

Apple Inc.

Apple Vision Pro: Our review and path to monetization

Maintain Rating: BUY | PO: 225.00 USD | Price: 185.85 USD

Vision Pro could ignite a whole new paradigm

We tested the Vision Pro and walked away positively from the overall extremely unique and immersive experience but note that the typical hurdles faced by most first generation products also hold for the Vision Pro (weight and battery life). The spatial computing paradigm is extremely unique, and we expect developers to unleash numerous apps over time to drive increased use cases over time. Based on our assumptions (Exhibit 4), the Vision Pro hardware can add a total of 46 cents per share to EPS over the next 5 years. We built out the Vision Pro installed base from the Mac installed base given similar levels of affordability. Using conservative assumptions, we expect visionOS based apps to add 22-43 cents per share to EPS over the next 5 years (Exhibit 5-6). In total we estimate Vision Pro can add 68-89 cents per share to EPS over the next 5 years. We maintain our Buy rating on Apple given multi-year iPhone cycle driven by GenAI, strong services growth and margin expansion.

600 apps are specifically designed for Vision Pro

Vision Pro comes with 25 built-in apps from Apple (Exhibit 7). According to the company, more than 600 apps in the visionOS are designed to offer spatial experiences when used with the Vision Pro. The visionOS will have more than 1mn apps available with most apps being ported by default from iOS and iPadOS unless companies explicitly opt out.

Use cases for apps in visionOS app store

In our opinion, apps that leverage the immersive nature of Vision Pro and offer a differentiated experience will be among the most popular ones. Examples of such are front row views of sports or concerts live streaming, immersive video conferencing, and personalized workouts with an interactive trainer in a virtual environment. Vision Pro's AR features can also be a useful tool for ecommerce as customers can try on new clothing items or visualize new furniture products in their homes.

Some key apps will be missing from visionOS at launch

Netflix, YouTube, and Spotify have stated that they currently do not have any plans to develop a dedicated app for the Vision Pro. They have opted not to make their iPad app compatible with the device. Users can still access these services via the web browser but will face limited functionality.

Estimates (Sep) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	6.11	6.13	6.70	7.59	8.16
GAAP EPS	6.12	6.12	6.70	7.59	8.16
EPS Change (YoY)	8.9%	0.3%	9.3%	13.3%	7.5%
Consensus EPS (Bloomberg)			6.63	7.12	7.79
DPS	0.90	0.94	0.99	1.04	1.09
Valuation (Sep)					
P/E	30.4x	30.3x	27.7x	24.5x	22.8x
GAAP P/E	30.4x	30.4x	27.7x	24.5x	22.8x
Dividend Yield	0.5%	0.5%	0.5%	0.6%	0.6%
EV / EBITDA*	21.7x	22.5x	20.9x	19.0x	18.0x
Free Cash Flow Yield*	3.9%	3.5%	3.5%	3.7%	4.0%

* For full definitions of *IQmethod™* measures, see page 8.

05 February 2024

Equity

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Stock Data

Price	185.85 USD
Price Objective	225.00 USD
Date Established	18-Jan-2024
Investment Opinion	B-1-7
52-Week Range	143.90 USD - 199.62 USD
Mkt Val (mn) / Shares Out (mn)	2,873,593 USD / 15,461.9
Free Float	94.0%
Average Daily Value (mn)	9804.79 USD
BofA Ticker / Exchange	AAPL / NAS
Bloomberg / Reuters	AAPL US / AAPL.OQ
ROE (2024E)	139.3%
Net Dbt to Eqty (Sep-2023A)	130.5%
ESGMeter™	High

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to ["BofA ESGMeter Methodology"](#).

