

A Comprehensive Analysis Report on Apple Inc.



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DEFINITIONS AND ABBREVIATIONS

This Analytical Business Report uses certain definitions and abbreviations which, unless the context otherwise indicates or implies, shall have the meaning as provided below.

References to any legislation, act, regulation, rules, guidelines or policies shall be to such legislation, act, regulation, rules, guidelines or policies as amended, supplemented or re-enacted from time to time, and any reference to a statutory provision shall include any subordinate legislation framed from time to time under that provision. Unless the context otherwise indicates, all references to “the Company”, “our Company” and the “Issuer” are references to “Apple Inc.”, an American multinational technology company with its headquarters at One Apple Park Way, Cupertino, CA 95014-01462, United States of America. Furthermore, unless the context otherwise indicates, all references to the terms “they”, “them” and “their” are to the Company and their Subsidiaries (as defined below) on a consolidated basis.

EXECUTIVE SUMMARY

KEY FINANCIAL METRICS

Stock Price: 211.66	Market Cap: \$3.23 T	Sector: Technology
52-Week High: \$220.2	P/E Ratio: 32.75	Industry: Computer
52-Week Low: \$164.07	EPS: \$6.43	ROE: 127.51%
Revenue: \$347.155 B	Dividend Yield: 0.47%	ROCE: 51.53%
Gross Margin: 44.13%	Beta: 1.25	EBITDA: \$110.935 B
Net Margin: 25.3%	Int. Coverage: 40.75	Debt to Equity: 1.41

Important and Significant Findings

Key Findings:

Business Model and Industry Analysis: Apple designs, manufactures, and markets a wide range of mobile devices, personal computers, and related products and services. The company's revenue is primarily driven by the iPhone, Mac, and iPad, which account for over 65% of total revenue. Additionally, the growing contribution from services and wearables/accessories segments has been a significant contributor to Apple's growth.

Competitive Advantages: Apple's competitive advantages include its unique business strategy, extensive design patents, trade secrets, focus on perfection and beauty, and the strong Apple ecosystem. These factors have enabled the company to maintain its position as a leading innovator in the technology industry.

Risk Factors: The report identifies several risk factors, including the heavy reliance on the iPhone, legal risks and lawsuits, the pace of innovation, and the challenge of maintaining its reputation for innovation in the face of increasing competition from rivals like Samsung and the emergence of new technologies like foldable phones and generative AI.

Future: Apple's plans include a focus on creating a unified smart home, exploring personal robotic devices, and diversifying beyond the iPhone by expanding into areas such as wearables, augmented reality, and artificial intelligence integration with Siri. The company also aims to launch a more affordable version of its high-end Vision Pro augmented reality headset to target a wider market.

Valuation: The report conducts a valuation analysis using a modified discounted cash flow model and concludes that Apple's current share price is overvalued compared to the estimated intrinsic value. The report recommends not buying or adding the stock to the portfolio at the current market price.

Overall, the analysis report provides a comprehensive and insightful assessment of Apple's strengths, challenges, and prospects, offering valuable insights for investors and industry stakeholders.

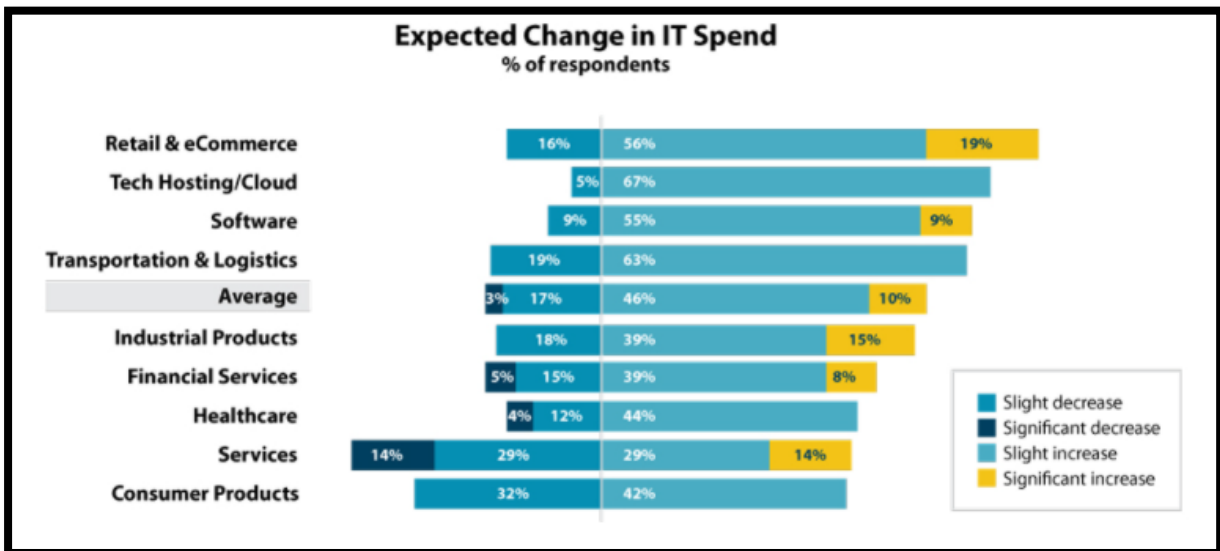
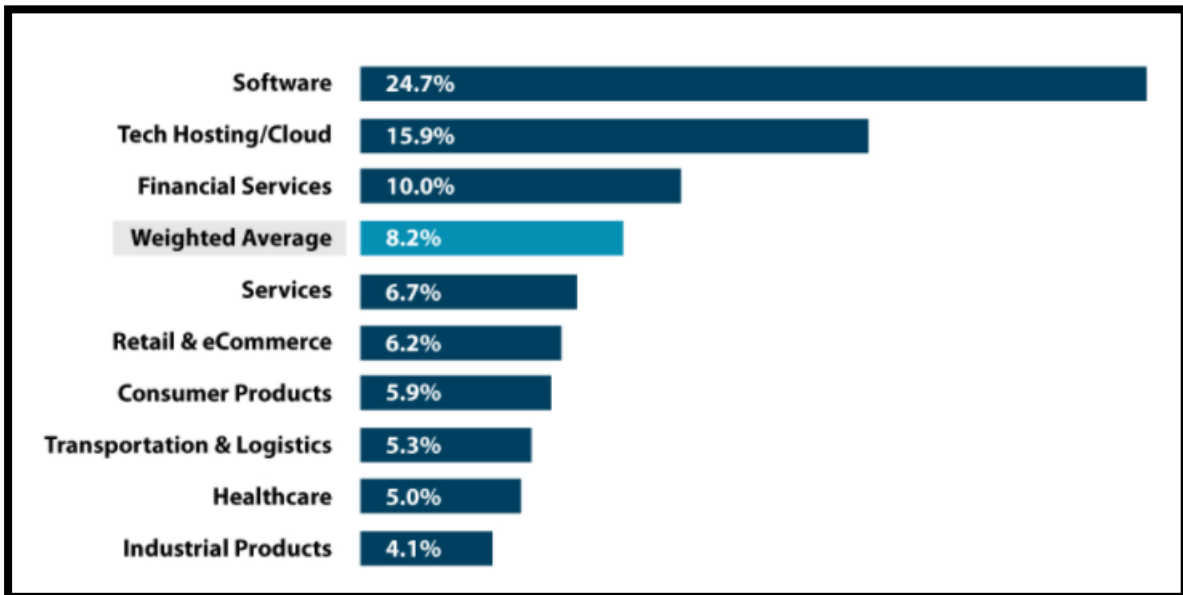
Apple Stock Price vs S&P 500 in 5 years



