Apple Inc.

Recommendation	**Price**	**12-Mo. Target Price**	**Report Currency**	**Investment Style**
BUY ★★★★★	USD 145.93 (as of market close Jan 27, 2023)	USD 165.00	USD	Large-Cap Growth

Equity Analyst Angelo Zino, CFA

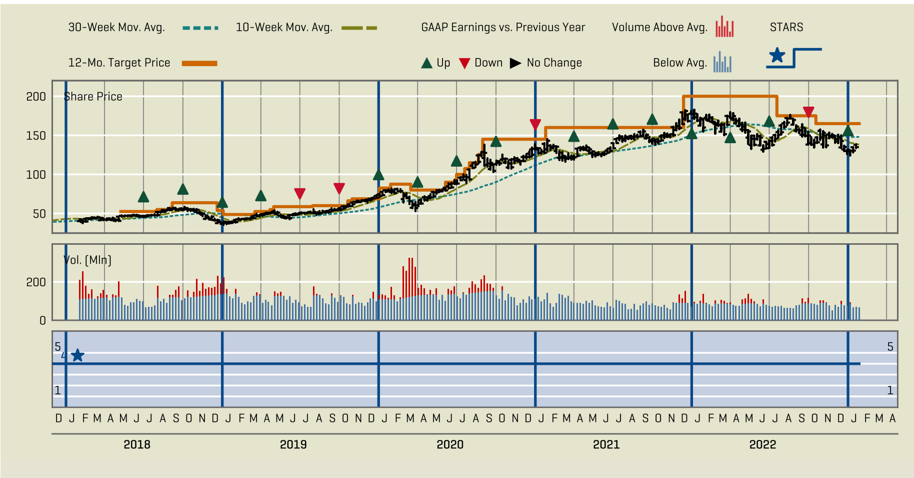
GICS Sector Information Technology
Sub-Industry Technology Hardware, Storage and Peripherals

Summary Apple is a prominent provider of consumer computing devices, including the iPhone, iPad tablets, Mac computers, and wearables.

Key Stock Statistics (Source: CFRA, S&P Global Market Intelligence (SPGMI), Company Reports)

52-Wk Range	**USD 179.61 - 124.17**	Oper.EPS2023**E**	**USD 6.01**	Market Capitalization[B]	**USD 2279.78**	Beta	**1.24**
Trailing 12-Month EPS	**USD 6.11**	Oper.EPS2024**E**	**USD 6.76**	Yield [%]	**0.64**	3-yr Proj. EPS CAGR[%]	**7**
Trailing 12-Month P/E	**23.88**	P/E on Oper.EPS2023**E**	**24.28**	Dividend Rate/Share	**USD 0.92**	SPGMI's Quality Ranking	**A**
USD 10K Invested 5 Yrs Ago	**35,792.0**	Common Shares Outstg.[M]	**15,943.00**	Trailing 12-Month Dividend	**USD 0.69**	Institutional Ownership [%]	**54.0**

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 **Angelo Zino, CFA** on Jan 18, 2023 03:57 PM ET, when the stock traded at **USD 135.77**.

Highlights

- We expect sales to decline fractionally in FY 23 (Sep.) and rebound 6% in FY 24. We see favorable mix towards AAPL's two Pro devices supporting iPhone ASPs and believe that China supply constraints seen in the Dec-Q have been addressed (key Foxconn factory now running at +90% capacity), but see tough comparisons and macro headwinds in the Mar-Q. We think installed base growth, higher paid subscriptions, and bundling opportunities will allow Services grow (+5% in Sep-Q on tough comps/600bp forex headwind). We like AAPL's pipeline given new products/offerings. Revenue from iPads fell 13% in Sep-Q while Macs rose 25% and Wearables up 10%.
- We see the gross margin at 43% in FY 23 and FY 24, near our FY 22 margin outlook. We like Services margins (70.5% in Sep-Q), which should support better mix, while pricing power should sustain hardware margins near current levels (34.6%).
- We note AAPL's net cash position of $49 billion (aims to be net cash neutral over time), with our view of annual free cash flow potential of $100 billion plus driving share repurchases ahead. By the 2H of CY 23, we see forex turning into a tailwind while comparisons turn favorable, as AAPL laps recent supply constraints.