VR: Virtual Reality

AR: Artificial Reality

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Timestamp: 05 February 2024 05:00AM EST

iQprofileSM Apple Inc.

iQmethodSM – Bus Performance*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	46.6%	47.5%	48.1%	47.7%	41.7%
Return on Equity	175.5%	171.9%	139.3%	111.3%	77.5%
Operating Margin	32.1%	31.8%	33.2%	33.4%	33.5%
Free Cash Flow	111,443	99,584	100,365	107,672	115,795

iQmethodSM – Quality of Earnings*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	1.2x	1.1x	1.1x	1.1x	1.1x
Asset Replacement Ratio	1.0x	1.0x	1.0x	1.2x	1.2x
Tax Rate	16.2%	14.7%	16.0%	16.0%	16.0%
Net Debt-to-Equity Ratio	190.3%	130.5%	79.5%	44.1%	-2.0%
Interest Cover	NM	NM	NM	NM	NM

Income Statement Data (Sep)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	394,328	383,285	396,240	434,681	455,001
% Change	7.8%	-2.8%	3.4%	9.7%	4.7%
Gross Profit	172,026	170,452	182,746	200,891	210,842
% Change	11.7%	-0.9%	7.2%	9.9%	5.0%
EBITDA	137,601	133,300	142,919	157,810	166,228
% Change	8.5%	-3.1%	7.2%	10.4%	5.3%
Net Interest & Other Income	(291)	(765)	(253)	(145)	128
Net Income (Adjusted)	99,803	96,995	103,600	114,933	120,936
% Change	5.4%	-2.8%	6.8%	10.9%	5.2%

Free Cash Flow Data (Sep)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	105,764	103,187	110,214	121,922	128,277
Depreciation & Amortization	11,104	11,519	11,511	12,520	13,645
Change in Working Capital	1,200	(6,577)	(10,603)	(12,885)	(11,599)
Deferred Taxation Charge	895	0	0	0	0
Other Adjustments, Net	3,188	2,414	1,320	1,331	1,398
Capital Expenditure	(10,708)	(10,959)	(12,076)	(15,216)	(15,927)
Free Cash Flow	111,443	99,584	100,365	107,672	115,795
% Change	19.9%	-10.6%	0.8%	7.3%	7.5%
Share / Issue Repurchase	(89,402)	(77,550)	(77,139)	(76,000)	(43,000)
Cost of Dividends Paid	(14,841)	(14,875)	(15,366)	(15,735)	(16,172)
Change in Debt	(4,078)	(5,923)	0	0	0

Balance Sheet Data (Sep)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	23,646	29,965	36,295	52,232	108,855
Trade Receivables	28,184	29,508	39,019	46,356	56,612
Other Current Assets	83,575	84,093	85,731	85,885	86,502
Property, Plant & Equipment	42,117	43,715	45,926	50,411	54,643
Other Non-Current Assets	175,233	165,302	166,138	166,707	167,281
Total Assets	352,755	352,583	373,109	401,590	473,892
Short-Term Debt	21,110	15,807	10,000	10,000	10,000
Other Current Liabilities	132,872	129,501	131,138	126,301	126,146
Long-Term Debt	98,959	95,281	95,088	95,088	95,088
Other Non-Current Liabilities	49,142	49,848	50,311	50,322	50,325
Total Liabilities	302,083	290,437	286,537	281,710	281,559
Total Equity	50,672	62,146	86,573	119,880	192,333
Total Equity & Liabilities	352,755	352,583	373,109	401,590	473,892

* For full definitions of iQmethodSM measures, see page 8.

Company Sector

IT Hardware

Company Description

Apple Inc. (AAPL) designs, manufactures, and markets consumer electronics and computers, and has developed its own proprietary iOS, Mac OS, tvOS and Watch OS operating systems and related software platform/ecosystem.

Revenues are principally derived from the iPhone line of smartphones, Services, hardware sales of the Macintosh family of notebook and desktop computers, iPad tablets, and wearables.

Investment Rationale

Our Buy rating on Apple is based on: 1) expected strong iPhone upgrade cycle in F25 driven by the need for latest hardware to enable Gen AI features, 2) higher growth in Services revenue, 3) higher margins from more internally developed silicon, 4) continuing capital returns, 5) AI features that can drive higher institutional ownership, and 6) risk around legal issues being manageable.