BUSINESS MODEL AND INDUSTRY ANALYSIS

Apple Inc. designs, manufactures and markets mobile communication and media devices, personal computers, and portable digital music players worldwide. The company also sells related software, services, accessories, networking solutions, and third-party digital content and applications. In addition, it offers various Apple-branded and third-party Mac-compatible and iOS-compatible accessories, including headphones, cases, displays, storage devices, and various other connectivity and computing products and supplies. The company sells and delivers digital content and applications through the iTunes Store, App Store, iBooks Store, and Mac App Store; and sells its products through its retail stores, online stores, and direct sales force, as well as through third-party cellular network carriers, wholesalers, retailers, and value-added resellers. It serves consumers, and small and mid-sized businesses, as well as education, enterprise, and government customers.

IT Spend as % of Revenue



The pandemic had taught us the need for a new construct and mental model for technology. In almost every industry, some form of technology will become the product or an enabler to it. The digital transformation will be vital and an integral part of the industry to stay ahead and not be left behind.

The IT Department will not be seen as replacing aging equipment and install desktop software. Technology departments of the future will be adept at deploying custom applications that make companies more productive and improve the customer experience.

The future to the next wave of innovation and productivity will be “third platform” technologies – those that mark the convergence of mobile, cloud, internet of things (IoT), block-chain technology, Artificial Intelligence (AI), big data and robotics. The confluence of these technologies is completely altering how we live and transact, and will ultimately drive decisions on how we make money. Looking forward to 2022, management teams should recalibrate based on the technology trends. Apple provides the services which holds the most weightage in the IT Market, mainly software and cloud computing. Apple seems to have a bright future and soar high as per this data.

Impact Analysis of Covid-19 on the Global Wearable Technology Market 2020-2024



Covid-19 has affected the global wearable technology market. The Consumer Discretionary sector will see Negative Impact due to the spread of Covid-19 outbreak. The outbreak is expected to register a low growth rate compared to the Global GDP Growth. The market will have a negative impact due to the spread of Covid-19. The market is expected to grow at 12.4% CAGR until 2024. The emergence of hybrid smartwatch market is a major trend driving the growth of the market. The incremental growth of the market is anticipated to be \$35.48 bn. The top players in the market with a huge market share are tech giants like Apple Inc., Alphabet Inc., Fossil Group Inc., Garmin Ltd., Samsung Electronics Co. Ltd., Vuzix Corp., Xiaomi Corp., and others. Other market participants are focusing on the key market driver,

the popularity of these wearable devices as a payment method this is benefitting the market.

There will be more contribution of the APAC Region. As per sources, there will be 40% contribution of the APAC Region with significant demand. Market growth could be attributed to the demanding lifestyle in developed and developing nations.

History and Business Model

Established in April 1976, Apple started from a small garage in California. Apple went on to become one of the most powerful tech giants and one of the top-rated Multinational technology Company popular as one of the top four big companies around the world. The business model of Apple is based on designing, developing, manufacturing and selling of computer software, consumer electronics, and online services. Headquartered in Cupertino, California it is functional all around the world. Let us dive deep how Apple became the most valued company in the world with a valuation of over \$2 trillion.

Apple's business model targets mass-market consumers, which makes up to hundreds and millions of them. Apple's products are marketed as premium products that even smaller consumer segments focus on.

