

## Facebook, Inc. (FB)

## Raising Estimates &amp; Target Price. Retain BUY

**INVESTMENT HIGHLIGHTS:** We raise our FY3Q13, FY13 and FY14 estimates, and our 12-month target price to \$65 and reiterate our BUY rating.

**Investment Thesis.** We believe FB's current share price does not adequately reflect:

- **Global Scale.** At 6/30/13, FB's installed base of potential revenue units (i.e., users) was 1.15B, with daily users (i.e., super-fans) at 700mm. This captive audience is the installed base over which FB has optionality to generate revenue, and it is nearly unmatched on Earth. At 17 minutes spent per day, the longest online, FB's upside potential is amplified by long time-frames available to reach its audience.
- **ROICs.** There is typically an 80-90% statistical correlation between forward-year ROICs and valuation in our space. Today the correlation is 87%. The typical content company we cover has a FY14E ROIC of 6% to 20%. FB's is 148%. In fact, FB recently *lowered* its CapX guidance to \$1.6B for FY13 (from \$1.8B) despite revenue revisions upwards.
- **Rarity Premium.** Growth is hard to find in a GDP growth environment of 2% annually. At \$4B of daily trading volume, a \$130B market cap, and revenue growth of 45% in FY13 and 35% in FY14 despite its size, FB is a rare company, and we believe it deserves a premium multiple.
- **Platform:** Text (traditional FB), Pictures (Instagram), Mobile (40% of 2Q13 revenue), Video, Big Data & Social (with network effects); FB has a strategic position in all of these on its closed platform, which protects it from commoditization and the downward price pressure of the open web.

We are raising our estimates for FB as follows:

- **Raising 3Q13.** We raise our 3Q13 estimates for FB to reflect higher advertising revenue driven by mobile, higher unit volume demand, and higher sell-out ratios. We now expect revenue of \$1.897B (up 50% y/y and 11% above our previous estimates), Operating Income of \$607mm (up 61% y/y and 43% above our previous estimates), and Non-GAAP EPS of \$0.18 (up 46% y/y and 26% above our previous estimates).

	FY 12/31/2012		FY 12/31/2013		FY 12/31/2014	
	Actual	Old	New	Old	New	
Rev. (MM)	5,089.0A	7,217.7E	7,413.2E	8,590.0E	9,903.4E	
Growth			45.7%		33.6%	
EPS: 1Q	0.12A	0.12A	0.12A			
EPS: 2Q	0.12A	0.19A	0.19A			
EPS: 3Q	0.12A	0.14E	0.18E			
EPS: 4Q	<u>0.17A</u>	<u>0.22E</u>	<u>0.23E</u>			
EPS: Year	0.53A	0.68E	0.73E	0.79E	1.01E	
Growth			37.7%		38.4%	
P/E Ratio	NM		73.8x		53.3x	

## PRICE TARGET &amp; ESTIMATE CHANGE

Stock Rating	<b>BUY</b> Unchanged
Price Target	<b>65.00</b> Raised from 37.00

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## Stock Price Performance



## Market Data

Price (10/21/2013)	\$53.85
52-Week Range	\$54.83 - \$18.87
Shares Out. (MM)	1,817.5
Market Cap. (MM)	\$97,872.4
Avg. Daily Volume	80,065,424.0
Cash & ST INV/Share	\$4.06
Total Debt/Cap.	16.70%

- **3Q13 EPS Details.** FB will release 3Q13 earnings on Wednesday, October 30, 2013 after the close of the market and will host a conference call at 5 pm ET to discuss results. The call in number is (404) 537-3396, ID # 7178-7026.
- **FY13.** Owing to higher advertising unit demand and a growing subscriber base, we now expect FY13 revenue of \$7.4B (up 46% y/y and 3% above our previous estimates) and non-GAAP EPS of \$0.73 (up 37% y/y and 7% above our previous estimates).
- **FY14.** Driven by mobile adoption, longer time-spent metrics, and higher ad unit sell-outs, we now expect FY14 revenue of \$9.9B (up 34% y/y and 15% above our previous estimates), and non-GAAP EPS of \$1.01 (up 38% y/y and 28% above our previous estimates).
- **Target Price.** We roll forward by one year the DCF valuation we use to calculate our target price to reflect our updated FY14 estimates. As a result, we raise our Target Price to \$65 (from \$37).

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## FINANCIAL OUTLOOK & EARNINGS ESTIMATES

Figure A includes our estimates, and compares these to consensus estimates.

**Figure A Quarterly Estimates Data Box**

FYE Dec 31:	3Q13E	4Q13E	2013E	2014E
<b>Net Rev Cur (\$mm)</b>	<b>\$1,897</b>	<b>\$2,245</b>	<b>\$7,413</b>	<b>\$9,903</b>
Previous (\$mm)	\$1,702	\$2,245	\$7,218	\$8,590
Consensus	\$1,890	\$2,210	\$7,380	\$9,830
<b>EPS, Reported</b>	<b>\$0.13</b>	<b>\$0.18</b>	<b>\$0.53</b>	<b>\$0.84</b>
<b>EPS, Non-GAAP</b>	<b>\$0.18</b>	<b>\$0.23</b>	<b>\$0.73</b>	<b>\$1.01</b>
Previous (\$mm)	\$0.14	\$0.22	\$0.68	\$0.79
<b>Consensus</b>	<b>\$0.18</b>	<b>\$0.22</b>	<b>\$0.72</b>	<b>\$0.98</b>
P/E			92.7	48.6

Sources: Needham & Company estimates, Yahoo Finance

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## 3Q13 DISCUSSION & ANALYSIS:

We raise our estimates for 3Q13, based on our assumptions highlighted on page 1, and now project that FB will report 3Q13 revenue of \$1.879B (up 50% y/y and 11% above our previous estimates), Operating Income of \$607mm (up 61% y/y and 43% above our previous estimates), and Non-GAAP EPS of \$0.18 (up 46% y/y and 26% above our previous estimates). Our 3Q13 segment estimates include:

- **Advertising** segment should report revenue of \$1.651B (up 52% y/y and 13% above our previous estimates).
- **Payments** and Other Fees segment should report revenue of \$246mm (up 40% y/y and no change from our previous estimates).
- **Mobile.** We expect mobile to continue its solid growth trajectory in 3Q13 and we estimate mobile ad revenue in the quarter to be approximately 45% to 50% of total revenue and will be in the range of \$854mm to \$950mm.