Investment Rationale/Risk

- Our Buy reflects our view of AAPL's ecosystem, high customer retention rates, and expanding addressable market. Despite macro uncertainty, we think AAPL's premium valuation is warranted given stable FCF generation, aggressive capital allocation strategy, and management ability to execute. We forecast further upside to average selling prices in the coming years (e.g., foldable phones) while ongoing growth within the installed base should keep services expansion intact (e.g., advertising, gaming, bundling). Margins could offer upside ahead, on better mix and declining component prices. We like AAPL's attractive pipeline (e.g., AR mixed reality headsets, Apple car, health care, shift towards hardware as a service) while switcher rates remain high.
- Risks to our recommendation and target price include less success with product launches/ innovations, longer-than-expected hardware replacement cycles, regulatory scrutiny within its Services business.
- Our 12-month target of $165 is based on a P/E of 24x our CY 24 EPS estimate of $6.88, above peers. We think an aging and growing installed base of +1B phones (+1.8B total devices) will allow AAPL to see growth and support greater penetration for Services.

Analyst's Risk Assessment

LOW	MEDIUM	HIGH

Our risk assessment reflects our view of Apple's ability to shift towards higher-margin and more recurring Services offerings, which reduce the future earnings volatility of the company. In addition, we have a favorable view of the company's scale, enormous cash position, and free cash flow potential. Despite a seemingly ever-evolving market for consumer-oriented technology products and the company's need to rely on the success of product innovations, we forecast Apple's ecosystem will continue to sustain retention rates higher than 90%.

Revenue/Earnings Data

Revenue (Million USD)

	1Q	2Q	3Q	4Q	Year
2024	**E** 130,000	**E** 100,000	**E** 89,000	**E** 99,000	**E** 418,000
2023	**E** 120,000	**E** 95,000	**E** 84,900	**E** 93,300	**E** 393,200
2022	123,945	97,278	82,959	90,146	394,328
2021	111,439	89,584	81,434	83,360	365,817
2020	91,819	58,313	59,685	64,698	274,515
2019	84,310	58,015	53,809	64,040	260,174

Earnings Per Share (USD)

	1Q	2Q	3Q	4Q	Year
2024	**E** 2.20	**E** 1.61	**E** 1.40	**E** 1.55	**E** 6.76
2023	**E** 1.94	**E** 1.43	**E** 1.25	**E** 1.39	**E** 6.01
2022	2.10	1.52	1.20	1.29	6.11
2021	1.68	1.40	1.30	1.24	5.61
2020	1.25	0.64	0.64	0.73	3.28
2019	1.04	0.62	0.54	0.76	2.97

Fiscal Year ended Sep 30. EPS Estimates based on CFRA's Operating Earnings; historical earnings are adjusted. In periods where a different currency has been reported, this has been adjusted to match the current quoted currency.

Dividend Data

Amount (USD)	Date Decl.	Ex-Div. Date	Stk. of Record	Payment Date
0.2300	Oct 27	Nov 04	Nov 07	Nov 10 '22
0.2300	Jul 28	Aug 05	Aug 08	Aug 11 '22
0.2300	Apr 28	May 06	May 09	May 12 '22
0.2200	Jan 27	Feb 04	Feb 07	Feb 10 '22

Dividends have been paid since 1987 . Source: Company reports
Past performance is not an indication of future performance and should not be relied as such.
Forecasts are not a reliable indicator of future performance.
Dividends paid in currencies other than the Trading currency have been accordingly converted for display purposes.

Apple Inc.

Business Summary Oct 28, 2022

CORPORATE OVERVIEW. Apple (AAPL) 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 52% of FY 22 revenues, with iPhone sales increasing 7%, led by higher prices. In September 2022, AAPL announced its next generation of iPhones (4 total), all which will possess 5G capabilities, OLED screens, and a host of new colors. On the iPhone 14 and Pro devices, pricing is unchanged from the iPhone 13 cycle, but ditching the mini in favor for a new 6.7-inch Plus device naturally increases the average selling price (starts at $799), while pushing more capabilities into the Pro devices (essentially widening the gap) should also improve the mix toward the Pros. New Pro features include the Dynamic Island, Always-On Display, A16 Bionic, and 48MP camera (standard phones keep 12MP camera and A15).

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. During FY 22, iPad sales (7% of revenue) fell 8%, partly hurt by tougher comparisons following a post pandemic environment where the segment benefited from higher demand from the work from home and learn from home themes.

Sales of AAPL's computers, commonly known as Macs, made up 10% of revenues in FY 22, with revenue increasing 12%. Macs benefited from consumer interest for AAPL's next generation devices enabled with its internally designed M1/M2 processors.

