## Macroeconomic Overview

During this past shortened trading week, major U.S. indices did not experience significant volatility. Small-cap stocks generally outperformed large-cap benchmarks. In effect, the Dow Jones Industrial Average and the NASDAQ Composite remained relatively stable on a weekly basis with returns of 0.29% and -0.0009% respectively, while the S&P 500 gained 0.29% during the last week. Small cap stocks measured by the Russell 2000 index experienced the greatest returns, yielding 1.23% throughout the week. The VIX week-to-date change of -2.65% indicates that volatility levels decreased during the week, leading to a year-to-date change of -23.59%. The yield of the 10-year U.S. T-note decreased by 11 basis points to 1.84%. In addition, the price of oil decreased throughout the week by 0.43% to a price of $48.66/bbl.

This week's market movements were primarily driven by negative U.S. manufacturing data, as well as the continuing pressure of the strong U.S. dollar on the market. Disappointing U.S. manufacturing data weighs on consumer sentiment. The Institute for Supply Management reported a decline in their purchasing manager's index for the fifth consecutive month due to slower growth in factory activity, primarily in the manufacturing heavy Midwest region.

| U.S. Stocks | | |
|---|---|---|
| **Index** | **% Change Week-to-Date** | **% Change Year-to-Date** |
| DJIA | 0.29% | 0.27% |
| S&P 500 | 0.29% | 0.92% |
| NASDAQ Composite | -0.0009% | 3.57% |
| Russell 2000 | 1.23% | 4.57% |
| VIX | -2.65% | -23.59% |

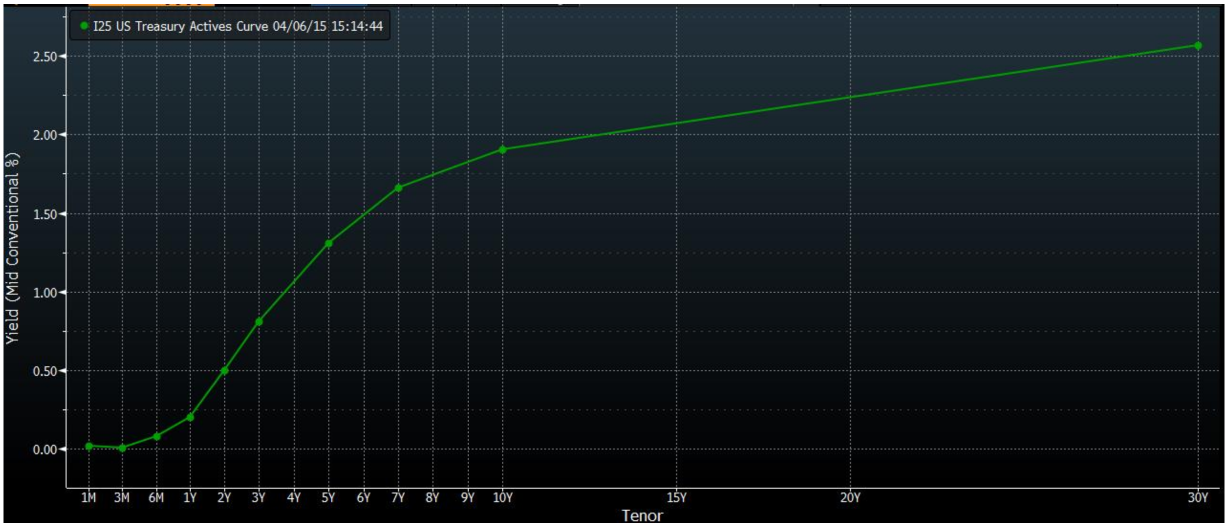
In comparison, the European manufacturing sector currently records strong gains outperforming economists' expectations in the past months. In March, the Eurozone's manufacturing PMI increased by 2.35%. The sector's activity increased by its fastest rate in over 10 months. In addition, the UK manufacturing PMI increased by its fastest growth rate in over eight months. Their overall economy grew at a rate of 2.8% in 2014, 0.2% higher than expectations of 2.6%. The superior performance of European firms proves the current effect of the strong dollar on global markets. The strong dollar makes U.S. firms currently less competitive in global markets. This explains the present superior performance of small-cap stocks, since only one fifth of the Russell 2000 Index companies get their revenue shares from exports. In comparison, S&P 500 companies receive over one third of their revenues from overseas.

The Asian markets currently do not benefit from the strong dollar and their economies' growth continues to slow down, especially in China. China's manufacturing PMI, which is seen as the country's economic growth driver, continues to slow down and only grew by 0.4% in March. Japan's industrial sector experienced declines in February for the first time in over three months. Industrial production declined by 3.4% which was much higher than expected. The decline is primarily caused by weaker Japanese household spending which leads businesses to reduce capital investment, giving the economy currently no opportunity for growth.

Next week, investors will be looking forward to see data from different economic reports that will have an impact on the global markets. On Monday 6$^{th}$, Canada will release data about their economy's Purchasing Manager Index (PMI) (Mar). On the same day Australia reports on their economy's retail sales change (MoM) (Mar). On Tuesday 7$^{th}$, the Reserve Bank of Australia as well as the Reserve Bank of India will decide on their countries' interest rate changes. On the same day the U.K. will report on their economy's Services PMI (Mar). On Thursday 9$^{th}$, the Bank of England will decide on their country's interest rate changes. On the same day, China will report on their country's Consumer Price Index (CPI) (YoY). On Friday 10th, the U.K. will report on the country's manufacturing production (MoM) (Feb) and Canada will release data about the country's employment change (Mar) as well as the country's unemployment rate.

# <u>Bond Report</u>

U.S. Treasury bonds rallied this past Friday as the dollar weakened, most notably on Friday, April 3rd. A disappointing jobs report was the main factor in the rally which was released at 8:30 AM this past Friday. The job report noted the U.S. economy adding 126,000 nonfarm jobs in March, compared to a much higher expectation of 248,000 nonfarm jobs being forecasted by economists in a poll by The Wall Street Journal. This was the smallest increase in nonfarm jobs since December of 2013. The report was another notch in the belt of a series of economic indicators which shows tapering growth in the U.S. The report strengthens investor's expectations that the Fed will not increase the Federal interest rate any earlier then September or October. As a result, bond yields dropped drastically as shown on Friday morning in the chart below. The yield on benchmark 10 year treasury notes dropped to a two month low Friday morning to 1.80%, after closing the night before around 1.92%. The yield later slightly recovered, closing in to the weekend at 1.85%. Bond yield have been gradually dropping over the past couple of weeks as the Fed have been conducting various meetings to talk about their patience in hiking interest rates. Bond yields recovered on Monday closing back around 1.90%.




| Curve ID | 3M | 1Y | 2Y | 3Y | 5Y | 7Y | 10Y | 30Y |
|---|---|---|---|---|---|---|---|---|
| I25 | 0.008 | 0.201 | 0.498 | 0.810 | 1.308 | 1.658 | 1.905 | 2.567 |

## What's Next & Key Earnings

On Wednesday, March 7th, there will be a 10-year Note Auction. Yield fluctuations should be monitored closely as an indicator of the government debt situation. Investors compare the average rate at auction to the rate at previous auctions of the same security.

On Wednesday, March 7th, there will be a FOMC Meeting Minutes record released. The Federal Open Market Committee (FOMC) Meeting Minutes are a detailed record of the committee's policy-setting meeting held about two weeks earlier. The minutes offer detailed insights regarding the FOMC's stance on monetary policy, so currency traders carefully examine them for clues regarding the outcome of future interest rate decisions.

On Thursday, March 8th, an U.S. Initial Jobless Claims report will be released. Initial Jobless Claims measures the number of individuals who filed for unemployment insurance for the first time during the past week. This is the earliest U.S. economic data, but the market impact varies from week to week.

On Friday, March 9th, a Federal Budget Balance measure will be released. The Federal Budget Balance measures the difference in value between the federal government's income and expenditure during the reported month. A positive number indicates a budget surplus, a negative number indicates a deficit.

| Company | EPS | Forecast | Prev. | Imp. | Market Cap | Time |
|---|---|---|---|---|---|---|
| | | Wednesday, April 8, 2015 | | | | |
| Alcoa (**AA**) | | 0.25 | 0.33 | | 16.06B | |
| Bed Bath&Beyond (**BBBY**) | | 1.81 | - | | 14.25B | |
| | | Thursday, April 9, 2015 | | | | |
| Constellation Br... (**STZ**) | | 0.94 | 1.23 | | 22.79B | |
| Family Dollar St... (**FDO**) | | 0.73 | 0.44 | | 9.07B | |
| Walgreen (**WBA**) | | 0.94 | 0.81 | | 72.28B | |

# Crown Crafts, Inc.

Nasdaq: CRWS

**Analyst:** Benjamin Lunaud
**Sector:** Cons Discr

## BUY

Price Target: $10.10

## Key Statistics as of 3/19/2015

| | |
|---|---|
| Market Price: | $7.99 |
| Industry: | Consumer Discretionary |
| Market Cap: | $80.4M |
| 52-Week Range: | $7.07 - $8.78 |
| Beta: | 0.74 |

## Thesis Points:

- Positive macroeconomics outlook
- Free cash flow should increase faster than expected
- CRWS has competitive advantages and will continue to do better than its peers
- Attractive dividend yield

## Company Description:

Description: Crown Crafts Inc. distributes infant, toddler, and juvenile consumer products in the United States and internationally, through its subsidiaries, designs, markets. It provides cribs, toddler bedding, blankets, nursery, toddler accessories, room décors, burp cloths, bathing accessories, reusable and disposable bibs, disposable placemats, cup labels, toilet seat covers, changing mats, reusable and disposable floor mats, hooded bath towels, washcloths, and other infant, toddler, and juvenile soft goods. The company sells its products primarily to mass merchants, mid-tier retailers, juvenile specialty stores, value channel stores, grocery and drug stores, restaurants, internet accounts, wholesale clubs, and retailers through a network of sales forces, independent commissioned sales representatives, and distributors. The company was founded in 1957 and is headquartered in Gonzales, Louisiana.

## Thesis

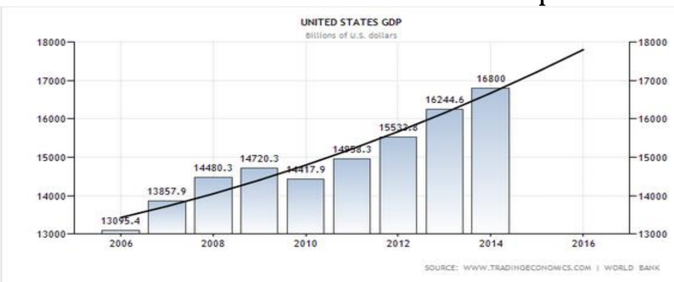
Crown Crafts inc is undervalued compared to its peers and industry; the recommendation is to buy. The company is currently traded at $7.85 per shares and the target price is based on the proforma (presented at the end of the report) is $10.10, a potential upside of 30.32% with the dividend yield. The industry outlook shows that revenue is expected to grow due to an increase of consumption in the next few years. The company has no debt and is generating enough cash to make future profitable investments. CRWS has a competitive advantage allowing it to do better than its peers in terms of margin, liquidity and debt management. The firm has a favorable position to make acquisitions, expand product development, and increase shareholder value through higher dividends. CRWS proposes attractive dividend yields at 4.13%. When looking also at multiples, CRWS is undervalued based on relative valuation.

## CRWS Business

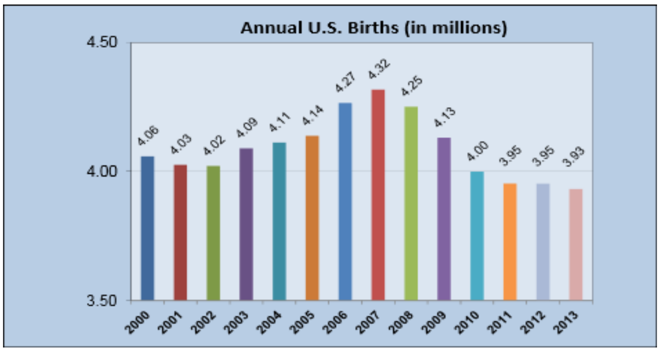
Crown Crafts recognizes two operating subsidiaries: Crown Crafts Infant Products and Hamco. Through these subsidiaries Crown Crafts manufactures products in the following sectors of the infant and toddler consumer goods industry: bedding, blankets, accessories, bibs, bath, and handwoven products. More specifically these products include nursery accessories: room decor, nap mats, burp cloths, hooded bath towels, washcloths, disposable placemats, cup labels, toilet seat covers, and changing mats. These products are part of licensed and branded collections as well as exclusive private label programs. Crown Crafts holds licenses with Disney Baby, Sesame Street, Fisher-Price, Nickelodeon, Crayola Beginnings, and Baby Looney Tunes. The Company owns the trademarks for Nojo, Bibsters, and Neat Solutions.

## Industry Overview

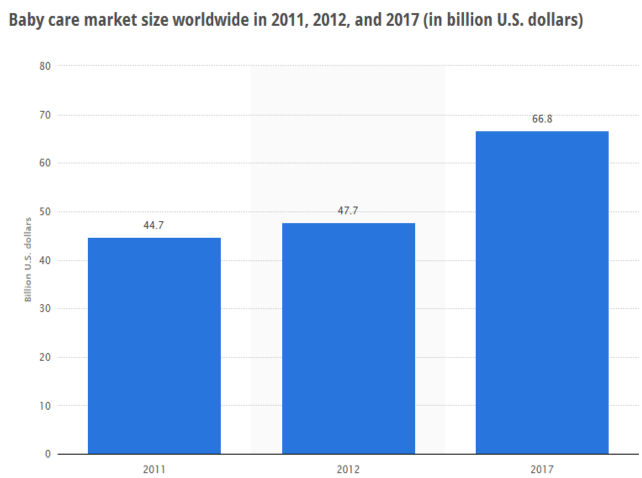
As shown on the graph on the top right corner, U.S GDP has been growing at 4% annually since 2010. The US economy is recovering and is expected to grow faster in the next few years.




In 2016 the GDP is expected to increase to 17955.19, an increase of 7% from 2015. Americans have begun to feel more confident about growth, making the U.S a more secure place to raise children. Higher income, the stock market at a historic high, and rising house prices result in Americans feeling richer. Nearly half of moms say that the economy factored into their plan to have baby.




The graph above shows that annual U.S births decreased by over 8% from 2007 to 2013. This has hurt CRWS revenues which decreased by 0.2% CAGR in the last 5 years. However since 2010 the births rate became flat and is most likely to grow in the next few years.

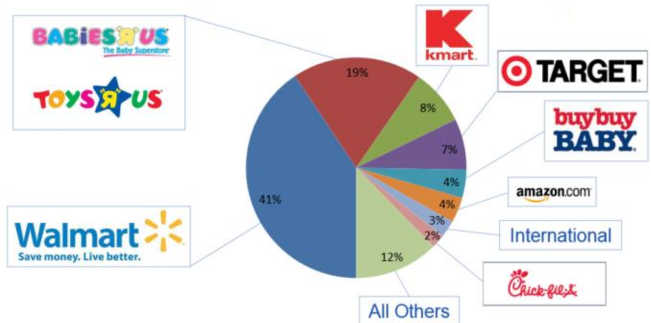



The chart above shows that revenue in the industry is expected to grow faster until 2017. This is due to a higher expected consumption and a probable increase in birth rate in future years.

Revenue for CRWS has been growing at 3.7% last year, much better than a negative 8% in 2013 and is expected to grow at 4.7% in 2015. CRWS future revenue should be higher than expected due to higher birth rate, increase in consumption for the industry, and a positive macroeconomics outlook.

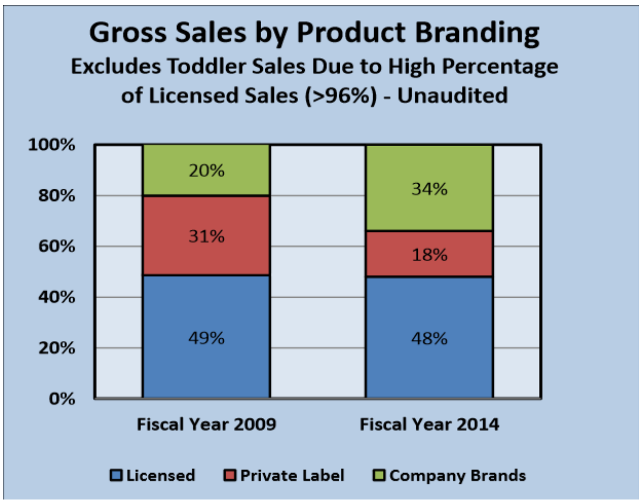
## Financial performances

CRWS beat earning estimates in the last quarter. For the quarter that ended December 28, net sales for FY'15 were $23.743 million, as opposed to $20.619 in the same quarter of the previous year or an increase of 15%. Net income for the same period also increased from $1.779 million last year to $2.046 this year, an increase of 15%. Diluted EPS increased as well from $0.18 last year to $0.20 in this year's current quarter or an increase of $0.02 per diluted share.

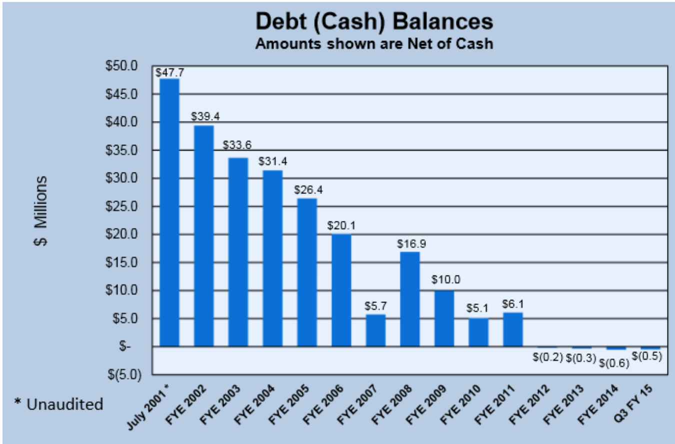



Gross Sales by Customer
For the Fiscal Year Ended March 30, 2014
(Unaudited)

Crown Crafts relies on major customers who are Walmart, Target, and Toy's R Us. The company revenue is substantially dependent on these with 67% of revenue coming from these costumers (Graph above). If the company cannot sustain these arrangements it could impact negatively revenue, but these are long-term relationships and look stable.



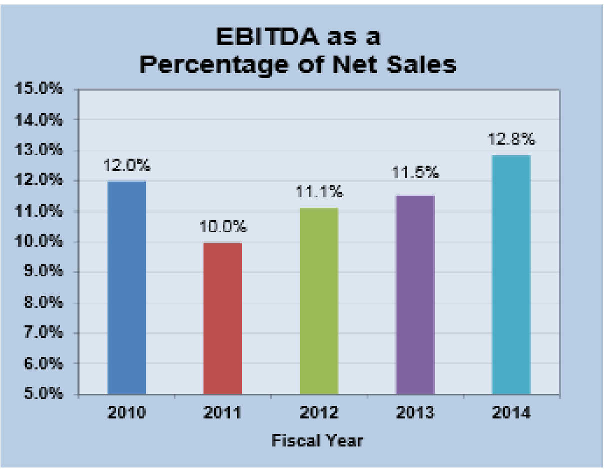

The chart shows that 48% of all revenue results from licensing agreements for popular characters. Revenue coming from the company brand has been growing at 34% in 2014 compared to 20% in 2009. This is expected to increase and will generate more revenue for CRWS. Analysts estimate revenue to grow at 4.2% in 2015, an increase of 0.5% from 2014. It should increase faster in future years due to an increase in demand, new product placements, and new product developments.




As shown on the graph above the company is debt free since 2012. In addition to lowering debt levels, the company has since December 2006, paid $18.4 million for acquisitions, $16.0 million in cash dividends, and $3.1 million for open market stock repurchases. This shows that CRWS is able to maintain stable cash flow. The cash in the balance sheet has been increasing by 49% annually since 2010.

CRWS has strict cost management to maintain a healthy balance sheet and preserve positive operating cash flows and value creation. The company is able to reduce its cost by outsourcing mass production business to manufacturers in China, where the labor and rent expenses are relatively low. In addition Crown Crafts inc is looking for future acquisitions and will beneficiate from economic of scale.

To reduce cost and expand faster the company made three acquisitions over the past years and will continue to look for other opportunities. They also sign agreements with other companies. CRWS management explained that they prefer to wait for the best opportunity in the future instead of taking the most immediate chances to grow.