Apple's key products such as iPhone, Mac and iPad sales account for more than 65% of Apple's total revenue. The iPhone alone contributes more than 48% of the revenue, the largest share of all Apple Products. Over the years, Services as well as Wearables and other accessories have shown a growth of 113% and a major growing contribution in Apple's Net Sales.

Apple has even been improving its market share in the Indian Mobile Industry. From just 3% in April 2021, with a staggering growth of 18% in just 3 months. Apple is even in industries, which have costed Apple more than \$3 billion to acquire the best companies. Specifically, Siri Inc. the Voice-activated personal assistant technology which Apple is known for was acquired 3 years after the iPhone 1's launch which costed Apple more than \$200 million. Beats Electronic and Beats Music, an Audio Products Manufacturer costed Apple \$3 billion.

Apple's Business model is based on innovation and consumer-centric devices. They are able to keep their base due to easy-to-use designs and data migration to new product lines.

COMPETITIVE ADVANTAGE

1. Business Strategy

Before returning to Apple, Steve Jobs said: “Apple was a company that was based on Innovation. When I left Apple ten years ago, Apple was ten years ahead.”

Apple’s unique business strategy leverages its unique ability to design and develop its own operating systems, hardware, application software etc. Known for innovation, Apple has established a unique reputation in the consumer electronics industry. The company believes in a high-quality buying experience greatly enhances its ability to attract and retain customers.

2. Design Patents

Due to the high competition in the market, Apple has filed numerous design patents to protect the distinctive look and feel of its products along with the features. Apple has filed nearly 95500 patents; the patents include the rounded corner design of the iPhone, AR Glasses, Self-adjusting watch straps, tiny sensors that can detect poisonous gases, smart-clothing, foldable iPhone and even interactive 3D Holograms. This secures Apple’s unique product identity and prevents its competitors to create similar or near-identical devices.

3. Trade Secrets

Apple has a history of maintaining tight control over its supply chain and manufacturing process; often, relying on trade secrets to protect key elements of its products. Moreover, Apple has a robust army of legal soldiers for high profile battles to protect the company against leakage of secrets and imitation of intellectual property. In 2022, Apple sued chip startup Rivos for leaking trade secrets. ‘Half the folks can’t tell you what they are doing because it’s a secret’, these are the exact words quoted by former executive Bob Borchers. Apple keeps secrets to such an extent that even interns and newcomers, don’t know what they are working on at Apple.

4. Perfection and Beauty

For decades, Apple has been a design-driven company. Apple doesn’t fulfill the needs of the end consumer, rather it focusses on satisfying the feelings. Apple attempts to design products that generate feelings of delight, surprise, love and connection. When asked about what market research Apple conducted while creating the iPad, Steve Jobs famous replied, “None. It’s never the consumers’ job to know what they want.”

Apple took more than 14 years to launch a simple calculator app, but when they did, it had no competition. With the integration of Math Notes, Apple raised the bar for the calculators and made iPad, the perfect instrument for notetaking.

5. Apple Ecosystem

The Ecosystem that Apple has created steadily offers seamless integration like none. It offers privacy and security with quality hardware, an exceptional software design combined with exclusive features and services. Approximately 12% of the revenues come from corporate clients which are attracted to Apple due to the increased productivity it offers by the ecosystem, which is why they are willing to pay the premium.

RISKS

The heavy reliance on the iPhone by the firm is a major risk that it carries. Any decline in the iPhone sales can have a major impact on the firm's revenue as the iPhone account for more than 50%. To prevent overconcentration of revenue from specific segments, Apple has been trying to diversify sales through other products such as the iWatch, Air Pods and much more.

Secondly, Apple has already seen a struggle in the Chinese market which account for nearly 20% of Apple's revenues. Apple iPhone sales in the region has plummeted by 24% as the Huawei's popularity surged. Moreover, the economic slowdown in China along with the trade disputes between those nations can impact the American firms as homegrown Chinese brands are able to capture consumers.

Legal Risks and Lawsuits against Apple are contingent challenges for the company. Apple recently lost the lawsuit against Epic Games as it sued Apple for charging a whopping 30% fee for all app and in-app purchases. Ultimately, Apple allowed developers to use separate platforms but still charges a 27% to 12% commission for using its platform.

Even though, these lawsuits will eventually be resolved; the point is that App store and such services are future growth industries and account for 26% of Apple's gross profit. The services business has nearly twice the gross profit margin of that of the hardware segment.

As per Bloomberg reports, the department of justice is also preparing papers against the tech giant for anticompetitive and monopolistic behavior.

Apart from these risks, the major risk that Apple is now facing is the pace of innovation. Apple has also lacked behind in compounded revenue growth rate in the past 5 years at 8.3% as compared to Microsoft and Alphabet at 15.6% and 19.8% respectively. Furthermore, the price to earnings ratio of Apple has tripled from 2011, the year of former CEO Steve Jobs death. This premium is not justified, especially because innovation is lagging. While the \$3,500 Vision Pro augmented reality headset has gotten some initial buzz, it isn't a mass market product. Priced at an exceptionally high level, it isn't that up to the mark and seems like just a prototype, despite being first major product introduction since the Apple Watch.

By contrast, Samsung, has given a tough competition by being quicker in incorporating and adapting innovation, including foldable phones.

