

Apple Inc

Recommendation



Equity Analyst **A. Zino-CFA**

Price

\$157.48 (as of Aug 11, 2017 4:00 PM ET)

12-Mo. Target Price

\$175.00

Report Currency

USD

Investment Style

Large-Cap Growth

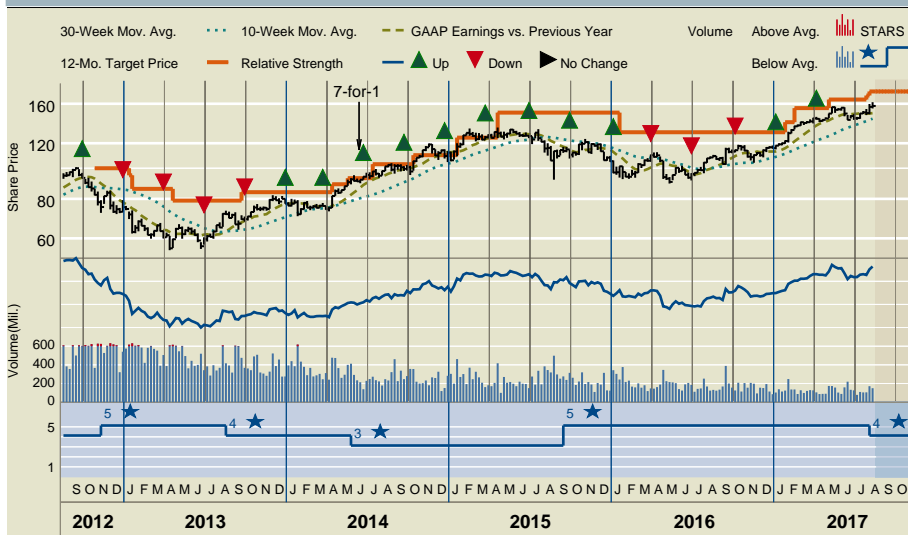
GICS Sector Information Technology
Sub-Industry Technology Hardware, Storage & Peripherals

Summary This company is a prominent provider of consumer computing devices, including the iPhone, iPad tablets, Mac computers, wearables, and iPod digital media players.

Key Stock Statistics (Source CFRA, S&P Global Market Intelligence, Vickers, company reports)

52-Wk Range	\$161.83– 102.53	Oper. EPS 2017E	9.02	Market Capitalization(B)	\$821.076	Beta	0.81
Trailing 12-Month EPS	\$8.81	Oper. EPS 2018E	10.77	Yield (%)	1.60	3-Yr. Proj. EPS CAGR(%)	9
Trailing 12-Month P/E	17.9	P/E on Oper. EPS 2017E	17.5	Dividend Rate/Share	\$2.52	S&P Quality Ranking	B+
\$10K Invested 5 Yrs Ago	\$19,627	Common Shares Outstg. (M)	5,213.8	Institutional Ownership (%)	62		

Price Performance



Past performance is not an indication of future performance and should not be relied upon as such.

Analysis prepared by Equity Analyst **A. Zino-CFA** on Aug 02, 2017 11:47 AM, when the stock traded at **\$156.85**.

Highlights

- We project 15% revenue growth for FY 18 (Sep.), following our projection for a 5.6% increase for FY 17. We anticipate iPhone sales rising in FY 18 as consumers upgrade older devices at higher average selling prices once AAPL launches its much-anticipated 10th anniversary device, which we expect to see in September 2017 and include features that will appeal to many consumers (e.g. OLED displays, wireless charging, and 3D sensing). We are encouraged by an acceleration of growth in Services, up 22% in the June quarter, led by the App store. We positively view recent Mac/iPad trends but are wary of whether it's sustainable. We see other hardware offerings (e.g. Watch and AirPods) contributing to growth.
- We see the annual gross margin at 38% to 39% through the end of FY 18, which compares to the 39% margin posted in FY 16. We see the potential for higher volume and better mix from the next-generation (fall 2017) iPhone launch, as well as from robust services growth.
- We expect services growth to remain robust given AAPL's growing installed base (over 1 billion active installed base) and potential to sell original content.

Investment Rationale/Risk

- Our Buy opinion primarily reflects AAPL's compelling valuation, superior ecosystem, high customer retention rates, and robust free cash flow generation/cash position. We note AAPL's significant market position in key areas, high customer satisfaction, and switching costs. We see a growing installed base benefiting future product replacement cycles. We note net cash per share over \$32 and see the cash increasingly employed for dividends, stock repurchases, and small bolt-on acquisitions. We would view AAPL as among the biggest beneficiaries from the possibility of foreign cash repatriation and/or lower tax rate by the new administration.
- Risks to our recommendation and target price include weaker end-market demand, pricing pressures, competitive handset and tablet offerings gaining traction, carrier efforts to reduce or eliminate subsidy payments, and less success with product launches/innovations.
- Our 12-month target price of \$175 is based on a P/E of 16.5X our FY 18 EPS estimate or about 13.3X excluding net cash, above hardware peers, but below the S&P 500 Technology sector.

Analyst's Risk Assessment

LOW **MEDIUM** **HIGH**

Our risk assessment reflects our view of a seemingly ever-evolving market for consumer-oriented technology products, potential challenges associated with the company's growing size and offerings, and possible changes in the pace or success of product innovations following recent management changes.

Revenue/Earnings Data

Revenue (Million U.S. \$)					
	1Q	2Q	3Q	4Q	Year
2017	78,351	52,896	45,408	--	--
2016	75,872	50,557	42,358	46,852	215,639
2015	74,599	58,010	49,605	51,501	233,715
2014	57,594	45,646	37,432	42,123	182,795
2013	54,512	43,603	35,323	37,472	170,910
2012	46,333	39,186	35,023	35,966	156,508

Earnings Per Share (U.S. \$)

	2017	2016	2015	2014	2013	2012
3.36	2.10	E1.57	E1.88	E9.02		
3.28	1.90	1.42	1.67	8.31		
3.06	2.33	1.85	1.96	9.22		
2.07	1.66	1.28	1.42	6.45		
1.97	1.44	1.07	1.18	5.68		
1.98	1.76	1.33	1.24	6.31		

Fiscal year ended Sep. 30. Next earnings report expected: Late October. EPS Estimates based on CFRA Operating Earnings; historical GAAP earnings are as reported in Company reports.

