%

Peers	
PulteGroup, Inc.	
Lennar Corporation	
KB Home	
NVR, Inc.	
DR Horton Inc.	
Meritage Homes Corporation	
MDC Holdings Inc.	
Toll Brothers Inc.	



Management	
Stowell, Scott	Executive Chairman
Nicholson, Larry	Chief Executive Officer, Pre
McCall, Jeffrey	Chief Financial Officer and
Skelly, Peter	Chief Operating Officer and
Babel, John	Chief Legal Officer, Executi
Marlett, Wendy	Chief Marketing Officer and

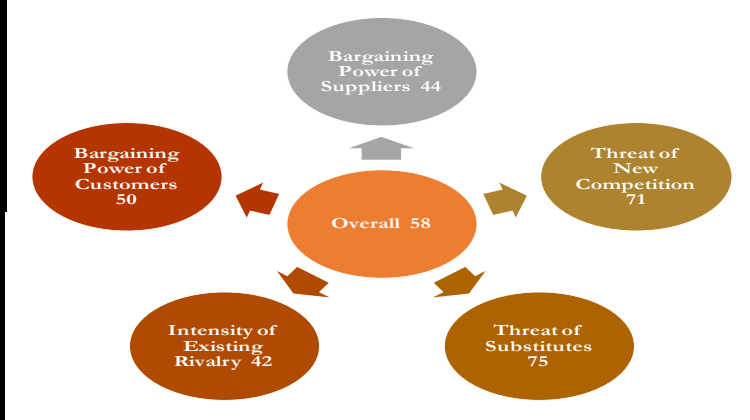
Total compensations growth	
12.36% per annum over 5y	
N/M	
-8.33% per annum over 4y	
N/M	
22.3% per annum over 5y	
2.13% per annum over 5y	



Invested Funds	
ROIC	10.1%
NOPAT Margin	10%
Revenue/Invested Capital	0.96
ROE	20.7%
Adjusted net margin	10%
Revenue/Adjusted Book Value	1.98

Total return to shareholders	
-2.95% per annum over 5y	
0% per annum over 0y	
24.56% per annum over 4y	
0% per annum over 0y	
-2.95% per annum over 5y	
-2.95% per annum over 5y	

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



Period	
Base Year	137.9%
9/30/2017	18.4%
9/30/2018	12.9%
9/30/2019	11.9%
9/30/2020	10.9%
9/30/2021	9.9%
9/30/2022	9.0%
9/30/2023	8.0%
9/30/2024	7.0%
9/30/2025	6.0%
9/30/2026	5.0%
Continuing Period	4.1%

Valuation	
NOPAT margin	10.5%
	8.2%
	7.2%
	7.4%
	7.5%
	7.5%
	7.4%
	7.2%
	6.8%
	6.4%
	5.9%
	5.2%

Invested Capital	
Base Year	\$1,633.26
9/30/2017	\$2,409.55
9/30/2018	\$3,152.36
9/30/2019	\$3,816.97
9/30/2020	\$6,425.99
9/30/2021	\$7,028.44
9/30/2022	\$7,633.30
9/30/2023	\$8,153.49
9/30/2024	\$8,677.82
9/30/2025	\$9,187.28
9/30/2026	\$9,589.65
Continuing Period	

Net Claims	
	\$3,444.65
	\$3,474.04
	\$3,496.22
	\$3,516.61
	\$3,535.61
	\$3,485.14
	\$2,978.92
	\$2,392.67
	\$1,753.06
	\$1,106.52
	\$496.50

## GigPeak, Inc.

NYSE:GIG

**Analyst:** Audrey Barrucand

**Sector:** Technology

**BUY**

Price Target: \$3.75

## Key Statistics as of 11/18/16

Market Price:	\$2.78
Industry:	Semiconductor Devices
Market Cap:	\$189.66 M
52-Week Range:	\$1.61 - \$3.42
Beta:	1.91

## Catalysts:

- Q4 2016 Earnings Announcement
- New product launches
- Mergers and acquisitions

## Company Description:

GigPeak is a semiconductor designer, developer, and supplier of a wide range of components to enable high speed information streaming over the telecom networks, data center infrastructures, and consumer electronics. GIG is a leading innovator of ICs and solutions for high-speed connectivity and high-quality video compression over the network and the cloud. Market-leading products include ASCI chips, integrated circuits, and streaming solutions. GigPeak markets its products in the United States, Asia, and Europe. The company was founded in 2007 by the current CEO and Chairman of the Board of Directors, Dr. Avi Katz, and is headquartered in San Jose, California.





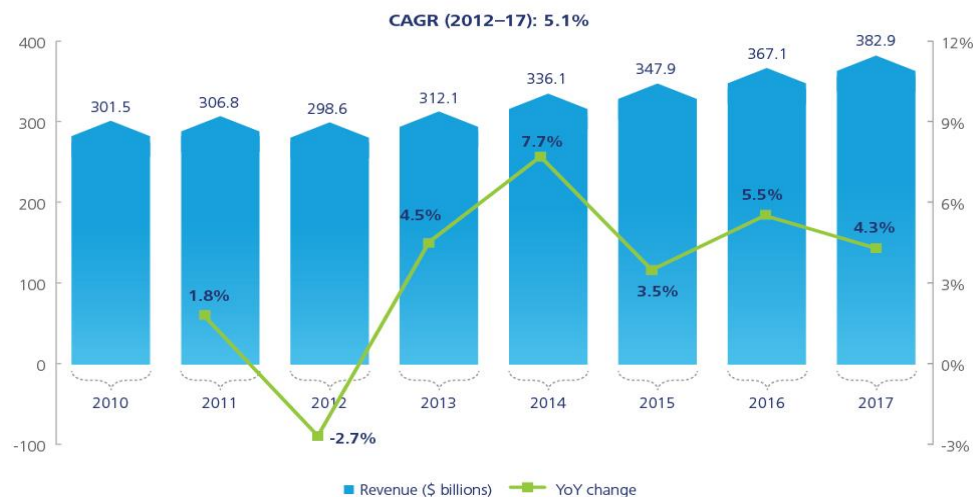
## Thesis

- GigPeak focuses on the future of certain areas in technology. It is currently the only supplier of specific products that will be needed in the market by early 2017.
- The company bought 8 companies since 2007 to increase its product lines and to grow, while managing to issue very little debt.
- It is a growth company with a big potential for further development across the industry.

## Industry Outlook

The technology sector is a fast growing sector because of the constant innovations in products. Companies have to be able to keep track and adapt to the constant changes in demand and in products in general. In the semiconductor industry, it is the same as changes happen very quickly and companies have to be able to adapt quickly to better performing chips. Looking at the future of the industry, it is expected to bring more

Figure 16. Semiconductor revenue and growth forecast, worldwide, 2010–2017



revenues to technology companies each year, from around \$347.9 B in 2015 to around \$382 B in 2017. Even if revenues are expected to grow at a slower pace than in the past, technology keeps changing, innovation will always be required, and it will bring new revenues for such companies.

In the past few years, the industry has been growing because of the increasing demand for improved and faster technology. In fact, the at-home viewing of videos by teens has increased by 85% since 2011 and is expected to increase more with the next generations. Other than that, there is increasing potential in the data centers business. Indeed, 6 million new servers are expected to be installed worldwide every year for the next 10 years, which would allow companies like GigPeak to grow their data center business.

## Product Differentiation

GigPeak currently has many products on the market, which are separated into 2 different segments: Above the Cloud and Below the Cloud. Above the Cloud includes high-speed and high-quality cloud enterprise connectivity products whereas Below the Cloud includes the wireless access products and the ASIC (Application-Specific Integrated Circuit) base products.



As part of the Above the Cloud segment, GIG has 2 product lines: GX and HX. The GX line focuses on telecom, core, and metro networks. It differentiates itself from other products made by competitors through chips and drivers made for all speeds and

formats, and through its leadership in 100Gbps to 400Gbps drivers that are becoming prime technology for those networks. As for the HX product line, it focuses on data center communications. To differentiate itself from competitors, GIG became the sole merchant supplier for 40Gbps ICs (Integrated Circuits), and developed a complete 100Gbps ICs product portfolio with best-in-class performance. Additionally, the HX product line serves professional broadcast and IP video streaming solutions. These products are being developed to address the next wave of video generation and distribution applications which will be introduced in the next couple of years. By offering this line of product, GIG's goal is to increase the efficiency of the pipe serving the cloud, which would allow them to offer an integral solution to clients.

As part of the Below the Cloud segment, GIG has another 2 product lines: EX and CX. The EX line focuses on wireless access products and 5G applications through solid technology platforms for 5G applications and differentiating ASIC chips with best output power performance. Through its highly profitable ASIC base products, GIG has been able to make very high margins; this line also accounts for 25% of revenues. As for the CX product line, it focuses on solutions for the Internet of Things (IoT) and differentiates itself through its extensive experience with ultra-high-speed interfaces and its capability to address sophisticated IoT applications.

