

# Macroeconomic Overview

## U.S. Markets

Index	Weekly % Change	YTD % Change
S&P 500	+3.27%	+1.47%
Dow Jones Industrial	+3.36%	+0.004%
NASDAQ Composite	+3.58%	+7.79%
Russell 2000	+2.47%	-2.45%
VIX	-22.96%	-19.53%

U.S. equities had a strong week, and almost managed to recover the previous week's losses, despite modest losses on Tuesday and Thursday. The S&P 500 came back into positive year-to-date territory, after rising 3.27% through Friday, as



S&P 500, DJIA, NASDAQ Composite, Russell 2000 5-day chart.

did the Dow Jones Industrial Average, which gained 3.36% and only sits \$0.76 higher than its closing price on December 31<sup>st</sup>, 2014. Many investors feared the markets' reactions to the terror attacks that struck Paris two Fridays ago, and despite a solid gain on Monday, equities sold off sharply on Tuesday after reports a soccer game had been cancelled in Germany due to terrorist threats. Once again, the NASDAQ Composite outperformed the other benchmarks, with a weekly gain of 3.58% that set the index's year-to-date performance to +7.79%, while the Russell 2000 Index of small-cap stocks underperformed with a 2.47% weekly gain. Investors seem to be slowly accepting the reality of a December interest rate hike, as it means that the U.S economic recovery is strong enough to support it. As a result, volatility in the U.S markets decreased, as measured by the VIX, which lost 22.96% last week after rising more than 40% the prior week. Gold also fell sharply, but bounced back on Friday to reduce its weekly loss to -0.54%, while silver fell 0.55%. The rally in equities was led by energy stocks, which jumped higher with crude oil on Monday. Crude oil had one of its most volatile weeks so far, as traders seemed to have a hard time valuing a barrel. As a result, the prices of both Brent and WTI spent the week fluctuating in a range of +5% to -5%, to end the week mixed as Brent crude rose 0.43% while WTI crude lost 0.86%. The economic calendar was fairly light last week, but investors still had a couple of reports to digest. On Tuesday, the October CPI report was published, and showed that prices had their first monthly increase in 3 months, rising 0.2% over September as analysts expected. Core CPI, which excludes food and energy prices, increased 0.2% monthly, while the yearly change of 1.9% came in just under the Fed's target of 2%. On Wednesday, the minutes of the FOMC meeting were released, and showed that the Federal Reserve is now starting to think about the timeline of rate increases, as it seems to be sticking to its plan of lifting rates in December. In corporate news, the value of announced mergers and acquisitions surpassed \$4 trillion this year, as Nokia (NOK) offered to acquire French company Alcatel-Lucent for \$16.6 billion, while Marriott (MAR) offered to acquire rival Starwood Hotels & Resorts (HOT) for \$12.2 billion in a deal that would create the world's largest hotel chain.. This M&A frenzy makes 2015 the second most prolific year of all time for deals, behind the \$4.7 billion of mergers announced in 2007. Next week's economic calendar is lighter than usual, as the trading week will be shortened by Thanksgiving. Existing home sales will be released on Monday for the month of October, while the second estimate for Q3 GDP is expected on Tuesday, with analysts calling for a 2.1% increase in real output. On Wednesday, the October new home sales will be published, and analysts expect the figure to rise to 499,000 from 468,000 in September. American markets will be closed on Thursday to observe the Thanksgiving national holiday, and will close at 1:00 PM on Friday.

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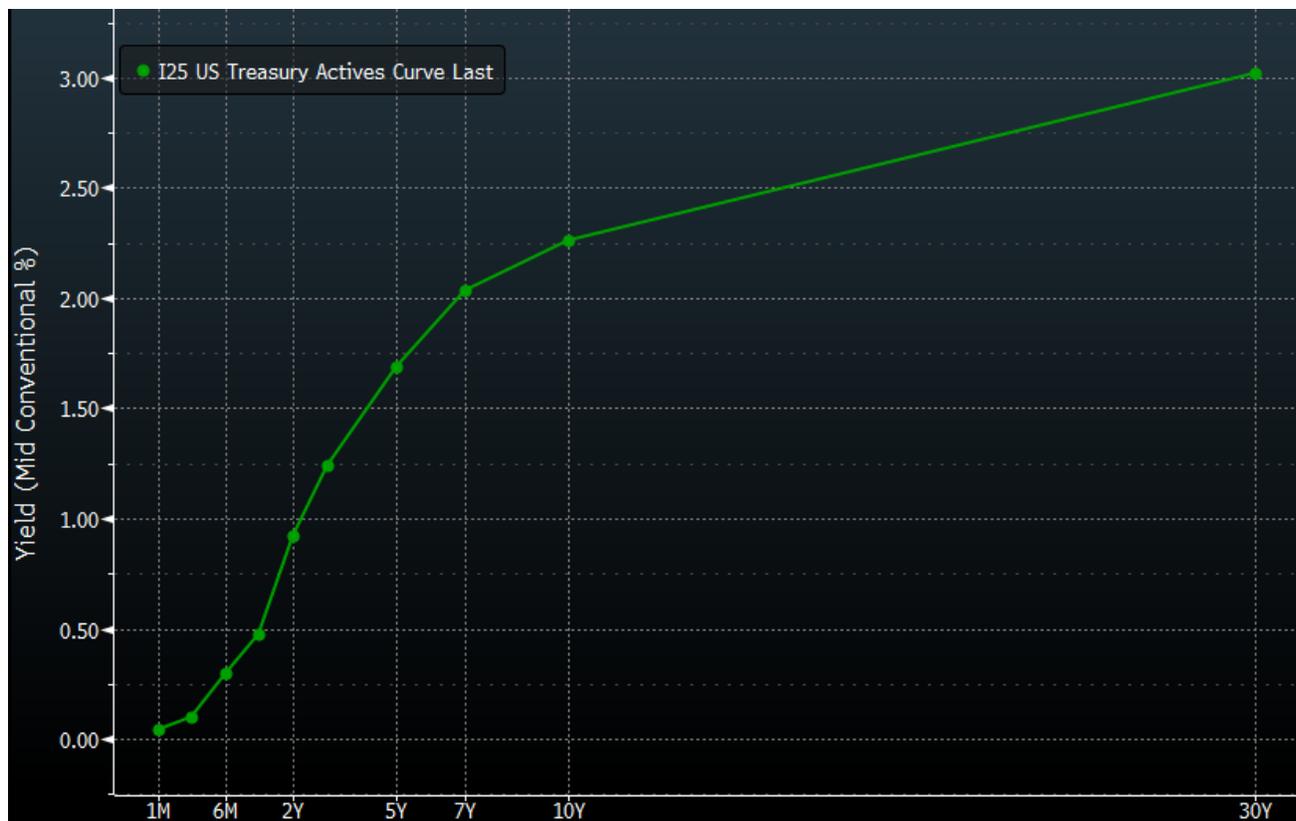
## **International Markets**

International equity markets slightly underperformed their American counterparts last week, especially European indices in the aftermath of the disaster in Paris. France's main stock index, the CAC 40, managed to gain 2.18% through Friday after gapping lower on Monday's open. In Germany, where a soccer game had to be cancelled on Tuesday due to plausible terrorist threats, the DAX proved very resilient, rising 3.84% with only one red day. The broader Bloomberg European 500 and Stoxx Europe 600 gained 3.25% and 3.32% respectively, helped by Mario Draghi's call for additional stimulus on Friday, while the MSCI AEFÉ rose 2.36%. In Asia, the Nikkei 225 rose 1.4% despite falling sharply on Monday on news that the country was entering recession. In China, equities had another strong week, as the People's Bank of China announced it was cutting the standing lending facility rate used by domestic banks to borrow from each other. The Shenzhen Composite gained 3.64% while the Shanghai Composite only rose 1.39%. Several economic reports are due next week, including German third quarter GDP and minutes of the Japanese monetary policy meeting on Tuesday, Japanese CPI on Thursday, and U.K third quarter GDP on Friday.

## Bond Report

This Week, short-term Treasury yields finished the week at their highest level since May 2010 because short-term yields are more sensitive to change in the FED rates, and investors continued to sell their U.S debt as they strongly believe of an increase in rates by the end of the year. On Wednesday, treasury-yield fall during the day as the minutes from the FED's meeting on October were released. Indeed, according to the minutes, the possibility of a rate hike "could well be met by the time of the next minutes". On Thursday, treasury-yields declines to their lowest level in two weeks as U.S economic data appeared to be strong enough for investors to consider an interest-rate hike in December; this was the continuity of the comments from the FED minutes. The beginning of the climbing cycle will causes short-term interest rates to climb while long-term interest rates should remain low. On Friday, the short-term treasury yield finished the week at 0.92, an increase of 2.5 bps from last week, its highest level in five and a half years. However, long-term maturities yields decline this week, with the 10-year treasury yield which finished the week at 2.26%, 1 basis point lower than last week and an increase of 1.8 bps from Thursday where the yield fall to 2.24%, its lowest level in two weeks. Among longer maturities, the 30-year Treasury yield lost 4 bps compare to last week and finished the week at 3.02% but gained 1.5 bps from Thursday where the yield went down to 3.0%.





## What's next and key earnings

On Monday November 23<sup>rd</sup>, the PMI Manufacturing Index Flash will be released. This has not shown any contraction for this sector unlike most other measures. The index should be trending near a 54.5 range for the November Flash. Regional reports have been constructive including the Philly FED which moved back over breakeven. Later this day, the Existing Home Sales report will be released. They strongly increase for the month of September and they are expected to decrease a little bit at 5.4 million annual rate, which is a 2.7% decline in the month.

On Tuesday November 24<sup>th</sup>, the second estimate for third-quarter GDP will be released. It is expected to increase thanks to a rise in inventories, especially the retail inventories which increased dramatically in September. This version should be revised to a gain of estimate of 2.1%. The Consumer Confidence report will be released as well. It is expected to increase by 2-point from 97.6 to 99.6 for November. Job markets are always very watched in this report and this increase could be explained by the improvement of the employment report for November.

Wednesday November 25<sup>th</sup>, The Durable Goods Orders will be released. Contraction from both August and September are expected to be reversed with a 1.5% gain for the month of October. Later this day, the Personal Income and Outlays report will be released. The Core PCE index is often the FED's favourite report since it tells about inflation and this report is expected to show an increase of 0.2% for the month of October, which would be in favour of a rate hike in December.

## Costco Wholesale Corporation

NYSE: COST

**Analyst:** Ryan Burke

**Sector:** Consumer Staple

### SHORT

Price Target: \$123.82

### Key Statistics as of 11/18/2015

Market Price:	\$ 161.25
Industry:	Electronic Equipment
Market Cap:	\$70.53B
52-Week Range:	\$117.03-161.40
Beta:	0.7886

### Thesis Points:

- Historical sales and growth will be difficult to sustain
- New club openings in existing markets can lead to cannibalization of sales
- Encroaching Ecommerce services will lead to deterioration of growth
- Inherently low margins and resistance to reduce employee expenses will make profitability growth difficult

### Company Description:

Costco Wholesale Corporation operates an international chain of membership warehouses, mainly under the "Costco Wholesale" name, that carry quality, brand name merchandise at substantially lower prices than are typically found at conventional wholesale or retail sources. The warehouses are designed to help small-to-medium-sized businesses reduce costs in purchasing for resale and for everyday business use. Individuals may also purchase for their personal needs. Costco's warehouses present one of the largest and most exclusive product category selections to be found under a single roof. Categories include groceries, candy, appliances, television and media, automotive supplies, tires, toys, hardware, sporting goods, jewelry, watches, cameras, books, housewares, apparel, health and beauty aids, tobacco, furniture, office supplies and office equipment. Costco is known for carrying top quality national and regional brands, with 100% satisfaction guaranteed, at prices consistently below traditional wholesale or retail outlets.