Dividend Data

Amount (\$)	Date Decl.	Ex-Div. Date	Stk. of Record	Payment Date
0.570	Oct 25	Nov 3	Nov 7	Nov 10 '16
0.570	Jan 31	Feb 9	Feb 13	Feb 16 '17
0.630	May 2	May 11	May 15	May 18 '17
0.630	Aug 1	Aug 10	Aug 14	Aug 17 '17

Dividends have been paid since 2012. Source: Company reports.

Past performance is not an indication of future performance and should not be relied upon as such.

Apple Inc

Business Summary August 02, 2017

CORPORATE OVERVIEW. Apple makes smartphones, tablet devices, computers and portable digital media players, and sells a variety of related software, services, and accessories.

AAPL's iPhone directly accounted for 63% of FY 16 revenues, with over 211 million units sold. AAPL sold over 231 million iPhones in FY 15, contributing 66% of revenues. We note that FY 16 represented the first year-over-year decline ever for the iPhone. While we expect the rate of growth to slow as the business becomes larger and more mature, we still see substantial opportunities related to international, enterprise and education markets. We note the fall 2016 introductions of the next generation iPhone 7 and the iPhone 7 Plus devices.

Released in April 2010, the iPad quickly became the best-selling tablet computer by far. Before the iPad, unit sales for similar computing devices were less than 200,000 units, according to market researchers. In FY 10, the first year of availability, AAPL sold over 7 million iPads, accounting for around 8% of total revenues. In FY 16, about 46 million iPads were sold (10% of sales), but showed a decline from the 55 million units shipped (10% of sales) the previous fiscal year. We think the tablet form factor will remain popular as it launches next-generation devices, but we see new entrants diluting AAPL's overall market share over time. Nonetheless, we expect AAPL to continue to dominate in the upper part of this fast-growing computing market.

Sales of AAPL's computers, commonly known as Macs, made up 11% of revenues in FY 16 compared to 11% in FY 15. On a unit shipment basis, we expect Macs to perform better than the overall PC industry, which we think is in the midst of a secular decline.

Revenue from Services and other hardware products comprised for about 16% of sales in FY 16 versus 13% in FY 15. This includes revenue from the iTunes Store, the App Store, the Mac App Store, the iBooks Store, AppleCare, licensing and other services. It also includes sales of Apple TV, Apple Watch, Beats products, iPod and Apple-branded and third-party accessories. We note Services alone was 11% of FY 16 sales and grew an impressive 22%.

COMPETITIVE LANDSCAPE. The company primarily competes in the handset, tablet, computer and media player markets. We think AAPL uses its ability to design and develop its own operating system, hardware, application software and services to differentiate itself from competitors. We see the appeal behind the products having a lot to do with its stated goal of providing customers with products that have superior ease of use, seamless integration and innovative industrial design. Reflecting what we view as AAPL's perceived quality and notable cachet, the company is able to compete in the middle to high-end segments of its target markets, and charge above-average prices for its products.

AAPL has a substantial hardware presence across key categories, and we think this helps garner interest from third-party application developers who continue to produce content and applications for the iPhone and iPad. We think AAPL's application business is one of the key elements that helps differentiate its devices from other products, and is very important to future sales growth and pricing power. Further, we view the iTunes App Store as an effective way of not only distributing content effectively, but also keeping the customer base entrenched. We think iCloud functionality encourages customers to buy more AAPL products and use them more regularly.

FINANCIAL TRENDS. Although AAPL's sales are affected by broader macroeconomic conditions, we think the company has generally been less cyclical than peers, given its strong brand, innovative and high-quality products, loyal customer base and exposure to fast-growing markets. Considering the maturity of the computer and portable media player markets, we expect unit shipments and average selling prices for Macs and iPods to decline. However, with anticipated growth in the smartphone and tablet markets, and considering our view that AAPL will largely sustain notable share in these areas, we see increasing shipments of and revenues from iPhones and iPads over the next couple of years.

We think iPhones and Mac products offer margins above the level of the company as a whole, and this should support gross margins, as they make up a large percentage of total revenues. The company should benefit from operating leverage as sales increase faster than costs and expenses, supporting the upward trend of operating margins, which have widened from the single digits to over 30%.

AAPL has what we view as a very strong balance sheet, with about \$257 billion in cash and investments, and about \$85 billion in debt as of the end of March 2017. AAPL boasts return metrics, such as return on equity, that are relatively high compared with other large/mega-cap hardware and software companies. In March 2012, AAPL announced a dividend and a share repurchase plan. Under the existing program (announced May 2017), Apple plans to spend \$300 billion of cash by the end of March 2019 and currently pays a quarterly dividend of \$0.63 per share.

In June 2014, a 7-for-1 stock split was implemented.

Corporate Information

Investor Contact
P. Oppenheimer

Office
1 Infinite Loop, Cupertino, CA 95014.

Telephone
408-996-1010.

Fax
408-996-0275.

Email
investor_relations@apple.com

Website
<http://www.apple.com>

Officers

Chrmn
A.D. Levinson

SVP & CFO
L. Maestri

CEO
T.D. Cook

SVP, Secy & General Counsel
D.B. Sewell

COO
J.E. Williams

Board Members

J. A. Bell
A. A. Gore, Jr.
A. Jung
R. D. Sugar

T. D. Cook
R. A. Iger
A. D. Levinson
S. L. Wagner

Domicile
California

Founded
1977

Employees
0

Stockholders
25,924

Apple Inc

Quantitative Evaluations

Fair Value Rank	4+	1	2	3	4	5
		LOWEST				HIGHEST

Based on CFRA's proprietary quantitative model, stocks are ranked from most overvalued (1) to most undervalued (5).

Fair Value Calculation	\$164.80	Analysis of the stock's current worth, based on CFRA's proprietary quantitative model suggests that AAPL is slightly undervalued by \$7.32 or 4.6%.
-------------------------------	-----------------	---

Investability Quotient Percentile	99
	LOWEST = 1 HIGHEST = 100
	AAPL scored higher than 99% of all companies for which a Report is available.

Volatility	LOW	AVERAGE	HIGH
-------------------	------------	---------	------

Technical Evaluation	BULLISH	Since July, 2017, the technical indicators for AAPL have been BULLISH.
-----------------------------	----------------	--

Insider Activity	UNFAVORABLE	NEUTRAL	FAVORABLE
-------------------------	--------------------	---------	-----------

Expanded Ratio Analysis

	2016	2015	2014	2013
Price/Sales	2.95	2.61	3.70	3.06
Price/EBITDA	9.03	7.39	11.18	9.37
Price/Pretax Income	10.38	8.41	12.64	10.42
P/E Ratio	13.94	11.42	17.11	14.11
Avg. Diluted Shares Outstg (M)	5,500.3	5,793.1	6,122.7	6,521.6

Figures based on calendar year-end price

Key Growth Rates and Averages

Past Growth Rate (%)	1 Year	3 Years	5 Years	9 Years
Sales	-7.73	9.89	14.42	30.62
Net Income	-14.43	9.76	10.95	36.37

Ratio Analysis (Annual Avg.)

