



COMPANY UPDATE / ESTIMATE CHANGE / TARGET CHANGE / RATING CHANGE

Key Metrics

AAPL - NASDAQ - as of	2/2/18	\$160.50
Price Target		\$194.00
52-Week Range	\$128.16 -	\$180.10
Diluted Shares Outstanding (mil.)		5157.8
Market Cap. (\$mm)		\$827,824.8
1-Mo. Average Daily Volume		31,714,763
Institutional Ownership		62%
Debt/Total Capital (net)	FQ1'18	0%
ROE		37.1%
Book Value / Share	FQ1'18	\$27.42
Price / Book Value		5.9x
Indicated Dividend / Yield	\$2.52	1.6%
LTM EBITDA Margin		30.6%

GAAP EPS FY 9/30

	Prior	Current	Prior	Current
	2017A	2018E	2018E	2019E
1Q	\$3.36		\$3.89	\$4.23
2Q	\$2.10	\$2.67	\$2.80	\$2.94
3Q	\$1.67	\$2.06	\$2.32	\$2.21
4Q	\$2.07	\$2.35	\$2.57	\$2.62
Year	\$9.19	\$10.90	\$11.59	\$11.99
P/E	17.5x		13.8x	12.7x

Revenue (\$BN)

	Prior	Current	Prior	Current
	2017A	2018E	2018E	2019E
1Q	\$78.3		\$88.3	\$87.6
2Q	\$52.9	\$62.9	\$62.2	\$64.8
3Q	\$45.4	\$51.5	\$54.7	\$52.0
4Q	\$52.5	\$57.2	\$60.1	\$59.3
Year	\$229.2	\$258.6	\$265.3	\$263.9

Company Description: Apple Inc. designs, manufactures and markets hardware including the Mac, iPhone, iPad, iPod, Apple Watch, TV, HomePod, AirPods, and Beats headphones. Apple also develops software, the Mac OS X operating system and the iOS mobile operating system, along with other consumer and professional software applications and services including Maps and Apple Pay. Third-party digital content is sold through iTunes and the App Store. The company sells its products globally through Apple retail stores, an online store and other traditional retail chains. The company is headquartered in Cupertino, California.

Technology

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February 5, 2018

Apple Inc.

AAPL - NASDAQ – Buy -1

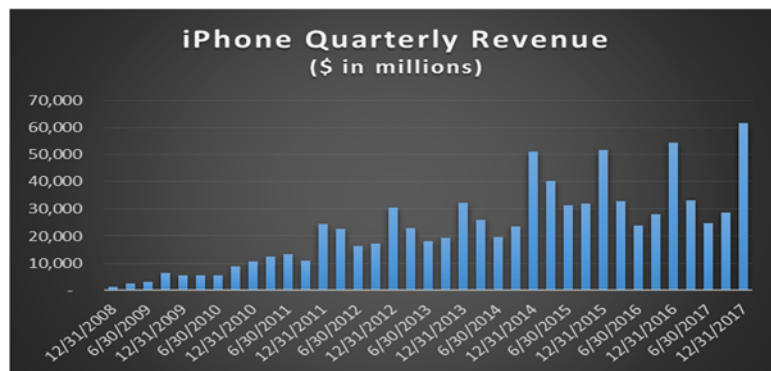
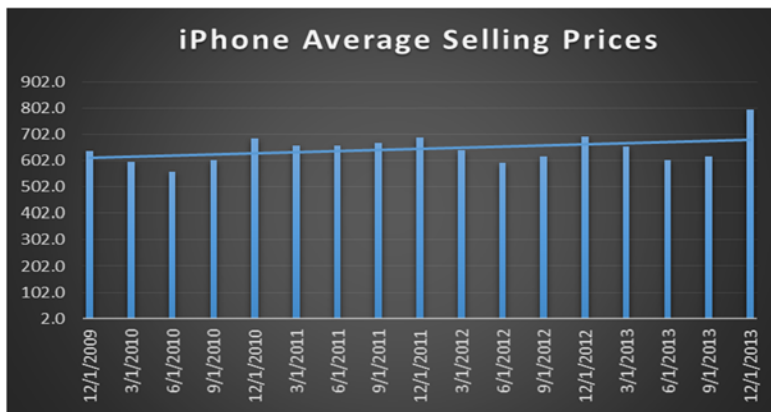
Record Results, Strong Pricing Power; Tax Reform Boosts Outlook; Upgrading to Buy Rating & \$194 PT