As a result, EBITDA margins have been increasing since 2011 and are expected to increase in the future to 13.7%, better than the average industry. The graph above shows that EBITDA, as a percentage of sales, has been growing also. Cost control allows the company to have EBITDA growing faster than revenue growth, meaning an increase in free cash flows and value creation. Higher revenue in the future should also generate more cash for CRWS and create more value for shareholders.

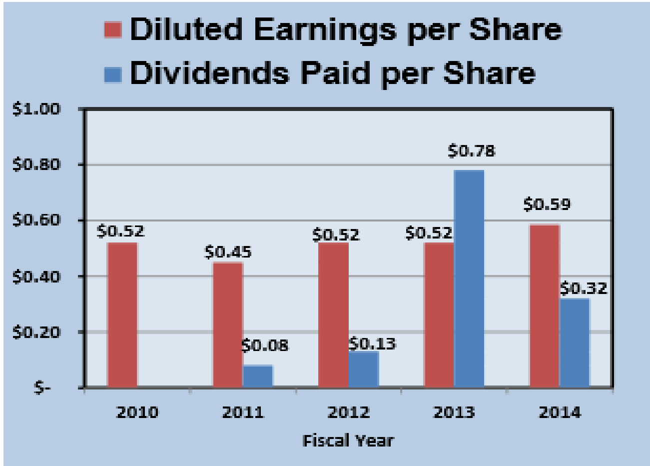
## CRWS vs competitors

Kimberly-Clark Corp is the leader in baby and child-specific products with a 17% value share in 2013. Two of the main competitors are Kid Brands inc, and Summer Infant inc. LeapFrog Enterprises and Dorel Industries have also been chosen in the proforma to do the valuation. CRWS has several competitive advantages. They are leader in terms of product categories and in placement products in retail. The company is highly focused on quality and on diversification of product categories. CRWS has its own brand, which is growing; it has also licensed collections and private-label programs for some particular customers.

Thanks to its competitive advantages, CRWS is able to perform better than its competitors. CRWX's EBITDA margin is 13%, 8% higher than a 5% median for its peers. CRWS has a ROIC of 12.3%, higher than an average of 4.2% for its peers. The company has no debt, a bankruptcy cost much lower than its peers with an Altman Z score of 5.98 compared to a median of 2.34 for their competitors. Overall Crown Craft is doing better than the competition in terms of profitability, debt management, and liquidity.

The firm is expected to gain market shares in the future and will do better than competitors thanks to new placements, future acquisitions, and existing competitive advantages. These investments are expected to generate more revenue in the future.

## Dividend Yield




The graph above shows that dividend per share has been increasing since 2011, showing that the company is focused on return to shareholders. CRWS is able to constantly generate positive cash flows and create value for shareholders. This allows Crown Crafts to maintain a dividend payout ratio of 39% on its common stock. After paying off $6.3 million of debt in 2012, the Company also paid $1.3 million in dividends at $0.13 per share. In 2013 Crown Crafts paid $7.7 million in dividends at $0.78 per share, including a special dividend of $0.50. CRWS proposes now an attractive dividend yield of 4.13%.

## Conclusion

Crown Craft inc, is considered undervalued at a price of $7.99. The valuation based on the proforma presented on the last page shows a target price of $10.10. CRWS is a leader in its niche markets. The company is doing better than its peers and is expecting to gain market shares in the future. EBITA is growing faster than revenue growth. The company has no debt and is generating enough cash to distribute attractive dividends to shareholders. Management insisted on the fact that future expansion will be also possible through acquisitions. Finally the industry outlook looks positive for the company and will allow CRWS to generate more revenues in the future. The recommendation is a Buy.

Siena Market Line
1st week of April 2015

# CENTER FOR GLOBAL FINANCIAL STUDIES

| Crown Crafts, Inc. | CRWS | Analyst | Current Price | Intrinsic Value | Target Value | Divident Yield | Target Return | BULLISH |
|---|---|---|---|---|---|---|---|---|
| | | Benjamin Lunaud | $7.99 | $8.25 | $10.08 | 4% | 30.32% | |

**General Info**

| | |
|---|---|
| Sector | Consumer Discretionary |
| Industry | Textiles, Apparel and Luxury Goods |
| Last Guidance | Feb-11-2015 |
| Next earnings date | 6/17/2015 |

**Market Data**

| | |
|---|---|
| Enterprise value | $77.41 |
| Market Capitalization | $805.40 |
| Daily volume | 0.45 |
| Shares outstanding | 10.06 |
| Diluted shares outstanding | 10.02 |
| % shares held by institutions | 77.59% |
| % shares held by insiders | 14.93% |
| Short interest | 0.27% |
| Days to cover short interest | 2.34 |
| 52 week high | $8.78 |
| 52-week low | $7.07 |
| 5y Beta | 0.71 |
| 6-month volatility | 25.75% |

| Peers | Market Cap. |
|---|---|
| Dorel Industries Inc | $1,142.34 |
| Kid Brands, Inc | $0.02 |
| Summer Infant, Inc | $49.90 |
| LeapFrog Enterprises Inc | $160.07 |

**Current Capital Structure**

| | |
|---|---|
| Total debt/market cap | 0.00% |
| Cost of Borrowing | 0.00% |
| Interest Coverage | 26134.21% |
| Altman Z | 5.98 |
| Debt Rating | AAA |
| Levered Beta | 1.14 |
| WACC (based on market value weights) | 8.17% |

**Management**

| Professional | Title | Comp. FY2012 | Comp. FY2013 | Comp. FY2014 |
|---|---|---|---|---|
| Chestnut, E. | Chairman, Chief Executive Offic | $ 522,412.00 | $ 773,704.00 | $ 1,809,916.00 |
| Elliott, Olivia | Chief Financial Officer, Principal | $ 250,748.00 | $ 321,656.00 | $ 554,934.00 |
| Freeman, Nanci | Chief Executive Officer of Crowr | $ 317,840.00 | $ 362,106.00 | $ 696,025.00 |
| Cowart, Kenneth | Director for Information System | $ - | $ - | $ - |
| Bush, Mary | Director of International Sales | $ - | $ - | $ - |
| Wagnon, Robert | Vice President and Controller | $ - | $ - | $ - |

**Historical Performance**

| | CRWS | Peers | Industry | All U.S. firms |
|---|---|---|---|---|
| Growth | -0.9% | 3.3% | | 6.0% |
| Retention Ratio | 29.6% | 97.1% | | 61.6% |
| ROIC | | 4.8% | | 11.8% |
| EBITA Margin | 11.3% | 5.0% | 9.8% | 13.7% |
| Revenues/Invested capital | 173.4% | 120.1% | 205.3% | 202.3% |
| Excess Cash/Revenue | 0.6% | 4.6% | 12.1% | 18.5% |
| Unlevered Beta | 0.47 | 1.05 | 1.12 | 0.95 |
| TEV/REV | 0.6x | 0.7x | 0.5x | 2.4x |
| TEV/EBITDA | 5.4x | 9.3x | 8.8x | 11.3x |
| TEV/EBITA | 5.6x | 12.2x | | 15.4x |
| TEV/UFCF | 5.8x | 18.7x | | 26.8x |

**Past Earning Surprises**

| | Revenue | EBITDA | Norm. EPS |
|---|---|---|---|
| Last Quarter | 12.2% | 0.0% | 11.1% |
| Last Quarter-1 | 0.9% | -37.9% | -7.1% |
| Last Quarter -2 | -7.8% | -17.3% | -30.0% |
| Last Quarter -3 | -2.2% | -0.5% | -4.5% |
| Last Quarter -4 | -0.7% | 18.1% | 5.9% |

**Non GAAP Adjustments**

| | | | |
|---|---|---|---|
| Operating Leases Capitalization | 100% | Straightline | 10 years |
| R&D Exp. Capitalization | 0% | N/A | N/A |
| Expl./Drilling Exp. Capitalization | 0% | N/A | N/A |
| SG&A Capitalization | 0% | N/A | N/A |

**Proforma Assumptions**

| | |
|---|---|
| Operating. Cash/Cash | 0.0% |
| Unlevered Beta | 1.05 |
| Rev/Invested Capital | 140.0% |
| Continuing Period Revenue Growth | 3.2% |
| Long Term ROIC | 9.8% |
| Invested Capital Growth | Equals to Maintenance |
| Justified TEV/REV | 0.7x |
| Justified TEV/EBITDA | 9.3x |
| Justified TEV/EBITA | 12.2x |
| Justified TEV/UFCF | 18.7x |

**Forecasted Profitability**

| Period | Rev. Growth | Adj. Op. Cost/Rev | Revenue | NOPLAT | Invested capital | UFCF |
|---|---|---|---|---|---|---|
| LTM | 4% | 85% | $83.90 | $5.73 | $48.76 | $3.54 |
| LTM+1Y | 4% | 84% | $86.95 | $7.16 | $51.46 | $5.17 |
| LTM+2Y | 3% | 84% | $89.79 | $7.86 | $52.84 | $6.48 |
| LTM+3Y | 3% | 84% | $92.72 | $8.24 | $54.26 | $6.83 |
| LTM+4Y | 3% | 84% | $95.71 | $8.48 | $55.70 | $7.04 |
| LTM+5Y | 3% | 84% | $98.80 | $8.60 | $58.75 | $5.54 |
| LTM+6Y | 3% | 84% | $101.98 | $8.71 | $60.89 | $6.57 |
| LTM+7Y | 3% | 85% | $105.25 | $8.80 | $62.46 | $7.24 |
| LTM+8Y | 3% | 85% | $108.62 | $8.90 | $63.91 | $7.44 |
| LTM+9Y | 3% | 85% | $112.10 | $8.96 | $66.30 | $6.58 |

**Valuation**

| | ROIC | WACC | EVA | Enterprise Value | Total Debt | Other claims | Equity | Adjusted Price |
|---|---|---|---|---|---|---|---|---|
| **LTM** | 12.3% | 8.2% | $2.23 | $99.03 | $0.00 | $10.72 | $88.32 | $9.21 |
| **LTM+1Y** | 14.3% | 8.3% | $3.04 | $103.41 | $0.00 | -$2.02 | $105.43 | $10.83 |
| **LTM+2Y** | 15.3% | 8.4% | $3.58 | $106.33 | $0.00 | -$11.91 | $118.24 | $12.06 |
| **LTM+3Y** | 15.6% | 8.5% | $3.80 | $108.13 | $0.00 | -$22.23 | $130.36 | $13.27 |
| **LTM+4Y** | 15.6% | 8.6% | $3.86 | $109.77 | $0.00 | -$32.94 | $142.71 | $14.49 |
| **LTM+5Y** | 15.4% | 8.7% | $3.90 | $112.38 | $0.00 | -$42.38 | $154.77 | $15.76 |
| **LTM+6Y** | 14.8% | 8.8% | $3.61 | $114.99 | $0.00 | -$53.03 | $168.02 | $17.06 |
| **LTM+7Y** | 14.5% | 8.9% | $3.41 | $117.85 | $0.00 | -$64.55 | $182.40 | $18.48 |
| **LTM+8Y** | 14.2% | 9.0% | $3.29 | $120.29 | $0.00 | -$76.49 | $196.79 | $19.90 |
| **LTM+9Y** | 14.0% | 9.1% | $3.20 | $122.78 | $0.00 | -$87.83 | $210.61 | $20.93 |

**Monte Carlo Simulation Assumptions**

| | Base | Stdev | Min | Max | Distribution |
|---|---|---|---|---|---|
| **Revenue Variation** | **0** | **10%** | **N/A** | **N/A** | **Normal** |
| **Op. Costs Variation** | **0** | **10%** | **N/A** | **N/A** | **Normal** |
| **Market Risk Premium** | **6%** | **N/A** | **5%** | **7%** | **Triangular** |
| **Long term Growth** | **3%** | **N/A** | **-1%** | **8%** | **Triangular** |
| **Terminal Value** | **0** | **0.1** | **N/A** | **N/A** | **Normal** |

**Monte Carlo Simulation Results**

| | Intrinsic Value | 1y-Target |
|---|---|---|
| **Mean est.** | $9.21 | $10.83 |
| **σ(ε)** | $0.32 | $0.25 |
| **3 σ(ε) adjusted price** | $8.25 | $10.08 |
| **Current Price** | $7.99 | |
| **Analysts' median est.** | | $10.50 |

# Digirad Corporation

NasdaqGM: DRAD

**Analyst:** Etienne Lehideux
**Sector:** Healthcare

## BUY

Target Price: $6.3

## Key Statistics as of 4/4/2015

| | |
|---|---|
| Market Price: | $4.52 |
| Industry: | Medical Appliances & Equipment |
| Market Cap: | $7,340 M |
| 52-Week Range: | $3.03 - 5.84 |
| Beta: | 0.5 |

## Thesis Points:

- Broad product portfolio
- Solid strategy execution based on acquisition and product diversification
- Bullish guidance from management

## Company Description:

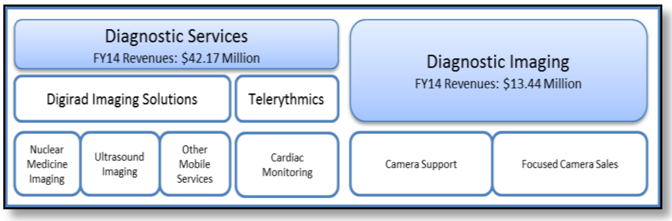
Digirad Corporation provides diagnostic solutions in the United States. The company operates in two segments, Diagnostic Services and Diagnostic Imaging. The Diagnostic Services segment provides in-office nuclear cardiology and ultrasound imaging, and cardiac event monitoring services to physicians who perform nuclear imaging, echocardiography, vascular or general ultrasound tests, or any combination of these procedures in their offices, hospitals, and imaging centers. The Diagnostic Imaging segment sells medical diagnostic imaging systems, including solid-state gamma cameras for nuclear cardiology and general nuclear medicine applications, as well as provides camera maintenance services to physician offices, hospitals, imaging centers, and mobile service providers. The company was founded in 1985 and is headquartered in Suwanee, Georgia.

## Thesis

Digirad Corporation provides diagnostic solutions to physicians and hospitals in the United States. It has a diversified portfolio of products and services that includes full-suite tailored imaging solutions, cardiac monitoring services, solid-state nuclear cameras sales, and after sale support. Digirad Corporation has a solid growth strategy through product diversification and a track record of well-executed acquisitions. As of December 31, 2014, Digirad had almost $22 million in cash and was debt free. The company also pays a quarterly dividend of 5 cents per share, which is unusual for low priced stocks.

## Products and Segments

Digirad Corporation is divided into two businesses: Diagnostic Services, which represents around 70% of their revenues, and Diagnostic Imaging, which represents the remaining 30%.




Diagnostic Services is split into two parts: Digirad Imaging Solutions and Telerythmics.

Digirad Imaging Solutions (DIS) provides licensed staffing and imaging equipment to physicians. It offers a convenient and economically efficient imaging services program as an alternative to purchasing a gamma camera or ultrasound equipment, or as an alternative to outsourcing the procedures to another physician or imaging center. For physicians who wish to perform nuclear imaging, echocardiography, vascular or general ultrasound tests, or any combination of these procedures in their offices, DIS provides the ability for them to engage these services, which include the use of Digirad's imaging system, qualified personnel, and related items required to perform imaging in the their own offices and bill Medicare, Medicaid, or one of the third-party healthcare insurers directly for those services. Diagnostic Services segment's services are also used by large and small hospitals, multi-practice physician groups, and imaging centers.

Digirad Corporation acquired Telerythmics in March 2014 and added the business to their DIS portfolio. Telerythmics is a 24-hour cardiac event monitoring service that is utilized on an outsourced basis by hospitals and physician offices. The company uses owned as well as per-use leased equipment to provide monitoring services for individual that have constant or periodic cardiac events. The patients are referred by hospitals, doctor offices and other medical care facilities. The acquisition allows Digirad to cross sell its services, since the two companies have a similar customer base, although not overlapping. One of Telerythmics' competitive advantages is that the company is staffed with critical care trained registered nurses, while competitors are staffed with technicians. Moreover, the company considers itself "device agnostic", which means that they use devices that met customers' needs regardless of the manufacturer.

The Diagnostic Imaging segment's revenue is derived primarily from selling solid-state gamma cameras and post-warranty camera support contracts. Digirad sells their imaging systems to physician offices, hospitals, and imaging centers primarily in the United States. Digirad has relationships and agreements with distributors around the world and aims to develop these relationships to the point where it can eventually grow its sales outside the United States. Digirad's camera offering consists of two main product lines, Cardius and Ergo:

The Cardius line offers dedicated cardiac solid-state imagers that are noted for their compactness, portability, and unique upright imaging capabilities that make it possible to image patients up to 500 pounds in a sitting position. Upright imaging makes it possible to image large bariatric, chronic obstructive pulmonary disease (COPD), or claustrophobic patients that typically could not be imaged lying down on competitive systems. The line offers fixed dual-head and triple-head cardiac camera models for dedicated use within a facility and portable configurations that make it possible to move the system to provide service to multiple rooms or sites.

The Ergo large-field-of-view imaging system is targeted to hospitals with multi-camera general nuclear medicine departments, academic centers, pediatric hospitals, regional trauma centers, women's health centers, and cancer centers. Most general nuclear medicine departments have the need for a single-head planar portable camera for imaging patients more conveniently on hospital stretchers, for imaging patients that cannot be moved, and for imaging patient's at their bedside (pediatrics, intensive care units, critical care units, emergency rooms, surgical suites, women's health clinics, or on regular patient floors). A single-head planar camera provides a more economical and convenient way to perform approximately 25% or more of all studies commonly performed in general nuclear medicine. It also opens the door to perform studies on critically ill patients in the patient's room and the ability to perform molecular breast imaging protocols that offer new revenue generation potential while improving the standard of patient care.


Finally, the Camera Support services include 20 field service engineers located throughout the U.S., who serve a significant installed base of cameras and have the ability to service non-Digirad models.

## Competitive Advantages

Digirad Corporation delivers personalized healthcare services and technology focused on providing quality, flexibility, and cost efficiency in Nuclear Medicine, Nuclear Cardiology, Ultrasound Imaging, and Cardiac Event Monitoring on an "as needed, when needed, where needed basis".

For their imaging services and products, Digirad Corporation identifies several competitive strengths:
- *Broad portfolio of cardiovascular imaging services.* The company can offer multiple services such as nuclear cardiology imaging, echocardiography imaging, and vascular imaging services, which strengthens their competitive position at each customer location.
- *Unique Dual Sales and Service Offering.* Digirad Corporation sells imaging systems to physicians who wish to perform nuclear imaging in their facilities and manage the related service logistics. The company offers both nuclear and ultrasound services in which they provide their systems and certified personnel to physicians on an annual basis in flexible increments, ranging from one day per month to several days per week without requiring them to make a capital investment, hire personnel, obtain licensure, or manage other logistics associated with operating a nuclear imaging site. Their ability to service their customers in a variety of capacities from selling the capital equipment directly at the point of need or being more flexible in a service-oriented model allows them to serve their customers exactly according to their needs.
- *Leading Solid-State Technology.* Digirad's solid-state gamma cameras utilize proprietary photo-detector modules that enable to build smaller and lighter cameras that are portable, with a degree of ruggedness that can withstand the vibration associated with transportation.

Their products allow portable application through reduced size and weight, and deliver a superior speed and image quality. They also offer improved patient comfort and utilization, which reduces patients' claustrophobia when comparing with traditional tube-based imaging systems.

Finally, Digirad has developed an intellectual property portfolio that includes product, component, and process patents covering various aspects of their imaging systems. The company has 38 issued U.S. patents and also licenses patents from third parties to enhance their product offering. In addition to the patent portfolio, Digirad Corporation has developed proprietary manufacturing, business know-how, and trade secrets.

The main risk associated with Digirad Corporation's business is that the company relies heavily on Medicare reimbursement to the company's customers. Since these reimbursements declined significantly in recent years, downward pressure on Digirad's prices can impact the revenue stream.

## Strategy

Digirad's strategy is focused on driving income and cash flow from their business, with particular attention on creating value for shareholders through earnings redistribution and punctual share repurchase.

Digirad Corporation's general strategy is to focus on three main areas for growth. First, the company engages in financially disciplined acquisitions, aligned with their mission statement: "being the market leader in delivering effective and efficient healthcare solutions on an as needed, when needed, and where needed basis." Second, the company seeks to add new services that they can add to their existing portfolio and deliver through their current distribution channels. Finally, the company works on organic growth, within their existing portfolios of services and channels.