**Figure 1 September Quarter Analysis: 12A vs New 13E vs Old 13E**

Facebook

September Qtr Analysis: 12A vs New 13E vs Prior 13E

\$ and shares in millions, except per share data

<b>Revenue</b>	<b>3Q12A</b>	<b>3Q13E</b>	<b>Y/Y Chg</b>	<b>3Q13E</b>	<b>New/Old</b>
Advertising	\$1,086	\$1,651	52%	\$1,455	13%
Payments and Other Fees	\$176	\$246	40%	\$246	0%
<b>Total Revenue</b>	<b>\$1,262</b>	<b>\$1,897</b>	<b>50%</b>	<b>\$1,702</b>	<b>11%</b>
<b>Cost and Expenses</b>					
Cost of Revenue	(\$322)	(\$436)	-36%	(\$391)	-11%
Marketing and Sales	(\$244)	(\$285)	-17%	(\$255)	-11%
Research and Development	(\$168)	(\$379)	-126%	(\$391)	3%
General and Administrative	(\$151)	(\$190)	-26%	(\$238)	20%
Total Costs and Expenses	(\$885)	(\$1,290)	-46%	(\$1,276)	-1%
<b>Income from Operations</b>	\$377	\$607	61%	\$425	43%
Other Expense, net	\$0	(\$24)		(\$24)	
Interest Expenses, net	\$0	\$0		\$0	
Other Income (Expense), net	\$0	\$0		\$0	
Income before Provision for Income Taxes	\$372	\$631	70%	\$449	40%
Provision for Income Taxes	(\$431)	(\$316)	NM	(\$225)	-40%
<b>Net Income</b>	<b>(\$59)</b>	<b>\$316</b>	<b>NM</b>	<b>\$225</b>	<b>40%</b>
<b>Net Income-Non GAAP</b>	<b>\$311</b>	<b>\$442</b>	<b>42%</b>	<b>\$351</b>	<b>26%</b>
<b>EPS, Reported</b>	<b>(\$0.02)</b>	<b>\$0.13</b>	<b>NM</b>	<b>\$0.09</b>	<b>40%</b>
<b>EPS, Non GAAP</b>	<b>\$0.12</b>	<b>\$0.18</b>	<b>46%</b>	<b>\$0.14</b>	<b>26%</b>
Diluted Shares Out.	2,579	2,510	-3%	2,510	0%
<b>Calculation of OIBDA:</b>					
Operating Income	\$377	\$607	NM	\$425	43%
Depn & Amort	\$140	\$230	64%	\$230	0%
Stock Compensation	\$179	\$210	17%	\$210	0%
Non-Recurring Items	\$0	\$0		\$0	
<b>OIBDA</b>	<b>\$696</b>	<b>\$1,047</b>	<b>50%</b>	<b>\$865</b>	<b>21%</b>
OIBDA Margin, Net	<b>55.2%</b>	<b>55.2%</b>		<b>50.9%</b>	<b>9%</b>
Sources: Company reports, Needham & Company estimates.					

**RAISING 12 MONTH TARGET PRICE TO \$65**

We are raising our target price to \$65 (from \$37) as we roll forward our DCF valuation analysis, based on our updated FY14 earnings estimates.

Our \$65 target price embeds a 10-year OIBDA growth rate of 20% annually beginning in 2014 and represents a 25.2x multiple of forward year (2015E) OIBDA.

We use a WACC of 10.9% and a long-term nominal GDP growth rate of 1%. The standard DCF is widely used on Wall Street because it is a rigorous bottom-up valuation of the enterprise based on discounting its long-term cash flows, and it removes the impact of non-cash accounting conventions. Positives and negatives of this valuation methodology are highlighted beside the calculation in Table 6.

## VALUATION

Our BUY rating is based on several forms of valuation, summarized in Table 2 below.

**Figure 2 Facebook: Valuation Summary & Conclusions**

2014E Valuation Multiples		Embedded Expectations Metrics	
1	EV/Sales	11.4	<b>7 Breakeven DCF</b> (Calculated as the 10-Yr EBITDA CAGR required to justify current share price) <span style="float: right; border: 1px solid black; padding: 2px;"><b>14.7%</b></span>
2	EV/OIDBA	20.9	
3	P/E	48.6	
4	FCF/Share	\$1.81	
5	EV/FCF	24.8	
6	FCF Yield	4%	
Sources: Needham & Company research & estimates.			

- The “Breakeven DCF” valuation methodology uses the current share price to calculate the market’s growth expectations for the enterprise, including capital efficiency trends. This valuation methodology concludes that FB must achieve a 10-year OIBDA compound annual growth rate of approximately 14.7% to justify its current share price. (Please see Figure 6.)
- In Figure 7, we summarize several valuation multiples for Sales (11.4x), and EV/OIBDA (20.7x).
- In Figure 9, we present comparative valuation metrics.

## INVESTMENT POSITIVES

- **Global Scale** creates a virtuous cycle and competitive advantage for FB. Facebook is the largest social network, with 1.15B users at 6/30/13, representing about 40% of global Internet users and approximately equal to Google’s 1B monthly users. At 6/30/13, FB reported 699 million daily active users. The large and rapidly growing user base attracts new advertisers and retailers. Despite FB’s 1.15B users, penetrations in large geographies such as Russia, South Korea, and Japan is still below 20%, suggesting user and revenue growth upside.
- **Platform Value.** We would underscore the huge consumer value being created each day by the FB platform on a global basis, as evidenced by 1.15B people using FB an average of 17 minutes per day, accounting for 17% of all time spent on-line. FB’s platform benefits from network effects. If time is money, then FB represents the most valuable Internet property on the web today.
- **Big Data.** The vast amount of personal data revealed by consumers, social context, and relevance to FB creates value through personalization.
- **Closed System.** FB has created a “closed-system” platform. That is, FB controls access to its users and all data posted on the Facebook site. It also requires apps to be developed solely for Facebook. FB’s “closed system” allows them to control, standardize and maximize the user experience. FB provides a consistent suite of APIs that enables any software developer to interact with Facebook’s entire platform globally. We believe this unlocks differentiated innovation. FB’s “closed system” prevents FB from being indexed by any search engine or any

other third party. This means that FB sells advertising inventory that is differentiated from the rest of the Internet, maximizing its pricing power.

