	<b>Krause Fund Research</b>	
	Fall 2025	November 18, 2025
Stock Rating <b>HOLD</b>	<b>Current Price:</b> \$267.81 <b>Target Price:</b> \$234 - \$213	
<b>Company:</b> Apple, Inc. (AAPL) <b>Sector:</b> Information Technology <b>Team:</b> Technology Alpha		

Apple, Inc. (AAPL) is a leading tech company that designs and manufactures phones, tablets, computers, and more. These products are sold worldwide along with accessories and services. For the fiscal year ended 10/30/25, total revenues rose 7.9% to \$416.16 billion.

### Stock Performance Highlights

52 week High	\$277.32
52 week Low	\$169.21
Market Capitalization	\$4.025 T
Shares Outstanding	14.77 b
YTD Performance	6.80%
Book Value per share	\$4.99
EPS (FY 2025)	\$7.46
P/E Ratio	36.24
Dividend Yield	0.38 %
Dividend Payout Ratio	13.67%
Beta	1.09

### Company Performance Highlights

ROA	22.96%
ROE	171.42%
Sales	\$416.16 b
Operating Margin	31.97%
Current Ratio	0.89
Debt to Equity	152.41%



### **Analysts:**

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We recommend a **HOLD** rating for AAPL with a target price of \$234-\$213, representing a 12.5%-20.4% downside from its current share price.

### Drivers of Thesis

- **Loyalty and High Switching Costs:** Apple's integrated ecosystem creates a seamless user experience that reinforces strong brand loyalty. High switching costs across devices and services ensure a stable use base.
- **Growing Service Segment:** The expansion of Apple's services (Apple Music, iCloud, Apple TV+, Apple Arcade) provides stable, high-margin revenue. This segment has seen consistent growth.
- **AI Opportunities:** Apple's recent commitment to AI and data center expansion positions the company to remain competitive in the evolving technology landscape. While Apple lags behind competitors in the AI race, its significant CapEx investments provide potential for future growth.

### Risks to Thesis

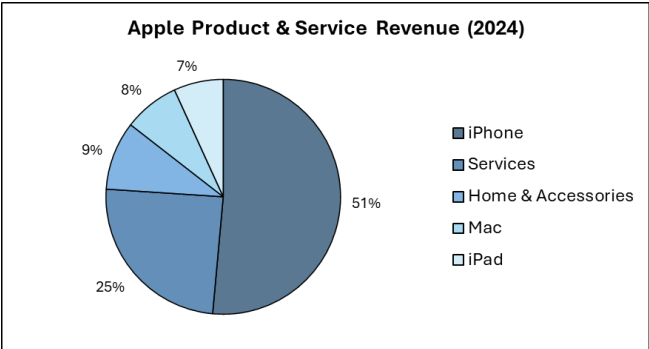
- **Intensifying Global Competition:** Apple faces rising competitive pressure, particularly in Greater China, where regulations and strong domestic competitors have resulted in declining iPhone sales.
- **Slower R&D Efficiency:** Although Apple invests heavily in R&D, its spending as a percentage of revenue lags that of major competitors. This raises concerns about Apple's innovation, especially in AI.
- **Supply Chain Exposure:** Apple's reliance on global manufacturing partners exposes them to significant supply chain risk and price volatility in key components. Efforts to shift production will take time and significant capital.

## Company Description

Apple is one of the most recognizable and prominent technology companies in the world. They design, manufacture, and market a wide range of technological products. These include smartphones, personal computers, tablets, wearables, and accessories. Additionally, in recent years, Apple has begun selling a variety of unique services to consumers, such as Apple TV, Apple Music, and Apple Arcade. Apple’s customers are primarily in the consumer, small/mid-size business, education, enterprise, and government markets.

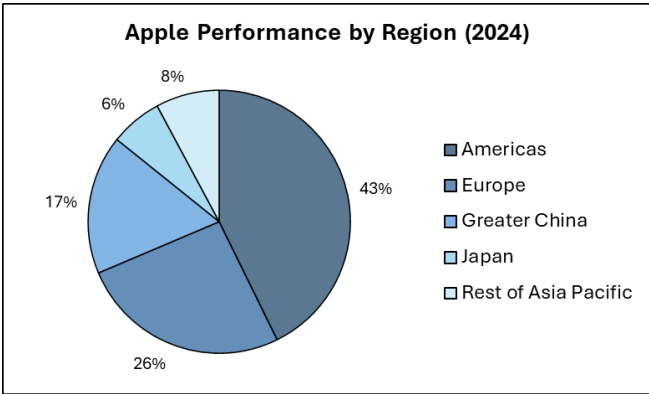
## Revenue Decomposition

Apple’s product segments that are reported include iPhone, Mac, iPad, wearables, home & accessories, and services. Furthermore, Apple’s services include Apple Music, Apple TV, Apple Arcade, iCloud, Apple Pay, AppleCare, and advertising, among others. Their 2024 revenue from products is shown in the pie chart below.



Apple has a wide variety of products sold in many areas around the world, which keeps them as one of the technology sector’s leading global brands. Apple’s emphasis on existing products and a newer push towards services ensures that the company continues to maintain customer loyalty as well as adapt to changing environments. Future focus on staying ahead of the curve will keep Apple in a position of success.

Apple’s reported geography segments include the Americas, Europe, Greater China, Japan, and the Rest of Asia/Pacific. A pie chart of their 2024 revenue from geographic regions follows.



## Sectors

Apple’s iPhone is the company’s version of a smartphone using its iOS operating system. The first iPhone was released in 2007, and Apple typically unveils at least one new iPhone each year. In recent years, the iPhone has been Apple’s highest source of revenue, accounting for 51% of sales in 2024.

Apple’s Mac is the company’s version of a personal computer using its macOS operating system. The first Mac was released back in 1984, and the first MacBook was released in 2006. The Mac’s sales in 2024 accounted for only 8% of Apple’s revenue.

Apple’s iPad is the company’s version of a tablet device using its iPadOS operating system. The first iPad was released in 2010. Although new iPads are not released each year, they are manufactured consistently. However, the iPad sales for 2024 were only about 7% of Apple’s total sales.

Apple’s wearables consist of Apple Watches and AirPods. Apple’s home consists of Apple TV and Apple HomePod. The first Apple Watch was released in 2015, and the first AirPods were released in 2016. Apple TV was created in 2007, and the HomePod was released in 2018. Overall, this is the newest product segment for Apple. It also has the third-highest sales in 2024, with 9% of Apple’s total revenue.

Apple’s services are still considered products, but they do not physically exist; instead, they are digital. This has been Apple’s most consistently growing product segment over the last couple of

years, growing 13% from 2023 to 2024. In 2024, Apple’s services made up 25% of their revenue.

**Geography**

The Americas have consistently been Apple’s highest performing region over the last few years. In 2024, the Americas were 43% of Apple’s revenue. This is a 3% increase from 2023, mainly due to increased service sales.

Europe is typically Apple’s second-highest performing region in terms of sales. In 2024, Europe was 26% of Apple’s revenue, a 7% increase from 2023, mainly due to higher service and iPhone sales.

Greater China is usually Apple’s third-highest performing region for revenue. In 2024, Greater China accounted for 17% of Apple’s sales, a decrease of 8% from 2023, mainly due to decreased iPhone and iPad sales.

Japan and the rest of Asia/Pacific typically make up fairly similar proportions of Apple’s revenue. In 2024, they both were 6% of Apple’s total revenue. This was a 4% and 3% increase from 2023, due to higher iPhone and services sales, respectively.

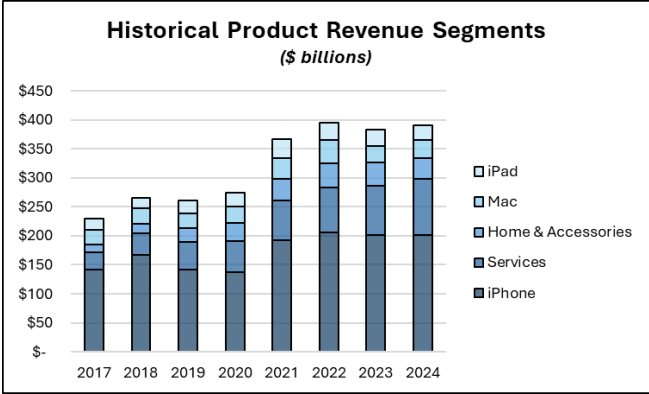
Apple uses derivative instruments such as foreign currency forward contracts to hedge currency risk. These contracts are agreements that lock in a certain exchange rate until a specified future date. However, foreign exchange risk still exists and unfavorably impacted sales in Greater China, Japan, and the rest of Asia/Pacific.

**Historical Revenue**

Historical revenue was used to see how Apple’s segments performed in the past, and to shape the forecasted revenue projections. The historical revenue was obtained from the past 10 years of Apple’s 10-K annual financial statements. The revenue for each product segment was found there.

A calculation was made to figure out the percentage of total revenue from each product segment for each year. The historical product

revenue for each segment is shown in the graph below.



**Forecasted Revenue**

Forecasted revenue was created for the valuation model with the goal of making a reasonable estimate of Apple’s stock price. We used two different ways to forecast revenue growth. The first two years of revenue forecasts were estimates taken from FactSet. These estimates have reliable sources and many analysts backing them, which makes them a good starting point.

The other method we used to forecast revenue (2027 to 2034) was to take the average of the previous 10 years of historical revenue growth from each product segment. This left each segment with a reasonable growth estimate for the future, shown below. Similar to the historical revenue, annual growth rates were used for the forecasted revenue.

Segment	Growth Forecast
iPhone	8.8%
Services	18.4%
Home & Accessories	17.0%
Mac	3.2%
iPad	-0.2%

**Catalysts for Growth/Change**

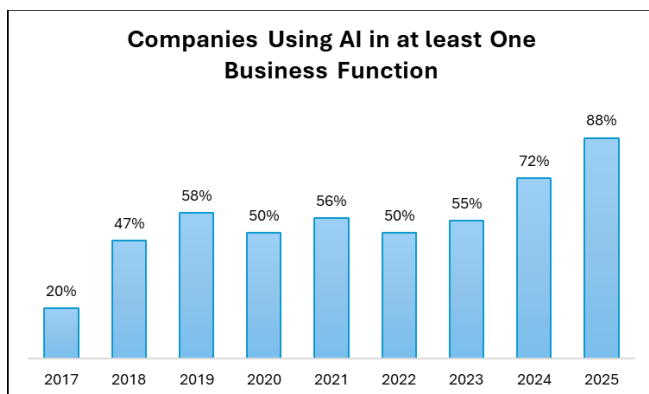
Apple is well-positioned to have continued revenue growth in the future for a number of reasons. Apple is consistently one of the top companies in terms of innovation. Due to this, there is a belief that they will continue to produce innovative products for existing segments, or something new entirely.

## AI Advancement

With the ongoing rapid AI expansion, Apple has a potential new growth opportunity. Product and technology innovations centered around AI are one way for Apple to keep growing. The global market for AI is expected to grow from \$391 billion in 2025 to \$1.81 trillion in 2030. This amounts to a 463% increase in 5 years. This provides evidence that there will be plenty of chances for Apple to make their mark by creating an AI-related product or service.

