

# Apple Inc.

**Recommendation** BUY ★★★★★

**Price**  
\$215.49 (as of Aug 23, 2018 4:00 PM ET)

**12-Mo. Target Price**  
\$220.00

**Report Currency**  
USD

**Investment Style**  
Large-Cap Growth

**Equity Analyst Angelo Zino, CFA**

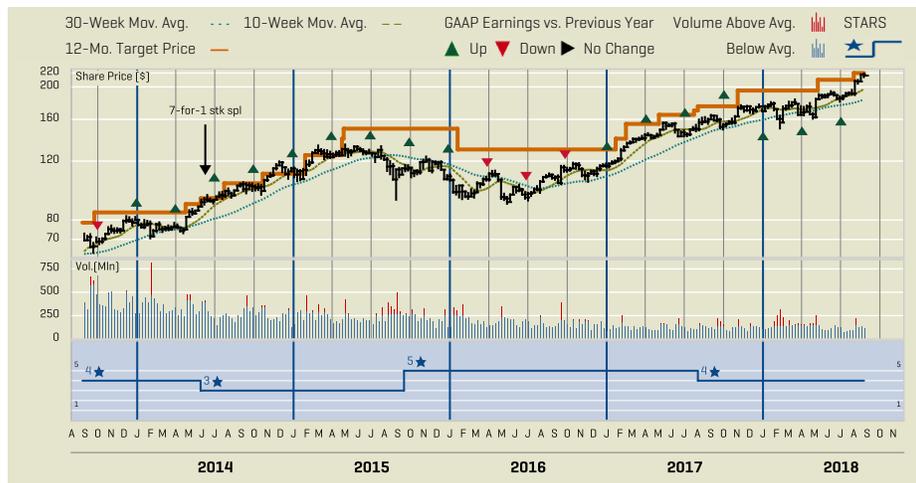
**GICS Sector** Information Technology  
**Sub-Industry** Technology Hardware, Storage & Peripherals

**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 (SPGMI), Company Reports)

52-Wk Range	<b>\$217.95 - 149.16</b>	Oper. EPS 2018E	<b>11.71</b>	Market Capitalization(B)	<b>\$1,041</b>	Beta	<b>1.14</b>
Trailing 12-Month EPS	<b>11.04</b>	Oper. EPS 2019E	<b>13.41</b>	Yield (%)	<b>1.36</b>	3-Yr Proj. EPS CAGR(%)	<b>10</b>
Trailing 12-Month P/E	<b>19.48</b>	P/E on Oper. EPS 2018E	<b>18.36</b>	Dividend Rate/Share	<b>\$2.92</b>	SPGMI's Quality Ranking	<b>B+</b>
\$10K Invested 5 Yrs Ago	<b>\$33,272</b>	Common Shares Outstg.(M)	<b>4,829.9</b>	Institutional Ownership (%)	<b>56</b>		

**Price Performance**



Source: CFRA, S&P Global Market Intelligence

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

Analysis prepared by Equity Analyst Angelo Zino on Aug 01, 2018 02:23 PM, when the stock traded at \$190.29.

**Highlights**

- ▶ We expect 4.5% revenue growth for FY 19 (Sep.) after our outlook for a 15% rise in FY 18. We see stable unit shipments for iPhones while AAPL looks to increase revenue through its Services business, which saw growth at an impressive 31% in the June quarter. Services are benefiting from significant growth in paid subscriptions, which recently increased by more than 60% to over 300 million. We still conservatively forecast no iPhone unit growth through FY 19 but see robust growth in other hardware offerings/wearables (up 37% in the June quarter), driven by the Apple Watch. We see Mac/iPad sales benefiting from potential upcoming product launches.
- ▶ We see the gross margin steady at 38% to 39% through FY 19 end. We expect component costs to begin to ease in the coming quarters and see robust growth from AAPL's higher-margin Services business supporting margins.
- ▶ We assume no iPhone growth through FY 19 and acknowledge concerns about a maturing smartphone industry and consumers extending replacement cycles. Still, iPhones provide significant free cash flow generation, which we see translating to more cash for shareholders. AAPL aims to be net cash neutral [currently \$129 billion net cash] over time.