Stock Data

Average Daily Volume 54,817,724

Quarterly Earnings Estimates

	2023	2024
Q1	1.88A	2.18A
Q2	1.52A	1.52E
Q3	1.26A	1.36E
Q4	1.46A	1.64E

Key Vision Pro features

Exhibit 1: Vision Pro product staging on launch day

Launched on February 2nd, Apple allowed customers to purchase a limit of 2 Vision Pro per person when they made their purchase in-store.

Source: Apple

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Exhibit 2

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Source: Apple

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Audio

Vision Pro is the first Apple device with immersive spatial audio through two external speakers placed above the ear. Those within the vicinity can slightly hear sounds.

Battery life

Vision Pro offers a 3166mAh USB-C battery with a cable and proprietary connector to connect with the headset. The battery allows for 2hrs of general use and 2.5 hours of video time. However, as the headset does not have a built-in battery, Vision Pro needs to be connected to the battery at all times of usage. The battery is not hot-swappable.

Comfort

Vision Pro is pretty easy to put on, although it does seem a bit fragile like the earlier iPhones. Once slipped on over the user's eyes there is a dial on the right to adjust the strap tightness. After only a couple quick turns, the device sits comfortably on the user's face. The weight is noticeable on the user's head, but it fits so seamlessly one can barely tell it weighs about 1.5lbs. It only takes about a minute or two for the user to adjust to the device on their face. The light seal is also a cushion and light blocker to allow the user better visibility of the screen, however whatever is on the user's face (sweat or make-up) will be all over the light seal. The light seal is replaceable for \$199 USD. The Vision Pro Knit Band is replaceable for \$99 or the user can purchase a Dual Loop Band for \$99. The latter product creates 2 points of contact with the back of the head.

Accessory Compatibility

Vision Pro is compatible with AirPods Pro and the iPhone 15 Pro & Pro Max models. The iPhone 15 Pro & Pro Max models can already take spatial & 3D video which can then be viewed on the Vision Pro device. The Vision Pro includes a virtual keyboard although connecting to a Bluetooth physical keyboard makes for faster typing. There are no external controllers offered. However, Vision Pro provides support for other controllers such as PS5.

Exhibit 3: Vision Pro Compatibly Accessory list

All of the below accessories are available to purchase on Apple.com

Accessory	Price \$
iPhone 15 Pro	999.00
iPhone 15 Pro Max	1,199.00
Vision Pro Light Seal Cushion	29.00
Vision Pro Solo Knot Band	99.00
Vision Pro Dual Loop Band	99.00
Vision Pro Travel Case	199.00
Vision Pro Batter	199.00
Belkin Battery Holder for Vision Pro	49.95
AirPods Pro (2nd Generation)	249.00
Magic Keyboard	99.00
Magic Trackpad	129.00
ZEIS Optical Inserts	99.00
Sony PlayStation DualSense Wireless Controller	69.95
240W USB-C Charge Cable	29.00
30W USB-C Power Adapter	39.00

Source: BofA Global Research, Company Filings

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Sensitivity Analysis

Exhibit 4: Vision Pro Hardware Revenue and Earnings Impact

We expect Vision Pro to add to EPS 43 cents per share in total over the next five calendar years

	C2024	C2025	C2026	C2027	C2028	Total
Vision Pro						
Mac Installed Base (mn)	130	134	140	147	155	
Vision Pro Units (mn)	0.4	1	4	8	12	
Vision Pro ASPs	\$3,500	\$3,500	\$2,000	\$2,000	\$1,500	
Penetration Rate of Mac Installed Base	0.31%	0.75%	2.85%	5.43%	7.76%	
Revenue (\$mn)	\$1,400	\$3,500	\$8,000	\$16,000	\$18,000	\$46,900
% Gross Margin	20%	20%	20%	20%	20%	
Gross Margin (\$mn)	\$280	\$700	\$1,600	\$3,200	\$3,600	
% OpEx	12.7%	12.7%	12.7%	12.7%	12.7%	
Operating Income (\$mn)	\$244	\$611	\$1,397	\$2,794	\$3,143	
Tax rate	16%	16%	16%	16%	16%	
Net Income (\$mn)	\$205	\$513	\$1,173	\$2,347	\$2,640	
Shares Outstanding (mn)	15,708	15,378	15,062	15,000	15,000	
EPS impact	\$0.01	\$0.03	\$0.08	\$0.16	\$0.18	\$0.46