One potential idea for Apple would be to create their own AI chatbot, similar to ChatGPT. Advanced AI chatbots like ChatGPT have over 5 billion monthly visits, which shows how frequently people use them in day-to-day life. However, quite a few major tech companies, such as Microsoft and Alphabet, already have an AI chatbot, so Apple wouldn't be innovating much by creating one.

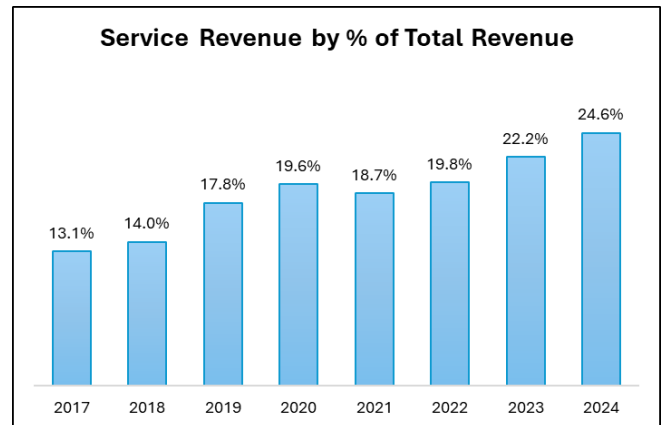
There are other possibilities Apple could use AI for. Apple could incorporate AI into their new products or even develop products centered around AI. The graph below illustrates how companies are using AI for business operations more frequently in recent years.



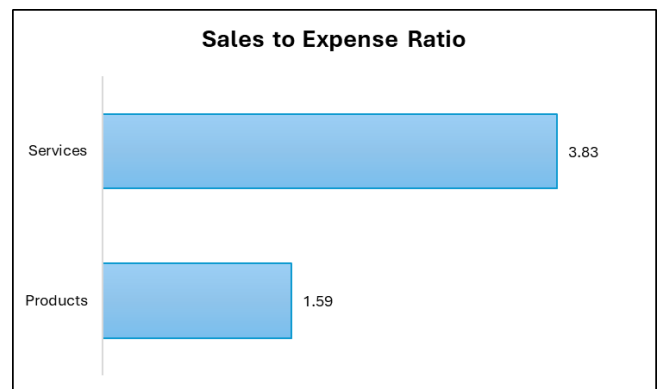
## Expand Service Offerings

Apple's existing services have already had a high revenue growth in the past few years, so it makes sense for Apple to expand them as a growth opportunity. Apple has actually been doing this in recent years, with additions such as Apple Arcade and Apple TV+. This is on top of older service offerings like Apple Music, Apple News, and Apple Podcasts, among others. Apple's increase in

percentage of revenue coming from services can be seen in the chart below.



Another piece of evidence for Apple to continue to expand services is that they are more cost-effective compared to their other products. Apple's services make \$3.83 for every \$1.00 of expense, while their products make only \$1.59 for every \$1.00 of expense. This margin difference is shown in the graph below.



One potential idea for a service add-on is to create an AI chatbot that acts like a subscription. This would be similar to other companies, where there are more advanced features behind a subscription paywall. This subscription could potentially be integrated into Apple products or sold as a separate feature or app.

## U.S. Manufacturing

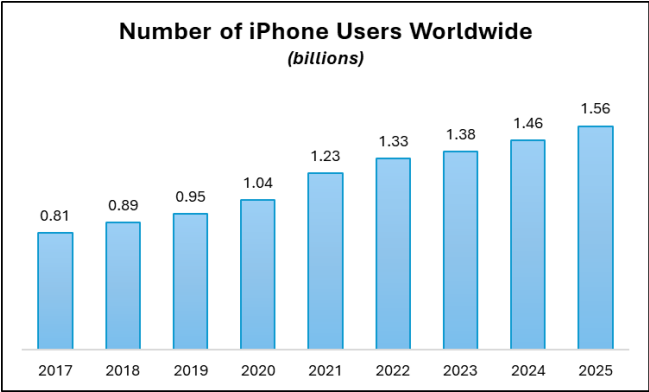
By manufacturing some parts in the U.S. instead of overseas, Apple could reduce their company risk. This would eliminate the risk of dealing with supply chains and currencies in other countries at the expense of higher costs of production. Apple

has been ongoing with this effort and is expected to increase as they create U.S.-based data centers.

### Non-Premium iPhone

Apple investing more resources in a non-premium iPhone could be a catalyst for growth. A cheaper non-premium phone would satisfy lower-income customers as well as expand their customer base. Lower-income customers typically do not purchase Apple products, so this would be another consumer segment that might spark brand loyalty. Based on Apple’s iPhone 17 production, it seems more people are buying the cheaper iPhone 17 rather than the iPhone 17 Pro Max. For early sales results in 2025, both phones are initially selling well. This reinforces the idea that a cheap and premium version can coexist without detrimental cannibalism.

If the idea of two different price points for iPhones continues to go well, this could extend to other product segments for Apple. For example, Apple could create cheaper versions of the MacBook or iPad. This would target the new lower-income customer base that Apple acquired with the non-premium iPhone. The graph below shows the number of iPhone users worldwide, which will continue to increase with multiple iPhone versions.



## **Recent Earnings Announcement**

### Results & Consensus

Apple recently reported their 2025 annual earnings. Looking at the 2025 10-K, results were generally positive. However, there were some

drawbacks to Apple's most recent earnings as well.

Overall, total revenues rose 8% from 2024 to 2025, reaching a sum of \$102.5 billion. This beat the analyst consensus of \$102.1 billion. Additionally, Apple’s EPS reached \$1.85, surpassing estimates of \$1.77 by analysts. Services revenue continued to grow at a high rate, reaching \$28.8 billion. This was 15% more than in 2024 and beat the consensus of \$28.2 billion.

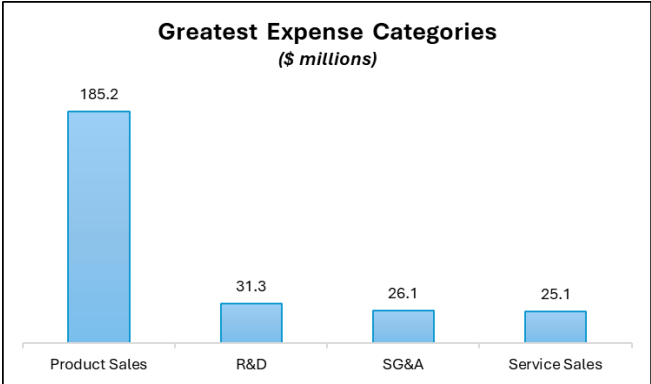
With the recent release of iPhone 17, people were anticipating the iPhone earnings. These increased by 6% from 2024, reaching \$49 billion in Q4. However, this was lower than the consensus of \$49.3 billion. Although the iPhone sales may have slightly disappointed analysts, this was still a record for iPhone revenue in Q4.

Another weak spot of Apple's earnings was the Greater China segment. Expectations were that revenue would reach \$16.4 billion, but it fell short at \$14.5 billion. Furthermore, this was a 4% decrease from 2024. This shows the iPhone is facing tougher competition and politics in the Greater China segment.

## **Expense Decomposition**

### Cost Drivers

Apple’s greatest expense by far is the cost of product sales. In 2024, their cost of sales was 47.3% of their total revenue (\$185.2 billion), the lowest percentage it has been in the last 10 years. This is followed by R&D, SG&A, and cost of service sales. The graph below shows Apple’s greatest expense categories in 2024.



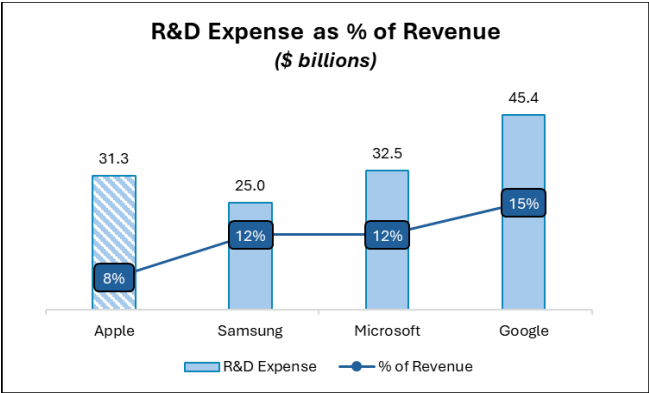


Apple outsources its manufacturing to several partners and competes with other well-known tech giants for similar components from the same suppliers. This makes the company subject to industry-wide shortages and significant price fluctuations. Timing and specifics of when a shortage might happen are difficult to predict, so supply shortages and other speculative economic events were left out of the forecast model, but could impact prices in reality.

Historical Trends

Product and service sales expenses show high seasonality and have a large increase in Q1 due to holidays. However, expenses as a percentage of revenue stay relatively consistent.

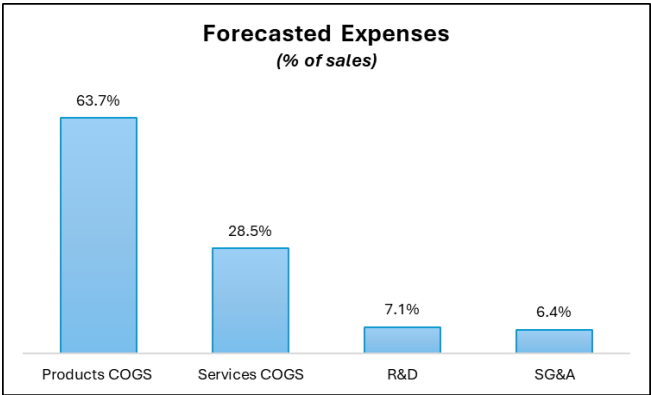
Among its major competitors. Apple spends the lowest percentage of revenue on R&D at 8%. They are still spending \$31.3 billion on R&D, but with a lower return on their investment compared to their peers. This could indicate that many of its R&D expenses aren’t getting translated into revenue. Apple is spending its R&D in the wrong places, putting it at a disadvantage and causing it to fall behind in the AI race. Their 2024 R&D expense in total and as a percentage of revenue compared to competitors is shown below.



Forecast

To forecast Apple’s costs and expenses, we used a four-year average of historical costs as a percent of sales. We used cost as a percent of sales because Apple’s COGS and expenses are heavily correlated with their revenue. We used a four-year average to accurately capture recent trends—like increases in R&D expenditures—while retaining a historical level. Product COGS uses the percent of

product sales, service COGS uses the percent of service sales, and R&D and SG&A both use the percent of total sales. Forecasted product segment expenses as a percent of their respective sales are shown in the graph below.