On February 28, 2013, Digirad announced a plan to restructure the Diagnostic Imaging business to significantly reduce costs and focus on maximizing cash flow. This restructuring effort also included a reduction in force and was announced complete as of December 31, 2014.

Their acquisition of Telerythmics in March 2014 shows that the company's acquisition strategy is solid and their implementation effective. Indeed, the company managed to complete the integration in one year, as announced. Moreover, Telerythmics fits nicely in their Diagnostic Services business in two important ways. First, It is a solid, well-established and respected enterprise that has been doing business for more than 20 years. Second, it is a platform business with its call center and registered nurse that can support potential additional services.

In October 2014, Digirad Corporation approached health care commercialization company LDI, Inc with an open letter expressing their willingness to acquire the company. LDI, Inc turned down any negotiation, stating that the company was not for sale. The acquisition would be a solid strategic move for Digirad, allowing to turnaround a business that has been destroying shareholders' value. Although LDI, Inc officially refused to meet with Digirad Incorporation's management, their shareholders may pressure the management to do so once they realize a merger would be beneficial to their interests.

In January 2015, Digirad Corporation entered in a planned strategic partnership in Perma-Fix Medical, a subsidiary of Perma-Fix. Under the agreement, Digirad Corporation will invest $1 million into Perma-Fix Medical, which is traded on the Warsaw Stock Exchange, for approximately 5.4% of the outstanding common shares. When completed, Digirad will have the right to appoint one member to Perma-Fix Medical's Supervisory Board, and a second appointee to either the Supervisory Board or the management team. Digirad will assist Perma-Fix Medical in the development of and commercialization of Perma Fix Medical's proprietary process to produce Tc-99m without the use of uranium. Tc-99m is the most commonly used medical radioisotope for medical diagnostic procedures.

In march 2015, Digirad Corporation acquired MD Office Solutions, Inc., a mobile diagnostic imaging provider servicing customers in Northern California. After a short integration period, it is expected to be accretive on an EBITDA basis, producing over $500,000 of EBITDA on an annual basis, assuming the same level of 2014 revenues of $2.9 million.

## Financials

**FY 2014 results**

Revenues were 55.6 million, representing a growth of 12.5% from 49.4 million in FY 2013. Diagnostic Services' revenues increased on a yearly basis by 13.4% to 42.2 million. Revenues from Diagnostic Imaging increased 9.8% to 13.4 million.

Gross Margins slightly improved to 29.92% from 28.59% in FY 2013, while EBITDA margins more than doubled to 9.61%. Gross margins for Diagnostic Services slightly decreased from 25.27% to 24.88% in FY 2014, while they significantly improved for Diagnostic Imaging, from 39.34% to 46.27%.

Operating Cash Flows were $4.3 million versus $2.2 and -$1.1 in 2013 and 2012, respectively. The strong cash flow generation allows Digirad to accumulate reserves ($22 million as of Dec. 31 2014) for future acquisitions and growth opportunities. It also permits to yield an annual 5% to shareholders with a $0.05 quarterly dividend.

In Q4 2014 earning call, Digirad's CEO Matthew Molchan said he was very excited as the company moves forward in 2015, which he expects to be a record year in profit. Fiscal 2015 guidance was between $61 and $63 million in revenues, representing a growth of up to 13.3% year over year.

## Valuation

Based on a multiples valuation, Digirad appears undervalued. Indeed, 7/8 of the multiples used shows that Digirad trades at lower levels than its competitors.

| | High | Low | Mean | Median | Digirad Corporation | Premium / Discount |
|---|---|---|---|---|---|---|
| TEV/Total Revenues LTM - Latest | 32.3x | 0.7x | 8.1x | **2.1x** | **1.2x** | -43% |
| TEV/EBITDA LTM - Latest | 161.8x | 5.5x | 35.5x | **13.7x** | **12.4x** | -9% |
| TEV/EBIT LTM - Latest | 187.3x | 8.2x | 54.9x | **28.4x** | **19.5x** | -31% |
| P/Diluted EPS Before Extra LTM - Latest | 207.9x | 7.7x | 52.4x | **15.7x** | **34.8x** | 122% |
| P/TangBV LTM - Latest | 21.5x | 2.5x | 8.7x | **4.3x** | **2.9x** | -33% |
| NTM TEV/Forward Total Revenue (Capital IQ) | 19.86x | 0.65x | 7.97x | **2.46x** | **1.09x** | -56% |
| NTM TEV/Forward EBITDA (Capital IQ) | 91.73x | 5.12x | 30.10x | **13.67x** | **10.88x** | -20% |
| NTM Forward P/E (Capital IQ) | 95.66x | 14.46x | 55.06x | **55.06x** | **20.55x** | -63% |

The average discount compared to peers' multiples is 17%. That is the minimum upside for this undiscovered, cash generating stock. Considering the strong growth prospects in the low end double digit range, the dividend yield, and the management's focus on creating shareholder value, this stock is set for solid appreciation in 2015.

# Enphase Energy, Inc.

NasdaqGM:ENPH

**Analyst:** Ryan Ahlers
**Sector:** Industrials

## BUY

Price Target: $16.50

## Key Statistics as of 3/31/15

| | |
|---|---|
| Market Price: | $13.17 |
| Industry: | Electrical Equipment |
| Market Cap: | $580.58 M |
| 52-Week Range: | $17.97 - $6.82 |
| Beta: | 0.25 |

## Thesis Points:

- Increasing growth domestically and internationally
- Increasing customer diversification will fuel more revenue growth
- Continuous product innovation → industry leader
- Debt Free and increasing margins will add value

## Company Description:

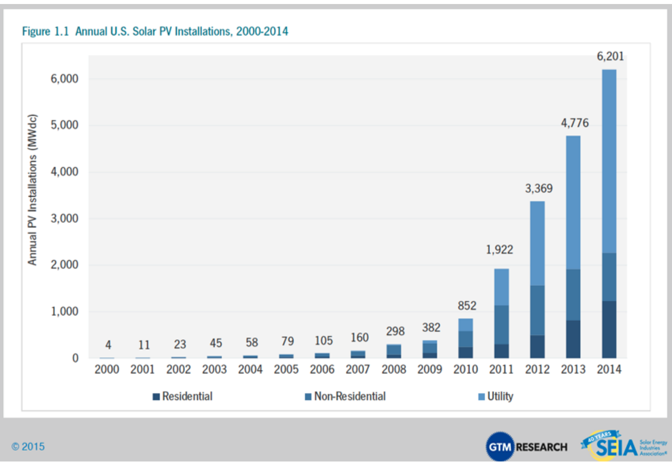
Enphase Energy, Inc. develops and sells microinverter technology for the solar photovoltaic industry domestically (United States) and internationally. Enphase Energy is the first company to invent and create microinverters which contrast the conventional string and central solar inverters. The solar inverters are necessary to convert direct current (DC) generated by a single solar module to alternating current (AC) to power electronics. Enphase Energy is operated by a management team that has extensive background and knowledge in the field of energy electrical equipment. CEO, Paul Nahi, was previously CEO of two semiconductor companies prior to coming to Enphase. Co-founder and Chief Technology Officer, Martin Fornage, has extensive experience and research in designing cost effective electronics susceptible to harsh environments. Co-founder, Vice President of Products and Strategic Initiatives, Raghu Belur, has more than 20 years of experience in the clean energy technology industry. Enphase Energy sells its microinverters directly to installers, distributors and strategic partners. Enphase Energy, Inc. was founded in 2006 and is headquartered in Petaluma, California.

## Thesis

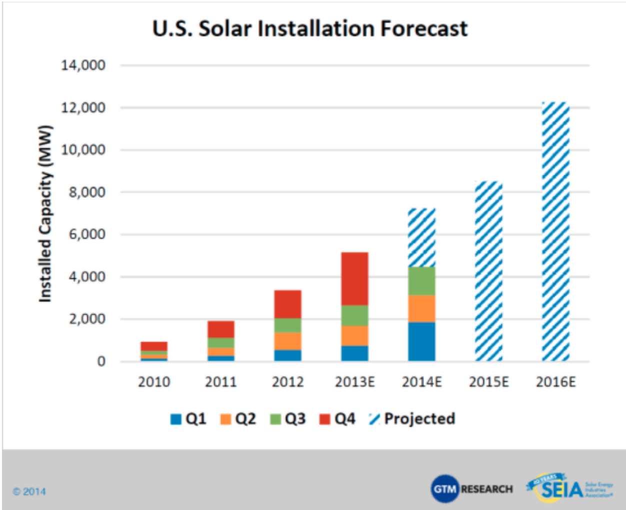
Enphase Energy is the leader in microinverter technology for the photovoltaic industry and will continue to be with their continuous product innovation. They have rapidly grown with revenue increasing 47% from 2013 to 2014. Enphase will continue to grow due to their increasing market share domestically and internationally. As well, Enphase is increasing their customer diversification by expanding to commercial businesses, fueling more growth. As Enphase moves forward in the next year margins are expected to improve as revenue grows and costs reduction plans continue.

## Industry Outlook

The solar energy industry has been rapidly growing over the past decade in the United States and worldwide. As can be seen in the graph below, the United States has increased their annual photovoltaic installations from 3,369 megawatts in 2012 to 4,776 megawatts in 2013 to 6,201 megawatts in 2014. This growth is attributed to strong demand from residential consumers, but even more from commercial consumers.




The growth among the solar technology industry is expected to continue into the near future as demand continues to increase and the price of photovoltaic cells decreases. As can be seen in the graph below, it is projected by 2016 the annual photovoltaic installations could increase to over 12,000 megawatts.



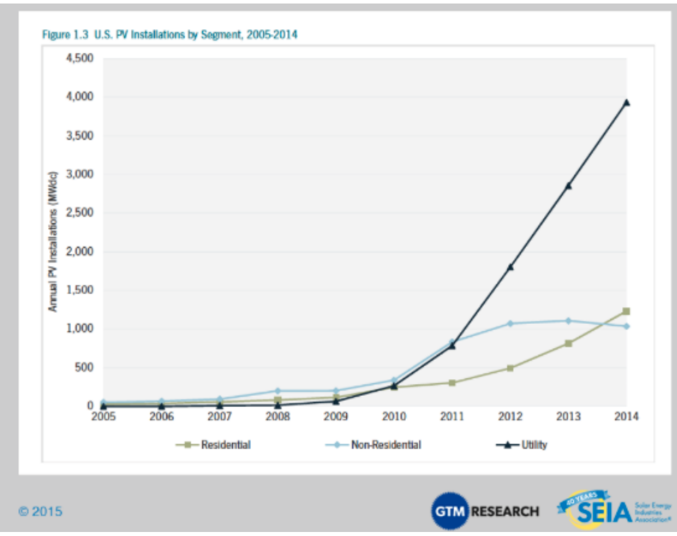

## Increasing Growth Domestically and Internationally

A major catalyst that will drive growth for Enphase Energy is their initiative to continue expanding domestically and internationally. According to Enphase CEO, Paul Nahi, "The global demand for solar continues to grow rapidly according to the International Energy Agency or IEA the world added more solar PV capacity during 2013 than in the previous four decades. The total global installed capacity was over 150 gigawatts in early 2014. The IEA envisions solar to be a dominant source of power generation in the world by 2050." Currently, Enphase Energy has a U.S. versus international mix of 85:15, which has been the ratio for the past year. By the end of 2015, management plans to have the ratio adjusted towards a mix of 80:20 and within 3-5 years a mix of 50:50.

For instance, in the United Kingdom fourth quarter revenue increased 87% year-over-year and will continue to grow as Enphase expands their distribution channel with major residential installers. Australia and New Zealand also had a fourth quarter revenue increase of 25%. As Enphase increases their market share internationally, it allows for more opportunity for revenue growth.

## Increasing Customer Diversification

Enphase is currently selling to the seven out of the top-10 Tier 1 installers in the U.S. residential market. In addition, their market share is increasing with the Tier 2 installers as well as with the thousands of smaller installers across the country. Currently, the majority of Enphase Energy's customers are the residential and small commercial market, but Enphase is creating products to sell and accommodate the large commercial market as well. Entering into the large commercial market will be a huge catalyst for Enphase's revenue growth. Currently, about 85% of Enphase's revenue comes from the residential market and the remaining 15% comes from the small commercial market. This shows that there is a tremendous growth opportunity for Enphase in the overall commercial market, especially the large commercial market. In order to enter the large commercial market Enphase Energy created microinverters to meet the specific needs of the market. CEO Paul Nahi explains, "The C250, the product we just introduced, is the product that is purposely built for large commercial market, it has the features and functions that we haven't had to address before. So, that will certainly change our presence in the large commercial market." As one can see in the graph below, commercial solar activity (the black line) is growing at an extreme rate and is a perfect opportunity for Enphase Energy to enter the large commercial solar market.




## Continuous Product Innovation

Enphase Energy is in the electrical equipment industry and as with anything technological there must be a constant effort for innovation in order to keep products updated. From 2013 – 2014 Enphase increased their Research & Development expense 31.5% from $34.5 million to $45.4 million in an effort to keep their position as and industry leader.

Conveniently, Enphase Energy has recently released what their R&D expense has been going towards and where the company is headed: The Enphase Energy Management System. The Enphase Energy Management System will set Enphase apart even more from their competitors in the microinverter industry because they are positioning themselves to become more than just a microinverter provider. Ultimately, the management system will allow Enphase to enter the energy storage market, which is the idea of taking the energy produced from solar panels and storing the energy in batteries for when it is needed. What is exciting about this is the storage market, for residential/commercial use, does not really exist yet. CEO Paul Nahi explains, "This system offers powerful energy generation, plug and play storage, advanced control capabilities and load management to provide a better return on investment for system owners." The entire system adds new elements to solar energy, which has never been seen before in the market. Enphase Energy believes the storage business will be a multibillion-dollar market within the next five years and that it is essential in helping solar gain broader acceptance and higher penetration. Enphase Energy is the pioneer of the storage market and as it grows their revenue will grow, as well. The Enphase Energy Management System will be a major catalyst for the companies growth.

## Debt Free / Increasing Margins

When looking at the financials of Enphase Energy a notable feat is their debt was paid off in 2014. This debt free structure means there is no risk of not being able to pay interest payments, ridding Enphase of the possibility of default and they will have less expenses moving forward.

Another major catalyst and value driver for Enphase is management's goal to continue increasing margins. For example, Enphase has steadily increased their EBITDA margin to positive levels from -11.81 in 2012 to -6.52 in 2013 to 1.11 in 2014. As Enphase continues to innovate and create new products, they are also implementing a cost reduction plan for their products. Therefore, as Enphase grows and revenue increases, costs will be decreasing at the same time, increasing their margins. As Enphase's margins increase the value of Enphase will increase as well.

## Conclusion

Enphase Energy is the leader in microinverter technology, a necessity for the growing photovoltaic industry. They have constant innovation of new products and ideas that will keep them in front of their competitors. Enphase is rapidly increasing their growth both domestically and internationally, as well as increasing their customer diversification to penetrate the market even deeper to fuel growth. Management is doing all of this while staying debt free, controlling their costs and increasing their margins. Enphase Energy is a company that will continue to rapidly grow and innovate and because of these reasons the company is a BUY.

Sources:
The Bloomberg Terminal
Capital IQ
SEIA.org
Enphase Energy Inc. Earnings Call Q3, Q4 2014
Enphase.com

Siena Market Line
1st week of April 2015

# CENTER FOR GLOBAL FINANCIAL STUDIES

| Enphase Energy, Inc. enph | Analyst | Current Price | Intrinsic Value | Target Value | Divident Yield | Target Return | NEUTRAL |
|---|---|---|---|---|---|---|---|
| | Ryan Ahlers | $13.17 | $13.23 | $16.49 | 0% | 25.22% | |

**General Info**

| | |
|---|---|
| Sector | Industrials |
| Industry | Electrical Equipment |
| Last Guidance | Feb-17-2015 |
| Next earnings date | NM |

**Peers**

| Peers | | Market Cap. |
|---|---|---|
| SolarCity Corporation | | $4,885.62 |
| First Solar, Inc. | | $6,086.72 |
| Acuity Brands, Inc. | | $7,484.27 |
| Fronius International GmbH | | |
| | 0 | $0.00 |
| | 0 | $0.00 |
| | 0 | $0.00 |
| | 0 | $0.00 |
| | 0 | $0.00 |
| | 0 | $0.00 |

**Management**

| Professional | Title | Comp. FY2012 | Comp. FY2013 | Comp. FY2014 |
|---|---|---|---|---|
| Nahi, Paul | Chief Executive Officer, Presiden | $ 1,893,546.00 | $ 1,655,800.00 | $ 2,612,250.00 |
| Sennesael, Kris | Chief Financial Officer, Principal | $ 1,452,720.00 | $ 547,116.00 | $ 1,523,858.00 |
| Loebbaka, Jeff | Senior Vice President of Global S | $ 864,641.00 | $ 813,194.00 | $ 1,604,608.00 |
| Fornage, Martin | Co-Founder and Chief Technolo | $ - | $ - | $ - |
| Belur, Raghuveer | Co-Founder and Vice President | $ - | $ - | $ - |
| Spencer, Darien | Vice President of Manufacturing | $ - | $ - | $ - |

**Market Data**

| | |
|---|---|
| Enterprise value | $538.55 |
| Market Capitalization | $580.58 |
| Daily volume | 0.34 |
| Shares outstanding | 43.92 |
| Diluted shares outstanding | 42.90 |
| % shares held by institutions | 49.56% |
| % shares held by insiders | 2.67% |
| Short interest | 11.84% |
| Days to cover short interest | 6.10 |
| 52 week high | $17.97 |
| 52-week low | $6.82 |
| 5y Beta | 0.25 |
| 6-month volatility | 81.87% |

**Current Capital Structure**

| | |
|---|---|
| Total debt/market cap | 0.00% |
| Cost of Borrowing | 0.00% |
| Interest Coverage | -227.00% |
| Altman Z | 3.64 |
| Debt Rating | D |
| Levered Beta | 1.22 |
| WACC (based on market value weights) | 8.55% |

**Historical Performance**

| | enph | Peers | Industry | All U.S. firms |
|---|---|---|---|---|
| Growth | 24.7% | | 6.0% | 6.0% |
| Retention Ratio | 0.0% | | 40.9% | 61.6% |
| ROIC | | | 29.6% | 11.8% |
| EBITA Margin | 0.0% | #VALUE! | 11.3% | 13.7% |
| Revenues/Invested capital | 156.1% | | 153.0% | 202.3% |
| Excess Cash/Revenue | #DIV/0! | #VALUE! | 15.9% | 18.5% |
| Unlevered Beta | -0.24 | 2.04 | 1.19 | 0.95 |
| TEV/REV | 1.0x | | 2.0x | 2.4x |
| TEV/EBITDA | 145.1x | | 10.9x | 11.3x |
| TEV/EBITA | | | 13.4x | 15.4x |
| TEV/UFCF | | | 26.5x | 26.8x |

**Past Earning Surprises**

| | Revenue | EBITDA | Norm. EPS |
|---|---|---|---|
| Last Quarter | 4.8% | 120.4% | 133.3% |
| Last Quarter-1 | 4.2% | 22.0% | 14.3% |
| Last Quarter -2 | 14.8% | | |
| Last Quarter -3 | 3.6% | | |
| Last Quarter -4 | 0.9% | | |

**Non GAAP Adjustments**

| | | | |
|---|---|---|---|
| Operating Leases Capitalization | 100% | Straightline | 10 years |
| R&D Exp. Capitalization | 100% | Straightline | 10 years |
| Expl./Drilling Exp. Capitalization | 0% | N/A | N/A |
| SG&A Capitalization | 19% | Straightline | 10 years |

**Proforma Assumptions** / **Forecasted Profitability**

| | | Period | Rev. Growth | Adj. Op. Cost/Rev | Revenue | NOPLAT | Invested capital | UFCF |
|---|---|---|---|---|---|---|---|---|
| Operating. Cash/Cash | 0.0% | LTM | 48% | 83% | $343.90 | $7.54 | $170.34 | $37.83 |
| Unlevered Beta | 1.19 | LTM+1Y | 26% | 80% | $433.82 | $24.11 | $263.22 | -$38.48 |
| Rev/Invested Capital | 153.0% | LTM+2Y | 25% | 77% | $542.27 | $47.42 | $311.09 | -$0.45 |
| Continuing Period Revenue Growth | 3.0% | LTM+3Y | 5% | 77% | $569.02 | $53.25 | $351.75 | $12.59 |
| Long Term ROIC | 14.9% | LTM+4Y | 7% | 77% | $608.44 | $58.87 | $388.81 | $21.80 |
| Invested Capital Growth | Equals to Maintenance | LTM+5Y | 5% | 77% | $641.90 | $62.88 | $421.94 | $29.75 |
| Justified TEV/REV | 2.0x | LTM+6Y | 5% | 77% | $671.62 | $66.54 | $457.16 | $31.31 |
| Justified TEV/EBITDA | 10.9x | LTM+7Y | 4% | 77% | $698.93 | $69.82 | $482.40 | $44.58 |
| Justified TEV/EBITA | 13.4x | LTM+8Y | 4% | 77% | $724.64 | $74.28 | $504.40 | $52.28 |
| Justified TEV/UFCF | 18.0x | LTM+9Y | 3% | 76% | $749.26 | $77.95 | $524.55 | $57.80 |