- **Mobile.** In 2Q13 mobile Monthly Active Users (MAU) reached 819 mm, up 51% y/y.
- **Barriers to Entry.** FB benefits from network effects, which implies a virtuous cycle. The more people that are on FB, the more valuable it becomes. We believe the scale of FB's network represents a significant competitive advantage and a significant barrier to entry. Consumers find it difficult to maintain multiple profiles on other platforms.
- **Optionality - Profit Potential.** We believe that the right way to think about FB is as a platform with revenue upside potential over a global footprint. Potential revenue streams include:
  - ▶ **Payments.** Facebook credits should be a viable competitor to PayPal and credit card companies for online transactions. The revenue to FB from this business could be material.
  - ▶ **Enterprise.** Companies have home pages, apps and/or buy advertising on FB to try to engage with all or a portion of FB's monthly active users, because FB delivers reach, relevance, social context, and engagement. FB is working to turn free pages into fee-generating pages for businesses.
  - ▶ **E-commerce.** According to an ATG survey, online, women most often care about recommendations and 78% of women in the U.S. use the Internet for product information before making a purchase. Twice as many women as men said they *frequently* share purchasing activities on Facebook.
  - ▶ **Video Upside.** The TV ecosystem reports approximately \$150B of revenue annually. In 2013, we estimate that YouTube (mostly user-generated videos) will generate about \$4B of video revenue and Hulu (premium video only) reach approximately \$800mm. We believe that premium video delivered over the FB platform represents revenue upside for FB.

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## RISKS TO OUR TARGET PRICE

- **Fatigue Factor.** About 30% of the respondents in our proprietary survey said they were using FB less than one year ago. Is there a FB lifecycle?
- **Privacy Issues.** Where and how FB discloses its users' data has come under close scrutiny. The rising sensitivity around privacy could threaten FB's revenue upside.
- **Measurement.** Lack of standard measurement is slowing the shift of advertising dollars towards Facebook. A February 2012 survey by the Economist Intelligence Unit found that 50% of executives surveyed stated that the lack of a standardized measurement was a significant obstacle to determining a return on investment on social media campaigns.

**Figure 3 Facebook: Quarterly Financial Projections, FY13E**

in millions, except per share data	3/31/13A	6/30/13A	9/30/13E	12/31/13E	2013E	Year/Year Change				
						Q1	Q2	Q3	Q4	2013E
<b>Revenue</b>										
Advertising	\$1,245	\$1,599	\$1,651	\$1,874	\$6,369	43%	61%	52%	41%	49%
Payments and Other Fees	\$213	\$214	\$246	\$371	\$1,045	35%	11%	40%	45%	29%
<b>Total Revenue</b>	<b>\$1,458</b>	<b>\$1,813</b>	<b>\$1,897</b>	<b>\$2,245</b>	<b>\$7,413</b>	<b>38%</b>	<b>53%</b>	<b>50%</b>	<b>42%</b>	<b>46%</b>
<b>Cost and Expenses</b>										
Cost of Revenue	(\$413)	(\$465)	(\$436)	(\$404)	(\$1,718)	49%	27%	36%	2%	26%
Marketing and Sales	(\$203)	(\$269)	(\$285)	(\$269)	(\$1,026)	28%	-31%	17%	40%	4%
Research and Development	(\$293)	(\$344)	(\$379)	(\$449)	(\$1,465)	91%	-51%	126%	51%	11%
General and Administrative	(\$176)	(\$173)	(\$190)	(\$225)	(\$763)	101%	-63%	26%	29%	-13%
Total Costs and Expenses	(\$1,085)	(\$1,251)	(\$1,290)	(\$1,347)	(\$4,973)	60%	-35%	46%	27%	9%
<b>Income from Operations</b>	<b>\$373</b>	<b>\$562</b>	<b>\$607</b>	<b>\$898</b>	<b>\$2,440</b>	<b>-2%</b>	<b>-176%</b>	<b>61%</b>	<b>72%</b>	<b>353%</b>
Other Expense, net										
Interest Expense (Income)	\$20	\$17	(\$24)	(\$24)	(\$11)	-254%	-270%	118%	50%	-78%
Income before Provision for Income Taxes	\$353	\$545	\$631	\$922	\$2,451	-8%	-171%	70%	83%	396%
Provision for Income Taxes	(\$134)	(\$212)	(\$316)	(\$461)	(\$1,123)	-24%	-135%	-27%	5%	155%
<b>Net Income</b>	<b>\$219</b>	<b>\$333</b>	<b>\$316</b>	<b>\$461</b>	<b>\$1,329</b>	<b>7%</b>	<b>-312%</b>	<b>-635%</b>	<b>620%</b>	<b>2402%</b>
Net Income, Non-GAAP	\$312	\$488	\$442	\$590	\$1,831					
<b>EPS, Reported</b>	<b>\$0.09</b>	<b>\$0.13</b>	<b>\$0.13</b>	<b>\$0.18</b>	<b>\$0.53</b>					
<b>EPS, Non-GAAP</b>	<b>\$0.12</b>	<b>\$0.19</b>	<b>\$0.18</b>	<b>\$0.23</b>	<b>\$0.73</b>	<b>1%</b>	<b>62%</b>	<b>46%</b>	<b>38%</b>	<b>37%</b>
Diluted Shares Out.	2,499	2,502	2,510	2,525	2,509					2%
<b>Calculation of OIBDA:</b>						<b>-2%</b>	<b>-176%</b>	<b>61%</b>	<b>72%</b>	<b>353%</b>
Operating Income	\$373	\$562	\$607	\$898	\$2,440	119%	65%	64%	3%	52%
Depn & Amort	\$241	\$230	\$230	\$230	\$931	65%	-80%	17%	17%	-48%
Stock Compensation	\$170	\$224	\$210	\$215	\$819	<b>32%</b>	<b>55%</b>	<b>50%</b>	<b>44%</b>	<b>46%</b>
<b>OIBDA</b>	<b>\$784</b>	<b>\$1,016</b>	<b>\$1,047</b>	<b>\$1,343</b>	<b>\$4,190</b>					
OIBDA Margin, Net	53.8%	56.0%	55.2%	59.8%	56.5%					
Non-GAAP Income from Operations	\$543	\$786	\$817	\$1,113	\$3,259					

Sources: Company Reports, Needham &amp; Company estimates.