Furthermore, GigPeak differentiates itself from other technology companies through the fact that they currently are the only company with all 3 generations of speed required for future needs. Nowadays, data center infrastructures worldwide use the 40Gbps per second technology. The next steps would be a 100Gbps per second and a 200Gbps per second technologies. Most carriers will start the upgrade of their metro infrastructure to the 100Gbps technology by early 2017, because of the growing size and ongoing expansion of data center infrastructures. Today, GIG is the only supplier of PAM4 drivers, which are needed for the 200Gbps per second technology. This technology will allow them to differentiate themselves and become the leader in the market. Currently, the 40Gbps per second chips already account for around 30% of the company's revenues. The 100Gbps shipments are expected to grow at a CAGR of 25% to 30% through 2020. Since revenue growth is primarily driven by the constant demand from all major Web 2.0 data centers EOMs, the potential revenue growth for the company could be colossal.

GigPeak will also take advantage of the mass proliferation of broadcasting and networking data center services in China. Next year, China will expand its next-generation optical infrastructure throughout 100 new cities, each populated of at least 1 million people. This new opportunity will allow the company to provide huge Greenfield installations around the world and will bring big revenues in the future.

Looking at the current revenues for both segments, Above the Cloud brings around 2/3 of total revenues and Below the Cloud brings the other 1/3 as of Q3 2016.

## Acquisitions to Expand Product Lines and Customer Base

Since 2007, GigPeak has made seven acquisitions of companies that allowed them to expand their lines of product and their customer base. With those acquisitions, their customer base broadened to include the following companies:



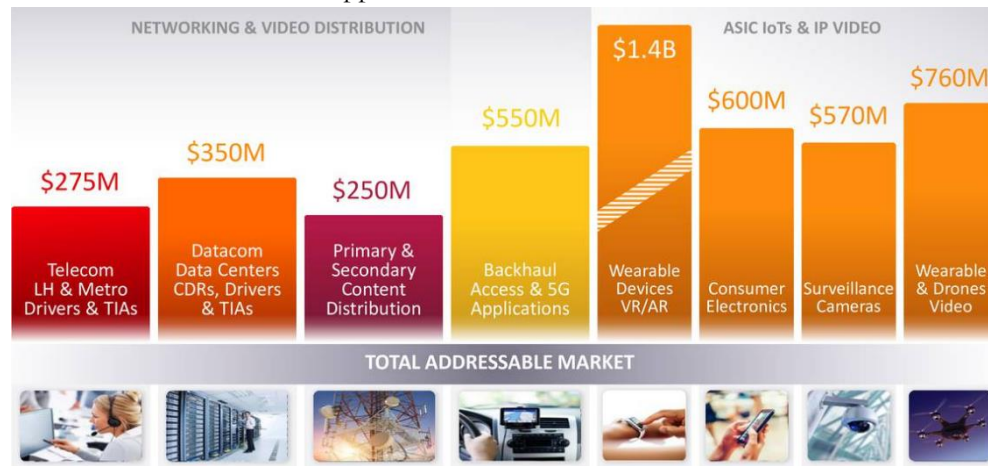
The latest acquisitions include Terasquare in December 2015 which brought GIG high speed communication interface semiconductors needed to find solutions for the Internet of Things. GIG's most recent acquisition is Magnum Semiconductors, Inc. in April 2016, a company specialized on products for the professional video broadcast and IoT camera markets. With this acquisition, GigPeak changed its company name from previously GigOptix in order to capture its broader market reach.

Even with those acquisitions, GIG has managed to keep its debt level to a minimum. In 2011 and 2012, it had \$0.7M and \$0.3M respectively in debt but as of the end of FY 2015, the company has been debt free. Looking at its competitors, they are either debt free or have a high D/E ratio because technology requires a lot of investments.



## Growth Opportunity

With its acquisitions, GigPeak has many new market opportunities for 2017. Below are the 2017 estimates of those opportunities for GIG.



As shown, GIG would have more opportunities to grow in many of its product lines and to create new lines of products that could bring up to \$1.4 B in revenues.

To take advantage of these opportunities, the company can rely on its proven executive management team, made of 5 skilled and experienced executives, its global diversified customer base of around 70 companies, its highly differentiated technology portfolio, and its disciplined M&A strategy which is driving scale and growth. Additionally, the company has the opportunity to address high margin market opportunities with its track record of growing revenue and improving profit margins.

## Financials

GigPeak has total revenues of \$40.4M in 2015, up by 23% from \$32.9M in 2014, and a net income of \$1.2M up from \$-5.8M in the same time period.

GigPeak's financials are consistent with those of its similarly-sized competitors. It has a gross margin of 65.10%, which is the highest among its competitors. Its operating margin is 21.70% and its net margin is 10.70%.

Siena Market Line  
3<sup>rd</sup> week of November 2016

Competitors	Market Cap.	Gross Margin	Operating Margin	Net Margin
GigPeak, Inc.	\$191M	65.10%	21.70%	10.70%
DSP Group, Inc.	\$268M	41.70%	5.30%	3.40%
Sigma Designs, Inc.	\$305M	51.50%	-1.70%	-5.60%
Neophotonics Corp.	\$563M	31.50%	7.30%	6.10%

As for its P/E ratio, it is high but similar to its competitors, which makes it a normal P/E for the industry it is in. As for its ROIC, it is the highest compared to its competitors, with 2.68%.

Competitors	Market Cap.	D/E	P/E	ROIC
GigPeak, Inc.	\$191M	0.01	24.75	2.68
DSP Group, Inc.	\$268M	0.00	36.4	0.43
Sigma Designs, Inc.	\$305M	0.00	25.1	-0.02
Neophotonics Corp.	\$563M	20.87	22.2	0.01

GigPeak is a growth company that has been succeeding at earning higher revenues and making higher margins through acquisitions, and that has seen its revenue grow at a CAGR of over 20% from 2009 to 2015. See here its growth history, with the corresponding acquisitions.



The effect of the acquisitions on revenue and on NI is significant and the company has been able to keep growing through these acquisitions and will keep growing if it keeps following its current strategy.

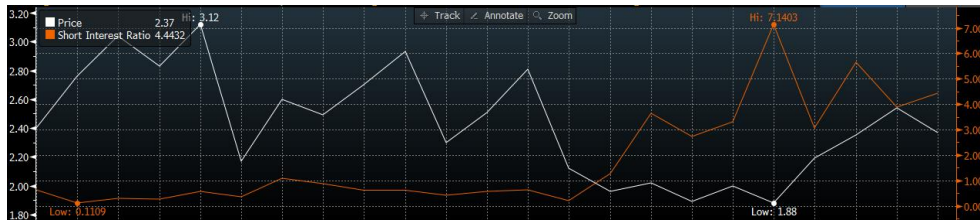
Looking at the ROIC/WACC, it is higher than the company's competitors, mostly due to a smaller WACC. Looking at GIG's ROIC, the latest one is bigger and shows that the company is making more and more returns on invested capital.

ROIC			WACC		
	History	LFY		History	LFY
GIG	12.1%	13.5%	GIG	10.5%	10.6%
Competitors	12.3%	11.6%	Competitors	12.0%	11.5%

ROIC / WACC		
	History	LFY
GIG	1.15	1.27
Competitors	1.02	1.01

Additionally, the short interest ratio is low, with only 4.44, up from 3.88 as of end of October.



Moreover, the company is mostly owned by investment advisers (61.54%) and by hedge fund managers (24.97%), and by individuals (11.85%), mostly private investors and the founders of the company.

54) Ownership Type	11/13/16	Curr	Change
41) Investment Advisor	58.28	61.54	+3.26
42) Hedge Fund Manager	28.68	24.97	-3.71
43) Individual	11.42	11.85	+0.43
44) Pension Fund	1.00	1.03	+0.03
45) Brokerage	0.37	0.36	-0.01
46) Bank	0.23	0.23	0.00
47) Insurance Company	0.02	0.02	0.00

## Risks

Even if GigPeak has been increasing its customer base, it still faces risks of big loss in revenues. In fact, a major part of their revenues come from only a few customers. Alcatel-Lucent, now Nokia, and 3 distributors in China, the USA, and Taiwan accounted for 23%, 16%, 11%, and 10% of its total revenues. This poses a risk for the company because if they happen to lose one of these contracts, their revenues would drop significantly, and the stock price would go down with it.

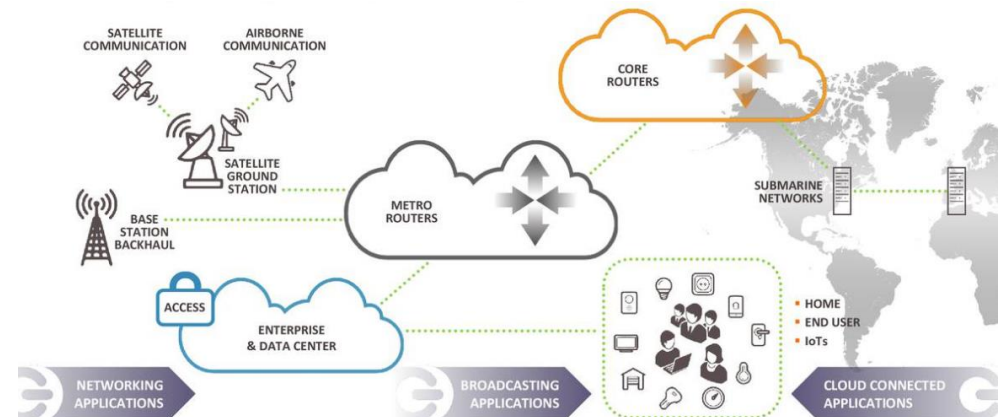
The company also has a limited number of third-party manufacturers, located in China, Japan, the Philippines, Taiwan, Thailand, and the United States. Keeping good relationships with these companies is instrumental to the sales' well-being.

