

Date: April 7<sup>th</sup>, 2014

Analyst Name: Tanner Peterson

## CIF Stock Recommendation Report (Spring 2014)

Company Name and Ticker: Facebook Inc (FB)

### Section (A) Investment Summary

<b>Recommendation Buy: Yes</b>		<b>Target Price:</b> <b>\$66.92</b>	<b>Stop-Loss Price:</b> <b>\$49.46</b>
<b>Sector:</b> Information Technology	<b>Industry:</b> Internet & Software Services	<b>Market Cap (in Billions):</b> <b>\$145.5</b>	<b># Of Shrs. O/S (in Millions):</b> <b>2,563.90</b>
<b>Current Price:</b> <b>\$58.19</b>	<b>52 WK Hi:</b> <b>\$72.59</b>	<b>52 WK Low:</b> <b>\$22.67</b>	<b>EBO Valuation:</b> <b>\$74.21</b>
<b>Morningstar (MS) Fair Value Est.: \$45</b>	<b>MS FV Uncertainty:</b> <b>High</b>	<b>MS Consider Buying:</b> <b>\$38.25</b>	<b>MS Consider Selling:</b> <b>\$51.75</b>
<b>EPS (TTM):</b> <b>0.61</b>	<b>EPS (FY1):</b> <b>1.26</b>	<b>EPS (FY2):</b> <b>2.68</b>	<b>MS Star Rating:</b> <b>**</b>
<b>Next Fiscal Yr. End "Year": "Month":</b>	<b>Last Fiscal Qtr. End: Less Than 8 WK:</b> <b>Y N</b>	<b>If Less Than 8 WK, next Earnings Ann. Date:</b>	<b>Analyst Consensus Recommendation:</b>
<b>Forward P/E:</b> <b>35.7</b>	<b>Mean LT Growth:</b> <b>31.38</b>	<b>PEG: \$60.94</b>	<b>Beta:</b> <b>-</b>
<b>% Inst. Ownership:</b> <b>51.02%</b>	<b>Inst. Ownership- Net Buy: Y N</b>	<b>Short Interest Ratio:</b> <b>.70</b>	<b>Short as % of Float:</b> <b>2.30%</b>
<b><u>Ratio Analysis</u></b>	<b><u>Company</u></b>	<b><u>Industry</u></b>	<b><u>Sector</u></b>
<b>P/E (TTM)</b>	86.49	33.73	15.58
<b>P/S (TTM)</b>	18.48	12.55	3.95
<b>P/B (MRQ)</b>	9.34	5.87	2.51
<b>P/CF (TTM)</b>	57.94	24.26	19.60
<b>Dividend Yield</b>	-	1.10	1.19
<b>Total Debt/Equity (MRQ)</b>	3.08	24.45	14.55
<b>Net Profit Margin (TTM)</b>	19.05	16.69	12.62
<b>ROA (TTM)</b>	9.09	17.32	14.22
<b>ROE (TTM)</b>	10.95	8.70	15.39

<p><b>Investment Thesis</b></p> <p>Facebook has shown tremendous growth over the past year in both its user base, as well its presence in online advertising. The social-networking giant retains 1.2 billion monthly active users (MAUs), 757 million of which are daily (DAUs). Their business model thrives off providing value to the user, marketers, and developers. The user base is crucial for the success of FB due to ad revenue making up 88% of revenues. It can be noted that in the past year, advertisement revenue exceeded both Microsoft and Yahoo. Facebook is managing to stay relevant through acquisitions and we can expect more to come throughout the year.</p> <p>Despite the bullish outlook in product lines, revenues, and growth, the company has many risks. New entrants are coming into the market and could take users and ad revenue away. Product lines could fail. Or legal issues could prevent the company from reporting solid financials. Social media and the cloud are the future for technology stocks, but in this stage the stock is still too volatile.</p>	<p><b>Company Profile:</b> Facebook was established in 2004 and is now the largest social-networking site. They look to connect people to the world around them and to make that world more accessible.</p>
	<p><b>Fundamental Valuation:</b> The valuation gives an implied price of \$74.21. Through adjusting the long-term growth rate to Morningstar high estimate of 46%, the price is \$91.65.</p>
	<p><b>Relative Valuation:</b> It is hard to compare Facebook to its competitors. Google and Yahoo are both established, while LinkedIn and Twitter are still relatively new.</p>
	<p><b>Revenue and Earnings Estimates:</b> This is by far the strongest point for FB. Since the IPO in 2012, the company has surprised analysts on revenue and earnings in all but one earnings period.</p>
	<p><b>Analyst Recommendations:</b> Analysts are recommending a "BUY." However, in recent months some analysts have moved toward "Outperform." Zacks and Reuters suggest a strong buy, while Morningstar's analyst Rick Summer is bearish towards social media stocks and FB.</p>
	<p><b>Institutional Ownership:</b> Institutional ownership is at 51.02%. There are more new positions, which is a bullish sign from insiders. Only one holding company has more than a 5% stake.</p>
	<p><b>Short Interest:</b> Short interest in FB is very low, with one day to cover. The volume of shares traded is extremely high relative to competitors. Short ratio is significantly less.</p>
	<p><b>Stock Price Chart:</b> Price charts show that currently the 10-day MA crossed a "death" cross over the 50-day MA. Over the 2-year chart, the stock looks extremely strong and growing at a considerable rate. FB is dominating GOOGL, XLK, and the S&amp;P500 in its price charts.</p>

## Section (B) Company Profile

### (B-1)

Facebook (FB) was founded in 2004 and has grown to be the largest social-networking service with roughly 1.2 billion active users. Facebook's mission is, "to give people the power to share and make the world more open and connected," (Facebook). They build technology that enables users to connect to the world and others surrounding them.

### Creating Value

Value for Users			
Connect and Share with Friends	Discover and Learn	Express Yourself	Stay Connected Everywhere
<ul style="list-style-type: none"><li>1.2 billion monthly active users</li><li>757 million daily users</li></ul>	<ul style="list-style-type: none"><li>Come to FB to learn about: families &amp; friends, public figures, and organizations.</li><li>Each person has a different experience</li></ul>	<ul style="list-style-type: none"><li>Share opinions, ideas, photos, and videos.</li><li>Share only what you want through privacy controls</li></ul>	<ul style="list-style-type: none"><li>Log on to mobile, website, and applications versions</li><li>Interact through activities, news, and games.</li></ul>

Facebook 10-K

Value for Marketers				
Targeted Reach	Engagement	Facebook Ads	Facebook Ad System	Ad Measurement
<ul style="list-style-type: none"><li>Existing and prospective customers</li><li>Target based off: age, location, education, gender, and interests.</li></ul>	<ul style="list-style-type: none"><li>Highly engaged consumer network</li><li>emarketer, "More people spent more time on digital media than TV in 2013."</li></ul>	<ul style="list-style-type: none"><li>Purchase ads in multiple locations</li><li>Delivers impressive returns for the marketers as well as increase user experience.</li></ul>	<ul style="list-style-type: none"><li>Able to reach custom audiences.</li><li>Prices: per click (CPC), per action (CPA), or per thousand impressions (CPM).</li></ul>	<ul style="list-style-type: none"><li>Track online and in store performance of marketers campaigns.</li><li>Allows modifications to maximize their results.</li></ul>

Facebook 10-K

Value for Developers		
Build	Grow	Monetize
<ul style="list-style-type: none"> <li>Facebook platforms development of applications.</li> <li>Parse service allows developers to focus on creating applications, without worrying about server maintenance.</li> </ul>	<ul style="list-style-type: none"> <li>Increase exposure of applications through sharing and invites.</li> <li>Users can access applications simply through clicking from the News Feed.</li> </ul>	<ul style="list-style-type: none"> <li>Payments infrastructure through PayPal, mobile payments, gift cards, or other forms.</li> <li>2013, more than \$2.1 billion in transactions.</li> </ul>

Facebook 10-K

Revenue: “We generate substantially all of our revenue from advertising and from fees associated with our Payments infrastructure to purchase virtual and digital goods from our Platform developers,” (Facebook).