Net Margin (%)	21.19	21.88	22.80	21.50
% LT Debt to Capitalization	36.41	29.18	19.92	11.07
Return on Equity (%)	36.90	38.92	38.05	36.30

Company Financials Fiscal Year Ended Sep. 30

Per Share Data (U.S. \$)	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Tangible Book Value	22.42	19.78	17.52	18.71	17.17	11.10	7.28	4.95	3.29	2.32
Cash Flow	10.22	11.16	7.75	6.72	6.80	4.23	2.32	1.41	0.84	0.61
Earnings	8.31	9.22	6.45	5.68	6.31	3.95	2.16	1.30	0.77	0.56
Core Earnings	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dividends	2.18	1.98	1.82	1.63	0.38	Nil	Nil	Nil	Nil	Nil
Payout Ratio	26%	21%	28%	29%	6%	Nil	Nil	Nil	Nil	Nil
Prices:High	118.69	134.54	119.75	82.16	100.72	60.96	46.67	30.56	28.61	28.99
Prices:Low	94.37	92.00	70.51	55.01	58.43	44.36	27.18	11.17	11.31	11.70
P/E Ratio:High	14	15	19	14	16	15	22	24	37	52
P/E Ratio:Low	11	10	11	10	9	11	13	9	15	21

Income Statement Analysis (Million U.S. \$)

Revenue	215,639	233,715	182,795	170,910	156,508	108,249	65,225	42,905	32,479	24,006
Operating Income	70,529	82,487	60,449	55,756	58,518	35,604	19,412	12,474	6,748	4,726
Depreciation	10,505	11,257	7,946	6,757	3,277	1,814	1,027	734	473	317
Interest Expense	1,456	733	384	136	Nil	Nil	Nil	Nil	Nil	Nil
Pretax Income	61,372	72,515	53,483	50,155	55,763	34,205	18,540	12,066	6,895	5,008
Effective Tax Rate	25.6%	26.4%	26.1%	26.2%	25.2%	24.2%	24.4%	31.8%	29.9%	30.2%
Net Income	45,687	53,394	39,510	37,037	41,733	25,922	14,013	8,235	4,834	3,496
Core Earnings	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Balance Sheet & Other Financial Data (Million U.S. \$)

Cash	67,883	41,995	25,158	40,590	29,129	25,952	25,620	23,464	24,490	9,352
Current Assets	106,869	89,378	68,531	73,286	57,653	44,988	41,678	31,555	34,690	21,956
Total Assets	321,686	290,479	231,839	207,000	176,064	116,371	75,183	47,501	39,572	25,347
Current Liabilities	79,006	80,610	63,448	43,658	38,542	27,970	20,722	11,506	14,092	9,299
Long Term Debt	75,427	53,463	28,987	16,960	Nil	Nil	Nil	Nil	Nil	Nil
Common Equity	128,249	119,355	111,547	123,549	118,210	76,615	47,791	31,640	21,030	14,532
Total Capital	207,176	175,318	140,534	140,509	118,210	76,615	47,791	31,640	21,705	15,151
Capital Expenditures	12,734	11,247	9,571	8,165	8,295	4,260	2,005	1,144	1,091	735
Cash Flow	56,192	64,651	47,456	43,794	45,010	27,736	15,040	8,969	5,307	3,813
Current Ratio	1.4	1.1	1.1	1.7	1.5	1.6	2.0	2.7	2.5	2.4
% Long Term Debt of Capitalization	36.4	30.5	20.6	12.1	Nil	Nil	Nil	Nil	Nil	Nil
% Net Income of Revenue	21.2	22.9	21.6	21.7	26.7	24.0	21.5	19.2	14.9	14.6
% Return on Assets	14.9	20.5	18.0	19.3	28.5	27.1	21.7	19.7	14.9	16.4
% Return on Equity	36.9	46.3	33.6	30.6	42.8	41.7	37.1	30.5	27.2	28.5

Data as originally reported in Company reports.; bef. results of disc opers/spec. items. Per share data adj. for stk. divs.; EPS diluted. E-Estimated. NA-Not Available. NM-Not Meaningful. NR-Not Ranked. UR-Under Review.

Apple Inc

Sub-Industry Outlook

Our fundamental outlook for the technology hardware, storage & peripherals sub-industry for the next 12 months is positive. CFRA anticipates that revenue growth for the technology hardware, storage & peripherals industry will improve in 2017 and 2018, following a challenging 2016. Slowing end-market demand for smartphones, uncertainty about growth in China, and tough year-over-year comparisons for industry bellwether Apple primarily attributed to the decline in 2016, in our view. Nonetheless, we expect growth to pick up in 2017, driven by new product introductions in the space and a still positive smartphone landscape. Consumers in Asia and emerging markets will likely see rising penetration for next-generation smartphones, while both Apple and Samsung will remain the key innovators of next-generation devices. We see smartphone shipments, the largest end-market for the hardware space, increasing 7% in 2017, following a 5% increase in 2016.

For the PC space, CFRA forecasts a "less bad" scenario in 2017 and thereafter (shipments to be down about 3% in 2017, following a decline of 7% in 2016), after a more than 25% decline in industry shipments from the peak in 2011. But we expect growth to remain elusive in the near term. Tablets, also in the midst of declining shipments since the end of 2014, are more inclined to see further declines given the maturation of the market. We see tablet shipments falling by a mid-single digit percentage in 2017. We think the wearables space will see greater adoption and be a growth engine for the industry, as we envision growth of 20%-25% in 2017 and 2018. We think hardware vendors will continue their efforts to take costs out of their infrastructures as they strive for profitability despite price competition and rising component costs.

We believe demand for data storage will be driven

by content digitization of old media such as paper and film, growing popularity of social networking websites, and longer record retention for compliance with government regulations. We think the storage software market will be driven by business continuity and disaster recovery efforts, compliance and risk management activities, and the increasing prevalence of data mining and related analytics. We see demand for traditional storage offerings declining in the foreseeable future while products related to all-flash arrays are seeing growing momentum within the data center space.

We foresee growing demand for Internet-based computing solutions because they offer companies opportunities to reduce costs and improve customer service. Accordingly, servers and data-center computing hardware should benefit from rising demand. However, we also see price competition in servers. We think that hardware vendors have been seeking to offset the negative impact on profits by offering higher-margin services, software, and storage products.