Balance Sheet Forecasts

CapEx Forecasts

Apple does not provide management guidance for CapEx in its 10-K. To forecast it, we calculated the four-year average of historical capital expenditures and then applied inflation and an additional growth rate if necessary. The growth rate was chosen based on recent announcements from Apple and its CEO regarding future capital investment plans. The growth rates used are as follows:

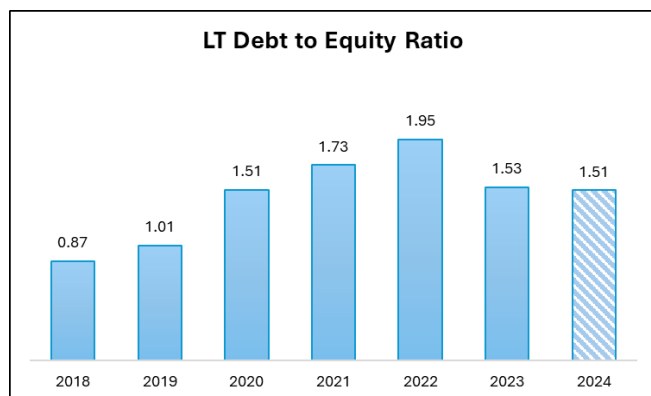
Year	Rate	CapEx (billions)
2025	150%	\$ 16,299
2026	130%	\$ 21,825
2027	80%	\$ 17,984
2028	60%	\$ 11,114
2029 +	0%	-

In February 2025, Apple announced plans to spend more than \$500 billion over the next four years, a portion to be allocated to CapEx. This includes building a new factory in Texas, expanding existing facilities, investing in Apple intelligence, and upgrading data centers and corporate infrastructure, along with other non-CapEx initiatives. Apple’s four-year timeline for this plan is why we applied a growth rate to the next four years. After that, CapEx is assumed to grow by the rate of inflation as Apple replaces old equipment.

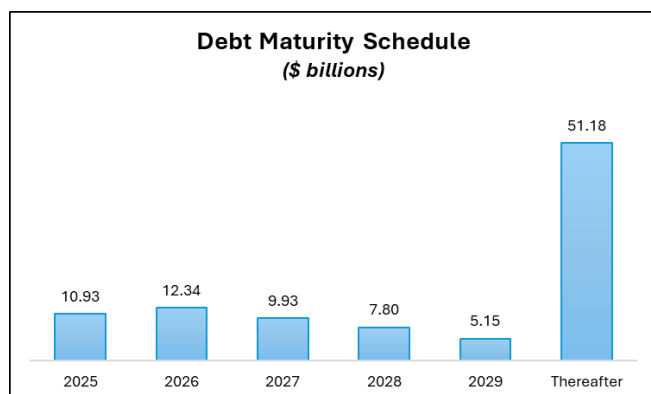
We applied heavier growth rates in the first two years in particular, as both Kevan Parekh (CFO) and Tim Cook (CEO) anticipate substantial CapEx growth in 2025. Given the current AI boom, spending on data center infrastructure and server scaling upgrades is likely to be done in the first couple of years.

## Debt and Capital Structure

Apple finances its operations through a combination of debt and equity. Their current long-term debt-to-equity ratio is at 1.51, slightly below their five-year average of 1.65. Since 2019, Apple has been more heavily financed by debt than equity. Though management has not communicated a formal target capital structure, its long-term debt-to-equity ratio has remained in a relatively stable range of 1.3 to 1.7, suggesting a structure around 60% debt and 40% equity. Historical debt-to-equity ratios are shown below.



Apple maintains a manageable level of long-term debt, totaling \$85.7 billion, with \$51.1 billion maturing after 2029. Their debt maturity schedule is shown below.



Apple is unlikely to face difficulty meeting its debt obligations. The company generates over \$100 billion in annual operating cash flow, and typically holds \$30-40 billion in cash on hand, providing them with more than enough liquidity to cover future debt payments. Apple's strong cash generation makes their higher long-term debt-to-equity ratio less risky than it would be for a smaller or less profitable firm.

## Credit Ratings

Apple's strong financial position is reflected in its credit ratings. S&P Global currently gives the company an AA+ rating, one notch below the top rating. Moody's rates Apple at Aaa, its highest possible rating, following an upgrade in December 2021. There have been no rating changes since then.

Among its competitors, Apple ranks high in terms of credit ratings. Microsoft beats it out with a top score of AAA from S&P, but Apple has higher credit ratings than Google, Amazon, Meta, and even the U.S. Government.

Company	S&P	Moody's
Microsoft	AAA	Aaa
Apple	AA+	Aaa
U.S. Government	AA+	Aa1
Google	AA+	Aa2
Amazon	AA	A1
Meta	AA-	Aa3

## ESG Ratings

Environmental, Social, and Governance (ESG) Scores are used to evaluate how responsibly and sustainably a company operates. ESG is used to assess long-term risks, ethics, and behavior beyond financial metrics. According to S&P Global, Apple gets an ESG Score of 34/100. While this score seems low, it is pretty comparable to other competitors.

Company	ESG	Updated
Microsoft	51	Nov 3, 2025
Google	39	Nov 12, 2025
Apple	34	Nov 10, 2025
Meta	30	Sep 23, 2025
Amazon	26	Nov 10, 2025

## **Payout Policy and Share Repurchases**

Apple's payout policy includes a quarterly cash dividend and an extensive share repurchase program. In 2024, they paid an annual dividend of \$0.98 per share, and we expect it to increase by \$0.04 per year going forward.

In addition to dividends, Apple has one of the largest share repurchase programs in the world. Over the past decade, they have repurchased \$704 billion in stock—a figure exceeding the market capitalization of all but 13 companies globally. In 2024 alone, Apple spent \$94.9 billion on share buybacks. Based on this extensive program, we forecast spending to continue to rise. We use a four-year average of the annual change in share repurchase cost to estimate the increase in spending.

## **Industry Analysis**

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### **Industry Description**

The premium consumer technology industry includes companies that design, manufacture, and sell devices such as smartphones, computers, tablets, wearables, and other related accessories, while developing software, services, and platforms to power those devices.

Companies generate revenue across categories such as hardware sales or software and service subscriptions. Hardware includes devices like smartphones, tablets, laptops, smartwatches, headphones, and other accessories, while software and services include things like cloud storage, app store fees, developer platforms, media subscriptions, and advertising platforms.

Hardware typically generates high revenue streams but comes at the cost of high COGS, whereas the revenue generated from software and services is nearly all profit because there is no physical product to manufacture.

Peers like Google, Meta, Amazon, and Microsoft see more of their revenues come in from the software streams (advertising, AWS, Office 365), while peers like Samsung see more of their

revenues come in from the hardware streams (smartphones, tablets).

### **Firm Differentiation**

Firms in this industry differentiate themselves primarily through brand strength, innovation, and ecosystem integration.

Brand strength is critical in this industry because consumers are willing to pay a premium for reliability and design quality. Apple remains the leader in this area. Its brand is closely associated with luxury, simplicity, and reliability, which allows it to command a higher average selling price and maintain loyal users.

Innovation capability is another major differentiator, as firms are constantly competing for the best performance, software, features, and functionality. Apple's ability to design both their own chips and operating system gives them a level of control that accelerates its product development. However, their hardware updates tend to be very incremental and lag behind competitors like Samsung, particularly in the smartphone market.

Samsung prioritizes hardware innovation while Apple prioritizes a smoother user experience. Samsung outpaces Apple in terms of camera quality, battery life, and storage. Meanwhile, Microsoft, Google, and Amazon concentrate more heavily on software innovation, which gives unique advantages. Software updates can be deployed to millions of users instantly, allowing for easier integration and testing of new technology. They also collect enormous amounts of user data, which strengthens their ability to innovate and refine AI models, as data directly enhances model accuracy.

Ecosystem integration also helps key players differentiate themselves. Ecosystem integration is how seamlessly companies connect their products, so they work together as a unified system. Apple has the most tightly integrated consumer ecosystem, with features like AirDrop, iCloud, and seamless handoff between devices, creating a smooth user experience. Microsoft achieves integration primarily through collaboration



between Office 365 programs, where applications work together across devices and workflows. This is similar to Google, who relies on its cross-platform ecosystem, allowing user data to follow them across devices. Amazon uses a mix of both hardware and software integration with Prime benefits across shopping, video, and music, while connecting in-home through Alexa.

**Industry Trends**

Technological and social developments are reshaping the premium consumer electronics industry. One of the most influential trends is the rapid improvement of battery technologies, which has the potential to improve user experience. Companies that can deliver battery improvements may be able to justify higher price points and improve revenue.

The rise of generative AI continues to influence the technology world and drive revenue growth, but the industry is now shifting toward agentic AI, where systems can independently execute multi-step tasks rather than perform single actions. If implemented, this would result in devices being more proactive as opposed to reactive and create new value for customers.

Social trends are also shaping the industry. Younger consumers are seeking technology that balances productivity with well-being. Demand is rising for devices that support mental health, sleep monitoring, fitness tracking, and stress management. These trends may drive firms to differentiate products through more personalized, health-oriented experiences.

**Key Players**

The industry is led by a handful of major firms: Apple (AAPL), Microsoft (MSFT), Alphabet/Google (GOOGL), and Amazon (AMZN). Samsung and Meta were excluded from the financial/operational peer group to maintain a consistent industry focus. Samsung, while a major player in consumer electronics, reports in international financial terms and operates across unrelated business lines, which introduces comparability challenges relative to the U.S.-based firms analyzed. Meta was also left out

because it is only a partial participant in premium consumer technology and focuses on advertising with very niche hardware products like Meta glasses.

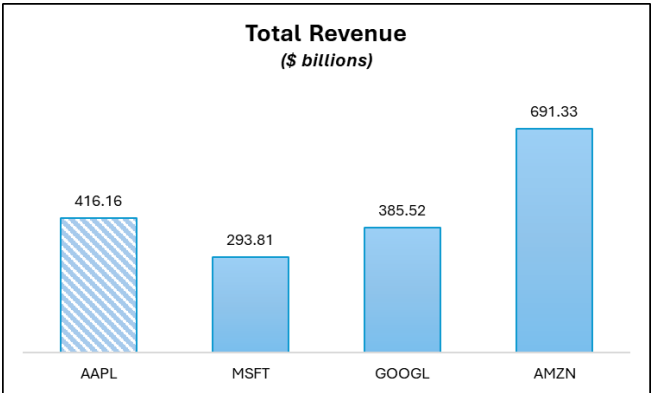
The market capitalizations of the comparable firms are shown below. The ranking is by market capitalization of all publicly traded firms in the U.S. The companies in this industry are some of the largest in the U.S., with Apple at the top of all of them.

Company	Market Cap	Rank
Apple	\$ 4.025 trillion	2
Microsoft	\$ 3.791 trillion	3
Google	\$ 3.338 trillion	4
Amazon	\$ 2.508 trillion	5

**Financial Metrics**

While each company is a global leader, their financial profiles show a distinct strategic approach. All metrics seen here are from the company’s 2025 fiscal period.

Total revenue illustrates the scale of each company’s operations and is a good starting point when looking at the size and strength of a firm. Amazon leads the group due to its massive e-commerce business, which produces large value but at low margins. Apple follows with strong hardware-driven sales supported by a growing service market. Microsoft and Google generate lower revenues but with high profitability because of their cloud services and software. A chart of each firm's total revenue can be found below.