## Products

**Facebook:** Website and application is the main product offered. There are no fees for creating a profile, and includes the following features: **News Feed:** This feature updates constantly with the network constructed by the user. It presents posts, event updates, group memberships, and application updates. Through connections the personalization is endless. **Timeline:** Is the users personal profile to display information in chronological order. It shows interests, contact information, photos, education, and work history. **Graph Search:** Shows pictures or tagged posts that show friends what locations that the user has been to.

**Messenger:** This app is created solely to improve the messenger feature on Facebook. It works like text messaging, but through the Internet.

**Instagram:** App and website to take photos and videos to share with friends.

## Strategy

Facebook has strategic components to help fulfill the mission to connect the world.

1. To Expand the Global Community: Already Facebook has 1.23 billion active users out of the 1.5 billion personal computer users. Providing their product to underdeveloped countries is a large focus.
2. Develop Great Social Products to Increase Engagement: Through constructing great products, as well as M&A, Facebook plans to dominate social media and the way we interact.

3. Improve Ad Products: Continuing to offer products to help marketers reach their target customers and through keeping users engaged, the company believes they will succeed in selling ad space.

## Competition

The external environment is very competitive for FB and arises when companies offer sharing information, allow advertisements, and offer platforms for developers. Competitors include the following companies:

## Risk Factors

The inability to retain users, fail to add new users, or a decrease in user engagement could decrease Facebook's revenues. Many factors could result in this risk factor. Most importantly, if the company fails to offer an experience that retains users, ad revenue will take a hit. Also, if Facebook cannot introduce new products, users will decline.

89% of revenue is generated through advertising, thus a loss of marketers could adversely harm their business. If marketers do not feel that spending money to advertise on Facebook is effective for various reasons, business will be taken elsewhere. Factors that could influence marketers: changes in online advertising, new technologies to block ads, inability to display ads through all mediums, or an inability to retain users.

Besides being able to reap revenues through advertising, Facebook competes in a highly saturated market. There are other competitors that allow users to share information. They also generate revenues through advertising. Competitors such as Google are better positioned in the market, creating hardships for Facebook to enter new product areas. r

Source: Facebook 10-K

<b>Net US Digital Ad Revenue Share, by Company, 2012-2015</b>				
<i>% of total digital ad revenues</i>				
	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Google	40.9%	39.9%	40.8%	42.3%
Facebook	5.9%	7.4%	8.2%	9.0%
Microsoft	6.2%	5.9%	5.7%	5.4%
Yahoo!	6.8%	5.8%	5.4%	5.0%
IAC	2.5%	2.5%	2.3%	2.2%
AOL	2.5%	2.3%	2.1%	2.0%
Amazon	1.2%	1.4%	1.8%	2.0%
Twitter	0.6%	1.0%	1.6%	2.2%
LinkedIn	0.4%	0.5%	0.7%	0.8%
<b>Total digital* (billions)</b>	<b>\$36.80</b>	<b>\$42.58</b>	<b>\$48.09</b>	<b>\$53.36</b>
<i>Note: includes advertising that appears on desktop and laptop computers as well as mobile phones and tablets, and includes all the various formats of advertising on those platforms; net ad revenues after companies pay traffic acquisition costs (TAC) to partner sites; *data through 2012 is derived from IAB/PwC data</i> <i>Source: company reports, 2012 &amp; 2013; eMarketer, Dec 2013</i>				
166311	www.eMarketer.com			

## Legal Proceedings

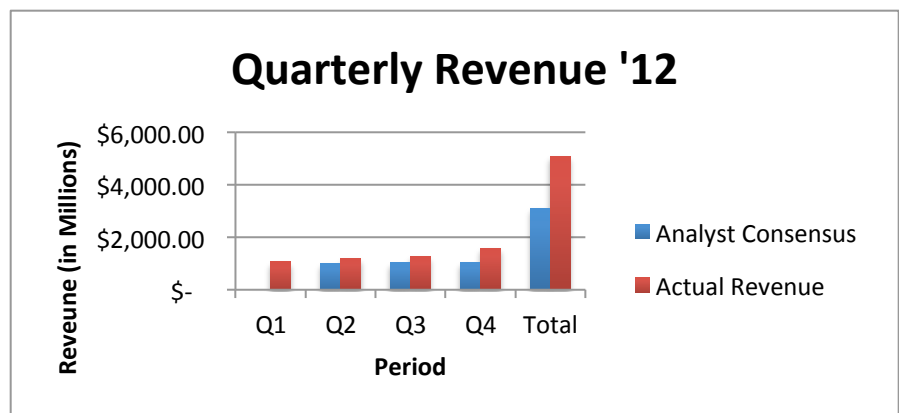
*Paul Ceglia Vs. Marck Zuckerberg* : June 30, 2010, the case moved from the New York Supreme Court down to pending. Ceglia claims that an agreement back in April 2003 states that he has a high stake in Facebook. The two were working together on StreetFax.com, but Ceglia states he gave Zuckerberg \$1,000 to start his side project The Face Book. In October 2012, Ceglia was arrested on mail and wire fraud surrounding this case. The companies plan is to still defend the case.

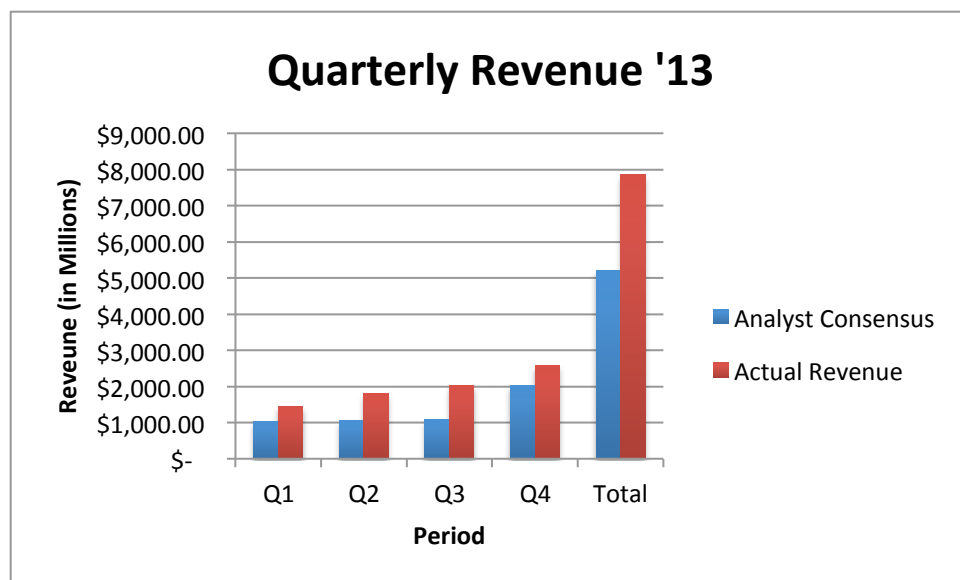
*Various cases Vs. NASDAQ*: May 23, 2012, a group of Facebook shareholders filed a lawsuit against Facebook. When the company went public on May 17, investor's orders took hours to execute. While the stock price fell, they purchased at the high price and tried to cancel their order, but it did not go through resulting in a larger loss.

*Rembrandt Social Media, LP V. Facebook, Inc., et al*: The case is still in process. Most recently, Facebook has dismissed the complaint. Rembrandt filed the complaint regarding patent infringements surrounding the way information is shared, specifically the "Like" button. Facebook reports in their 10-K that the plaintiff in the case lacks any merit.