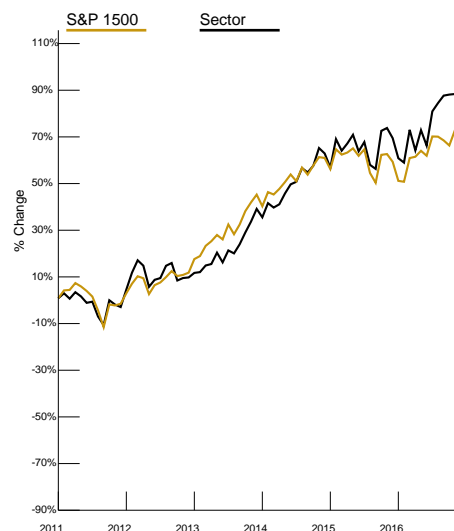
Year to date through June 30, 2017, the S&P 1500 Technology Hardware, Storage & Peripherals Index has risen 21.9% compared to a 7.8% increase for the S&P 1500. The S&P 1500 Technology Hardware, Storage & Peripherals Index increased 13.7% in 2016, while the S&P 1500 rose 10.6%.

--Angelo Zino, CFA

Industry Performance

GICS Sector: Information Technology
Sub-Industry: Technology Hardware, Storage & Peripherals

Based on S&P 1500 Indexes
 Five-Year market price performance through Aug 12, 2017



NOTE: All Sector & Sub-Industry information is based on the Global Industry Classification Standard (GICS)

Past performance is not an indication of future performance and should not be relied upon as such.

Sub-Industry : Technology Hardware, Storage & Peripherals Peer Group*: Based on market capitalizations within GICS Sub-Industry

Peer Group	Stock Symbol	Stk.Mkt. Cap. (Mil. \$)	Recent Stock Price(\$)	52 Week High/Low(\$)	Beta	Yield (%)	P/E Ratio	Fair Value Calc.(\$)	S&P Quality Ranking	IQ %ile	Return on Revenue (%)	LTD to Cap (%)
Apple Inc	AAPL	821,076	157.48	161.83/102.53	0.81	1.6	18	164.80	B+	99	21.2	36.4
3D Systems	DDD	1,452	12.76	23.70/12.34	2.20	Nil	NM	13.70	C	67	NM	NA
Blackberry Ltd	BBRY	4,662	8.78	11.74/6.65	1.26	Nil	37	4.40	B	20	NA	28.5
Canon Inc ADS	CAJ	37,619	34.84	35.91/27.76	0.77	3.4	21	33.50	NR	93	4.8	16.0
Diebold Nixdorf	DBD	1,552	20.55	31.85/19.85	1.29	1.9	NM	NA	B-	38	NM	60.6
Electronics For Imaging	EFII	1,462	31.81	51.15/25.54	1.54	Nil	31	37.70	B	89	4.6	27.8
FUJIFILM Holdings*ADR	FUJY	15,615	35.67	40.75/35.25	0.77	1.3	13	50.00	NR	91	5.7	11.0
HP Inc	HPQ	33,866	18.90	19.58/13.55	1.50	2.8	13	14.60	B	74	5.5	231.4
Hewlett Packard Enterprise	HPE	30,146	17.30	24.88/16.37	NA	1.5	13	NA	NR	49	6.3	26.9
Logitech Intl	LOGI	5,704	34.80	40.82/20.97	1.17	1.1	26	32.50	NR	68	6.4	NA
NCR Corp	NCR	4,270	35.14	49.90/29.83	1.17	Nil	22	NA	B-	59	4.3	65.1
NetApp Inc	NTAP	12,654	41.49	45.24/28.32	1.43	1.9	23	59.30	B	77	4.1	34.1
Seagate Technology Plc	STX	9,423	32.29	50.96/31.35	2.65	7.8	13	32.70	NR	42	2.2	72.2
Western Digital	WDC	22,809	79.90	95.77/44.43	1.43	2.5	60	122.40	B	71	1.9	54.3
Xerox Corp	XRX	8,803	31.66	41.24/25.84	1.69	3.2	NM	NA	B	76	5.7	46.7

NA-Not Available NM-Not Meaningful NR-Not Rated. *For Peer Groups with more than 15 companies or stocks, selection of issues is based on market capitalization.

Apple Inc

Analyst Research Notes and other Company News

August 2, 2017

08:14 am ET ... CFRA REDUCES OPINION ON SHARES OF APPLE INC. TO BUY FROM STRONG BUY (AAPL 150.05*****): We raise our 12-month target by \$5 to \$175, on an above peers P/E of 16.5X our FY 18 (Sep.) EPS estimate to reflect net cash/share over \$32. After better than expected Jun-Q results, we raise our FY 17 EPS estimate to \$9.02 from \$8.91 and FY 18's to \$10.77 from \$10.63. We set FY 19's at \$11.37. We think Sep-Q guidance (implying 11% sequential revenue growth) likely indicates a new iPhone launch in September after delay speculation. We think further growth acceleration in Services (up 22% in Jun-Q) could result in multiple expansion, and we see upside to consensus estimates. /A. Zino-CFA

August 1, 2017

05:11 pm ET ... CFRA MAINTAINS STRONG BUY RECOMMENDATION ON SHARES OF APPLE INC. (AAPL 150.05*****): AAPL posts Jun-Q EPS of \$1.67 vs. \$1.42, beating the \$1.57 consensus. Sales rose 7.2%, better than expected, on gross margin of 38.2%. iPhone sales grew 3.3%, on a 1.6% increase in unit shipments, benefiting from favorable comparables but we think hurt from consumers holding off on purchases ahead of AAPL's 10th anniversary launch. We were most encouraged by an acceleration of Services growth, up 22%, driven by the App store and iCloud storage. We note iPad and Mac sales grew 2% and 7%, respectively. While China sales fell 10%, we see revenue rebounding by calendar year-end. /A. Zino-CFA

July 24, 2017

12:28 pm ET ... CFRA MAINTAINS STRONG BUY OPINION ON SHARES OF APPLE INC. (AAPL 151.13*****): We up our 12-month target price to \$170 from \$165, on above peers P/E of 16X our FY 18 (Sep.) view to reflect its superior financial position. We keep our FY 17 EPS estimate at \$8.91 but up FY 18 to \$10.63 from \$10.34. Ahead of Jun-Q results 8/1, we see EPS of \$1.57, vs. \$1.42, with sales rising 6.2%. Despite potentially disappointing guidance, on 10th anniversary phone production issues, we recommend looking past negativity as estimates are pushed out. We expect 18% Services growth, led by App Store/iCloud, while product refreshes for iMacs/MacBooks/iPad Pros aid segment sales. /A. Zino-CFA

July 24, 2017

Apple announced that Deirdre O'Brien, vice president of Worldwide Sales and Operations, has been named vice president of People, reporting to CEO Tim Cook. Deirdre will lead all HR functions including talent development, recruiting, benefits, compensation and business support, as well as overseeing Apple University.

