#### **Macroeconomic Overview**

#### U.S. Markets

The past trading week was very active in the markets, with the S&P 500 recording its largest weekly gain of the year. The index finished the week at 2,014.89, a 3.3% increase over the week. Meanwhile, the Dow Jones Industrial Average closed at 17,084.49, up 0.2% for the day and 3.27% for the week, and the NASDAQ Composite finished the week at 4,830.47, up 2.61% over the past 5 days. Small cap stocks, as measured by the Russell 2000 Index, slightly outperformed large caps with a weekly gain of 4.60% at 1,165.36. Out of those indices, only the NASDAQ Composite has gained year-to-date, with a modest increase of just under 2%. The past week was also characterized by a drastic decrease in volatility, as measured by the VIX index, which dropped 18.43% to 17.08 and reached a level not seen since August 19. This marked the ninth consecutive day of decline for the common fear gauge, its longest declining streak in four years. Gold and silver rallied

Index	Weekly % Change	YTD % Change
S&P 500	+3.3%	-2.14%
Dow Jones Industrial	+3.27%	-4.13%
NASDAQ Composite	+2.61%	+1.99%
Russell 2000	+4.60%	-3.27%
VIX	-18.43%	-11.03%

2.02% and 3.45% respectively over the week, and crude oil gained almost 9% at \$49.63/bbl, after briefly crossing the \$50 threshold not seen since mid-July. Minutes of the September FOMC meeting were released on Thursday, and even though they showed that Fed officials are still feeling quite confident about the economy, the tone seemed

cautious as the outlook for global growth slows down. Traders now see a 39% chance for a rate hike by the end of the year, as opposed to 45% the day before the minutes were released. The economic calendar was fairly light for the past week, and the few releases did not seem to put a dent in a mostly technical rally in the markets. The week also kicked off third quarter earnings season, with a rather disappointing report by Alcoa sending its shares tumbling 6.81% to \$10.26. Next week, 37 S&P 500 companies are expected to report earnings, including Johnson & Johnson, Intel, Bank of America and General Electric. Several economic reports are expected during the coming week, with the publication of September retail sales and Producer Price Index - Final Demand (PPI-FD), as well as August Business Inventories, all due on Wednesday. On Thursday, the New York Fed will release its Empire State Manufacturing Survey before the markets open at 8:30, and the EIA will release its weekly petroleum report at 10:00. On Friday, the Federal Reserve will release its September Industrial Production report at 9:15, followed by the Department of Labor's JOLT'S report at 10:00.

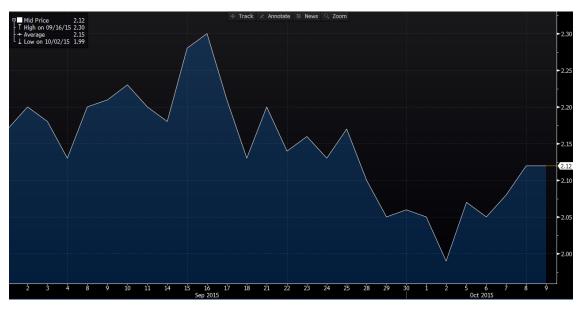
#### **International Markets**

International markets also experienced a strong rally during the past week, with the Bloomberg European 500 and Stoxx Europe 600 indices posting gains of 4.08% and 2.51% respectively. The outlook for Europe remains positive, with Mario Draghi declaring on Saturday that he was satisfied with the effects of the monetary stimulus, and that he was confident the Eurozone would reach the inflation target of 2% set by the ECB. The MSCI EAFE index gained 5.44% to close at 1,759.7, and the MSCI Emerging Markets closed up 6.87% at 859.32. Chinese markets reopened on Thursday after a weeklong national holiday, and investors

were eager to push the Shanghai Composite up 4.27% to 3,183.15, and the Shenzhen Composite index up 5.52% to 1,811.63.

#### **Bond Market**

This Week, The US Treasury Bond price have dropped, which sent the yields to increase to the largest weekly increase since August. Indeed, the low oil prices and the strong dollar had made the investors selling their government bond to buy riskier assets. The yield on benchmark 10 year treasury note rose 10.9 bps to reach 2.10%, its biggest one week increase since late August, even if it had loose 9bp on Friday after a 2 week high because of the slowdown of us equities. The 30-year yield, which stood at 2.82% last week rose to 2.94%. Concerning the 2-year maturities, the yields gained 6.5 bps this week to reach a yield of 0.65%. Inflation rate is way below the 2% expected by the FED (Mostly due to the low oil price and the strong dollar) however; policymakers still expected an increase in rate before the end of the year. The market is doubting the raise of short term interest rates before the end of the year since the Treasury Department auctioned for the first time new 3 months treasury bills at a yield of 0.0%.





#### What's next and key earnings

On Tuesday October 13th the US government will release the monthly treasury budget. This will release the surplus or the deficit of the federal government for the month of September. This is often used as an indicator for future budget trends or fiscal policy. Forecasters are expected a budget surplus of \$95B, which is inferior compare to last year but superior compare to August but enough to finish a positive year.

On Wednesday October 14th, Both the Retail sales and the Producer Price Index will be released. Retail Sales measures both durable and non-durable portions of consumer spending. Normally, consumer spending counts for around 2/3 of GDP, which is why this is important for the economic growth. The PPI measure the change of prices received by producers of goods & services.

On Thursday October 15th, the Consumer Price Index will be released. It measures the change of price of services, goods purchased by consumers. It is a key way to determine inflation.

On Friday October 16<sup>th</sup>, the Industrial Production will be released. It covers manufacturing, electric and gas utilities and mining. This sector represents less than 20% of the market but it accounts for most of the variation in domestic production during the business cycle.



# **BSQUARE CORP.**

BSQR: NasdaqGS

Analyst: Sector:

Peter Ostrowski Information Technology

BUY

Price Target: \$12.63

# Key Statistics as of 10/9/2015

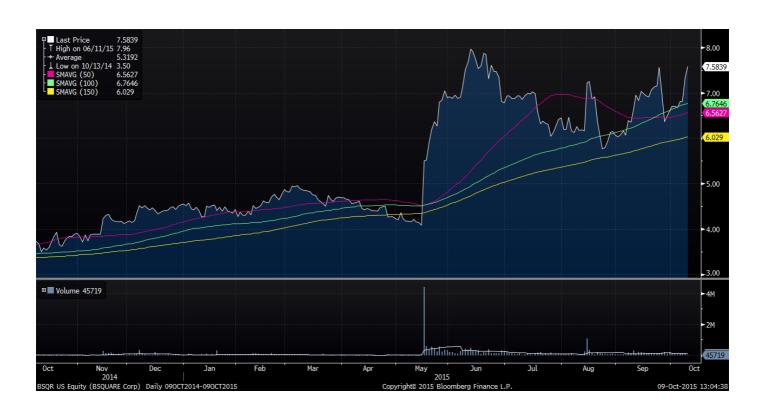
Market Price: \$7.58
Industry: Software
Market Cap: \$90.70 million
52-Week Range: \$3.45-8
Beta: 1.33

### **Thesis Points:**

- Promising financials
- Internet of Things (IOT) and current projects
- Strong Partnerships
- Expectations

# **Company Description:**

BSQUARE Corporation provides software solutions and related engineering services to companies that develop connected systems in North America, Asia, and Europe. The company markets and sells its products to original equipment manufacturers, original design manufacturers, and corporate enterprises, as well as silicon vendors and peripheral vendors. BSQUARE Corporation was founded in 1994 and is headquartered in Bellevue, Washington.





BSQUARE offers a wide variety of software technology mainly in the b2b market. With the recent announcement of the upcoming Internet of Things project with GE in September, along with the current partnerships with Microsoft and Aava, Bsquare's Financials such as ROIC/WACC and EBITDA will continue to increase. This will help sustain the current growth and increase the price of the stock. The future expectations as stated in the call transcript also add a further understand of the positive direction BSQUARE is headed in.

### IoT and current projects

Bsquare's new project of Internet of Things (IoT) will essentially sell positive business outcomes through data analyzing software. This is what differentiates Internet of Things from the competition, the competition is selling engineering service solutions while Internet of Things is able to input these engineering solutions directly into their products. In simpler terms this project is able to take raw data from a company and make it easier to understand. This has the capability to help companies lower costs, generate additional revenue and even improve customer satisfaction. This product will generate revenue starting this year through perpetual licensing and subscription revenue. The amount of revenue IoT is projected to receive is currently unknown due to the level of privacy GE is pressuring upon BSQUARE. This level of uncertainty is beneficial as it is difficult for the market to adjust to the value of a company when future figures are not being mentioned by the CEO. There is an encouraging customer pipeline due to the historical expertise Bsquare has in this sector. As a result of this, expenses will increase this year due to future investment in DataV technology (the primary software used for IoT) and product offerings.

Bsquare's product of MobileV is another great B2B product that earns through each device sold for Microsoft and Aava, as well as through Bsquare licenses. This product was one of the main reasons 3rd party sales increased 17 million year over year. 3rd party sales made up 81% of the company's revenue in the 2nd quarter this year showing how profitable licensing is for Bsquare.

### **Partnerships**

Bsquare has had many successful partnerships and has worked closely with companies such as Adobe, Aava, Microsoft, Google, Coca Cola, Ford and most recently General Electric. These partnerships have fortified their success and are a good inclination of future growth. The relationship BSQR has kept with Microsoft is largely based on the MobileV product that was previously discussed. Microsoft is obviously one of the most successful companies and is one of the main components of BSQR's 3rd party revenue which made up 77.1% of total revenue in 2014.

Google, Coca Cola, and Ford are extremely valuable to the company due to their ability to make large orders mainly in the engineering sector. This was a huge reason why the stock doubled in the month of April.

Bsquare's relationship with GE is perhaps the most interesting. Harel Kodesh was a former board member of BSQR and is now the head of GE software. Because of this, Bsquare is able to work with GE on the IoT which can potentially increase the publicity of Bsquare as it has little to no coverage by the street analysts on Wall Street.

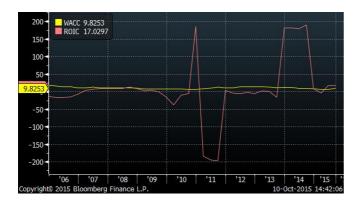
#### **Financials**

Bsquare's financials have been outstanding over the past year. The August earnings call stated that Bsquare has had a \$5.8 million increase in revenue, a \$1.2 million increase in net income, a \$3.2 million increase in EBITDA while subsequently decreasing operating expenses by \$234,000. These numbers of increase in revenue is directly correlated to the success of MobileV. Bsquare's historical expertise has given them such a strong and encouraging customer pipeline that any new future products will have an immediate impact on the growth of the stock.