- Results.** Apple reported record quarterly revenue of \$88.3 billion, a 13% y/y increase. Revenue was above our target of \$86.8 billion on significantly higher average selling prices which pressured unit sales vs. our expectation. Gross margin declined 10 bps y/y to 38.4%, but beat our 38.3% view. Operating expense increased 12% y/y to \$7.6 billion. Net income totaled \$20.06 billion, an increase of 12% y/y. Apple spent \$10.1 billion repurchasing shares, reducing share count by 3.2% y/y, leading to an EPS increase of 16% y/y to \$3.89, above our estimate of \$3.82. Operating cash flow was \$28.3 billion, while free cash flow was \$25.5 billion. Cash & investments reached \$285.1 billion.
- Highlights.** Apple's active install base reached a record 1.3 billion devices. The company sold 77 million iPhones, down 1% y/y, vs. our expectation for 84 million. The iPhone X, 8 & 8 Plus models have become the best-selling iPhones on the market, despite an average selling price of \$796 vs. \$694 last year. iPhone revenue was \$61.6 billion, beating our \$59.6 billion view, up 13% y/y. iPad unit sales totaled 13.2 million vs. our view of 13.5 million, up 1% y/y. iPad ASP jumped to \$445 vs. \$423 last year. iPad revenue increased 6% y/y to \$5.8 billion. Mac unit sales were down 5% y/y to 5.1 million, while the average selling price was largely flat at \$1,349. Services revenue increased 18% y/y to \$8.5 billion, with paid subscriptions up 30 million to a record 240 million. Other Products revenue was \$5.5 billion, up 36% y/y on Watch unit growth of over 50%. We note revenue growth was up 21% on a weekly basis due to one less week during the quarter vs. the year ago period, a very strong level given Apple's size.
- Outlook.** FQ2 revenue guidance was provided of \$60 billion to \$62 billion vs. our prior view of \$62.9 billion. Gross margin was guided to 38% to 38.5% on a sequential loss of leverage vs. our prior 38.7% view. Operating expense was guided to \$7.6 billion to \$7.7 billion vs. our prior \$7.36 billion estimate. We raise our FQ2'18 EPS estimate to \$2.80 from \$2.67 largely on a lower tax rate. Our FY'18 EPS estimate increases to \$11.59 from \$10.90. Tax clarity also allows us to increase our FY'19 EPS estimate to \$12.61 from \$11.99.
- Opinion.** We raise our opinion on shares of AAPL to Buy and adjust our price target to \$194 from \$192.

Note Important Disclosures on Pages 8-9
Note Analyst Certification on Page 8

PRODUCT REVIEW

iPhone. Apple sold 77.3 million iPhones, down 1% y/y, vs. our expectation for 84 million. The average selling price increased 15% y/y to \$796, following the launch of the iPhone X. The recently launched iPhone 8 & 8 Plus models also contributed to higher ASPs. We note this significant deviation in chart (2) below. iPhone revenue rose to \$61.57 billion, up 13% y/y. iPhone segment revenue represented 69.7% of total revenue, in line with last year. We expect y/y iPhone revenue growth in FQ2 of 24% y/y on easier comparisons and higher ASPs. We no longer forecast a significant upgrade cycle but we do believe consumers will upgrade to higher priced phones when they choose to upgrade, which may be slightly elongated due to higher prices and other inflationary pressures. As such, our unit sales expectations have declined, while our ASPs have increased significantly. This view could change on a potential launch of a lower cost iPhone SE upgrade.