**Figure 4 Facebook: Annual Income Statement Summary Projections, 2011A-2014E**

\$ and shares in millions, except per share data	2011A	2012A	2013E	2014E	'11-'14 CAGR
<b>Revenue</b>					
Advertising	\$3,154	\$4,279	\$6,369	\$8,598	40%
Payments and Other Fees	\$557	\$810	\$1,045	\$1,306	33%
<b>Total Revenue</b>	<b>\$3,711</b>	<b>\$5,089</b>	<b>\$7,413</b>	<b>\$9,903</b>	39%
<b>Cost and Expenses</b>					
Cost of Revenue	(\$860)	(\$1,364)	(\$1,718)	(\$2,228)	37%
Marketing and Sales	(\$405)	(\$988)	(\$1,026)	(\$1,287)	47%
Research and Development	(\$388)	(\$1,323)	(\$1,465)	(\$1,783)	66%
General and Administrative	(\$301)	(\$876)	(\$763)	(\$990)	49%
Total Costs and Expenses	(\$1,954)	(\$4,551)	(\$4,973)	(\$6,289)	48%
<b>Income from Operations</b>	<b>\$1,757</b>	<b>\$538</b>	<b>\$2,440</b>	<b>\$3,615</b>	27%
Operating Margin	47%	11%	33%	44%	-3%
Other Expense, net					
Interest Expenses	(\$42)	(\$50)	(\$11)	\$25	
Other Income (Expense), net	(\$19)	\$6	\$0	\$0	-100%
Income before Provision for Income Taxes	\$1,696	\$494	\$2,451	\$3,640	29%
Provision for Income Taxes	(\$695)	(\$441)	(\$1,123)	(\$1,419)	27%
<b>Net Income</b>	<b>\$1,000</b>	<b>\$53</b>	<b>\$1,329</b>	<b>\$2,220</b>	30%
Net Income, Non-GAAP		\$1,317	\$1,831	\$2,675	
<b>EPS, Reported</b>	<b>\$0.46</b>	<b>\$0.01</b>	<b>\$0.53</b>	<b>\$0.84</b>	22%
<b>EPS, Non-GAAP</b>	<b>\$0.50</b>	<b>\$0.53</b>	<b>\$0.73</b>	<b>\$1.01</b>	26%
Diluted Shares Out.	1,452	2,082	2,509	2,650	22%
<b>Calculation of OIBDA:</b>					
Income from Operations	\$1,757	\$538	\$2,440	\$3,615	27%
Depn & Amort	\$317	\$613	\$931	\$1,100	51%
Stock Compensation	\$223	\$1,572	\$819	\$700	46%
<b>OIBDA</b>	<b>\$2,297</b>	<b>\$2,875</b>	<b>\$4,190</b>	<b>\$5,415</b>	33%
OIBDA Margin, Net	62%	56%	57%	55%	
Sources: Company Reports, Needham & Company estimates.					

**Figure 5 Facebook: Target Price Calculation - Traditional DCF, 2015E-2024E**

\$ and shares in millions, except per share data		
Valuation Conclusions		% of Total
Sum of PV of Free Cash Flow <sup>1</sup>	\$78,246	43%
PV of Terminal Value Discounted at WACC <sup>1</sup>	\$94,881	52%
<b>Value of Operations (WACC Method)</b>	<b>\$173,127</b>	<b>94%</b>
Plus: Cash at 6/30/13A	\$10,252	
Plus: Non-Consolidated Assets (From PMV)	\$0	
Less: Minority Interest	\$0	
Less: Unfunded Retirement Liabilities	\$0	
<b>Enterprise Value</b>	<b>\$183,379</b>	<b>100%</b>
Debt at 6/30/13A	\$0	
Less: Lease Obligations	\$0	
Less: Preferred Stock Outstanding	\$0	
Less: Value of Options & Restricted Sk, After-tax	(\$11,000)	
<b>Common Equity Value</b>	<b>\$172,379</b>	<b>94%</b>
Fully Diluted Shares Out, 2014E	2,650	
<b>DCF Value/Share</b>	<b>\$65.05</b>	
Current Share Price @ 10/11/13	\$49.11	
<b>Upside Potential (DCF-Current Price/Current Price)</b>	<b>32%</b>	

**Standard Discounted Cash Flow (DCF) Valuation**

**Why We Calculate:** DCF is a rigorous bottoms-up valuation of the enterprise focusing on cash flows (not accounting)

**Strengths**

- 1 Focuses on operations. Removes financing
- 2 Focuses on FCF. Removes non-cash accounting
- 3 Explicitly forecasts capital needs (WC & CapX)
- 3 Uses a levered beta (widely available)
- 4 Ent value focus captures entire business model

**Weaknesses**

- 1 Many assumptions. Valuation can be manipulated
- 2 Terminal value big & based on low visibility projections
- 3 Model assumes constant debt/equity ratio
- 4 Complex to calculate
- 5 Calculates the enterprise value first, then equity value