July 19, 2017

Apple Inc. appointed Isabel Ge Mahe as vice president and managing director of Greater China, reporting to CEO Tim Cook and COO Jeff Williams. In this newly created role, Isabel will provide leadership and coordination across Apple's China-based team. Isabel has led Apple's wireless technologies software engineering teams for nine years, focusing on development of cellular, Wi-Fi, Bluetooth, NFC, location and motion technologies for nearly every Apple product. She has also overseen the engineering teams developing Apple Pay, HomeKit and CarPlay. In China, she has worked closely with Apple's R&D team and carrier partners to develop new China-specific features for iPhone and iPad, including recently announced iOS 11 features such as QR Code support, SMS fraud prevention and enabling the use of a phone number as an Apple ID. Isabel will assume her new role, based in Shanghai, later this summer.

July 7, 2017

09:41 am ET ... CFRA KEEPS BUY RECOMMENDATION ON SHARES OF QUALCOMM INC. (QCOM 54.79*****): QCOM filed a complaint with the U.S. ITC stating Apple (AAPL 143 *****) has engaged in iPhone sales that infringe on six patents and requested the ITC bar iPhones sales that do not use its baseband processor. QCOM expects the investigation to begin in August and the case to be tried next year. QCOM also filed a case with the San Diego federal court involving the same 6 patents. We still believe the most likely outcome between the two sides is a settlement following AAPL's lawsuit in January. We are encouraged by QCOM's efforts to preserve its patents and royalty-based business. /A. Zino-CFA

June 19, 2017

Apple announced that Jamie Erlicht and Zack Van Amburg, two of television's most creative and successful executives, are joining Apple in newly created

positions overseeing all aspects of video programming. Erlicht and Van Amburg will lead video programming worldwide, reporting to Eddy Cue. They join Apple from Sony Pictures Television where they have served as presidents since 2005, and have been responsible for some of the most popular and widely acclaimed programming of the past decade, including favorites such as Breaking Bad and its spinoff Better Call Saul, The Crown, Rescue Me and many more.

June 5, 2017

03:48 pm ET ... CFRA MAINTAINS STRONG BUY OPINION ON SHARES OF APPLE INC. (AAPL 153.77*****): Today Apple held its annual developers conference. We positively view enhancements to iOS and a much smarter Siri. We think the most notable iOS updates are a redesigned App Store, new Map features (e.g., mall floor plans and lane guidance), new camera features, and an augmented reality developer platform (AR Kit). As to hardware, AAPL reveals a mostly internal refresh to MacBooks and new 10.5 inch iPad Pro. AAPL also unveils HomePod, a new Siri-based home speaker system, at \$349, which we expect to sell well given superior sound quality, despite being priced above peers. /A. Zino-CFA

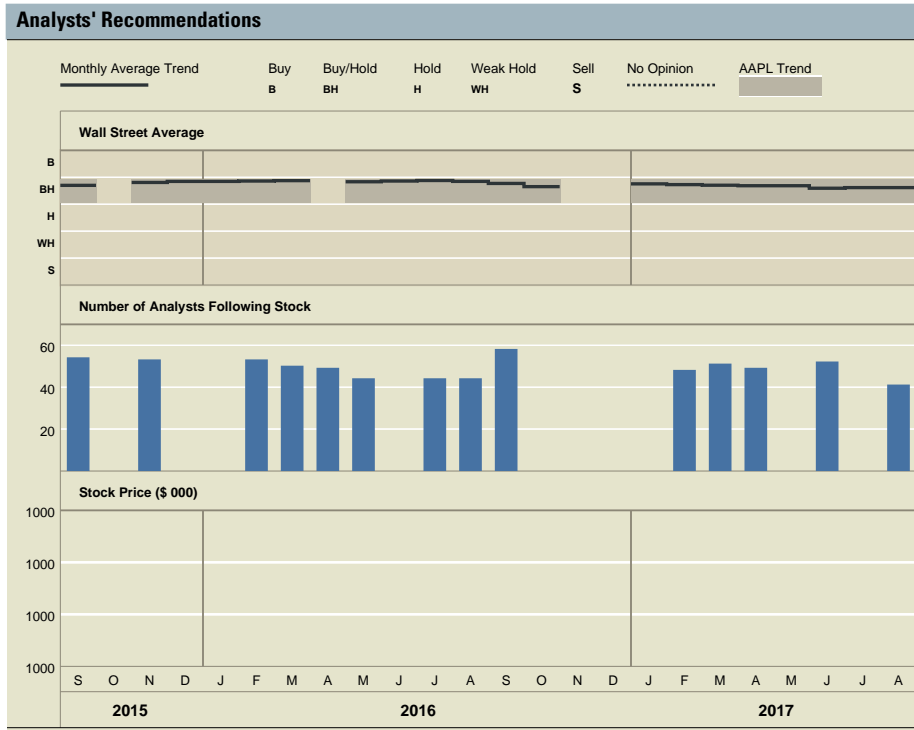
May 3, 2017

08:28 am ET ... CFRA MAINTAINS STRONG BUY OPINION ON SHARES OF APPLE INC. (AAPL 147.51*****): We up our 12-month target by \$10 to \$165, on a P/E of 16X our FY 18 estimate, above peers but below the S&P 500 Technology sector. We keep our FY 17 (Sep.) EPS estimate at \$8.91 but raise FY 18's to \$10.34 from \$10.21. We view Mar-Q results as mixed, with the biggest positive being Services growth of 18%, led by the App Store (up 40%) and iCloud storage demand. We would look past disappointing iPhone sales, as consumers delay purchases ahead of an iPhone X launch (features to include OLED displays, wireless charging, and 3D sensing). We are optimistic about AAPL's pipeline. /A. Zino-CFA