Revenue from Services and other hardware/wearable products comprised about 30% of sales in FY 22. Wearables, Home, and Accessories products (10% of FY 22 revenue and grew 7%) include sales of the Apple TV, Apple Watch, AirPods, Beats products, HomePod, and iPod as well as Apple-branded and third-party accessories. We note Services were 20% of FY 22 sales and grew an impressive 14%. Services includes revenue from the App Store, iCloud, Apple TV+, AppleCare, licensing, and other services. The company also offers its Apple Fitness+ ($9.99 per month or $79.99 per year) and its Apple One Subscription Plan (priced from $16.95-$29.95 monthly), which offers bundling options for a host of its services. We believe AAPL's bundle strategy will provide greater recurring revenue opportunities.

COMPETITIVE LANDSCAPE. AAPL 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 help 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.

LEGAL/REGULATORY ISSUES. On September 10, 2021, Federal Judge Yvonne Gonzalez Rogers gave her decision on the Apple-Epic Games trial, in what we view to be a mixed outcome. While the court said AAPL is not a monopolist, it concluded that AAPL's anti-steering provisions hide critical information from consumers and stifle choice. Given this, the court issued an injunction that said AAPL can't keep developers from providing links directing users away from Apple in-app purchasing, which goes into effect December (will go through an appeals process). Although AAPL's 30% fee structure remains intact and didn't violate any antitrust law, it could set the stage for future cases from other developers/U.S. antitrust authorities.

On April 17, 2019, Apple and QUALCOMM (QCOM) announced an agreement to end all legal issues between the two companies worldwide. QCOM and Apple agreed to a six-year license agreement, effective April 1, 2019, including a two-year option to extend, and a multiyear chipset supply agreement.

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. Thus, AAPL has been able to command significant pricing power for its offerings and has over time successfully increased prices for most of its product lines. We see 5G supporting iPhone shipments and substantial growth potential within AAPL's Wearables business.

AAPL has what we view as a very strong balance sheet, with about $169 billion in cash and investments, and about $129 billion in debt as of September 2022. AAPL boasts return metrics, such as return on equity, that are relatively high compared with other large/mega-cap hardware and software companies. As of September 2022, we calculate AAPL has returned more than $650 billion of cash to shareholders and note the company began returning cash in calendar year 2012. On April 28, 2022, Apple announced a new $90 billion share authorization program and hiked its dividend by 5%. We expect AAPL to remain aggressive with buybacks (we see 0.5%-0.75% quarterly share reduction; share count down nearly 38% in 10 years).

AAPL executed a 4-for-1 stock split in August 2020 (its first since August 2014), which we expect will help support liquidity and attract new investors.

Corporate information

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Website
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Officers

CEO & Director
T. D. Cook

Chief Operating Officer
J. E. Williams

CFO & Senior VP
L. Maestri

Senior VP, General Counsel & Secretary
K. L. Adams

Independent Non-Executive Chairman of the Board
A. D. Levinson

Senior Director of Corporate Accounting
C. Kondo

Chief Technology Officer
J. Wilson

Board Members

A. A. Gore
A. D. Levinson
A. Gorsky
A. Jung
J. A. Bell
M. C. Lozano
R. D. Sugar
S. L. Wagner
T. D. Cook

Domicile
California

Founded
1977

Employees
164,000

Stockholders
23,838

Auditor
Ernst & Young LLP

Apple Inc.

Quantitative Evaluations

Fair Value Rank		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	**USD 131.23**	Analysis of the stock's current worth, based on CFRA's proprietary quantitative model suggests that AAPL is overvalued by USD 14.70 or 10.07%
Volatility		**LOW** · AVERAGE · HIGH
Technical Evaluation	**BULLISH**	Since January, 2023, the technical indicators for AAPL have been BULLISH"
Insider Activity		UNFAVORABLE · **NEUTRAL** · FAVORABLE

Expanded Ratio Analysis

	2022	2021	2020	2019
Price/Sales	6.23	6.77	7.17	3.91
Price/EBITDA	18.81	20.61	25.45	13.30
Price/Pretax Income	20.62	22.69	29.33	15.47
P/E Ratio	24.62	26.19	34.23	18.40
Avg. Diluted Shares Outstg. (M)	16,326	16,865	17,528	18,596

Figures based on fiscal year-end price

Key Growth Rates and Averages

Past Growth Rate (%)	1 Year	3 Years	5 Years
Net Income	5.41	21.78	15.60
Sales	7.79	14.87	11.46
Ratio Analysis (Annual Avg.)			
Net Margin (%)	25.31	24.03	23.15
% LT Debt to Capitalization	54.03	53.76	49.96
Return on Equity (%)	175.46	132.20	100.37