The ROIC of the company is currently 19.3 and has been hovering around 20 for the past month. This indicates very strong profitability of the company. This is mainly due to the fact that cash and investments increased from 26.6 million to 29.7 million from the beginning of the year to the present.



The increase in ROIC as compared to the WACC is shown on the graph below. This demonstrates that the return exceeds the cost of capital which is a further indicator of the profitability of the company.



The liquidity of the company is shown in the current and quick ratios which are 2.66 and 2.62 respectively. The reason of this is because Bsquare has zero net debt.

Lastly, it is important to note the increase in service gross margin. Bsquare was able to increase this due to improved utilization of existing resources and realized rate/hr.

Bsquare's stock doubled from \$3.50 to \$7 in April the exact reason for this is not specifically mentioned as the company has little to no Wall Street analysts covering it. It is quite obvious after research that this substantial increase is due to the announcement of the success of MobileV and the DataV Internet of Things offering. Also as stated earlier the increases in revenues and margins were remarkable 2014-2015.

### **Expectations**

The end of the year expectations as stated in the call transcript are important to identify as they seem to be realistic and follow a trend. The CEO projects total revenue for the year to be around 26-28 million. The gross margin for services to be in the mid 20% range and continued GAAP profitability. Lastly, because of high credit worthy customers' accounts receivable is expected to increase as Bsquare is allotting extensions on receivables to certain customers. This decision to extend accounts receivable will leverage a strong cash position for the upcoming years.

#### Conclusion

I recommend a buy for BSQUARE due to the current growth of the company and the opportunity for future success. This is largely due to the historical expertise and success of past products. I think that Internet of Things has a high probability of success due to the encouraging customer pipeline Bsquare has shown and the large companies that have already taken an interest. The ROIC compared to the WACC is a big indicator of profitability. The company will be stable for the rest of the year and should start to really grow once 2016 hits and IoT has truly set into the market and begins to really start generating revenue.



			CENTED	EOD CLOBAL EIN	ANCIAL STUDIES			
BSQUARE Corp.		Analyst Peter Ostrowski	Current Price \$7.61	Intrinsic Value \$11.63	Target Value \$12.63	Divident Yield 0%		BULLISH
	General Info	Peers	Market Cap.	\$11.03	\$12.03	Managem	ent	
Sector	Information Technology	Avnet, Inc.	\$6,012.23	Professional	Title	Comp. FY2012	Comp. FY2013	Comp. FY2014
Industry	Software	SYNNEX Corp.	\$3,619.06	Chase, Jerry	Chief Executive Officer, President and Directo	\$0	\$149,968	\$792,824
Last Guidance	August 13, 2015	ISB Corporation	\$3,890.14	Heimbigner, Martin	Chief Financial Officer, Secretary and Treasure	\$0	\$0	\$248,987
Next earnings date	November 12, 2015	Model N, Inc.	\$266.28	Whiteside, Mark	Vice President of Solutions	\$379,896	\$212,425	\$495,323
	Market Data	Arrow Electronics, Inc.	\$5,511.32	Caldwell, Scott	Vice President of Worldwide OEM Sales	\$0	\$351,691	\$520,124
Enterprise value	\$61.41	Japan System Techniques Co., Ltd.	\$4,046.22	Walsh, Kevin	Vice President of Marketing	\$0	\$0	\$0
Market Capitalization	\$624,448.06	Talkweb Information System Co.,Ltd.	\$12,597.72	Wagstaff, Dave	Chief Architect and Vice President	\$0	\$0	\$0
Daily volume	8.34	Softing AG	\$79.73		Past Earning Surprises			
Shares outstanding	11.94	Monotype Imaging Holdings Inc.	\$909.56		Revenue	EBITDA	Norm. EPS	Standard Error of "Surprise"
Diluted shares outstanding	12.05	NJK Corporation	\$8,553.62	Last Quarter	0.00%	0.00%	0.00%	0.00%
% shares held by institutions	60.72%	Current Cap	ital Structure	Last Quarter-1	0.00%	0.00%	0.00%	0.00%
% shares held by insiders	4.91%	Total debt/Common Equity (LTM)	0.25	Last Quarter -2	0.00%	0.00%	0.00%	0.00%
Short interest	0.40%	Cost of Borrowing (LTM)	0.00%	Last Quarter -3	0.00%	0.00%	0.00%	0.00%
Days to cover short interest	0.40	Estimated Cost of new Borrowing	0.00%	Last Quarter -4	0.00%	0.00%	0.00%	0.00%
52 week high	\$8.00	Altman's Z	2.10	Standard error	0.0%	0.0%	0.0%	0.00%
52-week low	\$3.45	Estimated Debt Rating	AAA	Standard Error of Revenues prediction	0.0%			
5y Beta	1.65	Current levered Beta	0.46	Imputed Standard Error of Op. Cost predic				
6-month volatility	66.35%	LTM WACC	4.72%	Imputed Standard Error of Op. Cost predic	tio: 0.0%			
	6 11			Proforma Assumptions				
Convergence Assumptions	General Ass	<u> </u>		Items' Forecast As				Other Assumptions
	Money market rate (as of today)	0.25%		Base year (LTM)	Convergence period (Sub-industry)	Adjustment per year		80%
	Risk-Free rate (long term estimate)	2.96%	Operating Cash/Rev.	0.97%	8.63%	0.8%	Excess cash reinvestment	Money market rate
converge towards the Sub-	Annual increase (decrease) in interest rates	0.0%	NWV/Rev.	0.00%	6.45%	0.6%	Other claims on the firm's assets	\$0.00
industry ratios over an	Marginal Tax Rate	34.0%	NPPE/Rev.	1.10%	9.91%	0.9%		Capitalization
explicit period of 10 years	Country Risk Premium	5.5%	Dpr/NPPE	39.00%	37.21%	-0.2%		lized and amortized 'straightline' over 10 years
		P (0) P	NET MARGIN	5.09%	10.58%	0.5%		alized and amortized 'straightline' over 10 years
Forecast Year	Revenue Growth Forecast	Revenue (\$) Forecast	Op. Exp./Rev.	92.90%	74.14%	-1.9%	E&P expenses are not capitalized	
LTM FY2015	3.6%	\$105.27 \$109.02	SBC/Rev.	1.03%	2.70%	0.2% 0.1%	SG&A expenses are not capitalized	Valuation Focus
		•	Rent Exp./Rev.	1.14%	2.48%			
FY2016	3.3%	\$112.60	R&D/Rev.	1.67%	13.88%	1.2% 0.0%	DCF Valuation	100%
FY2017	3.1% 3.1%	\$116.14	E&D/Rev.	0.00%	0.00% 34.23%	0.0% 2.4%	Relative valuation	0% 0%
FY2018 FY2019	3.1%	\$119.71 \$123.34	SG&A/Rev. ROE	10.61% 16%	34.23% 16.93%	0.05%	Distress Valuation	Ionte Carlo Simulation Assumptions
FY2020	3.0%	\$127.06	P/E	16% 14.96x	10.93% 11.62x	-0.33x	Revenue Growth deviation	Normal (0%, 1%)
FY2021	3.0%	\$127.06	P/BV	2.11x	1.02x 1.97x	-0.01x	Operating expense deviation	Normal (0%, 1%)
FY2022	3.0%	\$130.89 \$134.82	Debt/Equity	2.11x 25%	1.97k 60%	3.5%	Continuing Period growth	Normai (0%, 1%) Triangular (5.335%, 5.5%, 5.665%)
FY2023	3.0%	\$138.87	Unlevered beta	0.40	1.15	0.08	Country risk premium	Triangular (2.91%, 3%, 3.09%)
FY2024	3.0%	\$143.03	Cost of Borrowing	2%	6%	0.4%	Intrinsic value σ(ε)	\$0.02
Continuing Period	3.0%	\$147.32	Dividends/REV	0%	2%	0.2%	1-year target price σ(ε)	\$0.02
		-		Valuation				•
Forecast Year	ROE	Ke	Common Equity	Enterprise Value	Net Claims on Assets and Dilution Costs	Shares Outstanding	Price per Share	Monte Carlo Simulation Results
LTM	16.2%	5.5%	\$37.92	\$163.25	\$16.23	11.94	\$11.41	
FY2015	23.8%	5.9%	\$49.87	\$178.86	\$16.03	11.94	\$12.39	
FY2016	19.2%	6.3%	\$67.76	\$197.72	\$15.79	11.94	\$13.44	The $3\sigma(\varepsilon)$ -adjusted intrinsic value is \$11.63; the $3\sigma(\varepsilon)$ -adjusted
FY2017	16.9%	6.8%	\$87.98	\$219.86	\$15.49	11.94	\$14.65	target price is \$12.63; and the analysts' median target price is \$0
FY2018	15.3%	7.2%	\$110.65	\$244.59	\$15.12	11.94	\$15.98	, ,
FY2019	14.1%	7.6%	\$135.00	\$271.38	\$14.68	11.94	\$17.42	
FY2020	13.2%	8.0%	\$156.06	\$295.60	\$14.14	11.94	\$18.77	
FY2021	12.9%	8.5%	\$179.06	\$322.81	\$13.86	11.94	\$20.26	Sensitivity Analysis
FY2022	12.7%	8.9%	\$204.11	\$353.03	\$4.21	11.94	\$22.28	Revenue growth variations account for 95.9% of total variance
FY2023	12.4%	9.3%	\$231.31	\$386.75	\$0.00	11.94	\$24.06	Risk premium's variations account for 2.5% of total variance
FY2024	12.1% 16.9%	9.8% 10.1%	\$260.77 \$156.12	\$424.52	\$0.00	11.94	\$25.81	Operating expenses' variations account for 1.4% of total variance
Continuing Period	10.9%	10.1%	\$150.1Z					Continuing period growth variations account for 0.2% of total variance

Dominick Iachetta



# Diamondback Energy Incorporated

**Sector:** NasdaqGs:FANG

Energy

Analyst:

**BUY** Price Target: \$84.88

# Key Statistics as of 10/09/2015

Market Price: \$76.95

Industry: **Exploration & Production** 

Market Cap: \$5.09 B 52-Week Range: \$51.69-85.82

Beta: 1.39

### **Thesis Points:**

- Increase in horizontal drilling throughout the Permian Basin will drive growth
- Major stake in valuable subsidiary, Viper Energy Partners
- Financial analysis: revenue growth, strong debt to asset ratio

# **Company Description:**

Diamondback Energy Inc. is an oil and natural gas company headquartered in Midland, Texas. The company's focus is on the acquisition, development, exploration and exploitation of on-shore natural gas and oil reserves. The majority of Diamondback's operations are centered in the Permian Basin of West Texas, one of the largest oil producing basins in the United States.