Source: Company reports

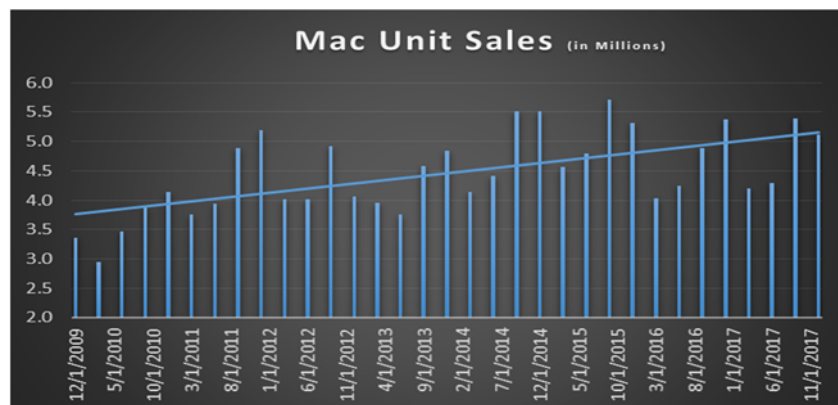
Services. The Services segment includes iTunes content, Apple Pay, App Store, Apple Music, iCloud, service parts, licensing, and other revenue. Revenue totaled \$8.47 billion, up 18% y/y. This missed our prior view as the extra week in the year ago quarter negatively impacted y/y growth rates. Services continue to represent a larger percentage of total revenue and in our opinion, represents one of the single greatest opportunities for Apple as its subscriber base continues to grow. Apple announced it had an active install base of 1.3 billion devices. Within the install base, paid subscribers totaled a record 240 million, up a record 30 million, sequentially.

iPad. iPad unit sales increased 1% y/y to 13.17 million, compared to our 13.5 million view. iPad ASP increased to \$445 compared to \$423 last year. iPad revenue increased 6% y/y to \$5.8 billion. We continue to believe consumers will upgrade their iPad devices less frequently than iPhones but enterprise and education markets as well as new functionality from AR and other high performance software requirements will boost demand.



Source: Company reports

Mac. Mac unit sales were down 5% y/y to 5.1 million, vs. our 5.5 million view. The average selling price was flat y/y at \$1,349. Mac revenue of \$6.9 billion decreased 5% y/y. Again, sales would've been higher on a relative sales per week basis. We expect global adoption of Macs to continue as the halo effect regarding customer satisfaction with Apple's mobile devices translates into higher Mac sales above that of the overall PC market. We believe Apple could spur Mac demand by merging MacOS and iOS operating systems/App Store, which could boost service revenue and customer demand for Macs.



Source: Company reports

Other Products. The other products category includes the Apple Watch, iPod, AirPods, Beats headphones, Apple TV, HomePod, and accessories. Revenue totaled \$5.49 billion, up 36% y/y, representing an all-time high 6.2% of total revenue. Apple Watch unit sales increased 50% sequentially. We expect continued strong demand in fiscal Q2 from a strong launch of the HomePod.

GEOGRAPHIC SEGMENT REVIEW

Global sales were strong across all geographies. The Americas region, Apple's largest region, represented 40% of total revenue with sales increasing 10% y/y to \$35.2 billion, an acceleration vs. Q1 of last year. European revenue of \$21 billion increased 14% from a year ago. Greater China region sales increased 11% y/y to \$17.95 billion. We expect the next few quarters to show significant strength from the Chinese market, on easier y/y comparisons. Japan sales jumped 26% y/y to \$7.2 billion. Asia Pacific sales increased 17% to \$6.85 billion, to a record 8% of total revenue. In general, global sales broadly improved from a year ago.

