



## COMPANY UPDATE / ESTIMATE CHANGE TARGET CHANGE

### Key Metrics

FB - NASDAQ - as of	11/1/17	\$182.66
Price Target		\$211.00
52-Week Range	\$113.55 -	\$182.90
Diluted Shares Outstanding (mm)		2,904
Market Cap. (\$mm)		\$530,481
1-Mo. Average Daily Volume		16,456,662
Institutional Ownership		59.2%
Debt/Total Capital (net)	Q3'17	0%
ROE		25.4%
Book Value / Share		\$24.52
Price / Book Value		7.4x
Dividend Yield		0.0%
LTM EBITDA Margin		55.1%

### GAAP EPS FY 12/31

	Prior		Current	Prior		Current
	2016A	2017E	2017E	2018E	2018E	2018E
1Q	\$0.60		\$1.04	A	\$1.22	\$1.27
2Q	\$0.71		\$1.32	A	\$1.43	\$1.53
3Q	\$0.81		\$1.59	A	\$1.48	\$1.59
4Q	\$1.21	\$1.51	\$1.90		\$1.76	\$1.91
Year	\$3.33	\$5.17	\$5.85		\$5.90	\$6.31
P/E	54.9x		31.2x			28.9x

\*Columns may not equal due to rounding

### Revenue (\$mil)

	Prior		Current	Prior		Current
	2016A	2017E	2017E	2018E	2018E	2018E
1Q	\$5,382		\$8,032	A	\$10,176	\$10,692
2Q	\$6,436		\$9,321	A	\$11,616	\$12,147
3Q	\$7,011		\$10,328	A	\$12,211	\$13,108
4Q	\$8,809	\$11,570	\$12,226		\$14,398	\$15,188
Year	\$27,638	\$38,579	\$39,907		\$48,401	\$51,136

Facebook Inc – is the world's largest social network, with over 2 billion monthly active users. Facebook connects users with friends and family and allows users to share information. A majority of Facebook revenue is derived from mobile advertising, of which Facebook has become the market leader. Other Facebook brands include Instagram, WhatsApp, Messenger and Oculus. Facebook launched in 2004, by Founder, CEO & Chairman, Mark Zuckerberg and is headquartered in Menlo Park, California.

## Facebook Inc.

FB - NASDAQ – Long-term Buy - 3

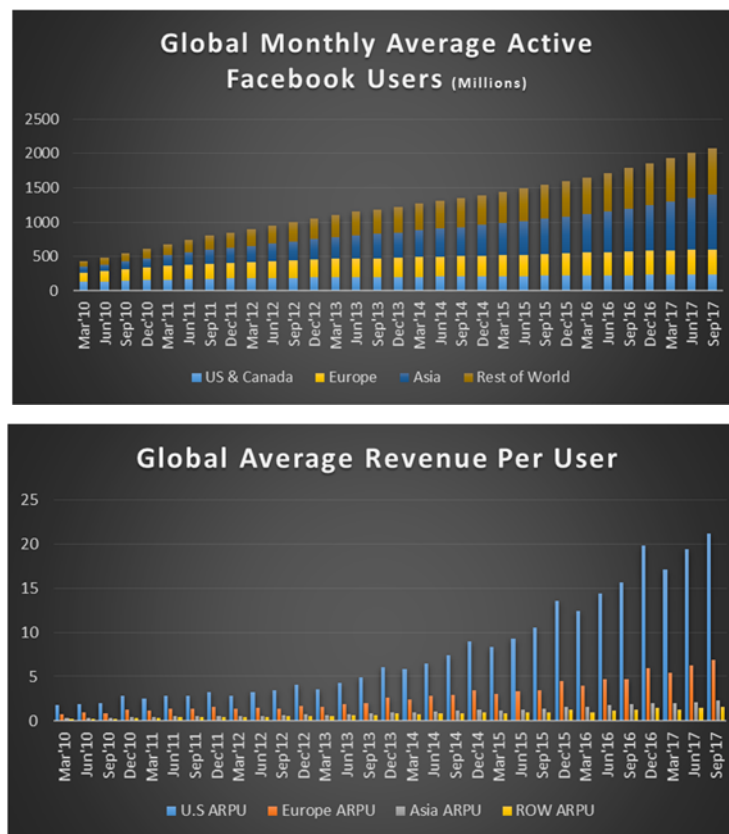
### Stellar Q3; FY'18 Expenses Above Forecast; Raising PT to \$211