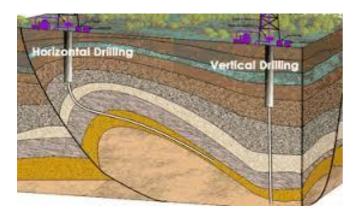




I am recommending a BUY for Diamondback Energy based on their increased efficiency of horizontal drilling projects in the Permian Basin, their majority stake in Viper Energy Partners as well as promising growth potential in both the near and long term.

### Horizontal Drilling in Permian Basin

Within the last 18 months, one of FANG's primary objectives has been targeting and operating horizontal wells. Although the concept has existed in the industry for quite some time, it has become much more prevalent in recent years due to drastic advances in technology. Like its name indicates, horizontal drilling allows companies to drill at an angle as opposed to straight into the ground. This new practice has helped FANG reach targets which were previously impossible, convert unwanted shale into profitable materials and improve overall drilling efficiency. FANG's horizontal drilling program has been implemented to capture the higher potential upside that already exists on their current properties. By 2015, FANG plans to own and operate between 60-70 horizontal wells, which is an increase from previous estimates. FANG's proven ability to make the transition to this more economic and profitable method of drilling will ultimately result in growth for the company.



FANG's expanding stronghold in the Permian Basin is also a key value driver for the firm. The Permian Basin is one of the largest sedimentary basins in the United States. Due to the increase in horizontal drilling and other alternate drilling methods, the Permian Basin region is one of the most active oil producing areas in the country. The basin accounts for about 18% of US

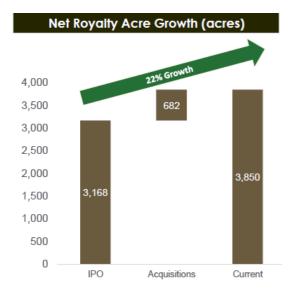
crude oil production and 23% of the country's oil reserves. In 2007, FANG began its operations with the acquisition of nearly 4,100 net acres in the Permian Basin. In the eight years that have followed, FANG has accumulated over 85,000 net acres in the same region and is constantly seeking new areas within the basin to expand. Two of FANG's four horizontal rigs are located at the Spanish Trail, one of the most oil rich areas of the entire basin. FANG's executive team has extensive experience in the Permian Basin which will allow the company to effectively expand their holdings into new, untapped resources. FANG's assets in the Permian Basin as well as their prospective plays within the region will stabilize the company as it continues on its growth path.

### Viper Energy Partners

A major asset that will drive growth for FANG in the near and long term is its fully consolidated subsidiary, Viper Energy Partners (VNOM). Similar to FANG, VNOM owns, acquires, exploits, and develops oil and natural gas properties in areas throughout North America, mainly in the Permian Basin region. VNOM's acquisition strategy is to purchase royalty land in areas that are rich producers in oil and gas. They also accumulate royalty property in areas in which high quality operators, such as FANG, actively develop the land. Based on their royalty status, VNOM does not pay development or operating costs on production, which has lead to very high operating margins for the company. Overall, VNOM's business model has lead them to earn an average of 21.4% royalty interest on the production of land under their supervision. VNOM currently owns 3,850 net royalty acres throughout the Permian Basin and plans to expand this territory in the near future.

The reason that VNOM has such immediate growth implication on FANG is because FANG currently holds an 88% share in the company. VNOM has shown the ability to grow organically due to increased drilling activity from well-proven operators. VNOM currently holds the majority of its net acreage in the Permian Basin region. A major portion of this land area is operated by FANG, as well as RSP Permian. This consistent development on already pre-existing, owned property has helped VNOM grow to be one of the most attractive E&P MLP's in today's market.





VNOM's expansion into new types of drilling and geographic areas is crucial in helping them reach their ultimate growth potential. In total, 551 acres of land currently being operated by FANG have been identified as new, potential drilling locations for the company. Many of these locations are targeted as zones for horizontal drilling. The company's ability to take advantage of these opportunities, as well as their ability to expand into new regions, such as the Delaware Basin, will ultimately help lead to them having long-term, sustainable growth.

FANG and VNOM have a mutually beneficial relationship. Since VNOM's IPO in 2014, FANG has improved on many different aspects of their business. In this time period, FANG's average daily net production has nearly doubled, their operating expenses over time have decreased by 44% and their EBITDA growth has increased by nearly 4 times. VNOM is an extremely underrated asset of FANG. Despite the market uncertainty in the price of oil, VNOM's business model and upcoming ventures will ultimately lead to success and growth. FANG's 88% stake in the company will create value for the parent firm going forward.

### **Financial Analysis**

Throughout the recent past, FANG's revenues have grown at an impressive rate. Due to the implementation of new drilling techniques, 2014 sales revenue totaled \$506 million, a 150% increase from the previous year. Revenue for 2015 is estimated to grow to \$531.

Although this rate of growth is negligible compared to years past, FANG's ability to boost sales in the current oil environment is an indicator of the company's long-term stability. Finally in 2016, FANG is estimated to increase sales to \$617 million. Part of FANG's core strategy is to constantly seek acquisition targets with exceptional resource potential. The ability of FANG's executive team to expand into new, prosperous projects will act as at a catalyst for sales in future years.

FANG's growth trajectory has not been accompanied by a major accumulation of debt, which is a very positive sign for the company going forward. FANG's enterprise value has increased from \$681 million in 2012 to over \$5.7 billion currently. This massive increase in enterprise value has only been accompanied by the accumulation of \$718 million in total debt, most of which doesn't come due until 2018. FANG's debt to asset ratio of 23% is extremely important for the company. In 2014, 90% of FANG's total assets were comprised of net property, plant and equipment. FANG's trend of acquiring additional rigs to bolster operations hasn't lead them to accumulate an unmanageable level of debt. Going forward FANG's strong debt to asset ratio demonstrates their ability to build up crucial PPE necessary for operations without taking on excessive debt. This will bode well for them as they continue to expand into new territory and accumulate more resources.

#### Summary

I am recommending a BUY on FANG because of the firm's growth trajectory and stock's upside potential. Current market conditions make the energy sector a tough play for most crude oil bears. FANG's operations in the Permian Basin, the performance of their subsidiary, Viper Energy Partners, and the firm's strong balance sheet will allow FANG to not only survive these times of uncertainty but will also lead the company to ultimate growth and prosperity.