**Investment Rationale/Risk**

- ▶ Our Buy view 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 \$26, which we see increasingly employed for share repurchases. We expect services growth to remain robust given AAPL's growing installed base (over 1.3 billion active installed base) and increasing number of paid subscribers. We think AAPL's success in China is very encouraging, growing 19% in the June quarter, especially as it relates to higher-priced iPhones and services.
- ▶ Risks to our recommendation and target price include weaker end-market demand, pricing pressures, competitive handset and tablet offerings gaining traction, less success with product launches/innovations and longer-than-expected hardware replacement cycles.
- ▶ Our 12-month target price of \$220 is based on a P/E of 16X our calendar year 2019 EPS estimate of \$13.77, or about 14.1X excluding net cash, above hardware peers, but below the S&P 500 Technology sector.

**Analyst's Risk Assessment**

<b>LOW</b>	<b>MEDIUM</b>	<b>HIGH</b>
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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 as the smartphone space matures. These concerns are partly offset by AAPL's significant cash position and free cash flow potential.

**Revenue/Earnings Data**

Revenue (Million U.S. \$)	1Q	2Q	3Q	4Q	Year
2018	88,293	61,137	53,265	--	--
2017	78,351	52,896	45,408	52,579	229,234
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

**Earnings Per Share (U.S. \$)**

	1Q	2Q	3Q	4Q	Year
2019	<b>E 4.81</b>	<b>E 3.05</b>	<b>E 2.52</b>	<b>E 3.03</b>	<b>E 13.41</b>
2018	3.89	2.73	2.34	<b>E 2.75</b>	<b>E 11.71</b>
2017	3.36	2.10	1.67	2.07	9.21
2016	3.28	1.90	1.42	1.68	8.31
2015	3.06	2.33	1.85	1.96	9.22
2014	2.07	1.66	1.28	1.41	6.45

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

**Dividend Data**

Amount (\$)	Date Decl.	Ex-Div. Date	Stk. of Record	Payment Date
0.73	Jul 31	Aug 10	Aug 13	Aug 16 '18
0.73	May 01	May 11	May 14	May 17 '18
0.63	Feb 01	Feb 09	Feb 12	Feb 15 '18
0.63	Nov 02	Nov 10	Nov 13	Nov 16 '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.**

Forecasts are not reliable indicator of future performance.

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# Apple Inc.

## Business Summary August 01, 2018

**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 62% of FY 17 revenues, with over 216 million units sold. AAPL sold over 211 million iPhones in FY 16, contributing 63% of revenues. We note that iPhone sales grew 3.4% in FY 17 after witnessing its first ever year-over-year decline ever in FY 16. While we expect the rate of growth to slow in the coming years as the business becomes larger and more mature, we still see substantial opportunities related to international, enterprise and education markets. We note the fall 2017 introductions of the next generation iPhone 8 and the iPhone 8 Plus devices as well as release of the iPhone X device, which includes a OLED screen and 3D sensing technology. We note all three devices come with wireless charging capabilities.

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 17, about 44 million iPads were sold [8% of sales], but showed a decline from the 46 million units shipped [10% of sales] the previous fiscal year.

Sales of AAPL's computers, commonly known as Macs, made up 11% of revenues in FY 17, similar to its representation in FY 16. 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 19% of sales in FY 17 versus 16% in FY 16. Other hardware products includes sales of the Apple TV, Apple Watch, AirPods, Beats products, iPod and Apple-branded and third-party accessories. We note Services alone was 13% of FY 17 sales and grew an impressive 23%. Services includes revenue from the App Store, iCloud, AppleCare, licensing and other services.

**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 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 tablets markets, we expect unit shipments and average selling prices for Macs and iPads to trend down over time but note quarterly mix and new product releases could result in volatility. However, with anticipated growth in the smartphone and wearables 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 the Apple Watch 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 the gross margin, as they make up a large percentage of total revenues.