The following profitability metrics highlight the differences between the business models of

companies in the industry. Microsoft leads in profitability with the highest gross and net margins because its revenue mostly comes from software and cloud subscriptions, which have a low COGS. Google follows, supported by high-margin advertising and cloud services. Apple's margins are strong but are naturally lower than software firms because of higher production costs. Amazon generates revenue from its software and retail operations, which give it a good gross margin, but with heavy R&D investments, their net margin is very low. Each firm's margins are shown in the table below.

Company	Gross Margin	Net Margin
Microsoft	68.8 %	35.7 %
Google	59.2 %	32.2 %
Apple	46.9 %	26.9 %
Amazon	50.0 %	11.1 %

Valuation ratios indicate how expensive a stock is relative to earnings and enterprise value. Apple and Microsoft trade at the highest P/E levels, suggesting the market places a premium on their predictable cash flow and earnings stability. Google's lower P/E ratio suggests that—despite its strong profitability—the market applies a discount to their stock due to potentially slow growth expectations. Amazon's low EV/EBITDA ratio indicates that investors have expectations for long-term profit expansion, likely due to their high capital expenditures. The valuation ratios are shown in the table below.

Company	P/E	EV/EBITDA
Apple	36.49	27.86
Microsoft	36.30	23.16
Amazon	33.15	20.75
Google	27.27	26.30

The liquidity ratios displayed in the following table show each firm's ability to meet short-term obligations. Google and Microsoft maintain the highest liquidity. Apple's lower liquidity is because it intentionally runs a low working capital model, using short-term liabilities to finance operations. Amazon's current ratio is acceptable, but its low quick ratio reflects its greater reliance on inventory, which cannot be converted to cash as easily.

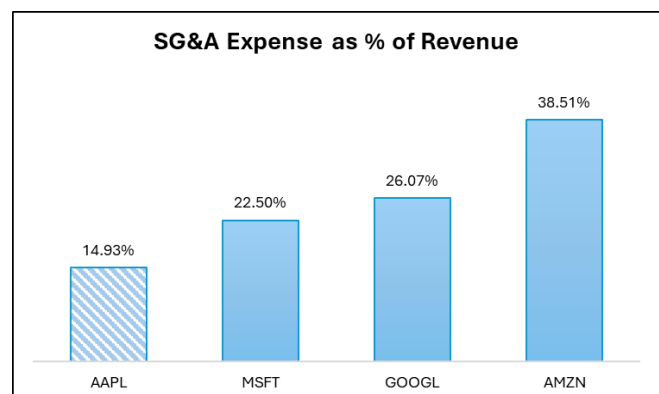
Company	Current Ratio	Quick Ratio
Google	1.75	1.75
Microsoft	1.40	1.39
Apple	0.89	0.86
Amazon	1.01	0.80

Debt to equity shows how companies finance their assets. Apple's leverage is significantly higher than its peers because it issues debt to fund buybacks, not because it needs financial support. Microsoft, Google, and Amazon maintain relatively low leverage, reflecting a preference for a conservative balance sheet. Google's minimal debt highlights its ability to fund operations mostly through pure cash flow. The contrast shows that Apple uses debt as a financial tool, while others rely more on equity. A long-term debt to equity table is shown below.

Company	LT Debt to Equity
Apple	122.0 %
Amazon	36.6 %
Microsoft	28.6 %
Google	9.2 %

### Operating Metrics

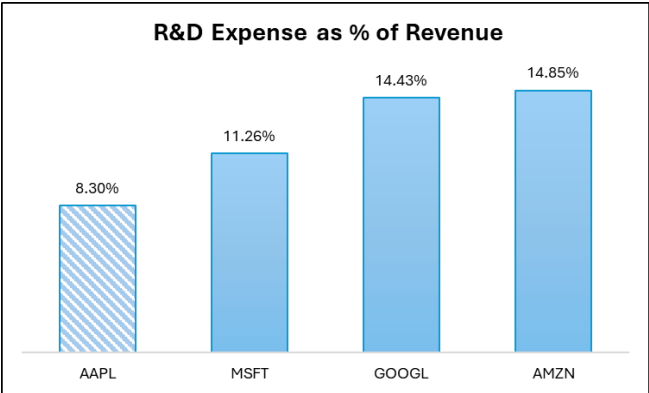
Operating metrics give insight into factors not visible to financial statements alone. Selling, general, and administrative (SG&A) measures operational efficiency outside of production costs. Apple has the lowest SG&A ratio, reflecting its streamlined cost structure. Microsoft and Google show medium SG&A proportions as their business models rely on sales teams and marketing. Amazon has the highest SG&A ratio of the group, driven by its large workforce and investments in advertising.



Research & development (R&D) intensity shows how aggressively each company invests in future products and long-term innovation.

Google and Amazon allocate the highest proportion of revenue to R&D (over 14%), indicating their substantial investment in AI and cloud infrastructure. Microsoft also spends a sizeable portion of their revenue on R&D (11.2%). Apple, despite its high dollar spending on R&D, has a low percentage of revenue going towards R&D.

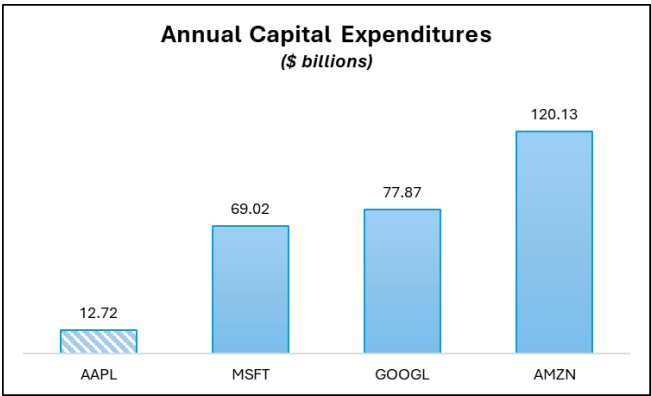
These differences reveal how software-heavy companies spend more on R&D to maintain their leadership in technological innovation, and how Apple may be falling behind in its research and development. A graph of R&D expense as a percentage of revenue is shown below.



Capital expenditures (CapEx) reflect long-term investments, typically in cloud infrastructure, manufacturing facilities, and data centers.

Amazon, Google, and Microsoft all have very high capital expenditures due to their need to invest in infrastructure for services such as AWS, Google Cloud, and Microsoft Azure.

Apple’s CapEx is relatively low because it outsources most of its manufacturing, but it is expected to increase in upcoming years as Apple invests more heavily in AI and data center infrastructure. A graph of annual capital expenditures follows.



**Current Competitive Climate**

Competition in the premium consumer electronics industry is shaped by a combination of brand strength, AI leadership, ecosystem integration, and pricing power. Apple, Microsoft, Google, and Amazon each compete across overlapping segments—devices, AI tools, cloud platforms, and consumer services—but they differ in strategic priority.

Porter’s Five Forces (rivalry, threat of substitutes, threat of new entrants, buyer power, and supplier power) provides a framework for understanding the competitive landscape.

Rivalry in this industry is extremely high. Apple, Microsoft, Google, and Amazon all invest heavily in AI, cloud infrastructure, devices, and software. The firms compete on performance, ecosystem integration, and brand loyalty. Apple leads in pricing power because of its brand loyalty, Microsoft dominates enterprise customers and the cloud through Office 365 and Windows, Google leads AI research based on its massive collection of data, and Amazon leverages AWS. The rivalry is intensified by expansion into similar domains (AI, cloud computing, data centers).

The threat of new entrants is low because barriers to entry are extremely high—high capital requirements, R&D intensity, and semiconductor constraints industry-wide. Building a competing smartphone or a cloud infrastructure requires large up-front investments. New firms would also struggle to match the data and supply chain relationship already established with the existing industry.

Supplier power varies across firms. Apple faces higher pressure because it relies on contract manufacturers and chip suppliers. Google and Microsoft face moderate supplier power when sourcing GPUs and AI chips. Software-oriented segments face low supplier power because distribution is digital. Amazon's supplier power is mixed: AWS has low pressure, but the retail business faces thousands of suppliers with various levels of bargaining power.

Buyer power is moderate and varies across firms. Apple benefits from high switching costs due to tight device integration. Microsoft has similar advantages in enterprise software, where firms rely on their software and platforms to conduct business. Google and Amazon face more elastic buyer behavior because online advertising and e-commerce markets enable lower switching costs for enterprises. Companies with stronger ecosystems (Apple, Microsoft) are more insulated from buyer power.

Substitutes include refurbished models and emerging AI tools. While hardware substitution exists (a Samsung phone can replace an iPhone), ecosystem integration makes switching inconvenient, limiting the threat. Cloud and AI services face more substitution risk because businesses may shift workloads to different platforms.

### **Growth Drivers**

Several forces are expected to drive growth across the premium consumer electronics industry over the next decade.

Artificial intelligence (AI) adoption is the largest industry-wide growth driver. It improves device functionality, improves productivity of existing tools, and strengthens cloud demand. Microsoft, Amazon, and Google benefit the most through the increased cloud consumption, while Apple uses AI to improve user experience and productivity, driving hardware and data center upgrades for all four companies.

Enterprise cloud adoption continues to accelerate as companies build large-scale AI applications. Microsoft (Azure), Amazon (AWS), and Google

(Google Cloud Platform) are the biggest beneficiaries, as cloud platforms generate high-margin and recurring revenues. Growth in cloud services also strengthens each firm's customer lock-in, where customers become increasingly dependent on their services.

Another major growth driver in this industry is the increasing value created by integrated ecosystems and recurring subscription services. As companies link their hardware, software, and cloud platforms, customers receive a more convenient and interconnected experience, raising the costs of switching to competitors. Once users are embedded in a company's ecosystem, firms can layer customers with subscription-based services (Apple TV, Office 365, YouTube Premium, Prime memberships). These provide predictable and recurring revenue streams at high margins.

## **Economic Analysis**

### **Long-Term Interest Rates**

The long-term interest rate, or 10-year treasury rate, is an important variable to consider for companies. According to the graph below, the treasury rate over the last couple of years has hovered around 4%. The treasury rate is projected to stay the same or decrease slightly in 2026. When the treasury rate decreases, it leads to a lower cost of capital. This will decrease the cost of expenditures for tech companies, improving their ability to finance future projects.

If the treasury rate ends up falling as projected, Apple would be able to receive some benefits. Costs would be lower overall, and if revenue for Apple remains similar, overall profits would increase. Additionally, slightly lower rates could make Apple decide to spend more capital on activities that increase revenue.



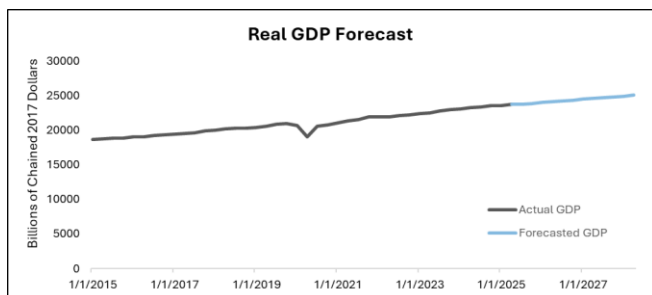
## Real Gross Domestic Product (GDP)

The Real GDP of a country is the value of all goods and services produced during a period, adjusted for inflation. Real GDP is expected to grow by 1.7% over the next year, suggesting positive but slower growth in the US economy. Over the last 10 years, there has been a 2.62% average change in real GDP, shown in the graph below.