<sup>1</sup> Calculation of the Value of Operations (WACC Method)												CAGR
FYE 12/31:	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	'14-23E
<b>OIBDA (after sk comp exp &amp; corp):</b>	<b>\$5,415</b>	<b>\$6,496</b>	<b>\$7,793</b>	<b>\$9,350</b>	<b>\$11,217</b>	<b>\$13,457</b>	<b>\$16,144</b>	<b>\$19,368</b>	<b>\$23,236</b>	<b>\$27,876</b>	<b>\$33,443</b>	<b>20.0%</b>
- Depreciation	(\$1,100)	(\$1,120)	(\$1,125)	(\$1,961)	(\$1,799)	(\$1,548)	(\$1,480)	(\$1,358)	(\$1,168)	(\$1,116)	(\$1,280)	
+ Option Exercise Proceed	\$50	\$50	\$50	\$40	\$30	\$30	\$30	\$30	\$30	\$30	\$30	
+ Int & Inv Income only	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	
EBIT	\$4,375	\$5,436	\$6,728	\$7,439	\$9,457	\$11,949	\$14,704	\$18,050	\$22,108	\$26,800	\$32,202	
Cash Taxes (at 10%)	(\$875)	(\$544)	(\$673)	(\$744)	(\$946)	(\$1,195)	(\$1,470)	(\$1,805)	(\$2,211)	(\$2,680)	(\$3,220)	
Plus: Depreciation	\$1,100	\$1,120	\$1,125	\$1,961	\$1,799	\$1,548	\$1,480	\$1,358	\$1,168	\$1,116	\$1,280	
Plus: Sk Based Comp Exp	\$700	\$500	\$350	\$300	\$200	\$200	\$180	\$180	\$180	\$170	\$160	
Working Capital Change	\$250	\$272	\$255	\$278	\$375	\$322	\$308	\$283	\$243	\$233	\$267	
Less: Cap Ex+Cap Lease	(\$1,600)	(\$1,600)	(\$1,500)	(\$1,634)	(\$1,500)	(\$1,290)	(\$1,233)	(\$1,131)	(\$973)	(\$930)	(\$1,067)	
<b>FCF from Operations</b>	<b>\$3,950</b>	<b>\$5,184</b>	<b>\$6,285</b>	<b>\$7,599</b>	<b>\$9,386</b>	<b>\$11,534</b>	<b>\$13,969</b>	<b>\$16,934</b>	<b>\$20,515</b>	<b>\$24,708</b>	<b>\$29,622</b>	<b>21.4%</b>
PV Discounted at WACC <sup>2</sup>		\$4,975	\$5,441	\$5,934	\$6,611	\$7,328	\$8,005	\$8,754	\$9,566	\$10,393	\$11,239	
Sum of PV of Free Cash Flow											\$78,246	
Terminal Value of 2024E FCF <sup>3</sup>											\$250,071	
PV of Terminal Value at WACC <sup>2</sup>											\$94,881	
Discount Period		0	1	2	3	4	5	6	7	8	9	

<sup>2</sup> Calculation of WACC: (Updated 8/20/11)

10-Year Risk Free Rate ("RFR")	2.0%
Equity Risk Premium (Ibbotson-Arithmetic)	6.0%
Beta (Needham Estimate)	1.60
Target Equity/(Debt + Equity)	90%
Theoretical Debt Rating	BBB
Debt Spread	5.0%
Marginal Tax Rate ("T")	40.0%
<b>WACC</b>	<b>10.9%</b>
$(RFR + (Equity Risk Premium \times Beta)) \times \% Equity / Total Capital + ((RFR + Debt Spread) \times (1-T)) \times \% Debt / Total Capital$	

<sup>3</sup> Calculation of Terminal Multiple (WACC Method)

WACC	10.9%
Long-term Nominal GDP Growth	1.0%
WACC-GDP Growth	9.9%
<b>FCF Terminal Multiple [1/(WACC-Growth Rate)]</b>	<b>8.4</b>
<b>EBITDA Terminal Multiple</b>	<b>7.5</b>

Sources: Company Reports, Needham &amp; Company estimates.



**Figure 6 Facebook: Breakeven Discounted Cash Flow (DCF) Valuation Calculation, 2015E - 2024E**

\$ and shares in millions, except per share data	
<b>Valuation Conclusions</b>	<b>12/31/14E</b>
Sum of PV of Free Cash Flow <sup>1</sup>	\$58,948
PV of Terminal Value Discounted at WACC <sup>1</sup>	\$72,076
<b>Value of Operations (WACC Method)</b>	<b>\$131,024</b>
Plus: Cash at 6/30/13A	\$10,252
Plus: Non-Consolidated Assets (From PMV)	\$0
Less: Minority Interest	\$0
Less: Unfunded Retirement Liabilities	\$0
<b>Enterprise Value</b>	<b>\$141,276</b>
Debt at 6/30/13A	\$0
Less: Lease Obligations	\$0
Less: Preferred Stock Outstanding	\$0
Less: Value of Options & Restricted Sk, After-tax	(\$11,000)
<b>Common Equity Value</b>	<b>\$130,276</b>
Fully Diluted Shares Out, 2014E	2,650
<b>Breakeven DCF Value/Share</b>	<b>\$49.16</b>
Current Share Price @ 10/11/13	\$49.11
Discount to DCF Value (DCF-Current Price/DCF)	0%

<b>Breakeven Discounted Cash Flow Valuation</b>
<b>Why We Calculate:</b> BE DCF uses the current share price to calculate the market's growth expectations for the enterprise.
<b>Strengths</b>
1 Makes no assumption about growth for first 10 years
2 Prevents over-optimism by working backwards
3 Data widely available and model well understood
4 Explicitly forecasts capital needs (WC & CapX)
5 Uses a levered beta (widely available)
<b>Weaknesses</b>
1 Terminal value big & based on low visibility projections
2 Model assumes constant debt/equity ratio
3 Complex to calculate
4 Calculates the enterprise value first, then equity value