FINANCIAL MANAGEMENT

Operating cash flow was \$28.3 billion, up 4.5%, while free cash flow was \$25.5 billion, an increase of 7.4%. Cash & investments reached \$285.1 billion or \$55.28 per share, \$31.54 per share on a net cash basis. The company returned over \$14.5 billion to shareholders during the quarter. We believe Apple has enough cash on hand to pay out over 100% of free cash flow in the form of dividends and buybacks. We note tax reform will allow Apple to repatriate overseas cash and deploy over \$163 billion in capital through M&A, continued buybacks, and dividend increases. Apple's updated tax rate is 15% vs. our prior estimate in the low 20% level.

OUTLOOK

FQ2 revenue guidance was provided of \$60 billion to \$62 billion vs. our prior view of \$62.9 billion. Gross margin was guided to 38% to 38.5% on a sequential loss of leverage vs. our prior 38.7% view. Operating expense was guided to \$7.6 billion to \$7.7 billion vs. our prior \$7.36 billion estimate. We raise our FQ'18 EPS estimate to \$2.80 from \$2.67 largely on a lower tax rate, offsetting slightly lower than expected revenue, gross margin, and higher operating expense. Our FY'18 EPS estimate increases to \$11.59 from \$10.90. Tax clarity also allows us to increase our FY'19 EPS estimate to \$12.61 from \$11.99.

We believe there are many growth drivers that we expect to produce significant growth over our investment timeframe. Tailwinds include improving global growth, a weaker U.S. Dollar, higher ASPs, continued services growth, a slew of recently launched products, a significantly lower tax rate, cash repatriation, share buybacks, higher dividends, and continued share repurchases.

VALUATION & OPINION

We upgrade shares of AAPL to Buy from Long-term Buy. Our Buy investment rating incorporates a 12 month investment timeframe vs. our prior 24-month view. We increase our price target to \$194 from \$192. Our updated opinion reflects our improved earnings outlook. We expect FY'18 EPS growth of 26% with follow-on earnings growth of 9% in FY'19. We maintain our forward P/E multiple of 16x, which we find as conservative vs. the S&P 500 Index, technology peers, and its historical range with a similar growth outlook. We maintain our 16x multiple despite accelerating EPS growth as the current forward multiple is 14x, suggesting the Street is skeptical Apple can achieve our view. We believe our price target is justified and could significantly undervalue AAPL shares longer term as we do not include Apple's cash balance of \$285.1 billion, which could be deployed beyond our current estimate to further boost our growth outlook through M&A or buybacks. Excluding net cash, shares trade at a forward P/E multiple of 10.2x our FY'19 EPS estimate.

In our opinion, the recent share price decline represents a healthy buying opportunity. Our price target of \$194 represents a potential 12-month total return of 23% excluding any dividend increases which we expect

at the next quarterly earnings call. We believe AAPL shares remain a core holding for investors seeking capital appreciation and a growing income stream.

SUITABILITY

We assign shares of AAPL a suitability rating of 1 on our scale of 1-4 (1 = most conservative, 4 = most aggressive). A 1 rating is given based on Apple's long and reputable history as a public consumer electronics company. While a majority of revenue is derived solely from iPhone sales, we believe Apple has the ability to expand its services offering and continue to introduce new products over time. We also take into consideration the company's large cash balance and significant free cash flow generating ability. We believe a suitability rating of 1 incorporates these attributes. We believe AAPL shares remain a core holding for investors seeking capital appreciation and a growing income stream.