Overall, Real GDP is a good indicator of economic growth. Moreover, a portion of GDP growth can be attributed to recent technology spending in the US. AI-related spending has contributed to around 1.1% of GDP growth in the first half of the year.

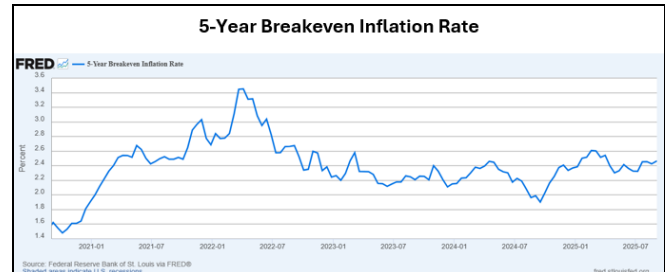
Looking at the graph below, we forecast growth to increase slightly and stabilize around 2.0% in 2 to 3 years as tariffs loosen and innovations continue. This longer-term forecast shows moderate GDP growth, suggesting slower but continued spending in the technology sector. Even with slower real GDP growth, we expect the sector to remain resilient due to its key role in supporting business operations.



## Inflation

Inflation is an important variable because it determines company expenses and influences consumer demand. Historically, during times of higher inflation rates, the tech sector has performed relatively well, typically outperforming the broader market by 4.9%. Additionally, it's important to note that the technology sector has had historic resilience when it comes to stagflation.

Short-term inflation forecasts show a continued trend of moderate inflation, specifically around 3.3%. A long-term outlook suggests that interest rates will fall, with 2.0% being the end goal. This aligns with the graph below in early 2021, when the inflation rate was below 2.0%.

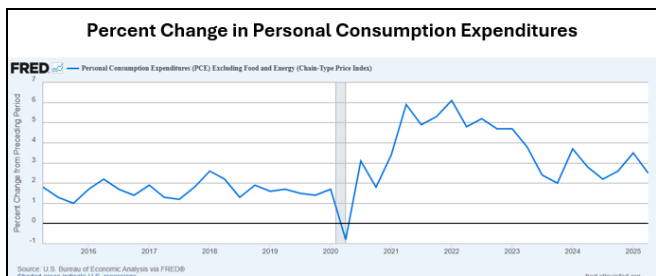


Inflation for technology companies often results in higher input costs. These can be for raw materials, shipping costs, or even employee salaries. In turn, this can lead to companies having to pass along cost increases to their customers. However, Apple has brand recognition to withstand any inflationary challenges. People are so loyal to the brand, they may continue to upgrade on technology even with higher prices.

## Consumer Spending

Consumer spending is projected to weaken in the short term and long term. Consumer spending is forecasted to decrease to 3.7% in 2025 and 2.9% in 2026, compared to 5.4% in 2024. This is due mostly to a slowing labor market and tariff-induced inflation. Looking at the following graph, personal consumption expenditures have been increasing anywhere from 2% to 6% over the last 4 years.





The outlook on Apple's consumer spending is positive for this year and next year. Apple has a large consumer base that will spend on new offerings, from new products or services like Apple Intelligence or their gaming subscription, Apple Arcade. Conversely, there is supposed to be less discretionary spending this year, which will result in less overall spending on technology products.

## Valuation Discussion

### Valuation Approach

Historical financial data from 2015 to 2024, sourced from Apple's 10-K report, served as the basis for our valuation model and was used to project financials to 2034. A variety of valuation methods were used, such as discounted cash flows, economic profit, dividend discount, and relative valuation. To compare these valuation methods, we had to make several key assumptions discussed in the next sections.

### Cost of Equity

Cost of Equity: 9.32%

The CAPM equation was used to calculate cost of equity. We made three assumptions to calculate the CAPM. We used a risk-free rate of 4.02%, which is the current 10-year government treasury yield, generally considered to be risk-free. A beta of 1.12, which is the average of the past 2, 3, 4, and 5-year betas. And an equity risk premium of 4.75%, an average of Damodaran's equity risk premium and the geometric average premium from over a 10-year treasury from 1928 to 2024. All of these assumptions were calculated into a cost of equity of 9.32%.

### Cost of Debt

Cost of Debt: 4.31%

To calculate pre-tax cost of debt, the Bloomberg terminal was used. It does this by showing the yield to maturity (YTM) for many Apple bonds. The YTM of 4.31% was used because it was the median bond price out of the ones listed. After tax cost of debt was calculated by taking the pre-tax cost of debt multiplied by  $(1 + \text{marginal tax rate})$ .

### Weighted Average Cost of Capital (WACC)

WACC: 9.07%

To calculate the WACC, the previously mentioned cost of debt and cost of equity were needed. Other components needed for this calculation included: market value of equity, market value of debt, and market value of the firm.

The market value of equity was found by multiplying Apple's total shares outstanding by the current stock price of Apple. The market value of debt was found by adding short-term debt, long-term debt, and the present value of operating leases. The market value of the firm was found by adding the market value of debt and equity. A vast majority of Apple's market value is in equity (95.61%), while debt makes up only a small portion of their value (4.39%). The final WACC is calculated to be 9.07%.

### Discounted Cash Flows & Economic Profit

Estimated Share Price: \$234.20

To estimate the implied share price as of today, we discounted our forecasted free cash flows and continuing value using the WACC. We chose a 3% continuing value growth rate for NOPLAT. This value is slightly below the long-run geometric average of U.S. real GDP growth (3.18% from 1930 to 2024). Using a growth rate below the long-run real GDP is appropriate because a mature company like Apple can't grow faster than the overall economy indefinitely. We use the geometric average because it reflects the compounding nature of economic growth and

gives a more accurate benchmark for long-term assumptions.

Our discounted free cash flows were summed up to get the value of operating assets. Non-operating and partial year adjustments were made to yield a final price of \$234.20 per share.

The EP model was calculated similarly, discounting economic profit and continuing value by the WACC. Continuing value was calculated using the same 3% growth rate. The discounted economic profit was summed up, invested capital was added, and non-operating and partial year adjustments were made to yield the same price of \$234.20 per share.

**Dividend Discount Model (DDM)**

Estimated Share Price: \$213.93

To calculate the DDM, forecasted dividends had to be calculated by adding the previous year’s dividend to the forecasted annual dividend increase of \$0.04. We chose an annual dividend increase of \$0.04 because this is the historical average increase over the last 10 years. These forecasted dividends were discounted by the cost of equity and added to the continuing value.

The intrinsic value of the last FYE is calculated by adding together all the discounted cash flows from the dividends. The intrinsic value at the last FYE was \$211.34, and the implied price as of today was \$213.93 after the partial year adjustment.

**Relative Valuation**

Implied Relative Value: \$209.79

For the relative valuation, other large technology companies were compared to Apple. P/E ratios were calculated using the stock price and EPS for each company and then compared to Apple. The following image shows that Apple has similar ratios compared to its peers.

Apple Relative Valuation Models						
Ticker	Company	Price	EPS 2025E	EPS 2026E	P/E 25	P/E 26
MSFT	Microsoft	\$523.61	\$13.64	\$15.54	38.39	33.69
GOOG	Alphabet	\$260.51	\$9.91	\$10.76	26.29	24.21
AMZN	Amazon	\$224.21	\$6.68	\$7.61	33.56	29.46
META	Meta	\$738.36	\$28.28	\$30.16	26.11	24.48
DELL	Dell	\$158.64	\$6.38	\$7.90	24.87	20.08
HPQ	HP	\$27.66	\$2.76	\$3.11	10.02	8.89
Average					26.54	23.47
APPL	Apple	\$267.81	\$ 7.91	\$ 8.75	33.9	30.6
Implied Relative Value:						
P/E (EPS25)			\$ 209.79			
P/E (EPS26)			\$ 205.33			

**Sensitivity Tables**

**Beta to Risk-Free Rate**

These two variables are two of the three components of the CAPM cost of equity equation. That means both variables also influence the WACC equation. Additionally, both these variables have a heavy influence on the WACC because Apple has a very high market value weight of equity. Changes to the beta seem to have more of an impact on price than changes to the risk-free rate, as shown in the table below.

		Beta						
Risk-Free Rate	234.20	1.00	1.04	1.08	1.12	1.16	1.20	1.24
	3.87%	268.42	258.35	248.92	240.08	231.78	223.98	216.62
	3.92%	265.70	255.80	246.54	237.85	229.68	222.00	214.75
	3.97%	263.03	253.31	244.20	235.65	227.62	220.05	212.91
	4.02%	260.41	250.85	241.90	233.49	225.58	218.13	211.10
	4.07%	257.83	248.44	239.63	231.36	223.58	216.24	209.32
	4.12%	255.30	246.07	237.41	229.27	221.61	214.38	207.56
	4.17%	252.81	243.74	235.22	227.21	219.66	212.55	205.83

**iPhone Sales Growth to Service Sales Growth**

These two growth rates are the most important for Apple’s revenue each year. As noted earlier, iPhone sales represented 51% of Apple’s revenue in 2024, while services sales represented 25% of Apple’s revenue. It is interesting to note that changing 2025’s percentage growth of either category by 0.5% does not have a large impact on price, as shown in the table below.

		iPhone Sales Growth 2025						
Services Sales Growth 2025	234.20	2.90%	3.40%	3.90%	4.40%	4.90%	5.40%	5.90%
	11.30%	231.32	231.62	231.91	232.21	232.50	232.79	233.09
	11.80%	231.99	232.28	232.58	232.87	233.17	233.46	233.75
	12.30%	232.66	232.95	233.24	233.54	233.83	234.13	234.42
	12.80%	233.32	233.62	233.91	234.20	234.50	234.79	235.09
	13.30%	233.99	234.28	234.58	234.87	235.17	235.46	235.75
	13.80%	234.65	234.95	235.24	235.54	235.83	236.13	236.42
	14.30%	235.32	235.61	235.91	236.20	236.50	236.79	237.09

## Equity Risk Premium to CV Growth NOPLAT

These two variables are important in determining the final estimated price of Apple. While equity risk premium is a major factor in the WACC equation, continuing value growth holds a large chunk of the overall price. As seen in the table below, both variables influence the price by a large amount, but the equity risk premium causes more drastic changes.

CV Growth NOPLAT	Equity Risk Premium							
	234.20	3.25%	3.75%	4.25%	4.75%	5.25%	5.75%	6.25%
	1.50%	267.12	241.22	219.36	200.70	184.59	170.56	158.25
	2.00%	285.08	255.58	231.02	210.29	192.56	177.25	163.91
	2.50%	306.65	272.55	244.62	221.34	201.66	184.82	170.26
	3.00%	333.04	292.92	260.66	234.20	212.13	193.45	177.45
	3.50%	366.09	317.80	279.90	249.38	224.31	203.37	185.63
	4.00%	408.66	348.91	303.38	267.56	238.68	214.92	195.04
	4.50%	465.57	388.90	332.67	289.71	255.85	228.51	205.98

## Pre-Tax Cost of Debt to Inflation Rate

These two variables are both notable but have little to no effect on the price of Apple. Since Apple's main market value is weighted toward equity, debt plays a small role in affecting the price. The inflation rate affects the price even less, as shown in the table below.