**Valuation**

| | ROIC | WACC | EVA | Enterprise Value | Total Debt | Other claims | Equity | Adjusted Price |
|---|---|---|---|---|---|---|---|---|
| **LTM** | 3.8% | 8.6% | -$8.16 | $621.92 | $0.00 | $32.35 | $589.57 | $14.19 |
| **LTM+1Y** | 14.2% | 8.6% | $14.54 | $760.04 | $0.00 | $34.81 | $725.23 | $17.24 |
| **LTM+2Y** | 18.0% | 8.7% | $28.92 | $836.22 | $0.00 | -$9.19 | $845.41 | $19.85 |
| **LTM+3Y** | 17.1% | 8.8% | $29.16 | $891.40 | $0.00 | -$61.04 | $952.43 | $22.31 |
| **LTM+4Y** | 16.7% | 8.9% | $30.35 | $944.14 | $0.00 | -$119.38 | $1,063.52 | $24.85 |
| **LTM+5Y** | 16.2% | 9.0% | $30.17 | $993.20 | $0.00 | -$183.64 | $1,176.84 | $27.53 |
| **LTM+6Y** | 15.8% | 9.1% | $30.37 | $1,046.50 | $0.00 | -$248.24 | $1,294.74 | $30.13 |
| **LTM+7Y** | 15.3% | 9.2% | $29.17 | $1,091.18 | $0.00 | -$319.99 | $1,411.17 | $32.68 |
| **LTM+8Y** | 15.4% | 9.3% | $30.62 | $1,136.04 | $0.00 | -$373.67 | $1,509.71 | $34.94 |
| **LTM+9Y** | 15.5% | 9.4% | $31.67 | $1,179.38 | $0.00 | -$432.24 | $1,611.62 | $36.70 |

**Monte Carlo Simulation Assumptions**

| | Base | Stdev | Min | Max | Distribution |
|---|---|---|---|---|---|
| **Revenue Variation** | 0 | 10% | N/A | N/A | Normal |
| **Op. Costs Variation** | 0 | 10% | N/A | N/A | Normal |
| **Market Risk Premium** | 5% | N/A | 5% | 7% | Triangular |
| **Long term Growth** | 3% | N/A | 3% | 25% | Triangular |
| **Terminal Value** | 0 | 0.1 | N/A | N/A | Normal |

**Monte Carlo Simulation Results**

| | Intrinsic Value | 1y-Target |
|---|---|---|
| **Mean est.** | $14.19 | $17.24 |
| **σ(ε)** | $0.32 | $0.25 |
| **3 σ(ε) adjusted price** | $13.23 | $16.49 |
| **Current Price** | $13.17 | |
| **Analysts' median est.** | | $17.06 |

## Groupon

GRPN:NasdaqGS

**Analyst:** Skyler Scavone
**Sector:** Technology

## BUY

Price Target: $10.17

## Key Statistics as of 4/2/2015

| | |
|---|---|
| Market Price: | $7.02 |
| Industry: | Internet Information Providers |
| Market Cap: | $4.770 B |
| 52-Week Range: | $5.18-8.43 |
| Beta: | 1.29 |

## Thesis Points:

- TicketMonster sale creating value which could lead to a buyback or special dividend
- Strong market prospects and shift from push to pull strategy leading to revenue and margin growth
- Superior growth in comparison to peers suggesting undervaluation

## Company Description:

Groupon, Inc. operates online local commerce marketplaces that connect vendors to consumers by offering goods and services at a discount around the globe. It also, in some cases, offers deals in which it acts as the merchant on record. The company offers deals in vast varies including food and drink, events and activities, beauty and spa, health and fitness, home and garden, and automotive; product lines containing electronics, sporting goods, jewelry, toys, household items, and apparel mustn't be forgotten; feature items available include hotels, airfare, and package deals; and tools, such as payments and credit card payment processing service, as well as point-of-sale solutions to merchants. Deals are sold through mobile applications and mobile browsers that enable consumers to browse, purchase, manage, and redeems deals on their mobile devices; Websites; emails that are scoped by location, purchase history, and personal preferences; and search engines among others. In 2008, the company changed its name from ThePoint.com, Inc. to Groupon, Inc. and is headquartered in Chicago, Illinois.

## Thesis

Groupon, Inc is a leading company in the discount market place that has shown rapid growth since its inception, despite a lack of shareholder returns (fallen over 60% since IPO). With the tricky nature of its business profits have eluded Groupon in the first few years, but strong diversification categorically and geographically with top line growth has the company projecting its first year of profits. With the shift to a more reliable, long term strategy of "pulling" customers Groupon has seen some headwind resulting in the market capitalization to deteriorate over 30% in the past year. With the bright prospects of the TicketMaster acquisition, the complete fruition of the "pull" strategy, and improving financials in comparison to peers, GRPN is a BUY at $7.02 with a price target of $10.17 (+44%).

## Management Team

Upon quickly perusing the Groupon team it becomes apparent how the firm has sustained such growth in recent years. Much of the well qualified management team has migrated from internet giants such as Google and Amazon, a feat that should instill confidence in potential Groupon investors. An overview:

Eric Lefkofsky (CEO, co-founder): also a co-founder of EchoHoldings ($ECHO 620M), InnerWorkings Inc. ($INWK, 360M). Lawyer, author, adjunct professor at Booth. Net worth $1.5B net worth, turned down Google buyout: committed

Rich Williams (President): Overseen some of the largest online marketing programs in the world, including analytics and technology. Immediately prior to Groupon, he ran Worldwide Marketing and Advertising at Amazon. Prior to that he spent 7 years developing marketing programs and technologies at Experian

Jason Harinstein (SVP of Corporate Development): Prior to Groupon worked in Corporate Development at Google, led the DoubleClick acquisition ($3.1B), MBA from Booth.

Jason Child (CFO): held a number of senior positions at Amazon.com including CFO and VP of Finance, International. C.P.A.

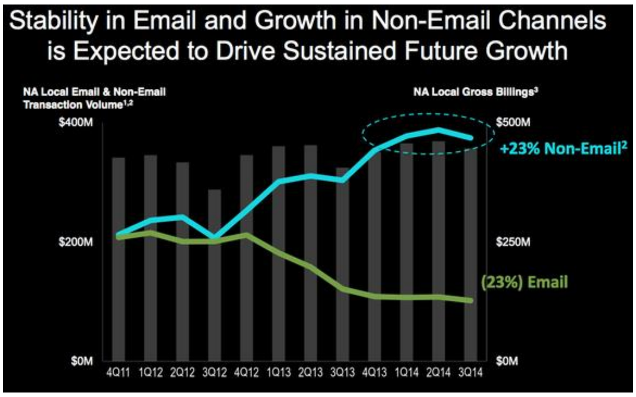
## TicketMonster Prospects

On January 2, 2014, Groupon acquired LivingSocial Korea, Inc. a Korean corporation and holding company of Ticket Monster Inc., for total consideration of $259.4 million, consisting of $96.5 million cash and 13,825,283 shares of Class A common stock with an acquisition date fair value of $162.9 million. CEO Lefkofsky suggested in October that the company was considering selling a stake in Ticket Monster. For Ticket Monster, South Korea's second-largest mobile commerce company to Coupang, a stake sale would give it a much-needed infusion of cash to scale up its operations and marketing in efforts to better compete. Rapidly growing TicketMonster is supposedly being valued at $1B, certainly not reflected in the current price of Groupon which is lower than when these talks began at the end of the 2014 calendar year. It should be noted that Coupang secured $300 million of fresh capital late last year from investors, including asset manager BlackRock Inc. in a deal that valued Coupang, at about $2 billion. However, Coupang is only the slightly bigger company, recording $1.8 billion in gross merchandise value in 2014, compared with Ticket Monster's $1.6 billion over the same period. A positive for Groupon who only spent $260m in the purchase.

Let's take a look at the prospects of TicketMonster without the stake sell scenario. The ecommerce market in South Korea is one of great promise. The country is the most connected in the world with nearly 80% of the country's 49m population online, and more than 75% of all people having smart phones with 98% of 18-24 year olds. Overall "mobile penetration rate" is greater than 100%, implying more than one connection per person. South Koreans have the fastest Internet speed in the world, with an average connection rate of 13.3mbps, making ecommerce sales here easier and faster than ever. Each of these factors contributes to the rapid recent growth of TicketMonster from 0 revenues to $24m in the past 4 years and a break-even performance last year according to adjusted EBITDA (excluding SBCs and depreciation). Regardless of if the buyout happens, TicketMonster is still a strong component for the Groupon arsenal and is not reflected in a share price that is lower than before the acquisition.

## Change to "pull" strategy

Upon inception Groupon relied on a strategy known as "push" marketing where sales are generated through massive amounts of emails sent to potential customers. While this worked well initially, email transactions began to drop. With email being 48% of all transactions in 4Q11, this lessening of the push strategy effectiveness (some decay can be attributed to GRPN's shifting of strategy) called for a change. This shift in NA local transactions can be seen here:

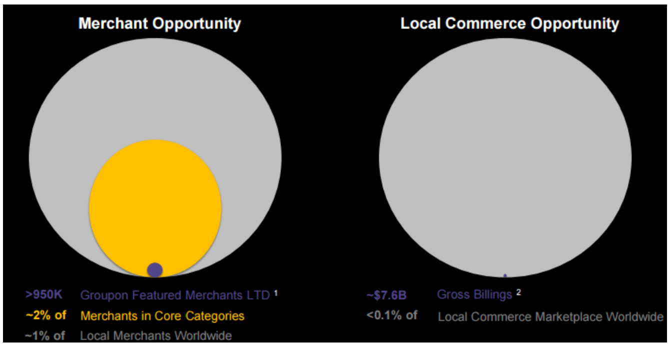



The new "pull" strategy shows an evolution from primarily an email-based push model with a limited number of deals offered at any given time, to more extensive online pull marketplaces. This enables consumers to come across deals via a search engine, then search for deals and explore the Groupon marketplace.

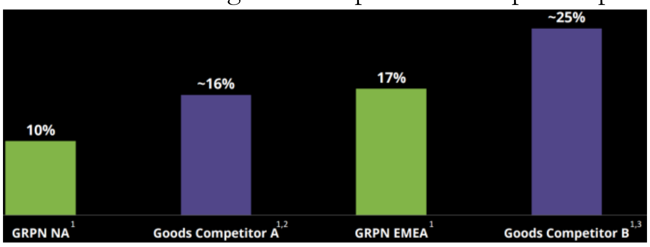
More specifically, from 3Q13 to 3Q14 the % of NA transactions "related to search" rose from 9% to 24%, while the % of NA traffic that searched rose from 6% to 10% of this period. This means that this method is sticking; people are stumbling upon Groupon offerings through searches, and are more actively searching once they are in the marketplace. This has led to a shift from 52% non-email transactions in 4Q11 to 78% in 3Q14. Less than 10% of TicketMonster sales are via e-mail, indicating that this acquisition will not slow the shift to non-email transactions. Also contributing to the establishment of this Groupon marketplace is "Pages". This recently launched platform is used to publish ratings and helpful tips from customers to highlight the unique aspects of local merchants, including merchants that have not yet offered deal. It also allows customers to submit requests for a deal from a specific business allowing the merchant to see the demand for such a deal instantaneously. In the 4Q earnings call Lefkofsky said:

"We've now released about 800,000 pages to be indexed on Google. That's up from 500,000 a quarter ago. We have about 800,000 people that have now [requested] a deal or [followed] a merchant. That's doubled in the past quarter from 400,000. We've collected nearly an additional 5 million tips and reviews and ratings. We were at 20 million. We're now at nearly 25 million ... we've got millions of visitors coming to these pages ... they are absolutely performing as we would have hoped." Pages is a young initative that will help boost sales, customer retention, and merchants avaiable.

Coupled with the shift to a pull strategy was a refocus on the local segment which grew less than 2% in FY13 but was up 14% in 4Q14. However, there is still much room to grow in this high margin segment:




Comparing this past 4Q YoY, the local segment's share of gross billings fell from 52% to 43%, with goods rising from 37% to 46%, and travel remaining at 11%. Over FY14, local had a gross margin of 31.43%, compared to 10.19% from goods, and 14.9% from travel. One might wonder why a company would shift product share from the higher margin segment, the answer is to grow. Groupon started out as local deals, but once they put 6 products in an email and had over 30k units sold in 3 days the choice to add a goods segment was made. Rapidly growing this segment caused growth in the local segment to stagnate temporarily, but it has reignited in 4Q. Also contributing to future margins is an improving margin in the goods segments thanks to an increase in scale and other factors; the average gross margin in the past 5 quarters for NA goods was 8.4%, with 4Q yielding a 10% so margin improvements are being seen. However, there is also still room to go as Groupon catches up to its peers:



Management has said the biggest factors for the good's margin have not yet been fully implemented including more scale, products per box, as well as drop-shipping.

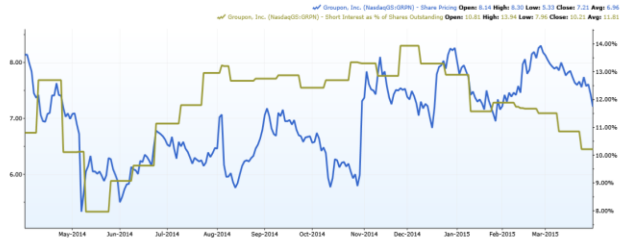
The above graphic also brings about another curious question with superior margins but less segmental share in the EMEA region. In the past 5 quarters the EMEA segment has yielded an average operating margin of 5.6% compared to 2.2% in North America. As of 4Q14 NA YoY revenue grew 24% compared to EMEA's 8%. However, this trend is changing with an abysmal first 3 quarters in ESEA, QoQ revenue growth in the last quarter was 18%. Management has said it thinks the region's local business (highest margin) is lagging about a year behind which calls for billings to pick up at the end of this year. Mobile growth will also be a tailwind for margins going forward. In 4Q11 15% of orders were via mobile devices compared to 63% in 3Q14. On average, mobile customers generate over $70 additional annual gross billings, indicating a free source of margin growth. Despite the vast number of changes and advances in the past year, gross margins in the next 2 years expected to drop .9 bps and .3, respectively. This with expected sales growth this year of 10.9% much lower than the 24% growth seen last year. It seems these are a bit understated with the market expecting massive drops in revenue growth after the inception of the goods segment this year, however as previously explained positive outlooks in other segments should offset some of this expected large drop in revenue growth.

## Strong comparative performance

In the past year Groupon has outperformed its much larger peers in Ebay and Amazon, but the market has not reflected this. The company's annual revenue growth in the last quarter came in at 25%, compared to 18% growth at Amazon and just 9% at eBay. In terms of core, billings growth GRPN also outperformed at a 36% increase compared to 27% and 21% for Amazon and Ebay respectively. Groupon's overall operating margin matches Amazon at 2% at a much younger stage and a market capitalization that is 3% of AMZN's. Groupon also showed impressive operating cash flow improvements specifically in the last earnings report with a 160% increase compared to 33% and 7% for Amazon and Ebay. Since April 1 2014, Groupon shares have fallen 13% and Amazon has appreciated 9%, with Ebay at the same levels. Institutional investors, however, are noticing this attractive price (3/23/14-4/1/15):

| 51) Institutional | 03/23 | 04/01 | Change |
|---|---|---|---|
| 11) % of Shares Held | 71.92 | 85.16 | +13.24 |

Additionally, bears are also realizing the positive horizon for Groupon:



One can notice the falling % of shares hold short compared to the latter stages of 2014.

Another thing to think about is Google's offer of $6B which Groupon turned down in 2010. With not exactly the ideal performance since then leading to a ~30% fall in 2014, coupled with GRPN's strong cash position, it would not be out of the question for Google to reconsider such an acquisition which could be done for nearly the same price offered in 2010. Additionally, Google has recently started Google Offerings which directly competes with Groupon and could be streamlined with such an acquisition.

## Valuation

Generally speaking, Groupon's management provides conservative sales estimates beating the last 6 of 8 times. The valuation attached assumes a conservative year over year growth rate in sales of 11% for FY2015 (guidance 11%) much lower than the 2014 rate of 24%. An 11% is growth chosen for FY2016 (guidance 13%), and 10% for FY2017. It assumes a long term growth rate of 5%, much lower than the historical peer growth. It assumes that total operating costs will be 87% of the revenues in FY2015, will drop to 86% FY2016 to reach a long term of 85%. Even if Goods' portion of sales are increasing and margins there are lower, scale and increases in the high margin travel segment Travel as well as drop-ships can offset this. Furthermore, conservative multiples (Justified TEV/Revenue,EBITDA,EBIT,UFCF) with respect to peers were chosen.

# CENTER FOR GLOBAL FINANCIAL STUDIES

| Groupon, Inc. | GRPN | Analyst | Current Price | Intrinsic Value | Target Value | Divident Yield | Target Return | BULLISH |
|---|---|---|---|---|---|---|---|---|
| | | Skyler Scavone | $7.02 | $8.80 | $10.17 | 0% | 44.91% | |

**General Info**

| | |
|---|---|
| Sector | Consumer Discretionary |
| Industry | Internet and Catalog Retail |
| Last Guidance | Feb-12-2015 |
| Next earnings date | NM |

**Market Data**

| | |
|---|---|
| Enterprise value | $3,837.83 |
| Market Capitalization | $933.35 |
| Daily volume | 0.86 |
| Shares outstanding | 675.36 |
| Diluted shares outstanding | 674.83 |
| % shares held by institutions | 77.02% |
| % shares held by insiders | 23.39% |
| Short interest | 10.21% |
| Days to cover short interest | 6.02 |
| 52 week high | $8.43 |
| 52-week low | $5.18 |
| 5y Beta | 1.10 |
| 6-month volatility | 47.69% |

| Peers | Market Cap. |
|---|---|
| Coupons.com Incorporated | $971.10 |
| Expedia Inc. | $11,928.15 |
| RetailMeNot, Inc. | $985.52 |
| eBay Inc. | $69,945.71 |
| Yelp, Inc. | $3,526.77 |
| zulily, Inc. | $1,623.63 |
| TripAdvisor Inc. | $11,887.21 |
| Amazon.com Inc. | $172,797.29 |
| Liberty TripAdvisor Holdings, Inc. | $2,372.80 |
| Orbitz Worldwide, Inc. | $1,302.52 |

**Current Capital Structure**

| | |
|---|---|
| Total debt/market cap | 1.00% |
| Cost of Borrowing | 3.81% |
| Interest Coverage | -1496.47% |
| Altman Z | 2.95 |
| Debt Rating | AAA |
| Levered Beta | 1.27 |
| WACC (based on market value weights) | 9.07% |

**Management**

| Professional | Title | Comp. FY2012 | Comp. FY2013 | Comp. FY2014 |
|---|---|---|---|---|
| Lefkofsky, Eric | Co-Founder, Chief Executive Of | $ 200,000.00 | $ 7,109,996.00 | $ - |
| Keywell, Bradley | Co-Founder, Independent Direc | $ 210,000.00 | $ 210,000.00 | $ - |
| Child, Jason | Chief Financial Officer | $ 729,175.00 | $ 5,322,107.00 | $ - |
| Srinivasan, Kalyanaraman | Chief Operating Officer | $ 8,344,913.00 | $ 6,139,492.00 | $ - |
| Schellhase, David | Strategic Advisor | $ 2,596,227.00 | $ 3,768,435.00 | $ - |
| Stevens, Brian | Chief Accounting Officer | $ - | $ - | $ - |