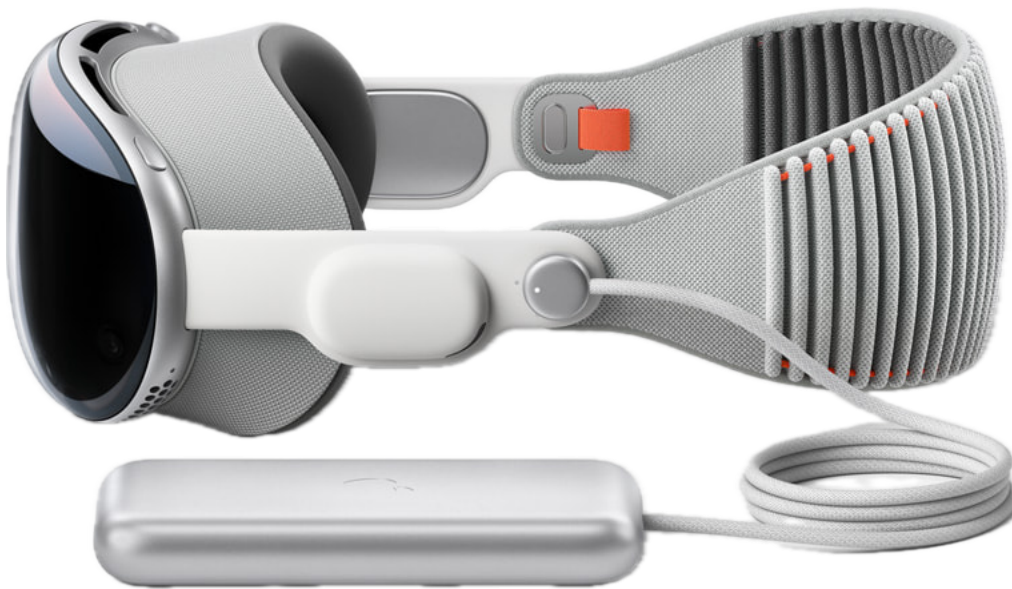
Now, with generative AI into the landscape, Apple needs to be brisk in integrating this concept within the software and gain its reputation of innovation back.

FUTURE PLANS

Creating a unified smart home remains one of the top priorities for Apple. It is a goal, but the vision is hard to achieve. Apple is also exploring the idea of making personal robotic devices suffused with artificial intelligence. The industry of personal robot services is expected to grow at about 18.6% CAGR.

Apple also aims to diversify beyond the iPhone and enter spaces such as wearables, Augmented Reality, Apple Glasses, Artificial Intelligence integration in Siri as well as Face ID.

Along with this Apple has a strong focus on a wider product range. Apple intends to launch a variety of products such as low end AirPods models, a streamlined and diversified iPad lineup, robotics and smart home devices. However, to focus on other segments, Apple needs to catch up on the artificial intelligence sorted on the software. Along with that, it is imperative to launch an affordable version of the Vision Pro to target the masses. This is because, Apple has already made progress in this, and it will be easier to capture the market while gaining the first mover's advantage.



FINANCIAL DATA AND OTHER DATA (Annual)

Balance Sheet

	2023 9/30/23	2022 9/24/22	2021 9/25/21	2020 9/26/20
Cash	29,965	23,646	34,940	38,052
Short Term Investments	31,590	24,658	27,699	52,927
ASSETS				
Cash & Short Term Investments	61,555	48,304	62,639	90,979
Receivables - Net	60,985	60,932	51,506	37,445
Inventories - Total	6,331	4,946	6,580	4,061
Prepaid Expenses	--	--	--	--
Other Current Assets	14,695	21,223	14,111	11,228
CURRENT ASSETS - TOTAL	143,566	135,405	134,836	143,713
Buildings	23,446	22,126	20,041	17,952
Machinery & Equipment	78,314	81,060	78,659	75,291
Other Property, Plant & Equipment	23,500	21,688	21,110	18,853
Property, Plant and Equipment - Gross	125,260	124,874	119,810	112,096
Accumulated Depreciation	(70,884)	(72,340)	(70,283)	(66,760)
Property, Plant and Equipment - Net	54,376	52,534	49,527	45,336
Other Investments	100,544	120,805	127,877	102,624
Other Tangible Assets	54,097	44,011	38,762	32,215
Other Assets - Total	54,097	44,011	38,762	32,215
TOTAL ASSETS	352,583	352,755	351,002	323,888
LIABILITIES				
Accounts Payable	62,611	64,115	54,763	42,296
Short Term Debt & Current Portion of Long Term Debt	15,972	21,239	15,692	13,793
Income Taxes Payable	8,819	6,552	--	--
Other Current Liabilities	57,906	62,076	55,026	49,303
CURRENT LIABILITIES - TOTAL	145,308	153,982	125,481	105,392
Capitalized Lease Obligations	859	812	769	637
Long Term Debt	96,140	99,771	109,875	99,304
DEFERRED TAXES	--	--	--	--
Other Liabilities	48,989	48,330	52,556	53,853
TOTAL LIABILITIES	290,437	302,083	287,912	258,549
EQUITY				
Non-Equity Reserves	0	0	0	0
Minority Interest	0	0	0	0
Preferred Stock	0	0	0	0
Common Stock	156K	159K	164K	170K
Capital Surplus	73,812	64,849	57,365	50,779
Other Appropriated Reserves	(11,452)	(11,109)	163	--
Retained Earnings	(214)	(3,068)	5,562	14,966
Unrealized Foreign Exchange Gain/Loss	0	0	0	(2,252)
Unrealized Gain/Loss on Marketable Securities	0	0	0	1,846