Inflation Rate	Pre-Tax Cost of Debt							
	234.24	4.01%	4.11%	4.21%	4.31%	4.41%	4.51%	4.61%
	2.70%	234.99	234.76	234.53	234.30	234.07	233.85	233.62
	2.80%	234.97	234.74	234.51	234.28	234.05	233.82	233.60
	2.90%	234.95	234.72	234.49	234.26	234.03	233.80	233.57
	3.00%	234.92	234.69	234.46	234.24	234.01	233.78	233.55
	3.10%	234.90	234.67	234.44	234.21	233.98	233.76	233.53
	3.20%	234.88	234.65	234.42	234.19	233.96	233.73	233.50
	3.30%	234.85	234.62	234.40	234.17	233.94	233.71	233.48

## WACC to Capex Growth 2025

These two variables have varying effects on the price of Apple. 2025 CapEx growth, while important, does not alter the price much. On the other hand, the WACC is a critical equation used to estimate the price, so even small percentage changes have a large impact, as seen below.

CapEx Growth 2025	WACC							
	234.24	7.57%	8.07%	8.57%	9.07%	9.57%	10.07%	10.57%
	0%	330.33	293.56	263.52	238.53	217.45	199.43	183.86
	50%	328.68	292.00	262.02	237.09	216.06	198.08	182.56
	100%	327.03	290.43	260.52	235.65	214.67	196.73	181.25
	150%	325.38	288.86	259.03	234.21	213.28	195.39	179.94
	200%	323.74	287.30	257.53	232.77	211.89	194.04	178.63
	250%	322.09	285.73	256.03	231.34	210.50	192.70	177.33
	300%	320.44	284.17	254.53	229.90	209.11	191.35	176.02

## CV Growth of EPS to Dividend Increase

For this sensitivity table, the DDM price is being tested instead of the DCF/EP price. Both variables affect the price, to varying degrees. Small annual dividend increases don't change the price too much. Meanwhile, continuing value growth of EPS changes the price significantly, as shown in the table below.

Annual Dividend Increase (\$)	CV Growth EPS							
	214.01	1.50%	2.00%	2.50%	3.00%	3.50%	4.00%	4.50%
	\$ 0.01	178.79	188.70	200.06	213.22	228.64	246.95	269.06
	\$ 0.02	179.01	188.93	200.31	213.48	228.92	247.26	269.40
	\$ 0.03	179.23	189.16	200.55	213.75	229.21	247.57	269.74
	\$ 0.04	179.44	189.39	200.80	214.01	229.49	247.88	270.08
	\$ 0.05	179.66	189.62	201.05	214.28	229.78	248.19	270.42
	\$ 0.06	179.88	189.86	201.29	214.54	230.06	248.50	270.76
	\$ 0.07	180.10	190.09	201.54	214.80	230.35	248.81	271.10

(this table is testing DDM as opposed to DCF\_EP)

## Conclusion

Our analysis indicates that while Apple remains one of the strongest and most influential companies in the technology sector, its current valuation exceeds our estimates of intrinsic value across several valuation methods. However, Apple's exceptionally loyal customer base, its growing service sector, and its long-term opportunities in AI development and product innovation help offset concerns about overvaluation. These strengths provide Apple with a degree of stability and competitive insulation that few other firms can replicate.

Although slowing growth in certain regions, rising competitive pressure, and Apple's low R&D efficiency may pose challenges in sustaining historical performance levels, their incredible brand strength, high switching cost, and ability to innovate new technologies position it well for continued long-term relevance. Additionally, investments in artificial intelligence infrastructure, U.S. manufacturing expansion, and a larger emphasis on services offer an excellent revenue for future growth.

While our valuation models show Apple's current stock price is above our estimates, its long-term stability, strong competitive position, and loyal customer base provide supporting evidence for future performance. As a result, our final recommendation is a hold.

## **Important Disclaimer**

This report was created by students enrolled in the Applied Equity Valuation (FIN:4250) class at the University of Iowa. The report was originally created to offer an internal investment recommendation for the University of Iowa Krause Fund and its advisory board. The report also provides potential employers and other interested parties an example of the students' skills, knowledge and abilities. Members of the Krause Fund are not registered investment advisors, brokers or officially licensed financial professionals. The investment advice contained in this report does not represent an offer or solicitation to buy or sell any of the securities mentioned. Unless otherwise noted, facts and figures included in this report are from publicly available sources. This report is not a complete compilation of data, and its accuracy is not guaranteed. From time to time, the University of Iowa, its faculty, staff, students, or the Krause Fund may hold a financial interest in the companies mentioned in this report.

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# Apple

## Revenue Decomposition

Fiscal Years Ending Sep. 28	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Revenue by category:													
iPhone	\$ 205,489	\$ 200,583	\$ 201,183	\$ 210,035	\$ 220,117	\$ 239,487	\$ 260,562	\$ 283,491	\$ 308,439	\$ 335,581	\$ 365,112	\$ 397,242	\$ 432,199
Services	78,129	85,200	96,169	108,479	120,520	142,695	168,951	200,038	236,845	280,425	332,023	393,116	465,449
Wearables, Home & Accessories	41,241	39,845	37,005	35,525	37,550	43,933	51,402	60,140	70,364	82,326	96,321	112,696	131,854
Mac	40,177	29,357	29,984	33,252	34,217	35,312	36,441	37,608	38,811	40,053	41,335	42,657	44,022
iPad	29,292	28,300	26,694	28,135	27,910	27,855	27,799	27,743	27,688	27,632	27,577	27,522	27,467
Total	\$ 394,328	\$ 383,285	\$ 391,035	\$ 415,426	\$ 440,313	\$ 489,282	\$ 545,155	\$ 609,021	\$ 682,147	\$ 766,017	\$ 862,369	\$ 973,233	\$ 1,100,992
Revenue by % of total:													
iPhone	52.11%	52.33%	51.45%	50.56%	49.99%	48.95%	47.80%	46.55%	45.22%	43.81%	42.34%	40.82%	39.26%
Services	19.81%	22.23%	24.59%	26.11%	27.37%	29.16%	30.99%	32.85%	34.72%	36.61%	38.50%	40.39%	42.28%
Wearables, Home & Accessories	10.46%	10.40%	9.46%	8.55%	8.53%	8.98%	9.43%	9.87%	10.32%	10.75%	11.17%	11.58%	11.98%
Mac	10.19%	7.66%	7.67%	8.00%	7.77%	7.22%	6.68%	6.18%	5.69%	5.23%	4.79%	4.38%	4.00%
iPad	7.43%	7.38%	6.83%	6.77%	6.34%	5.69%	5.10%	4.56%	4.06%	3.61%	3.20%	2.83%	2.49%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Revenue % growth over previous year:													
iPhone	7.04%	-2.39%	0.30%	4.40%	4.80%	8.80%	8.80%	8.80%	8.80%	8.80%	8.80%	8.80%	8.80%
Services	14.18%	9.05%	12.87%	12.80%	11.10%	18.40%	18.40%	18.40%	18.40%	18.40%	18.40%	18.40%	18.40%
Wearables, Home & Accessories	7.49%	-3.38%	-7.13%	-4.00%	5.70%	17.00%	17.00%	17.00%	17.00%	17.00%	17.00%	17.00%	17.00%
Mac	14.17%	-26.93%	2.14%	10.90%	2.90%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%
iPad	-8.07%	-3.39%	-5.67%	5.40%	-0.80%	-0.20%	-0.20%	-0.20%	-0.20%	-0.20%	-0.20%	-0.20%	-0.20%
Total	7.79%	-2.80%	2.02%	6.24%	5.99%	11.12%	11.42%	11.72%	12.01%	12.30%	12.58%	12.86%	13.13%

In millions, except percentage figures

**Apple**  
Income Statement

<b>Fiscal Years Ending Sep. 28</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>	<b>2032E</b>	<b>2033E</b>	<b>2034E</b>
Net sales:													
Products	\$ 316,199	\$ 298,085	\$ 294,866	\$ 306,948	\$ 319,793	\$ 346,586	\$ 376,204	\$ 408,982	\$ 445,301	\$ 485,592	\$ 530,345	\$ 580,117	\$ 635,543
Services	78,129	85,200	96,169	108,479	120,520	142,695	168,951	200,038	236,845	280,425	332,023	393,116	465,449
Total net sales	394,328	383,285	391,035	415,426	440,313	489,282	545,155	609,021	682,147	766,017	862,369	973,233	1,100,992
Cost of sales:													
Products	(201,471)	(189,282)	(185,233)	(195,438)	(203,617)	(220,677)	(239,535)	(260,405)	(283,530)	(309,184)	(337,679)	(369,369)	(404,660)
Services	(22,075)	(24,855)	(25,119)	(30,868)	(34,294)	(40,604)	(48,075)	(56,921)	(67,395)	(79,795)	(94,478)	(111,862)	(132,444)
Depreciation and amortization <b>(baked into cost of sales, R&amp;D, and SG&amp;A)</b>	(11,104)	(11,519)	(11,445)	(12,149)	(13,253)	(15,532)	(16,184)	(14,836)	(13,935)	(13,364)	(13,040)	(12,899)	(12,895)
Total cost of sales	(223,546)	(214,137)	(210,352)	(226,306)	(237,911)	(261,281)	(287,610)	(317,326)	(350,925)	(388,979)	(432,157)	(481,231)	(537,104)
Gross margin	170,782	169,148	180,683	189,120	202,402	228,001	257,545	291,694	331,222	377,038	430,212	492,002	563,888
Operating expenses:													
Research and development	(26,251)	(29,915)	(31,370)	(29,573)	(31,345)	(34,830)	(38,808)	(43,354)	(48,560)	(54,530)	(61,389)	(69,281)	(78,376)
Selling, general and administrative	(25,094)	(24,932)	(26,097)	(26,534)	(28,124)	(31,252)	(34,820)	(38,900)	(43,570)	(48,927)	(55,082)	(62,163)	(70,323)
Total operating expenses	(51,345)	(54,847)	(57,467)	(56,107)	(59,468)	(66,082)	(73,628)	(82,254)	(92,130)	(103,458)	(116,471)	(131,444)	(148,699)
Operating income	119,437	114,301	123,216	133,013	142,933	161,919	183,917	209,440	239,092	273,580	313,741	360,558	415,189
Interest and dividend income	2,825	3,750	-	5,733	5,799	5,756	6,887	8,713	11,785	15,481	20,096	26,274	34,070
Interest expense	(2,931)	(3,933)	-	4,596	6,131	6,598	7,012	7,139	7,976	1,328	9,260	10,111	11,115
Other income / expense, net	(228)	(382)	269	-	-	-	-	-	-	-	-	-	-
Income before provision for income taxes	119,103	113,736	123,485	143,342	154,864	174,273	197,816	225,292	258,853	290,389	343,097	396,942	460,373
Provision for income taxes	(19,300)	(16,741)	(29,749)	(25,286)	(27,318)	(30,742)	(34,895)	(39,742)	(45,662)	(51,225)	(60,522)	(70,021)	(81,210)
Net income	\$ 99,803	\$ 96,995	\$ 93,736	\$ 118,057	\$ 127,546	\$ 143,531	\$ 162,921	\$ 185,550	\$ 213,191	\$ 239,164	\$ 282,574	\$ 326,921	\$ 379,163
Earnings per share:													
Basic	\$ 6.15	\$ 6.16	\$ 6.11	\$ 7.91	\$ 8.75	\$ 10.08	\$ 11.70	\$ 13.61	\$ 15.97	\$ 18.28	\$ 22.01	\$ 25.94	\$ 30.61
Shares used in computing earnings per share:													
Basic	16,216	15,744	15,344	14,934	14,580	14,245	13,929	13,631	13,351	13,087	12,838	12,605	12,385
Total shares outstanding (basic)	15,943	15,550	15,117	14,752	14,407	14,082	13,776	13,487	13,215	12,959	12,718	12,492	12,279
Weighted average shares outstanding (basic)	16,216	15,744	15,344	14,934	14,580	14,245	13,929	13,631	13,351	13,087	12,838	12,605	12,385
Annual dividends per share	\$ 0.90	\$ 0.94	\$ 0.98	\$ 1.02	\$ 1.06	\$ 1.10	\$ 1.14	\$ 1.18	\$ 1.22	\$ 1.26	\$ 1.30	\$ 1.34	\$ 1.38