Source: Company reports, BofA Global Research estimates

BofA GLOBAL RESEARCH

Exhibit 5: Vision Pro Software Revenue and Earnings Impact

We expect visionOS to add to EPS 21 cents per share in total over the next five calendar years, if consumers spend \$10 per month on average

	C2024	C2025	C2026	C2027	C2028	Total
Apple Services (\$10/mo)						
Vision Pro Installed Base	0.4	1.4	5.4	13.4	25.4	
Services Revenue from Vision Pro	\$48	\$168	\$648	\$1,608	\$3,048	\$5,520
% Gross Margin	80%	80%	80%	80%	80%	
Gross Margin (\$mn)	\$38	\$134	\$518	\$1,286	\$2,438	
% OpEx	12.7%	12.7%	12.7%	12.7%	12.7%	
Operating Income (\$mn)	\$34	\$117	\$453	\$1,123	\$2,129	
Tax Rate	16%	16%	16%	16%	16%	
Net Income (\$mn)	\$28	\$99	\$380	\$943	\$1,788	
Shares Outstanding (mn)	15,708	15,378	15,062	15,000	15,000	
EPS	\$0.00	\$0.01	\$0.03	\$0.06	\$0.12	\$0.22

Source: Company reports, BofA Global Research estimates

BofA GLOBAL RESEARCH

Exhibit 6: Vision Pro Software Revenue and Earnings Impact

We expect visionOS to add to EPS 41 cents per share in total over the next five calendar years, if consumers spend \$20 per month on average

	C2024	C2025	C2026	C2027	C2028	Total
Apple Services (\$20/mo)						
Vision Pro Installed Base	0.4	1.4	5.4	13.4	25.4	
Services Revenue from Vision Pro	\$96	\$336	\$1,296	\$3,216	\$6,096	\$11,040
% Gross Margin	80%	80%	80%	80%	80%	
Gross Margin (\$mn)	\$77	\$269	\$1,037	\$2,573	\$4,877	
% OpEx	12.7%	12.7%	12.7%	12.7%	12.7%	
Operating Income (\$mn)	\$67	\$235	\$905	\$2,246	\$4,257	
Tax Rate	16%	16%	16%	16%	16%	
Net Income (\$mn)	\$56	\$197	\$760	\$1,887	\$3,576	
Shares Outstanding (mn)	15,708	15,378	15,062	15,000	15,000	
EPS	\$0.00	\$0.01	\$0.05	\$0.13	\$0.24	\$0.43

Source: Company reports, BofA Global Research estimates

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Key apps that are available for Vision Pro

Exhibit 7: Some key apps that are currently available for the Apple Vision Pro
The Vision Pro has built-in apps offered by Apple and third-party apps

Built-in Apps	Entertainment	Sports	Productivity	Games
App Store	Disney+	ESPN	Microsoft 365	Apple Arcade
Encounter Dinosaurs	Amazon Prime Video	NBA	Fantastical Calendar	Super Fruit Ninja
Files	Discovery+	MLB	JigSpace	Candy Crush Saga
Freeform	Max	PGA Tour	Slack	What the Golf?
Keynote	Paramount+		Zoom	NBA 2K23 Arcade Edition
Mail	Peacock		Cisco Webex	Rec Room
Messages	Pluto TV		Microsoft Teams	
Mindfulness	Tubi			
Music	Fubo			
Notes	Crunchyroll			
Photos	Red Bull TV			
Safari	IMAX			
TV	MUBI			
Books	TikTok			
Tips				
Calendar				
Maps				
News				
Podcasts				
Reminders				
Stocks				
Shortcuts				
Facetime				
Capture (Camera)				
Home				
Source: Company reports				