These risks caused by potential disruptions in the sale of its products would gravely impact GIG's stock price and would cause the company damage.

## Summary

GigPeak is a BUY because of its growth potential in the future and its current strategy of growth through acquisitions and through developing new products in new areas. It is the leader in certain markets and is the only supplier for products that will have to hit the market early next year. It has the potential and lack of debt that would allow it to even further develop across the industry.

To conclude, the below image is a summary of their focused mission.



**GigPeak, Inc. (GIG)**
**CENTER FOR GLOBAL FINANCIAL STUDIES**
**BULLISH**

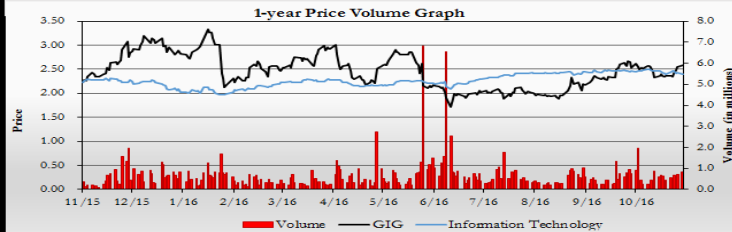
Analysis by Audrey Barrucand  
11/17/2016

Current Price:  
Divident Yield:

\$2.80  
0.0%

Intrinsic Value  
Target Price:

\$2.74  
\$3.54

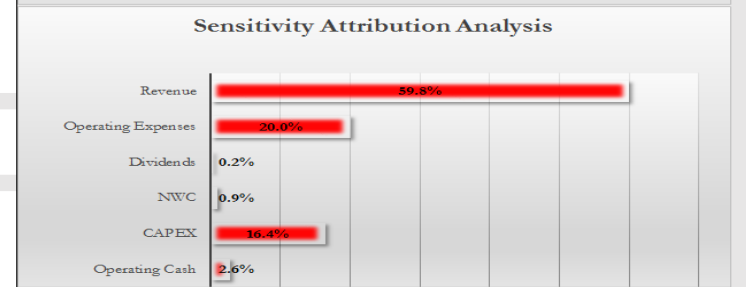
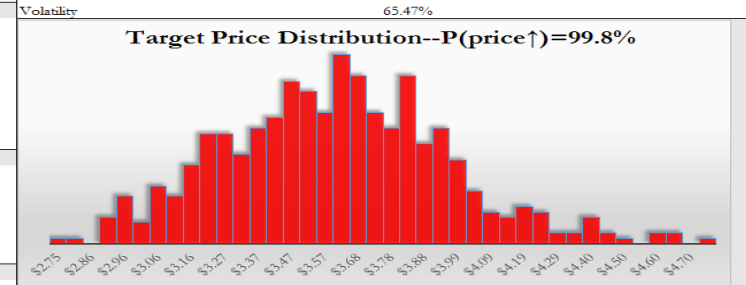
Target 1 year Return: 26.29%  
Probability of Price Increase: 99.8%


Description	GigPeak, Inc. provides semiconductor ICs and software solutions for high-speed connectivity and video compression over the network and the cloud.
General Information	Sector: Information Technology Industry: Semiconductors and Semiconductor Equipment Last Guidance: November 3, 2015 Next earnings date: February 8, 2017 Estimated Country Risk Premium: 8.84% Effective Tax rate: 25% Effective Operating Tax rate: 25%

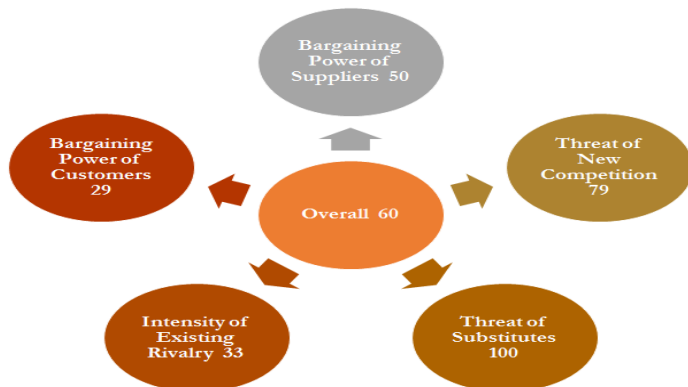
Market Data	Market Capitalization: \$189.66 Daily volume (mil): 0.52 Shares outstanding (mil): 67.74 Diluted shares outstanding (mil): 55.60 % shares held by institutions: 74% % shares held by investments Managers: 25% % shares held by hedge funds: 9% % shares held by insiders: 5.20% Short interest: 4.03% Days to cover short interest: 5.10 52 week high: \$3.42 52-week low: \$1.61 Levered Beta: 2.05 Volatility: 65.47%
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Quarter ending	Revenue	EBITDA
9/27/2015	0.84%	-42.68%
12/31/2015	-0.29%	-67.36%
3/27/2016	1.45%	-77.35%
6/26/2016	1.11%	-47.69%
9/25/2016	1.26%	-48.90%
Mean	0.87%	-56.80%
Standard error	0.3%	6.6%
Management	Position	Total compensations growth
Katz, Avishay	Co-Founder, Chairman, Chief	19.95% per annum over 5y
Betti-Berutto, Andrea	Founder, Chief Technical Off	-6.62% per annum over 5y
Dinu, Raluca	Chief Operating Officer	174.22% per annum over 1y
Ma, Darren	Chief Financial Officer and	N/M
Chaudhry, Anil	Vice President of Government	N/M
Choate, Steve	Vice President of Operations	N/M
Profitability	GIG (LTM)	GIG (5 years historical average)
ROIC	12.1%	4.32%
NOPAT Margin	15%	4.08%
Revenue/Invested Capital	0.79	1.06
ROE	10.4%	2.87%
Adjusted net margin	14%	3.50%
Revenue/Adjusted Book Value	0.72	0.82
Invested Funds	GIG (LTM)	GIG (5 years historical average)
Total Cash/Total Capital	23.4%	26.1%
Estimated Operating Cash/Total Capital	18.1%	21.5%
Non-cash working Capital/Total Capital	6.8%	8.2%
Invested Capital/Total Capital	49.1%	66.0%
Capital Structure	GIG (LTM)	GIG (5 years historical average)
Total Debt/Common Equity (LTM)	0.09	0.06
Cost of Existing Debt	12.09%	6.05%
Estimated Cost of new Borrowing	4.77%	5.60%
CGFS Risk Rating	CC	C
Unlevered Beta (LTM)	2.04	2.25
WACC	22.05%	23.59%

Peers	Total return to shareholders
GSI Technology Inc.	-7.65% per annum over 5y
Pixelworks, Inc.	-7.65% per annum over 5y
Intermolecular, Inc.	153.33% per annum over 1y
CEVA Inc.	N/M
Inphi Corporation	N/M
Sigma Designs, Inc.	N/M
Monolithic Power Systems, Inc.	N/M
Exar Corp.	N/M
Industry (LTM)	Industry (LTM)
12.27%	41%
20.3%	N/A
0.60	8%
13.82%	54%
18.5%	0.16
0.75	3.17%
Industry (LTM)	Industry (LTM)
14.51%	3.17%
	CC
	1.23
	14.51%



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



Period	Revenue growth	Valuation	ROIC/WACC
Base Year	39.7%	15.2%	0.55
9/25/2017	23.7%	30.7%	1.19
9/25/2018	18.4%	27.7%	1.08
9/25/2019	16.8%	27.9%	1.13
9/25/2020	15.2%	27.9%	1.17
9/25/2021	13.6%	27.9%	1.22
9/25/2022	12.1%	28.0%	1.28
9/25/2023	10.5%	28.1%	1.34
9/25/2024	8.9%	28.1%	1.40
9/25/2025	7.3%	28.2%	1.47
9/25/2026	5.7%	28.2%	1.55
Continuing Period	4.1%	28.2%	1.54
Period	Invested Capital	Net Claims	Price per share
Base Year	\$22.45	\$5.11	\$2.68
9/25/2017	\$42.28	-\$5.58	\$3.45
9/25/2018	\$50.16	-\$19.26	\$4.30
9/25/2019	\$56.60	-\$36.03	\$5.25
9/25/2020	\$67.47	-\$55.95	\$6.29
9/25/2021	\$80.47	-\$79.54	\$7.41
9/25/2022	\$100.23	-\$107.14	\$8.60
9/25/2023	\$118.08	-\$138.95	\$9.85
9/25/2024	\$137.42	-\$175.04	\$11.12
9/25/2025	\$157.83	-\$215.35	\$12.41
9/25/2026	\$179.05	-\$259.61	\$13.67
Continuing Period			

## Jazz Pharmaceuticals Company

NASDAQ: JAZZ

**Analyst:** Eric Crown

**Sector:** Healthcare

**BUY**

Price Target: \$128.44

### Key Statistics as of 11/18/2016

Market Price:	\$109.25
Industry:	Biotechnology
Market Cap:	\$6.54B
52-Week Range:	\$95.80-160.00
Beta:	1.34

### Catalysts:

- Approval of Xyrem for pediatric treatment
- Announcement of Phase 3 JZP-110 results
- Submission and Approval of Vyxeos

### Company Description:

Jazz Pharmaceuticals Company is a biotechnology firm that identifies, produces, and distributes pharmaceutical products for a number of medical needs. The company's pharmaceutical portfolio focuses in two areas: sleep and hematology/oncology products, with an emphasis on treating orphan diseases (condition that affects fewer than 200,000 people nationwide). Their primary approved products are Xyrem, Erwinaze, and Defitelio. With a number of patents protecting these products, and a number of new products in the pipeline Jazz is a promising company in its growth stage.