	2023 9/30/23	2022 9/24/22	2021 9/25/21	2020 9/26/20
COMMON EQUITY	62,146	50,672	63,090	65,339
TOTAL LIABILITIES & SHAREHOLDERS' EQUITY	352,583	352,755	351,002	323,888
SHARE INFORMATION				
Common Shares Outstanding	15,550	15,943	16,427	16,977

() = Negative Values
In U.S. Dollars

Values are displayed in Millions except for earnings per share and where noted

Income Statement

	2023 9/30/23	2022 9/24/22	2021 9/25/21	2020 9/26/20
NET SALES OR REVENUES	383,285	394,328	365,817	274,515
Cost of Goods Sold (Excl Depreciation)	202,618	212,442	201,697	158,503
Depreciation, Depletion And Amortization	11,519	11,104	11,284	11,056
Depreciation	11,519	11,104	11,284	11,056
GROSS INCOME	169,148	170,782	152,836	104,956
Selling, General & Admin Expenses	54,847	51,345	43,887	38,668
Research and Development Expense	29,915	26,251	21,914	18,752
OPERATING INCOME	114,301	119,437	108,949	66,288
Non-Operating Interest Income	3,750	2,825	2,843	3,763
Other Income/Expenses - Net	(382)	(228)	60	(87)
Interest Expense On Debt	3,933	2,931	2,645	2,873
PRETAX INCOME	113,736	119,103	109,207	67,091
Income Taxes	(16,741)	(19,300)	(14,527)	(9,680)
Current Domestic Income Tax	11,015	9,409	9,877	6,761
Current Foreign Income Tax	8,750	8,996	9,424	3,134
Deferred Domestic Income Tax	(3,693)	(2,181)	(7,514)	(3,598)
Deferred Foreign Income Tax	669	3,076	2,740	3,383
NET INCOME BEFORE EXTRA ITEMS/PREFERRED DIVIDENDS	96,995	99,803	94,680	57,411
NET INCOME USED TO CALCULATE BASIC EARNINGS PER SHARE	96,995	99,803	94,680	57,411
Shares used in computing earnings per share - Fully Diluted	15,813	16,326	16,865	17,528
Earnings per Common Share - Basic	6.16	6.15	5.67	3.31
Earnings per Common Share - Fully Diluted	6.13	6.11	5.61	3.28

() = Negative Values

In U.S. Dollars

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Cash Flow Statement

	2023 9/30/23	2022 9/24/22	2021 9/25/21	2020 9/26/20
OPERATING ACTIVITIES				
Net Income / Starting Line	96,995	99,803	94,680	57,411
Depreciation and Depletion	11,519	11,104	11,284	11,056
Depreciation, Depletion and Amortization	11,519	11,104	11,284	11,056
Deferred Income Taxes	--	895	(4,774)	(215)
Deferred Income Taxes & Investment Tax Credit	--	895	(4,774)	(215)
Total Other Cash Flow	8,606	9,149	7,759	6,732
Funds From Operations	117,120	120,951	108,949	74,984
Extraordinary Items	0	0	0	0
Decrease/Increase In Receivables	(417)	(9,343)	(14,028)	8,470
Decrease/Increase In Inventories	(1,618)	1,484	(2,642)	(127)
Increase/Decrease In Accounts Payable	(1,889)	9,448	12,326	(4,062)
Decrease/Increase In Other Assets/Liability	(2,653)	(389)	(567)	1,409
Funds From/For Other Operating Activities	(6,577)	1,200	(4,911)	5,690
NET CASH FLOW - OPERATING ACTIVITIES	110,543	122,151	104,038	80,674
INVESTING				
Increase In Investments	(29,513)	(76,923)	(109,689)	(115,148)
Decrease In Investments	45,514	67,363	106,870	120,483
Capital Expenditures (Additions To Fixed Assets)	(10,959)	(10,708)	(11,085)	(7,309)
Net Assets From Acquisitions	0	(306)	(33)	(1,524)
Other Uses - Investing	(1,337)	(1,780)	(608)	(791)
Other Sources(Uses) - Investing	(1,337)	(1,780)	(608)	(791)
NET CASH FLOW - INVESTING	3,705	(22,354)	(14,545)	(4,289)
FINANCING				
Increase/Decrease In Short Term Borrowings	(3,978)	3,955	1,022	(963)
Long Term Borrowings	5,228	5,465	20,393	16,091
Reduction In Long Term Debt	(11,151)	(9,543)	(8,750)	(12,629)
Other Proceeds From Sale/Issuance of Stock	0	0	1,105	880
Net Proceeds from Sale/Issue of Common & Preferred	0	0	1,105	880
Common/Preferred Redeemed, Retired, Converted, Etc.	(77,550)	(89,402)	(85,971)	(72,358)
Common Dividends (Cash)	(15,025)	(14,841)	(14,467)	(14,081)
Cash Dividends Paid - Total	(15,025)	(14,841)	(14,467)	(14,081)
Other Uses - Financing	(6,012)	(6,383)	(6,685)	(3,760)
Other Sources(Uses) - Financing	(6,012)	(6,383)	(6,685)	(3,760)
NET CASH FLOW - FINANCING	(108,488)	(110,749)	(93,353)	(86,820)
INCREASE/DECREASE IN CASH AND SHORT TERM INVESTMENTS	5,760	(10,952)	(3,860)	(10,435)
Taxes Paid	18,679	19,573	25,385	9,501
Interest Paid	3,803	2,865	2,687	3,002