			CENTER	FOR GLOBAL FIN	ANCIAL STUDIES			
Diamondback Energy, Inc.	FANG	Analyst Dominick Iachetta	Current Price \$76.67	Intrinsic Value \$113.39	Target Value \$84.88	Divident Yield 0%	1-y Return: 58.26%	NEUTRAL
	General Info	Peers	Market Cap.			Managem		
Sector	Energy	PDC Energy, Inc.	\$2,408.69	Professional	Title	Comp. FY2012	Comp. FY2013	Comp. FY2014
Industry	Oil, Gas and Consumable Fuels	Bonanza Creek Energy, Inc.	\$382.07	Stice, Travis	Chief Executive Officer, President and Directo	\$3,612,054	\$2,164,620	\$6,597,141
Last Guidance	August 6, 2015	Carrizo Oil & Gas Inc.	\$2,242.24	Dick, Teresa	Chief Financial Officer and Senior Vice Preside	\$1,204,589	\$577,954	\$1,927,875
Next earnings date	November 4, 2015	Gulfport Energy Corp.	\$3,780.87	Hollis, Michael	Chief Operating Officer and Vice President	\$1,792,987	\$813,854	\$2,463,311
	Market Data	Laredo Petroleum, Inc.	\$2,985.62	Moses, Elizabeth	Vice President of Business Development & L	\$0	\$0	\$2,477,875
Enterprise value	\$5,951.01	Bill Barrett Corp.	\$264.74	Pantermuehl, Russell	Vice President of Reservoir Engineering	\$0	\$775,694	\$2,463,311
Market Capitalization	\$624,448.06	Rice Energy Inc.	\$2,498.74	Holder, Randall	Vice President, General Counsel and Secretary	\$0	\$0	\$0
Daily volume	8.34	Swift Energy Co.	\$30.95		Past Earning Surprises			
Shares outstanding	66.18	Penn Virginia Corporation	\$75.98		Revenue	EBITDA	Norm. EPS	Standard Error of "Surprise"
Diluted shares outstanding	57.98	Comstock Resources Inc.	\$147.00	Last Quarter	-3.67%	3.37%	10.81%	4.18%
% shares held by institutions	60.72%	Current Ca	oital Structure	Last Quarter-1	-8.85%	9.62%	0.00%	5.33%
% shares held by insiders	0.37%	Total debt/Common Equity (LTM)	0.36	Last Quarter -2	-8.01%	-2.72%	-14.29%	3.34%
Short interest	5.45%	Cost of Borrowing (LTM)	6.76%	Last Quarter -3	7.45%	6.13%	1.67%	1.75%
Days to cover short interest	2.84	Estimated Cost of new Borrowing	0.00%	Last Quarter -4	0.16%	0.80%	0.00%	0.25%
52 week high	\$85.82	Altman's Z	3.19	Standard error	3.0%	2.1%	4.0%	1.81%
52-week low	\$51.69	Estimated Debt Rating	BB	Standard Error of Revenues prediction	3.0%			
5y Beta	1.11	Current levered Beta	1.71	Imputed Standard Error of Op. Cost predicti	io: NM			
6-month volatility	37.90%	LTM WACC	10.21%	Imputed Standard Error of Op. Cost predicti	io: 3.4%			
		•		Proforma Assumptions				
Convergence Assumptions	General Ass	umptions		Items' Forecast Ass	umptions			Other Assumptions
	Money market rate (as of today)	0.25%		Base year (LTM)	Convergence period (Industry)	Adjustment per year	Tobin's Q	80%
All base year ratios linearly	Risk-Free rate (long term estimate)	2.96%	Operating Cash/Rev.	3.45%	2.82%	-0.1%	Excess cash reinvestment	Money market rate
converge towards the	Annual increase (decrease) in interest rates	0.0%	NWV/Rev.	0.00%	2.27%	0.2%	Other claims on the firm's assets	\$0.00
Industry ratios over an	Marginal Tax Rate	37.5%	NPPE/Rev.	599.87%	233.33%	-36.7%		Capitalization
explicit period of 10 years	Country Risk Premium	5.5%	Dpr/NPPE	7.32%	10.37%	0.3%	100% of all rent expenses are capit	talized and amortized 'straightline' over 10 years
	333111, 12111 1211110111	2.2.7	NOPAT MARGIN	37.64%	16.70%	-2.1%		oitalized and amortized 'straightline' over 10 years
Forecast Year	Revenue Growth Forecast	Revenue (\$) Forecast	Op. Exp./Rev.	-2.13%	64.20%	6.6%		italized and amortized 'straightline' over 10 years
LTM		\$491.17	SBC/Rev.	3.21%	1.32%	-0.2%	SG&A expenses are not capitalize	
FY2015	-0.7%	\$487.85	Rent Exp./Rev.	0.17%	1.06%	0.1%		Valuation Focus
FY2016	32.9%	\$648.20	R&D/Rev.	0.00%	0.26%	0.0%	DCF Valuation	100%
FY2017	39.9%	\$907.00	E&D/Rev.	0.00%	2.16%	0.2%	Relative valuation	0%
FY2018	35.3%	\$1,227.26	SG&A/Rev.	2.63%	10.20%	0.8%	Distress Valuation	0%
FY2019	30.7%	\$1,603.95	ROC	7%	11.55%	0.46%		Monte Carlo Simulation Assumptions
FY2020	26.1%	\$2,022.24	EV/Rev.	11.33x	3.36x	-0.80x	Revenue Growth deviation	Normal (0%, 1%)
FY2021	21.5%	\$2,456.26	EV/EBITA	19.45x	12.57x	-0.69x	Operating expense deviation	Normal (0%, 1%)
FY2022	16.8%	\$2,870.07	Debt/Equity	36%	81%	4.4%	Continuing Period growth	Triangular (5.335%, 5.5%, 5.665%)
FY2023	12.2%	\$3,221.12	Unlevered beta	1.39	0.92	-0.05	Country risk premium	Triangular (2.91%, 3%, 3.09%)
FY2024	7.6%	\$3,466.43	Cost of Borrowing	2%	5%	0.4%	Intrinsic value σ(ε)	\$0.09
Continuing Period	3.0%	\$3,570.42	Dividends/REV	0%	3%	0.3%	1-year target price σ(ε)	\$0.10
			•	Valuation				·
Forecast Year	ROC	WACC	Total Capital	Enterprise Value	Net Claims on Assets and Dilution Costs	Shares Outstanding	Price per Share	Monte Carlo Simulation Results
LTM	11.8%	10.2%	\$2,968.44	\$6,967.63	\$56.50	66.18	\$135.90	
FY2015	6.6%	9.8%	\$3,132.69	\$3,005.90	\$54.98	66.18	\$56.29	
FY2016	6.8%	9.6%	\$3,257.96	\$7,953.36	\$22.93	66.18	\$159.68	The $3\sigma(\epsilon)$ -adjusted intrinsic value is \$77.46; the $3\sigma(\epsilon)$ -adjusted
FY2017	8.2%	9.3%	\$3,542.75	\$3,600.99	\$29.95	66.18	\$71.24	target price is \$121.34; and the analysts' median target price is
FY2018	9.1%	8.7%	\$4,741.50	\$10,551.55	\$37.62	66.18	\$201.90	\$84.92
FY2019	7.8%	7.5%	\$5,997.48	\$6,148.90	\$45.39	66.18	\$100.00	
FY2020	6.8%	6.8%	\$7,194.73	\$14,197.01	\$52.45	66.18	\$252.01	
FY2021	6.0%	6.4%	\$8,186.95	\$8,407.42	\$57.92	66.18	\$122.39	Sensitivity Analysis
FY2022	5.2%	6.2%	\$8,825.51	\$17,263.57	\$60.90	66.18	\$294.39	Revenue growth variations account for 95.9% of total variance
FY2023	4.6%	6.0%	\$9,119.17	\$9.530.38	\$0.00	66.18	\$129.78	Risk premium's variations account for 2.5% of total variance
FY2024	3.9%	5.8%	\$9,333.79	\$19,529.32	\$0.00	66.18	\$341.95	Operating expenses' variations account for 1.4% of total variance
Continuing Period	11.6%	5.9%	\$5,161.80	* 7-3	*****		******	Continuing period growth variations account for 0.2% of total variance
	11.070	2.779	¥3,101.00					



# Harman International Industries Inc.

**NYSE: HAR** 

Analyst: Sector:

Ryan Burke Consumer Discretionary

BUY

Price Target: \$134.25

# Key Statistics as of 10/10/2015

Market Price: \$105.33

Industry: Electronic Equipment

Market Cap: \$7.50 B

52-Week Range: \$84.41 – 149.12

Beta: 0.5289



### **Thesis Points:**

- The recent Harman price drop is purely macro in nature, and therefore the company is undervalued at an attractive price.
- Recent acquisitions result in product differentiation and organic growth on the horizon.
- Stable growth in a volatile market makes Harman a prudent investment

# **Company Description:**

Harman International Industries Inc. designs and engineers connected products and solutions for automakers, consumers and enterprises worldwide, including connected car systems; audio and visual products, enterprise automation solutions; and connected services. With leading brands including AKG®, Harman Kardon®, Infinity®, JBL®, Lexicon®, Mark Levinson® and Revel®, Harman is admired by audiophiles, musicians and the entertainment venues where they perform around the world. More than 25 million automobiles on the road today are equipped with Harman audio and connected car systems. The Company's software services power billions of mobile devices and systems that are connected, integrated and secure across all platforms, from work and home to car and mobile. Harman has a workforce of approximately 27,000 people across the Americas, Europe, and Asia and reported sales of \$6.2 billion during the 12 months ended June 30, 2015. The company was founded in 1980 and is headquartered in Stamford, Connecticut.





Amidst rocky and unpredictable economic times such as these, the only thing clearer than a buy in Harman International Industries Inc. is the sound-quality from their speakers. There is an undervaluation occurring in the market place that positions Harman at an attractively low price. 51% percent of Harman's revenue comes from providing audio systems for automotive companies. This results in a tight correlation with the volatile industrial sector.

Ex. 1



By itself, Harman has exhibited strong performance and shows various opportunities for growth in the future. Quarter 4 concluded a record year for Harman. Revenue was \$6.2 billion, an increase of 22%, EBITDA improved 32% to \$699 million, and EPS grew by 39% to \$5.71. Additionally several key software and hardware acquisitions lead to opportunities for considerable organic growth in the near future. According to my calculations, a true price estimate for Harman is in the neighborhood of \$135. What an investor can expect from Harman is a trustworthy and consistent return during turbulent economic times.

### 5 Strategic Pillars

What makes Harman who they are? To better understand their identity, one must understand the 5 strategic pillars that constitute the foundation of the company.

- 1. Technology Leadership
- 2. Capitalization on Harman Iconic Brands
- 3. Grow in Emerging Markets.
- 4. Optimize Cost and Capital Structure.
- 5. Diversify the Portfolio.

Let's break down each pillar and explore them in depth.

First, Technology Leadership. Harman introduced numerous innovations throughout the past year, including an expansion of their scalable platform to combine certain features of Harman embedded systems with smartphone apps, including Apple CarPlay, Google's Android Auto, and Baidu's CarLife in China.

Second, Capitalization On Harman Iconic Brands. Harman is the official headphone, speaker and audio partner of the National Basketball Association. In May, two time NBA All-Star and MVP Steph Curry was named the newest brand ambassador of HARMAN's JBL Audio brand globally.

Third, growth in the Emerging Markets. Despite challenging economic environments in Brazil, Russia and India, and recent headwinds in China, Harman surpassed the \$1 billion mark in revenues for the first time in BRIC markets. China now contributes nearly \$700 million to the top line, which is nearly 10% of Harman's revenue. That creates 64% CAGR over the last six years.

Fourth, Optimization of Cost and Capital Structure.

In May, Harman made their debt capital markets debut in the U.S. and European markets. In the U.S., they issued \$400 million of 10-year senior unsecured notes with a coupon of 4.15%. They followed that issuance with the seven-year €350 million unsecured offering with the coupon of 2%. These two transactions freed-up close to \$800 million of capacity under their new \$1.2 billion revolving credit facility, and brought total liquidity to \$1.6 billion. While they will have increased interest cost in fiscal 2016, Harman is able to finance their acquisitions at attractive long-term rates and also maintain our investment grade credit ratings by both Moody's and Standard & Poor's.

This year Harman generated \$360 million of free cash flow, which includes cash flow from operations less CapEx driven by strong earnings and effective working capital management. With sustainable robust cash generation and no significant debt maturities for the next five years, Harman has the ability to invest in CapEx projects and other projects to drive organic growth. CFO Sandra E. Rowland states in the Q4 2015 Earnings Call that Harman's current focus is to create value from their strategic acquisitions, but they Harman remains open to bolt-on acquisitions including those that offer competitive technologies such as active safety and cyber security.

5. Diversify The Portfolio. Harman completed three major acquisitions during this fiscal year. Symphony Teleca, Redbend, and Bang & Olufsen. Symphony Teleca and Redbend are software companies that compliment Harman's Infotainment and Service segments by offering

and

Capability



cyber security packages and live-over-the-air updates to their automotive audio products. Additionally, this fiscal year Harman has greatly expanded their Services offering, and consequently launched a separate Services division starting July 1, 2015. These transformative actions provide Harman with immediate scale to grow leadership in software and services for the connected car, and extend their reach into mobile communications and enterprises. The acquisition of Bang & Olufsen automotive audio provides Harman as an unparalleled house of brands to address the growing demand for differentiated audio solutions among automakers and for different vehicle segments globally.

### **Application of Strategy**

Harman has four segments for which it operates out of, Infotainment, Life Style, Professional, and Services. Let us explore how each segment performed this past year.

**Infotainment**: Harman secured new business with Deere & Company to design new infotainment systems for their John Deere farm equipment. The Deere award is Harman's second win in the commercial infotainment market following their previously announced award with MAN/Scania. Harman was also awarded follow-on business from Chinese automaker, Guangzhou Automotive, a joint-venture partner of FIAT Chrysler Automobiles.