## Thesis

Jazz is a mid-sized player in the pharmaceutical sub industry. It is currently trading near 52 week lows and has lots of upside potential. Jazz outperforms its competitors and is still undergoing rapid growth (as can be seen in the price chart provided in summary). Jazz has a diverse and unique set of products in its portfolio, all of which are Patton protected. As well, JAZZ has a very promising pipeline with multiple late stage approval drugs. With insiders buying multiple shares and increased hedge fund interest, now is an ideal time to BUY shares of JAZZ.

## Industry Outlook

The Biotechnology industry is an inherently volatile one, and with recent political events, has been even more so. With president elect Trump there is less pressure in terms of product pricing. However with recent media attention this is still an issue to be closely followed. President elect Trump may also have an impact on the industry if there are any reforms to the Affordable Care Act (ACA). This would certainly cause volatile within the industry and should also be taken into consideration. Despite these facts, the industry looks promising with an aging population (baby boomers) that will demand a longer and higher quality of life.

## Competitor COMP.

Before digging into the details it is important to get an idea where JAZZ stands amongst its competitors. The competitors were strategically chosen based on market cap, product type, and a focus on portfolios that treat orphan diseases (such as JAZZ).

	ROIC/WACC	ROICW/OGW	WACC	EBITA Margin	COR/Revenue	Ke	Kd
JAZZ:	1.621	25.13%	11.87%	50.25%	6.61%	13.19%	3.17%
Competitors:	0.491	13.52%	14.12%	21.97%	34.83%	16.12%	5.26%

As can be seen in the table above JAZZ outperforms its competitors in nearly every matrix. The value creation (ROIC/WACC) is nearly triple that of the competition. JAZZ returns more money on its investments and it generates the most profits from sales. Their cost of equity and debt is also lower than competitors. One ratio that is key in biotech's is the Cost of Revenue/ Revenue. The

marketing and selling of products can eat into the profits of biotech's, however once again JAZZ is a top performer here.

## Primary Products

### MIX:

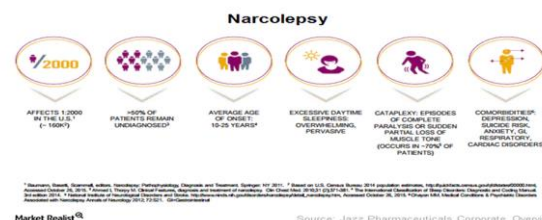
JAZZ's primary products are Xyrem, Erwinaze, and Defitelio. Xyrem is part of the Sleep products and Erwinaze/ Defitelio are part of the hematology & oncology products. Xyrem makes up around 75% of sales, as can be seen in the table below:

	2015	Change	2014	Change	2013
Xyrem	\$ 955,187	23%	\$ 778,584	37%	\$ 569,113
Erwinaze/Erwinaze	203,261	2%	199,665	15%	174,251
Defitelio/defitelio	70,731	—%	70,537	N/A(1)	—
Prialt® (ziconotide) intrathecal infusion	26,440	—%	26,421	(3%)	27,103
Psychiatry	37,135	(9%)	40,879	(17%)	49,226
Other	24,065	(48%)	46,630	2%	45,705
Product sales, net	1,316,819	13%	1,162,716	34%	865,398
Royalties and contract revenues	7,984	(21%)	10,159	45%	7,025
Total revenues	\$ 1,324,803	13%	\$ 1,172,875	34%	\$ 872,423

It is important to understand the product mix of a biotech company because it is ultimately what makes companies successful in this industry. Below is an in depth explanation of each product. Some key factors to keep in mind are: Patton protection, market size, competition in market, effectiveness of product, future growth potential and patient's need for drug.

### Xyrem (Sleep Segment):

Xyrem is the current product that drives sales for JAZZ. As can be seen above it has grown in sales the last two years. This growth is a result of more volume and occasional price increases. Xyrem is the only treatment approved by the FDA for both excessive daytime sleepiness (EDS) and cataplexy in patients with narcolepsy (This means JAZZ has found a niche market which only they have a presences in). Narcolepsy is a chronic neurological disorder that is characterized by EDS, cataplexy, sleep paralysis, hypnagogic hallucinations and disrupted night time sleep.



It is estimated that narcolepsy affects approximately 1 in 2,000 people in the U.S., or approximately 160,000 people. EDS is present in all patients compared to cataplexy which is present in 70% of patients with narcolepsy. This shows with only 12,550 Xyrem patients

there is room for lots of growth. Another plus is this medicine needs to be taken daily compared to a one time use vaccine, this results in larger more consistent sales. Most importantly JAZZ has 20 U.S. patents covering Xyrem, which expire at various times from December 2019 to March 2033. This ensures that no generic form of it can be produced in the near future.

### **Erwinaze (hematology/oncology):**

Erwinaze is for patients with acute lymphoblastic leukemia (ALL) that have a hypersensitivity to E. coli – derived asparaginase (the most common treatment method). ALL is the most common form of childhood cancer, with around 5,500 cases every year. It is estimated that up to 20% of ALL patients may develop hypersensitivity to E. coli -derived asparaginase. Erwinaze has no patent protection. However it was awarded orphan drug exclusivity for the treatment of ALL in the U.S. until November 2018. With the potential for the approval of a biosimilar protection in the U.S. through late 2023.

### **Defitelio (hematology/oncology):**

Defitelio was developed for the treatment of severe hepatic veno-occlusive disease (VOD) in adults and children undergoing hematopoietic stem cell transplantation (HSCT). Certain conditioning regimens used as part of HSCT can damage the cells that line the hepatic vessels, which is thought to lead to the development of VOD, a blockage of the small vessels in the liver that leads to liver failure and can result in significant dysfunction in other organs such as the kidneys and lungs. Defitelio is the first and only approved treatment that increases survival in

VOD patients with multi-organ dysfunction. JAZZ has various patents for Defitelio that expire between April 2017 and June 2035, as well as an orphan drug designation until 2018.

JAZZ has implemented a number of initiatives such as outreach to prescribers who treat narcolepsy, physician/healthcare provider education, enhanced patient and physician support services and unbranded disease awareness programs for the public. These programs will help educate the professional and public segments to the different diseases, symptoms, and treatment options for all the products listed above. This will help drive sales and lead to growth as more patients are prescribed JAZZ products.

## **Promising Pipeline**

Another key aspect to any pharmaceutical company is its product pipeline. A healthy pipeline ensures future stability and growth.

Project	Disease Area	Status
<b>Sleep</b>		
JZP-110	EDS in narcolepsy	Phase 3 clinical trial initiated in second quarter of 2015; preliminary data expected in fourth quarter of 2016
	EDS in obstructive sleep apnea, or OSA	Two Phase 3 clinical trials initiated in second quarter of 2015; preliminary data expected in fourth quarter of 2016
JZP-386	EDS in narcolepsy	Phase 1 clinical trials completed, further evaluation ongoing
Xyrem	Cataplexy with narcolepsy in children and adolescents	Phase 3 clinical trial ongoing, enrollment completion expected in second half of 2016
<b>Hematology/Oncology</b>		
Defitelio	VOD with evidence of multi-organ dysfunction following HSCT	New drug application, or NDA, accepted for filing with priority review by the FDA in third quarter of 2015; Prescription Drug User Fee Act, or PDURFA, date of March 31, 2016
Defitelio	Prevention of VOD in high-risk patients	Preparing to initiate clinical trial

The two primary products in JAZZ's pipeline are JZP-110 and Xyrem for children/ adolescent use. Both these products are in phase 3 clinical trial approval, and are major catalyst.

### **Xyrem for adolescent use (Sleep Segment):**

One potential driver for increased sales growth is expanding Xyrem to the adolescent (ages 7–17) market. If approved, not only would market size increase, but long term client could be established which could lead to substantial revenue in future years.

### **JZP-110 (Sleep Segment):**

JZP-110 is chemically similar to Xyrem, and serves the same function: treatment for both excessive daytime sleepiness (EDS) and cataplexy in patients with narcolepsy. The primary difference is the sodium content. The primary complaint of Xyrem is its high quantities of sodium. Large sodium intake can lead to a number of health issues such as morbidity, modality, and cardiovascular disease. JZP-110 is billed to be a safer, and just as effective, alternative to Xyrem. This reduced sodium count could lead to more doctors prescribing JZP-110 to patients, leading to more sales growth. As well JAZZ will be able to charge a slightly higher price because of the added benefits. JAZZ anticipates preliminary results from the phase 3 clinical trials to be available by the end of fiscal 2016.