- Key Metrics.** Facebook had a record 2.072 billion monthly active users (MAUs) vs. our estimate of 2.061 billion, up 16% y/y. DAUs were 1.368 billion vs. 1.179 billion last year. The average revenue per user (ARPU) during the quarter was \$5.07 vs. our estimate of \$4.85, up 26% y/y vs. 24% last quarter. ARPU reaccelerated sequentially, as growth in Europe was especially strong. Mobile ad revenue increased 57% y/y and represented 88% of ad revenue, up from 84% last year. The average price per ad increased 35% y/y with ad impressions increasing 10% y/y. Facebook has 6 million advertisers, up 50% y/y, while Instagram has over 2 million. Our average revenue per advertiser metric, declined 1% y/y, which is a very powerful and positive figure as new advertisers (+50% y/y) typically start spending at a lower level and as the total advertiser count represents more SMBs with lower ad budgets, suggesting larger companies continue to spend more aggressively.
- Results.** EPS of \$1.59 jumped 95% y/y on revenue of \$10.328 billion, up 47% y/y. Ad revenue of \$10.142 billion increased 49% y/y. Gross margin increased to a Q3 record 86%, while operating margin was a Q3 record 49.6%, increasing 510 bps y/y due to leverage gained by the higher revenue base. Cash was a record \$38.3 billion, or \$13 per share, with no debt. Operating cash flow totaled a record \$6.12 billion, while free cash flow was \$4.37 billion, an increase of over 76% y/y.
- Outlook.** Expense growth guidance was tightened to 35% to 40% from 40% to 45% growth y/y for FY'17. We expect advertising revenue growth to decline from lower News Feed ad load growth despite higher ad prices from strength in video, Instagram, Messenger, and WhatsApp. FY'18 total expense growth was guided aggressively higher to 45% to 60% on higher spending on security and premium content. We increase our outlook on improving ad rates despite lower ad load growth and higher expenses. Our Q4'17 EPS estimate increases to \$1.90 from \$1.51 on revenue of \$12.226 billion from \$11.570 billion. We raise our FY'17 outlook based on higher ARPU, increasing advertiser count, and continued growth in global users across products. We expect FY'17 & FY'18 EPS of \$5.85/\$6.31 on revenue of \$39.9/\$51.1 billion. We inaugurate our FY'19 EPS estimate of \$7.29 on revenue of \$61.8 billion.
- Opinion.** We extend our investment timeframe by 1-year to FYE'19 and raise our price target to \$211 from \$189.

**Note Important Disclosures on Pages 7-8**  
**Note Analyst Certification on Page 7**

### ADDITIONAL DISCUSSION

From a geographic and total user basis, the Asia region monthly active user (MAU) base of 794 million was the largest and experienced the fastest user growth, up 26% y/y, in line with prior quarter growth rates and above last year's 20% growth rate. Asia ad revenue of \$1.75 billion increased 54% y/y as ARPU increased 20%. Rest of World (ROW) segment MAUs of 675 million increased 15% y/y, down from 18% growth last quarter. ROW ARPU increased 31% y/y, an acceleration of growth from the year ago quarter. ROW ad revenue of \$1.05 billion increased a strong 53% y/y vs. 54% in the year ago quarter. The U.S. & Canada region experienced the slowest growing user count with 239 million MAUs, up 4%, while average revenue per user increased 35% y/y to \$21.20, a significant slowdown vs. 49% growth in the year ago period. Europe generated the largest outperformance as ad revenue jumped 56% y/y reaccelerating from 43% last quarter, while ARPU jumped 45%, up from 33% last quarter. Monetization continues to improve as Facebook's total average revenue per user was \$5.07 vs. \$4.01 last year, growth of 26% y/y. This was a result of the average price per ad increasing 35% y/y vs. 24% last quarter while ad impression growth slowed to 10%, down from 19% as ad load growth begins to decelerate as expected.