**Historical Performance**

| | GRPN | Peers | Industry | All U.S. firms |
|---|---|---|---|---|
| Growth | 692.3% | 20.6% | 6.4% | 6.0% |
| Retention Ratio | 0.0% | 166.0% | 43.4% | 61.6% |
| ROIC | | 10.5% | 15.7% | 11.8% |
| EBITA Margin | 0.0% | 14.6% | 10.4% | 13.7% |
| Revenues/Invested capital | 3062.6% | 158.5% | 410.7% | 202.3% |
| Excess Cash/Revenue | #DIV/0! | 16.5% | 16.4% | 18.5% |
| Unlevered Beta | 0.70 | 1.93 | 1.30 | 0.95 |
| TEV/REV | 2.0x | 2.8x | 2.5x | 2.4x |
| TEV/EBITDA | 48.0x | 24.6x | 16.0x | 11.3x |
| TEV/EBITA | 69.0x | 29.9x | 20.2x | 15.4x |
| TEV/UFCF | 1016.5x | 69.0x | 23.8x | 26.8x |

**Past Earning Surprises**

| | Revenue | EBITDA | Norm. EPS |
|---|---|---|---|
| Last Quarter | 1.8% | -5.2% | 100.0% |
| Last Quarter-1 | 1.1% | 10.8% | 200.0% |
| Last Quarter -2 | -1.4% | 1.1% | 0.0% |
| Last Quarter -3 | 2.4% | 13.8% | |
| Last Quarter -4 | 6.9% | -5.7% | 100.0% |

**Non GAAP Adjustments**

| | | | |
|---|---|---|---|
| Operating Leases Capitalization | 100% | Straightline | 10 years |
| R&D Exp. Capitalization | 100% | Straightline | 10 years |
| Expl./Drilling Exp. Capitalization | 0% | N/A | N/A |
| SG&A Capitalization | 5% | Straightline | 10 years |

**Proforma Assumptions**

| | |
|---|---|
| Operating. Cash/Cash | 0.0% |
| Unlevered Beta | 1.20 |
| Rev/Invested Capital | 190.0% |
| Continuing Period Revenue Growth | 5.0% |
| Long Term ROIC | 12.4% |
| Invested Capital Growth | Equals to Maintenance |
| Justified TEV/REV | 2.0x |
| Justified TEV/EBITDA | 13.0x |
| Justified TEV/EBITA | 20.0x |
| Justified TEV/UFCF | 25.0x |

**Forecasted Profitability**

| Period | Rev. Growth | Adj. Op. Cost/Rev | Revenue | NOPLAT | Invested capital | UFCF |
|---|---|---|---|---|---|---|
| LTM | 24% | 89% | $3,191.69 | $74.07 | $233.20 | $333.72 |
| LTM+1Y | 11% | 87% | $3,549.16 | $149.75 | $698.95 | -$56.36 |
| LTM+2Y | 11% | 86% | $3,932.47 | $212.81 | $710.39 | $201.36 |
| LTM+3Y | 10% | 85% | $4,338.24 | $274.77 | $712.86 | $272.30 |
| LTM+4Y | 9% | 85% | $4,706.99 | $334.12 | $718.35 | $328.63 |
| LTM+5Y | 8% | 85% | $5,078.84 | $366.25 | $713.30 | $371.30 |
| LTM+6Y | 7% | 85% | $5,429.28 | $390.90 | $829.89 | $274.32 |
| LTM+7Y | 6% | 85% | $5,749.61 | $415.93 | $829.24 | $416.57 |
| LTM+8Y | 5% | 85% | $6,065.84 | $440.02 | $817.62 | $451.65 |
| LTM+9Y | 5% | 85% | $6,369.13 | $464.00 | $797.50 | $484.11 |

**Valuation**

| | ROIC | WACC | EVA | Enterprise Value | Total Debt | Other claims | Equity | Adjusted Price |
|---|---|---|---|---|---|---|---|---|
| **LTM** | 15.0% | 9.1% | $13.89 | $5,777.02 | $38.26 | -$624.90 | $6,363.66 | $9.76 |
| **LTM+1Y** | 64.2% | 9.2% | $384.73 | $6,758.11 | $38.26 | -$555.08 | $7,274.93 | $10.92 |
| **LTM+2Y** | 30.4% | 9.3% | $150.48 | $6,892.27 | $38.26 | -$749.67 | $7,603.68 | $11.51 |
| **LTM+3Y** | 38.7% | 9.4% | $208.95 | $7,302.20 | $38.26 | -$1,018.50 | $8,282.44 | $12.53 |
| **LTM+4Y** | 46.9% | 9.5% | $268.67 | $7,692.27 | $38.26 | -$1,351.53 | $9,005.54 | $13.58 |
| **LTM+5Y** | 51.0% | 9.5% | $295.56 | $8,045.35 | $38.26 | -$1,664.83 | $9,671.92 | $14.59 |
| **LTM+6Y** | 54.8% | 9.7% | $374.71 | $8,536.22 | $38.26 | -$1,813.41 | $10,311.37 | $15.48 |
| **LTM+7Y** | 50.1% | 9.7% | $334.76 | $8,859.00 | $38.26 | -$2,088.84 | $10,909.57 | $16.41 |
| **LTM+8Y** | 53.1% | 9.9% | $353.27 | $9,256.13 | $38.26 | -$2,389.40 | $11,607.26 | $17.45 |
| **LTM+9Y** | 56.7% | 9.9% | $373.29 | $9,655.78 | $38.26 | -$2,711.08 | $12,328.60 | $18.25 |

**Monte Carlo Simulation Assumptions**

| | Base | Stdev | Min | Max | Distribution |
|---|---|---|---|---|---|
| **Revenue Variation** | **0** | **10%** | **N/A** | **N/A** | **Normal** |
| **Op. Costs Variation** | **0** | **10%** | **N/A** | **N/A** | **Normal** |
| **Market Risk Premium** | **6%** | **N/A** | **5%** | **7%** | **Triangular** |
| **Long term Growth** | **5%** | **N/A** | **3%** | **692%** | **Triangular** |
| **Terminal Value** | **0** | **0.1** | **N/A** | **N/A** | **Normal** |

**Monte Carlo Simulation Results**

| | Intrinsic Value | 1y-Target |
|---|---|---|
| **Mean est.** | $9.76 | $10.92 |
| **σ(ε)** | $0.32 | $0.25 |
| **3 σ(ε) adjusted price** | $8.80 | $10.17 |
| **Current Price** | $7.02 | |
| **Analysts' median est.** | | $8.93 |

•

## NVE Corp.
NYSE:NVEC

**Analyst:** Tom Kaczmarek
**Sector:** Technology

## BUY

Price Target: $81.60

## Key Statistics as of 4/1/2015

| | |
|---|---|
| Market Price: | $68.74 |
| Industry: | Consumer Finance |
| Market Cap: | $333.8M |
| 52-Week Range: | $50.06 - $75.94 |
| Beta: | 0.52 |

## Thesis Points:

- Underestimated growth in growing submarkets
- Most efficient firm in industry
- Focused management team
- New dividend policy
- Poorly covered

## Company Description:

Founded in 1989, Nonvolatile Electronics Corp (NVEC) specializes in the research and production of spintronics based products. The company primarily produces sensors, isolators, couplers, and MRAM which is used for medical devices, memory storage, and electronic components. The small firm of only 54 employees operates extremely efficiently from a small headquarters and laboratory located outside Minneapolis, MN. The company holds over 50 patents pertaining to their stage 1 spintronics products. The company increasingly fulfills research contracts for the development of new sensors and MRAM products for larger companies, leading to an increasingly diverse revenue stream.

## Thesis

NVE Corp (NVEC) is a small but efficient manufacturer and researcher in the field of spintronics technologies used for medical, military, and commercial use. Spintronics technologies are nanoscale sciences which allow for the production of smaller and more efficient storage of memory (solid state MRAM) as well as medical applications for organic and inorganic matter. NVEC's products are not only cutting edge but also the smallest in class, which make the products especially appealing in the medical industry. While historically NVEC has been at the mercy of lumpy order cycles from the medical industry purchase schedule, recent expansion into R&D services will allow the company to achieve a more consistent stream of revenue. NVEC's new product lines increasingly expose the company to the electric vehicle market as well as other semiconductor applications. In an industry poised for growth, NVEC is the most efficient player in the market despite its small footprint. With deployment of new product lines, a more diverse revenue stream, and a planned distribution of cash to shareholders, 2015 will prove to be a year of continued success for NVEC. For these reasons, a BUY is recommended.

## Industry Leading Efficiency

NVE has tremendously outperformed competitors with regards to efficiency. The firm generates an impressive gross margin of 79.2%, partnered with a 45.5% profit margin. The company's efficiency is in part correlated to a business model which helps to mitigate the costs of R&D. NVEC has recently successfully completed research on a salmonella detection system through a stage 1 grant from the National Science Foundation. The company is currently working to acquire a Stage 2 grant from the foundation which would provide NVEC with over $500,000 to conduct additional research. NVEC is able to maintain their market share in the semiconductor industry thanks to their specialization and patented technologies.

| Date | Revenue, Adj | Gross Profit, Adj: Margin % | Net Income, Adj: Margin % |
|---|---|---|---|
| Current/LTM | 28.995M | 79.2014 | 45.7587 |
| FY2014 | 25.935M | 77.9437 | 42.9378 |
| FY2013 | 27.033M | 74.013 | 43.7564 |
| FY2012 | 28.579M | 67.3696 | 39.823 |
| FY2011 | 31.197M | 68.639 | 42.8276 |

Given NVEC's high and stable margins, revenue growth is the primary driver of NVE's stock price. Revenue growth has been inconsistent in the last two years, with revenue decreasing by 5.4% in 2013 and 4.1% in 2014. Recent reports suggest that sales orders from the medical industry have increased substantially in the past quarter, which will partner with the company's new product lines to create a more diverse and dramatically increased revenue stream during 2015. NVE's superior efficiency will directly correlate to the firm's ability to generate impressive earnings and ROE over the next year.

## New Product lines

R&D investments are imperative to maintaining a competitive advantage in an industry known for rapid technological advancement. For NVE, the company has recently expanded dramatically in R&D contracting projects, allowing the company to externally fund R&D activities. While this business segment is currently only accounting for 1.6% of revenues, new customers from the aerospace defense and ballistic missiles industries prove that the firm remains an industry leader in product development and signals the growth of R&D revenue. R&D revenue is not unusual for NVEC, while relied on this segment for over 50% of revenue in the early 2000's. While this segment has fallen off in recent years, contracts indicate that this segment is significantly recovering. R&D revenue is expected to increase to 6% of total revenue for 2015.

In addition to growing R&D revenue, recent product development for NVEC will allow the company to diversify into the electric automotive industry. As the electric car industry rapidly expands, NVEC's new quarter sized couplers (QSOPs) will provide space and energy efficient products to the marketplace of both hybrid electric and entirely electric vehicles. Energy usage and size are two significant advantages which NVEC products provide over competition in a market which could provide for rapid revenue growth.

In order to continue innovation, R&D investments in 2014 increased 39%. These investments resulted in the production of new top of the line couplers, smaller couplers, custom medical device sensors, and a product which will provide for strong unexpected revenue later this year.

Through a partnership with the National Science Foundation, NVEC successfully produced a quicker and more convenient salmonella detection system than is currently available in the marketplace. While the company has mentioned that there is discussion about a partnership with a distributor in the food industry to make this product readily available, analyst growth estimates do not currently expect sales of these products in 2015. When this product becomes commercially available, NVEC's strong network of global distributors would allow for rapid deployment, and unexpected increases in sales.

## Industry Growth

Revenue growth expectations for NVEC are set high for 2015 at an expected rate of 19.1%. This estimate can be easily met and surpassed given the expected growth in the marketplace and initial sales figures given during Q3 earnings. For the first nine months of fiscal 2015, total revenue has increased 15%, product sales increased 14%, and contract R&D revenue increased 124%. These strong growth figures can be indicative of the double digit growth expected this year in the company's 3 major submarkets.

- The nanomedicine market is expecting to grow at a 12.5% CAGR through 2016, with new NVEC sensors and product order cycles helping 2015 sales. By launching salmonella detection sensors through a major distributor, NVEC would generate additional revenue which is not currently expected in revenue expectations.

- The macro-environment for the semiconductor industry is also expected to grow substantially over 2015. Future Horizons expects 11% growth in the market, which would benefit the sale of resistors, couplers, and some sensor products. As seen on page 1, there is a strong correlation between the stock price of NVEC and the PHLX semiconductor index (SOX shown in green).

- With new NVEC products expanding into the electric vehicle market, growth opportunities are plentiful. Navigant Research forecasts an explosive CAGR of 29.3% in the electric and hybrid vehicle market through 2023. The extremely low energy usage provider by NVE's products will make the company a prime producer of couplers and resistors for this emerging market segment.

NVEC is poised for strong revenue growth throughout 2015, manufacturing and researching products in market segments which are forecasting double digit growth throughout the year. With NVE's profit margins remaining at 45%, strong revenue growth will result in a further accumulation of cash in the company.

## Cash Disbursement

NVE's CEO Daniel Baker joined the NVE team in 2001, and the company has performed exceptionally under his control. Baker has made a positive impression with shareholders, dramatically increasing shareholder value over his tenure. When Baker joined the company, shareholder equity was only $2M. Currently, shareholder equity has risen to $104M, up $9.7M in just the last twelve months alone. Baker envisioned the future of NVEC, which at the time was completely dependent upon R&D contracts, and created a diverse product mix which could independently support the company.

Cash and equivalents have increased dramatically year after year, resulting in a current cash balance of $106.2 M, currently accounting for almost one-third of the debt free company's market cap. While significant investments are being made into the company's future R&D, the firm has officially decided to return tens of millions of dollars in cash to shareholders. In the last quarter's earnings report, a special $10 M dividend is being offered to shareholders, equating to $2.06 per share. The company's next dividend is planned to be issued in May, with quarterly dividends extending at least through 2015 averaging $3-5 M per issuance. These dividends are being issued to reduce the company's cash and cash equivalents (including over $90M in marketable securities). Some cash holdings are being reserved for operations and to defend intellectual property, but the company's expected $12-20 M dividend outlay in the next year will be partially recouped through the expected $14.2M profit projected for 2015.


## Competitive Advantage

The small scale of NVEC is unusual considering the complexity of the semiconductor industry, but has allowed the firm unparalleled flexibility. By maintaining a small footprint, NVEC has been able to thrive in the niche market of spintronic couplers, sensors, MRAM and isolators. The company's products gain competitive advantage based on their state-of-the-art miniaturization techniques, which are protected by the company's patents and know-how. Barriers to entry in the specialized field of spintronics are high. Considering the specialized applications of NVEC's products and the applications which are still emerging, large semiconductor manufacturers have not invested significantly into stage 1 spintronics products. Stage 2 spintronics research is currently being conducted by many large companies in order to prepare for future applications of the technology, but material results of these pursuits are not expected in the next few years. While many large companies focus on developing next generation tech, NVEC is facing limited competition in the field of stage 1 spintronics applications.

Consensus about the future of NVEC is becoming increasingly positive, with short interest currently at the firm's 52 week low, 1.82% of float. The company is far more efficient and stable than any peers, holding an Altman Z score of 110 and an average price target of $97.

## Summary

NVE Corp. is the most efficient company in its market, boasting a debt free balance sheet and a profit margin of 45%. With a strong and experienced management team, as well as a diversified and growing revenue stream, NVE will have no foreseeable issues continuing to generate an exceptional ROI to shareholders while also disbursing a significant portion of the firm's cash reserves through dividends. The management team is focused on expanding R&D revenue while accumulating additional patents to remain the leading provider in this market niche. With spintronics being adopted by the nanomedicine and electric vehicle markets, NVEC is in a position to capitalize from strong market growth. For these reasons, a BUY is recommended for NVEC with a price target of $81.60.

| | | | |
|---|---|---|---|
| Sector | Information Technology | American Superconductor Corporat | $68.06 |
| Industry | nductors and Semiconductor Eq | Silicon Laboratories Inc. | $2,205.03 |
| Last Guidance | (Invalid Identifier) | Fairchild Semiconductor Internation | $2,210.68 |
| Next earnings date | 5/6/2015 | | |
| **Market Data** | | Sigma Designs, Inc. | $282.29 |
| Enterprise value | $306.17 | | |
| Market Capitalization | $329.52 | Vishay Intertechnology Inc. | $2,026.14 |
| Daily volume | 0.01 | | |
| Shares outstanding | 4.86 | Pixelworks, Inc. | $120.12 |
| Diluted shares outstanding | 4.87 | | |
| % shares held by institutions | 68.18% | **Current Capital Structure** | |
| % shares held by insiders | 1.78% | Total debt/market cap | 0.00% |
| Short interest | 1.79% | Cost of Borrowing | 0.00% |
| Days to cover short interest | 8.48 | Interest Coverage | |
| 52 week high | $75.94 | Altman Z | 131.06 |
| 52-week low | $50.06 | Debt Rating | AAA |
| 5y Beta | 0.40 | Levered Beta | 0.75 |
| 6-month volatility | 23.83% | WACC (based on market value weig | 6.73% |

| Professional | Title | Comp. FY2012 | Comp. FY2013 | Comp. FY2014 |
|---|---|---|---|---|
| Baker, Daniel | Chief Executive Officer, Pre | $ 320,318.00 | $ 354,183.00 | $ 326,980.00 |
| Reynders, Curt | Chief Financial Officer, Prin | $ 176,699.00 | $ 193,998.00 | $ 180,577.00 |
| Hollister, Patricia | Director, Chairman of Audit | $ 28,540.00 | $ 25,180.00 | $ 21,800.00 |
| Myers, John | Vice President of New Busi | $ - | $ - | $ - |
| Brown, Jay | Vice President | $ - | $ - | $ - |
| Leali, Anthony | Director of Standard Produ | $ - | $ - | $ - |

**Historical Performance**

| | NVEC | Peers | Industry | All U.S. firms |
|---|---|---|---|---|
| Growth | 14.1% | 0.2% | 6.5% | 6.0% |
| Retention Ratio | 6.6% | 4.9% | 44.1% | 61.6% |
| ROIC | 304.0% | 16.6% | 14.1% | 11.8% |
| EBITA Margin | 52.7% | 10.0% | 13.5% | 13.7% |
| Revenues/Invested capital | 115.8% | 85.2% | 99.0% | 202.3% |
| Excess Cash/Revenue | 20.8% | 39.5% | 54.7% | 18.5% |
| Unlevered Beta | 1.09 | 1.73 | 1.26 | 0.95 |
| TEV/REV | 7.5x | 1.1x | 2.8x | 2.4x |
| TEV/EBITDA | 16.4x | 8.4x | 14.0x | 11.3x |
| TEV/EBITA | 17.0x | 17.3x | 19.1x | 15.4x |
| TEV/UFCF | 34.9x | 75.9x | 26.8x | 26.8x |

**Past Earning Surprises**

| | Revenue | EBITDA | Norm. EPS |
|---|---|---|---|
| Last Quarter | -16.1% | -21.2% | 0.0% |
| Last Quarter-1 | 2.1% | 6.0% | 0.0% |
| Last Quarter -2 | 23.4% | 44.8% | 0.0% |
| Last Quarter -3 | -19.7% | -22.1% | 0.0% |
| Last Quarter -4 | -8.1% | 0.0% | 0.0% |

Non GAAP Adjustments

| | | | |
|---|---|---|---|
| Operating Leases Capitalizatic | 100% | Straightline | 10 years |
| R&D Exp. Capitalization | 100% | Straightline | 10 years |
| Expl./Drilling Exp. Capitalizatio | 0% | N/A | N/A |
| SG&A Capitalization | 0% | N/A | N/A |

**Proforma Assumptions** / **Forecasted Profitability**

| | | Period | Rev. Growth | Adj. Op. Cost/Rev | Revenue | NOPLAT | Invested capital | UFCF |
|---|---|---|---|---|---|---|---|---|
| Operating. Cash/Cash | 0.0% | LTM | 12% | 31% | $29.00 | $9.25 | $32.90 | $9.02 |
| Unlevered Beta | 0.75 | LTM+1Y | 14% | 29% | $33.09 | $12.07 | $36.85 | $10.11 |
| Rev/Invested Capital | 80.0% | LTM+2Y | 14% | 29% | $37.63 | $14.03 | $38.62 | $12.26 |
| Continuing Period Revenue Gro | 3.0% | LTM+3Y | 11% | 30% | $41.63 | $15.53 | $40.35 | $13.80 |
| Long Term ROIC | 51.8% | LTM+4Y | 10% | 32% | $45.66 | $16.90 | $42.13 | $15.11 |
| Invested Capital Growth | Equals to Maintenance | LTM+5Y | 8% | 33% | $49.39 | $18.07 | $44.16 | $16.04 |
| Justified TEV/REV | 7.5x | LTM+6Y | 6% | 34% | $52.43 | $18.92 | $45.82 | $17.26 |
| Justified TEV/EBITDA | 15.0x | LTM+7Y | 4% | 35% | $54.63 | $19.38 | $47.28 | $17.93 |
| Justified TEV/EBITA | 18.0x | LTM+8Y | 3% | 36% | $56.36 | $19.64 | $48.72 | $18.20 |
| Justified TEV/UFCF | 35.0x | LTM+9Y | 3% | 37% | $58.03 | $19.84 | $50.45 | $18.10 |