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## Thesis

According to the founder of Costco, Jim Sinegal, the five core values of Costco are

1. Obey the Law
2. Take care of members
3. Take care of employees
4. Respect suppliers
5. Reward Shareholders

These core values, although ethical and admirable, are not optimized to maximize shareholder value. Historically speaking, Costco's business model has proven successful; however, the company is fundamentally overvalued. The structure of their income statement is sensitive to operating expenses, which will inevitably increase over the next several years as they remodel their stores and build an online presence, which will diminish profitability, growth, and value.

Costco's commitment to low prices, thin margins, handsomely compensated employees, and prospective remodeling plans will make cutting expenses and raising profitability difficult. Costco's competitive advantage is selling its members everyday home goods and a number of big ticket items at steep discounts for an annual membership fee. The profit margin on their goods and services is quoted to never exceeding 15% which compared to the 30%-50% margins of traditional supermarkets and retailers is very small. Approximately 75% of Costco operating profits come from annual membership fees, which makes profitability and shareholder value highly dependent on an annual increase of memberships. Costco is an enormous wholesaler in the United States, as of September 2015, they have nearly 80 million members. If Costco opens new warehouses in existing markets they will risk cannibalization. In the long term, the evolving shopping environment may lead to deteriorating growth for Costco as consumers increasingly choose alternative channels such as Ecommerce, especially if Amazon invests heavily in its Pantry concept.

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## Porter's 5 Forces

### **Bargaining Power of Suppliers - High**

Costco averages a mere 3,800 stock-keeping units per club, versus more than an average of 60,000 SKU's at most mass-merchant Superstores. This makes the

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products they choose selective and bids highly competitive. With 674 warehouses globally, Costco wields nearly as much bargaining power as Wal-Mart.

### **Bargaining Power of Customers – Low**

Costco's competitive advantage is that it offers the high quality products at prices consumers cannot get anywhere else.

### **Threat of Substitutes - High**

Despite owning approximately half of the wholesale market cap, there are a multitude of channels consumers can buy the same products that Costco sells.

### **Threat of new Entrants – High**

As Ecommerce grows, Costco may find itself competing with wholesalers online with smaller expenses and no membership fees.

### **Threat of Substitute products or Services - High**

Costco's relatively small selection of goods provided in each warehouse leaves room for countless alternative bargain products available elsewhere for consumers to choose.

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## International Growth

Due to the ubiquity of Costco Wholesalers in the United States, the introduction of new clubs in existing markets risks sales cannibalization. Costco addresses this by stating that their growth prospects exist internationally.

Costco's membership renewal rates stand at about 90% in the U.S. and Canada; however, on a global basis, renewal rates stand at about 86%, which indicates that attrition rates are higher at the international operating segment. Therefore, a larger proportion of sales from international warehouses could drag overall renewal rates lower.

This may be indicative of cultural preference. The American consumer enjoys buying in great bulk at steep discounts, however this notion may not be as popular in different cultures, which could result in lower total sales per customer per visit in international markets. This would result in underachieving the forecasted growth that is factored into current market valuation.

Foreign currency volatility and commodity cost pressures can challenge Costco's business, especially during times of economic weakness.

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potentially losing members. If Costco performs at status quo, they will incur additional operating expenses in the years ahead and lose value.

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## Long Term Membership Growth

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Long term membership growth rates are a risk to Costco's future cash flows.

Long term membership growth rates slow materially or turn negative over time for Costco. An example that illustrates why membership attrition occurs is the family paradigm. Families with children compose a large portion of Costco memberships. Although paying an annual membership may have value when parents are supporting a number of children, as the children get older and move out of the house, the annual membership costs may not be worth holding onto as the parents have to support less people. Therefore, Costco members drop their membership over time.

## Ecommerce Risk

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Ecommerce is a key business risk for Costco. As the consumer environment progresses towards an online shopping experience, Costco may find itself in a corner. Costco's austere, bare bones business model with limited store selection is not the type of framework that can support a booming Ecommerce website. If Costco chooses to invest in an Ecommerce platform it would incur additional operating expenses that may not pay off in the long term. If Costco ignores the Ecommerce platform and sticks to its traditional brick and mortar business strategy, it risks losing market share to Ecommerce stores. If Amazon decides to invest heavily behind its Pantry concept, the competitive environment could become more intense for Costco.

## Summary

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Costco is an overvalued company. The present market valuation of Costco factors in an increased growth rate over the next five years and stable operating expenses. Sustaining the historical growth for Costco will be difficult due of the risks involved with cannibalization domestically and long term retention rates abroad. Additionally, the risks of building up their Ecommerce platform will incur additional operating expenses that will hurt profitability. Ecommerce will inevitably eat away at some of Costco's market share. To maintain profitability, Costco has the option of increasing margins, however, their competitive advantage exists in their low margins. If their margins are raised they will lose their competitive advantage and destroy value by



## Foot Locker Inc.

NYSE:FL

**Analyst:** Dominick Iachetta  
**Sector:** Consumer  
Discretionary

**BUY**

Price Target: \$68.99

### Key Statistics as of 11/19/2015

Market Price:	\$61.53
Industry:	Specialty Footwear & Apparel
Market Cap:	\$8.6 B
52-Week Range:	\$51.12-\$77.25
Beta:	0.79

### Thesis Points:

- Growth prospects within main segments of business
- Generating momentum towards the holiday season with “Week of Greatness”
- Record setting financial performance will continue into 2016

### Company Description:

Foot Locker Incorporated is an athletic retailer that operates stores largely in the United States, Europe and Australia. Primarily based in shopping malls, the company provides athletic footwear and apparel through its different banners which include Foot Locker, Lady Foot Locker, Kids Foot Locker and Champs Sports retail stores as well as their direct to consumer website, Footlocker.com/Eastbay.



## Thesis

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The third quarter was an extremely tough time for the retail sector as a whole. Company's like Macy's and Nordstrom were not exempt from disappointing Q3 earnings and have caused investors to panic about the sector as a whole. Even in times of market uncertainty, FL is a very strong investment based on the following: emphasis on growth and improvement in the main pillars of their business, increased product offerings and celebrity partnerships for the holiday season and consistently strong financial performance.

## Segment Growth

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FL has identified four main pillars within their business that they are actively seeking to expand and improve upon. FL's management team has identified their Kids segment, European segment, apparel offerings and Women's segment as key opportunities to drive growth by the end of 2016. If the company is able to implement the changes to successfully improve upon these areas of the business, FL is a stock to watch out for in the next 12 months.

Currently FL has 370 Kids locations which accounts for about 11% of the company's total stores. FL plans to boost this number to 510 stores by the year 2020 by growing the brand both domestically and internationally. Management plans to create a more fun and exciting environment for families in their physical locations as well as online. FL has emphasized their plan to rapidly expand their store feature, "Fly Zone". FL, in conjunction with Nike and Jordan, has developed Fly Zone which is inspired by today's most popular athletes and brings their stories to life through customized displays and experiences. FL views expansion into their Kids segment as a value creating investment for the firm because younger shoppers are more likely to make the transition from FL Kids to FL in the near future. FL has implemented the strategy of developing brand loyalty to its customers at a very young age which will be extremely beneficial in both the near and long term.

FL views Europe as a key target to drive growth for the company. Although the company has established strongholds in parts of the continent, there are still many countries in Europe that FL has little to no presence in.

FL has identified running, basketball and lifestyle as the three key product categories that will help them increase their brand recognition in Europe. FL also plans to develop the capability for significant digital growth in Europe by creating more targeted mobile advertising in untapped markets. FL currently has 19 international locations and plans to increase this number to over 60 stores by 2020. FL plans to use its expansion into Europe to become one of the major players in the region and thus increase brand awareness even further.

One of management's primary missions in 2015 has been to enhance FL's apparel offerings available to consumers. FL plans to increase their apparel offerings with the intention of increasing number of items per transaction therefore increasing total sales. FL has highlighted a strategy that will allow them to partner with brand name vendors, like Nike and Under Armour, in order to deliver premium product lines that are differentiated from competition and vertical retailers. These partnerships coupled with private label assortments will help FL reduce lead times and stay current on emerging trends in fashion.

FL has merely scratched the surface on offerings geared toward its female customers. FL has identified its women segment as a key growth driver for the upcoming quarters. The company plans to aggressively develop SIX:02 as its primary women's brand into 2016. Launched in 2012, SIX:02's unique design was the first to offer women a broad choice of athletic wear in an environment created solely for females. The store features specific fitting zones and areas for female customers to find the exact fitness pants, sports bras, tops and footwear for their body type, activity and style. FL plans to build the overall awareness of its SIX:02 brand by clearly defining their customer base and understanding her needs, delivering a strong service model catering towards women and establishing national, market and outreach programs. Currently, FL operates 35 SIX:02 stores and plans to dramatically increase this

number by the end of 2016.

## Holiday Season

FL is preparing for the approaching holiday season with the launch of its fourth annual Week of Greatness. The Week of Greatness features daily premium sneaker releases from some of the most popular brands in the world such as Nike, Under Armour and Jordan. Part of the main focus heading into holiday season is taking advantage of the high demand for retro footwear that currently exists in today's sneaker world. FL is poised to take advantage of this rising trend and have a very strong holiday season.

Along with their schedule of new footwear being offered, FL's marketing strategy for Week of Greatness has not only increased the awareness of the campaign but also for the entire brand itself. FL has teamed up with superstars Steph Curry and Aaron Rodgers to release new commercials for Week of Greatness. Curry and Rodgers, two professional athletes at the pinnacle of their sports, will help the company propel itself to the main stream for the upcoming holiday season. In this industry brand recognition is paramount in order to separate from competitors. The ability to promote their brand at this crucial part of the year in will bring FL to the forefront of shoppers' minds. Their new focus on increased apparel offerings, traditionally strong and ever-growing footwear selection and their increased advertising with world class athletes sets FL up for an extremely strong Christmas season.



## Financial Analysis

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The first two quarters of 2015 have been extremely strong for FL. Since the beginning of the year, FL has generated

a company record of \$303 million in net income. In the second quarter reported same store sales growth of 9.6% and EPS of \$0.84, both beating analyst consensus estimates. The second quarter also saw the Lady's segment

increase same store sales for the sixth consecutive quarter – a feat that hasn't been accomplished in the last decade.

Many other retailers in the current environment have reported disappointing earnings for the third quarter due to above average temperatures and decreased foot traffic within stores. FL's product mix coupled with its increased exposure to European markets will offset the negative performance of the entire retail sector. Although many of FL's competitors generated revenue and EPS below expectations, most reported increased strength in the footwear segment, which bodes well for FL's Q3 earnings. Additionally, On November 18, FL announced a quarterly dividend of \$0.25 per share to be paid at the end of January 2016. This dividend payment along with the \$76 million share repurchase earlier in the second quarter are positive signs for the coming months. The company's strong performance to date in 2015 as well as its promising financial outlook for the remainder of the year leads to strong upside potential for the stock in the near future.

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## Summary

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I am recommending a BUY on FL based on its strong growth trajectory and overall upside potential. Third quarter earnings will be released before the market opens on November 20<sup>th</sup>. This earnings report should act as a strong catalyst for the stock to gain momentum going into the holiday season. In conclusion, FL is an undervalued company that will continue to create additional value in 2016 and beyond.