Company Financials Fiscal year ending Sep 30

Per Share Data (USD)	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Tangible Book Value	3.18	3.84	3.85	5.09	5.63	6.54	5.60	4.94	4.38	4.68
Free Cash Flow	6.87	5.57	4.23	3.19	3.23	2.48	2.44	3.03	2.05	1.72
Earnings	6.11	5.61	3.28	2.97	2.98	2.30	2.08	2.30	1.61	1.42
Earnings (Normalized)	6.11	5.61	3.28	2.97	2.98	2.30	2.08	2.30	1.61	1.42
Dividends	0.90	0.85	0.80	0.75	0.68	0.60	0.54	0.50	0.46	0.41
Payout Ratio (%)	14.87	15.28	24.53	25.55	23.03	26.41	26.59	21.65	28.16	28.52
Prices: High	182.94	157.26	137.98	58.37	57.42	41.24	30.96	33.64	25.94	24.33
Prices: Low	129.04	107.32	53.15	35.50	37.56	26.02	22.37	23.00	16.94	13.75
P/E Ratio: High	29.90	28.00	42.10	19.60	19.30	17.90	14.90	14.60	16.10	17.10
P/E Ratio: Low	21.10	19.10	16.20	11.90	12.60	11.30	10.80	10.00	10.50	9.70
Income Statement Analysis (Million USD)										
Revenue	394,328	365,817	274,515	260,174	265,595	229,234	215,639	233,715	182,795	170,910
Operating Income	119,437	108,949	66,288	63,930	70,898	61,344	60,024	71,230	52,503	48,999
Depreciation + Amortization	11,104	11,284	11,056	12,547	10,903	10,157	10,505	11,257	7,946	6,757
Interest Expense	2,931	2,645	2,873	3,576	3,240	2,323	1,456	733.00	384.00	136.00
Pretax Income	119,103	109,207	67,091	65,737	72,903	64,089	61,372	72,515	53,483	50,155
Effective Tax Rate	16.20	13.30	14.40	15.90	18.30	24.60	25.60	26.40	26.10	26.20
Net Income	99,803	94,680	57,411	55,256	59,531	48,351	45,687	53,394	39,510	37,037
Net Income (Normalized)	74,439	68,254	41,932	41,086	45,564	40,056	38,358	45,322	33,427	31,347
Balance Sheet and Other Financial Data (Million USD)										
Cash	48,304	62,639	90,943	100,557	66,301	74,181	67,155	41,995	25,158	40,590
Current Assets	135,405	134,836	143,713	162,819	131,339	128,645	106,869	89,378	68,531	73,286
Total Assets	352,755	351,002	323,888	338,516	365,725	375,319	321,686	290,345	231,839	207,000
Current Liabilities	153,982	125,481	105,392	105,718	115,929	100,814	79,006	80,610	63,448	43,658
Long Term Debt	98,959	109,106	98,667	91,807	93,735	97,207	75,427	53,329	28,987	16,960
Total Capital	183,152	199,612	187,617	198,535	221,630	249,727	215,281	183,696	146,842	140,509
Capital Expenditures	10,708	11,085	7,309	10,495	13,313	12,451	12,734	11,247	9,571	8,165
Cash from Operations	122,151	104,038	80,674	69,391	77,434	64,225	66,231	81,266	59,713	53,666
Current Ratio	0.88	1.07	1.36	1.54	1.13	1.28	1.35	1.11	1.08	1.68
% Long Term Debt of Capitalization	54.00	54.70	52.60	46.20	42.30	38.90	35.00	29.00	19.70	12.10
% Net Income of Revenue	25.30	25.90	20.90	21.20	22.40	21.10	21.20	22.80	21.60	21.70
% Return on Assets	21.21	20.18	12.51	11.35	11.96	11.00	12.26	17.05	14.96	15.99
% Return on Equity	175.50	147.40	73.70	55.90	49.40	36.90	36.90	46.20	33.60	30.60

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 neutral. The hardware space has had to contend with a number of headwinds in the intermediate term, including slowing macroeconomic, ongoing shift of consumer spend to services from goods, and the need to normalize demand across a host of end-markets in a post-pandemic environment (e.g., PCs). That said, we see healthy cloud spend, adoption of wearables, and emerging themes like the metaverse driving long-term sales.

We project a 2% decline for smartphone units in 2023 after our view of a 6%-7% decline in 2022 (-14% from 2016 peak), which would mark the fifth decline in six years, hurt by extending replacement cycles. For 2023, we expect iPhones to see a year of no unit growth but expect overall iPhone revenue to increase modestly on higher selling prices. Although we expect Android-based phones to still struggle, declining by a low-single-digit percentage on tough macro conditions, a reopening in China could offer upside. We still see room for growth at the high end of the market where Apple dominates, as the wealth effect across a host of key geographic regions helps support long-term demand.