## **Celator Acquisition**

On May 31, 2015 JAZZ announced that they entered into a definitive agreement to acquire Celator for \$30.25 per share in cash, or approximately \$1.5 billion. The driver for this purchase was to acquire Vyxeo, a product used in the treatment of Acute Myeloid Leukemia (AML). JAZZ paid a hefty price for this purchase



however they have increased synergies and added a potential breakthrough product to their hematology/oncology portfolio. Vyxeo is currently in stage three approval (adding to JAZZ's robust pipeline), however all indicators point towards approval. Vyxeo is the first drug to show significant improvement in life expectancy for patients with high risk AML. Its current data for the drug showed median overall survival for patients treated with Vyxeos was 9.56 months compared to the 5.95 months of traditional chemo-therapy. Vyxeos has received the FDA's Breakthrough Therapy designation, as well as Orphan Drug designations from the FDA and European Commission. AML is generally a disease of older adults, and the median age of a patient diagnosed with AML is about 67 years. The American Cancer Society estimates that there will be 19,950 new cases of AML and 10,430 deaths from AML in the U.S. in 2016. This number will only grow as the baby boomers enter their elderly years. Jazz Pharmaceuticals expects to finance the transaction with a combination of cash on hand and borrowings under its senior secured credit facility. This acquisition is a huge catalyst and could lead to a breakthrough product in Vyxeo.

## Ownership / Short Interest

Ownership and short interest can help give some hints to the future direction of a Pharmaceutical company.

Compare Current Stats Against 11/13/16				Insider - Based on Last 6 Months			
Institutional - Based on Current Filings				52 Insider			
51) Institutional	11/13/16	Curr	Change	52) Insider	11/13/16	Curr	Change
13 % of Shares Held	96.16	96.15	-0.01 %	23 % of Shares Held	2.68	2.68	0.00 %
13 % of Float Held	98.80	98.80	0.00 %	23 % Chg In Insider Positions	-4.54	-4.35	+0.19 %
13 # of Institutions	572	554	-3.15 %	23 # of Insiders	19	19	0.00 %
13 # of Buyers	182	173	-4.95 %	24 # of Buyers Opn Mkt	1	2	+100.00 %
13 # of Sellers	189	185	-2.12 %	24 # of Sellers Opn Mkt	11	11	0.00 %
13 # of New Buyers	75	64	-14.67 %	24 # of Shrs Bought Opn Mkt	1,745	3,745	+114.61 %
13 # of Selloffs	91	104	+14.29 %	24 # of Shrs Sold Opn Mkt	65,219	66,978	+1.82 %
13 % Chg In Inst Positions	+1.64	-0.22	-1.31 %	24 Avg Opn Mkt Buy Price	133.25	127.55	-10.97 %
Top Geographic Ownership (%)				24 Avg Opn Mkt Sell Price	139.85	139.66	-0.14 %
53) Geographic	11/13/16	Curr	Change	Top Ownership Type (%)			
20 UNITED STATES	82.24	83.37	+1.13 %	40 Investment Advisor	79.84	77.50	-2.34 %
20 BERMUDA	3.04	3.04	0.00 %	40 Hedge Fund Manager	12.65	14.68	+2.03 %
20 Unknown	2.71	2.71	0.00 %	40 Individual	2.71	2.71	0.00 %
20 BRITAIN	2.51	1.94	-0.57 %	40 Government	1.51	1.51	0.00 %
20 JAPAN	1.28	1.28	0.00 %	40 Pension Fund	1.32	1.22	-0.10 %
20 LUXEMBOURG	1.25	1.23	-0.02 %	40 Bank	0.79	0.94	+0.15 %
20 SWEDEN	1.13	1.13	0.00 %	40 Private Equity	0.15	0.42	+0.27 %
20 SWITZERLAND	1.31	1.12	-0.19 %	40 Insurance Company	0.39	0.39	0.00 %
20 CANADA	1.18	1.11	-0.07 %	40 Venture Capital	0.37	0.37	0.00 %

The table above shows the ownership summary for JAZZ as of 11/18/2016. There are two things that jump out at me from this table. First is the hedge fund manager ownership. It increased two percent from 12.65% to 15.68%. This is always a good sign because it means that there is potential for high return. The other thing that jumps out is the number of shares bought by insiders. The insiders of a Pharmaceutical company have the best idea of what is going on in the company. This large increase of insider shares bought on the market is a good sign. It could mean that the insiders know something that the market doesn't, or that the insider

considers the shares undervalued. Both of these are good signs that help support a buy.



The table above indicates the short interest. Companies in this industry can have rather large short interest ratios because of the inherent risk of the industry. A short interest ratio of 4.48% is reassuring because it shows that not many investors are expecting a significant decrease in the stock price.

## Financials/ Debt

JAZZ reported a gross profit margin of 86.37%. This is an extremely high profit margin. This tells us that if JAZZ is able to increase revenue, they will translate a large amount of that revenue to cost. This shows that their efficiently and effectively ran and can make the most out of future growth opportunities. JAZZ also has a good amount of cash on hand. Even after the purchase of Celator they still have 426 million dollars' worth of cash. It is important for a Pharma company to have ample cash so they can increase R&D and finance the purchase of acquisitions.

The recent acquisition has increased JAZZ's debt significantly up to over one billion. However I believe they have the capital structure to manage it. JAZZ also has a very low cost of borrowing compared to the industry and can transfer revenues to cash easily. Below provided is a table of when debt is due to give a better impression of their capital situation. With a majority of it due in 2020 or after. I am confident that their product line growth will be large enough by then to easily pay off these debts.

Year Ending December 31,	Scheduled Long-Term Debt Maturities
2016	\$ 37,587
2017	42,280
2018	61,034
2019	79,789
2020	520,420
Thereafter	575,028
<b>Total</b>	<b>\$ 1,316,138</b>

## Valuation

Special care had to be taken in the continuing period assumptions of JAZZ. This is because the industry average is not very reliable because there are many outliers and a number of companies much smaller than JAZZ in the industry. Using management guidance provided from the 10k and quarterly earnings I was able to come to a modest forecast. The target price was predicted to be \$128.44, which was considerably lower than the analyst median price of \$185. Even with this low prediction there would still be a return of nearly 20%, which I consider very desirable. This leaves a lot of upside potential and not too much downside risk, considering the industry, shown by the low short interest and the fact the stock is near its low.

## Catalysts Summary

The three main catalyst are the approval of drugs in the pipeline. The first two being Xyrem for adolescents and JZP-110. If these two drugs are approved JAZZ will be able to expand its niche sleeping market even further resulting in a modest revenue increase. The biggest catalyst is the approval of Vyxeo. Products proven to help fight cancer can be cash cows, and if Vyxeo is approved, JAZZ, and its shareholders, will reap the benefits.

## Summary

JAZZ is an industry leader in an industry expecting lots of growth. It is trading near 52 week lows, insider buying is up, and short interest low. JAZZ has a specialized portfolio of products, all of which are Patton or orphan status protected. There are a number of catalyst, as mentioned above, that could lead to significant growth. Based on all these factors I recommend a BUY of JAZZ at its current market price.

**Jazz Pharmaceuticals Public  
Limited Company (JAZZ)**

**CENTER FOR GLOBAL FINANCIAL STUDIES**

**NEUTRAL**

Analysis by Eric Crown

Current Price:

**\$110.24**

Intrinsic Value

**\$105.19**

**Target 1 year Return: 16.51%**

**Probability of Price Increase: 90.2%**

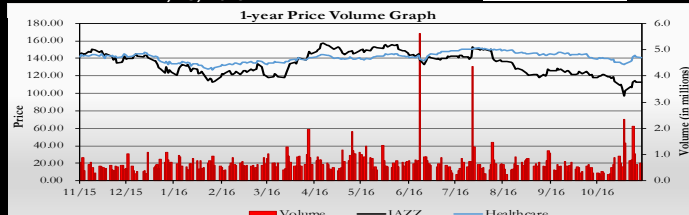
**11/18/2016**

Divident Yield:

**0.0%**

Target Price

**\$128.44**



**Description**  
Jazz Pharmaceuticals Public Limited Company, a biopharmaceutical company, identifies, develops, and commercializes pharmaceutical products for various medical needs in the United States, Europe, and internationally.