### (B-2)

When examining the revenue exhibits below, it can be noted that FB has exceeded revenue estimates every quarter. In Q4 2012, the analyst consensus was \$1.5B, but actual reported revenues were \$1.6B with a surprise of 1.04%. The trend was continuously upward throughout 2013. Analyst consensus for all four quarters were: \$1.4B, \$1.6B, \$1.9B, and \$2.4B. Actual revenues respectively reported were: \$1.5B, \$1.8B, \$2.0B, and \$2.6B with surprises over 1% each quarter (businessweek.com). Investors were undervaluing the success of Facebook's ability to gain from ad sales, which explains revenue outperforming each quarter.





**Likewise, what are your observations on earnings?**

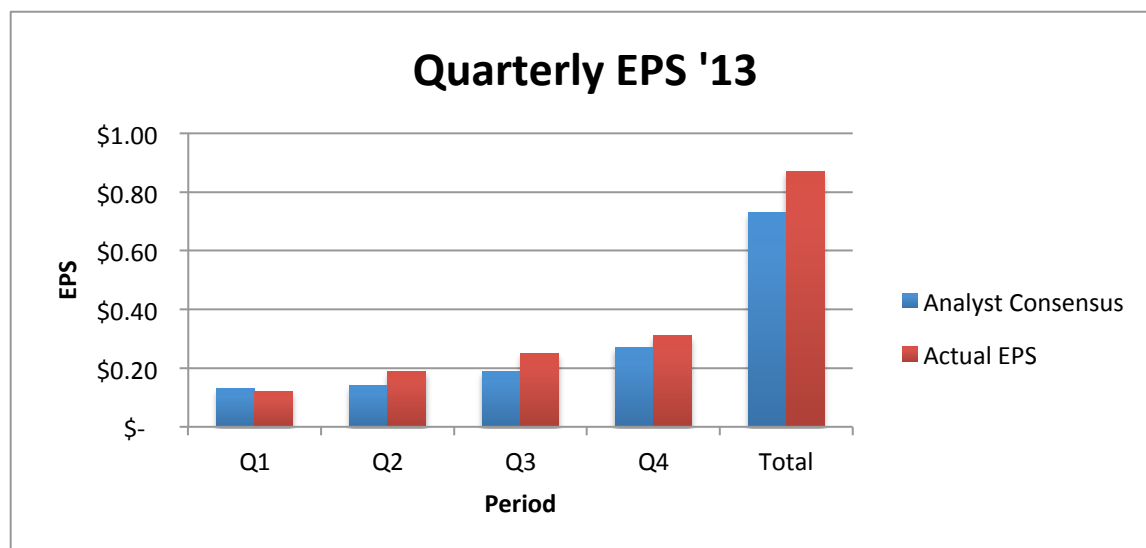
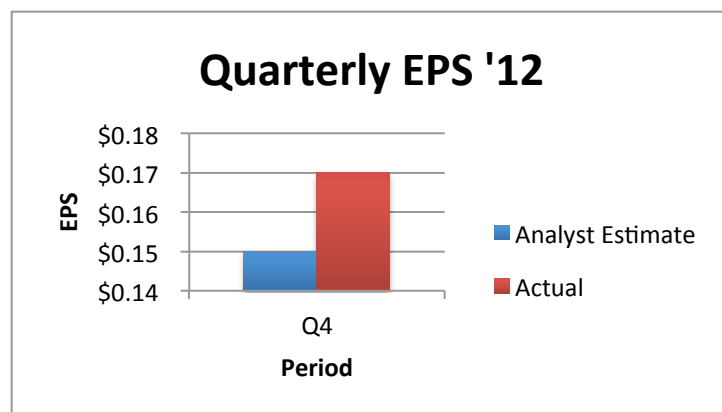
While looking over earnings charts below, it can be noticed that the past four of five quarters have outperformed analyst consensus. The first quarter of fiscal year 2013 was the only period when earnings were missed by \$0.01.

The past five analyst consensus on earnings were: \$0.15, \$0.13, \$0.14, \$0.19, and \$0.27.

Respectively the actual earnings were: \$0.17, \$0.12, \$0.19, \$0.25, and \$0.31

(businessweek.com). Investor's are very bearish on earnings during the last fiscal year.

Facebook has outperformed all but one quarter since it's IPO.



### (B-3) Most Recent Quarterly Earnings Release

#### When was the company's most recent earning release?

January 29, 2014 was the most recent earnings release. Both revenue and earnings exceeded analyst consensus. Revenue surprised analysts positively by 1.10% by beating estimates by roughly \$200M. Earnings positively surprised analysts as well by 15.10% by topping estimates by \$0.04. During the earnings release, management attributed the success to various items. First, revenues increased (in millions) from \$2,016 from Q3'13, to \$2,585. This can be attributed by the increase in both DAUs and MAUs which both increased. From the previous quarter, DAUs increased 29 million to 757 million. MAUs increased 39 million from Q3'13 to 1,228 users for Q4'13.

Looking forward for the year 2014, Zuckerberg explained that a main focus is on fulfilling internet.org's mission of Deeping relationships with mobile operators around the world and working to develop new models for Internet access, (FB Q3 Earnings Transcript). Through focusing on more users on Instagram, Facebook, and Messenger, revenues will increase. Acquisitions such as Instagram are an example of the acquisitions that Facebook will be making this year.

### Section (C) Fundamental Valuation (EBO)

FB	PARAMETERS	FY1	FY2	Ltg
	EPS Forecasts	1.26	1.68	31.38%
	Total Equity	15470.0		
	Preferred Stock	0.00		
	Book Value (end of last fye)	15470.00		
	Common Equity Shr. O/S	2547.00		
	Book value/share (last fye)	6.074		
	30- Year T-Bond Rate	3.56%		
	E(r <sub>m</sub> )	9.50%		
	Beta	0.00		
	Discount Rate	3.56%		
	Dividend Payout Ratio (POR)	0.00%		
	Next Fsc Year end	2014		
	Current Fsc Mth (1 to 12)	4		
	Target ROE (industry avg.)	25.87%		



Year	2014*	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Long-term EPS Growth Rate (Ltg)			0.3138	0.3138	0.3138	0.3138	0.3138					
Forecasted EPS	1.26	1.68	2.21	2.90	3.81	5.01	6.58					
Beg. of year BV/Shr	6.074	7.334	9.014	11.221	14.121	17.931	22.936					
Implied ROE		0.229	0.245	0.258	0.270	0.279	0.287					
ROE (Beg. ROE, from EPS forecasts)	0.207	0.229	0.245	0.258	0.270	0.279	0.287	0.251	0.216	0.181	0.145	0.110
Abnormal ROE (ROE-k)	0.172	0.193	0.209	0.223	0.234	0.244	0.251	0.216	0.180	0.145	0.110	0.074
growth rate for B (1-POR)*(ROEt-1)	0.000	0.207	0.229	0.245	0.258	0.270	0.279	0.287	0.251	0.216	0.181	0.145
Compounded growth growth*AROE	1.000	1.207	1.484	1.847	2.325	2.952	3.776	4.859	6.080	7.394	8.730	9.998
required rate (k)	0.172	0.234	0.311	0.412	0.544	0.719	0.948	1.048	1.097	1.073	0.958	0.744
Compound discount rate	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036
div. payout rate (k)	1.036	1.072	1.111	1.150	1.191	1.234	1.277	1.323	1.370	1.419	1.469	1.522
Add to P/B PV(growth*AROE)	0.17	0.22	0.28	0.36	0.46	0.58	0.74	0.79	0.80	0.76	0.65	0.49
Cum P/B	1.17	1.38	1.66	2.02	2.48	3.06	3.80	4.60	5.40	6.15	6.80	7.29
Add: Perpetuity beyond current yr												
Total P/B (Assume this yr's AROE forever)	4.66	6.12	7.85	10.05	12.84	16.37	20.85	22.26	22.49	21.24	18.31	13.73
(P/B if we stop est. this period)	5.83	7.50	9.52	12.07	15.32	19.43	24.65	26.86	27.89	27.39	25.12	21.03
<b>Implied price</b>	<b>35.81</b>	<b>46.11</b>	<b>58.50</b>	<b>74.21</b>	<b>94.15</b>	<b>119.44</b>	<b>151.52</b>	<b>165.06</b>	<b>171.40</b>	<b>168.34</b>	<b>154.38</b>	<b>129.22</b>
Check:												
Beg. BV/Shr	6.074	7.334	9.014	11.221	14.121	17.931	22.936	29.512	36.930	44.908	53.022	60.728
Implied EPS	1.260	1.680	2.207	2.900	3.810	5.005	6.576	7.418	7.978	8.114	7.706	6.680
Implied EPS growth		0.333	0.314	0.314	0.314	0.314	0.314	0.128	0.075	0.017	-0.050	-0.133