**CENTER FOR GLOBAL FINANCIAL STUDIES**

Foot Locker, Inc.		Analyst Dom Iachetta	Current Price \$58.10	Intrinsic Value \$68.52	Target Value \$68.89	Divident Yield 2%	1-y Return: 20.21%	<b>NEUTRAL</b>	
General Info		Peers	Market Cap.	Management					
Sector	Consumer Discretionary	Ralph Lauren Corporation	\$10,217.55	Professional	Title	Comp. FY2013	Comp. FY2014	Comp. FY2015	
Industry	Specialty Retail	Dick's Sporting Goods Inc.	\$4,838.67	Johnson, Richard	Chief Executive Officer, President and Director	\$3,627,889	\$9,738,709	\$0	
Last Guidance	August 21, 2015	Under Armour, Inc.	\$19,409.58	Peters, Lauren	Chief Financial Officer and Executive Vice Pres	\$2,064,751	\$3,634,835	\$0	
Next earnings date	November 20, 2015	Finish Line Inc.	\$714.36	McHugh, Robert	Executive Vice President of Operations Supp	\$2,419,738	\$4,544,023	\$0	
Market Data		PVH Corp.	\$7,155.67	Alviti, Paulette	Chief Human Resources Officer and Senior V	\$2,500,260	\$2,248,530	\$0	
Enterprise value	\$7,405.02	DSW Inc.	\$1,964.78	Beik, Jeffrey	Senior Vice President of Real Estate	\$1,664,419	\$2,041,831	\$0	
Market Capitalization	\$4,838.67	V.F. Corporation	\$26,755.15	Cipriano, Giovanna	Chief Accounting Officer and Senior Vice Pres	\$0	\$0	\$0	
Daily volume	4.80	Hanesbrands Inc.	\$12,023.02	Past Earning Surprises					
Shares outstanding	139.38	#REF!	#REF!	Revenue		EBITDA	Norm. EPS	Standard Error of "Surprise"	
Diluted shares outstanding	143.35	Genesee Inc.	\$1,277.98	Last Quarter	1.96%	16.32%	21.74%	5.90%	
% shares held by institutions	73.36%	Current Capital Structure		Last Quarter-1	0.07%	3.45%	4.88%	1.42%	
% shares held by insiders	1.17%	Total debt/ Common Equity (LTM)	0.53	Last Quarter -2	2.12%	2.50%	9.89%	2.53%	
Short interest	9.98%	Cost of Borrowing (LTM)	8.18%	Last Quarter -3	0.37%	2.06%	3.06%	1.37%	
Days to cover short interest	6.19	Estimated Cost of new Borrowing	3.65%	Last Quarter -4	4.28%	13.46%	18.52%	4.17%	
52 week high	\$77.25	Altman's Z	8.90	Standard error	0.8%	3.0%	3.5%	1.83%	
52-week low	\$51.12	Estimated Debt Rating	AA	Standard Error of Revenues prediction	0.8%	Industry Outlook (Porter's Five Forces)			
5y Beta	0.68	Current levered Beta	0.66	Imputed Standard Error of Op. Cost prediction	2.9%	Bargaining Power of Suppliers (75th Percentile), Bargaining Power of Customers (14th Percentile), Intensity of Existing Rivalry (33th Percentile), Threat of Substitutes (-67th Percentile), Threat of New Competition (67th Percentile), and Overall (67th Percentile).			
6-month volatility	26.84%	LTM WACC	4.77%	Imputed Standard Error of Non Op. Cost prediction	1.7%				
Proforma Assumptions									
Convergence Assumptions		General Assumptions		Items' Forecast Assumptions			Other Assumptions		
All base year ratios linearly converge towards the Peers ratios over an explicit period of 10 years		Money market rate (as of today)	0.41%	Base year (LTM)		Convergence period (Peers)	Adjustment per year	Tobin's Q	80%
		Risk-Free rate (long term estimate)	3.07%	Operating Cash./Rev.	0.00%	0.00%	0.0%	Excess cash reinvestment	Money market rate
		Annual increase (decrease) in interest rates	0.1%	NWV./Rev.	11.66%	14.30%	0.3%	Other claims on the firm's assets	\$0.00
		Marginal Tax Rate	37.5%	NPPE./Rev.	8.88%	12.11%	0.3%	Capitalization	
		Country Risk Premium	6.0%	Dpr./NPPE	20.65%	17.85%	-0.3%	100% of all rent expenses are capitalized and amortized 'straightline' over 10 years	
				NOPAT MARGIN	9.11%	9.00%	0.0%	100% of all R&D expenses are capitalized and amortized 'straightline' over 10 years	
Forecast Year	Revenue Growth Forecast	Revenue (\$) Forecast	Op. Exp./Rev.	85.58%	86.42%	0.1%	0.0%	E&P expenses are not capitalized	
LTM		\$7,253.00	SBC./Rev.	0.32%	0.73%	0.0%	0.0%	SG&A expenses are not capitalized	
FY2016	1.7%	\$7,376.54	Rent Exp./Rev.	8.75%	4.95%	-0.4%	0.0%	Valuation Focus	
FY2017	5.4%	\$7,771.31	R&D./Rev.	0.00%	0.44%	0.0%	0.0%	DCF Valuation	
FY2018	5.7%	\$8,211.64	E&D./Rev.	0.00%	0.00%	0.0%	0.0%	Relative valuation	
FY2019	6.4%	\$8,735.30	SG&A./Rev.	27.78%	33.22%	0.5%	0.0%	Distress Valuation	
FY2020	4.2%	\$9,099.00	ROC	9%	10.52%	0.20%	0.0%	Monte Carlo Simulation Assumptions	
FY2021	3.6%	\$9,424.91	EV./Rev.	1.24x	1.16x	-0.01x	0.0%	Revenue Growth deviation	
FY2022	3.3%	\$9,735.07	EV/EBITA	8.63x	7.55x	-0.11x	0.0%	Operating expense deviation	
FY2023	3.1%	\$10,041.28	Debt/Equity	53%	398%	34.5%	0.0%	Continuing Period growth	
FY2024	3.1%	\$10,349.82	Unlevered beta	0.49	1.00	0.05	0.0%	Country risk premium	
FY2025	3.0%	\$10,664.08	Dividends/REV	2%	2%	0.0%	0.0%	Intinsic value σ(ε)	
Continuing Period	3.0%	\$10,984.00					1-year target price σ(ε)	\$0.10	
Valuation									
Forecast Year	ROC	WACC	Total Capital	Implied Enterprise Value	Other Claims on Assets and Dilution Costs	Shares Outstanding	Price per Share	Monte Carlo Simulation Results	
LTM	8.3%	4.8%	\$7,827.00	\$9,351.61	\$370.86	139.38	\$68.60		
FY2016	8.8%	5.0%	\$7,876.88	\$9,185.87	\$376.22	139.38	\$68.35		
FY2017	9.0%	5.8%	\$8,374.12	\$9,509.19	\$382.93	139.38	\$70.16		
FY2018	8.9%	6.3%	\$8,902.89	\$9,891.92	\$390.16	139.38	\$72.49	The 3σ(ε)-adjusted intrinsic value is \$68.52; the 3σ(ε)-adjusted target price is \$68.89; and the analysts' median target price is \$75.86	
FY2019	8.8%	6.7%	\$9,485.04	\$10,355.35	\$398.19	139.38	\$74.56		
FY2020	8.6%	7.2%	\$9,967.35	\$10,768.69	\$277.29	139.38	\$76.84		
FY2021	8.4%	7.6%	\$10,425.79	\$11,213.68	\$177.29	139.38	\$79.16		
FY2022	8.2%	8.1%	\$10,873.56	\$11,711.74	\$182.00	139.38	\$81.36		
FY2023	8.1%	8.5%	\$11,317.21	\$12,278.67	\$99.28	139.38	\$84.22	Sensitivity Analysis	
FY2024	7.9%	9.0%	\$11,759.92	\$12,928.36	\$0.00	139.38	\$87.17	Revenue growth variations account for 95.9% of total variance	
FY2025	7.8%	9.4%	\$12,203.14	\$13,674.89	\$0.00	139.38	\$91.11	Risk premium's variations account for 2.5% of total variance	
Continuing Period	10.5%	9.6%	\$10,023.47					Operating expenses' variations account for 1.4% of total variance	
Continuing period growth variations account for 0.2% of total variance									

## Jabil Circuit Inc.

JBL: NYSE

**Analyst:** Peter Ostrowski  
**Sector:** Information  
Technology

**BUY**

Price Target: \$27.21

### Key Statistics as of 11/17/2015

Market Price:	\$23.98
Industry:	Hardware
Market Cap:	\$4.5B
52-Week Range:	\$16.9-\$24.95
Beta:	1.13

### Thesis Points:

- Parts supplier for Apple
- Strategic Acquisitions Combined with Organic Investment
- Financials- Increasing margins and Value Creation

### Company Description:

Jabil Circuit, Inc. is an electronic manufacturing services provider for international electronics companies in the communications, personal computer, peripheral, consumer, and automotive markets. The Company offers circuit design, board design from schematic, prototype assembly, volume board assembly, system assembly, repair, and warranty services.



## Thesis

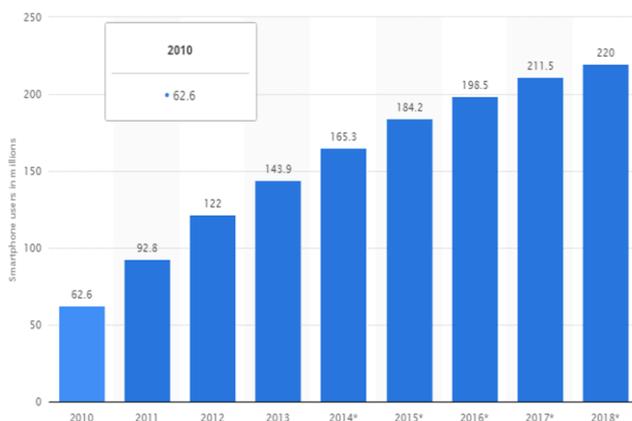
Jabil is currently the 3<sup>rd</sup> largest producer of electronic components in the world. They currently are Apple's supplier for the iPhone casings which has led to substantial growth over the past five years. Apple's success with iPhones has directly translated to Jabil's. Jabil is extremely diversified in their product line ranging from packaging solutions to automobile technologies. This has allowed them to have stability in a volatile market. Jabil have acquired strategic companies to expand the market base of their products while simultaneously increasing investments in key areas to add organic growth to the company.

## Macroeconomic Environment

The general macroeconomic environment for the technology sector is unpredictable and volatile. It is important for companies to have a strong customer pipeline as well as a diversified product line. Being a success in multiple sectors can give a company some security and stability.

Jabil is currently Apple's part supplier. The diversity of their product line ranges from industrial, automotive and packaging to the Internet of Things. These markets are emerging and show growth potential that Jabil can capitalize on.

Number of smartphone users in the United States from 2010 to 2018 (in millions)\*



The graph above shows that there will continue to be an increasing number of smartphone users until 2018. This number does not include individuals who upgrade their phones on a yearly basis. The demand for the newest and most attractive items is on part of basic human

fundamentals. This is demonstrated in the recent success of the iPhone 6 and 6s. These two phones annihilated expectations as they sold 10 million units in first three days. Analysts' projections of demand for iPhone 6s were conservative and warned of lower numbers. This was completely false as shown. The iPhone 7 is not set to come out until September of 2016; however, Jabil and Apple must start preparing now for further growth in demand.

The automotive industry is rapidly changing and markets are emerging in demand for optics, wireless and electrification of the power train. The industry is quickly moving towards the Internet of Things where machines will be able to share data directly to other machines. This is a huge market that has yet to be capitalized on.

## Parts Supplier for Apple

It's impossible to discuss Jabil without Apple. Apple is Jabil's biggest customer as it has contributed to 24% of Jabil's revenue in 2015 compared to 18% in 2014. This revenue boost is largely due to the success of the iPhone 6 and 6s as previously discussed.

Jabil makes the casings for iPhones and has been extremely successful this past quarter because of it. Jabil's Diversified Manufacturing Services segment grew 47% year over year to \$1.92 Billion. This sector accounts for almost half of Jabil's revenue for the year. As successful as Apple has been for Jabil it is important to understand Jabil's other growth opportunities.

Although there is no written contract between Apple and Jabil; Jabil still has a competitive advantage in its industry due to the high cost of switching suppliers along with the high opportunity costs and potential risks Apple would face.

## Acquisitions

Jabil's company Nypro Packaging aids companies such as Proctor and Gamble and Coca Cola in manufacturing and production solutions. These solutions include conventional packaging, hybrid packaging, active packaging, and intelligent packaging. Essentially these packaging solutions make this part of their customer's business more efficient. This is due to enhanced

capabilities that allow manufacturing companies to decrease costs, waiting times and increase production. This allows customers to distribute goods such as foods more effectively. If the product arrives at the grocery store damaged or spoiled no revenue can be made. Investing in smart packaging volumes can increase as well as decreased liability on the distribution channel. This ultimately makes consumers want to buy these products as the company was willing to invest more into the success of it.