Source: Company data

### OUTLOOK

We continue to believe Facebook has an industry leading mobile advertising position due to the network effect of the social media company's 2-plus billion monthly active user base, other company-owned brands such as Instagram, Messenger, WhatsApp, Oculus can boost revenue from traffic across its platform. Facebook's advertiser count now exceeds 6 million advertisers, while the company is building a pipeline of 15 million businesses with a Facebook profile which we view as potential future customers. Results are expected to benefit from enhanced video advertising through mobile first ad campaigns, Instagram Stories monetization, Dynamic Ads, and continued global user growth. However, advertising revenue growth rates are expected to slow as ad load growth slows on News Feed.

Management tightened FY'17 expense growth guidance to 35%-40% from 40%-45%. We increase our outlook on improving ad rates and more advertisers despite concerns of lower ad load growth and higher expenses in FY'18. Our Q4'17 GAAP EPS estimate increases to \$1.90 from \$1.51 on revenue of \$12.2 billion from \$11.5 billion. We raise our FY'17 outlook based on higher ARPU, increasing advertiser count, tighter than expected Q3 and Q4 expense growth, and continued growth in global users across products. We expect FY'17 & FY'18 EPS of \$5.85/\$6.31 on revenue of \$39.9/\$51.1 billion vs. our prior view of \$5.17/\$5.90 on revenue of \$38.5/\$48.4 billion, respectively. We inaugurate our FY'19 EPS forecast of \$7.29 representing growth of 15% y/y on revenue of \$61.2 billion.

## VALUATION

In our opinion, shares of FB represent a long-term investment opportunity suitable for aggressive growth investors. The company is a generator of significant free cash flow and due to the global scale of the business it has been highly profitable with industry leading operating metrics. We continue to recommend shares of FB as we view Facebook as a leading beneficiary of the shift of advertising dollars away from traditional media and internet traffic and onto mobile and video ad platforms.

**We maintain our Long-term Buy rating. We extend our investment timeframe by 12-months to FYE'19 and raise our price target to \$211 from \$189 per share.** Facebook posted another quarter of strong operating results including strong revenue growth, free cash flow generation, global user, advertiser, and ARPU growth. We continue to hold Facebook's management team in high regard and believe they can execute on Facebook's well communicated long-term strategy. We believe the recent commentary involving Russian ad buying is an excellent example of strong leadership who is prepared to spend heavily to combat this risk to Facebook's platform. We believe this event will be a blip in Facebook's long term history and will ultimately make the social network a safer place for users and make businesses more comfortable in their ad buying practices.

We derive our FYE'19 price target of \$211 by multiplying our FY'19 GAAP EPS estimate of \$7.29 by a forward P/E multiple of 29x, which is below our prior multiple of 32x and the current forward multiple. We reduce our earnings multiple as higher expenses is expected to weigh on margins and future growth. Our price target of \$211 offers a potential total return of 18% based on today's intraday price of \$179 through our FYE'19 investment timeframe. This potential return is lower than what we typically prefer for a Long-term Buy rated stock, but we maintain our positive opinion of FB shares as we question how adding premium content to the Watch tab could boost ad rates vs. historical norms. While not within our current model if content has positive impacts to user engagement revenue could inflect higher, offsetting higher expense growth. Our price target is conservative, in our opinion, as it does not include Facebook's \$38.3 billion cash position which can be used for share repurchases, future acquisitions, content acquisition, and other growth initiatives should opportunities arise. We expect Facebook's cash position to grow to over \$100 billion in four to five years, which alone would be worth nearly 20% of today's entire market value.

## SUITABILITY

We assign shares of FB a suitability rating of 3 on our scale of 1-4 (1 = most conservative, 4 = most aggressive). A 3 rating is given based on Facebook's limited history as a public company while also incorporating the company's industry leading market position and management team; expanding product set; global reach; solid balance sheet; and significant free cash flow generation. We believe a suitability rating of 3 incorporates these attributes. Shares of FB are suitable for aggressive growth oriented investors seeking long-term capital appreciation, in our view.

## RISKS & CONSIDERATIONS

Risks to our valuation include but are not limited to:

- Ad load growth is expected to materially slow as the mobile news feed product reaches saturation.
- Security risk regarding how users interact and use the Facebook platform
- The ability to grow and/or retain the Facebook user base and their current level of engagement.