**Inputs (provide below input values used in your analysis)**

**EPS forecasts: FY1: 1.26**

**FY2: 1.68**

**Long-term growth rate: 31.38%**

**\*\*\* Indicate next to the number if you made an adjustment to the consensus LTG estimate.**

**Justify at the bottom of this panel how you derive the adjusted value, if any \*\*\***

**Book value /share (along with book value and number of shares outstanding):**

**Book value: 15470.0**

**# of shares outstanding: 2547.0**

**Book value / share: 6.074**

**Dividend payout ratio: 0.00**

**Next fiscal year end: 2014**

**Current fiscal month: 4**

**Target ROE: 25.87**

**\*\*\* Indicate next to the number if you made an adjustment to the target ROE estimate.**

**Justify at the bottom of this panel how you derive the adjusted value, if any \*\*\***

**Discount rate**

**Input for discount rate:**

**Risk-free rate: 3.56%**

**Beta: 0.00**

**Market risk premium: 9.50%**

## **Output**

**Above normal growth period chosen: 2016**

**\*\*\* Justify at the bottom of this panel your choice of abnormal growth period \*\*\***

**EBO valuation (Implied price from the spreadsheet): \$58.50**

Observing the implied price in 2016, it is well over the FMV as suggested by Morningstar right now (\$45). However, at \$58.50, this price is in the same price range as the current market value of the stock. One of the largest soft spots is the long-term growth rate of 31.38%. This past year alone the stock has grown significantly, which is displayed later through charting. If the long-term growth rate increased, then the price would correlate to where the stock is heading at a current rate.

## **Sensitivity Analysis**

Sensitivity analysis changes the stock price around greatly. If the growth period were to be extended for another year, the implied price increases to \$74.21. The growth rate is really not close to the actual growth the company has been experiencing. If it is increased to the high estimate of 46%, the implied price increases to \$91.65. Consistently, if the low estimate of 19.70% is used, the implied price decreases to \$61.60. Through adjusting the discount rate down to 2.5%, the price increases to \$108.73. If the target ROE changes to 30%, there is no effect on the short-term.

**EBO valuation would be (you can include more than one scenario in each of the following):**

**\$74.21 if changing above normal growth period to 2017**

**\$91.65 if changing growth rate from mean (consensus) to the highest estimate 46%**

**\$61.60 if changing growth rate from mean (consensus) to the lowest estimate 19.70%**

**\$108.73 if changing discount rate to 2.5%**

**\$74.21 if changing target ROE to 30.00%**

Mean FY2													
Ticker	Name	Mkt Cap	Current Price	Earnings Estimate (next fiscal year)	Forward P/E	Mean LT Growth Rate	PEG	P/B (MRQ)	ROE 5 yr ave	Value Ratio	P/S TTM	P/CF TTM	
1	GOOGL	Google Inc	\$ 192,100.00	\$ 545.25	\$ 64.61	8.44	16.03%	0.53	2.10	15.36%	0.14	6.12	22.68
2	YHOO	Yahoo! Inc	\$ 36,100.00	\$ 34.26	\$ 1.80	19.03	9.22%	2.06	2.66	9.89%	0.27	7.39	32.05
3	TWTR	Twitter Inc.	\$ 55,200.00	\$ 43.14	\$ 0.21	205.43	NA	0.00	8.83	NA	0.00	38.18	NA
4	LNKD	LinkedIn Corp	\$ 20,000.00	\$ 165.83	\$ 2.51	66.07	37.00%	1.79	7.59	1.51%	5.03	13.08	123.70
	FB	Facebook Inc.	\$ 151,700.00	\$ 56.72	\$ 1.68	33.76	31.38%	1.08	9.34	10.95%	0.85	18.48	50.87
Implied Price based on:						P/E	PEG	P/B		Value	P/S	P/CF	
1	GOOGL	Google Inc				\$14.18	\$27.75	\$12.75		\$9.09	\$18.78	\$25.29	
2	YHOO	Yahoo! Inc				\$31.98	\$108.83	\$16.15		\$17.88	\$22.68	\$35.74	
3	TWTR	Twitter Inc.				\$345.12	\$0.00	\$53.62		\$0.00	\$117.18	\$1.11	
4	LNKD	LinkedIn Corp				\$110.99	\$94.13	\$46.09		\$334.25	\$40.15	\$137.93	
		High				\$345.12	\$108.83	\$53.62		\$334.25	\$117.18	\$137.93	
		Low				\$14.18	\$0.00	\$12.75		\$0.00	\$18.78	\$1.11	
		Median				\$71.48	\$60.94	\$31.12		\$13.49	\$31.41	\$30.51	

The relative valuation outlook on Facebook is very negative compared to its established competitors. Since the stock is still relatively new, it is most beneficial to look at the PEG ratio, as well as forward P/E. Compared to competitors, these two ratios give reasonable prices for FB. Forward P/E median implied price is \$71.48. However, these numbers are slightly skewed. GOOGL tops FB in every valuation bringing its forward price to earnings implied price down to \$14.18. Twitter on the other hand is still very new and calculates an implied price of \$345.12. When looking at the PEG ratio, it can be noted that valuations are incorrect due to the discrepancies amongst companies.

When observing analyst reports from Thomson Reuters similar indicators are not positive for Facebook's relative valuation. FB is currently valued at a premium based on trailing and forward P/E. FB also has a forward PEG of 1.5, a 19% discount relative to the S&P500. The competitors listed by this analyst report are: EBAY, GOOGL, YHOO, and BIDU. Facebook trails all competitors in their report for trailing P/E and forward P/E. This section of analysis is definitely the most negative outlook on the stock and does not hold as much weight due to such uncertainty surrounding the stock.