AAPL has what we view as a very strong balance sheet, with about \$244 billion in cash and investments, and about \$115 billion in debt as of the end of June 2018. 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. As of May 2018, we believe AAPL has returned over \$300 billion of cash to shareholders and note the company began returning cash in calendar year 2012. On May 1, 2018, Apple announced a new \$100 billion share authorization program and hiked its dividend by 16%.

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

## Corporate Information

### Investor Contact

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### Telephone

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### Website

www.apple.com

### Officers

#### Senior VP & General Counsel

K. L. Adams

#### CFO & Senior VP

L. Maestri

#### COO & Senior VP

J. E. Williams

#### Non-Executive Chairman of the Board

A. D. Levinson

#### Senior Director of Corporate Accounting

C. Kondo

#### CEO & Director

T. D. Cook

#### Vice President of Technology

K. M. Lynch

### Board Members

A. A. Gore

A. D. Levinson

A. Jung

J. A. Bell

R. A. Iger

R. D. Sugar

S. L. Wagner

T. D. Cook

### Domicile

California

### Auditor

Ernst & Young LLP

### Founded

1977

### Employees

123,000

### Stockholders

25,333

# Apple Inc.

Quantitative Evaluations						
<b>Fair Value Rank</b>	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].				
<b>Fair Value Calculation</b>	<b>\$239.20</b>	Analysis of the stock's current worth, based on CFRA's proprietary quantitative model suggests that AAPL is slightly undervalued by \$23.71 or 11.0%.				
<b>Volatility</b>		LOW	AVERAGE	HIGH		
<b>Technical Evaluation</b>	<b>BULLISH</b>	Since July, 2018, the technical indicators for AAPL have been BULLISH.				
<b>Insider Activity</b>		UNFAVORABLE	NEUTRAL	FAVORABLE		

Expanded Ratio Analysis				
	2017	2016	2015	2014
Price/Sales	3.53	2.87	2.84	3.37
Price/EBITDA	11.32	8.79	8.06	10.20
Price/Pretax Income	12.80	10.03	9.24	11.72
P/E Ratio	16.73	13.56	12.44	15.62
Avg. Diluted Shares Outsg. (M)	5252	5500	5793	6123

Figures based on fiscal year-end price

Key Growth Rates and Averages				
Past Growth Rate [%]		1 Year	3 Years	5 Years
Sales		6.30	7.84	7.93
Net Income		5.83	6.96	2.99
Ratio Analysis (Annual Avg.)				
Net Margin [%]		NM	NM	NM
% LT Debt to Capitalization		38.93	NA	NA
Return on Equity [%]		36.87	NA	NA

## Company Financials Fiscal year ending Sep. 30

Per Share Data (U.S. \$)	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Tangible Book Value	24.59	22.42	19.78	17.52	18.71	17.17	11.10	7.28	4.95	3.50
Free Cash Flow	9.74	9.56	12.13	8.20	6.88	6.33	4.65	2.59	1.43	1.36
Earnings	9.21	8.31	9.22	6.45	5.68	6.31	3.95	2.16	1.30	0.97
Earnings (Normalized)	7.62	6.98	7.82	5.46	4.81	5.27	3.26	1.79	1.19	0.89
Dividends	2.40	2.18	1.98	1.82	1.64	0.38	NA	NA	NA	NA
Payout Ratio [%]	26	27	22	28	29	6	NA	NA	NA	NA
Prices: High	164.94	123.82	134.54	103.74	96.68	100.72	60.41	41.93	26.99	28.99
Prices: Low	104.08	89.47	92.00	67.77	55.01	50.61	39.29	25.81	11.17	16.49
P/E Ratio: High	18.3	15.1	18.4	NM	NM	NM	NM	NM	NM	NM
P/E Ratio: Low	11.3	9.9	14.8	15.1	62.0	83.8	NM	NM	NM	NM

