**Apple Inc. Financial Analysis Report**

# A. Business Analysis

## Company Overview

Apple Inc., established in 1976 by Steve Jobs, Steve Wozniak, and Ronald Wayne, is an American multinational technology company headquartered in Cupertino, California. It is renowned for its innovation in consumer electronics, software development, and digital services. Over the years, Apple has evolved from a personal computer pioneer into a global leader in the tech industry. The company’s commitment to sleek design, user experience, and a tightly integrated ecosystem has positioned it as a dominant force in both hardware and software segments.

## Current Operations

Apple's current operations span across several product and service categories. On the hardware front, it offers devices such as the iPhone, iPad, MacBook, iMac, Apple Watch, and AirPods. Its software ecosystem includes iOS, macOS, iPadOS, watchOS, and tvOS. Additionally, Apple provides a wide range of services: the App Store, Apple Music, Apple TV+, Apple Arcade, iCloud, and Apple Pay. These services contribute significantly to recurring revenue and customer retention by creating a seamless user experience across devices.

## Macroeconomic Environment

Apple continues to experience growth through both organic product development and strategic acquisitions. Its vertical integration strategy—controlling hardware, software, and services—ensures operational efficiency and brand loyalty. Recent acquisitions, including Beats Electronics and Intel’s smartphone modem business, support its focus on innovation and independence from third-party suppliers. Despite global economic uncertainty, Apple maintains strong margins, diversified global revenue streams, and a growing services segment.

## Industry Competitors and Market Share

Apple operates in a highly competitive environment with key rivals including Samsung, Microsoft, Google, and Huawei. Its primary competitive advantages are brand equity, customer loyalty, robust R&D, and a closed ecosystem. Apple leads the global premium smartphone market and holds approximately 20% of the overall smartphone market share. In wearables and tablets, it remains among the top global vendors. Its service-based offerings also position it strategically to compete with platforms such as Spotify, Netflix, and Amazon.

# B. Ratio and Valuation Analysis

## Financial Ratio Analysis (FY2024)

Apple’s financial health and operational performance are evaluated using key financial ratios. These figures are derived from the latest fiscal year’s financial statements:

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| --- | --- |
| Ratio | Value |
| Current Ratio | 0.87 |
| Quick Ratio | 0.83 |
| Cash Ratio | 0.37 |
| Debt-to-Equity Ratio | 5.41 |
| Inventory Turnover | 28.87 |
| Gross Profit Margin | 46.21% |
| Operating Margin | 31.51% |
| Return on Sales | 23.97% |
| Return on Total Assets | 26% |
| Return on Equity | 164.59% |
| Earnings Per Share | $6.11 |
| Price-to-Earnings Ratio | 34.21 |
| Dividend Payout Ratio | 15.71% |
| Sustainable Growth Rate | 138.73% |

These ratios reflect Apple’s robust profitability, highly efficient asset management, and considerable returns to shareholders. The company maintains high return metrics despite moderate liquidity levels and significant leverage, suggesting strong operational cash flows and debt management.

## CAPM (Capital Asset Pricing Model) Analysis

The CAPM model estimates Apple’s cost of equity using market data. The beta value, derived from regression analysis, is 1.2106, indicating that Apple's stock is more volatile than the market average. Assuming a risk-free rate of 4.25% (10-year U.S. Treasury) and an expected market return of 10%, the cost of equity is calculated as follows:

* Cost of Equity **= 4.25% + 1.2106 × (10% - 4.25%) = 13.62%**

This result implies that investors expect a 13.62% return for investing in Apple, compensating for both the time value of money and Apple’s risk profile relative to the market.

## Valuation Using WACC and DCF

While the precise WACC value was not computed, it is generally estimated around 9.5% for Apple. By discounting future cash flows using WACC and analyzing Apple’s earnings potential, intrinsic valuation suggests a share price in alignment with or slightly above the market value. This supports the company's current market confidence and valuation premiums.

# C. Technical & Forecasting Analysis

## Monte Carlo Simulation

A Monte Carlo simulation was used to forecast Apple's stock price 30 days into the future, based on one year of historical stock data. The simulation runs 100 iterations using daily log returns and assumes a normal distribution of returns. The result provides a probabilistic price range, allowing for better investment risk assessment.

A graph of different colored lines

AI-generated content may be incorrect.

Expected stock price in 30 days: $207.48  
95% Confidence Interval: $154.87 to $261.87

The wide range reflects potential volatility, but the positive skew supports optimism about short-term performance.

## FB Prophet Forecast

Facebook Prophet, an additive time-series forecasting model developed by Meta, was applied to predict Apple's stock trends. This model handles seasonality, holidays, and trend shifts effectively. Using daily stock data from the past year, the Prophet forecast showed a gradual upward trend with minor dips—indicating consistent investor confidence and market growth.

A graph with a line going up

AI-generated content may be incorrect.The output reinforces that Apple’s stock is poised for steady growth, though external economic shocks and market corrections remain as risks.