Lifestyle: Harman released the industry's first Ultra-Luxury headphone, the AKG N90Q this quarter. New branded solutions that launched during the quarter were car and audio systems for Maserati, BMW 7 series, Lincoln Continental, Hyundai Santa Fe, and Audi A4. Additionally, Harman received new awards from BMW, Daimler, KIA and Lexus among others.

Professional: Despite sluggish growth in Europe and Emerging Markets, there was revenue growth in the quarter (15.1%). Projects that are underway include the NATO headquarters in Brussels, The Daytona National Speedway in Florida, and the SuperVia Urban Train system in Brazil in preparation for the 2016 Olympic Games (which will serve roughly 165 million passengers every year).

Services: This segment was forged out of the recent acquisition of Symphony Teleca and Redbend. These software companies make Harman a heavy weight

# **Industry Performance**

Process

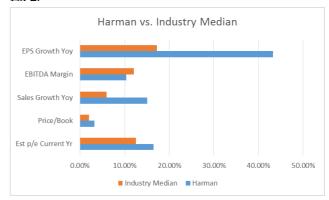
dEtermination) Level 3 Certification.

The audio industry is fragmented and includes numerous manufacturers offering audio products that vary widely in price, quality and distribution methods. In the audio market, Harman's main competitors are Bose, Pioneer, ASK foster electric and Panasonic. In the audio systems for to automotive manufacturers, Harman's main competitors include Alpine, Bosch, and Panasonic.

amongst connected car systems providers. Harman

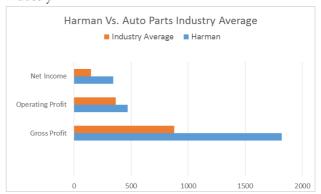
recently received the prestigious Automotive SPICE Improvement

Ex 2.



Side by side analysis exhibits Harman's above average performance in a variety of metrics. Harman receives 51% of total revenue from Auto Parts and 49% from consumer electronics. Exhibit 2 is a weighted average of both segments.

Profitability wise, Harman exhibits favorable metrics compared to the audio part supplier to the automotive industry.



#### Concerns

The inherent risks involving Harman International Industries Inc. are there close ties to the automotive industry and their rapid revenue growth coming from the



volatile markets in China.

#### **Automotive Correlation**

One of Harman's largest accounts is Volkswagen. When the emission scandal broke out in September, Harman's stock price was initially pulled down with the German auto manufacturer but recovered much quicker.



This dependency to the automotive industry has led Harman into some adversity this past year. Over the Summer, Jeep was exposed to a cyber security hack through its software ecosystem Uconnect. This software happened to house a Harman head unit inside. Harman's acquisitions, Symphony Teleca, a software company, and Redbend, a company that brings live over the air software updates supplemented the software patches in the vulnerable cars. Despite this controversy, Harman has proved that its systems are equipped to face unpredictable changes in the future and preserve the integrity of automotive cyber security for years to come. This will lead to organic growth in the future. From a culpability stand point, CEO Dinesh Paliwal, was asked if in the future a hacker finds a hole in a fully secure automobile, who would be responsible from a warranty or re-cost stand point. Dinesh responded that "In the end, it's the car companies who are fully responsible".

#### China

Revenues in China grew 30% to \$700 million in the past year which composes 10% of total revenue. On a demand basis 1% decrease in demand, would impact their revenue by, \$4-5 million which translates to a reduction in the bottom line by approximately \$1 million. It will be important to any investor to monitor the Chinese Automotive industry.

# Summary

Harman is a safe investment in a volatile time to invest. Recent acquisitions provide a profitable horizon full of opportunities for organic growth. Harman's relentless focus on software development in the automotive environment continues to differentiate the industry and expand their product selection. Macro-economic trends have depressed the value of this company at an attractive price that will be realized in the near future. This belief can be supported by the past two years of performance. Harman has grown revenue 40% with \$2 billion of additional revenue, increased EBITDA nearly 70% by adding \$300 million of incremental EBITDA, and increased earnings per share by 86%. The calculated intrinsic value of \$134.25 is fully realizable once the industrial sector picks up momentum.



HARMAN BRANDS

AKG	harman/kardon	<b> Unfinity</b> .	UBL
exicon	marh <del>u</del> Levinson.	Sale:	AMX
(a) crown	UBL .	Martin <sup>*</sup>	Soundcraft *
STUDER		dbx	:::  Dıgilech



CENTER FOR GLOBAL FINANCIAL STUDIES								
Harman International Industries	HAR	Analyst Ryan Burke	Current Price \$105.33	Intrinsic Value \$134.25	Target Value \$144.03	Divident 1%	1-y Return: 38.05%	BULLISH
G	eneral Info	Peers	Market Cap.			Manage		
Sector	Consumer Discretionary	1		Professional		Comp. FY2013	Comp. FY2014	Comp. FY2015
Industry	Household Durables	Autoliv, Inc.	\$9,694.32	Paliwal, Dinesh	Chairman, Chief Executive Officer and	\$8,763,411	\$11,965,521	<b>\$</b> 0
Last Guidance	August 7, 2015	1			Executive Vice President, Country Ma	\$1,447,232	\$2,541,533	\$0
Next earnings date	NM	1			Executive Vice President of Operation	\$1,707,710	\$2,828,533	\$0
	larket Data	4			Executive Vice President and Presiden	\$1,632,940	\$2,689,692	\$0
Enterprise value	\$7,872.08	1			Chief Financial Officer and Executive \	\$0	\$0	\$0
Market Capitalization	\$629,466.45	1		Slump, David	Executive Vice President of Operation	\$0	\$0	\$0
Daily volume	40.21	1			Past Earning Surprises			2: I1 F / 82 8
Shares outstanding	71.17	1			Revenue	ЕВПОА	Morm. EPS	Standard Error of "Surprise"
Diluted shares outstanding	70.87			Last Quarter	7.59%	6.59%	4.58%	0.89%
% shares held by institutions	60.72%	Current Capit	tal Structure	Last Quarter-1	-1.34%	-9.79%	-3.94%	2.50%
% shares held by insiders	0.67%	Total debt/Common Equity (LTM		Last Quarter -2	7.12%	19.62%	39.84%	9.53%
Short interest		Cost of Borrowing (LTM)	1.96%	Last Quarter -3	5.59%	8.51%	18.02%	3.75%
Days to cover short interest		Estimated Cost of new Borrowing		Last Quarter -4	3.60%	0.43%	3.31%	1.01%
52 week high	\$149.12	Altman's Z	3.40	Standard error	1.6%	4.8%	7.7%	3.01%
52-week low		Estimated Debt Rating	AAA	Standard Error of Revenues prediction				
5y Beta		Current levered Beta	0.94	Imputed Standard Error of Op. Cost pr				
6-month volatility	38.71%	LTM WACC	5.53%	Imputed Standard Error of Op. Cost pr				
				Proforma Assumption				
Convergence Assumptions		•		Items' Forecast Ass				Other Assumptions
All base year ratios	Money market rate (as of today)	0.27%		Base year (LTM)	Parergence period (Sub-industud	ijustment per ye:		80%
linearly converge	Risk-Free rate (long term estimate)	2.82%	Operating Cash/Rev.	0.00%	0.00%	0.0%	Excess cash reinvestment	Money market rate
towards the Sub-industry	Annual increase (decrease) in interest rates	s 0.1%	NWV/Rev.	2.96%	11.77%	0.9%	Other claims on the firm's asse	
ratios over an explicit	Marginal Tax Rate	37.5%	NPPE/Rev.	8.97%	12.41%	0.3%		Capitalization
period of 10 years	Country Risk Premium	6.0%	Dpr/NPPE	22,98%	27.20%	0.4%	100% of all rent expenses are co	apitalized and amortized 'straightline' over 10 years
1 .	•		NOPAT MARGIN	8.12%	11.14%	0.3%		apitalized and amortized "straightline" over 10 years
Forecast Year	Revenue Growth Forecast	Revenue (\$) Forecast	Op. Exp./Rev.	88.01%	83.24%	-0.5%	E&P expenses are not capitalize	ed
LTM		\$6,155.30	SBC/Rev.	0.56%	0.97%	0.0%	SG&A expenses are not capital	ized
FY2016	14.2%	\$7,027.29	Rent Exp./Rev.	0.88%	1.18%	0.0%		Valuation Focus
FY2017	11.2%	\$7,816.94	R&D/Rev.	6.18%	7.71%	0.2%	DCF Valuation	100%
FY2018	8.2%	\$8,460.83	E&D/Rev.	0.00%	0.00%	0.0%	Relative valuation	0%
FY2019	5.6% 4.3%	\$8,936.20	SG&A/Rev.	14.17%	18.70%	0.5%	Distress Valuation	0%
FY2020		\$9,321.28	ROIC	16%	16.82%	0.12%		te Carlo Simulation Assumptions
FY2021	3.7%	*-1	EV/Rev.	1.37x	1.24x	-0.01x	Revenue Growth deviation	Normal (0%, 1%)
FY2022	3.3%	\$9,983.42	EV/EBITA	11.91x	6.98x	-0.49x	Operating expense deviation	Normal (0%, 1%)
FY2023	3.2%	\$10,299.26	Debt/Equity	68%	19%	-4.8%	Continuing Period growth	Triangular (5.335%, 6%, 5.665%)
FY2024	3.1%	\$10,616.67	Unlevered beta	0.66	1.29	0.06	Country risk premium	Triangular (2.91%, 3%, 3.09%)
FY2025	3.0%		Cost of Borrowing	0%	4%	0.4%	Intrinsic value o(z)	\$0.09
Continuing Period	3.0%	\$11,267.70	Dividends/REV	2% Valuation	5%	0.3%	1-year target price o(z)	\$0.10
Forecast Year	ROIC	VACC	Invested Capital		Haims on Assets and Dilution (h	ares Outstandin	Price per Share	Monte Carlo Simulation Results
LTM	15.7%	5.5%						MORCE CATTO SIMULACION RESULS
FY2016	15.7% 19.3%	5.5% 6.1%	\$3,189.65 \$3,670.29	\$10,067.74 \$10.549.51	\$1,064.50 \$847.05	71.17 71.17	\$131.64 \$141.92	
FY2017	19.2%	6.1% 6.6%	\$3,610.23 \$4,134.78	\$10,549.51 \$11,082.91	\$041.05 \$752.88	71.17	\$141.32 \$150.53	The 3o(z)-adjusted intrinsic value is \$134.25; the
FY2018	18.8%	7.1%	\$4,134.10 \$4,638.11	\$11,581.75	\$152.00 \$655.26	71.17	\$150.53 \$158.39	3o(z)-adjusted target price is \$144.03; and the
FY2019	18,3%	7.6%	\$4,636.11 \$5,145.29	\$11,501.15 \$12,025.25	\$536.76	71.17	\$165.94	analysts' median target price is \$129.56
FY2020	17.9%	8.0%	\$5,565.70	\$12,025.25 \$12.457.67	\$407.77	71.17	\$173.55	analyses median earger price is picous
FY2020	17.7%	8.5%	\$5,978.67	\$12,451.01 \$12,905.00	\$401.11 \$238.62	71.17	\$113.55 \$181.69	
FY2022	17.5%	0.54 8.9%	\$6,395.91	\$12,305.00 \$13,384.44	\$230.62 \$122.33	71.17	\$101.03 \$183.88	Sensitivity Analysis
FY2023	17.3%	9.4%	\$6,824.34	\$13,308.46	\$122.55 \$14.04	71.17	\$103.00 \$138.54	Revenue growth variations account for 95.9% of total variance
FY2024	17.2%	3.44 9.8%	\$7,268.14	\$13,300.46 \$14,487.50	- <b>1</b> 83.90	71.17		Risk premium's variations account for 2.5% of total variance
FY2024 FY2025	17.2%	9.8% 10.2%	\$1,266.14 \$7,729.96			71.17		Operating expenses' variations account for 2.5% or total variance
Continuina Period	17.0% 16.8%	10.2%	\$1,123.36 \$7.461.58	\$15,131.62	-\$169.76	11.11		Continuing period growth variations account for 0.2% of total variance
Continuing Period	10.04	10.44	\$1,401.50					Colidinally period grown variations account for 0.2.2.5. 15.5. 15.5.