() = Negative Values

In U.S. Dollars

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Holdings Summary

SHAREHOLDERS

Large Block Owners	6,366	% Change in Ownership	-6%
Total Number of Shares Held	9.6B	% Shares Owned	58%
Monthly Rotation			
	Number of Shares	Value of Change (MM)	% of Shrs. Outstanding
Buyers 6/30/24	437,515,492	\$76,539.83	50.3%
Sellers 6/30/24	494,541,434	\$85,258.27	26.0%

TOP SHAREHOLDERS



Institutions	6,283 Holders
Mutual Funds	6,870 Holders
Other Major Holders	83 Holders

SHAREHOLDERS CONCENTRATION

Regional Holdings



TOP INSTITUTIONAL HOLDERS

Concentration of Current % Held

Top 10 Institutions:	30%	Top 20 Institutions:	36%	Top 50 Institutions:	43%	All:	56%
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Low
Avg. Turnover Rating

Name	Shares Held ^	Position Value	Percentage of Total Holdings since 6/30/24	% Owned of Shares Outstanding	Turnover Rating
The Vanguard Group, Inc.	1.3B	\$225,087,009,966	+14%	8.6%	Low
Berkshire Hathaway Inc.	789.4M	\$135,360,901,806	+8%	5.2%	Low
BlackRock Institutional Trust Company, N.A.	683.3M	\$117,164,572,716	+7%	4.5%	Low
State Street Global Advisors (US)	588.6M	\$100,931,546,783	+6%	3.8%	Low
Geode Capital Management, L.L.C.	307.7M	\$52,767,971,701	+3%	2.0%	Low
Fidelity Management & Research Company LLC	275.0M	\$47,158,357,950	+3%	1.8%	Low
T. Rowe Price Associates, Inc.	187.0M	\$32,068,492,634	+2%	1.2%	Low
Norges Bank Investment Management (NBIM)	176.1M	\$33,912,465,814	+2%	1.2%	Low
Legal & General Investment Management Ltd.	153.0M	\$26,243,756,366	+2%	1.0%	Low
Invesco Capital Management (QQQ Trust)	113.7M	\$21,867,762,703	+1%	0.7%	Low

Summary of the Financial Data

The financial data shows that the company has experienced steady growth over the past few years, with increasing revenues, assets, and profitability.

Key insights:

- ⇒ Revenues have grown from \$274.5 billion in 2020 to \$383.3 billion in 2023, a 39.7% increase.
- ⇒ Gross profit margins have remained strong, ranging from 38.2% in 2020 to 44.1% in 2023. This indicates the company has been able to maintain pricing power and control costs.
- ⇒ Operating income has grown from \$66.3 billion in 2020 to \$114.3 billion in 2023, a 72.3% increase, demonstrating improved operational efficiency.
- ⇒ Net income has grown from \$57.4 billion in 2020 to \$97.0 billion in 2023, a 69.0% increase, showing the company's ability to translate revenue growth into bottom-line profitability.
- ⇒ Cash and short-term investments have decreased from \$91.0 billion in 2020 to \$61.6 billion in 2023, as the company has invested in growth initiatives and returned capital to shareholders.
- ⇒ The company has maintained a strong balance sheet, with total assets of \$352.6 billion and total liabilities of \$290.4 billion as of September 2023.

In summary, the company has demonstrated consistent financial performance, with growing revenues, expanding margins, and improved profitability over the past few years. The company's financial position remains strong, providing the resources to invest in future growth opportunities.

Revenue Growth

Net sales or revenues have grown from \$274.5 billion in 2020 to \$383.3 billion in 2023, a 39.7% increase. This steady revenue growth has been a key driver of the company's improved financial performance.

Expanding Margins

Gross profit margins have increased from 38.2% in 2020 to 44.1% in 2023. The company has maintained pricing power and controlled costs, leading to higher gross margins.

Operating income has grown from \$66.3 billion in 2020 to \$114.3 billion in 2023, a 72.3% increase. This demonstrates improved operational efficiency and the company's ability to translate revenue growth into higher profitability.

Investing in R&D

Research and development expenses have grown from \$18.8 billion in 2020 to \$29.9 billion in 2023. This indicates the company's commitment to innovation and developing new products and services. While increasing operating expenses in the short term, R&D investments are expected to drive future growth.

Balance Sheet Strength

The company maintains a strong balance sheet, with total assets of \$352.6 billion and total liabilities of \$290.4 billion as of September 2023. Cash and short-term investments have decreased from \$91.0 billion in 2020 to \$61.6 billion in 2023, as the company invests in growth initiatives and returns capital to shareholders.

In summary, the company has delivered consistent financial performance, with growing revenues, expanding margins, and improved profitability over the past few years. Key drivers include revenue growth, cost control, operational efficiency, and strategic investments in R&D. The company's strong balance sheet provides the resources to continue investing in future growth opportunities.

Moat Analysis

As Warren Buffet rightly states, “Buying Business are like buying castles”. To analyze whether a business is fundamentally robust enough to buy, we need to look for some uniqueness and some barrier to entry which is both strong and sustainable.

Apple has a strong brand moat as the company has been leading the industry for more than 48 years. The brand moat and goodwill Apple carries is what allows it to command a premium price in the market justified by the end consumer.

Apple also has the iconic ecosystem moat. The seamlessly integrated ecosystem created by Apple by interconnected devices, software and services. Once the customer has invested in the ecosystem, they are less likely to switch and move from the convenience.

This ecosystem lock-in is a key advantage for the company.

Other than that, \$68 billions of cash is a huge moat which benefits Apple. This amount of cash can be used for research and development purposes and even aid the company to survive at low or near zero profit margins in case of price wars- which isn't the usual case for such a brand like Apple- shielding the company from other competitors or new players.