We see combined PC/tablet units declining about 7% in 2023 after our view of a 15%-20% drop in 2022. A majority of the decline in 2022 was driven by the low-end consumer market that is now trickling into the high-end consumer and commercial markets. We expect macro headwinds and a lack of catalysts in the space to result in ongoing declines in 2023. However, we still believe that the PC space is in much better shape than pre-pandemic as the installed base has grown significantly over the last three years, driven by greater adoption on the education side. That said, we don't see a new pronounced replacement cycle starting until 2024. The slowing demand is also creating a major inventory overhang that will likely persist until at least the middle of 2023.

CFRA anticipates shipments for wearable devices to increase at a mid-digit percentage basis in 2023, as we see future growth driven by greater adoption of smartwatches. Greater focus on health care initiatives will likely support long-term demand and open greater opportunities coming from corporate wellness programs, in our view. We think the metaverse will create an inflection within the AR/VR headset arena. Although the concept of the metaverse is not new, we believe device sales related to AR/VR will grow significantly in 2023 and see ongoing adoption over the next 3-5 years, given the commitment by Meta Platforms to drive consumer awareness along with our belief that AAPL is poised to finally unveil its own mixed reality headset in 2023.

Demand for data storage will be driven by content digitization of old media, 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 products related to all-flash arrays gaining momentum in the data center space.

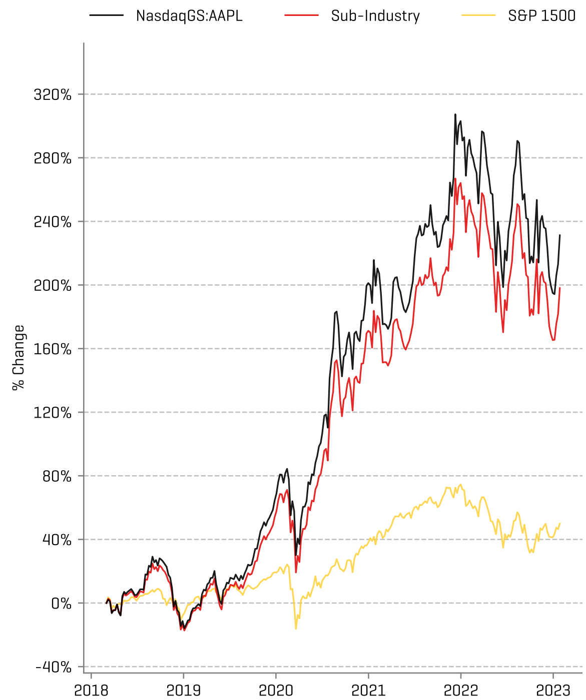
For the full-year 2022, the S&P 1500 Technology Hardware, Storage & Peripherals Index fell 27.2%, while the S&P 1500 declined 19.1%. For 2021, the S&P 1500 Technology Hardware, Storage & Peripherals Index increased 34.3%, while the S&P 1500 rose 26.7%.

/ Angelo Zino, CFA

Industry Performance

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

Based on S&P 1500 Indexes
Five-Year market price performance through Jan 28, 2023



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: CFRA, S&P Global Market Intelligence

Sub-Industry: Technology Hardware, Storage and Peripherals Peer Group*: Technology Hardware, Storage and 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 (%)
Apple Inc.	**AAPL**	**NasdaqGS**	**USD**	**143.96**	**2,279,781.0**	**10.7**	**-9.8**	**24.0**	**131.23**	**0.6**	**175.5**	**54.0**
Canon Inc.	CAJ	NYSE	USD	22.74	23,128.0	3.3	-7.0	14.0	N/A	3.3	7.4	4.6
Dell Technologies Inc.	DELL	NYSE	USD	40.99	29,354.0	4.0	-25.9	5.0	30.72	3.2	33.0	65.1
HP Inc.	HPQ	NYSE	USD	29.01	28,492.0	7.2	-17.7	7.0	27.08	3.6	-140.2	114.9
Hewlett Packard Enterprise Company	HPE	NYSE	USD	16.22	20,791.0	2.1	2.4	8.0	15.37	3.0	4.3	23.8
Logitech International S.A.	LOGI	NasdaqGS	USD	59.00	9,333.0	-4.4	-25.9	17.0	N/A	1.7	18.6	N/A
NetApp, Inc.	NTAP	NasdaqGS	USD	65.79	14,183.0	11.4	-22.3	12.0	90.69	3.0	150.4	61.3
Pure Storage, Inc.	PSTG	NYSE	USD	28.24	8,545.0	6.9	13.2	23.0	14.49	N/A	1.7	N/A
Seagate Technology Holdings plc	STX	NasdaqGS	USD	69.01	14,247.0	32.6	-28.4	17.0	34.50	4.1	2207.1	97.0
Super Micro Computer, Inc.	SMCI	NasdaqGS	USD	76.27	4,036.0	-8.0	95.5	9.0	N/A	N/A	32.2	7.8
Western Digital Corporation	WDC	NasdaqGS	USD	43.76	13,900.0	40.4	-19.8	7.0	22.49	N/A	7.8	36.3