**Valuation**

| | ROIC | WACC | EVA | Enterprise Value | Total Debt | Other claims | Equity | Adjusted Price |
|---|---|---|---|---|---|---|---|---|
| **LTM** | 28.3% | 6.7% | $8.67 | $348.51 | $0.00 | -$20.11 | $368.62 | $77.03 |
| **LTM+1Y** | 34.5% | 6.8% | $10.18 | $364.66 | $0.00 | -$28.25 | $392.91 | $82.37 |
| **LTM+2Y** | 38.0% | 6.9% | $12.00 | $378.01 | $0.00 | -$41.77 | $419.78 | $87.70 |
| **LTM+3Y** | 40.2% | 7.0% | $13.36 | $390.44 | $0.00 | -$56.89 | $447.33 | $93.42 |
| **LTM+4Y** | 41.9% | 7.1% | $14.62 | $402.50 | $0.00 | -$73.44 | $475.94 | $99.35 |
| **LTM+5Y** | 42.9% | 7.2% | $15.72 | $414.48 | $0.00 | -$90.88 | $505.36 | $105.73 |
| **LTM+6Y** | 42.8% | 7.3% | $16.24 | $425.91 | $0.00 | -$109.77 | $535.68 | $111.73 |
| **LTM+7Y** | 42.3% | 7.4% | $16.45 | $437.63 | $0.00 | -$129.71 | $567.33 | $118.32 |
| **LTM+8Y** | 41.5% | 7.5% | $16.54 | $450.21 | $0.00 | -$150.31 | $600.52 | $125.22 |
| **LTM+9Y** | 40.7% | 7.6% | $16.66 | $464.00 | $0.00 | -$171.17 | $635.18 | $130.75 |

**Monte Carlo Simulation Assumptions**

| | Base | Stdev | Min | Max | Distribution |
|---|---|---|---|---|---|
| **Revenue Variation** | 0 | 10% | N/A | N/A | Normal |
| **Op. Costs Variation** | 0 | 10% | N/A | N/A | Normal |
| **Market Risk Premium** | 6% | N/A | 5% | 7% | Triangular |
| **Long term Growth** | 3% | N/A | 0% | 14% | Triangular |
| **Terminal Value** | 0 | 0.1 | N/A | N/A | Normal |

**Monte Carlo Simulation Results**

| | Intrinsic Value | 1y-Target |
|---|---|---|
| **Mean est.** | $77.03 | $82.37 |
| **$\sigma(\varepsilon)$** | $0.32 | $0.25 |
| **$\sigma(\varepsilon)$ adjusted pric** | $76.07 | $81.62 |
| **Current Price** | $67.83 | |
| **alysts' median est.** | | $97.00 |

## PDF Solutions, Inc.

NASDAQ:PDFS

**Analyst:** Jarret Reaume
**Sector:** Technology

## BUY

Price Target: $22.40

## Key Statistics as of 3/31/2015

| | |
|---|---|
| Market Price: | $17.76 |
| Industry: | Semiconductor Equipment |
| Market Cap: | $565.18 M |
| 52-Week Range: | $11.62-$22.66 |
| Beta: | 1.33 |

## Thesis Points:

- Zero-debt position
- Established customers will help growth
- Free cash flows will be greater than expected
- Industry growth will accelerate firm growth

## Company Description:

PDF Solutions, Inc. is the leading provider of yield improvement technologies for the integrated circuit manufacturing process life cycle. PDF Solutions offers solutions that are designed to enable clients to lower costs of IC design and manufacture, enhance time to market, and improve profitability by addressing design and manufacturing interactions from product design to initial process ramps to mature manufacturing operations. The firm offers manufacturing process solutions, volume manufacturing solutions, and design-for-manufacturability (DFM) solutions. Also, PDF solutions provides Characterization Vehicle (CV) infrastructure which includes CV test chips, pdCV analysis software, and pfFasTest electrical wafer test system. The company sells its technologies and services through direct sales force, solution implementation teams, and strategic alliances to integrated device manufacturers, fabless semiconductor design companies, and others. PDF Solutions, Inc. was founded in 1992 and is headquartered in San Jose, California.

## Thesis

PDF Solutions, Inc. is a growing company in the semiconductor equipment industry. The firm has experienced growing free cash flows in the last three years as a result of having zero debt and decreased operating expenses as well as cost of goods sold. In an industry that is expected to grow steadily for the foreseeable future, PDF Solutions, Inc. looks to outperform market expectations with increased revenues and further decreases in expenses. The market will not be able to ignore the cash flows created by this company and the value that comes with the continuously improving efficiency.

## Zero Debt Position

PDF Solutions, Inc. has had zero debt for more than five years. A lack of long-term debt helps the firm with its profitability as well as its flexibility. It is a good indicator of how the company can generate cash flows. Since PDF Solutions has been so profitable in the recent past, it has not needed to seek debt financing to fund operations or capital projects. Having zero debt will help the firm in several aspects because it will have flexibility in what it does with cash that is generated. The firm will benefit more from capital projects funded by retained earnings rather than debt because interest payments will not be deducted from the returns of the project. Therefore, return on invested capital (ROIC) will be optimized and value will be created. The figure shown below describes the capital structure that PDF Solutions has held for the last four years. The most important items to note are the increase in cash and the consistent lack of debt.

| In Millions of USD | FY 2011 | FY 2012 | FY 2013 | FY 2014 | Current/LTM |
|---|---|---|---|---|---|
| 12 Months Ending | 2011-12-31 | 2012-12-31 | 2013-12-31 | 2014-12-31 | 2014-12-31 |
| Market Capitalization | 197.3 | 402.7 | 779.8 | 462.4 | 565.2 |
| - Cash & Equivalents | 46.0 | 61.6 | 89.4 | 115.5 | 115.5 |
| + Preferred & Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| + Total Debt | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Enterprise Value | 151.2 | 341.1 | 690.4 | 346.9 | 449.7 |

In fact, PDF Solutions, Inc. ROIC has been well above its weighted average cost of capital in recent years. This factor shows that the company utilizes its capital wisely and creates value from its retained earnings since no debt financing is required.

## Established Customers Will Help Growth

The firm has business relationships with several large companies that will help maintain revenues in the future and also attract business from other companies. Some of the companies that are identified as PDF Solutions, Inc.'s customers are Samsung, International Business Machines (IBM), and Global Foundries. Each of these firms requires semiconductor equipment on a large scale because of the scope of their businesses. For example, Samsung needs semiconductors for smartphones, tablets, televisions, as well as the several other appliances it sells. This wide-ranging need makes the business relationship highly valuable. Whenever a company can provide equipment for all of a gigantic company's devices, there is a lucrative relationship. It is especially so considering Samsung's presence across different product genres.
As PDF Solutions Inc. grows, so will its customer base. Demand will rise greatly because of the industry growth that will happen in the next several years. Major companies, and also companies with room to grow, will look to PDF Solutions, Inc. to optimize manufacturing and assist in bringing new technologies to market. Since PDF Solutions, Inc. provides a wide array of solutions and services for companies in need, each business relationship will be extremely valuable.

Not only are large companies using PDF Solutions, Inc. to solve their semiconductor needs, they will need them more frequently. The life cycle of chips is decreasing due to the need to increase volumes and performance. This means that customers will be calling upon PDF Solutions more often in the future. This phenomenon creates a tailwind for the company because it will benefit from more customers who will need services more often. The market does not factor this into the stock price because it has not yet been seen. However, the increased competition from so many technology companies needing chips for their devices will feed directly into PDF's growth. Companies will need help optimizing chip manufacturing and PDF Solutions will be able to meet the demand due to its wide range of services.

## Free Cash Flows Will be Greater Than Expected

One of the most important factors to look at for any company is its ability to generate free cash flows. For young companies, it may be acceptable to let negative cash flows slide for a few years before the company matures and optimizes its cost structure. For PDF Solutions, Inc., it has generated free cash flows of roughly 20% of its revenue for the last two years.

This measure shows the company is profitable and efficient in its operations. It is important to note that these cash flows have been generated in an industry that is nowhere near its potential. Semiconductor equipment will be in high demand for the foreseeable future which will increase the scale of PDF Solutions Inc.'s business. In addition, PDF's margins look to decrease as well. From the Q4 2014 earnings conference call, CFO Gregory Walker said that operating expenses decreased 1.4% from the previous quarter. This is an encouraging sign because when a business can increase revenues while decreasing expenses, value is created. Generally, a firm would be happy either keeping revenues steady and cutting costs or increasing revenues and having stagnant expenses. The fact that PDF has been able to do both is a great sign for the future.

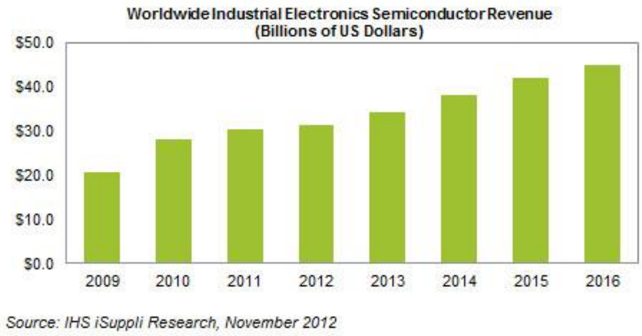
One reason growth can be expected in 2015 is the fact that PDF had delayed contracts that have just been agreed upon in the first quarter of 2015. CFO Gregory Walker cites this as the main reason revenues did not grow in the FY2014 compared to FY2013. As long as he is accurate in his statement, the aforementioned free cash flows will continue to be generated and the stock price will increase.

Since the firm has generated so much cash and is expected to continue to do so, many wonder what the company will do with it. Since there is no debt in the capital structure, it is an even bigger question. The earnings conference call for Q4 2014 shed some light on this area, but did not go into great detail. CFO Gregory Walker stated that the company will do whatever is best for future growth and shareholder value. Above all, Walker says that the main goal is to continue to bring out new technologies and solutions that will help the company grow.

## Industry Growth Will Accelerate Firm Growth

When analyzing a company, it is important to understand its industry outlook. This aspect is important because a company's performance will often mirror that of its industry. It can be argued that the semiconductor equipment industry has one of the brightest outlooks of any industry worldwide. Technological advancements have made it so the demand for solutions to semiconductor issues is very high.

When a firm is an industry leader, growth is magnified. The leading company in an industry will reap most of the benefits from industry growth because the leader will take most of the new market share. PDF Solutions, Inc. is a leader in the semiconductor equipment industry based on how it provides a wide range of solutions to companies looking to manufacture semiconductors on a large scale. The chart below shows the growth of the semiconductor industry in the recent past as well as expected growth in the next couple of years. Steady growth is expected for the foreseeable future due to demand from the many companies that will need help with their semiconductors.




It can be seen on the pro forma at the end of this report that PDF Solutions Inc. performs better than its peers. The only companies that can come close to its EBITDA margins are KLA-Tencor Corporation and Applied Materials, Inc. These companies both have to use debt financing to fund operations and projects. Therefore, interest cuts into net income for those companies whereas PDF Solutions pays no interest.

PDF Solutions also has higher return on assets than both KLA-Tencor and Applied Materials. This measure shows that PDF Solutions utilizes its assets more efficiently than competitors. While the other two companies are larger in market capitalization than PDF Solutions, they will be threatened by PDF's emergence as the industry grows.

Another way industry growth will help PDF Solutions is through long-term growth. The semiconductor equipment industry is much different from other industries. The demand in the near future will be so great that growth levels will not be normal. It can be argued that the growth for successful companies in this industry will experience higher growth rates than gross domestic product (GDP) in the long term. GDP tends to grow between 3% and 5% per year in the United States. It is not a stretch to believe that this rapidly growing industry can grow at a rate slightly higher than GDP's upper bound. A 7% per year growth rate is not out of the question considering how many companies will need PDF's services.

## Conclusion

PDF Solutions, Inc. is a recommended buy because it has many desirable traits analysts should look for in a growth stock. One trait the firm has is zero debt. This position lets the company explore many options when it comes to capital budgeting. There are no mandatory interest payments so there are many things that can be done with the excess cash. PDF Solutions will make good use of its cash because its track record proves that it generates high returns from invested capital.

PDF Solutions' established customer base will allow the company to exceed market expectations. Large technology companies like Samsung will need a wide range of services and solutions for its chips. Also, these companies will need the services more because tech companies need to upgrade more often to keep up with the competition. This means great things for PDF Solutions are on the horizon.

Perhaps the most important trait PDF Solutions has is the ability to generate cash. Many growing companies, especially in the technology sector, have a hard time making money because of the competition and capital expenditures that need to happen when the company is young. However, PDF Solutions generates free cash flows and has done so for four years. The company will continue to generate cash and will likely grow its cash flows because of industry growth and improvement of margins.

The final trait is the industry PDF Solutions is in. Nobody wants to buy stock in a company who will go bankrupt in a few years because of product or service obsolescence. This will not be a problem for PDF Solutions because it is in an industry that will grow steadily for several years because of technology companies that will need its services.

At a market price of $17.76, PDF Solutions, Inc. is a good stock to buy because there is considerable upside and not nearly as much downside risk. The one-year target price is $22.40. Assumptions can be seen on the pro forma on the next page.

Siena Market Line
1st week of April 2015

# CENTER FOR GLOBAL FINANCIAL STUDIES

| PDF Solutions Inc. | PDFS | Analyst | Current Price | Intrinsic Value | Target Value | Divident Yield | Target Return | NEUTRAL |
|---|---|---|---|---|---|---|---|---|
| | | Jarret Reaume | $17.80 | $20.03 | $22.40 | 0% | 25.87% | |

**General Info**

| | |
|---|---|
| Sector | Information Technology |
| Industry | onductors and Semiconductor Equip |
| Last Guidance | Feb-05-2015 |
| Next earnings date | NM |

**Market Data**

| | |
|---|---|
| Enterprise value | $445.95 |
| Market Capitalization | $933.35 |
| Daily volume | 0.86 |
| Shares outstanding | 31.54 |
| Diluted shares outstanding | 31.94 |
| % shares held by institutions | 77.02% |
| % shares held by insiders | 14.29% |
| Short interest | 2.37% |
| Days to cover short interest | 3.04 |
| 52 week high | $22.66 |
| 52-week low | $11.62 |
| 5y Beta | 1.48 |
| 6-month volatility | 52.95% |

| Peers | Market Cap. |
|---|---|
| Ultratech, Inc. | $490.44 |
| Camtek Ltd. | $96.06 |
| Rudolph Technologies Inc. | $361.13 |
| Xcerra Corporation | $488.24 |
| Mattson Technology Inc. | $286.64 |
| Nanometrics Incorporated | $407.65 |
| Applied Materials, Inc. | $27,977.43 |
| KLA-Tencor Corporation | $9,663.11 |
| Veeco Instruments Inc. | $1,229.43 |
| Rorze Corporation | $7,102.75 |

**Current Capital Structure**

| | |
|---|---|
| Total debt/market cap | 0.00% |
| Cost of Borrowing | 0.00% |
| Interest Coverage | |
| Altman Z | 23.38 |
| Debt Rating | AAA |
| Levered Beta | 1.63 |
| WACC (based on market value weights) | 9.81% |

**Management**

| Professional | Title | Comp. FY2012 | Comp. FY2013 | Comp. FY2014 |
|---|---|---|---|---|
| Kibarian, John | Co-Founder, Chief Executive Of | $ 348,549.00 | $ 483,790.00 | $ - |
| Michaels, Kimon | Co-Founder, Vice President of P | $ 325,549.00 | $ 415,832.00 | $ - |
| Walker, Gregory | Chief Financial Officer, Principal | $ 480,731.00 | $ 755,737.00 | $ - |
| Hartgring, Cornelius | Vice President of Client Services | $ 584,603.00 | $ 798,324.00 | $ - |
| Cohn, Peter | Secretary | $ - | $ - | $ - |
| Kim, Kwang-Hyun | Vice President of Business Devel | $ - | $ - | $ - |

**Historical Performance**

| | PDFS | Peers | Industry | All U.S. firms |
|---|---|---|---|---|
| Growth | 2.6% | 1.6% | 8.3% | 6.0% |
| Retention Ratio | 83.5% | 11.1% | 56.4% | 61.6% |
| ROIC | | 185.1% | 22.9% | 11.8% |
| EBITA Margin | 5.3% | 24.5% | 13.5% | 13.7% |
| Revenues/Invested capital | 56.9% | 82.9% | 92.3% | 202.3% |
| Excess Cash/Revenue | 69.4% | 47.6% | 54.7% | 18.5% |
| Unlevered Beta | 1.58 | 1.76 | 1.37 | 0.95 |
| TEV/REV | 2.9x | 2.5x | 1.9x | 2.4x |
| TEV/EBITDA | 27.8x | 8.7x | 12.2x | 11.3x |
| TEV/EBITA | 33.5x | 9.5x | 14.6x | 15.4x |
| TEV/UFCF | 22.5x | 48.3x | 24.0x | 26.8x |

**Past Earning Surprises**

| | Revenue | EBITDA | Norm. EPS |
|---|---|---|---|
| Last Quarter | 4.0% | 5.9% | 20.8% |
| Last Quarter-1 | 1.9% | 43.8% | 33.3% |
| Last Quarter -2 | -11.6% | -12.8% | -12.5% |
| Last Quarter -3 | 2.2% | 6.4% | 3.4% |
| Last Quarter -4 | -1.5% | 8.3% | 9.7% |

**Non GAAP Adjustments**

| | | | |
|---|---|---|---|
| Operating Leases Capitalization | 100% | Straightline | 10 years |
| R&D Exp. Capitalization | 60% | Straightline | 10 years |
| Expl./Drilling Exp. Capitalization | 0% | N/A | N/A |
| SG&A Capitalization | 20% | Straightline | 10 years |

**Proforma Assumptions** / **Forecasted Profitability**

| | | Period | Rev. Growth | Adj. Op. Cost/Rev | Revenue | NOPLAT | Invested capital | UFCF |
|---|---|---|---|---|---|---|---|---|
| Operating. Cash/Cash | 5.0% | LTM | -1% | 50% | $100.16 | $31.53 | $108.26 | $71.23 |
| Unlevered Beta | 1.60 | LTM+1Y | 15% | 54% | $115.19 | $29.70 | $159.41 | $18.26 |
| Rev/Invested Capital | 70.0% | LTM+2Y | 11% | 56% | $128.00 | $31.02 | $165.31 | $25.11 |
| Continuing Period Revenue Growth | 7.3% | LTM+3Y | 9% | 56% | $139.76 | $32.89 | $172.48 | $25.72 |
| Long Term ROIC | 18.0% | LTM+4Y | 8% | 57% | $151.25 | $35.09 | $181.94 | $25.62 |
| Invested Capital Growth | Equals to Maintenance | LTM+5Y | 8% | 57% | $162.95 | $37.52 | $193.72 | $25.74 |
| Justified TEV/REV | 2.8x | LTM+6Y | 7% | 57% | $175.16 | $40.04 | $211.45 | $22.31 |
| Justified TEV/EBITDA | 15.0x | LTM+7Y | 7% | 57% | $188.07 | $42.95 | $225.06 | $29.34 |
| Justified TEV/EBITA | 20.0x | LTM+8Y | 7% | 57% | $201.81 | $46.09 | $239.14 | $32.01 |
| Justified TEV/UFCF | 25.0x | LTM+9Y | 7% | 57% | $216.51 | $49.51 | $253.64 | $35.01 |

**Valuation**

| | ROIC | WACC | EVA | Enterprise Value | Total Debt | Other claims | Equity | Adjusted Price |
|---|---|---|---|---|---|---|---|---|
| **LTM** | 21.3% | 9.8% | $12.45 | $557.47 | $0.00 | -$72.90 | $630.37 | $20.69 |
| **LTM+1Y** | 27.4% | 9.9% | $27.94 | $633.25 | $0.00 | -$86.97 | $720.22 | $23.15 |
| **LTM+2Y** | 19.5% | 10.0% | $15.71 | $653.69 | $0.00 | -$99.36 | $753.04 | $24.27 |
| **LTM+3Y** | 19.9% | 10.0% | $17.11 | $691.03 | $0.00 | -$112.52 | $803.55 | $25.91 |
| **LTM+4Y** | 20.3% | 10.0% | $18.84 | $732.20 | $0.00 | -$127.05 | $859.24 | $27.71 |
| **LTM+5Y** | 20.6% | 10.0% | $20.58 | $776.93 | $0.00 | -$142.89 | $919.81 | $29.74 |
| **LTM+6Y** | 20.7% | 10.0% | $22.56 | $829.14 | $0.00 | -$155.54 | $984.68 | $31.74 |
| **LTM+7Y** | 20.3% | 10.0% | $23.21 | $878.12 | $0.00 | -$175.02 | $1,053.14 | $33.96 |
| **LTM+8Y** | 20.5% | 10.0% | $25.06 | $930.30 | $0.00 | -$196.80 | $1,127.11 | $36.34 |
| **LTM+9Y** | 20.7% | 10.0% | $27.15 | $984.55 | $0.00 | -$221.01 | $1,205.56 | $38.22 |

**Monte Carlo Simulation Assumptions**

| | Base | Stdev | Min | Max | Distribution |
|---|---|---|---|---|---|
| **Revenue Variation** | **0** | **10%** | **N/A** | **N/A** | **Normal** |
| **Op. Costs Variation** | **0** | **10%** | **N/A** | **N/A** | **Normal** |
| **Market Risk Premium** | **5%** | **N/A** | **5%** | **7%** | **Triangular** |
| **Long term Growth** | **7%** | **N/A** | **2%** | **8%** | **Triangular** |
| **Terminal Value** | **0** | **0.1** | **N/A** | **N/A** | **Normal** |

**Monte Carlo Simulation Results**

| | Intrinsic Value | 1y-Target |
|---|---|---|
| **Mean est.** | $20.69 | $23.15 |
| **σ(ε)** | $0.22 | $0.25 |
| **3 σ(ε) adjusted price** | $20.03 | $22.40 |
| **Current Price** | $17.80 | |
| **Analysts' median est.** | | $22.80 |

## Research Solutions, Inc.

RSSS:OTC

**Analyst:** Sofian Belhadj
**Sector:** Services

## BUY

Price Target: $5.3

## Key Statistics as of 3/31/2015

| | |
|---|---|
| Market Price: | $1.07 |
| Industry: | Business Services |
| Market Cap: | $20.67 M |
| 52-Week Range: | $1.07-1.90 |
| Beta: | 0.59 |

## Thesis Points:

- Enlarge the offer to target academic market
- Business model focusing on higher margin
- Strong management

## Company Description:

Research Solution, Inc. is a digital media company, Inc. (OTCQB:RSSS) and its wholly-owned subsidiary Reprints Desk, Inc. (www.reprintsdesk.com) are pioneers in providing on-demand access to scientific, technical, and medical ("STM") information for life science companies, academic institutions, and other research intensive organizations. Its customers include 70% of the top 25 pharma companies in the world.