In millions, except per-share amounts

**Apple**  
Balance Sheet

<i>Fiscal Years Ending Sep. 28</i>	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Current assets:													
Cash and cash equivalents	\$ 23,646	\$ 29,965	\$ 29,943	\$ 27,094	\$ 21,107	\$ 47,030	\$ 91,752	\$ 170,352	\$ 265,768	\$ 386,104	\$ 548,934	\$ 755,757	\$ 1,014,958
Marketable securities	24,658	31,590	35,228	36,517	37,854	39,239	40,675	42,164	43,707	45,307	46,965	48,684	50,466
Accounts receivable, net	28,184	29,508	33,410	31,753	33,655	37,398	41,668	46,550	52,139	58,549	65,914	74,388	84,153
Vendor non-trade receivables	32,748	31,477	32,833	33,037	35,016	38,910	43,353	48,432	54,248	60,917	68,580	77,396	87,556
Inventories	4,946	6,331	7,286	6,821	7,230	8,034	8,951	10,000	11,201	12,578	14,160	15,981	18,078
Other current assets	21,223	14,695	14,287	17,372	18,413	20,461	22,797	25,468	28,526	32,033	36,062	40,698	46,041
Total current assets	135,405	143,566	152,987	152,594	153,274	191,071	249,198	342,966	455,588	595,489	780,616	1,012,904	1,301,253
Non-current assets:													
Marketable securities	120,805	100,544	91,479	94,827	98,298	101,896	105,625	109,491	113,498	117,652	121,958	126,422	131,049
Property, plant and equipment, net	42,117	43,715	45,680	49,831	58,403	60,854	55,784	52,396	50,252	49,032	48,501	48,486	48,862
Operating lease right-of-use assets	10,417	10,661	10,234	11,164	13,084	13,634	12,498	11,739	11,258	10,985	10,866	10,863	10,947
Deferred tax assets, net (except 2015)	15,375	17,852	19,499	22,070	24,847	27,972	31,520	35,560	40,202	45,409	51,562	58,681	66,937
Other non-current assets	28,636	36,245	45,101	43,410	46,011	51,128	56,966	63,640	71,281	80,045	90,113	101,698	115,048
Total non-current assets	217,350	209,017	211,993	221,301	240,643	255,483	262,392	272,824	286,491	303,123	323,000	346,149	372,842
Total assets	352,755	352,583	364,980	373,896	393,917	446,554	511,590	615,790	742,079	898,612	1,103,616	1,359,053	1,674,095
Current liabilities:													
Accounts payable	\$ 64,115	\$ 62,611	\$ 68,960	\$ 67,714	\$ 71,771	\$ 79,753	\$ 88,860	\$ 99,270	\$ 111,190	\$ 124,861	\$ 140,566	\$ 158,637	\$ 179,462
Income taxes payable	6,552	8,819	26,601	-	-	-	-	-	-	-	-	-	-
Other current liabilities	54,293	50,010	51,703	55,066	58,365	64,856	72,262	80,727	90,420	101,538	114,309	129,005	145,939
Deferred revenue	7,912	8,061	8,249	8,620	9,136	10,153	11,312	12,637	14,154	15,895	17,894	20,194	22,845
Commercial paper	9,982	5,985	9,967	8,881	9,353	10,193	11,142	12,215	13,433	14,818	16,395	18,198	20,260
Current Portion of term debt	11,128	9,822	10,912	12,342	9,936	7,800	5,153	15,807	17,382	19,174	21,216	23,547	26,217
Total current liabilities	153,982	145,308	176,392	152,624	158,561	172,754	188,729	220,657	246,580	276,284	310,380	349,581	394,723
Non-current liabilities:													
Term debt	98,959	95,281	85,750	121,037	133,807	144,694	149,344	157,036	167,559	180,852	196,983	216,133	238,589
Deferred tax liabilities, net (except 2015)	-	-	-	-	-	-	-	-	-	-	-	-	-
Long-term taxes payable	16,657	15,457	9,254	4,525	-	-	-	-	-	-	-	-	-
Other non-current liabilities	32,485	34,391	36,634	26,673	28,271	31,415	35,003	39,103	43,798	49,184	55,370	62,488	70,691
Deferred revenue, non-current	-	-	-	-	-	-	-	-	-	-	-	-	-
Total non-current liabilities	148,101	145,129	131,638	152,235	162,078	176,109	184,346	196,140	211,358	230,036	252,353	278,621	309,280
Total liabilities	302,083	290,437	308,030	304,859	320,640	348,863	373,075	416,796	457,938	506,320	562,733	628,202	704,003
Shareholders' equity:													
Common stock and additional paid-in capital	64,849	73,812	83,276	83,276	83,276	83,276	83,276	83,276	83,276	83,276	83,276	83,276	83,276
Accumulated earnings / deficit	(3,068)	(214)	(19,154)	(14,239)	(2,826)	21,587	62,411	122,890	208,037	316,188	464,778	654,747	893,987
Accumulated other comprehensive income / loss	(11,109)	(11,452)	(7,172)	(7,172)	(7,172)	(7,172)	(7,172)	(7,172)	(7,172)	(7,172)	(7,172)	(7,172)	(7,172)
Total shareholders' equity	50,672	62,146	56,950	69,037	73,278	97,691	138,515	198,994	284,141	392,292	540,882	730,851	970,091
Total liabilities and shareholders' equity	\$ 352,755	\$ 352,583	\$ 364,980	\$ 373,896	\$ 393,917	\$ 446,554	\$ 511,590	\$ 615,790	\$ 742,079	\$ 898,612	\$ 1,103,616	\$ 1,359,053	\$ 1,674,095

In millions

**Apple**

*Forecasted Cash Flow Statement*

<b>Fiscal Years Ending Sep. 28</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>	<b>2032E</b>	<b>2033E</b>	<b>2034E</b>
Cash, cash equivalents, and restricted cash and cash equivalents, beginning balances	\$ 29,943	\$ 27,094	\$ 21,107	\$ 47,030	\$ 91,752	\$ 170,352	\$ 265,768	\$ 386,104	\$ 548,934	\$ 755,757
Operating Activities:										
Net Income	\$ 118,057	\$ 127,546	\$ 143,531	\$ 162,921	\$ 185,550	\$ 213,191	\$ 239,164	\$ 282,574	\$ 326,921	\$ 379,163
Depreciation and amortization	12,149	13,253	15,532	16,184	14,836	13,935	13,364	13,040	12,899	12,895
Change in accounts receivable, net	1,657	(1,902)	(3,743)	(4,271)	(4,881)	(5,589)	(6,411)	(7,364)	(8,474)	(9,765)
Change in vendor non-trade receivables	(204)	(1,979)	(3,894)	(4,443)	(5,079)	(5,815)	(6,670)	(7,662)	(8,816)	(10,160)
Change in inventories	465	(409)	(804)	(917)	(1,049)	(1,201)	(1,377)	(1,582)	(1,820)	(2,098)
Change in other current assets	(3,085)	(1,041)	(2,048)	(2,337)	(2,671)	(3,058)	(3,507)	(4,029)	(4,636)	(5,343)
Change in other non-current assets	1,691	(2,601)	(5,117)	(5,839)	(6,674)	(7,641)	(8,764)	(10,068)	(11,585)	(13,350)
Change in operating lease right-of-use assets	(930)	(1,921)	(549)	1,136	759	480	273	119	3	(84)
Change in deferred tax assets, net (except 2015)	(2,571)	(2,777)	(3,125)	(3,547)	(4,040)	(4,642)	(5,208)	(6,153)	(7,118)	(8,256)
Change in accounts payable	(1,246)	4,057	7,982	9,107	10,410	11,920	13,671	15,705	18,071	20,825
Change in income taxes payable	(26,601)	-	-	-	-	-	-	-	-	-
Change in other current liabilities	3,363	3,299	6,491	7,406	8,466	9,693	11,117	12,772	14,695	16,935
Change in deferred revenue	371	516	1,016	1,159	1,325	1,517	1,740	1,999	2,300	2,651
Change in deferred tax liabilities, net (except 2015)	-	-	-	-	-	-	-	-	-	-
Change in long-term taxes payable	(4,729)	(4,525)	-	-	-	-	-	-	-	-
Change in other non-current liabilities	(9,961)	1,598	3,144	3,587	4,101	4,695	5,385	6,186	7,118	8,203
Change in deferred revenue, non-current	-	-	-	-	-	-	-	-	-	-
Cash Generated by Operating Activities	88,426	133,114	158,416	180,148	201,053	227,485	252,779	295,536	339,558	391,615
Investing Activities:										
Change in marketable securities	(1,289)	(1,337)	(1,385)	(1,436)	(1,489)	(1,543)	(1,600)	(1,658)	(1,719)	(1,782)
Change in non-current marketable securities	(3,348)	(3,471)	(3,598)	(3,729)	(3,866)	(4,007)	(4,154)	(4,306)	(4,464)	(4,627)
Change in property, plant and equipment, net	(16,299)	(21,825)	(17,984)	(11,114)	(11,447)	(11,791)	(12,144)	(12,509)	(12,884)	(13,271)
Cash Genereated by (Used in) Investing Activities	(20,937)	(26,632)	(22,967)	(16,279)	(16,802)	(17,341)	(17,898)	(18,473)	(19,067)	(19,679)
Financing Activities:										
Total dividends paid	(15,419)	(15,637)	(15,848)	(16,054)	(16,255)	(16,454)	(16,651)	(16,846)	(17,042)	(17,238)
Share repurchases	(97,723)	(100,496)	(103,270)	(106,043)	(108,817)	(111,590)	(114,364)	(117,137)	(119,911)	(122,684)
Change in commercial paper	(1,086)	472	840	949	1,073	1,218	1,385	1,578	1,802	2,063
Change in current portion of term debt	1,430	(2,406)	(2,136)	(2,647)	10,654	1,576	1,792	2,042	2,332	2,669
Change in non-current term debt	35,287	12,770	10,886	4,650	7,693	10,523	13,293	16,131	19,150	22,456
Cash Used in Financing Activities	(77,510)	(105,297)	(109,527)	(119,145)	(105,652)	(114,727)	(114,545)	(114,233)	(113,669)	(112,735)
Increase / decrease in cash and cash equivalents	(10,021)	1,185	25,922	44,723	78,599	95,416	120,336	162,830	206,823	259,201
Cash, cash equivalents, and restricted cash and cash equivalents, ending balances	\$ 19,922	\$ 28,279	\$ 47,030	\$ 91,752	\$ 170,352	\$ 265,768	\$ 386,104	\$ 548,934	\$ 755,757	\$ 1,014,958