Income Statement Analysis (Million U.S. \$)										
Revenue	229,234	215,639	233,715	182,795	170,910	156,508	108,249	65,225	42,905	37,491
Operating Income	61,344	60,024	71,230	52,503	48,999	55,241	33,790	18,385	11,740	8,327
Depreciation + Amortization	10,157	10,505	11,257	7,946	6,757	3,277	1,814	1,027	709	469
Interest Expense	2,323	1,456	733	384	136	NA	NA	NA	NA	NA
Pretax Income	64,089	61,372	72,515	53,483	50,155	55,763	34,205	18,540	12,066	8,947
Effective Tax Rate	24.6	25.6	26.4	26.1	26.2	25.2	24.2	24.4	31.8	31.6
Net Income	48,351	45,687	53,394	39,510	37,037	41,733	25,922	14,013	8,235	6,119
Net Income (Normalized)	39,994	38,412	45,322	33,427	31,347	34,852	21,378	11,588	7,541	5,592

Balance Sheet and Other Financial Data (Million U.S. \$)										
Cash	74,399	67,883	41,995	25,158	40,590	29,129	25,952	25,620	23,464	22,111
Current Assets	128,645	106,869	89,378	68,531	73,286	57,653	44,988	41,678	31,555	30,006
Total Assets	375,319	321,686	290,345	231,839	207,000	176,064	116,371	75,183	47,501	36,171
Current Liabilities	100,814	79,006	80,610	63,448	43,658	38,542	27,970	20,722	11,506	11,361
Long Term Debt	97,207	75,427	53,329	28,987	16,960	NA	NA	NA	NA	NA
Total Capital	249,727	215,281	183,696	146,842	140,509	118,210	76,615	47,791	31,640	22,297
Capital Expenditures	12,451	12,734	11,247	9,571	8,165	8,295	4,260	2,005	1,144	1,091
Cash from Operations	63,598	65,824	81,266	59,713	53,666	50,856	37,529	18,595	10,159	9,596
Current Ratio	1.28	1.35	1.11	1.08	1.68	1.50	1.61	2.01	2.74	2.64
% Long Term Debt of Capitalization	38.9	35.0	29.0	19.7	12.1	NA	NA	NA	NA	NA
% Net Income of Revenue	21.1	21.2	22.8	21.6	21.7	26.7	23.9	21.5	19.2	16.3
% Return on Assets	11.0	12.3	17.1	15.0	16.0	23.6	22.0	18.7	17.5	16.9
% Return on Equity	36.9	36.9	46.2	33.6	30.6	42.8	41.7	35.3	30.5	33.2

Source: S&P Global Market Intelligence. Data may be preliminary or restated; before results of discontinued operations/special items. Per share data adjusted for stock dividends; 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. 2018 is shaping up to be another exciting year, we think, for the technology hardware space given anticipated next generation devices from the largest manufacturers in the world. We believe the hardware space is well positioned to witness growth across most end markets over the next year.

We expect the smartphone space to see stable to slightly higher shipments in 2018 and 2019. We anticipate Apple will witness mid-single-digit percentage growth for calendar year 2018 (largely due to higher selling prices) and we see new features in next generation devices [e.g. facial recognition, wireless charging, and OLED screens] supporting customers' future upgrade cycles. We expect average selling prices for smartphones to rise between 3% and 5% in 2018 and be flat in 2019, driven by the ongoing shift by Apple and Samsung to offer consumers more features [e.g. OLED screens, wireless charging, and 3D sensing technology]. Despite greater smartphone adoption in emerging regions like India that gravitate to lower-priced phones, we think consumers in developed regions will be willing to pay a higher price point given the reliance on installment programs and appetite for new features.

We expect a stable PC environment in 2018 (flat shipments) and 2019 compared to a 1% decline in 2017. We see stable revenue as a positive phenomenon given that PC shipments have fallen 30% from peak levels in 2011. We expect demand to be sustained in 2018 and 2019 from the ongoing enterprise transition to Windows 10, with commercial notebooks seen as the biggest beneficiary. While we see areas of growth related to thinner and lighter devices as well as opportunities from gaming, we think longer

replacement cycles will likely hinder growth for the space. Wearables shipment growth will likely be 15% to 20% in 2018 and 2019, by our estimates. While adoption rates have risen, we expect growth to accelerate, driven by the emergence of untethered devices into the market [e.g. Apple Watch Series 3].