**General Information**  
Sector: Healthcare  
Industry: Pharmaceuticals  
Last Guidance: November 3, 2015  
Next earnings date: February 23, 2017  
Estimated Country Risk Premium: 10.03%  
Effective Tax rate: 25%  
Effective Operating Tax rate: -19%

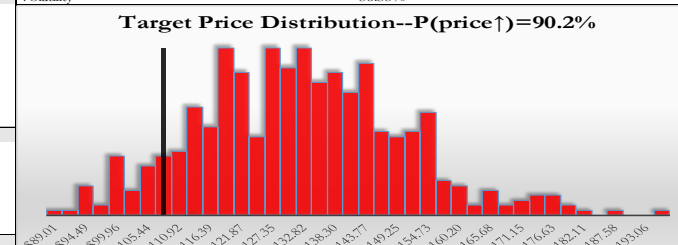
**Market Data**  
Market Capitalization: \$6,602.53  
Daily volume (mil): 0.66  
Shares outstanding (mil): 59.89  
Diluted shares outstanding (mil): 62.22  
% shares held by institutions: 74%  
% shares held by investments Managers: 73%  
% shares held by hedge funds: 14%  
% shares held by insiders: 2.36%  
Short interest: 3.34%  
Days to cover short interest: 3.14  
52 week high: \$160.00  
52-week low: \$95.80  
Levered Beta: 0.97  
Volatility: 36.33%

Past Earning Surprises		
Quarter ending	Revenue	EBITDA
9/30/2015	-3.46%	-24.57%
12/31/2015	-4.20%	-14.49%
3/31/2016	-6.74%	-27.29%
6/30/2016	-2.02%	-12.32%
9/30/2016	-5.75%	-17.05%
Mean	-4.43%	-19.14%
Standard error	0.8%	2.9%

Peers	
Horizon Pharma plc	
Endo International plc	
Mallinckrodt Public Limited Company	
Allergan plc	
Impax Laboratories Inc.	
Akorn, Inc.	

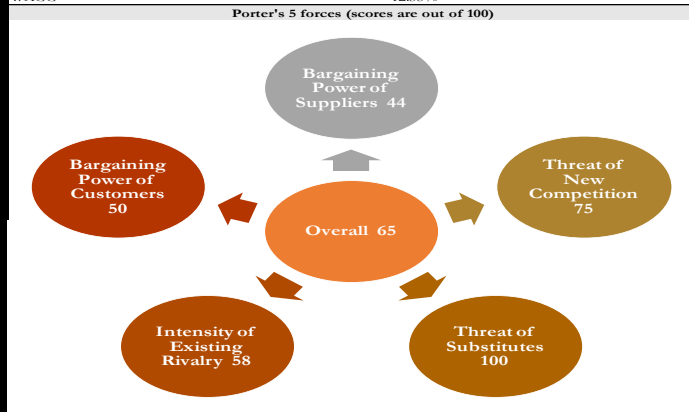
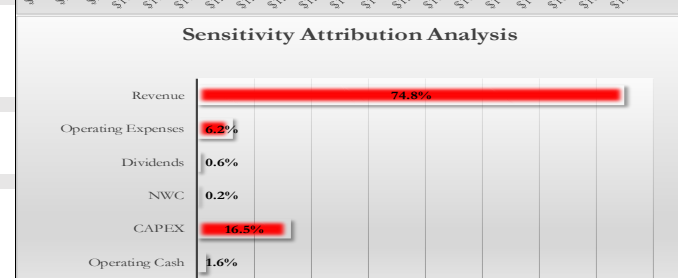
Management	
Cozadd, Bruce	Co-Founder, Executive Chairm
Young, Matthew	Chief Financial Officer and
Cox, Russell	Chief Operating Officer and
Hooper, Suzanne	Executive Vice President and
Smith, Karen	Chief Medical Officer and G1
Wilson, Karen	Principal Accounting Officer

Total compensations growth	
40.81% per annum over 5y	
-6.24% per annum over 1y	
27.36% per annum over 4y	
-8.41% per annum over 3y	
N/M	
N/M	



Profitability	
ROIC	64.0%
NOPAT Margin	111%
Revenue/Invested Capital	0.57
ROE	116.7%
Adjusted net margin	108%
Revenue/Adjusted Book Value	1.08
Invested Funds	
Total Cash/Total Capital	6.6%
Estimated Operating Cash/Total Capital	5.7%
Non-cash working Capital/Total Capital	1.9%
Invested Capital/Total Capital	36.8%
Capital Structure	
Total Debt/Common Equity (LTM)	0.31
Cost of Existing Debt	3.69%
Estimated Cost of new Borrowing	3.31%
CGFS Risk Rating	BBB
Unlevered Beta (LTM)	0.87
WACC	12.33%

JAZZ (5 years historical average)	
250.49%	
64.37%	
3.89	
204.74%	
61.99%	
3.30	
JAZZ (5 years historical average)	
16.1%	
14.8%	
1.8%	
44.1%	
JAZZ (5 years historical average)	
0.13	
29.44%	
4.01%	
B	
1.14	
17.63%	



Period	
Base Year	9.2%
9/30/2017	8.8%
9/30/2018	10.1%
9/30/2019	1.1%
9/30/2020	-6.6%
9/30/2021	31.5%
9/30/2022	12.7%
9/30/2023	2.7%
9/30/2024	4.1%
9/30/2025	4.1%
9/30/2026	4.1%
Continuing Period	4.1%
Period	
Base Year	\$94.54
9/30/2017	\$599.58
9/30/2018	\$1,119.17
9/30/2019	\$1,965.83
9/30/2020	\$2,491.74
9/30/2021	\$2,386.28
9/30/2022	\$3,354.06
9/30/2023	\$3,774.25
9/30/2024	\$4,043.02
9/30/2025	\$4,130.16
9/30/2026	\$4,831.71
Continuing Period	

Valuation	
NOPAT margin	111.4%
ROIC/WACC	5.19
	44.1%
	46.2%
	52.6%
	64.7%
	63.8%
	57.9%
	51.2%
	46.1%
	45.9%
	45.9%
	45.8%
	1.79
Net Claims	
	\$2,401.72
	\$2,315.76
	\$1,410.61
	\$278.49
	-\$1,100.92
	-\$2,312.81
	-\$3,719.73
	-\$5,182.82
	-\$6,550.81
	-\$7,916.84
	-\$9,327.55
Price per share	
	\$103.96
	\$126.42
	\$153.59
	\$181.15
	\$208.28
	\$237.76
	\$267.81
	\$297.59
	\$327.45
	\$356.89
	\$386.53

## UNDER ARMOUR INC.

NASDAQ:UA

**Analyst:** Justin Capuano

**Sector:** Consumer Disc.

**BUY**

1yr. Price Target: \$40

### Key Statistics as of 11/18/2016

Market Price: \$30.95  
Industry: Athletic Apparel and Footwear  
Market Cap: \$11.853B  
52-Week Range: \$30.06-\$47.95  
Beta: 0.29

Current EV/EBITDA: 22.55x  
High (2015) 51.97x  
Low (2015) 37.90x  
D/E: 40.10%

### Company Description:

Incorporated in 1996 in Baltimore, Maryland, Under Armour Inc.'s principal business activities are the development, marketing, and distribution of UA name branded performance apparel, footwear, and accessories for men and women of all ages. UA sells its products worldwide and are worn on the playing fields by athletes from all levels, as well as consumers with active lifestyles. Revenues are primarily generated from both wholesale sales and direct to consumer sales channels and brand awareness is achieved through digital advertising, professional and amateur sport team sponsorships and endorsements from the following leagues: NBA, NFL, MLB, and European and Latin American soccer and rugby leagues, and from its mobile application connectivity platform.

### Catalysts:

- **Short Term (within 3 months):** Updated revenue guidance from earnings reports. Holiday spending reports.
- **Long Term (over 1 year):** Materialization of long term profitability strategies. Consumer Spending Reports (Domestic and International).





## Thesis

Under Armour is a growth oriented stock that is currently undervalued because of an overreaction to its proposed strategy of maintaining over 20% growth in revenue while sacrificing short term profits. Investors sold the stock off for a near 25% decline which provides an optimal buying opportunity as the stock is trading at 22.55x EV/EBITDA, 50.69x P/E, and 2.72x P/Sales, the lowest multiples in the past 3 years. CEO and Founder Kevin Plank and his experienced management team are determined to follow the vision of growth that will lead UA in surpassing its competitors while still promoting a healthy lifestyle for its customers. My research and analysis of UA provides reasoning for my proposition of a BUY at \$31.

## Industry Outlook

The athletic apparel industry is dominated by the highly competitive big 3 brands: Nike (NKE), Adidas (ADDYY), and Under Armour. Customer traffic and company success is reliant on brand awareness, brand loyalty, and product differentiation. Currently, UA is the smallest competitor based on total market capitalization and revenue:

	Market Cap	Revenue LTM
Nike	\$87.09B	\$33.02B
Adidas	\$31.07B	\$18.78B
UA	\$12.46B	\$4.96B

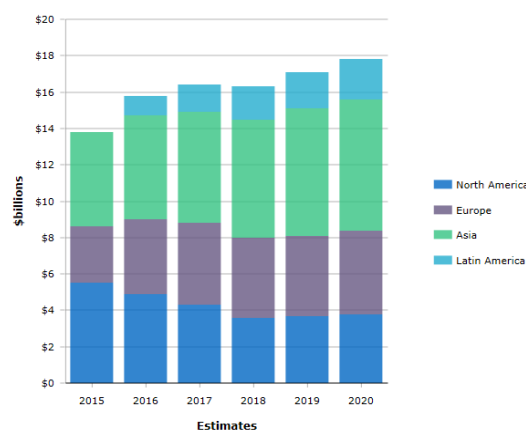
Over the past 7 years, overall sports apparel and footwear sales has grown 42% to reach a total of \$270 billion. While the explosive growth may seem difficult to maintain, the industry has a variety of growth prospects due to the upward trend of healthy and active lifestyles, rise of athleisure wear, international exposure, and the emergence of the wearable technology market. Outlooks for growth are favorable but the industry has recently experienced headwinds in revenue growth because of consolidation and bankruptcy of large sporting goods retailers, The Sports Authority and Sport Chalet, accounting for a \$4 billion loss in revenues for sports apparel and footwear brands.