Matthew Schilling Consumer Staples



# SuperValu, Inc.

SVU: NYSE

BUY

Price Target: \$11.66

### Key Statistics as of 10/09/2015

Market Price: \$7.58

Industry: Food and Staples Retailing

Market Cap: \$2,232.87M 52-Week Range: \$6.75-\$12.00

Beta: 1.16

### **Thesis Points:**

 Current Price Indicative of Negative History, Leaving Stock Undervalued

Analyst:

**Sector:** 

- Smarter Growth Leading to Positive Value Creation
- CEO Retirement Announced October 2nd, More Negativity Leads Stock to be Further Undervalued

# **Company Description:**

SuperValu Inc. is a wholesale grocery distributor and traditional discount retailer that has been in business for over a century. They offer a wide array of items, including all natural healthy food choices, baby supplies, coffee and ice cream. SuperValu operates 5 traditional retail grocery stores and a discount retail store/pharmacy that sells items at a 40% discount compared to other grocers.



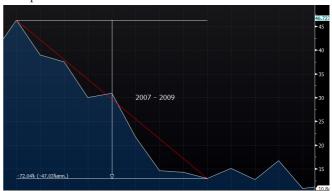


SuperValu Inc. used to be a premium dividend paying stock that traded around \$47 per share. They became highly leverage from poor acquisitions and trying to sustain dividend payouts which eventually led to the company's downfall when the 2009 financial crisis hit. SuperValu, under new management, operations and honed in on projects that create value. The new style of operation is generating significantly higher returns on invested capital while managing to keep their costs of capital low. The new demonstration of value creation has not been enough to change the minds of investors due to their past history, thus making the stock significantly undervalued. In addition the CEO, Sam Duncan, recently announced that he will retire in February of 2016 leading the stock price to decrease to an even lower value leaving a significant margin for return on this investment.

### **Negative History**

SuperValu Inc. was a powerhouse grocery wholesaler and retailer that, at its peak, traded shares at \$47 per share. In the early 2000's, the company really started to flourish as EBITDA and net income were rapidly increasing. All of their profitability margins, such as ROIC, were also getting better. The combination of their increasing profitability and a positive economic outlook sparked management to expand. In 2006, SuperValu Inc. completed a massive 9.7 billion dollar deal to acquire Albertsons, Inc. The deal included 11 different retail brands that totaled 2,150 stores. The deal dramatically increased revenue growth as it nearly doubled between 2006 and 2007. Their bottom line net income more than doubled over the same time period and the deal looked to be successful however, the deal left SuperValu in a highly leveraged position. In addition, the company had a reputation of paying high dividends exerting further pressure on them to perform. When the 2007-2009 recession hit, the consumer staples sector took a beating as a whole. Between 2008 and 2009 the XLP (United States consumer staples index fund) dropped from \$285.30 to \$218.77, the most significant one year decrease the index has ever experienced. The recession hit SuperValu even harder due to their highly leveraged position causing them to incur net income losses in 2009

of \$2.854 billion. This loss was due to a huge impairment of intangible assets charge of \$3.3 billion. The company had about \$8 billion in debt at the time of the recession and the economic pressure caused their stock price to collapse.



Between 2007 and 2009 SuperValu's stock price decreased by 72% and they were quickly forced to make adjustments. The company has constantly been making changes to downsize including selling off major brands like Albertsons, Jewel-Osco and Shaw's. There was also an initiative to get rid of salaries and wages that were deemed unnecessary by laying off workers. The current CEO, Sam Duncan, has changed the mindset of SuperValu. Rather than focusing on large top line growth, he is focusing on increasing profitability metrics and creating value for the company. In the eyes of the market SuperValu Inc. was formerly a flourishing company that still has not made a recovery. That is not a fair assumption, SuperValu Inc. is a new company with an old name. Their new style of operation and the potential of the stock is lost in the market due to their previous disappointments.

#### Smarter Growth and Value Creation

After the recession, SuperValu faced many difficult management decisions, as they knew the severity of the financial position they were in. In the past the company was very loose with investment decisions, focusing solely on how the investments affect their revenues and income. This style of investment generated higher income for the company, for a given period of time, but ended up hurting the value of the company. Management neglected to evaluate their return on invested capital in comparison to their cost of capital. In 2006, when they completed the large deal for Albertsons they generated huge increases in revenue and net income but they destroyed value in the company. In 2006, ROIC was just 4.64 and with a WACC of 8.29, the company



had an economic value added spread of -3.65, meaning the project was actually losing value for SuperValu Inc. The problem was amplified when they were hit with the \$3.3 billion dollar impairment charge in 2009, as their economic value added spread plummeted to -27.90. When Sam Duncan was hired as CEO the ROIC for SuperValu was 0.54, currently ROIC is 20.35. He was able to do this by divesting 5 of its largest retail brands, laying off workers and consolidating positions within the company. There was an increased focus on efficiency and cutting any expense that was not absolutely necessary. One major expense that management dealt with was the payment of dividends. They were paying approximately 60 cents per share up until 2011 when it decreased to 35 cents per share and then was eventually discontinued in 2014. When a company decreases their dividend payouts it is a clear sign of financial distress, which they were clearly experiencing.



(Green represents div. payout ratio, Yellow represents ROIC)

However, management took the capital they would have given out as a dividend and used it to make their operations more efficient. By the end of all the budget cuts the company was generating revenues that were less than half of what they were in previous years but their profitability ratios and margins increased significantly. This new style of management has changed the company entirely and setup a nice framework for the company to begin growing.

### The Retirement of CEO, Sam Duncan

On October 2<sup>nd</sup>, 2015 Sam Duncan announced that he would retire in February of 2016 causing the stock price of SuperValu to fall to its 52 week low making it the perfect time to buy stock in SVU. With the retirement announcement it was also announced that

Bruce Besanko would take over for Duncan. Besanko has his MBA in finance from the University of Chicago and has numerous years of financial leadership experience. He has held CFO positions in several companies such as Yankee Candle, Circuit City and OfficeMax. He and Duncan worked together at OfficeMax and held key leadership positions until they were acquired by Office Depot. Duncan brought him aboard at SuperValu and together they rebuilt the framework of the company. With Duncan leaving, Besanko will be able to continue focusing on value creation and steadily growing the company. Therefore the announcement of Duncan's retirement further undervalues the stock making it a perfect time to act.

#### Conclusion

I am recommending a buy on SuperValu, Inc. The company's past struggles are too heavily weighted in the current valuation of the stock. They now have a solid framework for growth as it is focused more on value creation than revenue generation. Increasing profitability margins and ratios show the company has made the proper steps in becoming more efficient. The stock price is undervalued and now is the perfect time to buy.