## Section (E) Revenue and Earnings Estimates

### (E-1)

#### HISTORICAL SURPRISES

##### Sales and Profit Figures in US Dollar (USD)

##### Earnings and Dividend Figures in US Dollar (USD)

Estimates vs Actual	Estimate	Actual	Difference	Surprise %
<b>SALES (in millions)</b>				
Quarter Ending Dec-13	2,330.11	2,585.00	254.89	10.94
Quarter Ending Sep-13	1,911.20	2,016.00	104.80	5.48
Quarter Ending Jun-13	1,618.29	1,813.00	194.71	12.03
Quarter Ending Mar-13	1,439.48	1,458.00	18.52	1.29
Quarter Ending Dec-12	1,533.05	1,585.00	51.95	3.39
<b>Earnings (per share)</b>				
Quarter Ending Dec-13	0.26	0.31	0.05	16.98
Quarter Ending Sep-13	0.19	0.25	0.06	34.99
Quarter Ending Jun-13	0.14	0.19	0.05	39.30
Quarter Ending Mar-13	0.13	0.12	0.01	4.31
Quarter Ending Dec-12	0.15	0.17	0.02	11.77

**Investor's Reaction to Earnings**  
**(Two days after earnings)**

Period	Q4- 2/1/13	Q1- 5/3/13	Q2- 7/26/13	Q3- 11/1/13	Q4- 1/31/14
Share Inc/Dec	<b>-\$1.09</b>	<b>-\$1.42</b>	<b>\$3.62</b>	<b>\$0.35</b>	<b>\$0.18</b>
Share Price	<b>\$28.64</b>	<b>\$22.89</b>	<b>\$37.63</b>	<b>\$50.40</b>	<b>\$62.75</b>

Reactions to earnings were overall positive the last three quarters of the year. As noted in the table above, stock prices varied two days after the announcement of earnings were reported. The largest gap was Quarter Ending Jun- 13 that was reported in July. Investors were surprised by 12.03% and the stock price increased by \$3.62. Earnings have a huge play into stock price and it was demonstrated there. After consistent earnings were above expectations stock price kept increasing upwards of \$60.00. Earnings are the bullish driving factor for Facebook stock right now.

## (E-2) Consensus Estimates Analysis

	# of Estimates	Mean	High	Low	1 Year Ago	% High	%Low
<b>Sales (in millions)</b>							
Quarter Ending Jun-14	38	\$ 2,667.56	\$ 2,870.00	\$ 2,358.90	\$ 1,980.32	7.59%	-12%
Quarter Ending Sep-14	38	\$ 2,892.66	\$ 3,146.90	\$ 2,667.00	\$ 2,050.95	8.79%	-8%
Year Ending Dec-14	42	\$11,370.80	\$12,216.80	\$10,582.00	\$ 8,437.15	7.44%	-7%
Year Ending Dec-15	37	\$14,930.00	\$17,324.20	\$13,074.00	\$10,469.80	16.04%	-12%
<b>Earnings (per share)</b>							
Quarter Ending Jun-14	39	0.28	0.34	0.22	0.18	21.43%	-21%
Quarter Ending Sep-14	40	0.32	0.39	0.25	0.18	21.88%	-22%
Year Ending Dec-14	42	1.26	1.49	1.04	0.78	18.25%	-17%
Year Ending Dec-15	38	1.68	2.02	1.25	1.04	20.24%	-26%
LT Growth Rate (%)	12	31.38	46.00	19.70	28.96	46.59%	-37%

Sales and Profit figures in US Dollar (USD)  
Earnings and Dividend Figures in US Dollar (USD)  
Reuters.com

Notice the figure above that indicates analyst's estimates on revenues and on earnings for the next quarters. The %High column reports the percentage of high estimates relevant to the mean and %Low respectively. Looking forward into the year ending estimate on revenues, the discrepancy is largest amongst FY2 with 16.04% high and -12.00% low estimates. Earnings vary greatest amongst FY2 as well, 20.24% high and -26.00% low estimates.

Quarter ending June lays more discrepancy amongst revenues with 7.59% and -12.00% low estimates respectively. Typically the farther analysts estimate in the future there are larger discrepancies, but this is not the case. For earnings, the estimates vary more in quarter ending September.

Looking at the number of analysts estimating the long-term growth rate, there is roughly about 1/3 of the amount compared to revenues and earnings analysts. The percentage between the

high and low estimates is also very unclear. Analysts are still unsure about Facebook's potential for earnings, but so far the company has exceeded expectations in all but one earnings report.

**(E-3) "Consensus Estimates Trend"**

**CONSENSUS ESTIMATES TREND**

Sales and Profit Figures in US Dollar (USD)

Earnings and Dividend Figures in US Dollar (USD)

	Current	1 Week Ago	1 Month Ago	2 Month Ago	1 Year Ago
<b>SALES (in millions)</b>					
Quarter Ending Jun-14	2,667.56	2,667.56	2,648.43	2,648.27	1,980.32
Quarter Ending Sep-14	2,892.66	2,892.66	2,872.25	2,870.38	2,050.95
Year Ending Dec-14	11,370.80	11,370.80	11,302.40	11,240.90	8,437.15
Year Ending Dec-15	14,930.00	14,930.00	14,817.10	14,739.70	10,469.80
<b>Earnings (per share)</b>					
Quarter Ending Jun-14	0.28	0.28	0.28	0.28	0.18
Quarter Ending Sep-14	0.32	0.32	0.32	0.32	0.18
Quarter Ending Dec-14	1.26	1.26	1.25	1.25	0.78
Quarter Ending Dec-15	1.68	1.68	1.67	1.68	1.04

Reuters.com

Analysts are continually increasing their estimates for revenues for both quarters ending in June and September. Looking into revenues for the FY1 and FY2, analysts are also increasing the revenue estimate. In the past two months alone, FY1 estimate has been increased \$130 million. Analysts are still unsure about FY2 revenues as it can be noted in the past year alone; revenue estimates have increased by \$4,500 million.

Earnings on the other hand are fairly constant over the past 2 months. Analysts have not changed the EPS at all. It can be noted that in the quarter ending in September, that the EPS is \$0.04 higher than the quarter ending in June. For the quarter ending in December, analysts have increased the EPS by \$0.01.

**(E-4)**

## ESTIMATES REVISIONS SUMMARY

Number Of Revisions:	Last Week		Last 4 Weeks	
	Up	Down	Up	Down
<b>Revenue</b>				
Quarter Ending Jun-14	0	0	4	0
Quarter Ending Sep-14	0	0	5	0
Year Ending Dec-14	0	0	5	0
Year Ending Dec-15	0	0	5	0
<b>Earnings</b>				
Quarter Ending Jun-14	0	0	4	0
Quarter Ending Sep-14	0	0	3	2
Year Ending Dec-14	0	0	4	2
Year Ending Dec-15	0	0	4	2

During the past month, there have been analyst revisions for both revenue and earnings estimates. Revenues for the quarter ending in June, there have been four upgrades and for September there has been five upgrades. Both FY1 and FY2, there have been five upgrades as well. There were no revisions during the past week.

Earnings have been more mixed than revenues. For quarter ending in June, there have only been positive outlooks with four upgrades. Quarter ending in September, there is a split with three upgrades and two downgrades. The same can be noted for both FY1 and FY2, with four upgrades and two downgrades.

### (E-5) *“Consensus Earnings Revisions” from CNBC*

There were no consensus earnings revisions throughout the past month according to CNBC. Last earnings report was on the 29<sup>th</sup> of January and the next will occur on the 23<sup>rd</sup> of April. Last report Facebook outperformed estimates by \$0.04 with \$0.31 EPS and reported \$572 million above revenue estimates. For April, consensus recommendations are “Outperform” with \$0.28 EPS.

## 1) Section (F) Analysts' Recommendations (F-1)

### ANALYST RECOMMENDATIONS AND REVISIONS

1-5 Linear Scale	Current	1 Month Ago	2 Month Ago	3 Month Ago
(1) BUY	19	20	21	21
(2) OUTPERFORM	17	17	18	15
(3) HOLD	8	7	6	5
(4) UNDERPERFORM	0	0	0	0
(5) SELL	0	0	0	0
No Opinion	0	0	0	0
Mean Rating	1.75	1.70	1.67	1.61

According to the table above, analysts are becoming slightly more bearish towards the stock. It can be noted that between 3 months ago and 2 months, 4 analysts started to analyze the stock. There were +3 "Outperform" recommendations during this period, and +1 "Hold". Still a majority of analysts recommended a "Buy." The mean rating moved from 1.61 to 1.67 during that period.