From the past few years, the aspirational brand Apple is performing well in the segment of services and software. It accounted for nearly 11% of the company's total revenue yet consisted more than 26% of the gross profit. This high margin segment is rapidly growing for Apple; however, it is crucial to understand that the hardware business is still the base which requires constant innovation and development.

Apple Care+ is an insurance policy which generates 17% of the total Apple services revenue. This is a high margin segment which can only be provided by Apple and means pure profits, adding to Apple's competitive advantages.



Apple TV, Apple Music, Apple Arcade, Apple Fitness+, Apple Podcasts, Apple Books

Vision Analysis

Vision – To make the best products on earth and to leave the world better than we found it.

The vision captures the focus on product excellence and a positive global impact. At core, Apple is all about relentless product innovation and design. At least, this has made Apple what it is. The exuberance of innovation and perfection is what makes it unique. This is what makes it a product-led business and not a firm handled by just a bunch of MBAs. It is in the DNA of the company to push the boundaries of what's possible, setting new standards for quality, functionality, design and on top of all, user experience.

Beyond making products, the vision also reflects the aspiration for being a force good for the world. It is revealed by the strict rule created by Apple that villains and antagonists in movies as well as TV shows cannot have Apple product in the film. Apple also speaks by action: it has collaborated with the Conservation Fund and the World Wildlife Fund to safeguard forests, oceans and create sustainable working lands.

It also aims to promote education opportunities and has partnered with Malala fund to provide education opportunities for Girls. Apple also offers an additional discount to students, showing signs of promoting students.

The vision statement also influences its partnerships and strategies. Apple often acquires small enterprises and hires specialized maniacs to accelerate its innovation efforts. Apple has notably purchased Beats Electronics to bolster its music streaming space, partnered with Nike and Hermès for additional features and launched a line of exclusive watch faces and bands for the Apple Watch.

Apple also aims to be carbon neutral by 2030 across its global supply chain by decarbonization. Apple has recently addressed the issue of rising global warming with its global trade partners and invested heavily in renewable energy. Apple has also launched a clean energy feature in the United States optimizing for when the grid uses cleaner energy sources like the wind or solar.

Overall, Apple's vision statement serves as a guideline that drives the company to not only create groundbreaking products but also to be a responsible corporate citizen.

VALUATION

**Note* - The valuation conducted is by the Modified Discounted Cash Flow Model and the numbers may vary from the Original Discounted Cash Flow Model*

ASSUMPTIONS

Growth Period

I have assumed the growth period to be 11 years, as I have accounted for increased need of technological equipment due to digitization. The reason for considering more years of growth is because of the rising use of Apple services and other Augmented reality products such as Vision Pro.

Growth Rate of Free Cash Flow

Apple Segments	Revenue Split	Past 8 Years CAGR	Est. Future CAGR	Average	Future Value	Est CAGR
iPhone	52.10%	3.80%	5%	4.35%	\$ 54.37	8.74%
Mac	10.20%	6.80%	4.21%	5.51%	\$ 10.76	
iPad	7.40%	3%	4.28%	3.64%	\$ 7.67	
Wearables and Accessories	10.50%	22.50%	20.13%	21.32%	\$ 12.74	
Services	19.80%	18.40%	16%	17.20%	\$ 23.21	

The assumption of the growth rate has been calculated by the revenue split and past 8 years compounded annual growth rate. After studying various reports by consultancies, I have also estimated the future growth rate of free cash flows. I have assumed that the growth rate will decline and evolve to the global growth rate eventually. This is because, just like the iPhone's, Mac's and iPad's market has been saturated and growing at a minute rate, other segments such as wearables and services will also be growing at this rate in the future i.e. after the growth period of 11 years to infinity.

Risk Free Rate

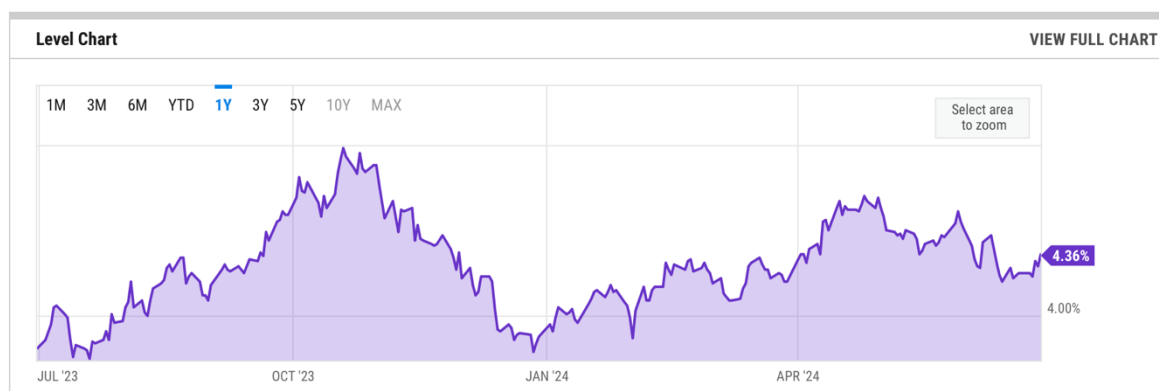
I am assuming the risk-free rate to be 4.36% as it is the US 10yr treasury rate as on 28th June 2024.