			CENTER	FOR GLOBAL FIN	ANCIAL STUDIES			
		Analyst	Current Price	Intrinsic Value	Target Value	Divident Yield	1-v Return: 53.87%	DILLIOIT
SUPERVALU Inc.		Matthew Schilling	\$7.58	\$9.10	\$11.66	0%	1-y Return: 53.87%	BULLISH
	General Info	Peers	Market Cap.			Manageme		
Sector	Consumer Staples	Whole Foods Market, Inc.	\$12,222.24	Professional	Title	Comp. FY2013	Comp. FY2014	Comp. FY2015
Industry	Food and Staples Retailing	The Kroger Co.	\$37,019.71	Duncan, Sammy	Chief Executive Officer, President and Directo	\$2,713,299	\$4,946,608	\$6,917,850
Last Guidance	July 28, 2015	The Fresh Market, Inc.	\$1,219.99	Besanko, Bruce	Chief Operating Officer and Executive Vice Pr	\$0	\$5,166,576	\$2,414,821
Next earnings date	October 16, 2015	United Natural Foods, Inc.	\$2,776.59	Burdick, Randy	Chief Information Officer and Executive Vice	\$0	\$2,247,341	\$1,510,526
Enterprise value	Market Data \$4,592.99	Sprouts Farmers Market, Inc. Casev's General Stores, Inc.	\$3,615.26 \$4,177.20	Haugarth, Janel Sales, Wavne	Executive Vice President and President of Inc Executive Director	\$1,607,424 \$5,776,806	\$2,437,913 \$4,548,664	\$3,598,587 \$200,000
Market Capitalization	\$4,592.99 \$629,466.45	Empire Company Limited	\$4,177.20 \$7,577.03	Casteel, Ritchie	Chief Executive Officer of Save-A-Lot and Pre	\$3,776,606 \$0	\$4,545,664 \$0	\$200,000 \$1,824,176
Daily volume	40.21	Safeway Inc.	77.00 دورو	Casteer, Idione	Past Earning Surprises	φυ		\$1,024,170
Shares outstanding	264.91	Smart & Final Stores, Inc.	\$1,254.69		Revenue	EBITDA	Norm. EPS	Standard Error of "Surprise"
Diluted shares outstanding	265.50	Roundy's, Inc.	\$135.33	Last Quarter	0.39%	5.87%	15.00%	4.26%
% shares held by institutions	60.72%		oital Structure	Last Quarter-1	-0.49%	4.88%	14.29%	4.32%
			T	•				
% shares held by insiders	0.56% 5.24%	Total debt/Common Equity (LTM)	-2.49	Last Quarter -2	2.57%	10.40%	28.57%	7.70% 2.93%
Short interest  Days to cover short interest	5.24% 3.51	Cost of Borrowing (LTM) Estimated Cost of new Borrowing	8.73% 7.81%	Last Quarter -3 Last Quarter -4	1.61% 0.95%	-1.63% -2.41%	-8.33% 5.88%	2.93% 2.41%
52 week high	\$12.00	Altman's Z	3.73	Last Quarter -4 Standard error	0.5%	2.4%	6.1%	2.41%
52-week low	\$6.75	Estimated Debt Rating	C C	Standard Error of Revenues prediction	0.5%	2.470	0.176	2.32/0
5v Beta	1.78	Current levered Beta	1.12	Imputed Standard Error of Op. Cost predicti				
6-month volatility	38.88%	LTM WACC	3.11%	Imputed Standard Error of Op. Cost predicts				
,				Proforma Assumptions				
Convergence Assumptions	General Ass	umptions		Items' Forecast Ass	umptions			Other Assumptions
	Money market rate (as of today)	0.27%		Base year (LTM)	Convergence period (Sub-industry)	Adjustment per year	Tobin's Q	80%
All base year ratios linearly	Risk-Free rate (long term estimate)	2.82%	Operating Cash/Rev.	0.00%	1.40%	0.2%	Excess cash reinvestment	Money market rate
converge towards the Sub-	Annual increase (decrease) in interest rates	0.1%	NWV/Rev.	0.51%	0.54%	0.0%	Other claims on the firm's assets	\$0.00
industry ratios over an	Marginal Tax Rate	37.5%	NPPE/Rev.	7.98%	20.68%	1.4%		Capitalization
explicit period of 9 years	Country Risk Premium	5.5%	Dpr/NPPE	18.91%	11.66%	-0.8%	100% of all rent expenses are capita	ulized and amortized 'straightline' over 10 years
	,		NOPAT MARGIN	2.04%	3.06%	0.1%		talized and amortized 'straightline' over 10 years
Forecast Year	Revenue Growth Forecast	Revenue (\$) Forecast	Op. Exp./Rev.	95.46%	94.08%	-0.2%	E&P expenses are not capitalized	2
LTM		\$17,963.00	SBC/Rev.	0.13%	0.21%	0.0%	SG&A expenses are not capitalized	
FY2016	0.5%	\$18,059.62	Rent Exp./Rev.	0.70%	0.00%	-0.1%		Valuation Focus
FY2017	2.4%	\$18,496.31	R&D/Rev.	0.00%	0.00%	0.0%	DCF Valuation	100%
FY2018	2.8%	\$19,005.98	E&D/Rev.	0.00%	0.00%	0.0%	Relative valuation	0%
FY2019	4.7%	\$19,896.90	SG&A/Rev.	12.18%	18.73%	0.7%	Distress Valuation	0%
FY2020	3.8%	\$20,661.70	ROIC	12%	10.87%	-0.09%		Monte Carlo Simulation Assumptions
FY2021	3.4%	\$21,368.72	EV/Rev.	0.27x	0.58x	0.03x	Revenue Growth deviation	Normal (0%, 1%)
FY2022	3.2%	\$22,054.86	EV/EBITA	8.60x	11.91x	0.37x	Operating expense deviation	Normal (0%, 1%)
FY2023 FY2024	3.1%	\$22,739.76	Debt/Equity Unlevered beta	-249% -2.01	129% 0.54	42.0% 0.28	Continuing Period growth	Triangular (5.335%, 5.5%, 5.665%)
FY2025	3.1%	\$23,433.95 \$24,143.15	Cost of Borrowing	-2.01 2%	6%	0.28	Country risk premium Intrinsic value σ(ε)	Triangular (2.91%, 3%, 3.09%) \$0.78
Continuing Period	3.0%	\$24,867,44	Dividends / REV	0%	1%	0.1%	1-year target price σ(ε)	\$0.39
Containing I thou	0.070	₩£T30V1.TT	ment a reconstitute / distant 7	Valuation	479	V.47V	- your obliger place o(s)	\$0.00
Forecast Year	ROIC	WACC	Invested Capital	Enterprise Value	Net Claims on Assets and Dilution Costs	Shares Outstanding	Price per Share	Monte Carlo Simulation Results
LTM	11.7%	3.1%	\$3,089.06	\$8,867.78	\$4,704.64	264.91	\$10.93	
FY2016	12.2%	3.5%	\$2,977.04	\$8,818.06	\$4,395.56	264.91	\$12.59	
FY2017	12.9%	3.9%	\$3,053.22	\$8,842.48	\$4,253.81	264.91	\$13.39	The 2-(-) editioned institute in the tenth de 2-(-) William I
FY2018	13.0%	4.6%	\$3,214.77	\$8,991.76	\$4,260.44	264.91	\$14.06	The 3σ(ε)-adjusted intrinsic value is \$9.1; the 3σ(ε)-adjusted target
FY2019	13.0%	5.4%	\$3,483.59	\$9,306.00	\$4,375.80	264.91	\$14.65	price is \$11.66; and the analysts' median target price is \$10.61
FY2020	12.7%	6.3%	\$3,760.03	\$9,689.01	\$4,499.53	264.91	\$15.39	
FY2021	12.4%	7.2%	\$4,045.74	\$10,161.95	\$4,635.14	264.91	\$16.36	
FY2022	12.3%	8.1%	\$4,342.48	\$10,742.31	\$4,790.00	264.91	\$17.61	Sensitivity Analysis
FY2023	12.2%	9.1%	\$4,651.70	\$11,449.99	\$4,952.34	264.91	\$19.24	Revenue growth variations account for 95.9% of total variance
FY2024	12.2%	10.1%	\$4,974.56	\$12,308.82	\$5,118.47	264.91	\$20.74	Risk premium's variations account for 2.5% of total variance
FY2025	11.7%	9.8%	\$5,124.56	\$13,069.63	\$5,097.55	264.91	\$22.91	Operating expenses' variations account for 1.4% of total variance
Continuing Period	10.9%	6.8%	\$6,995.56					Continuing period growth variations account for 0.2% of total variance



Wix.com Ltd.

WIX

Analyst: Sector:

Kyle Ritchie Information Technology

BUY Price Target: \$28.03

### Key Statistics as of 10/10/15

Market Price: \$20.24

Industry: Information Technology

Market Cap: \$768.40m 52-Week Range: \$16.00 - \$28.63

Beta: N/A

### **Thesis Points:**

- Increasing Users/Subscription (Revenue)
- Product Differentiation
- Financials

# **Company Description:**

Wix.com is a cloud-based web development company that provides business, organizations, professionals and individuals with the platform to create HTML5 web sites and mobile sites. The company offers a variety of web tools and application platforms to its users in order to accommodate to their specific needs. Wix is built on a "freemium" business model and earns its revenues through premium upgrades. These upgrades include the purchases of premium packages, the removal of Wix ads, the addition of e-commerce capabilities, extra data storage/bandwidth and much more.





Wix.com Inc. is a leading provider of web developing platforms to individuals, professionals and businesses. The company continues to improve its platform and the number of registered users which recently amounted to a 57.8% increase in revenue over the last year. Coupled with their ability to consistently attract new users, the company has been expanding their geographical presence through strategically chosen channels.

### **Increasing Users and Subscriptions**

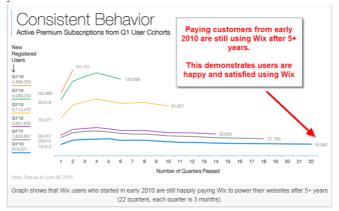
Wix.com was founded in 2006 by Avishai Abrahami, Nadav Abrahami, and Giora Kaplan. On November 5, 2013 the company had its initial public offering on Nasdaq raising about \$127 million. Since its IPO the company has been investing heavily in advertising and marketing along with research and development to expand its network. In the past twelve months, Wix's selling, general and administrative expenses accounted for 71.2% of its annual revenue while research and development accounted for 35.1% of its annual revenue. As you can see from the chart below, Wix has grown at a really fast pace over the years proving its ability to sustain growth. The key element of this company that allows them to consistently grow is their ability to





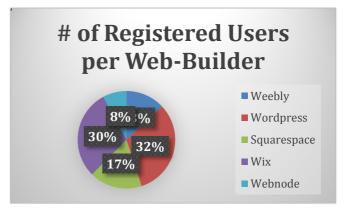
continuously improve their website builder. Wix's competitive advantage is the quality of the product that it offers. Wix's registered users do not have nor need the ability to write code to understand the application builder. The builder utilizes a simple drag and drop tool application for its users to add multiple features to their websites. The platform also includes multiple help tools that have received very satisfying reviews over the years. Wix's customer satisfaction is another key indicator of this company's level of success and sustainable future growth. The chart below illustrates the number of new

users along with the number of paying customers each year since 2010.