May 2, 2017

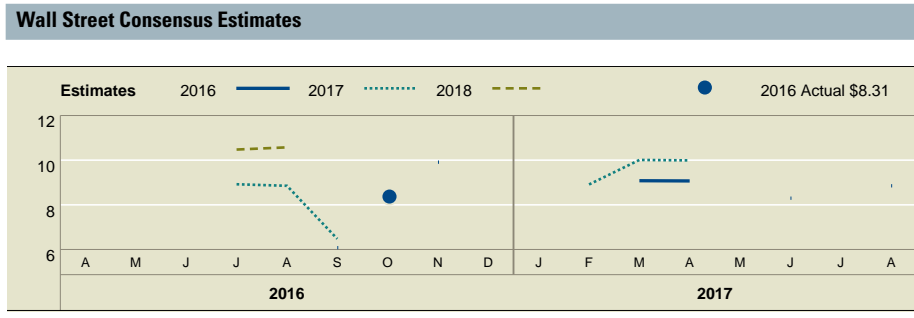
05:42 pm ET ... CFRA MAINTAINS STRONG BUY OPINION ON SHARES OF APPLE INC. (AAPL 147.51*****): AAPL posts Mar-Q EPS of \$2.10 vs. \$1.90, over the \$2.02 consensus. Sales rose 4.6%, below expectations, on lower than expected iPhone revenue (sales up 1.2% with shipments down 0.8%), as we think consumers delayed purchases before the "iPhone X" launch. Gross margin of 38.7% and 18% services growth matched our expectations. Mac sales rose 14% while iPad sales fell 12%. We positively view the announced 10.5% dividend hike and \$50 billion increase to the capital return program (\$300 billion by March '19). AAPL had cash of \$257 billion (net cash of \$172 billion or over \$32/share). /A. Zino-CFA

Apple Inc



Of the total 42 companies following AAPL, 42 analysts currently publish recommendations.

	No. of Recommendations	% of Total	1 Mo. Prior	3 Mos. Prior
Buy	17	40	18	0
Buy/Hold	12	29	12	0
Hold	11	26	13	0
Weak Hold	0	0	0	0
Sell	0	0	0	0
No Opinion	2	5	2	0
Total	42	100	45	0



Fiscal Years	Avg Est.	High Est.	Low Est.	# of Est.	Est. P/E
2018	10.83	12.83	9.21	40	14.5
2017	9.02	9.36	8.90	39	17.5
2018 vs. 2017	▲ 20%	▲ 37%	▲ 3%	▲ 3%	▼ -17%
Q4'18	2.23	2.57	2.01	27	70.6
Q4'17	1.89	2.01	1.80	36	83.3
Q4'18 vs. Q4'17	▲ 18%	▲ 28%	▲ 12%	▼ -25%	▼ -15%

A company's earnings outlook plays a major part in any investment decision. S&P Global Market Intelligence organizes the earnings estimates of over 2,300 Wall Street analysts, and provides their consensus of earnings over the next two years, as well as how those earnings estimates have changed over time. Note that the information provided in relation to consensus estimates is not intended to predict actual results and should not be taken as a reliable indicator of future performance.

Wall Street Consensus Opinion

BUY/HOLD

Companies Offering Coverage

- Over 30 firms follow this stock; not all firms are displayed.
- Accountability Research Corporation
 - Arete Research Services LLP
 - Argus Research Company
 - Atlantic Equities LLP
 - BMO Capital Markets Equity Research
 - BTIG
 - Barclays
 - BofA Merrill Lynch
 - Canaccord Genuity
 - Citigroup Inc
 - Cleveland Research Company
 - Credit Suisse
 - Daiwa Capital Markets America Inc.
 - Daiwa Securities Co. Ltd.
 - Deutsche Bank
 - Drexel Hamilton
 - Eugene Investment & Securities Co Ltd.
 - FBN Securities, Inc.
 - Guggenheim Securities, LLC
 - Hilliard Lyons
 - JP Morgan
 - KB Securities Co., Ltd.
 - Kaufman Bros., L.P.
 - KeyBanc Capital Markets Inc.
 - Loop Capital Markets
 - Macquarie Research
 - Maxim Group
 - Mizuho Securities USA, LLC
 - Morgan Stanley
 - Morningstar Inc.

Wall Street Consensus vs. Performance

For fiscal year 2017, analysts estimate that AAPL will earn US\$ 9.02. For the 3rd quarter of fiscal year 2017, AAPL announced earnings per share of US\$ 1.67, representing 19% of the total annual estimate. For fiscal year 2018, analysts estimate that AAPL's earnings per share will grow by 20% to US\$ 10.83.

Glossary

STARS

Since January 1, 1987, CFRA Equity and Fund Research Services, and its predecessor S&P Capital IQ Equity Research has ranked a universe of U.S. common stocks, ADRs (American Depositary Receipts), and ADSs (American Depositary Shares) based on a given equity's potential for future performance. Similarly, we have ranked Asian and European equities since June 30, 2002. Under proprietary STARS (STock Appreciation Ranking System), equity analysts rank equities according to their individual forecast of an equity's future total return potential versus the expected total return of a relevant benchmark (e.g., a regional index (S&P Asia 50 Index, S&P Europe 350® Index or S&P 500® Index)), based on a 12-month time horizon. STARS was designed to meet the needs of investors looking to put their investment decisions in perspective. Data used to assist in determining the STARS ranking may be the result of the analyst's own models as well as internal proprietary models resulting from dynamic data inputs.

S&P Capital IQ Quality Ranking

(also known as **S&P Capital IQ Earnings & Dividend Rankings**) - Growth and stability of earnings and dividends are deemed key elements in establishing S&P Capital IQ's earnings and dividend rankings for common stocks, which are designed to encapsulate the nature of this record in a single symbol. It should be noted, however, that the process also takes into consideration certain adjustments and modifications deemed desirable in establishing such rankings. The final score for each stock is measured against a scoring matrix determined by analysis of the scores of a large and representative sample of stocks. The range of scores in the array of this sample has been aligned with the following ladder of rankings:

A+ Highest	B Below Average
A High	B- Lower
A- Above Average	C Lowest
B+ Average	D In Reorganization
NR Not Ranked	

EPS Estimates

CFRA's earnings per share (EPS) estimates reflect analyst projections of future EPS from continuing operations, and generally exclude various items that are viewed as special, non-recurring, or extraordinary. Also, EPS estimates reflect either forecasts of equity analysts; or, the consensus (average) EPS estimate, which are independently compiled by S&P Global Market Intelligence, a data provider to CFRA. Among the items typically excluded from EPS estimates are asset sale gains; impairment, restructuring or merger-related charges; legal and insurance settlements; in process research and development expenses; gains or losses on the extinguishment of debt; the cumulative effect of accounting changes; and earnings related to operations that have been classified by the company as discontinued. The inclusion of some items, such as stock option expense and recurring types of other charges, may vary, and depend on such factors as industry practice, analyst judgment, and the extent to which some types of data is disclosed by companies.