The company cloud based software-as-a-service (SaaS) solution, Article Galaxy, provides customers with access to the over one million newly published articles each year in addition to the tens of millions of existing articles that have been published in the past, helping them to identify the content that is critical to their research. The company helps its customers create and speed discoveries, save time and money, and remain copyright compliant.

RSSS have arrangements with numerous STM content publishers that allow electronic access and distribution of their content. In addition to serving end users of content, we also serve STM publishers by facilitating compliance with applicable copyright laws.

## Thesis

The On-Demand Access to Scientific, Technical, and Medical Information is an unknown sector for most of the public. The demand is growing at a fast paste despite Deloitte 2015 Global life sciences outlook: Aging populations, chronic/ lifestyle diseases, emerging-market expansion, and treatment and technology advances are expected to spur life sciences sector growth in 2015. The number of researchers across the word seeking for technical and medical information (STM) would probably increase if we believe the World industry outlook

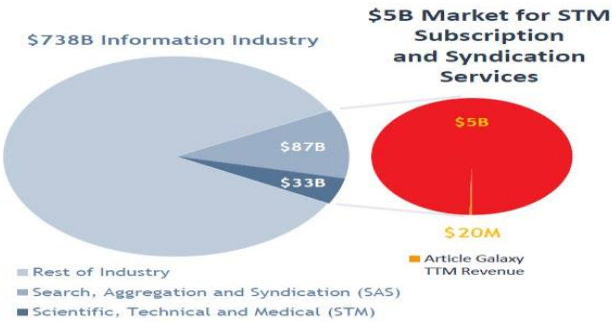
## Macro overview Access to Scientific Information

Despite the world industry outlook: Healthcare and pharmaceuticals; the health care spending in North America is expected to increase at 4.9 percent during 2014-2018. Growth is being driven, in part, by expanded consumer access to health care in the United States through the 2010 Patient Protection and Affordable Care Act (ACA). Concerning Growth Latin America, health care spending is projected to increase an average of 4.6 percent annually over 2014-2018; several governments are trying to improve public health care systems amid general budget constraints. In Asia and Australasia, the rollout of public health care programs combined with growing consumer wealth are anticipated to boost health care spending an average of 8.1 percent in 2014-2018.The most rapid growth is expected to be in the Middle East and Africa, which could see an annual average increase of 8.7 percent over 2014-2018 due, in part, to population growth and efforts to expand access to care.

RESEARCH SOLUTIONS is providing on-demand access to scientific, technical and medical (STM) information for life science companies, academic institutions, and research intensive organizations. The business model of the company is reaching an inflection point that would determine the future of the company, by having an increase in **Article Galaxy** a cloud based software that provides efficiency for a single source for the universe of published STM content. The flexibility created for researchers, downloading single articles on demand and in digital format. The growing population in Latin America, Asia, Middle East and Africa would lead to electronic version of the content at a low cost to create and speed discoveries, save time and money and respecting the copyright because it is affordable.

In term of comparison Research Solutions is focusing on Scientific, Technical and Medical research by distinguishing from Bloomberg and LexisNexis.


The industry in general is an addressable market of $738 billion for the information Industry, concerning Research Solution, the Scientific, Technical, and Medical subscription is estimated at $5 billion with roughly $0.5 billion corporate market and $4.5 billion in academic market.

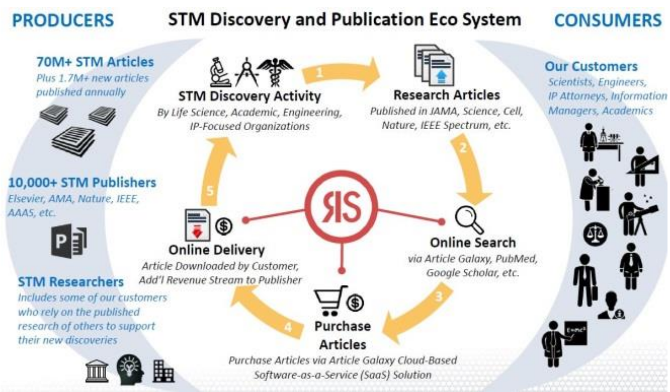



## Enlarge to target the academic market

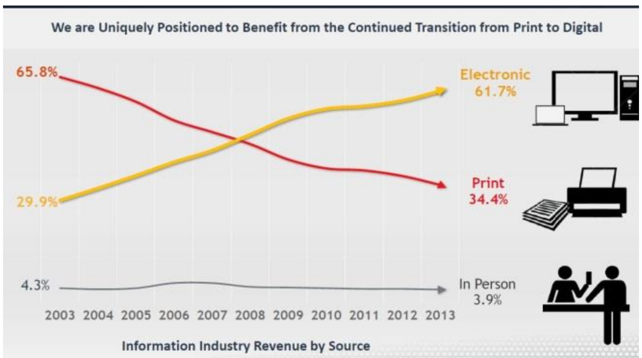
The market share of the company is about 4% of the corporate market with $21.1M in Article Galaxy the platform created by Research Solution. The revenue at the previous earnings call Q42014 was that currently, the company is repositioning itself to reach a larger market which is the academic market representing an expansive opportunity to grow.

Research Solutions is started to be integrated into the discovery and publication cycle, the company has a strong market adoption.

The revenue of the platform oriented is as follow:

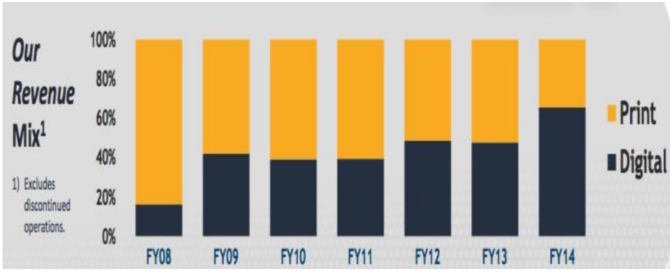



For the 2Q 2015 the company increased their revenue by 19% Y/Y to reach $5.1M with a transaction increased by 22% compared to Q1 2015. The gross profit is increasing by 34% compared to last years to get a profit of <$1.3M>. What is positive in term of customers is the active customer using galaxy customer accounts increased by 21% which is positive, if we remember that the company is shifting to customer that are on the medical industry and also due to a strong adoption that is lead with an electronic format in constant increase. The digital media is set to replace the printed version for the cost reduction. By providing a single possible download RSSS is creating a situation where they would be able to enjoy higher margin in the future because increase in customer flow on the platform. The situation in public library is following the same trend, researchers and institutions would have a tendency to be under a slower budget, and buying a single article that they need compared to purchasing the entire book.




## Business model with higher margin

Research Solution was a company that was focused on business model that was using printed version of articles with a margin lower than 9%, the consumer have a tendency to prefer the digital solution and for those reason RSSS margin are expected to increase in Q3 2015 to reach 25%




The Galaxy platform is fully automated to consult document, and insure a one pay workflow that is efficient and accessible globally. The conversion rate while on the platform is high compared to platform on iTunes for example, RSSS address to aware customers that are seeking for solid researches and studies. Below is showing the improvement of the platform made during the previous quarter.


The company represents a fast growing opportunity to invest in a business that is growing at a fast pace with a leaner business model. The market is not aware of this transformation and can create a long-term investment. The market is also not aware that satisfaction for RSSS is visible among clients into their ranking among their competitors.

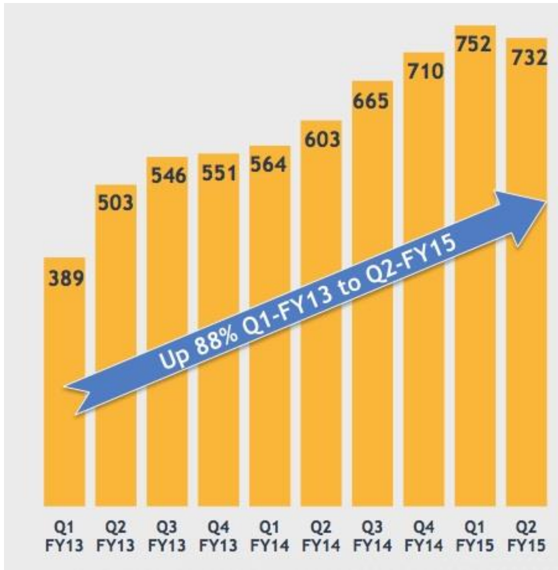
| OUTSELL Document Delivery Survey | Coverage Depth and Breadth | Fair Pricing | Ease of Doing Business | Overall Satisfaction | Would Recommend | Total Score |
|---|---|---|---|---|---|---|
| RESEARCH SOLUTIONS | 4.5 | 4.2 | 4.4 | 4.4 | 4.6 | 22.1 |
| Linda Hall Library | 4.1 | 4 | 4.1 | 4.1 | 4.4 | 20.7 |
| THE BRITISH LIBRARY | 4.4 | 3.7 | 3.7 | 4 | 4.1 | 19.9 |
| THE RESEARCH INVESTMENT, INC. | 3.9 | 3.7 | 4 | 3.9 | 4.4 | 19.9 |
| INFORMATION EXPRESS | 3.8 | 3.6 | 3.8 | 3.8 | 3.6 | 18.6 |
| infotrieve | 4 | 3.3 | 3.4 | 3.6 | 3.6 | 17.9 |
| THOMSON REUTERS | 3.6 | 3.2 | 3.4 | 3.4 | 3.6 | 17.2 |

Scale: 1=Very Dissatisfied 2=Dissatisfied 3=Neutral 4=Satisfied 5=Very Satisfied

A happy customer is willing to shop in a repetitive time especially with convenience created with the new business model with one time shop for a single article. The business model is highly scalable with already a loyal customer base.

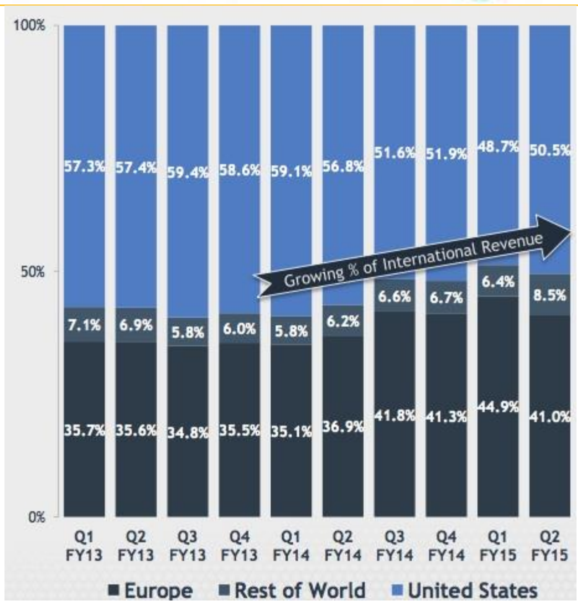
The company has 4 out of 5 of the top 5 drug companies ranked by R&D performance. Rsss has 50% of the Global top 10 Biotech and Pharmaceutical companies ranked by revenue. To this we can add 36% of the top 503 and 50% of the top 202 global Pharmaceutical companies ranked by revenue.

Business Solutions is partnering with long establish publishers. The partners are publishing contents that the company sells, which help the publishers, monetize and protect their contents.




Business solution has an average number of customers that is increasing even if we count the seasonality quarter per quarter. The market is not aware of the positive outlook concerning the Growing number of clients in the customer's base.

The increasing number of customers is due to a global demand for research. The company has the potential to be a hub for research globally with the simplicity of usage, the convenience of saving money for single use documents, and the copyright compliance. Bellow the geography location of customers in term of revenue.




| SECURITY | AS OF DECEMBER 31, 2014 | WEIGHTED AVERAGE EXERCISE PRICE | PERCENTAGE FULLY DILUTED |
|---|---|---|---|
| Common Stock Outstanding | 17,971,302 | N/A | 88.8% |
| Stock Options | 1,954,501 | $1.25 | 9.7% |
| Warrants | 305,000 | $1.26 | 1.5% |
| Fully Diluted Shares Outstanding | 20,230,803 | | 100.0% |

| INSIDER SHAREHOLDERS | AS OF DECEMBER 31, 2014 | SECURITY | PERCENTAGE OF COMMON STOCK OUTSTANDING |
|---|---|---|---|
| Bristol Investment Fund, Ltd.[1] | 4,783,910 | Common Stock | 26.6% |
| Peter Derycz, CEO | 4,143,627 | Common Stock | 23.1% |
| Other Management and Employees | 843,220 | Common Stock | 4.7% |
| Total Insider Holdings | 9,770,757 | | 54.4% |

RSSS could be leading platform for Scientific, Technical and Medical. On average revenue per transaction is about $37, with single article delivery services generating substantially all of the revenue attributable to Article Galaxy. The scalability is easy to put in place with an automatic platform that could lead to steady income and satisfy knowledge workers today with the reduction of their budget.

## Management:

The CEO Peter Derycz founded Research Solutions in 2006 after creating and selling Infotrieve Inc to private equity investor in 2003 called Copyright Clearance center. Despite the magazine Pharma Voice, Derycz is voted one of the 100 most influential people in pharma and holder of 9 patents. The experience of the CEO for the change in business model is a key driver for the future of the company. RSSS represent for the competition an outsider that is taking a slice in the business of Google Scholar. and therefore is a potential buyout target with 54.4% ownership of the company belonging to insiders.

## Valuation

The company is significantly unevaluated because it is still traded at the price of the company previous business model. RSSS is increasing its revenue by 19% over the Q2 2015 to $5.1 million.

The galaxy product that unable access to scientific, technical, medical information is benefiting from the cost reduction of digital vs. paper and the gross profit was up by 34% over the Q2 2015. The adjusted EBITDA increased by 136% compared to Q2 2014. The operating expenses decreased by 11% compared to Q2 2015. RSSS is traded at 0.43 x EV/REVENUE comparing to its industry which 3.16 x.
By being conservative and considering a growth of 12% for the coming Q3, Q4 2015 and an increase of 18% for the year 2016. Considering a decrease of the operating expenses by 5% per years for 2015 and 2016. All these assumptions are considered conservative regarding company's potential and leads to a 1 year target price of $1.70, representing an upside potential of 59% based on current market price.

## Spectra Energy Partners

NYSE:SEP

**Analyst:** Kyle White
**Sector:** Energy

## BUY

Price Target: $60.00

## Key Statistics as of 4/02/2014

| | |
|---|---|
| Market Price: | $51.93 |
| Industry: | Oil & Gas Midstream |
| Market Cap: | $15.3 B |
| 52-Week Range: | $47.01-$60.07 |
| Beta: | 0.48 |

## Thesis Points:

- Relative valuation shows stock trading a discount to competitors
- Increasing North American natural gas demand provides high growth opportunities
- Solid balance sheet and increasing FCFs
- Strong support from partner, Spectra Energy Inc.
- Small downside, low risk

## Company Description:

Spectra Energy Partners, LP operates as an investment arm of Spectra Energy Corp. Spectra Energy Partners, LP, through its subsidiaries, engages in the transportation of natural gas through interstate pipeline systems, and the storage of natural gas in underground facilities in the United States. As of December 31, 2007, it owned and operated 100% of the approximately 1,400-mile East Tennessee interstate natural gas transportation system that extends from central Tennessee eastward into southwest Virginia and northern North Carolina, and southward into northern Georgia; and a liquefied natural gas storage facility in Kingsport, Tennessee with working gas storage capacity of approximately 1.1 billion cubic feet (Bcf) and re-gasification capability of 150 million cubic feet per day. The company also owned a 24.5% interest in the approximate 700-mile Gulfstream interstate natural gas transportation system, which extends from Pascagoula, Mississippi, and Mobile, Alabama across the Gulf of Mexico and into Florida; a 50% interest in Market Hub, which owns and operates 2 salt cavern natural gas storage facilities, the Egan storage facility with gas capacity of approximately 20 Bcf, and the Moss Bluff storage facility with working gas capacity of 15 Bcf. The company transports and stores natural gas for local gas distribution companies, municipal utilities, interstate and intrastate pipelines, direct industrial users, electric power generators, marketers, and producers.

## Thesis

In the current energy downturn, midstream oil and gas companies, or those involved in facilitating the transport of crude oil and natural gas, have largely been overlooked and unloved. Given the shield granted to these companies by the long-term, highly contractual nature of their business (north of 90%), it is interesting to note that many investors have still shied away from this industry. Over the next 20 years, natural gas consumption in North America is expected to increase by 40% of todays demand, meaning midstream companies will become more and more essential to many economies. Of all of these players, just a few stand out as notable in terms of current pricing and future growth prospects. Spectra Energy Partners, which is the child of Spectra Energy, and its previous parent Duke Energy. Incorporated as a MLP, the company is uniquely shielded from taxes, allowing greater distribution to shareholders, but this is common to many midstream companies. What separates it from the pack is low debt-to-equity at .5 (Industry median=1.35) operating margins of nearly 50%, high historical growth, (66.4% CAGR), and an attractive yield coming out of dividends at 4.4%. All of these provide an extremely attractive base for an investor, and with multiple projects in progress to pave the way for future growth, combined with a low risk profile and associated downside, makes Spectra Energy Partners a buy, with a one-year target price of $60.00.