In between 2 months and 1 month, there were slightly more bearish moves. There was +1 to "Outperform," and -1 to "Buy." The mean rating moved from 1.67 to 1.70. During the current month, there were -1 "Buy" recommendations, and a +1 "Hold." The overall mean rating moved from 1.70 to 1.75.

Despite the few analyst recommendations from Reuters, most recommendations are a strong buy as can be noted in the figure above. According to Zacks.com, brokerage recommendations show 26 "Strong buy," 4 "Buy," and 3 "Hold" recommendations.

Morningstar analyst report does not have a positive outlook on Facebook. Analyst fair value estimate stands at \$45.00. However, the analyst that updates the reports, Rick Summer, does not have a positive outlook on the entire social media market. After viewing interviews online, it seems that his investing philosophy for the year would be to keep investing in old tech stocks.



## (F-2) Most Recent One-Month Analysts Upgrades/Downgrades from CNBC

The last earnings were on January 29 and the next reporting date is set for April 23. There were no recent upgrades or downgrades, which is not unusual. This is the last month in the quarter and investors are unsure how Facebook will perform. As with past quarters, the company has exceeded consensus estimates. With its past performance it will be interesting to see what happens to the stock in the next two weeks leading up to the 23<sup>rd</sup>. Once earnings are reported there will be more clarity for the outlook of the stock.

## Section (G) Institutional Ownership

FB

Ownership Activity	# of Holders	% Beg. Holders	Shares	% Shares
Shares Outstanding			1,990,976,427	100.00%
# of Holders/Total Shares Held/% Shares	1,211	101.00%	1,301,103,095	65.35%
# New Positions	16	1.33%		
# Closed Positions	4	0.33%		
# Increased Positions	41	3.42%		
# Decreased Positions	23	1.92%		
Beg. Total Inst. Positions	1,199	100.00%	1,300,918,326	65.34%
# Net Buyers/3 Mo. Net Chg	18	64.06%	184,769	0.01%

It can be noted from the figure above that there are more increased and new positions than closed or decreased positions. This indicates a very bullish sentiment towards the stock because institutional owners have more insight to Facebook's operations than investors do. Fidelity Management and Research Company have increased their holdings in FB, having 5.50% ownership.

Ownership Information	% Outstanding
% Institutional Ownership	51.02
Top 10 Institutions % Ownership	19.76%
Mutual Fund % Ownership	27.05%
5%/Insider Ownership	NA
Float %	99.00%

> 5% Ownership			
Holder Name	% Change	% Outstanding	Report Date
Fidelity Management and Research Company	20.84%	5.50%	12/31/13

The % of institutional ownership is 51.02, which is relatively low when comparing with competitors. Both GOOGL and YHOO institutional ownership stakes are high with, 72.84% and

72.85% respectively. Investors do not have to worry about institutional ownership sell offs as much as they do in competitors. However, this being said there is still risk due to Facebook's CEO being the largest holder in the company. This effects more in strategy development and voting than sell offs.

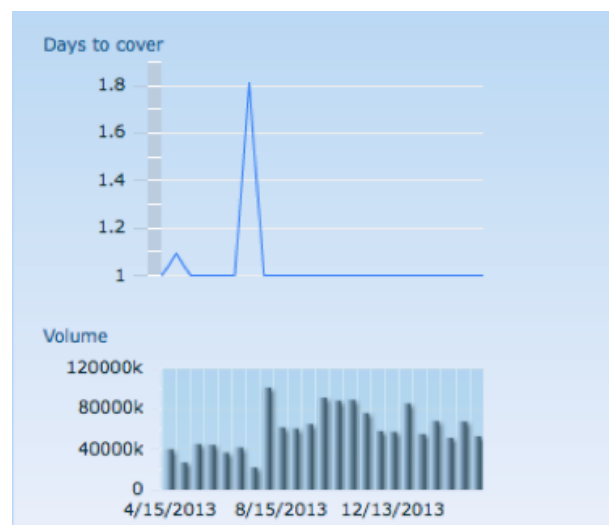
## Section (H) Short Interest

(H-1) (H-2)

FB

Settlement Date	Short Interest	Avg Daily Share Volume	Days To Cover
3/14/2014	38,801,069	53,045,269	1.000000
2/28/2014	37,701,633	67,034,227	1.000000
2/14/2014	39,927,924	51,296,341	1.000000
1/31/2014	34,175,129	67,809,086	1.000000
1/15/2014	43,981,885	55,168,075	1.000000
12/31/2013	41,708,837	85,170,135	1.000000
12/13/2013	31,988,320	57,428,223	1.000000
11/29/2013	41,052,399	58,212,820	1.000000
11/15/2013	44,345,339	75,718,725	1.000000
10/31/2013	31,899,951	88,855,761	1.000000
10/15/2013	30,924,041	87,771,509	1.000000
9/30/2013	40,012,513	90,942,118	1.000000
9/13/2013	27,048,557	64,587,910	1.000000
8/30/2013	23,511,417	60,411,841	1.000000
8/15/2013	36,142,020	61,525,611	1.000000
7/31/2013	36,541,970	101,195,517	1.000000
7/15/2013	39,754,124	21,887,346	1.816306
6/28/2013	36,117,437	41,707,324	1.000000
6/14/2013	35,998,845	37,023,355	1.000000
5/31/2013	33,867,105	44,027,711	1.000000
5/15/2013	27,897,240	44,975,686	1.000000
4/30/2013	29,629,840	27,120,485	1.092526
4/15/2013	35,338,011	39,788,688	1.000000

Avg Vol (3 month)	Avg Vol (10 day)	Shares Outstanding	Float
62,133,900	83,107,300	2.55B	1.91B
Shares Short (Most recent date)	Short Ratio (Most recent date)	Short % of Float (Most recent date)	Shares Short (2 weeks prior)
38.80M	.70	2.30%	37.70M



# GOOGL

Settlement Date	Short Interest	Avg Daily Share Volume	Days To Cover
3/14/2014	2,441,154	1,715,713	1.422822
2/28/2014	2,459,520	1,828,934	1.344783
2/14/2014	2,721,630	2,418,404	1.125383
1/31/2014	2,730,379	3,043,500	1.000000
1/15/2014	3,931,374	2,096,771	1.874966
12/31/2013	4,906,793	1,646,795	2.979602
12/13/2013	5,025,758	1,627,093	3.088796
11/29/2013	4,712,667	1,520,881	3.098643
11/15/2013	4,752,330	1,413,677	3.361680
10/31/2013	4,967,526	3,302,954	1.503965
10/15/2013	5,149,908	1,897,596	2.713912
9/30/2013	5,392,565	1,940,430	2.779057
9/13/2013	4,364,908	1,646,679	2.650734
8/30/2013	3,755,909	1,592,169	2.358989
8/15/2013	3,893,725	1,734,921	2.244324
7/31/2013	4,062,031	2,875,009	1.412876
7/15/2013	4,379,115	2,042,932	2.143544
6/28/2013	4,132,997	2,809,892	1.470874
6/14/2013	4,263,803	2,416,345	1.764567
5/31/2013	3,757,322	2,545,783	1.475900
5/15/2013	4,839,994	2,330,633	2.076686
4/30/2013	4,124,954	2,867,915	1.438311
4/15/2013	3,560,211	2,418,382	1.472146