Nyro Packaging has recently acquired Plasticos Castella for \$110M. This company is headquartered in Spain with operations in Hungary as well. Plasticos Castella has been operating for 40 years as a successful manufacturer of high-volume plastic containers and packaging for food and beverage name brands.

This acquisition gives Nypro packaging a strong growth platform. This is due to the vast market expansion opportunities that exist in Europe.

## Investments

Jabil prides itself on continued investments back into the company. The inorganic growth they receive from investments combined with their acquisition is the key to long-term growth as well as capital gains.

### Fiscal 2016 Anticipated Capital Investments

Area of Investment	
Capacity / Infrastructure	\$250M
DMS – Mobility	\$150M
DMS – Nypro	\$100M
DMS – Other	\$200M
EMS	\$150M
Capabilities	\$50M

Investing in the infrastructure of Jabil is key. The point of this is to over time increase the volume of sales by increasing the size of current operations. This is due to the growing demand of current products and the future macroeconomic outlook. By producing more Jabil will be able to continue to operate at a high level.

Increasing investments in diversified manufacturing systems is essential due to the increasing sales shown

in 2015 as well as the expansion to Europe. With Apple reporting record sales on the iPhone 6; Jabil

will have to prepare for the upcoming release of the iPhone 7 next September. This is the reasoning for the \$150M investment into DMS-mobility.

The investment into Nypro is due to the acquisition of Plasticos Castella. The expansion into the European markets will require additional capital to get the business up and running.

Jabil also plans to invest in capabilities. These capabilities are the actions that the automotive sector products do. The latest investment in this area is in innovative technologies. These include optics, wireless and electrification of the power train. They offer data solutions in automotive design as well. These solutions primarily deals with battery management, power supply and general efficiency of the car.

## Financials

Year over year Jabril has been very impressive. This is due to a revenue increase of 14% as well as an increasing EBITDA from \$784.1M to \$1.1B. Not only have sales increased; margins have also increased as shown below:

12 Months Ending	08/31/2013	08/31/2014	08/31/2015
Gross Margin	7.03	6.51	8.40
Operating Margin	2.62	1.29	3.10
EBITDA Margin	5.05	4.39	6.06
Profit Margin	2.15	1.53	1.59

Jabil has been able to increase sales while mitigating costs which shows increased efficiency as well as an effective use of resources.

Jabil's current ROIC according to capitalIQ is 20% compared to the WACC which is 8.33%. This shows an ROIC/WACC ratio of 2.33. This means that Jabil is creating value.

## Porter's Five Forces

The bargaining power of suppliers is low. This is due to the fact that they have multiple suppliers for each product. This allows them to negotiate for the lowest price among the groups.

The bargaining power of customers is neutral to high. For the DMS sector Jabil has a small amount of customers that make up a large percentage of revenue. This leads to a high bargaining power of customers; however, there is a high cost for companies such as Apple to switch suppliers. In the electrical manufacturing sector Jabil has a large number of customers where the product is important to them.

The intensity of existing rivalry is high. There is constant competition among the industry to keep prices as low as possible. This is due to the large size of the industry.

The threat of new competition is low. This is due to the high cost of switching for customers. Strong brand names are important when selling to big name companies such as Apple, HP and GE. Advanced technologies are also required for the packaging industry as well as the electrical manufacturing sector.

The threat of substitutes is neutral. This is largely due to the diverse product line that Jabil is in. Certain sectors have a relatively large number of substitutes while certain have none.

## Conclusion

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I recommend a buy for Jabil. This is largely due to their partnership with Apple. Apple has consistently been responsible for the increases in Jabil's revenue due to the success the iPhone continues to bring. Jabil has also been largely investing in other sections of its business as well as acquiring strategic companies to hedge the risk of this dependence on Apple. Expanding the packaging market will increase growth for Jabil as well as increasing their presence in automobile technology. Increasing margins as well as value creation are also a key indicator of future stability.

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Jabil Circuit Inc.	jbl	Analyst Peter Ostrowski	Current Price \$23.91	Intrinsic Value \$24.22	Target Value \$27.20	Divident Yield 1%	1-y Return: 15.06%	<b>NEUTRAL</b>	
<b>General Info</b>		<b>Peers</b>		<b>Management</b>					
Sector	Information Technology	Fleetronics International Ltd.	\$6,202.80	Professional	Title	Comp. FY2013	Comp. FY2014	Comp. FY2015	
Industry	Ictronic Equipment, Instruments and Components	Plexus Corp.	\$1,221.41	Mondello, Mark	Chief Executive Officer and Director	\$4,684,062	\$6,539,114	\$0	
Last Guidance	September 24, 2015	Sanmina Corporation	\$1,871.41	Peters, William	President	\$2,665,095	\$2,926,551	\$0	
Next earnings date	December 17, 2015			Alexander, Forbes	Chief Financial Officer	\$2,486,468	\$2,567,929	\$0	
<b>Market Data</b>		Arvnet, Inc.	\$5,944.31	Muir, William	Chief Operating Officer	\$2,591,624	\$2,927,921	\$0	
Enterprise value	\$5,302.11	Benchmark Electronics Inc.	\$1,020.73	McGee, Joseph	Executive Vice President of Strategic Planning	\$1,728,230	\$1,745,833	\$0	
Market Capitalization	\$235.34	KEMET Corp.	\$129.55	Brooks, Martha	Director and Member of Audit Committee	\$222,600	\$260,510	\$0	
Daily volume	0.51	Kimball Electronics, Inc.	\$316.41	<b>Past Earning Surprises</b>					
Shares outstanding	189.27	TE Connectivity Ltd.	\$23,333.94	Revenue	EBITDA	Norm. EPS	Standard Error of "Surprise"		
Diluted shares outstanding	196.01	<b>Current Capital Structure</b>		Last Quarter	2.83%	4.46%	20.45%	5.62%	
% shares held by institutions	49.63%	Total debt/Common Equity (LTM)	0.68	Last Quarter-1	-2.16%	5.92%	0.00%	2.42%	
% shares held by insiders	9.20%	Cost of Borrowing (LTM)	7.64%	Last Quarter-2	0.90%	10.60%	11.11%	3.32%	
Short interest	8.17%	Estimated Cost of new Borrowing	6.92%	Last Quarter-3	5.32%	15.42%	17.02%	3.66%	
Days to cover short interest	5.39	Altman's Z	2.65	Last Quarter-4	6.00%	10.84%	400.00%	130.54%	
52 week high	\$24.93	Estimated Debt Rating	CC	Standard error	1.5%	2.0%	77.6%	26.20%	
52-week low	\$16.90	Current levered Beta	1.28	Standard Error of Revenues prediction	1.5%	<b>Industry Outlook (Porter's Five Forces)</b>			
5y Beta	1.10	LTM WACC	6.68%	Imputed Standard Error of Op. Cost prediction	1.3%	Bargaining Power of Suppliers (100th Percentile), Bargaining Power of Customers (43th Percentile), Intensity of Existing Rivalry (33th Percentile), Threat of Substitutes (67th Percentile), Threat of New Competition (100th Percentile), and Overall (87th Percentile).			
6-month volatility	32.26%			Imputed Standard Error of Non Op. Cost prediction	77.6%				
<b>Proforma Assumptions</b>									
<b>Convergence Assumptions</b>		<b>General Assumptions</b>		<b>Items' Forecast Assumptions</b>			<b>Other Assumptions</b>		
		Money market rate (as of today)	0.45%	Base year (LTM)	Convergence period (Sub-industry)	Adjustment per year	Tobin's Q	80%	
<b>All base year ratios linearly converge towards the Sub-industry ratios over an explicit period of 10 years</b>	Risk-Free rate (long term estimate)	3.06%	Operating Cash/Rev.	2.23%	2.23%	0.0%	Excess cash reinvestment	Money market rate	
	Annual increase (decrease) in interest rates	0.1%	NWV/Rev.	0.00%	2.00%	0.2%	Other claims on the firm's assets	\$0.00	
	Marginal Tax Rate	30.0%	NPPE/Rev.	15.67%	16.00%	0.0%	<b>Capitalization</b>		
	Country Risk Premium	6.0%	Dpr/NPPE	18.00%	18.00%	0.0%	100% of all rent expenses are capitalized and amortized 'straightline' over 10 years		
<b>Forecast Year</b>		<b>Revenue Growth Forecast</b>		<b>Revenue (\$)</b>		<b>Forecast</b>		100% of all R&D expenses are capitalized and amortized 'straightline' over 5 years	
LTM				Op. Exp./Rev.	93.41%	88.00%	-0.5%	E&P expenses are not capitalized	
FY2016	11.2%	\$17,899.20	SEB/Rev.	0.35%	0.87%	0.1%	0.0%	SG&A expenses are not capitalized	
FY2017	6.1%	\$19,906.51	Rent Exp./Rev.	0.59%	1.00%	0.0%	<b>Valuation Focus</b>		
FY2018	7.6%	\$21,115.59	R&D/Rev.	0.15%	6.68%	0.7%	DCF Valuation	100%	
FY2019	5.0%	\$22,730.40	E&D/Rev.	0.00%	0.00%	0.0%	Relative valuation	0%	
FY2020	4.0%	\$23,866.92	SG&A/Rev.	4.47%	4.50%	0.0%	Distress Valuation	0%	
FY2021	3.5%	\$24,821.60	ROC	11%	8.68%	-0.20%	<b>Monte Carlo Simulation Assumptions</b>		
FY2022	3.3%	\$25,690.35	EV/Rev.	0.25x	.5x	0.00x	Revenue Growth deviation	Normal (0%, 1%)	
FY2023	3.3%	\$26,525.29	EV/EBITDA	6.40x	6.49x	0.01x	Operating expense deviation	Normal (0%, 1%)	
FY2024	3.1%	\$27,354.20	Debt/Equity	68%	44%	-2.4%	Continuing Period growth	Triangular (5.82%, 6%, 6.18%)	
FY2025	3.1%	\$28,191.93	Unlevered beta	0.87	1.33	0.05	Country risk premium	Triangular (2.91%, 3%, 3.09%)	
Continuing Period	3.0%	\$29,046.49	Dividends/REV	0%	2%	0.1%	Intinsic value $\sigma(t)$	\$0.05	
		\$29,917.89					1-year target price $\sigma(t)$	\$0.06	
<b>Valuation</b>									
<b>Forecast Year</b>	<b>ROC</b>	<b>WACC</b>	<b>Total Capital</b>	<b>Implied Enterprise Value</b>	<b>Other Claims on Assets and Dilution Cost</b>	<b>Shares Outstanding</b>	<b>Price per Share</b>	<b>Monte Carlo Simulation Results</b>	
LTM	10.7%	6.7%	\$4,952.87	\$5,491.69	\$106.66	189.27	\$23.60		
FY2016	14.6%	7.0%	\$5,866.57	\$6,067.59	\$119.98	189.27	\$26.44		
FY2017	14.9%	7.6%	\$6,881.10	\$6,671.32	\$134.27	189.27	\$29.91		
FY2018	15.3%	8.2%	\$8,103.04	\$7,385.41	\$161.20	189.27	\$33.44		
FY2019	15.2%	8.7%	\$9,424.59	\$8,123.06	\$186.75	189.27	\$37.08		
FY2020	14.9%	9.2%	\$10,859.99	\$8,904.30	\$212.40	189.27	\$40.99		
FY2021	14.6%	9.7%	\$12,415.75	\$9,740.45	\$238.66	189.27	\$45.29		
FY2022	14.2%	10.1%	\$14,099.68	\$10,643.91	\$265.86	189.27	\$50.08		
FY2023	13.9%	10.6%	\$15,919.79	\$11,627.72	\$294.21	189.27	\$55.48		
FY2024	13.6%	11.0%	\$17,884.01	\$12,706.26	\$0.00	189.27	\$61.61		
FY2025	13.3%	11.4%	\$20,000.26	\$13,895.70	\$0.00	189.27	\$65.50		
Continuing Period	8.7%	11.5%	\$17,237.20						
<b>Sensitivity Analysis</b>									
Revenue growth variations account for 95.9% of total variance									
Risk premium's variations account for 2.5% of total variance									
Operating expenses' variations account for 1.4% of total variance									
Continuing period growth variations account for 0.2% of total variance									

## Mattel Inc.

MAT

**Analyst:** Kyle Ritchie  
**Sector:** Consumer  
Discretionary

**BUY on MAT**

**Price Target: \$30.71**

### Key Statistics as of 11/21/15

Market Price: \$24.54  
Industry: Toy Manufacturing  
Market Cap: \$8.3 B  
52-Week Range: \$19.45 - \$31.91  
5 Year Beta: .94

### Thesis Points:

- Ability to sustain leading market share
- Historically proven to create shareholder value
- Improving margins

### Company Description:

Mattel Inc. is an American multinational toy manufacturing company that designs, manufactures and markets a range of toy products worldwide. Mattel is well-known for offering toys along with board games and puzzles under some of the most iconic brands in the toy industry. These brands include Fisher-Price, Barbie, Hot Wheels, Matchbox, Max Steel, Disney Planes, CARS, WWE Wrestling and Toy Story. The company operates in three segments: North America, International and American Girl. Mattel Inc. sells its products directly to consumers via its catalog, Website, and proprietary retail stores as well as direct retailers which include stand-alone toy stores, chain stores, department stores and various retail outlets. The company was founded in 1945 by Harold "Matt" Matson, Ruth and Elliot Handler and is now headquarter in El Segundo, California.