## Valuation

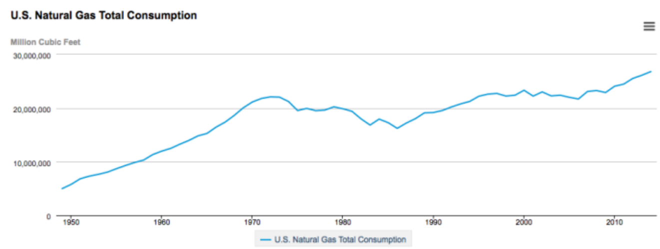
While for many stocks, PE ratio is a favorite among investors in determining valuation of a company; this is largely not the case for midstream companies and MLP's in general. Instead it is important to look at two key ratios; EV/EBITDA and P/DCF. Referring to the table below offers some insight to the relative valuation of SEP's immediate competitors.

| | DCF | Market Cap | P/DCF | EV/EBITDA |
|---|---|---|---|---|
| Magellan Midstream Partners | 0.8805 | 17.9 | 20.329 | 18.53 |
| Energy Transfer Partners | 1.8375 | 28.7 | 15.619 | 13.98 |
| Spectra | 1.005 | 15.3 | 15.224 | 4.79 |
| William Partners LP | 0.7248 | 28.6 | 39.459 | 35.83 |
| Enable Midstream Partners | 0.622 | 7.1 | 11.415 | 10.94 |

Reading from right to left we see the general competitive landscape immediately surrounding SEP. Obvious from the get go is that Spectra does not represent the largest company, nor the company that provides the largest cash flows to its investors. More importantly however, one must look at the multiples provided. In terms of P/DCF (price-to-distributed cash flows), Spectra is priced near the low end of what should be the considered range, with a median of about 17x. While Enable Midstream may seem cheaper at 7.1x, I believe the market is pricing correctly there, as recently, Enable has run into an assortment of cash flow problems, resulting in negative cash flow for the first time in several years, and a lower price, at least in my opinion, is justified. In terms of EV/EBITDA, the market is largely undervaluing the stock, which at 4.9x is far below the competitor's median of 16.25x. Based on research, I have found no evidence going forward that the operating margins the company has been experiencing, which are around 50%, should deviate materially, meaning that in the future the market should adjust the price of the stock upward to reflect a more realistic expectation in line with the companies competitors. Analysts predict future EV/EBITDA to be closer to 18x.

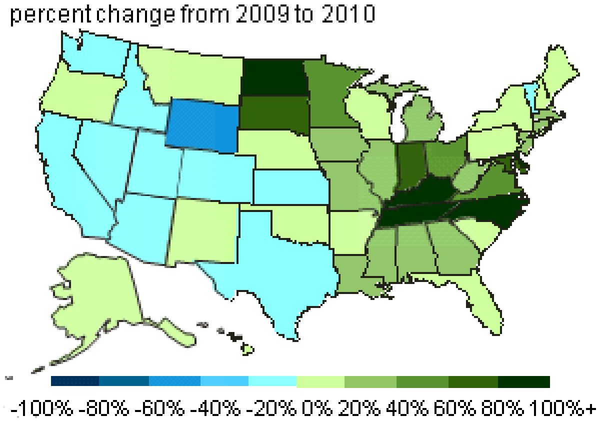
## Growth in Natural Gas

Beginning in in the mid 2000's the idea of natural gas becoming a key component of American industry and electric power generation was rapidly gaining hold in people's minds.

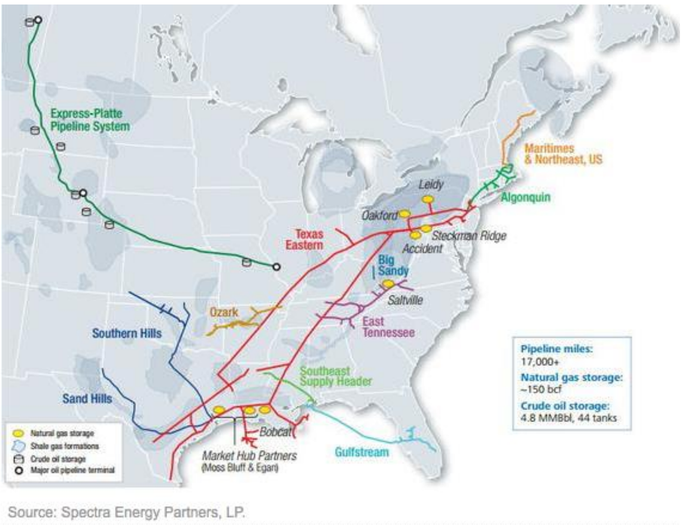



While demand has always been robust, the chart suggests relatively flat demand beginning in the mid 1980's. Starting in 2006 however the US began a renewed climb in its usage of natural gas largely due to economizing the process of extracting it from large deposits of geological shale located in states like Texas, Oklahoma, Pennsylvania, and Minnesota. It was during this time that after a series of spinoffs, SEP came onto the scene, controlling in large part all the transmission assets formally belonging to Duke Energy. The next few illustrations should give some idea of the enormous growth potential just over the horizon.

**Natural gas deliveries to the electric sector**
percent change from 2009 to 2010



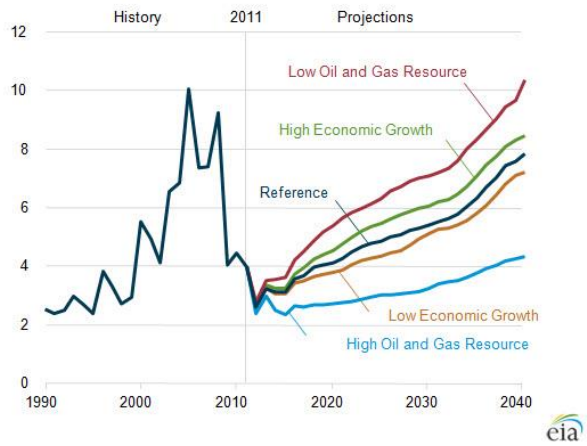

What we have above is a depiction of increase of natural gas usage in power generation circa 2010. Over the next 20 years, the average annual consumption of natural gas, in the US alone is expected to increase by an estimated 40%. World consumption is expected to follow this pattern very closely.



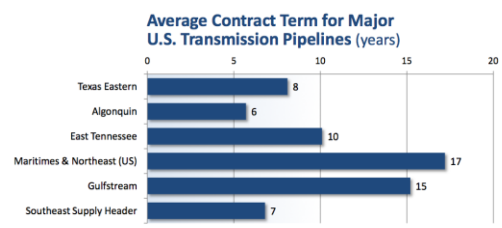

Source: Spectra Energy Partners, LP.

Not surprisingly, SEP has pipelines sourcing from both the most prolific plays within the country, and sourcing to the areas with the highest current demand, and that is likely just the beginning. As we have progressed technologically, natural gas has moved from a simple heating solution in the winter to a substance that can be used, and is largely considered a much more environmentally friendly means of electric power production, creating 50% less CO2 gas than conventional coal fired plants, and 25-30% less than conventional oil plants. As the US government and its environmental regulatory arm, the EPA begin to produce stricter environmental, one should expect to see some headwinds for companies like SEP who must consistently monitor outputs of greenhouse gases along their lines. Ultimately though they will likely benefit far more from increased investment in natural gas usage by utility companies due its high energy density and lower carbon footprint. This series of events is highly probable as increased effectiveness in extraction methods have largely oversupplied the market, leading to lower costs, and increased economic incentive to use natural gas a primary means of deriving power.

Figure 88. Annual average Henry Hub spot prices for natural gas in five cases, 1990-2040 (2011 dollars per million Btu)




Given that we are starting to see the high oil and gas resource future, it is not unfounded that we may see consumption outpace this 40% benchmark. In an effort to meet this future need, SEP and its partner Spectra Energy are currently engaged in 17 new projects in the US to expand the reach of its network and provide greater access in Greater New England, and much of Eastern Canada. Many of these projects are expected to reach completion in the 2016-2017 fiscal years. Smaller ancillary projects are also underway to expand access in the American southeast, allowing greater access to an already robust network. The following chart gives some insight into the sustainability of future cash flows bases on subscription renewal and contract length per region.




Future slated projects will likely continue to be pursued in areas that can negotiate the longest contracts. Most of these are concentrated in the Northeast as well as in the

Gulf where customers are on standby to receive shipments meant for global distribution. On top of this new growth in revenue, the company has had historically high renewal rates on existing contracts (2014, +99% renewal rates in key northeastern and Texan pipeline segments), meaning stable, and largely predictable cash flows moving into the future.

## Balance Sheet

Many bears have made the above point of expansion a target for missteps going into the future, and therefore value destruction. Given the strength of the company's balance sheet and earnings I don't see that as a very likely outcome. Compared to it competitors, SEP maintains the lowest DE in the industry at 0.5, demonstrating effective stewardship of allocated capital within the company. It is worth mentioning that MLP's, as SEP is, don't use cash flows as a means of funding future projects, meaning that all project funding must be raised in either the form of stock issuances, or new debt. This is largely to the company's advantage though. Because of the company's tax advantages, the estimated cost of capital hovers around 7.2%, and combined with healthy cash flow streams, its unlikely that, even in the face of rising rates, the company will experience significant detriment in its ability to borrow.

## Corporate Support

One of the major benefits of being is MLP is the relationship between the parent and the child. Spectra Energy Partners, which is the child of its larger parent Spectra Energy. Given the value of one to the other along with the fact that the two companies share the same CEO and CFO means that management will do everything within its power to maintain the long term success of SEP. As much as 55-60% of Spectra Energy's yearly earnings are derived via SEP due to the pure play approach to natural gas, and the business resistance to changing commodity prices. In line with the company's earnings contributions, SE distributes about 65% of both its maintenance and growth CAPEX budget to SEP, which remains at normal levels while other oil and gas companies are forced to pull back tightly all around them. An interesting note worth mentioning is that in some ways the two companies do compete with each other. SE which has other subsidiaries outside Spectra Energy Partners does engage in direct competition for contracts and other services, however, the long run result of this competition should leading to increased efficiencies at SEP as the vie for funding for future growth prospects.

## Low Downside Risk

Perhaps the most appealing aspect of owning this stock is the apparent downside risk associated with it. As a hard asset company with relatively low debt when viewed in light of its peers, the company faces very little risk in terms of its capital structure moving into the future. The cost of capital, which they should be able to manage even in a higher credit environment is low at 7%, and with steady cash inflows from negotiated contracts means that interest payments should continue to be met, outside the possibility of a significant portion of SEP's long term customers no longer being able to make payments. While the stock has traded relatively flat over the TTM period, with some volatility, price targets from analysts, even on the low end down have the stock traveling south of $50. Very few companies out there can compete in terms of the stability of their cash flow or the sheer size of their asset footprint. In guidance management has been known to state that the oil and gas pipeline is highly competitive. However, given the size of the asset base at SEP's disposal, as well as there existing relationships with their customers, and the renewal rates that they have seen there; outside a major catastrophe, I don't expect to see a reduction in the competitive ability of this firm, reducing the overall risk associated with their cash flows.

## Forecasts

Natural gas is quickly becoming a larger and larger part of both this and the worldwide economy. Consumption in the US and Canada will continue to risk, increasing the need for pipeline distribution in order to satisfy demand, but pipeline expansion to ports will also become increasingly critical as global demand increases. Energy poor economies like Japan and Europe may demand increases amounts of natural gas as relations with Russia become increasingly strained. Moving into the future we should expect to see further development in how exactly natural gas can be used from fueling ships and cars to being used in new industrial processes. At the heart of this movement is the midstream service offered by pipeline companies, and at the heart of that is Spectra Energy Partners, which will continue to climb for years to come.

SIENAcollege



# CENTER FOR GLOBAL FINANCIAL STUDIES

| Spectra Energy Partners, LP | SEP | Analyst | Current Price | Intrinsic Value | Target Value | Divident Yield | Target Return | NEUTRAL |
|---|---|---|---|---|---|---|---|---|
| | | Kyle White | $52.11 | $53.29 | $59.14 | 5% | 18.03% | |

**General Info**

| | |
|---|---|
| Sector | Energy |
| Industry | Oil, Gas and Consumable Fuels |
| Last Guidance | Feb-05-2015 |
| Next earnings date | NM |

**Market Data**

| | |
|---|---|
| Enterprise value | $21,843.52 |
| Market Capitalization | $933.35 |
| Daily volume | 0.86 |
| Shares outstanding | 295.33 |
| Diluted shares outstanding | 288.00 |
| % shares held by institutions | 77.02% |
| % shares held by insiders | 0.04% |
| Short interest | 0.16% |
| Days to cover short interest | 1.96 |
| 52 week high | $60.07 |
| 52-week low | $47.01 |
| 5y Beta | 0.46 |
| 6-month volatility | 24.88% |

| Peers | Market Cap. |
|---|---|
| MarkWest Energy Partners, L.P. | $12,400.27 |
| Magellan Midstream Partners LP | $17,909.82 |
| DCP Midstream Partners LP | $4,212.73 |
| Crestwood Midstream Partners LP | $2,748.13 |
| Enable Midstream Partners, LP | $7,111.71 |
| Boardwalk Pipeline Partners, LP | $3,897.67 |
| Genesis Energy LP | $4,378.94 |
| Martin Midstream Partners LP | $1,276.19 |
| ONEOK Partners, L.P. | $10,530.79 |
| Western Gas Partners LP | $9,150.96 |

**Current Capital Structure**

| | |
|---|---|
| Total debt/market cap | 27.89% |
| Cost of Borrowing | 4.10% |
| Interest Coverage | 477.31% |
| Altman Z | |
| Debt Rating | B |
| Levered Beta | 0.84 |
| WACC (based on market value weights) | 7.12% |

**Management**

| Professional | Title | Comp. FY2012 | Comp. FY2013 | Comp. FY2014 |
|---|---|---|---|---|
| Ebel, Gregory | Chairman of the Board of Spectr | $ - | $ 8,300,743.00 | $ - |
| Reddy, John | Chief Financial Officer of Spectra | $ - | $ 2,800,412.00 | $ - |
| Hedgebeth, Reginald | General Counsel of Spectra Ener | $ - | $ - | $ - |
| Rice, Patricia | Secretary of Spectra Energy Partn | $ - | $ - | $ - |

**Historical Performance**

| | SEP | Peers | Industry | All U.S. firms |
|---|---|---|---|---|
| Growth | 12.8% | 17.2% | 8.8% | 6.0% |
| Retention Ratio | 35.7% | 164.7% | 37.4% | 38.5% |
| ROIC | | 14.9% | 35.2% | 19.0% |
| EBITA Margin | 48.1% | 13.9% | 17.9% | 13.7% |
| Revenues/Invested capital | 13.9% | 65.4% | 139.1% | 202.3% |
| Excess Cash/Revenue | #DIV/0! | 3.5% | 10.6% | 18.5% |
| Unlevered Beta | 0.09 | 0.45 | 0.61 | 0.95 |
| TEV/REV | 12.4x | 2.9x | 3.1x | 2.4x |
| TEV/EBITDA | 18.8x | 15.3x | 14.7x | 11.3x |
| TEV/EBITA | 25.5x | 20.0x | 19.4x | 15.4x |
| TEV/UFCF | 11.9x | 509.0x | 39.6x | 26.8x |

**Past Earning Surprises**

| | Revenue | EBITDA | Norm. EPS |
|---|---|---|---|
| Last Quarter | 2.1% | 9.9% | 21.2% |
| Last Quarter-1 | 0.7% | 9.3% | 25.0% |
| Last Quarter -2 | -5.0% | -3.2% | 0.0% |
| Last Quarter -3 | 0.3% | 8.2% | 4.5% |
| Last Quarter -4 | 7.4% | 25.1% | 51.8% |

**Non GAAP Adjustments**

| | | | |
|---|---|---|---|
| Operating Leases Capitalization | 100% | Straightline | 10 years |
| R&D Exp. Capitalization | 100% | Straightline | 10 years |
| Expl./Drilling Exp. Capitalization | 100% | Straightline | 10 years |
| SG&A Capitalization | 0% | N/A | N/A |

**Proforma Assumptions**

| | |
|---|---|
| Operating. Cash/Cash | 0.0% |
| Unlevered Beta | 0.60 |
| Rev/Invested Capital | 100.0% |
| Continuing Period Revenue Growth | 3.0% |
| Long Term ROIC | 20.2% |
| Invested Capital Growth | Equals to Maintenance |
| Justified TEV/REV | 2.0x |
| Justified TEV/EBITDA | 8.0x |
| Justified TEV/EBITA | 12.0x |
| Justified TEV/UFCF | 18.0x |

| Period | Rev. Growth | Adj. Op. Cost/Rev | Revenue | NOPLAT | Invested capital | UFCF |
|---|---|---|---|---|---|---|
| | | | **Forecasted Profitability** | | | |
| LTM | 15% | 37% | $2,269.00 | $1,129.79 | $15,532.00 | $1,129.79 |
| LTM+1Y | 10% | 37% | $2,496.25 | $1,238.06 | $15,551.86 | $1,218.20 |
| LTM+2Y | 7% | 38% | $2,670.67 | $1,307.94 | $15,549.80 | $1,309.99 |
| LTM+3Y | 7% | 39% | $2,856.25 | $1,380.68 | $15,546.96 | $1,383.52 |
| LTM+4Y | 4% | 40% | $2,964.93 | $1,404.66 | $15,547.86 | $1,403.76 |
| LTM+5Y | 4% | 41% | $3,096.82 | $1,439.36 | $15,547.26 | $1,439.96 |
| LTM+6Y | 5% | 42% | $3,252.23 | $1,483.32 | $15,594.11 | $1,436.46 |
| LTM+7Y | 4% | 43% | $3,367.39 | $1,503.55 | $15,598.92 | $1,498.74 |
| LTM+8Y | 3% | 44% | $3,480.55 | $1,520.04 | $15,600.75 | $1,518.21 |
| LTM+9Y | 3% | 45% | $3,592.55 | $1,533.89 | $15,599.76 | $1,534.89 |

**Valuation**

| | ROIC | WACC | EVA | Enterprise Value | Total Debt | Other claims | Equity | Adjusted Price |
|---|---|---|---|---|---|---|---|---|
| **LTM** | 7.3% | 7.1% | $24.30 | $22,268.09 | $6,092.00 | $580.00 | $15,596.09 | $54.25 |
| **LTM+1Y** | 8.0% | 7.1% | $140.16 | $23,131.37 | $6,092.00 | -$178.48 | $17,217.86 | $59.89 |
| **LTM+2Y** | 8.4% | 7.1% | $199.12 | $23,433.83 | $6,092.00 | -$1,485.18 | $18,827.00 | $65.39 |
| **LTM+3Y** | 8.9% | 7.2% | $266.23 | $23,664.68 | $6,092.00 | -$3,121.90 | $20,694.58 | $71.73 |
| **LTM+4Y** | 9.0% | 7.2% | $283.80 | $23,840.80 | $6,092.00 | -$4,825.72 | $22,574.52 | $78.21 |
| **LTM+5Y** | 9.3% | 7.3% | $310.29 | $24,018.43 | $6,092.00 | -$6,662.53 | $24,588.97 | $85.33 |
| **LTM+6Y** | 9.5% | 7.3% | $347.33 | $24,178.45 | $6,092.00 | -$8,591.67 | $26,678.11 | $92.28 |
| **LTM+7Y** | 9.6% | 7.4% | $357.33 | $24,364.89 | $6,092.00 | -$10,638.78 | $28,911.67 | $99.89 |
| **LTM+8Y** | 9.7% | 7.4% | $364.04 | $24,511.78 | $6,092.00 | -$12,779.90 | $31,199.68 | $107.72 |
| **LTM+9Y** | 9.8% | 7.5% | $364.58 | $24,656.91 | $6,092.00 | -$15,013.32 | $33,578.23 | $113.70 |

**Monte Carlo Simulation Assumptions**

| | Base | Stdev | Min | Max | Distribution |
|---|---|---|---|---|---|
| **Revenue Variation** | **0** | **10%** | **N/A** | **N/A** | **Normal** |
| **Op. Costs Variation** | **0** | **10%** | **N/A** | **N/A** | **Normal** |
| **Market Risk Premium** | **6%** | **N/A** | **5%** | **7%** | **Triangular** |
| **Long term Growth** | **3%** | **N/A** | **2%** | **17%** | **Triangular** |
| **Terminal Value** | **0** | **0.1** | **N/A** | **N/A** | **Normal** |

**Monte Carlo Simulation Results**

| | Intrinsic Value | 1y-Target |
|---|---|---|
| **Mean est.** | $54.25 | $59.89 |
| **σ(ε)** | $0.32 | $0.25 |
| **3 σ(ε) adjusted price** | $53.29 | $59.14 |
| **Current Price** | $52.11 | |
| **Analysts' median est.** | | $57.64 |