Demand for data storage will be driven by content digitization of old media, such as paper and film, the growing popularity of social networking websites and longer record retention for compliance with government regulations, in our view. 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.

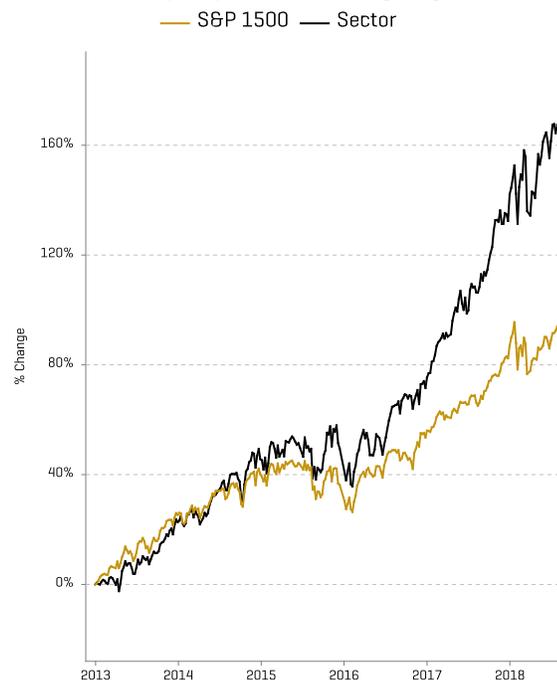
Year to date through June 29, 2018, the S&P 1500 Technology Hardware, Storage & Peripherals Index increased 9.4%, while the S&P 1500 rose 2.0%. The S&P 1500 Technology Hardware, Storage & Peripherals Index increased 41.3% in 2017, while the S&P 1500 rose 18.8%.

/Angelo Zino, CFA

## Industry Performance

### GICS Sector: Information Technology

Based on S&P 1500 Indexes  
Five-Year market price performance through Aug 25, 2018



NOTE: A sector chart appears when the sub-industry does not have sufficient historical index data.

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.

Source: S&P Global Market Intelligence

## Sub-Industry: Technology Hardware, Storage & Peripherals Peer Group\*: Technology Hardware, Storage & Peripherals

Peer Group	Stock Symbol	Exchange	Currency	Recent Stock Price [\$]	Stk. Mkt. Cap. [M \$]	30-Day Price Chg. [%]	1-Year Price Chg. [%]	P/E Ratio	Fair Value Calc. [\$]	Yield [%]	Return on Equity [%]	LTD to Cap [%]
<b>Apple Inc.</b>	<b>AAPL</b>	<b>NasdaqGS</b>	<b>USD</b>	<b>215.49</b>	<b>1,040,802</b>	<b>11.7</b>	<b>34.7</b>	<b>20</b>	<b>239.20</b>	<b>1.4</b>	<b>36.9</b>	<b>38.9</b>
Canon Inc.	CAJ	NYSE	USD	31.53	34,001	-0.8	-9.6	15	NA	4.8	8.4	13.6
FUJIFILM Holdings Corporation	FUJI.Y	OTCPK	USD	41.45	17,854	0.1	8.6	14	NA	1.6	6.3	15.0
HP Inc.	HPQ	NYSE	USD	24.63	39,667	7.1	30.6	9	22.61	2.3	-69.2	152.8
Hewlett Packard Enterprise Company	HPE	NYSE	USD	16.10	24,375	5.2	-9.1	9	19.34	2.8	1.6	27.1
Lenovo Group Limited	LVNG.Y	OTCPK	USD	12.94	7,775	20.6	16.2	NM	NA	5.2	-2.9	31.7
Logitech International S.A.	LOGI	NasdaqGS	USD	48.46	8,032	4.3	38.2	39	NA	1.3	21.9	NA
NetApp, Inc.	NTAP	NasdaqGS	USD	83.16	21,561	5.8	115.1	99	51.21	1.9	3.1	38.6
Ricoh Company, Ltd.	RICO.Y	OTCPK	USD	10.38	7,526	10.3	3.3	NM	NA	Nil	-12.3	35.2
Seagate Technology plc	STX	NasdaqGS	USD	55.72	16,002	0.0	79.7	14	54.20	4.5	78.0	66.6
Western Digital Corporation	WDC	NasdaqGS	USD	63.35	18,957	-15.7	-28.3	29	57.90	3.2	5.9	48.4

\*For Peer Groups with more than 10 companies or stocks, selection of issues is based on market capitalization.