Price objective basis & risk

Apple Inc. (AAPL)

Our PO of \$225 is based on approximately 32x our C24E EPS. Our target multiple compares to the 5-year historical range of 16-34x (median 27x). We believe a multiple at the higher end of the historical range is justified given a large cash balance and opportunity to diversify into new end markets, increasing mix and diversity of services.

Downside risks are: a) weaker iPhone 15 cycle on consumer spending risk, b) weaker near-term services trajectory where App Store & Licensing can decelerate, c) gross profit dollars declining y/y next few quarters, d) iPads/Macs reverting to pre-COVID levels, and e) stronger dollar. Other risks are potential trade conflicts, tariffs, longer iPhone replacement cycles, commoditization in the smartphone market, intensifying competition in the tablet market, ability to manage beat and raise expectations for EPS estimates, and requirement to maintain pace of product innovation.

Upside risks are: a) stronger sales of Pro iPhone models which can help average selling price and help the mix of the business, b) est. revisions can be lower vs. peers, c) potential new products (AR/VR), and services (advertising). Other upside risks are stronger than expected iPhone cycle, gross margin upside from better mix of higher end iPhones, tailwinds from lower memory costs, and a faster than expected recovery in emerging markets.

Analyst Certification

I, Wamsi Mohan, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

US - IT Hardware and Technology Supply Chain Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Amphenol	APH	APH US	Wamsi Mohan
	Apple Inc.	AAPL	AAPL US	Wamsi Mohan
	Corning Inc.	GLW	GLW US	Wamsi Mohan
	Dell Technologies Inc.	DELL	DELL US	Wamsi Mohan
	Flex Ltd.	FLEX	FLEX US	Ruplu Bhattacharya
	HP Inc.	HPQ	HPQ US	Wamsi Mohan
	International Business Machines Corp.	IBM	IBM US	Wamsi Mohan
	Jabil Inc.	JBL	JBL US	Ruplu Bhattacharya
	Nutanix Inc	NTNX	NTNX US	Wamsi Mohan
	Roku, Inc.	ROKU	ROKU US	Ruplu Bhattacharya
	Seagate Technology	STX	STX US	Wamsi Mohan
	Sensata Technologies Holdings Plc	ST	ST US	Wamsi Mohan
	TD Synnex Corp	SNX	SNX US	Ruplu Bhattacharya
	TE Connectivity Ltd.	TEL	TEL US	Wamsi Mohan
	Teradata Corporation	TDC	TDC US	Wamsi Mohan
	Western Digital Corporation	WDC	WDC US	Wamsi Mohan
NEUTRAL				
	Arrow Electronics Inc.	ARW	ARW US	Ruplu Bhattacharya
	Avnet Inc.	AVT	AVT US	Ruplu Bhattacharya
	CDW Corp	CDW	CDW US	Ruplu Bhattacharya
	Concentrix Corporation	CNXC	CNXC US	Ruplu Bhattacharya
	Hewlett-Packard Enterprise	HPE	HPE US	Wamsi Mohan
	Pure Storage	PSTG	PSTG US	Wamsi Mohan
UNDERPERFORM				
	DigitalOcean	DOCN	DOCN US	Wamsi Mohan
	NetApp Inc.	NTAP	NTAP US	Wamsi Mohan