## Long Term Growth Strategies

**Diversifying Distribution Channels:** UA plans to combat the closing of one of its main distributors, The Sports Authority, by signing a contract with Kohl's to enter 600 stores starting in 2017, and the option to enter more of its 1,200 stores at a future time. Kohl's will carry UA's basic men's and women's product line that targets the active lifestyle family, particularly the children. Also, UA plans to make an additional presence in the brick and mortar retail space by expanding its product offerings in higher end retailers like Neiman Marcus, Barneys, and Nordstrom. These retailers will offer UA's new high end product line UAS, Under Armour Sportswear. The new product line is a departure from the existing products because the lead designer, Tim Coppens is targeting the fashionable millennial based on his history of luxury and athleisure work at Adidas and Ralph Lauren. The UAS products will be sold at higher margins and will provide UA with the opportunity to tap in to the multi-billion dollar sportswear market. In addition to expanding its presence in retail stores, UA has plans to revamp its direct to consumer strategies to promote growth in the brand name outlet stores and online sales.

**International Growth:** The United States is UA's core market and will remain as so, but it is becoming apparent that the international markets, specifically Asia and Latin America, are better suited for potential growth.

Asia Could Be Biggest Contributor to Athletic-Wear Sales Growth

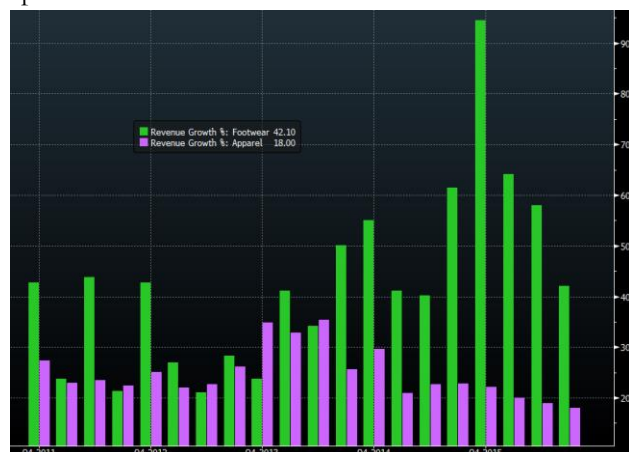


Source: Euromonitor, Morgan Stanley Research Estimates

UA is already taking advantage of the international growth opportunity as they have grown international revenues by 73.70% year over year, from 10.8% of revenue in Q3 of 2015, to 15.4% of revenue in Q3 2016. International exposure was facilitated by UA's sponsorship of countries and medal winning athletes in the 2016 Summer Olympics. Foreign customers can already purchase UA products from its web and mobile commerce platforms but management plans to expand its brand name outlet and specialty stores in strategic growth countries like China. UA is still in its beginning stages of opening new foreign locations and management is confident that in the long term, UA will generate international revenues that will converge with Nike's international revenues of 55% of total sales.

**Connected Fitness:** Capital investments totaling \$560 million in February 2015 were used to acquire mobile applications MyFitnessPal, the world's largest exercise and health tracking platform, and Endomondo, a personal training application. UA is using these strategic investments to facilitate its Connected Fitness platform and the UA Record mobile app that tracks and records the users' workout statistics. The UA branded apps attract the athletic and fitness minded individual, UA's targeted customer. As of the end of Q3 2016, over 190 million users have connected to the Connected Fitness apps and UA has captured their data in order to turn those users in to customers. Connected Fitness revenues will continue to see rapid growth as more users use UA branded health tracking devices, like the heartbeat tracking wireless headphone, and as users switch over from the Nike + fitness tracking platform.

**Focus on Footwear:** Industry trends are showing that apparel sales are marginally slowing down, creating space for the footwear market to thrive.



Historically, footwear has consistently generated more quarter to quarter growth than apparel as seen in the chart, but apparel still controls 70.7% of total revenue compared to 17.1% for footwear. Management plans to increase production from 30 million pairs of shoes in 2015 to 40 million pairs in 2016 and will continue growing production year over year to increase its market share to be considered competitive. Marketing will be focused around growing the insanely popular Curry basketball shoe line and the Bandit trainer. Increasing shoes production requires a high initial investment that will eventually be offset as economies of scale are improved and revenue increases.

**Sponsorships:** UA has announced the largest college sponsorship deal ever, a \$280 million athletic sponsorship with UCLA that will last 15 years. Other notable deals are a \$96 million agreements with the University of Wisconsin and a \$90 million agreement with Notre Dame, both lasting 10 years. Under these contracts, the colleges must exclusively use UA products while UA receives a percentage of each sale and the benefit of brand exposure on national television as the athletic teams display the UA logo on their jerseys. Also, UA signed a contract with the MLB to be its sole uniform provider starting in 2020, and has partnerships with other professional leagues like the NBA and NFL, and with all star players like Stephen Curry and Cam Newton. Management is confident that locking in the 10-15 year deals will provide long term brand exposure and revenue growth.

## Financials vs. Competitors

		ROIC /WACC	
		History	LFY
UA	1.70	1.73	
Nike	2.53	1.98	
Adidas	1.61	2.17	

		WACC		ROIC W/O GW	
		History	LFY	History	LFY
UA	11.7%	9.7%	19.9%	16.7%	
Nike	9.8%	11.9%	24.9%	23.4%	
Adidas	8.6%	7.9%	13.9%	16.3%	

		EBITA Margin		SGA/Revenue		COR/Revenue	
		History	LFY	History	LFY	History	LFY
UA	11.5%	9.6%	37.3%	37.7%	51.6%	52.7%	
Nike	13.5%	13.1%	31.5%	32.7%	55.2%	54.3%	
Adidas	6.9%	7.9%	39.2%	35.6%	52.3%	51.8%	

UA places in the middle of the pack in terms of both ROIC without goodwill and its weighted average cost of capital with values of 16.7% and 9.7% respectively in the last fiscal year. However, UA ranks last in the industry in terms of value creation during the same time period. Historically, Nike has been the industry leader for creating value with a trailing 5 year average



ROIC/WACC value of 2.53, but Adidas surpassed them in the last fiscal year with a value of 2.17. It is important to understand the size and states of maturation when comparing and analyzing the financials of the each company. Both Nike and Adidas are mature, well established companies that generate revenues nearly 7 and 3 times, respectively, more than UA. They have achieved economies of scale are able to focus on streamlining production costs and operational efficiencies. On the other hand, UA is still in the growth stage while they continue to spread their brand name internationally to grow revenues. They are also willing to sacrifice operating margins by making large investments on the growth strategies above in order to generate returns as they materialize in the years to come. This strategy is evident in the table above as UA increased S, G, &A spending to pay for the additional employees needed to implement the projects and an increased costs of revenue as they add product lines that require high initial fixed costs that will not reach economies of scale until the company reaches annual revenues near \$10 billion, according to the Q3 2016 conference call. The growth strategy and margin sacrifice is also evident in the table below with capital expenditures increasing far beyond the industry average while UA's year over year revenue growth remains steadily above its competitors.

	UA FY2013	UA FY2014	UA LFY	Competitors Average (LFY)
YoY Revenue Growth	27.1%	32.3%	28.5%	11.1%
Gross Margin	48.7%	49.0%	48.1%	47.3%
Operating Margin	11.4%	11.5%	10.5%	10.1%
Net Margin	7.0%	6.8%	6.0%	7.7%
Capex Margin	3.8%	4.6%	7.5%	3.1%

Wall Street had a negative response to UA's plans as there was a large sell off after management released guidance during the Q3 2016 earnings report on November 2<sup>nd</sup>. The price declined nearly 25% because the analysts overlooked the plans for long term margin appreciation.

## Management

Under Armour has a loyal and goal driven CEO/Founder in Kevin Plank. He grew the company from having a few employees selling t shirts out of the back of his truck in 1996 to a \$12+ billion multinational company. He has a contagious vision for growing the company that his team and employees can support. The rest of the executive team is new as of the past 2 years, but have a long history of success and experience with other companies. Andy Donkin, the new Chief Marketing Officer, has marketing experience at executive levels in Amazon.com and Travelocity.com. Karl-Heinz Maurath, the new Chief Revenue Officer, has executive level experience in international affairs with competitor Adidas. The strong staff continues with Colin Browne, the new President of Global Sourcing, that was the VP of the same position at apparel retailer VF Corp. The strong executive team is supported by a diverse Board of Directors. The Lead Director was the former executive director of the CIA and the rest of the board is populated by retail, apparel, and international sourcing professionals.

## Conclusion

Under Armour is a powerful brand that spreads its vision of growth and active living to its customers through its product offerings. The company has set itself apart from its competitors in terms of growth and has strategic long term plans to generate substantial returns on its lofty current investments. With its position in the athletic apparel and footwear industry, I proposing long term buy and hold at \$31 with a 1 year price target at \$40, a 29% return.