Core Earnings

Core Earnings is a uniform methodology for adjusting operating earnings by focusing on a company's after-tax earnings generated from its principal businesses. Included in the definition are employee stock option grant expenses, pension costs, restructuring charges from ongoing operations, write-downs of depreciable or amortizable operating assets, purchased research and development, M&A related expenses and unrealized gains/losses from hedging activities. Excluded from the definition are pension gains, impairment of goodwill charges, gains or losses from asset sales, reversal of prior-year charges and provision from litigation or insurance settlements.

12-Month Target Price

The equity analyst's projection of the market price a given security will command 12 months hence, based on a combination of intrinsic, relative, and private market valuation metrics, including Fair Value.

CFRA Equity Research

CFRA Equity Research is produced and distributed by Accounting Research & Analytics, LLC d/b/a CFRA ("CFRA US"). Certain research is distributed by CFRA UK Limited (together with CFRA US, "CFRA"). Certain research is produced by Standard & Poor's Malaysia Sdn. Bhd ("S&P Malaysia") under contract to CFRA US.

Abbreviations Used in Equity Research Reports

CAGR - Compound Annual Growth Rate
CAPEX - Capital Expenditures
CY - Calendar Year
DCF - Discounted Cash Flow
DDM - Dividend Discount Model
EBIT - Earnings Before Interest and Taxes
EBITDA - Earnings Before Interest, Taxes, Depreciation and Amortization
EPS - Earnings Per Share
EV - Enterprise Value

FCF - Free Cash Flow
FFO - Funds From Operations
FY - Fiscal Year
P/E - Price/Earnings
P/NAV - Price to Net Asset Value
PEG Ratio - P/E-to-Growth Ratio
PV - Present Value
R&D - Research & Development
ROCE - Return on Capital Employed
ROE - Return on Equity
ROI - Return on Investment
ROIC - Return on Invested Capital
ROA - Return on Assets
SG&A - Selling, General & Administrative Expenses
SOTP - Sum-of-The-Parts
WACC - Weighted Average Cost of Capital

Dividends on American Depositary Receipts (ADRs) and American Depositary Shares (ADSs) are net of taxes (paid in the country of origin).

Qualitative Risk Assessment

Reflects an equity analyst's view of a given company's operational risk, or the risk of a firm's ability to continue as an ongoing concern. The Qualitative Risk Assessment is a relative ranking to the U.S. STARS universe, and should be reflective of risk factors related to a company's operations, as opposed to risk and volatility measures associated with share prices. For an ETF this reflects on a capitalization-weighted basis, the average qualitative risk assessment assigned to holdings of the fund.

STARS Ranking system and definition:

★★★★★ 5-STARS (Strong Buy):

Total return is expected to outperform the total return of a relevant benchmark, by a wide margin over the coming 12 months, with shares rising in price on an absolute basis.

★★★★☆ 4-STARS (Buy):

Total return is expected to outperform the total return of a relevant benchmark over the coming 12 months, with shares rising in price on an absolute basis.

★★★☆☆ 3-STARS (Hold):

Total return is expected to closely approximate the total return of a relevant benchmark over the coming 12 months, with shares generally rising in price on an absolute basis.

★★☆☆☆ 2-STARS (Sell):

Total return is expected to underperform the total return of a relevant benchmark over the coming 12 months, and the share price not anticipated to show a gain.

★☆☆☆☆ 1-STAR (Strong Sell):

Total return is expected to underperform the total return of a relevant benchmark by a wide margin over the coming 12 months, with shares falling in price on an absolute basis.

Relevant benchmarks:

In North America, the relevant benchmark is the S&P 500 Index, in Europe and in Asia, the relevant benchmarks are the S&P Europe 350 Index and the S&P Asia 50 Index, respectively.

Apple Inc



Disclosures

S&P GLOBAL™ is used under license. The owner of this trademark is S&P Global Inc. or its affiliate, which are not affiliated with CFRA or the author of this content. Stocks are ranked in accordance with the following ranking methodologies:

STARS Stock Reports:

Qualitative STARS recommendations are determined and assigned by equity analysts. For reports containing STARS recommendations refer to the Glossary section of the report for detailed methodology and the definition of STARS rankings.

Quantitative Stock Reports:

Quantitative recommendations are determined by ranking a universe of common stocks based on 5 measures or model categories: Valuation, Quality, Growth, Street Sentiment, and Price Momentum. In the U.S., a sixth sub-category for Financial Health will also be displayed. Percentile scores are used to compare each company to all other companies in the same universe for each model category. The five (six) model category scores are then weighted and rolled up into a single percentile ranking for that company. For reports containing quantitative recommendations refer to the Glossary section of the report for detailed methodology and the definition of Quantitative rankings.

STARS Stock Reports and Quantitative Stock Reports:

The methodologies used in STARS Stock Reports and Quantitative Stock Reports (collectively, the "Research Reports") reflect different criteria, assumptions and analytical methods and may have differing recommendations. The methodologies and data used to generate the different types of Research Reports are believed by the author and distributor reasonable and appropriate. Generally, CFRA does not generate reports with different ranking methodologies for the same issuer. However, in the event that different methodologies or data are used on the analysis of an issuer, the methodologies may lead to different views or recommendations on the issuer, which may at times result in contradicting assessments of an issuer. CFRA reserves the right to alter, replace or vary models, methodologies or assumptions from time to time and without notice to clients.

STARS Stock Reports:

Global STARS Distribution as of June 30, 2017

Ranking	North America	Europe	Asia	Global
Buy	37.4%	25.9%	36.6%	35.4%
Hold	55.1%	56.1%	39.4%	53.5%
Sell	7.5%	18.0%	24.0%	11.1%
Total	100%	100%	100%	100%

Analyst Certification

STARS Stock Reports are prepared by the equity research analysts of CFRA and S&P Malaysia, under contract to CFRA. All of the views expressed in STARS Stock Reports accurately reflect the research analyst's personal views regarding any and all of the subject securities or issuers. Analysts generally update stock reports at least four times each year. No part of analyst, CFRA, or S&P Malaysia compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed in a STARS Stock Report.