RISKS & CONSIDERATIONS

Risks to our valuation include but are not limited to:

- Uncertainty regarding potential court proceedings with Qualcomm, which could produce unintended consequences.
- Risk that consumers cannot maintain long term purchases of iPhones following Apple's recent price hike of the iPhone X.
- Regulatory risk regarding accusations Apple may throttle older iPhones to conserve batteries.
- Potential health risks, including brain cancer, caused by wireless device usage. Apple recommends users carry iPhones at least 5 millimeters away from the body. Regulators may begin to require a warning vs. the current recommendation, which could impact future sales.
- Management's ability to secure and retain top talent
- Possible risks from changes in the smartphone selling model.
- Piracy issues: Apple's ability to protect intellectual property rights against global competitors, including software and brand piracy
- Macroeconomic issues, including higher future international tax rates or tariffs, a decline in consumer spending, or changes in consumer behavior/willingness to continue purchasing devices rather than fully functional PCs
- Lack of innovation due to a "closed-ecosystem" versus competitors' "open-ecosystem" architecture
- The risk of excessive spending due to rapid technological advances. Apple must ensure a timely flow of competitive products and services to compete
- Increased competition from global competitors, particularly low cost Asian manufacturers
- The International Trade Commission's ability to ensure Apple's patents, trademarks, copyrights and licenses are enforced and upheld. Continued legal disputes involving patent infringement lawsuits and federal government inquiries into anti-competitive business practices, health and environmental concerns
- Component shortages or pricing risk due to single source availability. Also, future supply disruptions resulting from situations involving natural disaster, geopolitical events, etc.
- A large percentage of future growth expectations tied to emerging market economies which may choose to block certain products or services
- Internally generated product growth outside of the iPhone business could take a significant amount of time to ramp into a meaningful contribution to revenue whether a hardware or service related offering.

Additional information is available upon request.

Other stocks mentioned: Qualcomm Inc. (QCOM-\$66.07).

Apple Inc. - Consolidated Statement of Operations (in millions except per share data and percentages)