#### **Product Differentiation**

When comparing Wix to its competitors it is clear that they will soon be the leading platform for website designing. Unlike Wix, its competitors are all privately held companies. These companies include Webnode, Wordpress, Weebly, and Squarespace. Wordpress, a company that was founded three years prior to Wix, has an estimated total of 73,000,000 registered users. Wix currently has an estimated total of 68,000,000 registered users with an average of 45,000 new users joining every day. This figure demonstrates the substantial growth rate for Wix in comparison to its primary competitor. The chart below demonstrates the distribution of registered users in the aforementioned companies. The reason Wix's number of users and subscriptions



continues to increase is due to the popularity of the product it offers. As previously mentioned, Wix utilizes a "freemium" business model. The company offers free products and services to attract its customers before offering the premium upgrades. The free products that Wix offers include; Wix Editor, Wix Mobile, and Wix SEO Tool. Wix editor is the core foundation for Wix which is the basic web developer. Wix editor supports



twelve languages and allows users to maximize a digital presence with its new HTML5 technology. The editor also provides firewall protection to prevent internet hacks and malware. Wix Mobile allows users to create mobile sites for their existing Wix websites. The company recently launched a new Sonic Mobile technology which drastically speeds up the load time of a user's mobile site. The company currently has 9.3 million mobile sites published. CEO Avishai reported that the company's next big step is helping its small business customers who have created mobile sites register on Apple's store. There is a substantial amount of potential revenue that can be generated for Wix through the App Store. The Wix SEO Tool dramatically helps its users gain recognition on the web. The SEO Tool is the attachment of a description or set of key words that best relates to a customer's site in order to be found more easily through Internet search engines. The premium subscriptions is the primary source of how Wix generates its revenue while also creating tremendous value for its customers. These premiums include, Connect Your Domain, Google Analytics, Ads Free, Add Favicon, and VIP Services. Connect Your Domain allows its users to connect their own domain name to their website, meaning the Wix domain name will not show up. Google Analytics is a data collector which is an application provided for its users that tracks the number of people that visit their site, the geographic location of their visitors, and the length of time the visitors were on the website. This feature helps small businesses collect and utilize data for their own marketing purposes. Ads Free is the removal of Wix advertisements. Add Favicon allows users to change the Icon that appears next to the user's page address and bookmark to enhance the professional degree for its users. VIP Services provides timely support from Wix's specialists along with feedback and recommendations via the professional site review service. The constant improvement of Wix Editor along with the innovative features that are offered is what separates Wix from its competitors.

### This company relies heavily on its revenue growth which will only continue to increase as the company's network expands. In the second quarter of 2015 the company reported an additional 5 million users which was the largest addition per quarter in the company's history. In the same quarter, Wix also added 132,000 subscriptions which was a 48% increase in the respective quarter last year. Six earnings reports ago the CFO stated, "Our target was to be profitable in 2016." In the second quarter of 2015, Wix generated \$3.5 million in positive EBITDA and \$3.4 million in Free Cash Flow illustrating how they have already achieved this goal. company's total debt to total equity is .1 proving its credibility and solvency. In 2015, Wix's ROIC is 10.4% and its WACC is 7.95% demonstrating that the company is creating value. In my analysis I have adjusted the risk premium from 5.5% to 6.2% based on the various geographical segments that produced revenue. On an annual basis, 50% of revenue comes from the US, 27% from Europe, 12% from Asia, and 11% from Latin

#### Conclusion

America.

I am recommending a buy on Wix.com Inc. because of increasing revenue, sustainable growth management's long-term outlook. Wix offers a platform that has been utilized by individuals, professionals and businesses across the globe. The company attracts its customers with a free website builder and then provides multiple premium options for its customers to improve their own business operations. There is a major opportunity for this company given the technological trend. Helping small businesses expand by having a digital presence is the ultimate value of the product that Wix has to offer. Profitability for this company should start to increase as management's strategic investments begin to pay off in the future. I am confident Wix's share price will increase in the upcoming months.

#### **Financials**

After thoroughly analyzing the financial figures of Wix.com Inc. it is clear that this company is undervalued.



			CENTER F	OR GLOBAL FIN	ANCIAL STUDIES			
Wix.com Ltd.	wix	Analyst	Current Price \$20.00	Intrinsic Value \$25.60	Target Value \$28.03	Divident 0%	1-y Return: 40.66%	BULLISH
	General Info	Kyle Ritchie	Market Cap.	¥25.60	<b>¥</b> 20.U3	Managem		20222021
Sector	Information Technology	Shopify Inc.	\$3,041,67	Professional	Title	Comp. FY2012	Comp. FY2013	Comp. FY2014
Industry	Internet Software and Services	Care.com, Inc.	\$175.02	Abrahami, Avishai	Co-Founder, Chairman and Chief Exec	\$0	02	\$341,000
Last Guidance	August 5, 2015			Zohar , Nir	President and Chief Operating Officer	\$0	\$0	\$320,000
Next earnings date	NM			Kaplan, Giora	Co-Founder, Chief Technology Office	<b>\$</b> 0	\$0	\$329,000
	Market Data	Amazon.com, Inc.	\$253,470.76	Shemesh, Menashe	Chief Financial Officer	\$0	\$0	\$298,000
Enterprise value	\$701.63	Bridgeline Digital, Inc.	\$5.68	Shai, Omer	Chief Marketing Officer	\$0	\$0	\$299,000
Market Capitalization	\$793.89	VeriSign, Inc.	\$8,459.77	Abrahami, Nadav	Co-Founder and Vice President of Cli	\$0	\$0	\$0
Daily volume	0.24	Web.com Group, Inc.	\$1,168.64		Past Earning Surprises			
Shares outstanding	39.69	Synacor, Inc.	\$40.98		Revenue	EBITDA	Morm. EPS	Standard Error of "Surprise"
Diluted shares outstanding	38.50	Brightcove Inc.	\$175.94	Last Quarter	-0.04%	114.72%	NM	57.38%
% shares held by institution	41.25%	Current Capi	tal Structure	Last Quarter-1	-0.45%	NM	NM	NM
% shares held by insiders	2.16%	Total debt/Common Equity (LTM	0.10	Last Quarter -2	4.47%	NM	NM	NM
Short interest	2.33%	Cost of Borrowing (LTM)	0.00%	Last Quarter -3	5.19%	NM	NM	NM
Days to cover short interes		Estimated Cost of new Borrowine	2.53%	Last Quarter -4	6.56%	NM		NM
52 week high	\$28.22	Altman's Z	1.53	Standard error	1.4%	NM	NM	18.63%
52-week low	\$16.00	Estimated Debt Rating	AAA	Standard Error of Revenues prediction				
5y Beta	0.00	Current levered Beta	0.92	Imputed Standard Error of Op. Cost p				
6-month volatility	46.52%	LTM WACC	8.00%	Imputed Standard Error of Op. Cost p  Proforma Assumption				
Invergence Assumptio	General Assur	entions		Items' Forecast As				Other Assumptions
	Money market rate (as of today)	0.19%		Base year (LTM)	parengence period (Sub-indust.d	instment ner ne:	: Tobin's R	80%
	Risk-Free rate (long term estimate)	2.88%	Operating Cash/Rev.	53.58%	6,39%	-4.7%	Excess cash reinvestment	Money market rate
5 5	Annual increase (decrease) in interest rates		NWV/Rev.	-4.23%	4.07%	0.8%	Other claims on the firm's asse	
	, ,		NPPE/Rev.	5.23%	18.62%	1.3%	- 11 - 1 - 11 - 11 - 11 - 12 - 12 - 12	Capitalization
	Marginal Tax Rate Country Risk Premium	31.0% 6.2%	Dor/NPPE	41.44%	35.51%	1.3% -0.6%	100% of all cost avenuese are as	apitalized and amortized 'straightline' over 10 years
10 years	Country Risk Premium	0.24	NOPAT MARGIN	14.47%	18.05%	0.4%		pitalized and amortized "straightline" over 10 years
Forecast Year	Revenue Growth Forecast	Revenue (\$) Forecast	Op. Exp./Rev.	121.03%	72.24%	-4.3%	E&P expenses are not capitalize	
LTM		\$172.17	SBC/Rev.	8.94%	3.30%	-0.6%		capitalized and amortized 'straightline' over 10 years
FY2015	17.7%	\$204.70	Rent Exp./Rev.	2.96%	3.71%	0.1%		Valuation Focus
FY2016	33.7%	\$276.49	R&D/Rev.	35.08%	11.20%	-2.4%	DCF Valuation	100%
FY2017	26.0%	<b>\$</b> 351.76	E&D/Rev.	0.00%	0.00%	0.0%	Relative valuation	0%
FY2018	26.0%	\$447.68	SG&A/Rev.	71.24%	34.42%	-3.7%	Distress Valuation	0%
FY2019	21.3%	\$548.46	ROC	6%	13.88%	0.75%	Monte	Carlo Simulation Assumptions
FY2020	12.1%	\$621.25	EV/Rev.	4.81x	2.57x	-0.22x	Revenue Growth deviation	Normal (0.01%, 1%)
FY2021	7.6%	\$674.99	EV/EBITA	102.98x	9.81x	-9.32x	Operating expense deviation	Normal (0%, 1%)
FY2022	5.3%	\$717.79	Debt/Equity	10%	45%	3.5%	Continuing Period growth	Triangular (5.335%, 6.2%, 5.665%)
FY2023	4.1%	\$755,00	Unlevered beta	0.87	1.22	0.04	Country risk premium	Triangular (2.91%, 3%, 3.09%)
FY2024	3.6%	\$789.79	Cost of Borrowing	4%	6%	0.3%	Intrinsic value o(z)	\$0.09
Continuing Period	3.0%	\$821.62	Dividends/REV	0% Valuation	7%	0.7%	1-year target price o(z)	\$0.10
Forecast Year	ROC	VACC	Total Capital	Enterprise Value	Slaims on Assets and Dilution Ch	res Outstandin	Price per Share	Monte Carlo Simulation Results
LTM	6.4%	8.0%	\$429,08	\$1,211.64	\$23.14	39.69	\$25.31	
FY2015	10.3%	8.0%	\$484.65	\$1,291,92	\$25.55	39.69	<b>\$27.33</b>	
FY2016	12.9%	8.1%	\$618.06	\$1,486.00	\$31.70	39.69	\$30.95	The 3o(z)-adjusted intrinsic value is \$25.55;
FY2017	13.5%	8.2%	\$746.46	\$1,652.89	\$37.07	39.69	\$34.26	the 3o(z)-adjusted target price is \$28.13; and
FY2018	14.9%	8.3%	\$899.30	\$1,853.88	\$43.18	39.69	\$37.85	the analysts' median target price is \$30.7
FY2019	15.8%	8.5%	\$1,039.61	\$2,013.91	\$46.33	39.69	\$39.88	
FY2020	16.1%	8.6%	\$1,107.20	\$2,103.93	\$47.64	39.69	\$40.99	
FY2021	17.1%	8.8%	\$1,126.52	\$2,116.44	\$46.51	39.69	\$40.76	Sensitivity Analysis
FY2022	18.6%	9.0%	\$1,139.03	\$2,129.31	<b>\$4</b> 3.86	39.69		Revenue growth variations account for 95.9% of total variance
FY2023	20.0%	9.2%	\$1,169.90	\$2,121.91	\$0.00	39.69		Risk premium's variations account for 2.5% of total variance
FY2024	21.2%	9.4%	\$1,185.34	\$2,103.45	\$0.00	39.69		Operating expenses' variations account for 1.4% of total vari
Continuing Period	13.9%	9.4%	\$1,068.50					Continuing period growth variations account for 0.2% of tot