10 Year Treasury Rate (I:10YTCLMR)

4.36% for Jun 28 2024

Overview

Interactive Chart



Global Growth Rate

The global growth rate I am assuming is slightly higher than what is expected by the report from International Monetary Fund. The Global Economic Outlook report states the global growth rate will be 3.2 percent in 2025 and for the next 5 years. The growth rate I am going to assume is going to be *60 basis points* above the current estimate. The reason I am going to do this is because the report clearly states that it is the lowest in decades. Additionally, due to disturbed economic situations such as Russia-Ukraine War, Israel-Palestine Conflict, economic slowdown in manufacturing hub, China and high inflation in the United States too.

JAN
2024

WORLD ECONOMIC OUTLOOK UPDATE

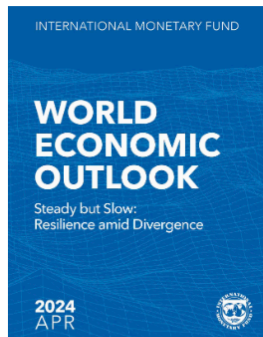
Moderating Inflation and Steady Growth Open Path to Soft Landing

- Global growth is projected at 3.1 percent in 2024 and **3.2 percent in 2025**, with the 2024 forecast 0.2 percentage point higher than that in the October 2023 World Economic Outlook (WEO) on account of greater-than-expected resilience in the United States and several large emerging market and developing economies, as well as fiscal support in China. The forecast for 2024–25 is, however, below the historical (2000–19) average of 3.8 percent, with elevated central bank policy rates to fight inflation, a withdrawal of fiscal support amid high debt weighing on economic activity, and low underlying productivity growth. Inflation is falling faster than expected in most regions, in the midst of unwinding supply-side issues and restrictive monetary policy. Global headline inflation is expected to fall to 5.8 percent in 2024 and to 4.4 percent in 2025, with the 2025 forecast revised down.

World Economic Outlook, April 2024: Steady but Slow: Resilience amid Divergence

April 16, 2024

Description:



Steady but Slow: Resilience amid Divergence

The baseline forecast is for the world economy to continue growing at 3.2 percent during 2024 and 2025, at the same pace as in 2023. A slight acceleration for advanced economies—where growth is expected to rise from 1.6 percent in 2023 to 1.7 percent in 2024 and 1.8 percent in 2025—will be offset by a modest slowdown in emerging market and developing economies from 4.3 percent in 2023 to 4.2 percent in both 2024 and 2025. The forecast for global growth five years from now—at 3.1 percent—is at its lowest in decades. Global inflation is forecast to decline steadily, from 6.8 percent in 2023 to 5.9 percent in 2024 and 4.5 percent in 2025, with advanced economies returning to their inflation targets sooner than emerging market and developing economies. Core inflation is generally projected to decline more gradually. The global economy has been surprisingly resilient, despite significant central bank interest rate hikes to restore price stability. Chapter 2 explains that changes in mortgage and housing markets over the prepandemic decade of low interest rates moderated the near-term impact of policy rate hikes. Chapter 3 focuses on medium-term prospects and shows that the lower predicted growth in output per person stems, notably, from persistent structural frictions preventing capital and labor from moving to productive firms. Chapter 4 further indicates how dimmer prospects for growth in China and other large emerging market economies will

Free Cash Flow

As per yahoo finance, the free cash flow for Apple is \$101.92 bn for TTM. I will be considering the average for the last three years (TTM, 2023, 2022).

As per calculations, the average is \$104.31 bn.

All numbers in thousands

Annual

Quarterly

Download

?

Breakdown	TTM	9/30/2023	9/30/2022	9/30/2021	9/30/2020
✓ Operating Cash Flow	110,563,000	110,543,000	122,151,000	104,038,000	80,674,000
✓ Investing Cash Flow	4,448,000	3,705,000	-22,354,000	-14,545,000	-4,289,000
✓ Financing Cash Flow	-108,219,000	-108,488,000	-110,749,000	-93,353,000	-86,820,000
✓ End Cash Position	33,921,000	30,737,000	24,977,000	35,929,000	39,789,000
Income Tax Paid Supplemental ...	28,316,000	18,679,000	19,573,000	25,385,000	9,501,000
Interest Paid Supplemental Data	--	3,803,000	2,865,000	2,687,000	3,002,000
Capital Expenditure	-8,644,000	-10,959,000	-10,708,000	-11,085,000	-7,309,000
Issuance of Capital Stock	--	--	--	1,105,000	880,000
Issuance of Debt	--	5,228,000	5,465,000	20,393,000	16,091,000
Repayment of Debt	-6,672,000	-11,151,000	-9,543,000	-8,750,000	-12,629,000
Repurchase of Capital Stock	-81,825,000	-77,550,000	-89,402,000	-85,971,000	-72,358,000
Free Cash Flow	101,919,000	99,584,000	111,443,000	92,953,000	73,365,000

	TTM	2023	2022	AVERAGE
Average of FCFs	101.92	99.58	111.44	104.31
(in billions)				

Margin of Safety

The margin of safety shall be 20% as this is a low-risk stock. Apple is a well-established stable firm and there is a high level of certainty of it achieving the intrinsic value.

Intrinsic Value

[illegible]

The intrinsic value of Apple stands at \$2.2 trillion (approx. \$145.2/ share). After applying a margin of safety of 20%, the market capitalization comes out to be less than \$1.78 trillion (approx. \$116.2/ share).

The current price of Apple is \$210.62 which means that the share is more than **45% overvalued** from the intrinsic value.

I would not recommend buying or adding the stock in your portfolio as it is trading at a higher price than the fair value.

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