## Thesis

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Mattel Inc. is a world-class innovator and leading competitor in the toy industry. The company has over 70 years of experience in this industry which comes with a timely understanding of the ever-changing consumer trends. What has had the largest impact on this company in recent years is the major transition from the “physical play to the digital play.” Despite the impact from this transition, Mattel has historically proven its ability to innovate and satisfy its customers. The company launched a cost-savings program in late 2008 that has generated over \$550 million in gross savings. Prior to 2014, the result of this program is demonstrated in the company’s Gross Profit, EBITDA and Net Income margins which had been consistently improving year over year since the recession in 2008. Mattel Inc. is certain to have a tremendous rebound from these “digital play” pressures. The current low price of this company’s stock along with the upcoming holiday season poses an opportune time to BUY for investors.

## Industry Outlook

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According to the NPD group, a credible market research company, global toy sales are up 7% for the first nine months of the year. The upcoming holiday season also accounts for a major portion of toy manufacturers annual retail sales. Specifically for Mattel, seasonal sales historically represented roughly 50% of the company’s retail sales. In regards to 2016 and 2017, growth in the toy industry is expected to steadily increase. The impact of the “digital play” is a major factor of the toy industry growth. 3D printing has also become an important factor for the toy industry. Mattel recently announced an exclusive partnership with Autodesk, the world leader in 3D design software. While US sales data from 2015 has not been released yet, the popular traditional toy categories that have seen notable growth from 2013 into 2014 include: Action Figure/Accessories at 10%, Building Sets at 13%, Games/Puzzles at 10% and Youth Electronics at 10%. Due to Mattel’s international presence the impact of the strong dollar has hurt the company’s revenues and profits. Mattel’s popular products that are selling well in the US include Hot Wheels and Minecraft toys.

## Porter’s Five Forces

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### Bargaining power of suppliers: **LOW**

Toy companies are constantly purchasing a wide range of raw materials that are inputs in manufacturing toys. There are various sources of these raw materials and the fact that toy manufacturers are purchasing quantities on such a large scale gives their supplier very little bargaining power.

### Bargaining power of customers: **HIGH**

Mattel’s customers include not only its consumers at various points of sale but also and more importantly the number of retailers that shelve its products. These retailers require lead time and reasonable prices to ensure sales.

### Threat of substitutes: **MEDIUM**

There will always be alternatives to purchasing toys for children. The other obvious forms of entertainment include video games and books.

### Existing rivalry: **HIGH**

The toy industry revolves around constant innovation. The primary obstacle that competitors in this industry are faced with is producing the most popular toy at a low cost. Customers can also substitute a new toy that may have high expectations for an older toy that is already known to be popular.

### Barriers to Entry: **LOW**

There are no significant barriers to entry in the toy industry. As previously mentioned, competition is based primarily upon the ability to design and develop new toys. A popular idea requires a license and/or trademark to enter the market and become successful.

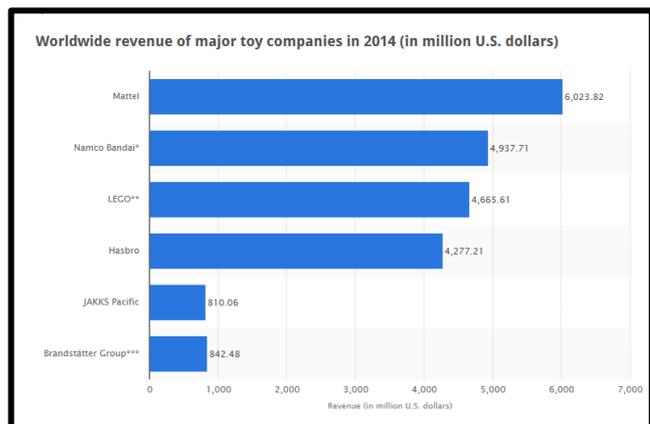
## Leading Market Share

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Mattel’s direct competitors include Namco Bandai, LEGO, Hasbro, JAKKS Pacific and Brandstatter Group. To emphasize Mattel’s position in this

market, the following chart illustrates the company’s

performance in comparison to its closest competitors (the aforementioned companies respectively) in 2014.



Mattel Inc. is and has been the leader in the toy industry for several years maintaining an estimated 28% market share. The drivers behind Mattel's success is their ability to consistently innovate, utilize/expand its iconic brand names and improve its internal operations. Due to this transition from the "physical play to the digital play," Mattel and other large toy manufacturers are having to realign their product development to online games. Mattel recently announced an exclusive partnership with Autodesk, the world leader in 3D design software. 3D printing has become a major part in the toy industry which will allow Mattel to decrease their operating costs for years to come. Mattel also announced another exclusive partnership with Quirky, an invention platform that connects inventors with companies that specialize in a specific product category. This partnership will certainly drive innovation for the company.

## Consistent Value Creation

An important indicator of a company's performance is their ROIC/WACC ratio. What this ratio demonstrates is how strategically a company chooses to invest its capital. If a company's return on invested capital exceeds its weighted average cost of capital, they are ultimately creating shareholder value. The company is expanding its business by investing in profitable ventures and receiving a higher yield than its cost of capital. Mattel has been wisely investing its capital for many years. As you can see in the

following table, the five-year average ROIC/WACC ratio for Mattel is 1.98.

	2010	2011	2012	2013	2014	
ROIC	13.4%	13.2%	14.0%	14.4%	9.7%	
WACC	6.9%	6.3%	6.0%	6.8%	7.0%	5-Year Average
ROIC/WACC	1.96	2.11	2.32	2.13	1.40	1.98

## Improving Margins

Mattel launched its cost-savings program in late 2008 which has generated over \$550 million in gross savings. The table below illustrates from 2008-2013 how this program has influenced the company's Gross Profit, EBITDA and Net Income margins.

Gross Profit, Adj	2,684.4	2,714.7	2,955.0	3,145.8	3,409.2	3,478.9
Margin %	45.4	50.0	50.5	50.2	53.1	53.6
EBITDA, Adj	713.9	964.9	1,085.5	1,217.3	1,357.1	1,383.5
Margin %	12.1	17.8	18.5	19.4	21.1	21.3
Net Income, Adj	379.6	541.3	696.4	769.3	871.4	908.0
Margin %	6.4	10.0	11.9	12.3	13.6	14.0

The cost savings program has allowed Mattel to notably expand its margins which demonstrates management's ability to improve its operations. Unfortunately, when comparing 2014 to 2013 the Gross Profit, EBITDA and Net Income margins fell 4%, 6% and 6% respectively. The company's disappointing performance in 2014 was due to inconsistent product development and global retail execution. Also, the downward pressures from the "digital play" is requiring a more technical product development which Mattel is currently making adjustments for (mentioned in the section Leading Market Share). When analyzing these margins the major takeaway is that this company has proven its ability to improve its operations. One disappointing year does not offset this company's decades of experience and ability to expand.

## Valuation

The valuation of Mattel Inc. is based on a valuation computed by a pro forma using a discounted cash flow method with a main focus on return on invested capital. Attached is an overview of the inputs, assumptions and results used in valuing this company. When valuing Mattel given its current state, a conservative approach has been applied. Given the fact that this company will most likely be expanding its product line due to the drastic trend, a 10-year period to convergence has been used. Analysts are split 40%-60% between HOLD and BUY. The average target price among the analysts who consider Mattel a promising buy is \$31. The financial metrics

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of the company were made to converge to the industry. A 6% market risk premium was used in this valuation given the stability of the industry along with an average decay in revenue growth for its reversion to the continuing period. The pro forma calculated a lower-bound intrinsic value of \$30.55 with a 1-year target of \$30.71

## Conclusion

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After a thorough analysis, it is clear that Mattel is undervalued. This company has proven to create value to its shareholders and has dominated the toy industry for decades. Coupled with its iconic brand names and world-class innovation, it will not be long before this company's stock reverts back to its true value. The company certainly took a hit over the past year but this only poses an opportune time to BUY for investors.

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<b>Mattel, Inc.</b>	<b>MAT</b>	<b>Analyst</b> rPig (1/2 man, 1/2 bear)	<b>Current Price</b> \$24.54	<b>Intrinsic Value</b> \$30.55	<b>Target Value</b> \$30.71	<b>Divident</b> 6%	<b>1-y Return: 31.32%</b>	<b>BULLISH</b>
<b>General Info</b>		<b>Peers</b>	<b>Market Cap.</b>	<b>Professional</b>		<b>Management</b>		
Sector	Consumer Discretionary	Hasbro Inc.	\$9,407.83	Sinclair, Christopher	Chairman, Chief Executive Officer, Mer	Comp. FY2012	Comp. FY2013	Comp. FY2014
Industry	Leisure Products	JAKKS Pacific, Inc.	\$146.23	Dickson, Richard	President and Chief Operating Officer	\$306,486	\$305,758	\$316,248
Last Guidance	October 15, 2015	Brunswick Corporation	\$4,976.54	Farr, Kevin	Chief Financial Officer	\$0	\$0	\$4,199,118
Next earnings date	January 26, 2016	LeapFrog Enterprises Inc.	\$45.43	Normile, Robert	Chief Legal Officer, Executive Vice Pre	\$6,910,059	\$3,305,565	\$3,973,447
<b>Market Data</b>		Polaris Industries Inc.	\$6,914.51	Vollero, Drew	Senior Vice President of Investor Relat	\$4,736,913	\$2,145,606	\$2,754,395
Enterprise value	\$10,299.06			Gros, Richard	Chief Human Resources Officer and Ex	\$0	\$0	\$0
Market Capitalization	\$4,449.48			<b>Past Earnings Surprises</b>				
Daily volume	0.22			<b>Revenue</b>		<b>EBITDA</b>	<b>Norm. EPS</b>	<b>Standard Error of "Surprise"</b>
Shares outstanding	339.35			Last Quarter	-5.10%	-13.09%	-11.25%	2.42%
Diluted shares outstanding	339.55			Last Quarter-1	-0.37%	5.85%	NM	3.11%
% shares held by institutions:	26.01%			Last Quarter-2	2.37%	-61.20%	NM	31.79%
% shares held by insiders	0.30%			Last Quarter-3	0.21%	-9.26%	-20.00%	5.84%
Short interest	21.23%			Last Quarter-4	-7.13%	-3.98%	-3.92%	1.06%
Days to cover short interest	12.84			Standard error	1.8%	11.7%	4.6%	4.70%
52 week high	\$31.69			Standard Error of Revenues prediction	1.8%	<b>Industry Outlook (Porter's Five Forces)</b>		
52-week low	\$19.45			Imputed Standard Error of Op. Cost predicti	11.5%	Bargaining Power of Suppliers (100th Percentile), Bargaining Power of Customers (100th Percentile), Intensity of Existing Rivalry (100th Percentile), Threat of Substitutes (100th Percentile), Threat of New Competition (100th		
5y Beta	0.94			Imputed Standard Error of Non Op. Cost prc	NM			
6-month volatility	30.86%							