*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.

Analyst Research Notes and other Company News

January 18, 2023
01:58 PM ET... CFRA Maintains Buy Opinion on Shares of Apple Inc. (AAPL 135.94****):
We keep our 12-month target at $165 on peer premium P/E of 24x our CY 24 EPS estimate of $6.88. Ahead of Dec-Q EPS release on February 2, we adjust our FY 23 EPS (Sep.) view to $6.01 from $6.18 and FY 24 to $6.76 from $6.85. We do believe that China supply constraints seen in the Dec-Q have been addressed (key Foxconn factory now running at +90% capacity), but we temper our expectation on whether missed Dec-Q demand will flow into the Mar-Q (some consumers are likely to wait for the iPhone 15). Also, we cut our Services growth outlook for FY 23 (+5%) on lower app store revenue, reflecting our more conservative outlook from gaming related sales. While forex will act as a headwind in the Dec-Q, it likely turns into a tailwind by the 2H of CY 23. Comparisons also turn favorable by the latter half of CY 23, as it laps recent supply constraints. We remain bullish on FCF (+$100 billion annually), capital allocation strategy (+4% implied annual buybacks at current market cap plus 0.7% yield), and attractive pipeline. / Angelo Zino, CFA

January 03, 2023
04:33 PM ET... CFRA Maintains Buy Opinion on Shares of Apple Inc. (AAPL 125.07****):
Shares are down nearly 4% today on a Nikkei report that cited AAPL told suppliers to make fewer components for products including AirPods, Apple Watch, and MacBooks. We are not shocked by the news given the more challenging consumer/macro dropback and note that AAPL has historically cut hardware orders following the holidays (last two years were exemptions) given seasonality. Although Covid supply constraints are largely addressed (will still weigh on Dec-Q revenue/EPS), we are more concerned (and warned last September) about tough comps/macro factors driving downside to consensus views as the iPhone 14 cycle gets longer in the tooth. We still see reason for AAPL's stock price to be pushed lower given unfavorable sentiment/technicals as estimates get revised lower this earnings season. That said, investors should embrace this opportunity as we remain positive on FCF generation (+$100B annually), a management team that rarely makes mistakes, and a best-in-class cash return strategy (4.5% buyback + 0.7% yield). / Angelo Zino, CFA

December 13, 2022
05:06 PM ET... CFRA Maintains Buy Opinion on Shares of Apple Inc. (AAPL 145.47****):
According to an unconfirmed Bloomberg report, AAPL is looking to meet new standards that will be required from the DMA in Europe. This includes allowing third party app stores to be allowed to be downloaded on Apple devices (likely to come with the iOS upgrade in the fall of 2023). We think the ultimate impact will be minimal as most consumers are creatures of habit, very satisfied with the platform, and would be concerned of potential security breaches (a risk we expect AAPL will make very apparent). While we think it is conceivable that as much as 20% of consumers in Europe could look to deviate away from the App store, but estimate a <1% revenue impact. The bigger risk is if this trickles across other regions, which could force AAPL to eventually cut its commission in half (to 15% from 30%). We estimate that it would be about a 3%-4% headwind to sales (greater EPS impact given the higher margin vs. hardware). Although a lower commission structure would be a headwind, it does not break our bull case. / Angelo Zino, CFA