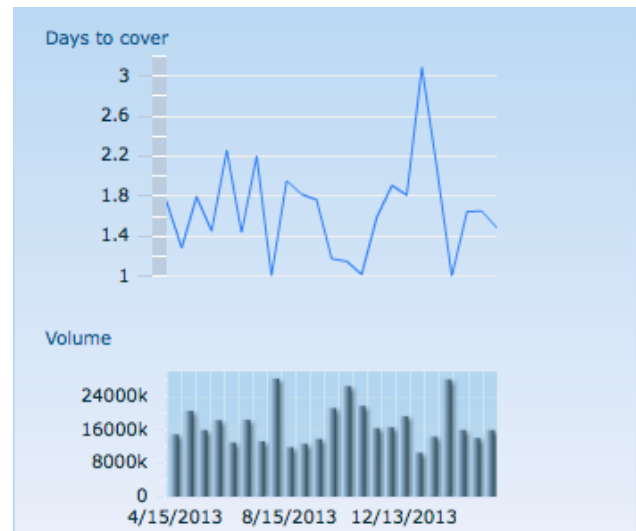
Avg Vol (3 month)	Avg Vol (10 day)	Shares Outstanding	Float
4,589,590	4,383,600	672.10M	566.53M
Shares Short (Most recent date)	Short Ratio (Most recent date)	Short % of Float (Most recent date)	Shares Short (2 weeks prior)
2.44M	1.40	0.90%	2.46M

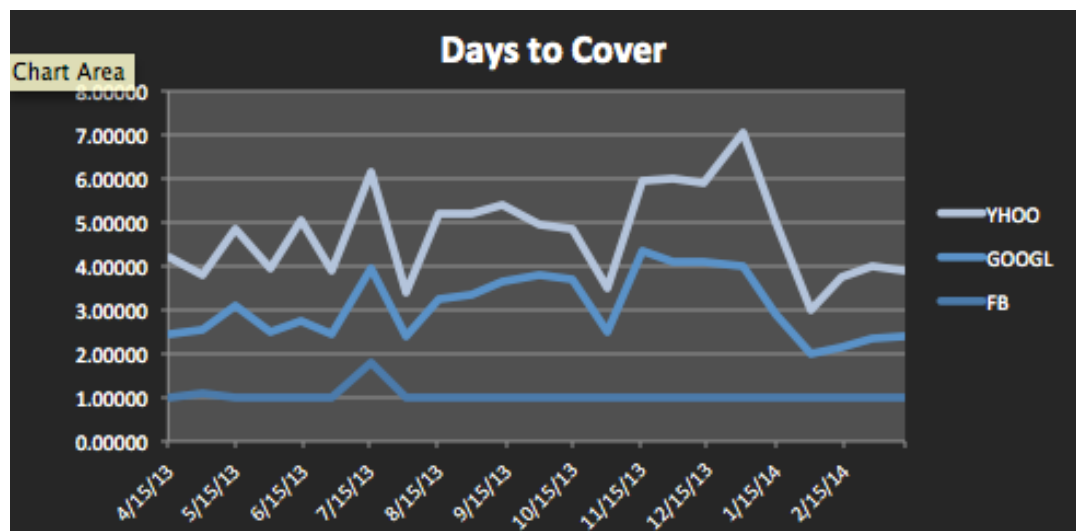


## YHOO

Settlement Date	Short Interest	Avg Daily Share Volume	Days To Cover
3/14/2014	23,706,023	15,992,873	1.482287
2/28/2014	23,141,082	13,989,325	1.654196
2/14/2014	26,284,225	15,999,218	1.642844
1/31/2014	22,956,647	28,011,227	1.000000
1/15/2014	30,026,789	14,294,610	2.100567
12/31/2013	32,538,577	10,514,030	3.094777
12/13/2013	34,758,610	19,222,434	1.808231
11/29/2013	31,656,534	16,582,500	1.909033
11/15/2013	26,061,700	16,398,009	1.589321
10/31/2013	22,164,557	21,741,084	1.019478
10/15/2013	30,411,090	26,452,737	1.149639
9/30/2013	24,944,995	21,232,962	1.174824
9/13/2013	24,363,732	13,800,553	1.765417
8/30/2013	23,049,309	12,682,050	1.817475
8/15/2013	23,039,433	11,776,281	1.956427
7/31/2013	26,695,503	28,254,882	1.000000
7/15/2013	29,169,706	13,230,629	2.204710
6/28/2013	26,467,700	18,465,835	1.433334
6/14/2013	29,297,493	12,953,631	2.261721
5/31/2013	26,665,028	18,353,345	1.452870
5/15/2013	28,667,990	15,969,921	1.795124
4/30/2013	26,267,072	20,526,517	1.279665
4/15/2013	26,097,136	14,928,041	1.748196

Avg Vol (3 month)	Avg Vol (10 day)	Shares Outstanding	Float
18,834,300	21,789,700	1.01B	933.32M
Shares Short (Most recent date)	Short Ratio (Most recent date)	Short % of Float (Most recent date)	Shares Short (2 weeks prior)
23.71M	1.60	2.50%	23.13M

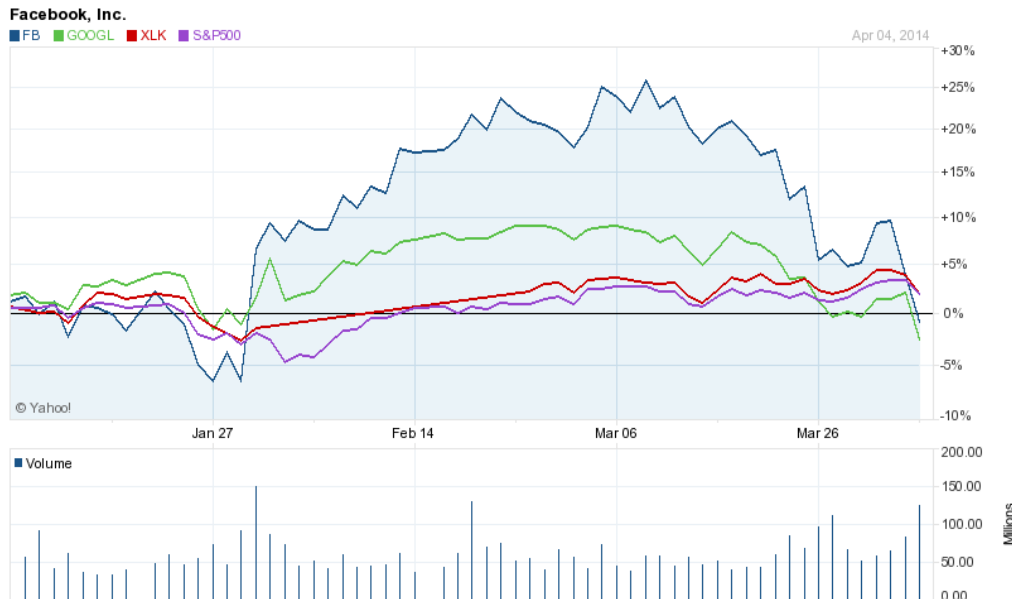




Facebook's last earning report was on January 29, 2014. The next is scheduled for April 23, 2014. Looking at the short interest for Facebook and its closest competitors, it can be noted that the company always has 1 day to cover. There are a few reasons that the days to cover are 1. Consistently there are a lot of shares short, and the stock is highly volatile. Not that the average volume traded for 3-months is roughly 62 million. Google and Yahoo have roughly 8.5 and 18.5 million respectively. Note the current shares outstanding for FB is significantly greater than both GOOGL and YHO. However, with the high volume traded, FB has a much lower short ratio of .70 compared to GOOGL 1.40 and YHOO 1.60 respectively. After the January earnings report, short interest slightly decreased. Looking over the past year of short interest, it can be noted that investors are very uncertain with Facebook.