**Under Armour, Inc. (UA)**

**CENTER FOR GLOBAL FINANCIAL STUDIES**

**NEUTRAL**

Analysis by Justin Capuano  
11/18/2016

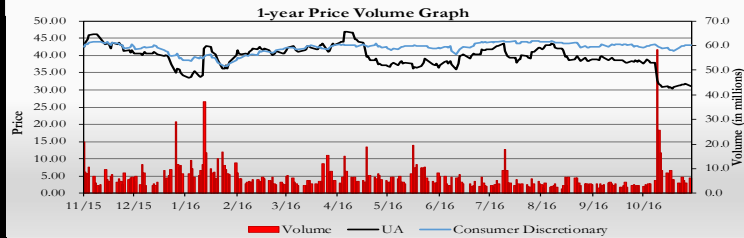
Current Price:  
Divident Yield:

\$32.31  
0.0%

Intrinsic Value  
Target Price:

\$34.74  
\$39.12

Target 1 year Return: 21.09%  
Probability of Price Increase: 85.2%

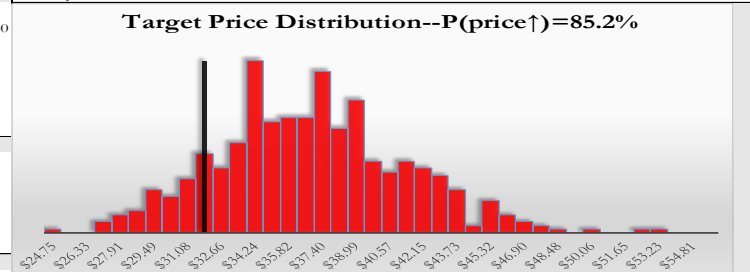


Description	
Under Armour, Inc. together with its subsidiaries, develops, markets, and distributes branded performance apparel, footwear, and accessories for men, women, and youth primarily in North America, Europe, the Middle East, Africa, the Asia-Pacific, and Latin America.	
General Information	
Sector	Consumer Discretionary
Industry	Textiles, Apparel and Luxury Goods
Last Guidance	November 3, 2015
Next earnings date	January 31, 2017
Estimated Country Risk Premium	6.97%
Effective Tax rate	36%
Effective Operating Tax rate	45%

Market Data	
Market Capitalization	\$12,608.19
Daily volume (mil)	3.34
Shares outstanding (mil)	438.15
Diluted shares outstanding (mil)	443.68
% shares held by institutions	66%
% shares held by investments Managers	54%
% shares held by hedge funds	5%
% shares held by insiders	16.19%
Short interest	10.98%
Days to cover short interest	8.67
52 week high	\$47.95
52-week low	\$30.06
Levered Beta	0.54
Volatility	35.55%

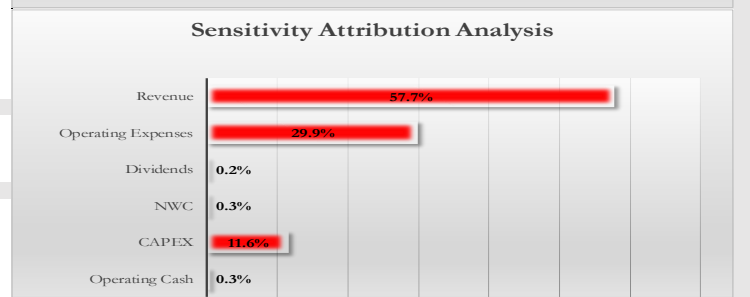
Past Earning Surprises	
Quarter ending	Revenue
9/30/2015	-0.73%
12/31/2015	1.89%
3/31/2016	-2.80%
6/30/2016	-1.57%
9/30/2016	-1.38%
Mean	-0.92%
Standard error	0.8%

EBITDA	
9/30/2015	-14.19%
12/31/2015	-28.10%
3/31/2016	-5.90%
6/30/2016	-25.35%
9/30/2016	-1.68%
Mean	-15.04%
Standard error	5.2%



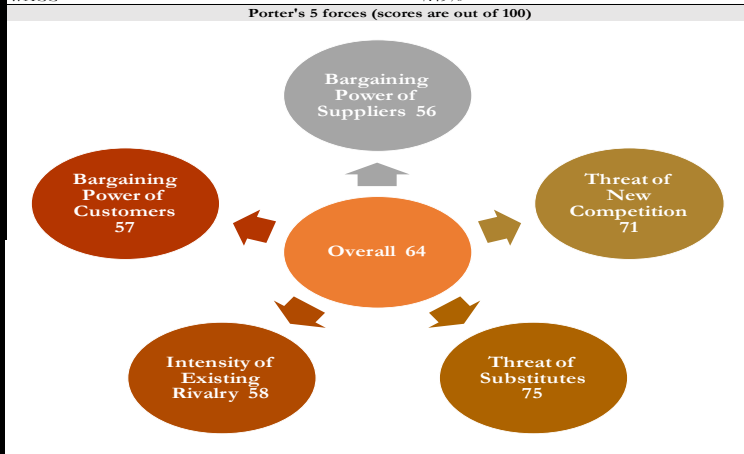
Management	
Plank, Kevin	Founder, Chairman, Chief Exe
Chandler, Kerry	Chief Human Resources Officer
Maurath, Karl-Heinz	Chief Revenue Officer
Molloy, Lawrence	Chief Financial Officer
Fipps, Paul	Chief Information Officer and
Shaw, Thomas	Director of Investor Relatio

Total compensations growth	
13.04% per annum over 5y	8.75% per annum over 5y
N/M	0% per annum over 0y
-11.29% per annum over 3y	34.71% per annum over 3y
N/M	N/M
N/M	N/M
N/M	N/M



Profitability	
UA (LTM)	UA (5 years historical average)
ROIC	10.0%
NOPAT Margin	6%
Revenue/Invested Capital	1.65
ROE	8.4%
Adjusted net margin	6%
Revenue/Adjusted Book Value	1.53
Invested Funds	
UA (LTM)	UA (5 years historical average)
Total Cash/Total Capital	4.0%
Estimated Operating Cash/Total Capital	4.0%
Non-cash working Capital/Total Capital	28.3%
Invested Capital/Total Capital	85.5%
Capital Structure	
UA (LTM)	UA (5 years historical average)
Total Debt/Common Equity (LTM)	0.10
Cost of Existing Debt	3.83%
Estimated Cost of new Borrowing	4.77%
CGFS Risk Rating	CC
Unlevered Beta (LTM)	0.52
WACC	7.49%

Industry (LTM)	
ROIC	13.95%
NOPAT Margin	8.6%
Revenue/Invested Capital	1.61
ROE	15.66%
Adjusted net margin	7.8%
Revenue/Adjusted Book Value	2.01
Industry (LTM)	
Total Cash/Total Capital	11.3%
Estimated Operating Cash/Total Capital	8.6%
Non-cash working Capital/Total Capital	25.1%
Invested Capital/Total Capital	85.6%
Industry (LTM)	
Total Debt/Common Equity (LTM)	0.05
Cost of Existing Debt	5.16%
Estimated Cost of new Borrowing	5.68%
CGFS Risk Rating	C
Unlevered Beta (LTM)	1.16
WACC	12.40%



Porter's 5 forces (scores are out of 100)	
Period	Revenue growth
Base Year	27.2%
9/30/2017	21.9%
9/30/2018	20.4%
9/30/2019	22.0%
9/30/2020	19.2%
9/30/2021	20.4%
9/30/2022	36.2%
9/30/2023	24.0%
9/30/2024	18.4%
9/30/2025	15.7%
9/30/2026	-73.9%
Continuing Period	4.0%
Invested Capital	
Base Year	\$1,152.25
9/30/2017	\$1,390.10
9/30/2018	\$1,782.30
9/30/2019	\$2,236.08
9/30/2020	\$2,848.60
9/30/2021	\$3,827.34
9/30/2022	\$4,559.00
9/30/2023	\$5,393.35
9/30/2024	\$6,297.78
9/30/2025	\$7,035.21
9/30/2026	\$7,861.29
Continuing Period	

Valuation	
NOPAT margin	ROIC/WACC
6.1%	1.34
8.4%	1.74
7.1%	1.50
8.5%	1.89
8.9%	2.06
10.5%	2.68
11.2%	3.59
10.6%	3.47
10.6%	3.65
10.7%	4.00
-17.3%	-1.62
20.3%	3.27
Net Claims	
Base Year	\$1,884.63
9/30/2017	\$1,909.74
9/30/2018	\$1,984.17
9/30/2019	\$1,851.39
9/30/2020	\$1,360.93
9/30/2021	\$284.32
9/30/2022	-\$438.84
9/30/2023	-\$1,876.87
9/30/2024	-\$4,084.72
9/30/2025	-\$7,065.30
9/30/2026	-\$11,363.19
Continuing Period	
Price per share	
Base Year	\$35.44
9/30/2017	\$38.83
9/30/2018	\$42.51
9/30/2019	\$46.51
9/30/2020	\$50.74
9/30/2021	\$55.78
9/30/2022	\$61.18
9/30/2023	\$66.65
9/30/2024	\$72.14
9/30/2025	\$77.61
9/30/2026	\$75.00
Continuing Period	