- Loss of advertising dollars, as advertising revenue generates a majority of Facebook revenue. We highlight ad blockers as one such potential threat to PC and ad mobile revenue.
- The inability by Facebook to further monetize mobile products, as users shift usage patterns.
- The threat of a new social network, website or app that could draw internet users away.
- The lack of adoption of the Facebook platform, and/or the lack of innovation and new products from platform partners.
- The threat of a Facebook infrastructure failure, causing site downtime, or ad server downtime, which could materially affect revenue.
- The unlawful distribution of user information, or the hacking of user information by an outside party and other privacy concerns that may drive users away from the site or create an unwillingness of users to share additional information.
- Regulations and restrictions imposed on Facebook by U.S. or foreign governments (China).
- The loss of key Facebook executives including COO Sheryl Sandberg, and CEO Mark Zuckerberg, who have a majority voting interest in the stock.
- Higher expenses due to legal fees resulting from patent lawsuits.

*Additional information is available upon request.*

## Facebook Inc. Consolidated Statement of Income (in millions except per share data)

	2011	2012	2013	2014	2015	2016	Q1'17	Q2'17	Q3'17	Q4'17E	2017E	2018E	2019E
Advertising revenue	\$ 3,154	\$ 4,279	\$ 6,986	\$ 11,492	\$ 17,080	\$ 26,885	\$ 7,857	\$ 9,164	\$ 10,142	\$ 12,054	\$ 39,217	\$ 50,466	\$ 61,190
Payments and other fees revenue	557	810	886	974	847	753	\$ 175	\$ 157	\$ 186	\$ 172	690	670	670
<b>Total Revenue</b>	<b>\$ 3,711</b>	<b>\$ 5,089</b>	<b>\$ 7,872</b>	<b>\$ 12,466</b>	<b>\$ 17,927</b>	<b>\$ 27,638</b>	<b>\$ 8,032</b>	<b>\$ 9,321</b>	<b>\$ 10,328</b>	<b>\$ 12,226</b>	<b>\$ 39,907</b>	<b>\$ 51,136</b>	<b>\$ 61,860</b>
Cost of revenue	860	1,364	1,875	2,153	2,866	3,788	1,159	1,237	1,448	1,528	5,372	6,770	8,048
Research and development	388	1,399	1,415	2,666	4,817	5,908	1,834	1,919	2,052	2,213	8,018	11,410	13,811
Marketing and sales	427	896	997	1,680	2,724	3,768	1,057	1,124	1,170	1,369	4,720	7,066	8,546
General and administrative	280	892	781	973	1,295	1,730	655	640	536	672	2,503	3,969	4,805
<b>Total Costs and Expenses</b>	<b>\$ 1,955</b>	<b>\$ 4,551</b>	<b>\$ 5,068</b>	<b>\$ 7,472</b>	<b>\$ 11,702</b>	<b>\$ 15,194</b>	<b>\$ 4,705</b>	<b>\$ 4,920</b>	<b>\$ 5,206</b>	<b>\$ 5,783</b>	<b>\$ 20,614</b>	<b>\$ 29,216</b>	<b>\$ 35,210</b>
<b>Income from Operations</b>	<b>\$ 1,756</b>	<b>\$ 538</b>	<b>\$ 2,804</b>	<b>\$ 4,994</b>	<b>\$ 6,225</b>	<b>\$ 12,444</b>	<b>\$ 3,327</b>	<b>\$ 4,401</b>	<b>\$ 5,122</b>	<b>\$ 6,443</b>	<b>\$ 19,293</b>	<b>\$ 21,920</b>	<b>\$ 26,650</b>