<b>Divergence Assumptio</b>		<b>General Assumptions</b>		<b>Proforma Assumptions</b>				<b>Other Assumptions</b>	
<b>All base year ratios linearly converge towards the industry ratios over an explicit period of 10 years</b>	Money market rate (as of today)	0.37%	Operating Cash/Rev.	0.00%	Base year (LTM)	Convergence period (Industry) adjustment per year	Tobin's Q	80%	
	Risk-Free rate (long term estimate)	2.93%	NWV/Rev.	28.31%	12.66%	0.00%	Excess cash reinvestment	Cost of capital	
	Annual increase (decrease) in interest rates	0.1%	NPPE/Rev.	12.66%	11.10%	16.59%	-1.2%	Other claims on the firm's asset	\$0.00
	Marginal Tax Rate	37.5%	Dpr/NPPE	31.72%	28.53%	8.17%	-0.3%	<b>Capitalization</b>	
Country Risk Premium	6.0%	NOPAT MARGIN	11.06%	8.17%	32.00%	0.0%	100% of all rent expenses are capitalized and amortized 'straightline' over 10 years	100% of all R&D expenses are capitalized and amortized 'straightline' over 10 years	
<b>Forecast Year</b>	<b>Revenue Growth Forecast</b>	<b>Revenue (\$)</b> Forecast	Op. Exp./Rev.	82.00%	82.00%	0.0%	E&P expenses are not capitalized	75% of all SG&A expenses are capitalized and amortized 'straightline' over 2 years	
LTM		\$5,636.84	SBC/Rev.	0.99%	0.71%	0.0%	<b>Valuation Focus</b>		
FY2015	-1.0%	\$5,646.47	Rent Exp./Rev.	2.12%	0.00%	-0.2%	DCF Valuation	100%	
FY2016	1.0%	\$5,716.47	R&D/Rev.	3.86%	2.82%	-0.1%	Relative valuation	0%	
FY2017	8.0%	\$6,186.31	E&D/Rev.	0.00%	0.00%	0.0%	Distress Valuation	0%	
FY2018	7.2%	\$6,637.94	SG&A/Rev.	30.00%	20.99%	-0.9%	<b>Monte Carlo Simulation Assumptions</b>		
FY2019	6.5%	\$7,073.28	ROIC	3%	19.64%	1.02%	Revenue Growth deviation	Normal (0%, 1%)	
FY2020	5.9%	\$7,435.32	EV/Rev.	1.57x	1.26x	-0.03x	Operating expense deviation	Normal (0%, 1%)	
FY2021	5.3%	\$7,900.70	EV/EBITDA	10.43x	9.66x	-0.08x	Continuing Period growth	Triangular (5.82%, 6%, 6.18%)	
FY2022	4.7%	\$8,286.66	Debt/Equity	48%	58%	1.0%	Country risk premium	Triangular (2.31%, 3%, 3.09%)	
FY2023	4.2%	\$8,651.14	Unlevered beta	0.57	0.80	0.02	Intrinsic value of(z)	\$0.09	
FY2024	3.6%	\$8,992.88	Dividends/REV	3%	3%	-0.6%	1-year target price of(z)	\$0.10	
Continuing Period	3.0%	\$9,315.21							

<b>Valuation</b>									
<b>Forecast Year</b>	<b>ROIC</b>	<b>WACC</b>	<b>Invested Capital</b>	<b>Implied Enterprise Value</b>	<b>Claims on Assets and Dilution</b>	<b>Shares Outstanding</b>	<b>Price per Share</b>	<b>Monte Carlo Simulation Results</b>	
LTM	9.5%	5.9%	\$7,280.32	\$14,153.20	\$3,403.26	339.35	\$30.53		
FY2015	9.2%	6.1%	\$6,958.29	\$14,020.31	\$3,097.03	339.35	\$30.69		
FY2016	9.5%	5.7%	\$6,706.30	\$13,901.93	\$2,976.97	339.35	\$30.81		
FY2017	10.6%	5.8%	\$6,843.94	\$14,138.00	\$2,982.75	339.35	\$31.06		
FY2018	11.0%	6.0%	\$6,964.81	\$14,353.48	\$2,946.42	339.35	\$31.38		
FY2019	11.5%	6.2%	\$7,069.48	\$14,554.53	\$2,863.38	339.35	\$31.83		
FY2020	11.9%	6.5%	\$7,161.97	\$14,749.75	\$2,746.23	339.35	\$32.39		
FY2021	12.3%	6.7%	\$7,242.57	\$14,944.83	\$2,575.64	339.35	\$33.14		
FY2022	12.6%	7.0%	\$7,312.99	\$15,147.43	\$2,348.99	339.35	\$34.10		
FY2023	13.0%	7.3%	\$7,375.99	\$15,366.87	\$2,064.73	339.35	\$35.29		
FY2024	13.3%	7.6%	\$7,435.05	\$15,614.03	\$1,722.04	339.35	\$37.17		
Continuing Period	19.6%	8.5%	\$3,873.77						

**The 3σ(z)-adjusted intrinsic value is \$30.55; the 3σ(z)-adjusted target price is \$30.71; and the analysts' median target price is \$26.64**

**Sensitivity Analysis**  
Revenue growth variations account for 95.9% of total variance  
Risk premium's variations account for 2.5% of total variance  
Operating expenses' variations account for 1.4% of total variance  
Continuing period growth variations account for 0.2% of total variance

## RCI Hospitality Holdings, Inc.

RICK: NASDAQ

**Analyst:** Matthew Schilling

**Sector:** Consumer Disc.

**BUY**

Price Target: \$11.25

### Key Statistics as of 11/19/2015

Market Price:	\$9.66
Industry:	Leisure/Restaurants
Market Cap:	\$99.3M
52-Week Range:	\$9.13-\$12.50
Beta:	0.69

### Thesis Points:

- Positive Macroeconomic Outlook
- New Franchising Program to Continue Increasing Revenue
- An Industry Leader of a Fragmented Industry

### Company Description:

Founded in 1983, the Rick's Cabaret brand pioneered the creation of elegant gentlemen's clubs. Their subsidiaries own and operate over forty establishments under multiple brands throughout the nation. The major subsidiary brand names consist of **Rick's Cabaret**: Elegant clubs with restaurants, **Vivid Cabaret**: High-end, high-energy club for young professionals, **Tootsie's Cabaret**: Nation's mega club with 74 thousand square feet, **Club Onyx**: High-end clubs for African-American professionals, **Jaguars Club**: Lively clubs for energy workers, primarily in Texas, **XTC Cabaret**: Casual BYOB clubs for younger blue collar patrons, primarily in Texas and **Bombshells**: Military themed, casual bar/restaurant for young professionals.

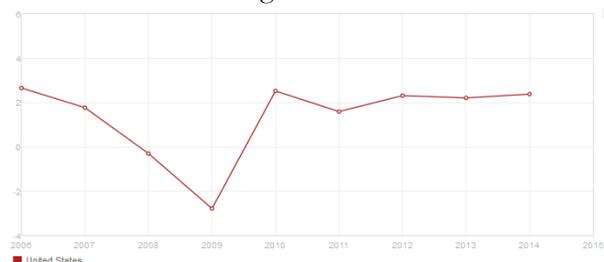


## Thesis

RCI Hospitality Holdings, Inc. has an ideal macroeconomic storm brewing that will create a tailwind for their new franchising program. The combination of GDP growth, income growth, housing market health and decreases in unemployment creates a consumer confidence in spending money on leisurely goods. That newfound confidence will continue to drive restaurant sales and encourage franchisees to take on a new brand such as Bombshells (their new franchise program brand). Mix the revenue growth from the program and revenue through acquisitions with industry leading margins and value is created.

## Macroeconomic Industry Overview

Since 2009, the United States has recovered greatly from economic recession from 2007 to 2009. The real growth rate in GDP has consistently stayed around 2% since 2009 and indications point to that number continuing to hover around the 2% growth rate.



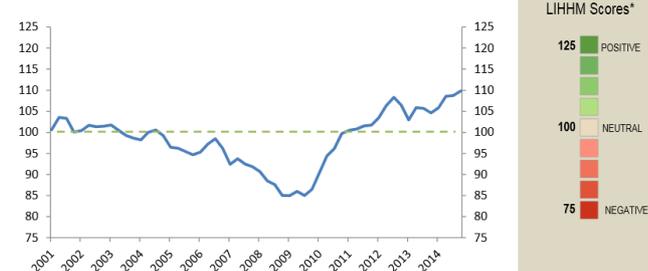
(GDP Growth % From 2006-2014)

GDP growth trickles down and indicates positive growth in several markets, including the housing market, increases in disposable income and decreases in unemployment rates. Such macroeconomic factors influence consumer spending habits and in the case of RCI Hospitality Holdings, Inc. it is a positive influence.

### Housing Market

The Leading Index of Healthy Housing Markets (LIHHM) claims the market to be the healthiest it has been since 2001. This index was created by Nationwide and mixes data with market conditions to comprise a value for the health of the market. In addition the LIHHM indicates stability within the market claiming that none of the 40 largest metropolitan statistical areas, or MSAs, are vulnerable to a housing downturn and just two MSAs are ranked negatively.

National LIHHM



Furthermore, the LIHHM forecasts a slight increase in the markets' score, creating greater confidence in a person's view of their current financial position. Such confidence will lead a consumer to feel comfortable in spending their disposable income on more leisurely items.

### Disposable Income

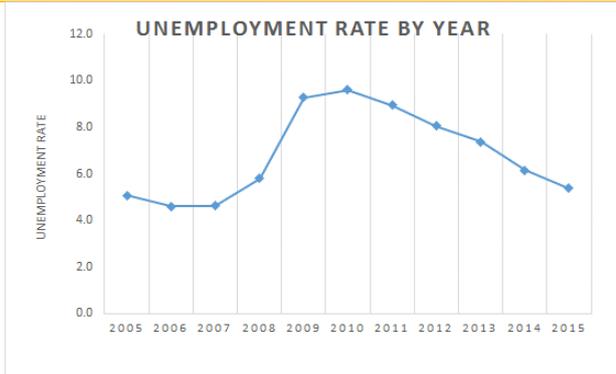
As the GDP continues to grow, disposable income and household income increases.



The graph above shows the growth in average real disposable income between 2008 and 2015. Real disposable income has increased by approximately \$1,000 since 2013 and will continue to increase into 2016. Such increases allow consumers to spend more money on leisurely items such as food, drinks and entertainment, all of which RCI Hospitality Holdings provides to consumers.

### Unemployment Rates

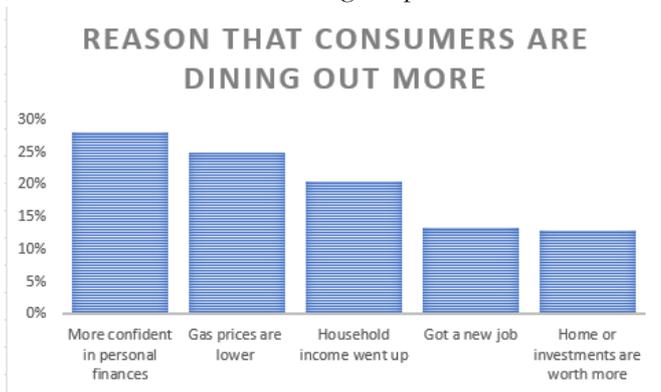
The next macroeconomic factor is the unemployment rate within the United States. In 2009, the tail end of the recession, unemployment more than doubled from where it was in 2007 (4.6% to 9.3%). Since 2009, the rate has gradually decreased, reaching the current September rate of 5.1%.