NA-Not Available NM-Not Meaningful.

Note: Peers are selected based on Global Industry Classification Standards and market capitalization. The peer group list includes companies with similar characteristics, but may not include all the companies within the same industry and/or that engage in the same line of business.

## Apple Inc.

### Analyst Research Notes and other Company News

#### August 01, 2018

08:23 am ET... CFRA KEEPS BUY OPINION ON SHARES OF APPLE INC. [AAPL 190.29\*\*\*\*]: We up our 12-month target to \$220 from \$210, on P/E of 16X our CY '19 EPS estimate, above hardware peers but below the S&P 500 Technology sector. We raise our FY 18 EPS view to \$11.71 from \$11.50 and FY 19 to \$13.41 from \$13.15. Our higher estimates reflect better than expected Jun-Q results. While we think AAPL is benefiting from higher iPhone selling prices, we see tougher comps in FY 19. As a result, we still conservatively forecast no iPhone growth in FY 19 but are optimistic about upcoming device launches. We like AAPL's pipeline in wearables (e.g. AR glasses, aesthetic changes to Apple Watch, AirPods refresh, AirPower) and potential opportunities in Services (e.g. original video content). We think AAPL's potential to grow subscription-based service offerings remains key (Apple Music growth over 50% in Jun-Q). We remain optimistic about free cash flow generation, which we expect to be \$60B-\$70B in each of the next 3 years and help reduce its share count by 20%-25% over that span. /Angelo Zino, CFA

#### July 31, 2018

05:43 pm ET... CFRA KEEPS BUY OPINION ON SHARES OF APPLE INC. [AAPL 189.91\*\*\*\*]: AAPL posts Jun-Q EPS of \$2.34 vs. \$1.67, beating the \$2.18 Capital IQ consensus estimate. Sales rose 17%, better than expected, driven by 20% growth in iPhones (56% of sales). While iPhone shipments of 41.3M were below our outlook of 42M, we positively view iPhone average selling prices of \$724, which was up 20% and significantly exceeded our expectation. We are encouraged by Services growth of 31% and demand for wearables-related products, which increased 37%. We think AAPL is executing very well within its high growth potential Services and wearables businesses. We note iPad sales (9% of sales) fell 5%, hurt by a 6% decline in selling prices while Mac sales (10% of sales) also fell 5%. We think fears about China remain overblown, as the region witnessed growth of 19%, but do acknowledge concerns related to trade between U.S.-China. We are optimistic about new hardware product launches this fall and see AAPL remaining aggressive with share repurchases (more than \$20B in the Jun-Q). /Angelo Zino, CFA

#### June 08, 2018

08:58 am ET... CFRA MAINTAINS BUY OPINION ON SHARES OF APPLE INC. [AAPL 193.46\*\*\*\*]: According to an unconfirmed report from the Nikkei, citing unnamed industry sources, AAPL has asked its supply chain to prepare around 20% fewer components (80M this year versus 100M last year) for its anticipated three new iPhone launches later this fall, taking a more cautious approach toward smartphone shipments compared with last year's orders. We believe any concerns about iPhone demand would be overblown, as AAPL is likely just trying to best manage inventories. We note that last year, AAPL had to prepare for potentially sharply higher smartphone demand given the hype surrounding the launch of its 10th anniversary phone. This September, we expect AAPL to unveil two OLED models measuring in at 5.8 and 6.5 inches (\$999 and \$1,099 potential starting prices). We also anticipate a 6.1-inch lower cost LCD model, as we see this device better competing and taking share in the highly-competitive China market. All models are expected to feature Facial ID and edge-to-edge displays. /Angelo Zino, CFA