Interest and Other Income	(61)	(44)	(50)	(84)	-31	90	81	87	114	100	382	430	500
<b>Income Before Provision for Income Taxes</b>	<b>\$ 1,695</b>	<b>\$ 494</b>	<b>\$ 2,754</b>	<b>\$ 4,910</b>	<b>\$ 6,194</b>	<b>\$ 12,534</b>	<b>\$ 3,408</b>	<b>\$ 4,488</b>	<b>\$ 5,236</b>	<b>\$ 6,543</b>	<b>\$ 19,675</b>	<b>\$ 22,350</b>	<b>\$ 27,150</b>
Provision for income taxes	695	441	1254	1,970	2,505	2,794	344	594	529	883	2,350	3,478	5,159
<b>Net Income</b>	<b>\$ 1,000</b>	<b>\$ 53</b>	<b>\$ 1,500</b>	<b>\$ 2,940</b>	<b>\$ 3,689</b>	<b>\$ 9,740</b>	<b>\$ 3,064</b>	<b>\$ 3,894</b>	<b>\$ 4,707</b>	<b>\$ 5,660</b>	<b>\$ 17,325</b>	<b>\$ 18,872</b>	<b>\$ 21,992</b>
Net Income Attributable to Participating Securities	332	21	9	15	19	26	5	4	3	7	19	22	22
<b>Net Income After Participating Securities</b>	<b>\$ 668</b>	<b>\$ 32</b>	<b>\$ 1,491</b>	<b>\$ 2,925</b>	<b>\$ 3,670</b>	<b>\$ 9,714</b>	<b>\$ 3,059</b>	<b>\$ 3,890</b>	<b>\$ 4,704</b>	<b>\$ 5,653</b>	<b>\$ 17,306</b>	<b>\$ 18,850</b>	<b>\$ 21,970</b>
Diluted Shares Outstanding	1,508.00	2,166.00	2,517	2,664	2,857	2,916	2,944	2,951	2,956	2,973	2,956	2,986	3,015
<b>Diluted GAAP EPS</b>	<b>\$ 0.46</b>	<b>\$ 0.01</b>	<b>\$ 0.59</b>	<b>\$ 1.10</b>	<b>\$ 1.28</b>	<b>\$ 3.33</b>	<b>\$ 1.04</b>	<b>\$ 1.32</b>	<b>\$ 1.59</b>	<b>\$ 1.90</b>	<b>\$ 5.85</b>	<b>\$ 6.31</b>	<b>\$ 7.29</b>
<b>Y/Y Percentage Change</b>													
Revenue	88%	37%	55%	58%	44%	54%	49%	45%	47%	39%	44%	28%	21%
Cost of Revenue	74%	59%	37%	15%	33%	32%	38%	35%	47%	46%	42%	26%	19%
Total operating expenses	144%	191%	0%	67%	66%	29%	40%	33%	29%	33%	34%	47%	21%
Total costs and expenses	108%	133%	11%	47%	57%	30%	40%	33%	34%	36%	36%	42%	21%
Operating income	70%	-69%	421%	78%	25%	100%	66%	60%	64%	41%	55%	14%	22%
Net income	65%	-95%	2730%	96%	25%	164%	76%	89%	98%	59%	78%	9%	17%
Diluted EPS	64%	-97%	3910%	85%	17%	159%	74%	87%	95%	57%	76%	8%	15%
Diluted share count	14%	44%	16%	6%	7%	2%	1%	2%	1%	1%	1%	1%	1%
<b>Percentage of Revenue</b>													
Advertising revenue	85.0%	84.1%	88.7%	92.2%	95.3%	97.3%	97.8%	98.3%	98.2%	98.6%	98.3%	98.7%	98.9%
Payments revenue	15.0%	15.9%	11.3%	7.8%	4.7%	2.7%	2.2%	1.7%	1.8%	1.4%	1.7%	1.3%	1.1%
Cost of Revenue	23.2%	26.8%	23.8%	17.3%	16.0%	13.7%	14.4%	13.3%	14.0%	12.5%	13.5%	13.2%	13.0%
Gross Margin	76.8%	73.2%	76.2%	82.7%	84.0%	86.3%	85.6%	86.7%	86.0%	87.5%	86.5%	86.8%	87.0%
Total costs and expenses	52.7%	89.4%	64.4%	59.9%	65.3%	55.0%	58.6%	52.8%	50.4%	47.3%	51.7%	57.1%	56.9%
Operating income	47.3%	10.6%	35.6%	40.1%	34.7%	45.0%	41.4%	47.2%	49.6%	52.7%	48.3%	42.9%	43.1%
Net income attributable to Class A and Class B common stockholders	18.0%	0.6%	18.9%	23.5%	20.5%	35.1%	38.1%	41.7%	45.5%	46.2%	43.4%	36.9%	35.5%

Source: Company data &amp; Hilliard Lyons estimates.