About CFRA Equity Research's Distributors:

This Research Report is published and originally distributed by Accounting Research & Analytics, LLC d/b/a CFRA ("CFRA US"), with the following exceptions: In the UK/EU/EEA, it is published and originally distributed by CFRA UK Limited, an Appointed Representative of Hutchinson Lilley Investments LLP, which is regulated by the Financial Conduct Authority (No. 582181), and in Malaysia by S&P Malaysia, which is regulated by Securities Commission Malaysia, (No. CMSL/A0181/2007) under license from CFRA US. These parties and their subsidiaries do not distribute reports to individual (retail) investors and maintain no responsibility for reports redistributed by third parties such as brokers or financial advisors.

General Disclosure

Notice to all jurisdictions:

Where Research Reports are made available in a language other than English and in the case of inconsistencies between the English and translated versions of a Research Report, the English version will control and supersede any ambiguities associated with any part or section of a Research Report that has been issued in a foreign language. Neither CFRA nor its affiliates guarantee the accuracy of the translation.

The content of this report and the opinions expressed herein are those of CFRA based upon publicly-available information that CFRA believes to be reliable and the opinions are subject to change without notice. This analysis has not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. While CFRA exercised due care in compiling this analysis, CFRA AND ALL RELATED ENTITIES SPECIFICALLY DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, to the full extent permitted by law, regarding the accuracy, completeness, or usefulness of this information and assumes no liability with respect to the consequences of relying on this information for investment or other purposes. No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of CFRA. The Content shall not be used for any unlawful or unauthorized purposes. CFRA and any third-party providers, as well as their directors, officers, shareholders, employees or agents do not guarantee the accuracy, completeness, timeliness or availability of the Content.

Past performance is not necessarily indicative of future results.

This document may contain forward-looking statements or forecasts; such forecasts are not a reliable indicator of future performance.

This report is not intended to, and does not, constitute an offer or solicitation to buy and sell securities or engage in any investment activity. This report is for informational purposes only. Recommendations in this report are not made with respect to any particular investor or type of investor. Securities, financial instruments or strategies mentioned herein may not be suitable for all investors and this material is not intended for any specific investor and does not take into account an investor's particular investment objectives, financial situations or needs. Before acting on any recommendation in this material, you should consider whether it is suitable for your particular circumstances and, if necessary, seek professional advice.

Additional information on a subject company may be available upon request.

CFRA's financial data provider is S&P Global Market Intelligence. THIS DOCUMENT CONTAINS COPYRIGHTED AND TRADE SECRET MATERIAL DISTRIBUTED UNDER LICENSE FROM S&P GLOBAL MARKET INTELLIGENCE. FOR RECIPIENT'S INTERNAL USE ONLY.

The Global Industry Classification Standard (GICS®) was developed by and/or is the exclusive property of MSCI, Inc. and Capital IQ, Inc. ("Capital IQ"). GICS is a service mark of MSCI and Capital IQ and has been licensed for use by CFRA.

Other Disclaimers and Notices

Certain information in this report is provided by S&P Global, Inc. and/or its affiliates and subsidiaries (collectively "S&P"). Such information is subject to the following disclaimers and notices: "Copyright 2017, S&P Global Market Intelligence (and its affiliates as applicable). All rights reserved. Nothing contained herein is investment advice and a reference to a particular investment or security, a credit rating or any observation concerning a security or investment provided by S&P is not a recommendation to buy, sell or hold such investment or security or make any other investment decisions. This may contain information obtained from third parties, including ratings from credit ratings agencies. Reproduction and distribution of S&P's information and third party content in any form is prohibited except with the prior written permission of S&P or the related third party, as applicable. Neither S&P nor its third party providers guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such information or content.

S&P AND ITS THIRD PARTY CONTENT PROVIDERS GIVE NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE AND ALL S&P INFORMATION IS PROVIDED ON AN AS-IS BASIS. S&P AND ITS THIRD PARTY CONTENT PROVIDERS SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, EXEMPLARY, COMPENSATORY, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES, COSTS, EXPENSES, LEGAL FEES, OR LOSSES (INCLUDING LOST INCOME OR PROFITS AND OPPORTUNITY COSTS OR LOSSES CAUSED BY NEGLIGENCE) IN CONNECTION WITH ANY USE OF THEIR INFORMATION OR CONTENT, INCLUDING RATINGS. Credit ratings are statements of opinions and are not statements of fact or recommendations to purchase, hold or sell securities. They do not address the suitability of securities or the suitability of securities for investment purposes, and should not be relied on as investment advice."

Certain information in this report may be provided by Securities Evaluations, Inc. ("SE") a wholly owned subsidiary of Intercontinental Exchange. Such information is subject to the following disclaimers and notices: "Copyright 2017, Securities Evaluations, Inc. (and its affiliates, as applicable). Reproduction of BondMark and BondScreen in any form is prohibited except with the prior written permission of SE.

Apple Inc

Odd-lot prices and odd-lot ranges represent an opinion, and not a statement of fact, or a recommendation to make an investment decision, and readers of this information have the right to accept or reject such opinion, at their discretion. Odd-lot prices and odd-lot ranges do not represent a determination of the fair market value of any security or the 'best execution' price in the market for a security, and that readers of this information will be responsible for complying with any applicable best execution requirements, as defined in FINRA Rule 5310, and for complying with any disclosure requirements as may be required under any applicable laws or regulations. None of SE, its affiliates or their suppliers guarantees the accuracy, adequacy, completeness or availability of any information and is not responsible for any errors or omissions, regardless of the cause or for the results obtained from the use of such information. In no event shall SE, BondDesk Group, LLC, their affiliates or any of their third-party information providers be liable for any damages, costs, expenses, legal fees, or losses (including lost income or lost profit and opportunity costs) in connection with the use of SE content. (2017). BondMark and BondScreen may include data provided by BondDesk Group, LLC."

Any portions of the fund information contained in this report supplied by Lipper, A Thomson Reuters Company, are subject to the following: "Copyright 2017 Thomson Reuters. All rights reserved. Lipper shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon."

For residents of the European Union/European Economic Area:

Research reports are originally distributed by CFRA UK Limited (company number 08456139 registered in England & Wales with its registered office address at 131 Edgware Road, London, W2 2AP, United Kingdom). CFRA UK Limited is an Appointed Representative of Hutchinson Lilley Investments LLP, which is regulated by the UK Financial Conduct Authority (No. 582181).

For residents of Malaysia:

Research reports are originally produced and distributed by S&P Malaysia, under license from CFRA US. S&P Malaysia is regulated by Securities Commission Malaysia (License No. CMSL/A0181/2007).

For residents of all other countries:

Research reports are originally distributed Accounting Research & Analytics, LLC d/b/a CFRA.

Copyright © 2017 CFRA. All rights reserved. CFRA and STARS are registered trademarks of CFRA.