## Section (I) Stock Charts

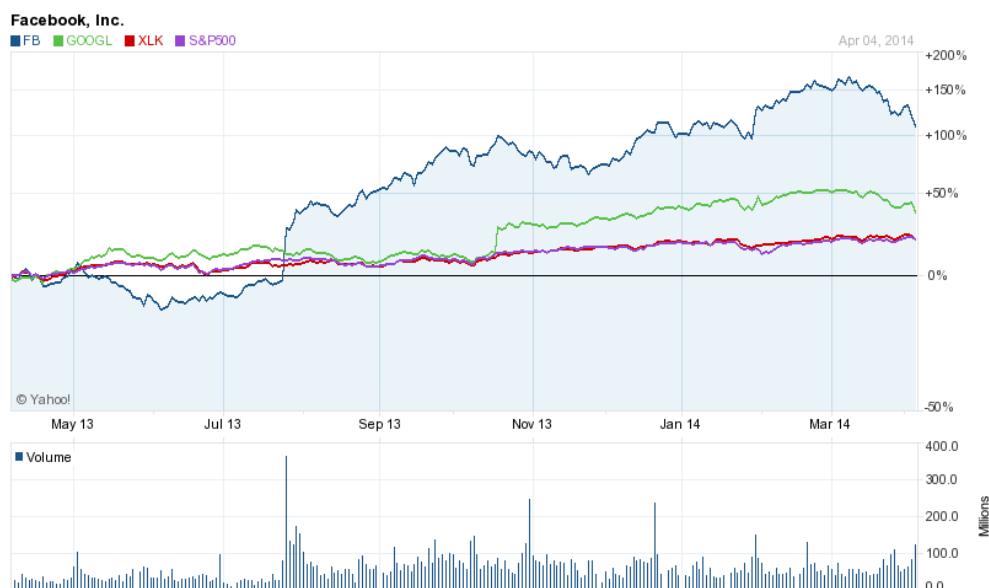
### (I-1) A three months price chart



When observing the past 3-month chart, the largest gain was right after earnings were reported for FB on January 29, 2013. Since that report, FB has been gaining way ahead of GOOGL, the technology ETF (XLK), and the

S&P500. The large drop towards the end of the month and beginning of April can be due to the large sell off of technology stocks last week. This dive means the all of the bearish investors sold off and hopefully now the stock will go back to where it was earlier in the year. It will be hard to say what is going to happen until the 23<sup>rd</sup> of April when earnings are reported again.

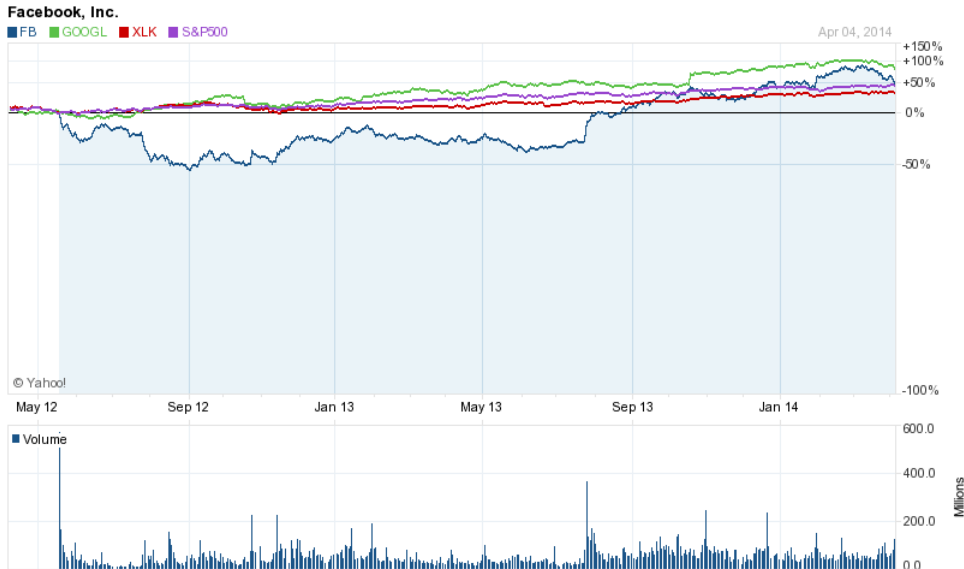
### (I-2) A one-year price chart



The one-year price chart also displays FB growth over the past year. The large increase in price during the summer was after Q2 '13 earnings were reported. The stock gained over \$3.00 after

the announcement. Since then, Facebook has been growing way ahead of GOOGL, XLK, and the S&P500. This year was extremely solid for FB and in my opinion; the company will keep surprising investors with earnings.

### (I-3) A two-year price chart

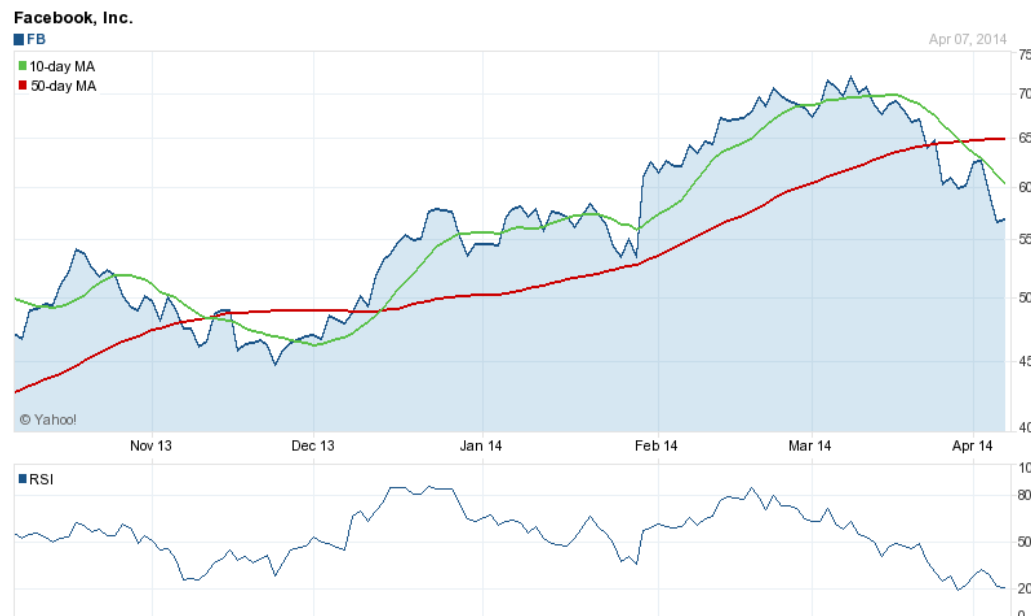


Since Facebook has only been public since 2012, the two-year price chart is replacing the five-year chart. As displayed in the chart, FB struggled after its IPO. The controversy surrounding the delay times did not help contribute to any sort of success. However,

through consistent earnings surprises, FB has had significant growth. Over the past two years it has not grown as much as GOOGL, but it has grown more than XLK and the S&P500.

## (I-4) Technical Indicators

### 6-Month Price Chart



Since the stock is very volatile, it is no surprise that the 10-day moving average had two “death” crosses, and one “golden” cross with the 50-day moving average. In November 2013 the 10-

day declined below the 50-day. This did not last long though as the moving average increased, resulting in a “golden” cross in early January 2014. The 3-months of the year, the 10-day moving average stayed above the 50-day until most recently. This huge sell off resulted in another “death” cross and does not show sign of recovery as of yet.

### 2-Year Price Chart



Since Facebook has only been public for two years, the 200-day moving average did

not start until 2013. In July 2013, the 50-day moving average crossed the 200-day, but did not stay below for long. In August 2013, the 50-day had a “golden” cross back above the 200-day. Since last



summer, the 50-day moving average has stayed well above the 200-day moving average. This is a very bullish sign in the growth of FB and the increase in price.

The 6-month chart displays very bearish signals for the short-term strength of the stock. The 2-year chart is a better indicator at where I expect the stock to move. With this said, because of the volatility, it would be best to invest in FB after earnings later this month. There is no use to take a risky bet after observing the 10-day moving average.

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