The increase in employment directly related to GDP growth and the healthiness of many key markets. The increase is another factor that gives the macroeconomic outlook a more positive spending environment.

### Effect on Industry

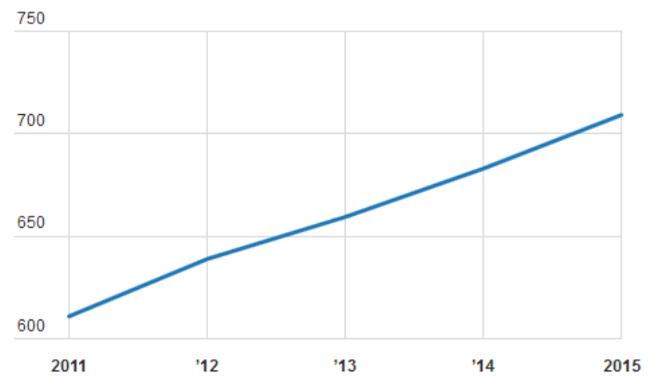
Due to the increasingly positive macroeconomic outlook, consumers are willing to spend more.



According to an online poll taken by a Chicago based news station, the top five reasons that people are dining out more are due to macroeconomic factors. Of the five factors, number one is people are more comfortable with their personal finances, a factor that the current macro outlook supports. Number three is that incomes are increasing, which has also been demonstrated in the current macro forecast. Lastly, consumers have more confidence in their real estate investments, which is also demonstrating signs of staying healthy. All of these factors are leading to sales growth within the restaurant industry.

### Restaurant industry sales

Numbers in billions current U.S. dollar



This growth crucial to the revenue growth of RCI Hospitality Holdings as they seek to push their restaurant and bar franchise, Bombshells.

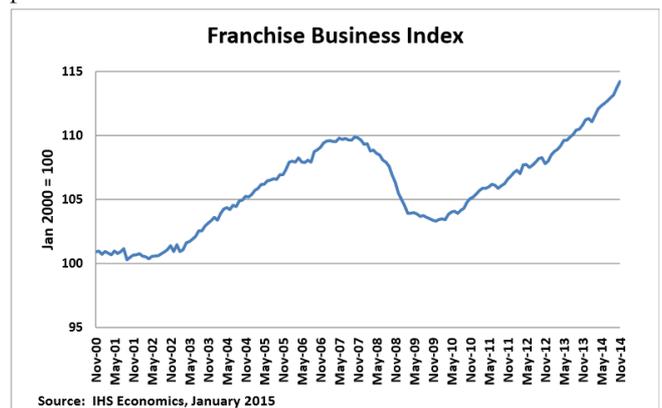
### Revenue Growth through New Franchise

On October 6, 2015 they announced the launch of a nationwide franchising program for its Bombshells Restaurant and Bar. The bar is the first military-themed franchise in the sports/casual dining segment. Its closest resemblance is to that of hooters and strays from the more adult theme that the rest of its club ownings go for. The franchise's estimated initial investment is between \$1.75 and \$3.0 million and RCI Hospitality Holdings will claim a royalty of 5.5% of gross sales. The first Bombshell restaurant opened in Dallas and shortly

\$ in millions	3Q15	3Q14
Revenues	\$4.8	\$1.6
Units	5	2
Operating Income	\$0.369	(\$0.170)
Operating Margin	7.7%	(10.7%)

after, due to its great success, four more were opened.

Both the margins and sales of Bombshells increased year over year making it an attractive investments for possible franchisees.



As the macroeconomic outlook gains steam the amount

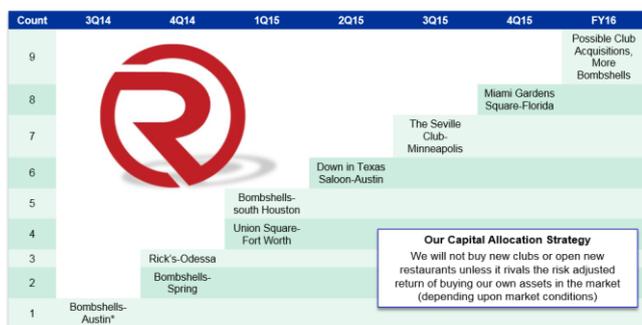
of franchisees increases, creating the perfect storm. Another positive from this franchise program that it allows the company to tap different geographic areas that they could not before. Gentlemen’s clubs have very select demographics, this restaurant and bar has a more family setting allowing it to tap more suburban areas. RCI Hospitality Holdings has a huge economic tailwind that will increase revenues as the Bombshell brand gains popularity.

I am recommending a buy on RCI Hospitality Holding Inc. The company has a favorable economic tailwind that will ignite the growth in franchise agreements of bombshells. That growth will lead to revenue growth for RCI and due to their margins, it will create value for the company.

## Industry Leader within Fragmented Industry

RCI Hospitality Holdings currently owns 12 subsidiary brands, some of which are just a single club or a brand name of multiple establishments. Never-the-less RCI is growing its scale of operation through acquisitions of several clubs. The Industry itself is comprised of many single establishment brand as only 5% of sales is made up of the 50 largest companies. In having multiple establishments, RCI can establish favorable deals with suppliers by buying items like alcohol in bulk. Such advantages can be seen when comparing their margins to the industry as they are significantly higher. These margins are also not true margins as they show the effects of a settled lawsuit that the company is paying off.

### New Locations / Acquisitions



As the company continues acquiring clubs, bars and other entertainment establishments they will be able to grow their top line revenue. Add that growth with the income from their franchise deal and the better margins than the industry and that is a recipe for value creation. Not only is RCI leader in terms of margins they also have top reviews on their establishments such as Tootsie’s their Miami gentlemen’s club. The club was named “Overall Gentlemen’s Club of the Year” at the 23<sup>rd</sup> annual Gentlemen’s Club EXPO in New Orleans.

## Conclusion



## Skyworks Solutions Inc.

NasdaqGS: SWKS

**Analyst:** Ryan Burke

**Sector:** Technology

**BUY**

Price Target: \$85.66

### Key Statistics as of 11/17/2015

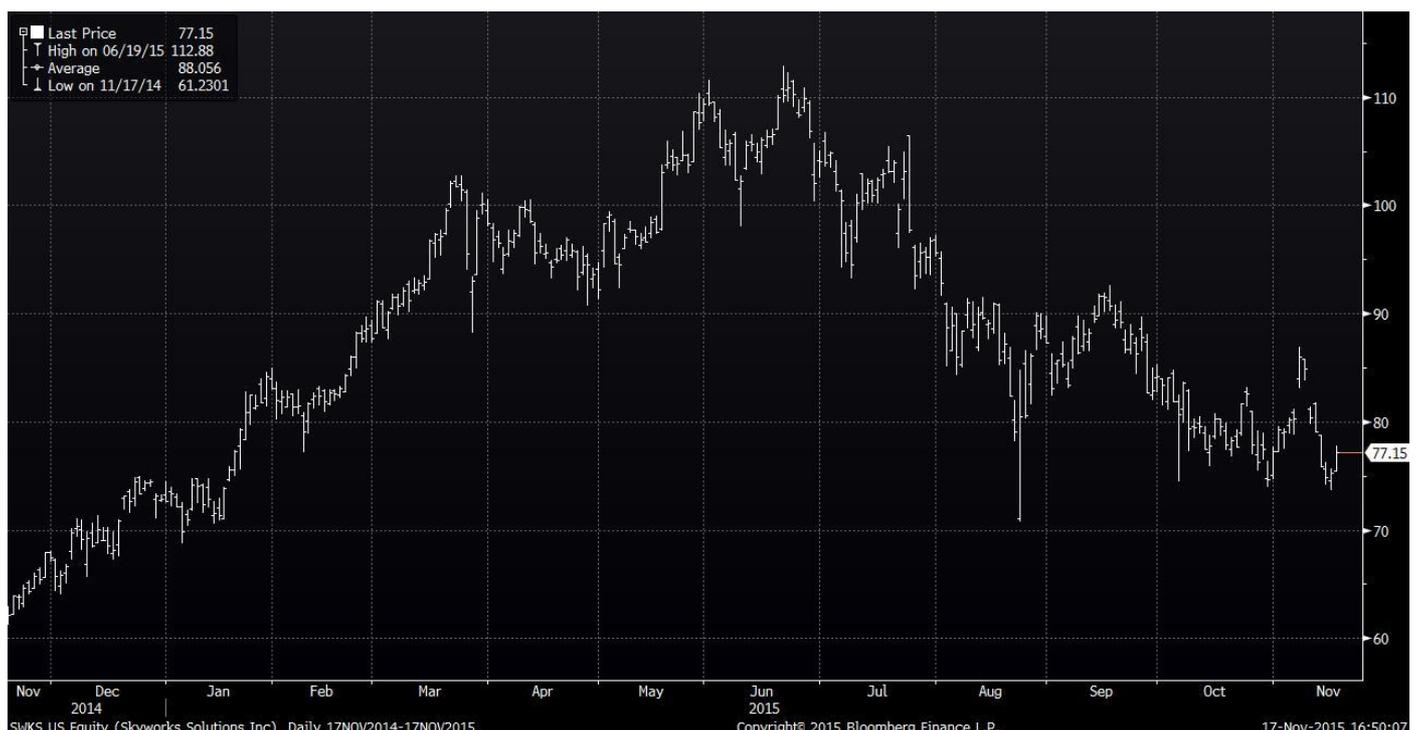
Market Price:	\$77.16
Industry:	Semiconductors
Market Cap:	\$15.69B
52-Week Range:	\$56.68 – 112.88
Beta:	.933887

### Thesis Points:

- Skyworks chips are essential to the “Internet of Things”
- Recent Accretive Acquisition
- Growth in emerging markets phone sales

### Company Description:

Skyworks Solutions Inc. is an innovator of high performance analog and mixed signal semiconductors linking people, places and things across a rapidly expanding number of applications including automotive, broadband, wireless infrastructure, energy management, GPS, industrial, medical, military, networking, smartphones and tablets. Their product portfolio consists of amplifiers: the modules that improves the signal so that is has required energy to reach a base station; attenuators: circuits that allow a known source of power to be reduced by a predetermined factor; detectors, intended for use in power management applications; diodes: semiconductor devices that pass current in one direction, and a variety of other components such as battery chargers, circulators, DC/DC converters, etc. The company has aligned its product portfolio around two markets, cellular handsets and analog semiconductors. Skyworks offers its products primarily in Europe, North America, China, and Taiwan.



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**Bargaining Power of Buyers: Low**

Skyworks Solutions has the reputation for high quality products which has led to a wide variety of contracts with many different companies. Each company requires a customized chip for their specific purposes, which gives Skyworks leverage over their buyers.

**Bargaining Power of Suppliers: Low**

Many of Skyworks Solutions contracts endure over multiple years with high profile clients such as Lockheed Martin, Apple, and Panasonic. This makes them an important and reliable revenue stream for their suppliers. This reduces the suppliers bargaining power.

**Threat of new entrants: Low (for the time being)**

Skyworks Solutions has over 50 product patents which makes their service difficult to duplicate. Additionally, it takes quite a bit of capital and numerous contracts to successfully start a semiconductor company in the immediate future. However, Semiconductor technology evolves at a fast rate, as times change there is potential for existing chip processing companies to invest and gain share in the semiconductors of the future.

**Skyworks role in the “Internet of Things”**

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The biggest potential win for Skyworks solutions is growth in customer base that will come from the “Internet of Things”. The “Internet of Things” is a proposed development of the Internet in which everyday objects have network connectivity allowing them to send and receive data. Skyworks is equipped to accommodate the myriad of mobile connected devices in the future. The partnership between Skyworks and the GE Healthcare division show the breadth of the potential market for high—quality connectivity solutions.