	FY'07	FY'08	FY'09	FY'10	FY'11	FY'12	FY'13	FY'14	FY'15	FY'16	FY'17	12/31/2017	03/31/2018E	06/30/2018E	09/30/2018E	FY'18E	FY'19E
Net Sales	\$ 24,006	\$ 37,491	\$ 42,905	\$ 65,225	\$ 108,249	\$ 156,508	\$ 170,910	\$ 182,795	\$ 233,715	\$ 215,639	\$ 229,234	\$ 88,293	\$ 62,211	\$ 54,724	\$ 60,096	\$ 265,324	\$ 268,027
Cost of Sales	15,852	24,294	25,683	39,541	64,431	87,846	106,606	112,258	140,089	131,376	141,048	54,381	38,322	33,819	37,260	163,782	165,181
Gross Profit	8,154.00	13,197	17,222	25,684	43,818	68,662	64,304	70,537	93,626	84,263	88,186	33,912	23,889	20,905	22,837	101,542	102,846
Operating expenses:																	
Research and Development	782	1,109	1,333	1,782	2,429	3,381	4,475	6,041	8,067	10,045	11,581	3,407	3,422	3,174	3,365	13,368	13,394
Selling, general and admin.	2,963	3,761	4,149	5,517	7,599	10,040	10,830	11,993	14,329	14,194	15,261	4,231	4,243	4,378	4,507	17,359	17,799
Total operating expenses	3,745	4,870	5,482	7,299	10,028	13,421	15,305	18,034	22,396	24,239	26,842	7,638	7,664	7,552	7,873	30,727	31,193
Operating income	4,409	8,327	11,740	18,385	33,790	55,241	48,999	52,503	71,230	60,024	61,344	26,274	16,225	13,353	14,964	70,815	71,653
Other income and expense	599	620	326	155	415	522	1,156	980	1,285	1,348	2,745	756	500	475	450	2,181	1,700
Income before provision for income taxes	5,008	8,947	12,066	18,540	34,205	55,763	50,155	53,483	72,515	61,372	64,089	27,030	16,725	13,828	15,414	72,996	73,353
Provision for income taxes	1,512	2,828	3,831	4,527	8,283	14,030	13,118	13,973	19,121	15,685	15,738	6,965	2,509	2,074	2,543	14,091	11,536
Net Income	\$ 3,496	\$ 6,119	\$ 8,235	\$ 14,013	\$ 25,922	\$ 41,733	\$ 37,037	\$ 39,510	\$ 53,394	\$ 45,687	\$ 48,351	\$ 20,065	\$ 14,216	\$ 11,753	\$ 12,871	\$ 58,905	\$ 61,817
Dividends						\$ 0.38	\$ 1.63	\$ 1.81	\$ 1.98	\$ 2.18	\$ 2.40	\$ 0.63	\$ 0.63	\$ 0.75	\$ 0.75	\$ 2.76	\$ 3.10
GAAP Earnings per share:																	
Diluted	\$ 0.56	\$ 0.97	\$ 1.30	\$ 2.16	\$ 3.95	\$ 6.31	\$ 5.68	\$ 6.43	\$ 9.20	\$ 8.27	\$ 9.19	\$ 3.89	\$ 2.80	\$ 2.32	\$ 2.57	\$ 11.59	\$ 12.61
Shares outstanding: (in millions)																	
Diluted	6,225	6,315	6,349	6,473	6,557	6,617	6,522	6,145	5,805	5,500	5,252	5,158	5,078	5,056	5,002	5,073	4,892
Year/Year Growth Rate:																	
Net Sales	24.3%	56.2%	14.4%	52.0%	66.0%	44.6%	9.2%	7.0%	27.9%	-7.7%	6.3%	12.7%	17.6%	20.5%	14.3%	15.7%	1.0%
Gross Profit	45.7%	61.8%	30.5%	49.1%	70.6%	56.7%	-6.3%	9.7%	32.7%	-10.0%	4.7%	12.4%	16.0%	19.5%	14.6%	15.1%	1.3%
Operating Income	79.7%	88.9%	41.0%	56.6%	83.8%	63.5%	-11.3%	7.2%	35.7%	-15.7%	2.2%	12.5%	15.1%	24.0%	14.1%	15.4%	1.2%
Net Income	75.8%	75.0%	34.6%	70.2%	85.0%	61.0%	-11.3%	6.7%	35.1%	-14.4%	5.8%	12.2%	28.9%	34.8%	20.1%	21.8%	4.9%
EPS			33.9%	66.9%	82.6%	59.5%	-9.9%	13.2%	43.1%	-10.1%	11.1%	15.9%	33.6%	39.6%	24.5%	26.1%	8.8%
Diluted Shares Outstanding	1.34%	1.44%	0.5%	2.0%	1.3%	0.9%	-1.4%	-5.8%	-5.5%	-5.2%	-4.5%	-3.2%	-3.5%	-3.4%	-3.5%	-3.4%	-3.6%
% of Net Sales:																	
Cost of sales	66.0%	64.8%	59.9%	60.6%	59.5%	56.1%	62.4%	61.4%	59.9%	60.9%	61.5%	61.6%	61.6%	61.8%	62.0%	61.7%	61.6%
Gross Profit	34.0%	35.2%	40.1%	39.4%	40.5%	43.9%	37.6%	38.6%	40.1%	39.1%	38.5%	38.4%	38.4%	38.2%	38.0%	38.3%	38.4%
R&D expense	3.3%	3.0%	3.1%	2.7%	2.2%	2.2%	2.6%	3.3%	3.5%	4.7%	5.1%	3.9%	5.5%	5.8%	5.6%	5.0%	5.0%
SG&A expense	12.3%	10.0%	9.7%	8.5%	7.0%	6.4%	6.3%	6.6%	6.1%	6.6%	6.7%	4.8%	6.8%	8.0%	7.5%	6.5%	6.6%
Total operating expense	15.6%	13.0%	12.8%	11.2%	9.3%	8.6%	9.0%	9.9%	9.6%	11.2%	11.7%	8.7%	12.3%	13.8%	13.1%	11.6%	11.6%
Operating Income	18.4%	22.2%	27.4%	28.2%	31.2%	35.3%	28.7%	28.7%	30.5%	27.8%	26.8%	29.8%	26.1%	24.4%	24.9%	26.7%	26.7%
Net Income	14.6%	16.3%	19.2%	21.5%	23.9%	26.7%	21.7%	21.6%	22.8%	21.2%	21.1%	22.7%	22.9%	21.5%	21.4%	22.2%	23.1%