#### June 04, 2018

03:39 pm ET... CFRA MAINTAINS BUY RECOMMENDATION ON SHARES OF APPLE INC. [AAPL 190.24\*\*\*\*]: AAPL hosts an upbeat WWDC, with software updates across all platforms. On iOS 12, AAPL announces ARKit2 (e.g. improved face tracking, 3D object detection and shared experiences) and enhances Siri capabilities, with a new shortcut feature for greater integration within apps. AAPL also unveils updates to Apps (e.g. rebuilt Stocks app, News/Stocks integration and third-party CarPlay navigation support), a Do Not Disturb feature/detailed analytics in app usage to improve screen time balance, Parental App, new animojis/memojis, and group Facetime. On watchOS 5, AAPL unveiled new enhanced built-in work-outs (e.g. yoga and hiking), a new app called walkie-talkie, and greater Siri capabilities. On tvOS, AAPL now has more than 100 video channels. For macOS, AAPL announces dark mode/dynamic desktop as well as plans to bring iOS apps to the desktop over time. While AAPL provided no hardware updates, we do see new products related to iPhones/Apple Watch/Macs/iPad Pro all being unveiled this fall. /Angelo Zino, CFA

#### June 04, 2018

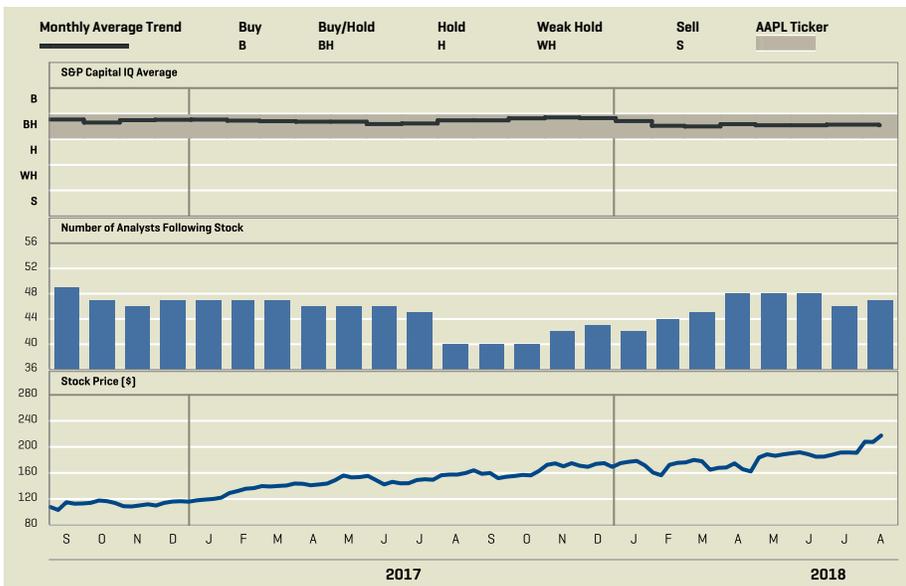
09:14 am ET... CFRA MAINTAINS BUY OPINION ON SHARES OF APPLE INC. [AAPL 190.24\*\*\*\*]: AAPL is set to kick off its 2018 Worldwide Developers Conference (WWDC) today at 1 PM ET. As usual, we expect the WWDC to be software driven, with the focus on upgrades to iOS, macOS, watchOS, and tvOS. We think AAPL could announce iOS cross platform functionality with macOS, which would offer significantly more apps for users, as well as enhancements to its voice recognition personal assistant, Siri. On iOS 12, AAPL is seen unveiling a digital health tool to help curb reliance on smartphones, new augmented reality (AR) capabilities, and more animoji, among other things. We think AAPL could add new workout options on watchOS, but tvOS may see only minor updates. While we believe AAPL is working on hardware refreshes for its MacBook and iPad Pro (may include bezel free display and Face ID), we do not anticipate updates until late this year. An upgrade of AAPL's budget-friendly iPhone SE is also unlikely, but we do see AAPL providing greater clarity on its AirPower wireless charging pad. /Angelo Zino, CFA