**Acquisition**

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Skyworks acquired PMC-Sierra on October 6<sup>th</sup> 2015. PMC-Sierra is a leader in mixed signal semiconductor solutions, supporting networking and storage applications. This diversification into adjacent markets gives Skyworks the potential to create an analog and mixed signal powerhouse within the semiconductor

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**Thesis**

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Skyworks is a company well integrated in the technology industry. Specializing in cellular handsets and analog semiconductors, Skyworks is the supplier to the technology industry’s biggest names: Apple, Samsung, Google, Cisco and many more. This chipmaker is seen as a leader in solving complex integration issues, managing the coexistence of multiple common protocols. It has unmatched system design capabilities, extensive product breadth in core enabling technologies, and advanced production techniques to enable highly customized solutions. As time progresses and the inevitable future of the “Internet of Things” crystallizes, Skyworks Solutions Inc. is strategically positioned to become a leading player providing the chips that will connect billions of devices experts expect to communicate with one another by the end of the decade. The recent acquisition of PMC-Sierra demonstrates their aggressive growth and strategic diversification into adjacent markets. Finally, the ubiquity of Skyworks semiconductors and products in smartphones worldwide will lead to organic growth as emerging markets adopt smartphone technology over time.

**Porter’s 5 Forces**

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**Competitive Rivalry: Medium**

There are a wide variety of semiconductor chip makers in existence but Skyworks specialization in wireless communication and ability to customize set them apart from their competition. Currently they are an industry leader in mobile devices and analog semiconductors, but as time goes on, their products will become cheaper to produce. Big players such as Intel and Samsung have the resources to encroach on this corner of the market over time.

**Threat of Substitute Products or Services:**

Skyworks commands the market for Wireless connectivity in a variety of devices, whether it be infotainment, healthcare, or cellular. This industry involves such a large amount of complexity and customization, customers tend to look for a company with the breadth of technology to tackle any particular situation and not risk a smaller more focused company for these services.

landscape gearing for the explosive growth in digital content and in data traffic. This acquisition will enhance PMC-Sierra's business model via Skyworks global supply chain. Senior management has identified \$75 million of annual cost savings and \$ 4 Billion in annualized revenue. One of the primary growth drivers of this acquisition is data storage. PMC-Sierra products enable seamless and efficient expansion of capacity along with significantly high levels of performance for cloud service and enterprise data centers. The acquisition will be financed through a combination of available cash from the combined balance sheet and a new \$1.8 Billion term loan with 4.5% interest.

## Emerging Markets

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In 2014 90 million smart phones in china, by the end of this year CEO David Aldrich projects there will be approximately 250-300 Million smartphones, all of which will use Skyworks Solutions chips. As emerging markets adopt 3G, 4G and LTE technologies, , increases in tablet computing, the expansion of their analog product portfolio will address additional content within the handset and tablet markets as well as new vertical markets including medical, automotive, military and industrial.

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## Summary

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As the Internet of Things comes to fruition over the next several years, Skyworks Solutions Inc. is geared to accommodate the mobile connectivity of billions of potential devices. Its recent accretive acquisition into an adjacent market shows Skyworks ambition for growth in the semiconductor industry. If the company continues operations as is, the growth in emerging markets and global connectivity will yield value for shareholders.

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**CENTER FOR GLOBAL FINANCIAL STUDIES**

<b>Skyworks Solutions Inc.</b>	<b>swks</b>	<b>Analyst</b> Ryan Burke	<b>Current Price</b> \$75.84	<b>Intrinsic Value</b> \$78.55	<b>Target Value</b> \$85.66	<b>Dividend Yield</b> 1%	<b>1-y Return: 14.32%</b>	<b>NEUTRAL</b>
<b>General Info</b>		<b>Peers</b>		<b>Management</b>				
Sector	Information Technology	Analog Devices, Inc.	\$18,789.12	<b>Professional</b>	<b>Title</b>	<b>Comp. FY2013</b>	<b>Comp. FY2014</b>	<b>Comp. FY2015</b>
Industry	semiconductors and Semiconductor Equipme	Qorvo, Inc.	\$7,805.51	Aldrich, David	Chairman of the Board and Chief Exec	\$5,800,648	\$6,912,623	\$0
Last Guidance	November 5, 2015	Xilinx Inc.	\$12,098.38	Griffin, Liam	President	\$2,142,071	\$4,637,934	\$0
Next earnings date	NM	Maxim Integrated Products, Inc.	\$11,263.64	Palette, Donald	Chief Financial Officer, Principal Accou	\$1,726,046	\$3,451,049	\$0
<b>Market Data</b>		QIN Semiconductor Corp.	\$4,632.58	Freyman, Bruce	Executive Vice President of Worldwide	\$1,566,568	\$2,950,130	\$0
Enterprise value	\$14,434.27	Avago Technologies Limited	\$33,106.05	Gammel, Peter	Chief Technology Officer	\$0	\$0	\$0
Market Capitalization	\$4,449.48	NVIDIA Corporation	\$16,444.89	Tremallo, Mark	Vice President, General Counsel and S	\$1,073,041	\$0	\$0
Daily volume	0.22	Marvell Technology Group Ltd.	\$4,560.06	<b>Past Earning Surprises</b>				
Shares outstanding	195.67	Microsemi Corporation	\$3,530.54	<b>Revenue</b>		<b>EBITDA</b>	<b>Norm. EPS</b>	<b>Standard Error of "Surprise"</b>
Diluted shares outstanding	194.90	Linear Technology Corporation	\$10,630.00	Last Quarter	0.19%	0.00%	0.00%	0.06%
% shares held by institutions	26.01%	<b>Current Capital Structure</b>		Last Quarter-1	1.04%	7.70%	3.88%	1.93%
% shares held by insiders	0.32%	Total debt/Common Equity (LTM)	0.11	Last Quarter -2	1.37%	4.46%	1.77%	0.97%
Short interest	7.16%	Cost of Borrowing (LTM)	0.00%	Last Quarter -3	4.06%	13.28%	5.88%	2.82%
Days to cover short interes	3.25	Estimated Cost of new Borrowing	2.53%	Last Quarter -4	0.00%	7.64%	3.70%	2.21%
52-week high	\$112.88	Altman's Z	NA	Standard error	0.7%	2.2%	1.0%	0.37%
52-week low	\$60.33	Estimated Debt Rating	AAA	Standard Error of Revenues prediction	0.7%	<b>Industry Outlook (Porter's Five Forces)</b>		
5y Beta	1.25	Current levered Beta	1.25	Imputed Standard Error of Op. Cost prediction	2.1%	Bargaining Power of Suppliers (75th Percentile), Bargaining Power of Customers (100th Percentile), Intensity of Existing Rivalry (100th Percentile), Threat of Substitutes (100th Percentile), Threat of New Competition (100th		
6-month volatility	42.49%	LTM WACC	10.48%	Imputed Standard Error of Non Op. Cost prec	NM			

<b>Convergence Assumptio</b>		<b>General Assumptions</b>		<b>Items' Forecast Assumptions</b>			<b>Other Assumptions</b>	
<b>All base year ratios linearly converge towards the Peers ratios over an explicit period of 10 years</b>		Money market rate (as of today)	0.37%	<b>Base year (LTM)</b>	<b>Convergence period (Peers)</b>	<b>Adjustment per year</b>	Tobin's Q	80%
		Risk-Free rate (long term estimate)	2.93%	Operating Cash/Rev.	0.00%	0.00%	Excess cash reinvestment	Money market rate
		Annual increase (decrease) in interest rates	0.0%	NW/Rev.	12.50%	12.50%	Other claims on the firm's asse	\$0.00
		Marginal Tax Rate	37.5%	NPPE/Rev.	25.36%	25.36%	<b>Capitalization</b>	
		Country Risk Premium	6.0%	Dpr/NPPE	20.00%	20.00%	Rent expenses are not capitalized	
				NOPAT MARGIN	25.03%	25.03%	100% of all R&D expenses are capitalized and amortized 'straightline' over 10 years	
<b>Forecast Year</b>	<b>Revenue Growth Forecast</b>	<b>Revenue (\$)</b>	<b>Forecast</b>	Op. Exp./Rev.	64.26%	64.26%	E&F expenses are not capitalized	
LTM		\$3,258.40		SBC/Rev.	3.07%	3.07%	SG&A expenses are not capitalized	
FY2016	13.1%	\$3,684.03		Rent Exp./Rev.	0.00%	0.00%	<b>Valuation Focus</b>	
FY2017	12.6%	\$4,146.64		R&D/Rev.	7.91%	7.91%	DCF Valuation	100%
FY2018	8.4%	\$4,493.57		E&D/Rev.	0.00%	0.00%	Relative valuation	0%
FY2019	5.7%	\$4,748.95		SG&A/Rev.	4.39%	4.39%	Distress Valuation	0%
FY2020	4.3%	\$4,956.13		RDIC	41%	40.65%	<b>Monte Carlo Simulation Assumptions</b>	
FY2021	3.7%	\$5,137.02		EV/Rev.	4.58%	4.58%	Revenue Growth deviation	Normal (0%, 1%)
FY2022	3.3%	\$5,308.36		EV/EBITDA	12.40%	12.40%	Operating expense deviation	Normal (0%, 1%)
FY2023	3.2%	\$5,476.52		Debt/Equity	11%	11%	Continuing Period growth	Triangular (5.82%, 6%, 6.18%)
FY2024	3.1%	\$5,645.40		Unlevered beta	1.16	1.16	Country risk premium	Triangular (2.91%, 3%, 3.09%)
FY2025	3.0%	\$5,817.13		Dividends/REV	0%	0%	Intrinsic value e(f)	\$0.09
Continuing Period	3.0%	\$5,991.65					1-year target price a(f)	\$0.10

<b>Forecast Year</b>		<b>ROIC</b>	<b>WACC</b>	<b>Invested Capital</b>	<b>Implied Enterprise Value</b>	<b>Claims on Assets and Dilution</b>	<b>Shares Outstanding</b>	<b>Price per Share</b>	<b>Monte Carlo Simulation Results</b>
LTM		40.7%	10.5%	\$2,665.13	\$14,025.52	-\$918.73	195.67	\$77.66	<b>The 3σ(-)-adjusted intrinsic value is \$78.55; the 3σ(-)-adjusted target price is \$85.66; and the analysts' median target price is \$111.68</b>
FY2016		33.7%	9.7%	\$3,015.83	\$14,840.19	-\$1,530.95	195.67	\$84.76	
FY2017		33.5%	9.7%	\$3,397.01	\$15,851.73	-\$2,183.36	195.67	\$91.86	
FY2018		32.2%	9.7%	\$3,682.87	\$16,362.23	-\$2,930.72	195.67	\$99.04	
FY2019		31.4%	9.7%	\$3,893.29	\$17,004.06	-\$3,755.04	195.67	\$106.39	
FY2020		31.0%	9.7%	\$4,063.18	\$17,617.44	-\$4,634.94	195.67	\$113.96	
FY2021		30.8%	9.7%	\$4,213.06	\$18,226.03	-\$5,558.56	195.67	\$121.80	
FY2022		30.7%	9.7%	\$4,354.24	\$18,843.26	-\$6,519.86	195.67	\$129.33	
FY2023		30.6%	9.7%	\$4,492.79	\$19,476.81	-\$7,516.07	195.67	\$138.37	
FY2024		30.6%	9.7%	\$4,631.95	\$20,131.32	-\$8,546.23	195.67	\$147.16	
FY2025		30.6%	9.7%	\$4,773.45	\$20,809.87	-\$9,610.31	195.67	\$156.00	
Continuing Period		30.6%	9.7%	\$4,916.65					<b>Sensitivity Analysis</b>
									Revenue growth variations account for 95.9% of total variance
									Risk premium's variations account for 2.5% of total variance
									Operating expenses' variations account for 1.4% of total variance
									Continuing period growth variations account for 0.2% of total variance