Source: Company reports and Hilliard Lyons estimates

Apple Inc. - Consolidated Balance Sheet (in millions except per share data and percentages)

	FY'06	FY'07	FY'08	FY'09	FY'10	FY'11	FY'12	FY13	FY14	FY15	FY16	FY17	12/31/2017
Current assets:													
Cash and Cash Equivalents	\$ 6,392	\$ 9,352	\$ 11,875	\$ 5,263	\$ 11,261	\$ 9,815	\$ 10,746	\$ 14,259	\$ 13,844	\$ 21,120	\$ 20,484	\$ 20,289	\$ 27,491
Short-Term Marketable Securities	3,718	6,034	10,236	18,201	14,359	16,137	18,383	26,287	11,233	20,481	46,671	53,892	49,662
Accounts receivables	1,252	1,637	2,422	3,361	5,510	5,369	10,930	13,102	17,460	16,849	15,754	17,874	23,440
Inventories	270	346	509	455	1,051	776	791	1,764	2,111	2,349	2,132	4,855	4,421
Deferred tax assets	607	782	1,447	2,101	1,636	2,014	2,583	3,453	4,318	5,546	-	-	-
Vendor non-trade receivables					4,414	6,348	7,762	7,539	9,759	13,494	13,545	17,799	27,459
Other current assets	2,270	3,805	5,822	6,884	3,447	4,529	6,458	6,882	9,806	9,539	8,283	13,936	11,337
Total current assets	14,509	21,956	32,311	36,265	41,678	44,988	57,653	73,286	68,531	89,378	106,869	128,645	143,810
Long-term marketable securities			2,379	10,528	25,391	55,618	92,122	106,215	130,162	164,065	170,430	194,714	207,944
Property, plant and equipment	1,281	1,832	2,455	2,954	4,768	7,777	15,452	16,597	20,624	22,471	27,010	33,783	33,679
Goodwill	38	38	207	206	741	896	1,135	1,577	4,616	5,116	5,414	5,717	5,889
Acquired intangible assets	139	299	285	247	342	3,536	4,224	4,179	4,142	3,893	3,206	2,298	2,149
Other assets	1,238	1,222	1,935	3,651	2,263	3,556	5,478	5,146	3,764	5,556	8,757	10,162	13,323
Total assets	17,205	25,347	39,572	53,851	75,183	116,371	176,064	207,000	231,839	290,479	321,686	375,319	406,794
Current liabilities:													
Accounts payable	3,390	4,970	5,520	5,601	12,015	14,632	21,175	22,367	30,196	35,490	37,294	49,049	62,985
Accrued expenses	3,053	4,310	3,719	3,376	5,723	9,247	11,414	13,856	18,453	25,181	22,027	25,744	26,281
Deferred revenue		-	4,853	10,305	2,984	4,091	5,953	7,435	8,491	8,940	8,080	7,548	8,044
Commercial paper									6,308	8,499	8,105	11,977	11,980
Current portion of long term debt										2,500	3,500	6,496	6,498
Total current liabilities	6,443	9,280	14,092	19,282	20,722	27,970	38,542	43,658	63,448	80,610	79,006	100,814	115,788
Deferred revenue-non-current	778	1,535	3,029	4,485	1,139	1,686	2,648	2,625	3,031	3,624	2,930	2,836	3,131
Long term debt								16,960	28,987	53,463	75,427	97,207	103,922
Other non-current liabilities	-	-	1,421	2,252	5,531	10,100	16,664	20,208	24,826	33,427	36,074	40,415	43,754
Total liabilities	7,221	10,815	18,542	26,019	27,392	39,756	57,854	83,451	120,292	171,124	193,437	241,272	266,595
Shareholders' Equity:													
Common Stock	4,355	5,368	7,177	8,210	10,668	13,331	16,422	19,764	23,313	27,416	31,251	35,867	36,447
Retained earnings	5,607	9,101	13,845	19,538	37,169	62,841	101,289	104,256	87,152	92,284	96,364	98,330	104,593
Accumulated other comprehensive income	22	63	8	84	(46)	443	499	(471)	1,082	(345)	634	(150)	(841)
Total shareholders equity	9,984	14,532	21,030	27,832	47,791	76,615	118,210	123,549	111,547	119,355	128,249	134,047	140,199
Total liabilities and shareholders equity	17,205	25,347	39,572	53,851	75,183	116,371	176,064	207,000	231,839	290,479	321,686	375,319	406,794