December 06, 2022
07:34 AM ET... TSMC Planned U.S. Expansion A Positive But Doesn't Alleviate Supply Chain Risks (AAPL 146.63****):
President Biden is joining the TSMC's founder today to announce the opening of a 2nd Arizona foundry, upping investments to $40B from an initial $12B. The first plant opening in '24 is seen developing 4nm chips (previously 5 nm), while the 2nd is seen producing 3nm chips. We have previously cited that a potential China attack on Taiwan is the biggest risk for the chip industry, with TSMC controlling over 1/2 of total global foundry supply and 90% of advanced chip manufacturing. While the new U.S. fabs by TSMC as well as others (e.g., Intel and Micron) will provide global chip diversification, it won't be at the most advanced technology nodes (n-1 or n-2) and unable to produce the processors in Apple's most advanced phones (iPhone 15 Pro's in '23 will likely migrate to 3nm). Given this, we caution supply chain risks will remain extremely high (at least over the next 3-5 years) for U.S. firms as Apple (by far TSMC's biggest customer) and others will still need to rely on Taiwan to get its most advanced chips. / Angelo Zino, CFA

November 28, 2022
09:19 AM ET... CFRA Maintains Buy Opinion on Shares of Apple Inc. (AAPL 148.11****):
Increasing unrest/protests in China surrounding Covid policies could be exacerbating production issues for AAPL at the all-important Foxconn assembly facility in Zhengzhou, according to Bloomberg, where an overwhelming majority of AAPL's two Pro devices are manufactured. As we have previously cited, we see as much as 5%-10% downside to our original iPhone estimates for the Dec-Q (would imply Y/Y revenue decline for total revenue), reflecting the supply issues for its higher priced Pro devices coupled with lackluster demand for its more budget-friendly phones. We note that Pro devices are sold out into early January, but we expect some of the missed revenue to trickle in the Mar-Q. That said, we think current constraints are coming at the worst possible time (holiday selling season) and are the most severe since the early days of the pandemic. On a brighter note, we believe that the recent weakness in the dollar, along with falling component/logistic prices, bodes well for our longer-term outlook on the shares. / Angelo Zino, CFA

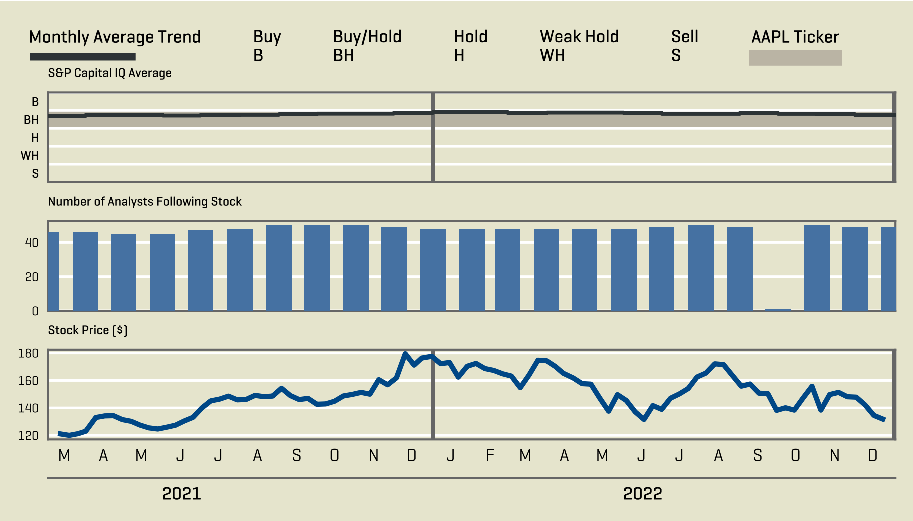
November 07, 2022
07:26 AM ET... CFRA Maintains Buy Opinion on Shares of Apple Inc. (AAPL 138.38****):
AAPL says Covid restrictions will significantly reduce production of the iPhone 14 Pro and iPhone 14 Pro Max at a Foxconn assembly facility in Zhengzhou, China. The facility assembles the vast majority of AAPL's two Pro devices (we estimate +75%) and comes at a critical time, with 35% of our FY 23 iPhone sales projected in the Dec-Q. The supply constraints will undoubtedly lead to longer wait times for AAPL's highest priced/margin phones and will likely force us, as well as consensus views, to be ratcheted down in the coming days/weeks (Dec-Q could now show revenue declines). While still early, the supply issues could force us to lower iPhone shipment expectations by 5%-10% for the Dec-Q, and reminds us of the importance of AAPL's initiative to ramp up iPhone capacity in India. A potential positive, in our view, is that AAPL can now place blame for downward revenue pressures on supply issues rather than macro factors as the iPhone 14 cycle extends, with much of the lost Dec-Q sales to be pushed into the Mar-Q. / Angelo Zino, CFA