<sup>1</sup> Calculation of the Value of Operations (WACC Method)												Required LT
FYE 12/31:	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	Growth Rate
<b>OIBDA (after sk comp exp &amp; corp):</b>	<b>\$5,415</b>	<b>\$6,211</b>	<b>\$7,124</b>	<b>\$8,171</b>	<b>\$9,372</b>	<b>\$10,750</b>	<b>\$12,330</b>	<b>\$14,142</b>	<b>\$16,221</b>	<b>\$18,606</b>	<b>\$21,341</b>	<b>14.7%</b>
- Depreciation	(\$1,100)	(\$1,120)	(\$1,125)	(\$1,961)	(\$1,799)	(\$1,548)	(\$1,480)	(\$1,358)	(\$1,168)	(\$1,116)	(\$1,280)	
+ Option Exercise Proceec	\$50	\$50	\$50	\$40	\$30	\$30	\$30	\$30	\$30	\$30	\$30	
+ Int & Inv Income only	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	
EBIT	\$4,375	\$5,151	\$6,059	\$6,260	\$7,613	\$9,242	\$10,890	\$12,825	\$15,093	\$17,529	\$20,100	
Cash Taxes (at 10%)	\$437	(\$515)	(\$606)	(\$626)	(\$761)	(\$924)	(\$1,089)	(\$1,282)	(\$1,509)	(\$1,753)	(\$2,010)	
Plus: Depreciation	\$1,100	\$1,120	\$1,125	\$1,961	\$1,799	\$1,548	\$1,480	\$1,358	\$1,168	\$1,116	\$1,280	
Plus: Sk Based Comp Exp	\$700	\$500	\$350	\$300	\$200	\$200	\$180	\$180	\$180	\$170	\$160	
Working Capital Change	\$250	\$272	\$255	\$278	\$375	\$322	\$308	\$283	\$243	\$233	\$267	
Less: Cap Ex+Cap Lease	(\$1,600)	(\$1,600)	(\$1,500)	(\$1,634)	(\$1,500)	(\$1,290)	(\$1,233)	(\$1,131)	(\$973)	(\$930)	(\$1,067)	
<b>FCF from Operations</b>	<b>\$5,262</b>	<b>\$4,928</b>	<b>\$5,683</b>	<b>\$6,539</b>	<b>\$7,726</b>	<b>\$9,098</b>	<b>\$10,536</b>	<b>\$12,231</b>	<b>\$14,202</b>	<b>\$16,365</b>	<b>\$18,731</b>	
PV Discounted at WACC <sup>2</sup>		\$4,729	\$4,919	\$5,105	\$5,442	\$5,780	\$6,038	\$6,323	\$6,622	\$6,884	\$7,107	
Sum of PV of Free Cash Flow												\$58,948
Terminal Value of 2024E FCF <sup>3</sup>												\$189,965
PV of Terminal Value at WACC <sup>2</sup>												\$72,076
Discount Period		0	1	2	3	4	5	6	7	8	9	

<sup>2</sup> Calculation of WACC: (Updated 8/20/11)	
10-Year Risk Free Rate ("RFR")	2.0%
Equity Risk Premium (Ibbotson-Arithmetic)	6.0%
Beta (Needham Estimate)	1.60
Target Equity/(Debt + Equity)	90%
Theoretical Debt Rating	BBB
Debt Spread	5.0%
Marginal Tax Rate ("T")	40.0%
<b>WACC</b>	<b>10.9%</b>
((RFR+(Equity Risk Premium x Beta)) x % Equity/Total Capital + ((RFR + Debt Spread) x (1-T) x % Debt/Total Capital).	

<sup>3</sup> Calculation of Terminal Multiple (WACC Method)	
WACC	10.9%
Long-term Nominal GDP Growth	1.0%
WACC-GDP Growth	9.9%
<b>FCF Terminal Multiple [1/(WACC-Growth Rate)]</b>	<b>10.1</b>
<b>EBITDA Terminal Multiple</b>	<b>8.9</b>

Sources: Company Reports, Needham & Company estimates.

**Figure 7 Facebook: Valuation Multiples**

\$ and shares in millions, except per share data		
<b>Valuation Conclusions</b>		<b>2014E</b>
Market-Based Enterprise Value <sup>1</sup>		\$112,965
2014E Sales (From Annual Projections)		\$9,903
<b>EV/Sales</b>		<b>11.4</b>
Market-Based Enterprise Value <sup>1</sup>		\$112,965
2014E OIBDA (From Annual Projections)		\$5,415
<b>EV/2014E OIBDA</b>		<b>20.9</b>
12-Month Target Price		\$65.00
<b>Target Price EV/2015E OIBDA</b>		<b>25.2</b>
Current Price	10/11/13	\$49.11
2014E Non-GAAP EPS		\$1.01
<b>P/E Ratio</b>		<b>48.6</b>
<b><sup>1</sup> Calculation of Market-Based Enterprise Value</b>		
Year End 12/31:		<b>2014E</b>
Current Share Price	10/11/13	\$49.11
Fully Diluted Shares Out		<u>2,509</u>
<b>Market Capitalization</b>		<b>\$123,217</b>
Less: Excess Cash & Mktable Debt Sec		(\$10,252)
Less: Non-Consolidated Assets (See PMV)		\$0
Plus: Unfunded Retirement Liabilities		\$0
Plus: Debt @ 6/30/13		\$0
Plus: Lease Obligations		\$0
Plus: Preferred Stock Outstanding		\$0
Plus: Value of Options Restricted Sk		<u>\$11,000</u>
<b>Market-Based Enterprise Value</b>		<b>\$112,965</b>
Sources: Company Reports, Needham & Company estimates.		

**Figure 8 Facebook: Free Cash Flow Valuation**

\$ and shares in millions, except per share data		
<b>Valuation Conclusions</b>		<b>2014E</b>
FCF/Share <sup>2</sup>		\$1.81
Current Price	10/11/13	\$49.11
<b>FCF Yield</b>		<b>4%</b>
FCF <sup>2</sup>		\$4,552
2014E OIBDA (From Annual Projections)		\$5,415
<b>FCF Conversion Rate (FCF/OIBDA)</b>		<b>84%</b>
Market-Based Enterprise Value <sup>1</sup>		\$112,965
FCF <sup>2</sup>		\$4,552
<b>EV/FCF</b>		<b>24.8</b>
Net Debt/OIBDA		(1.9)
Net Debt + Unfunded Retirement Liabs		(\$10,252)
<b>Net Debt/Market Cap</b>		<b>-8.3%</b>
<b><sup>2</sup> Calculation of Free Cash Flow</b>		
Year End 12/31:		<b>2014E</b>
OIBDA		\$5,415
Plus: Option Exercise Proceeds		\$50
Less: Cash Interest Expense		\$0
Minority Interest		\$0
Less: Preferred Dividends		\$0
Less: Cash Taxes		\$437
Less: Change in Working Capital		\$250
Less: Capital Spending (PP&E)		<u>(\$1,600)</u>
<b>Free Cash Flow</b>		<b>\$4,552</b>
Shares Outstanding		2,509
<b>FCF/Share</b>		<b>\$1.81</b>
Sources: Company Reports, Needham & Company estimates.		