Source: Company reports

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.

The author of this report or members of his household have a long position in the common stock of Apple Inc., but may not engage in buying or selling contrary to our recommendation.

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

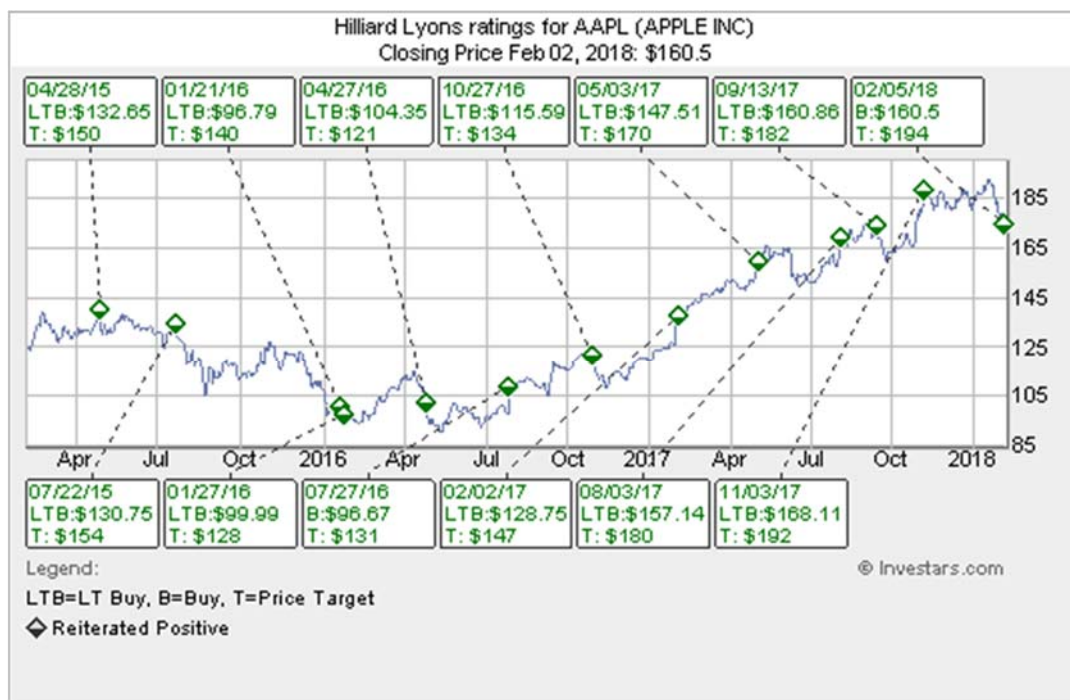
Investment Ratings

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.

Rating	Hilliard Lyons Recommended Issues		Investment Banking Provided in Past 12 Mo.	
	# of Stocks Covered	% of Stocks Covered	Banking	No Banking
Buy	31	28%	10%	90%
Hold/Neutral	75	67%	9%	91%
Sell	6	5%	0%	100%

As of 8 January 2018

Other Disclosures

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