October 28, 2022
06:07 AM ET... CFRA Keeps Buy Opinion on Shares of Apple Inc. (AAPL 144.80****):
We keep our 12-month target at $165 on peer premium P/E of 23.5x our CY 24 EPS estimate of $7.01. We adjust our FY 23 EPS (Sep.) view to $6.18 from $6.38 and FY 24 EPS to $6.85 from $6.95. Despite Sep-Q results that met expectations, we think Dec-Q commentary was largely encouraging/rightfully cautious amid significant forex headwinds (10 percentage points) and softer consumer landscape. An extra week in the Dec-Q and easy iPad comps should help offset expected Mac declines following a recent build. Despite the uncertainty, we think AAPL's above market valuation is warranted given stable FCF generation (+$100B annually), aggressive capital allocation strategy, and management ability to execute. We forecast further upside to average selling prices in the coming years (e.g., foldable phones) while ongoing growth within the installed base should keep services expansion intact (macro factors hurting advertising and gaming near term). Margins could offer upside ahead, on better mix and declining component prices. / Angelo Zino, CFA

Note: Research notes reflect CFRA's published opinions and analysis on the stock at the time the note was published. The note reflects the views of the equity analyst as of the date and time indicated in the note, and may not reflect CFRA's current view on the company.

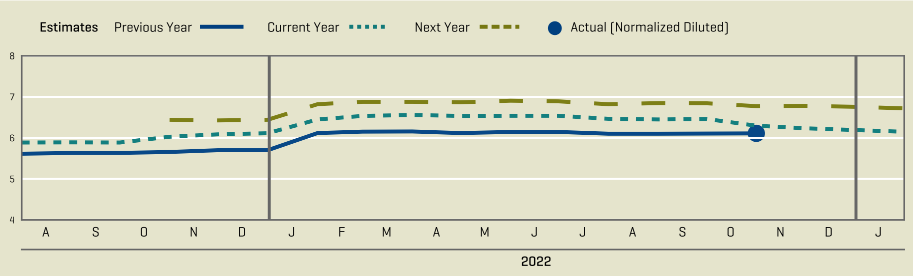
Apple Inc.

Analysts Recommendations



	No. of Recommendations	% of Total	1 Mo.Prior	3 Mos.Prior
Buy	26	53	26	26
Buy/Hold	7	14	8	9
Hold	10	20	8	8
Weak hold	1	2	2	1
Sell	1	2	1	0
No Opinion	4	8	4	5
Total	49	100	49	49

Wall Street Consensus Estimates



Fiscal Year	Avg Est.	High Est.	Low Est.	# of Est.	Est. P/E
2024	6.73	7.33	6.00	35	21.40
2023	6.15	6.87	5.39	41	23.41
2024 vs. 2023	▲ **9%**	▲ **7%**	▲ **11%**	▼ **-15%**	▼ **-9%**
Q1'24	2.22	2.41	2.06	14	64.90
Q1'23	1.96	2.17	1.71	33	73.52
Q1'24 vs. Q1'23	▲ **13%**	▲ **11%**	▲ **21%**	▼ **-58%**	▼ **-12%**

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.

Wall Street Consensus Opinion

Buy/Hold

Wall Street Consensus vs. Performance

For fiscal year 2023, analysts estimate that AAPL will earn USD 6.15. For fiscal year 2024, analysts estimate that AAPL's earnings per share will grow by 9.4% to USD 6.73.

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 (MSCI AC Asia Pacific Index, MSCI AC Europe Index or S&P 500® Index)), based on a 12-month time horizon. STARS was designed to help 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 S&P Capital IQ Earnings & Dividend Rankings 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 capsulize 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	C	Lowest
B+	Average	D	In Reorganization
NC	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.

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 Depository Receipts (ADRs) and American Depository 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.

★★★☆☆ **3-STARS (Hold):**
Total return is expected to closely approximate the total return of a relevant benchmark over the coming 12 months.

★★☆☆☆ **2-STARS (Sell):**
Total return is expected to underperform the total return of a relevant benchmark over the coming 12 months.

★☆☆☆☆ **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 MSCI AC Europe Index and the MSCI AC Asia Pacific Index, respectively.

Disclosures

Stocks are ranked in accordance with the following ranking methodologies:

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

Quantitative Stock Reports:
Quantitative rankings 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 rankings refer to the Glossary section seof the report for detailed methodology and the definition of Quantitative rankings.

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STARS Stock Reports:

Global STARS Distribution as of December 31, 2022

Ranking	North America	Europe	Asia	Global
Buy	37.3%	36.2%	52.6%	40.1%
Hold	54.3%	55.7%	38.6%	51.5%
Sell	8.4%	8.0%	8.8%	8.4%
Total	100.0%	100.0%	100.0%	100.0%

Analyst Certification:

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Apple Inc.

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