## Facebook Inc. Consolidated Balance Sheets (in millions except per share data)

	2012	2013	2014	2015	Q1'16	Q2'16	Q3'16	Q4'16	2016	Q1'17	Q2'17	Q3'17
<b>Assets</b>												
Cash and cash equivalents	\$ 2,384	\$ 3,323	\$ 4,315	\$ 4,907	\$ 6,456	\$ 5,108	\$ 6,038	\$ 8,903	\$ 8,903	\$ 7,104	\$ 6,252	\$ 7,201
Marketable securities	7,242	8,126	6,884	13,527	14,165	18,185	20,102	20,546	20,546	25,202	29,200	31,088
Accounts receivable, net	719	1,109	1,678	2,559	2,348	2,801	3,070	3,993	3,993	3,415	3,897	4,424
Income tax refundable	451	-	-	-	-	-	-	-	-	-	-	-
Prepaid expenses and other	471	512	793	659	843	916	1,118	959	959	1,209	1,455	1,490
<b>Total current assets</b>	<b>11,267</b>	<b>13,070</b>	<b>13,670</b>	<b>21,652</b>	<b>23,812</b>	<b>27,010</b>	<b>30,328</b>	<b>34,401</b>	<b>34,401</b>	<b>36,930</b>	<b>40,804</b>	<b>44,203</b>
Property and equipment, net	2,391	2,882	3,967	5,687	6,467	7,104	7,899	8,591	8,591	9,462	10,628	12,158
Goodwill and intangible assets, net	1,388	1,722	21,910	21,272	21,096	20,922	20,787	20,657	20,657	20,486	20,315	20,263
Other assets	57	221	637	796	700	703	660	1,312	1,312	1,836	2,096	2,374
<b>Total assets</b>	<b>15,103</b>	<b>17,895</b>	<b>40,184</b>	<b>49,407</b>	<b>52,075</b>	<b>55,739</b>	<b>59,674</b>	<b>64,961</b>	<b>64,961</b>	<b>68,714</b>	<b>73,843</b>	<b>78,998</b>
<b>Liabilities and stockholders' equity</b>												
Accounts payable	65	87	176	196	149	130	260	302	302	170	323	383
Developer partners payable	169	181	202	217	216	232	239	280	280	278	278	314
Accrued expenses and other current liabilities	423	555	866	1,449	1,389	1,770	2,018	2,203	2,203	2,400	2,626	2,503
Deferred revenue and deposits	30	38	66	56	55	79	78	90	90	80	88	105
Current portion of capital lease obligations	365	239	114	7	-	-	-	-	-	-	-	-
<b>Total current liabilities</b>	<b>1,052</b>	<b>1,100</b>	<b>1,424</b>	<b>1,925</b>	<b>1,809</b>	<b>2,211</b>	<b>2,595</b>	<b>2,875</b>	<b>2,875</b>	<b>2,928</b>	<b>3,315</b>	<b>3,305</b>
Capital lease obligations, less current portion	491	237	119	107	-	-	-	-	-	-	-	-
Long-term debt	1,500	-	-	-	-	-	-	-	-	-	-	-
Other liabilities	305	1,088	2,545	3,157	3,116	3,145	2,964	2,892	2,892	3,598	4,047	4,485
<b>Total liabilities</b>	<b>3,348</b>	<b>2,425</b>	<b>4,088</b>	<b>5,189</b>	<b>4,925</b>	<b>5,356</b>	<b>5,559</b>	<b>5,767</b>	<b>5,767</b>	<b>6,526</b>	<b>7,362</b>	<b>7,790</b>
<b>Stockholders' equity:</b>												
Common stock and additional paid in capital	10,094	12,297	30,225	34,886	36,129	37,405	38,756	38,227	38,227	38,639	39,291	40,199
Accumulated other comprehensive loss	2	14	(228)	(455)	(276)	(374)	(372)	(703)	(703)	(626)	(370)	(200)
Retained earnings	1,659	3,159	6,099	9,787	11,297	13,352	15,731	21,670	21,670	24,175	27,560	31,209
Total stockholders' equity	11,755	15,470	36,096	44,218	47,150	50,383	54,115	59,194	59,194	62,188	66,481	71,208
<b>Total liabilities and stockholders' equity</b>	<b>15,103</b>	<b>17,895</b>	<b>40,184</b>	<b>49,407</b>	<b>52,075</b>	<b>55,739</b>	<b>59,674</b>	<b>64,961</b>	<b>64,961</b>	<b>68,714</b>	<b>73,843</b>	<b>78,998</b>

Source: Company data

### Analyst Certification

I, Stephen Turner, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject company(ies) and its (their) securities. I also certify that I have not been, am not, and will not be receiving direct or indirect compensation in exchange for expressing the specific recommendation(s) in this report.