#### May 09, 2018

08:42 am ET... CFRA MAINTAINS BUY OPINION ON SHARES OF APPLE INC. [AAPL 186.05\*\*\*\*]: We increase our 12-month target price to \$210 from \$195, based on 16X our FY 19 EPS estimate, above hardware peers but below the S&P 500 Technology sector. We increase our FY 18 EPS estimate to \$11.50 from \$11.46, FY 19 to \$13.15 from \$13.09 and we initiate FY 20 at \$14.45. We believe a higher revised peer-premium multiple to hardware peers is justified to reflect our belief that revenue from AAPL's legacy hardware businesses (iPhones, iPads, and Macs) are more stable than we previously anticipated, which will fuel significant free cash flow generation (over \$180 billion in the next three years) that can be reinvested in new growth areas and returned to shareholders. We estimate services growth of 25% in FY 18, decelerating to 21% in FY 19 and 16% in FY 20, driven by the App Store and offerings like iCloud and Apple Music. We value Services at over \$300 billion today, assuming \$53 billion in revenue by FY 20, and view new hardware offerings benefiting from Apple's large installed base. /Angelo Zino, CFA

# Apple Inc.

## Analysts' Recommendations



## Wall Street Consensus Opinion

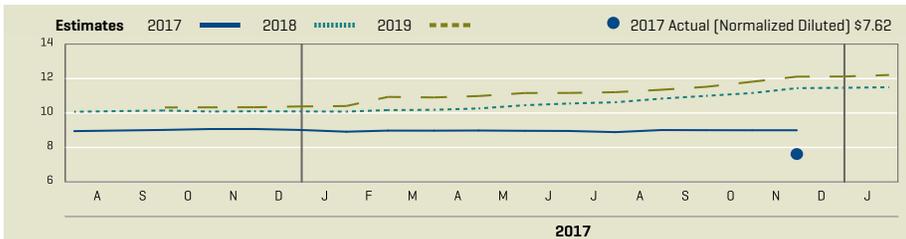
### BUY/HOLD

### Wall Street Consensus vs. Performance

For fiscal year 2018, analysts estimate that AAPL will earn USD \$11.72. For the 3rd quarter of fiscal year 2018, AAPL announced earnings per share of USD \$2.34, representing 20% of the total revenue estimate. For fiscal year 2019, analysts estimate that AAPL's earnings per share will grow by 15% to USD \$13.52.

	No. of Recommendations	% of Total	1 Mo. Prior	3 Mos. Prior
Buy	19	42	20	20
Buy/Hold	6	13	6	6
Hold	15	33	17	18
Weak Hold	1	2	0	0
Sell	0	0	0	0
No Opinion	4	9	3	4
<b>Total</b>	<b>45</b>	<b>100</b>	<b>46</b>	<b>48</b>

## Wall Street Consensus Estimates



Fiscal Years	Avg Est.	High Est.	Low Est.	# of Est.	Est. P/E
2019	13.52	14.55	11.61	42	15.9
2018	11.72	12.09	11.50	39	18.4
<b>2019 vs. 2018</b>	<b>▲15%</b>	<b>▲20%</b>	<b>▲1%</b>	<b>▲8%</b>	<b>▼-14%</b>
Q4'19	3.05	3.40	2.79	24	70.7
Q4'18	2.76	2.88	2.65	33	78.2
<b>Q4'19 vs. Q4'18</b>	<b>▲11%</b>	<b>▲18%</b>	<b>▲5%</b>	<b>▼-27%</b>	<b>▼-10%</b>

Forecasts are not reliable indicator of future performance.

Note: 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.

**Note: For all tables, graphs and charts in this report that do not cite any reference or source, the source is S&P Global Market Intelligence.**

## Apple Inc.

### 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 Global Market Intelligence's 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 Global Market Intelligence'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.

#### 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

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#### 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 & 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 notable 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 is 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 notable 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.

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### 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.

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### STARS Stock Reports:

Global STARS Distribution as of June 30, 2018

Ranking	North America	Europe	Asia	Global
Buy	39.1%	31.9%	37.3%	36.1%
Hold	54.6%	53.6%	50.6%	52.9%
Sell	6.3%	14.5%	12.1%	11.0%
Total	100.0%	100.0%	100.0%	100.0%

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