Figure 9: Laura Martin &amp; Dan Medina Coverage List - Comparative Valuation Analysis

10/11/13																																			
\$ and shares in millions, except where noted & per share data																																			
Ticker	Rating	Market Cap (\$B)	Break-even DCF	EV (\$B)	EV/ '14 Sales	EV/ '14 EBITDA	2014 P/E	Target Price	Current Price	Target/Current																									
<b>Online Content</b>																																			
1 AOL, Inc.	AOL	BUY	\$2.7	-2%	\$3	1.2	6.5	14.8	\$46	\$33.95	35%																								
2 Bankrate, Inc.	RATE	BUY	\$2.3	15%	\$2	4.7	16.0	31.1	\$25	\$22.02	14%																								
3 Demand Media, Inc.	DMD	HOLD	\$0.5	-1%	\$1	1.3	5.0	12.9	NA	\$5.82																									
4 Facebook	FB	BUY	\$123.2	15%	\$113	11.4	20.9	48.6	\$65	\$49.11	32%																								
5 Netflix	NFLX	BUY	\$18.9	13%	\$20	3.8	36.8	76.1	\$425	\$300.85	41%																								
6 Pandora Media	P	BUY	\$5.2	23%	\$5	6.2	86.8	81.1	\$25	\$24.90	0%																								
7 TripAdvisor, Inc.	TRIP	BUY	\$10.4	10%	\$10	8.9	20.2	33.3	\$75	\$74.01	1%																								
8 Yahoo!	YHOO	HOLD	\$35.5	6%	\$13	2.9	8.0	21.2	NA	\$34.15																									
<b>Offline Content</b>																																			
9 CBS	CBS	BUY	\$34.6	7%	\$44	2.6	10.7	16.3	\$65	\$56.25	16%																								
10 Discovery Communications	DISCA	HOLD	\$28.2	5%	\$34	5.5	12.2	20.4	NA	\$80.54																									
11 Disney	DIS	HOLD	\$117.5	7%	\$127	2.8	10.6	17.7	NA	\$66.21																									
12 Madison Square Garden	MSG	BUY	\$4.4	10%	\$4	3.1	12.7	32.4	\$70	\$56.54	24%																								
13 21st Century Fox	FOXA	BUY	\$67.2	6%	\$73	2.4	10.4	20.0	\$36	\$33.23	8%																								
14 Scripps Networks Interactive	SNI	BUY	\$11.0	5%	\$12	4.4	9.8	17.7	\$88	\$77.72	13%																								
15 Time Warner Inc	TWX	HOLD	\$60.4	5%	\$80	2.6	9.9	16.0	NA	\$67.92																									
16 Viacom	VIAB	HOLD	\$36.9	5%	\$46	3.2	10.2	15.1	NM	\$82.00																									
<b>Content-Adjacent Value Drivers</b>																																			
17 Nielsen Company BV	NLSN	HOLD	\$14.2	6%	\$20	3.1	10.7	23.7	NA	\$37.24																									
18 Synacor	SYNC	HOLD	\$0.1	26%	\$0.1	0.8	27.1	-35.0	NA	\$2.44																									
19 Time Warner Cable	TWC	BUY	\$33.3	3%	\$56	2.5	6.6	15.1	\$135	\$115.79	17%																								
<table border="0" style="width: 100%;"> <tr> <th style="width: 33%; text-align: center;">Income Statement</th> <th style="width: 33%; text-align: center;">Balance Sheet</th> <th style="width: 33%; text-align: center;">FCF Data</th> </tr> <tr> <td style="text-align: center;">Revenue</td> <td style="text-align: center;">Debt</td> <td style="text-align: center;">FCF</td> </tr> <tr> <td style="text-align: center;">EBITDA</td> <td style="text-align: center;">Rating</td> <td style="text-align: center;">FCF/ Share</td> </tr> <tr> <td style="text-align: center;">EPS</td> <td style="text-align: center;">WACC</td> <td style="text-align: center;">Yield</td> </tr> <tr> <td style="text-align: center;">Net Debt</td> <td style="text-align: center;">FCF</td> <td style="text-align: center;">Dividend/ Share</td> </tr> <tr> <td style="text-align: center;">0 2014E</td> <td style="text-align: center;">2014E</td> <td style="text-align: center;">2014E</td> </tr> <tr> <td style="text-align: center;">2014E</td> <td style="text-align: center;">2014E</td> <td style="text-align: center;">2014E</td> </tr> <tr> <td style="text-align: center;">Div. Yield</td> <td style="text-align: center;">Conflicts Disclosure</td> <td></td> </tr> </table>												Income Statement	Balance Sheet	FCF Data	Revenue	Debt	FCF	EBITDA	Rating	FCF/ Share	EPS	WACC	Yield	Net Debt	FCF	Dividend/ Share	0 2014E	2014E	2014E	2014E	2014E	2014E	Div. Yield	Conflicts Disclosure	
Income Statement	Balance Sheet	FCF Data																																	
Revenue	Debt	FCF																																	
EBITDA	Rating	FCF/ Share																																	
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Net Debt	FCF	Dividend/ Share																																	
0 2014E	2014E	2014E																																	
2014E	2014E	2014E																																	
Div. Yield	Conflicts Disclosure																																		
1 AOL, Inc.	\$2,394	\$456	\$2.30	(\$483)	BBB-	10%	\$366	\$4.57	13%	\$0.00	-	B																							
2 Bankrate, Inc.	\$518	\$151	\$0.71	\$82	B	12%	\$52	\$0.50	2%	\$0.00	-	B																							
3 Demand Media, Inc.	\$443	\$122	\$0.45	(\$70)	B	11%	\$78	\$0.85	15%	\$0.00	-	B																							
4 Facebook	\$9,903	\$5,415	\$1.01	(\$10,252)	BBB	11%	\$4,552	\$1.81	4%	\$0.00	-	B,G																							
5 Netflix	\$5,117	\$532	\$3.96	(\$580)	BBB	10%	\$336	\$5.35	2%	\$0.00	-	B,G																							
6 Pandora Media	\$638	\$62	(\$0.24)	(\$69)	BBB-	10%	\$77	\$0.36	1%	\$0.00	-	B																							
7 TripAdvisor, Inc.	\$1,160	\$514	\$2.22	(\$36)	BBB-	10%	\$421	\$3.01	4%	\$0.00	-	B,G																							
8 Yahoo!	\$4,724	\$1,648	\$1.61	(\$3,627)	A-	12%	\$765	\$0.74	2%	\$0.00	-	B,G																							
9 CBS	\$16,656	\$4,071	\$3.45	\$8,041	BBB-	10%	\$2,935	\$4.77	8%	\$0.48	0.9%	B																							
10 Discovery Communications	\$6,105	\$2,762	\$3.94	\$6,153	BBB	9%	\$1,823	\$5.21	6%	\$0.00	-	B,G																							
11 Disney	\$47,966	\$12,062	\$3.74	\$11,071	A	9%	\$4,767	\$2.69	4%	\$0.75	1.1%	B																							
12 Madison Square Garden	\$1,449	\$356	\$1.75	(\$278)	BBB-	9%	(\$72)	(\$0.92)	-2%	\$0.00	-	B,G																							
13 21st Century Fox	\$30,378	\$7,035	\$1.47	\$11,099	BBB+	10%	\$2,419	\$1.06	3%	\$0.17	0.5%	B,G																							
14 Scripps Networks Interactive	\$2,683	\$1,213	\$4.39	\$1,087	BBB+	9%	\$696	\$4.93	6%	\$0.60	0.8%	B																							
15 Time Warner Inc	\$31,191	\$8,141	\$4.24	\$17,383	BBB	9%	\$2,979	\$3.35	5%	\$1.15	1.7%	B																							
16 Viacom	\$14,404	\$4,493	\$5.44	\$7,769	BBB+	9%	\$2,437	\$5.42	7%	\$1.10	1.3%	B,G																							
17 Nielsen Company BV	\$6,330	\$1,855	\$2.40	\$5,098	BBB-	10%	\$856	\$2.25	6%	\$0.64	1.7%	B																							
18 Synacor	\$115	\$3	(\$0.07)	(\$38)	B	11%	(\$5)	(\$0.14)	-6%	\$0.00	-	B,G																							
19 Time Warner Cable	\$23,217	\$8,557	\$7.68	\$23,494	BBB	10%	\$2,861	\$9.93	9%	\$2.60	2.2%	B																							