### Important Disclosures

Hilliard Lyons' analysts receive bonus compensation based on Hilliard Lyons' profitability. They do not receive direct payments from investment banking activity.

### Suitability Ratings

- 1 - A large cap, core holding with a solid history
- 2 - A historically secure company which could be cyclical, has a shorter history than a "1" or is subject to event driven setbacks
- 3 - An above average risk/reward ratio could be due to small size, lack of product diversity, sporadic earnings or high leverage
- 4 - Speculative, due to small size, inconsistent profitability, erratic revenues, volatility, low trading volume or a narrow customer or product base

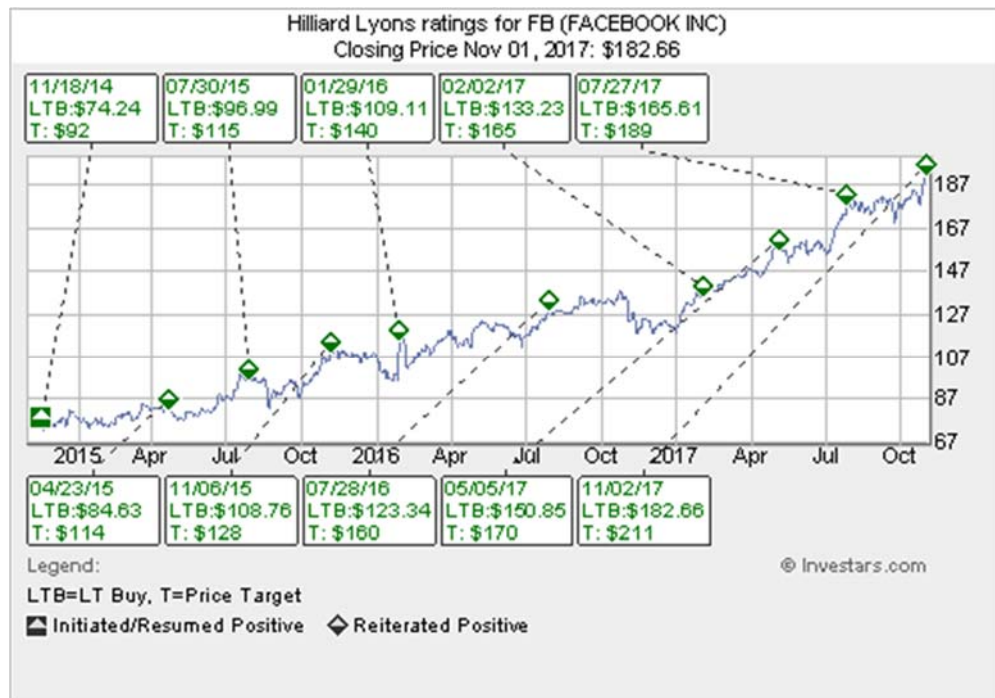
### Investment Ratings

**Buy** - We believe the stock has significant total return potential in the coming 12 months.

**Long-term Buy** - We believe the stock is an above average holding in its sector, and expect solid returns to be realized over a longer time frame than our Buy rated issues, typically 2-3 years.

**Neutral** - We believe the stock is an average holding in its sector, is currently fully valued, and may be used as a source of funds if better opportunities arise.

**Underperform** - We believe the stock is vulnerable to a price setback in the next 12 months.



Note: Price targets accompanying Buy ratings reflect a one year time period while price targets accompanying Long-term Buy ratings generally reflect a two to three year time period.

	Hilliard Lyons Recommended Issues		Investment Banking Provided in Past 12 Mo.	
	# of Stocks Covered	% of Stocks Covered	Banking	No Banking
<b>Rating</b>				
<b>Buy</b>	39	32%	8%	92%
<b>Hold/Neutral</b>	74	60%	9%	91%
<b>Sell</b>	8	7%	0%	100%
<b>Restriction</b>	2	2%	100%	0%

*As of 5 October 2017*

### Other Disclosures

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