US - IT Hardware and Technology Supply Chain Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Sanmina Corporation	SANM	SANM US	Ruplu Bhattacharya
	Vishay Intertechnology, Inc.	VSH	VSH US	Ruplu Bhattacharya
	Vizio	VZIO	VZIO US	Wamsi Mohan

iQmethodSM Measures Definitions**Business Performance**

Return On Capital Employed

Return On Equity

Operating Margin

Earnings Growth

Free Cash Flow

Quality of Earnings

Cash Realization Ratio

Asset Replacement Ratio

Tax Rate

Net Debt-To-Equity Ratio

Interest Cover

Valuation Toolkit

Price / Earnings Ratio

Price / Book Value

Dividend Yield

Free Cash Flow Yield

Enterprise Value / Sales

EV / EBITDA

Numerator

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income

Operating Profit

Expected 5 Year CAGR From Latest Actual

Cash Flow From Operations – Total Capex

Numerator

Cash Flow From Operations

Capex

Tax Charge

Net Debt = Total Debt – Cash & Equivalents

EBIT

Numerator

Current Share Price

Current Share Price

Annualised Declared Cash Dividend

Cash Flow From Operations – Total Capex

EV = Current Share Price × Current Shares + Minority Equity + Net Debt +

Other LT Liabilities

Enterprise Value

Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill

Amortization

Shareholders' Equity

Sales

N/A

N/A

Denominator

Net Income

Depreciation

Pre-Tax Income

Total Equity

Interest Expense

Denominator

Diluted Earnings Per Share (Basis As Specified)

Shareholders' Equity / Current Basic Shares

Current Share Price

Market Cap = Current Share Price × Current Basic Shares

Sales

Basic EBIT + Depreciation + Amortization

iQmethodSM is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

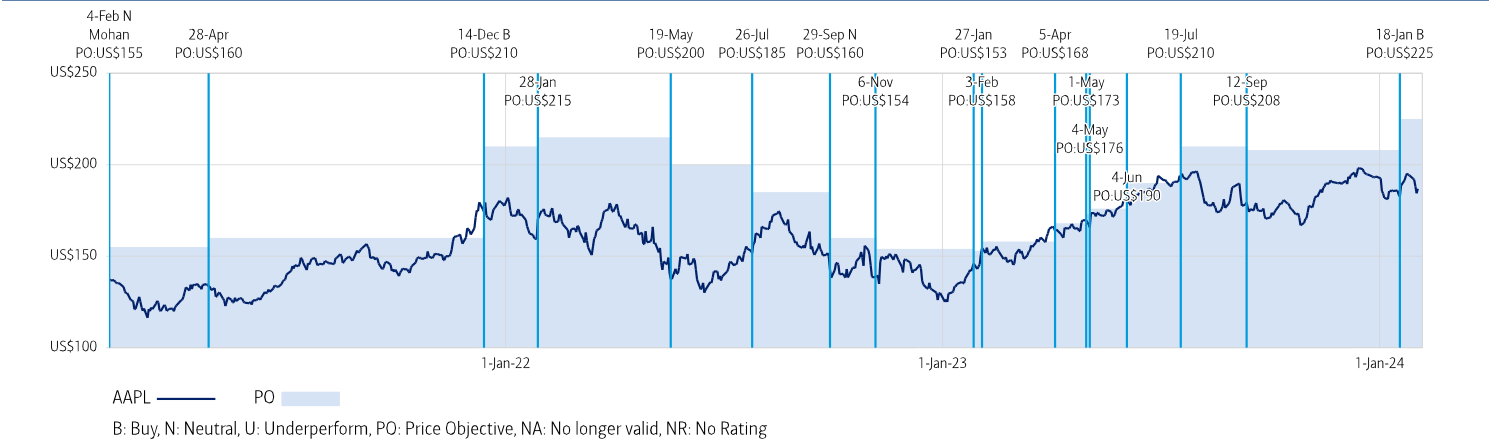
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Disclosures

Important Disclosures

Apple Inc. (AAPL) Price Chart



The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Equity Investment Rating Distribution: Technology Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	215	53.09%	Buy	111	51.63%
Hold	97	23.95%	Hold	45	46.39%
Sell	93	22.96%	Sell	24	25.81%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. VOLATILITY RISK RATINGS, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. INVESTMENT RATINGS reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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