A graph of a line

AI-generated content may be incorrect.

The **top chart** represents the overall **long-term trend** from 2010 to 2025. It reveals a strong, consistent upward movement in Apple’s stock price, particularly accelerating after 2020. This long-term bullish trend aligns with Apple’s expanding ecosystem, rising service revenue, and increasing investor confidence.

The **second chart** shows the **weekly seasonality**. It indicates that Apple’s stock tends to perform better early in the week, with **Monday** showing the highest average returns. The sentiment appears to taper midweek, with a slight dip around **Thursday and Friday**, likely reflecting profit-taking or market slowdowns.

The **bottom chart** presents **yearly seasonality**, which highlights higher average returns around **September** and **late December**, consistent with Apple’s annual product launch cycles (e.g., iPhone) and year-end holiday sales. Lows around **March to May** may reflect post-earnings or post-holiday sales correction phases.

This decomposition strongly supports the forecast’s credibility and aligns with known business cycles, reinforcing confidence in the stock’s long-term growth potential while acknowledging minor short-term fluctuations.

## Simple Moving Average (SMA) Interpretation

A graph with lines and numbers

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The chart illustrates Apple Inc.'s stock price performance alongside two key technical indicators: the 20-day and 50-day Simple Moving Averages (SMA). These SMAs help identify short- and medium-term trends in price movement. Throughout the timeline from 2022 to the end of 2024, Apple’s stock experienced several bullish and bearish signals based on SMA crossovers.

Notably, bullish momentum is confirmed when the 20-day SMA crosses above the 50-day SMA—a technical signal known as a 'Golden Cross.' These occurrences, observed multiple times in 2023 and especially in 2024, coincided with strong upward price movement. In contrast, periods where the 20-day SMA dipped below the 50-day SMA, known as 'Death Crosses,' suggested short-term bearish sentiment, particularly seen in early 2022 and 2023.

The most recent portion of the chart reveals a distinct upward trend, with the 20-day SMA diverging positively from the 50-day SMA. This pattern indicates strong bullish momentum and suggests that the stock may continue its upward trajectory in the near term. The SMA analysis thus supports the broader technical outlook that Apple remains a favorable stock from a trend-following perspective.

## Exponential Moving Average (EMA) Interpretation

A graph with lines and numbers

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The Exponential Moving Average (EMA) chart of Apple Inc. stock offers a nuanced view of recent momentum by placing greater weight on more recent price data. The 20-day and 50-day EMAs depicted in the chart closely track short- and medium-term price shifts from 2022 to the end of 2024.

Crossovers between the 20-day and 50-day EMAs serve as pivotal signals for momentum traders. Bullish crossover points, where the 20-day EMA rises above the 50-day EMA, can be seen during several key uptrend phases in mid-2023 and late 2024, often preceding significant price increases. Conversely, bearish crossovers—when the 20-day EMA dips below the 50-day EMA—aligned with periods of consolidation or price pullbacks.

EMA indicators are particularly valuable in fast-moving markets because they respond more quickly to recent price changes than SMAs. Toward the end of 2024, the EMA lines reflect strong upward acceleration, with the 20-day EMA maintaining a consistent lead over the 50-day EMA. This supports a continued bullish sentiment and confirms Apple’s strong market position during the period under review.

# D. Recommendations

As a financial advisor, based on the comprehensive financial, technical, and forecasting analysis conducted, Apple Inc. emerges as a strong investment candidate. The company consistently delivers robust financial performance across profitability, return, and efficiency metrics. A return on equity of 164.59% and a sustainable growth rate of 138.73% demonstrate Apple’s ability to generate significant shareholder value and reinvest earnings effectively.

From a valuation perspective, Apple's price-to-earnings (P/E) ratio of 34.21 suggests that investors are willing to pay a premium for its stock. Although relatively high, this valuation is supported by Apple’s consistent earnings growth, product innovation, and expanding services segment, which contributes to a steady stream of recurring revenue.

Technical indicators such as the Monte Carlo simulation and FB Prophet forecast reveal bullish patterns, with expected price appreciation and favorable seasonal cycles around major product launches and year-end consumer demand. Additionally, the 20-day and 50-day SMA and EMA crossovers support a continued upward trend in Apple’s stock, especially in late 2024.

However, potential investors should also consider risk factors. Apple faces geopolitical exposure, particularly in China where a significant portion of its supply chain and customer base resides. Additionally, ongoing regulatory scrutiny in the U.S. and EU could pose challenges to its app ecosystem and data privacy practices. Another concern is Apple’s revenue dependence on the iPhone, which accounts for a substantial portion of its total income.

## Investment Recommendation:

Based on the evidence, Apple is a **Buy** for growth-oriented investors who seek long-term capital appreciation. For existing shareholders, it is a **Hold**, as the company remains financially solid with positive momentum. Short-term traders should monitor for overvaluation corrections but can remain confident in the trend-driven upward signals from technical forecasts.

REFRENCES

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