Sources: Needham research, Company documents, FirstCall, Yahoo Finance.

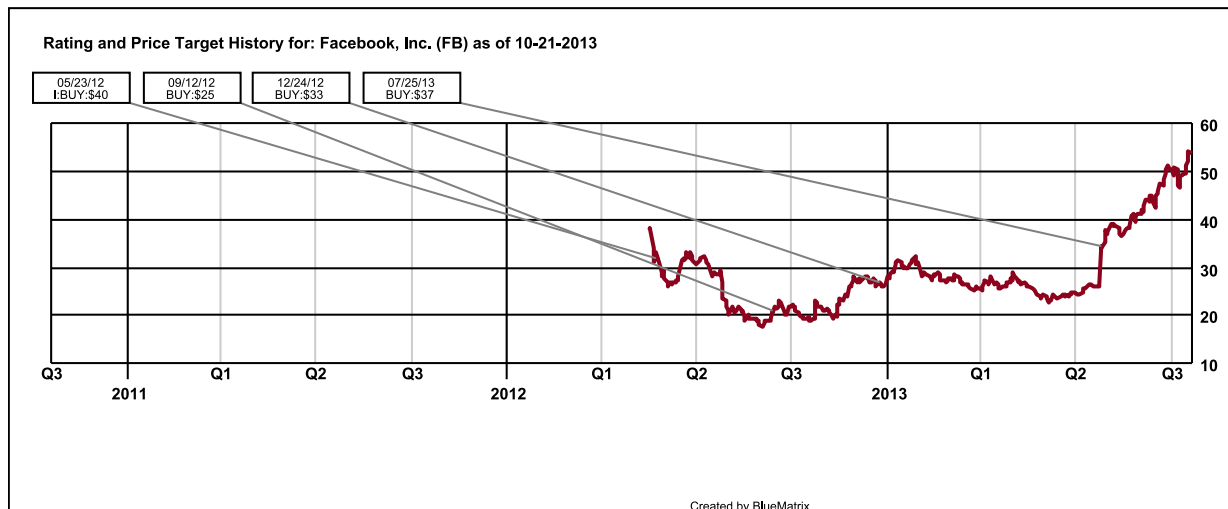
Questions: Laura Martin, CFA. (917) 373-3066. LMartin@Needhamco.com

**Valuation (Price Target: 65.00)**

- We roll forward by one year the DCF valuation we use to calculate our target price to reflect our updated FY14 estimates. As a result, we raise our Target Price to \$65 (from \$37 previously). We use a WACC of 10.9% and a long-term nominal GDP growth rate of 1%. Our \$65 target price embeds a 10-year OIBDA growth rate of 20% annually beginning in 2014 and represents a 25.2x multiple of forward year (2015E) OIBDA.

**Risks to Target**

- Risks to our thesis and target price include a possible "fatigue factor" (with 30% of respondents stating in a survey that they now use FB less than they did a year ago, is there a FB lifecycle?), possible privacy issues regarding when and how FB discloses data it has on its users, and lack of a standard measurement for determining return on investment of social media campaigns.



**ANALYST CERTIFICATION**

We, Laura Martin and Kerry Rice hereby certify that the views expressed in this research report accurately reflect our personal views about the subject company (ies) and its (their) securities. We, also certify that we, have not been, and will not be receiving direct or indirect compensation in exchange for expressing the specific recommendation(s) in this report.

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	% of companies under coverage with this rating	% for which investment banking services have been provided for in the past 12 months
Strong Buy	4	8
Buy	60	23
Hold	35	5
Underperform	1	0
Rating Suspended	0	0
Restricted	0	0
Under Review	< 1	0

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**Hold:** A security, which at the time the rating is instituted, indicates an expectation of a total return of +/-10% over the next 12 months.

**Underperform:** A security, which at the time the rating is instituted, indicates an expectation that the price will depreciate by more than 10% over the next 12 months.

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**Disclosures**

The research analyst and research associate have received compensation based upon various factors, including quality of research, investor client feedback, and the Firm's overall revenues, which includes investment banking revenues for the following: Facebook, Inc.

The Firm, at the time of publication, makes a market in the subject company Facebook, Inc. .

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