In millions



### Common Size Income Statement

[illegible]

**Apple**

Common Size Balance Sheet (% Sales)

Fiscal Years Ending Sep. 28	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Current assets:													
Cash and cash equivalents	6.00%	7.82%	7.66%	6.52%	4.79%	9.61%	16.83%	27.97%	38.96%	50.40%	63.65%	77.65%	92.19%
Marketable securities	6.25%	8.24%	9.01%	8.79%	8.60%	8.02%	7.46%	6.92%	6.41%	5.91%	5.45%	5.00%	4.58%
Accounts receivable, net	7.15%	7.70%	8.54%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%	7.64%
Vendor non-trade receivables	8.30%	8.21%	8.40%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%
Inventories	1.25%	1.65%	1.86%	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%
Other current assets	5.38%	3.83%	3.65%	4.18%	4.18%	4.18%	4.18%	4.18%	4.18%	4.18%	4.18%	4.18%	4.18%
Total current assets	34.34%	37.46%	39.12%	36.73%	34.81%	39.05%	45.71%	56.31%	66.79%	77.74%	90.52%	104.08%	118.19%
Non-current assets:													
Marketable securities	30.64%	26.23%	23.39%	22.83%	22.32%	20.83%	19.38%	17.98%	16.64%	15.36%	14.14%	12.99%	11.90%
Property, plant and equipment, net	10.68%	11.41%	11.68%	12.00%	13.26%	12.44%	10.23%	8.60%	7.37%	6.40%	5.62%	4.98%	4.44%
Operating lease right-of-use assets	2.64%	2.78%	2.62%	2.69%	2.97%	2.79%	2.29%	1.93%	1.65%	1.43%	1.26%	1.12%	0.99%
Deferred tax assets, net (except 2015)	3.90%	4.66%	4.99%	5.31%	5.64%	5.72%	5.78%	5.84%	5.89%	5.93%	5.98%	6.03%	6.08%
Other non-current assets	7.26%	9.46%	11.53%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%	10.45%
Total non-current assets	55.12%	54.53%	54.21%	53.27%	54.65%	52.22%	48.13%	44.80%	42.00%	39.57%	37.45%	35.57%	33.86%
Total assets	89.46%	91.99%	93.34%	90.00%	89.46%	91.27%	93.84%	101.11%	108.79%	117.31%	127.97%	139.64%	152.05%
Current liabilities:													
Accounts payable	16.26%	16.34%	17.64%	16.30%	16.30%	16.30%	16.30%	16.30%	16.30%	16.30%	16.30%	16.30%	16.30%
Income taxes payable	1.66%	2.30%	6.80%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other current liabilities	13.77%	13.05%	13.22%	13.26%	13.26%	13.26%	13.26%	13.26%	13.26%	13.26%	13.26%	13.26%	13.26%
Deferred revenue	2.01%	2.10%	2.11%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%	2.07%
Commercial paper	2.53%	1.56%	2.55%	2.14%	2.12%	2.08%	2.04%	2.01%	1.97%	1.93%	1.90%	1.87%	1.84%
Term debt	2.82%	2.56%	2.79%	2.97%	2.26%	1.59%	0.95%	2.60%	2.55%	2.50%	2.46%	2.42%	2.38%
Total current liabilities	39.05%	37.91%	45.11%	36.74%	36.01%	35.31%	34.62%	36.23%	36.15%	36.07%	35.99%	35.92%	35.85%
Non-current liabilities:													
Term debt	25.10%	24.86%	21.93%	29.14%	30.39%	29.57%	27.39%	25.79%	24.56%	23.61%	22.84%	22.21%	21.67%
Deferred tax liabilities, net (except 2015)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Long-term taxes payable	4.22%	4.03%	2.37%	1.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other non-current liabilities	8.24%	8.97%	9.37%	6.42%	6.42%	6.42%	6.42%	6.42%	6.42%	6.42%	6.42%	6.42%	6.42%
Deferred revenue, non-current	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total non-current liabilities	37.56%	37.86%	33.66%	36.65%	36.81%	35.99%	33.82%	32.21%	30.98%	30.03%	29.26%	28.63%	28.09%
Total liabilities	76.61%	75.78%	78.77%	73.38%	72.82%	71.30%	68.43%	68.44%	67.13%	66.10%	65.25%	64.55%	63.94%
Shareholders' equity:													
Common stock and additional paid-in capital	16.45%	19.26%	21.30%	20.05%	18.91%	17.02%	15.28%	13.67%	12.21%	10.87%	9.66%	8.56%	7.56%
Accumulated earnings / deficit	-0.78%	-0.06%	-4.90%	-3.43%	-0.64%	4.41%	11.45%	20.18%	30.50%	41.28%	53.90%	67.28%	81.20%
Accumulated other comprehensive income / loss	-2.82%	-2.99%	-1.83%	-3.43%	-1.63%	-1.47%	-1.32%	-1.18%	-1.05%	-0.94%	-0.83%	-0.74%	-0.65%
Total shareholders' equity	12.85%	16.21%	14.56%	16.62%	16.64%	19.97%	25.41%	32.67%	41.65%	51.21%	62.72%	75.10%	88.11%
Total liabilities and shareholders' equity	89.46%	91.99%	93.34%	90.00%	89.46%	91.27%	93.84%	101.11%	108.79%	117.31%	127.97%	139.64%	152.05%

In % of total sales

**Apple**

Common Size Balance Sheet (% Assets)

Fiscal Years Ending Sep. 28	2015	2016	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Current assets:															
Cash and cash equivalents	7.27%	6.37%	6.70%	8.50%	8.20%	7.25%	5.36%	10.53%	17.93%	27.66%	35.81%	42.97%	49.74%	55.61%	60.63%
Marketable securities	7.05%	14.51%	6.99%	8.96%	9.65%	9.77%	9.61%	8.79%	7.95%	6.85%	5.89%	5.04%	4.26%	3.58%	3.01%
Accounts receivable, net	5.80%	4.90%	7.99%	8.37%	9.15%	8.49%	8.54%	8.37%	8.14%	7.56%	7.03%	6.52%	5.97%	5.47%	5.03%
Vendor non-trade receivables	4.65%	4.21%	9.28%	8.93%	9.00%	8.84%	8.89%	8.71%	8.47%	7.87%	7.31%	6.78%	6.21%	5.69%	5.23%
Inventories	0.81%	0.66%	1.40%	1.80%	2.00%	1.82%	1.84%	1.80%	1.75%	1.62%	1.51%	1.40%	1.28%	1.18%	1.08%
Other current assets	5.20%	2.57%	6.02%	4.17%	3.91%	4.65%	4.67%	4.58%	4.46%	4.14%	3.84%	3.56%	3.27%	2.99%	2.75%
Total current assets	30.78%	33.22%	38.38%	40.72%	41.92%	40.81%	38.91%	42.79%	48.71%	55.70%	61.39%	66.27%	70.73%	74.53%	77.73%
Non-current assets:															
Marketable securities	56.51%	52.98%	34.25%	28.52%	25.06%	25.36%	24.95%	22.82%	20.65%	17.78%	15.29%	13.09%	11.05%	9.30%	7.83%
Property, plant and equipment, net	7.74%	8.40%	11.94%	12.40%	12.52%	13.33%	14.83%	13.63%	10.90%	8.51%	6.77%	5.46%	4.39%	3.57%	2.92%
Operating lease right-of-use assets	1.78%	1.95%	2.95%	3.02%	2.80%	2.99%	3.32%	3.05%	2.44%	1.91%	1.52%	1.22%	0.98%	0.80%	0.65%
Deferred tax assets, net (except 2015)	1.91%	0.00%	4.36%	5.06%	5.34%	5.90%	6.31%	6.26%	6.16%	5.77%	5.42%	5.05%	4.67%	4.32%	4.00%
Other non-current assets	1.37%	3.55%	8.12%	10.28%	12.36%	11.61%	11.68%	11.45%	11.14%	10.33%	9.61%	8.91%	8.17%	7.48%	6.87%
Total non-current assets	69.22%	66.78%	61.62%	59.28%	58.08%	59.19%	61.09%	57.21%	51.29%	44.30%	38.61%	33.73%	29.27%	25.47%	22.27%
Total assets	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Current liabilities:															
Accounts payable	12.22%	11.59%	18.18%	17.76%	18.89%	18.11%	18.22%	17.86%	17.37%	16.12%	14.98%	13.89%	12.74%	11.67%	10.72%
Income taxes payable	0.00%	0.00%	1.86%	2.50%	7.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other current liabilities	8.67%	6.85%	15.39%	14.18%	14.17%	14.73%	14.82%	14.52%	14.12%	13.11%	12.18%	11.30%	10.36%	9.49%	8.72%
Deferred revenue	3.08%	2.51%	2.24%	2.29%	2.26%	2.31%	2.32%	2.27%	2.21%	2.05%	1.91%	1.77%	1.62%	1.49%	1.36%
Commercial paper	2.93%	2.52%	2.83%	1.70%	2.73%	2.38%	2.37%	2.28%	2.18%	1.98%	1.81%	1.65%	1.49%	1.34%	1.21%
Term debt	0.86%	1.09%	3.15%	2.79%	2.99%	3.30%	2.52%	1.75%	1.01%	2.57%	2.34%	2.13%	1.92%	1.73%	1.57%
Total current liabilities	27.76%	24.56%	43.65%	41.21%	48.33%	40.82%	40.25%	38.69%	36.89%	35.83%	33.23%	30.75%	28.12%	25.72%	23.58%
Non-current liabilities:															
Term debt	18.37%	23.45%	28.05%	27.02%	23.49%	32.37%	33.97%	32.40%	29.19%	25.50%	22.58%	20.13%	17.85%	15.90%	14.25%
Deferred tax liabilities, net (except 2015)	8.29%	8.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Long-term taxes payable	0.00%	0.00%	4.72%	4.38%	2.54%	1.21%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other non-current liabilities	3.23%	3.13%	9.21%	9.75%	10.04%	7.13%	7.18%	7.04%	6.84%	6.35%	5.90%	5.47%	5.02%	4.60%	4.22%
Deferred revenue, non-current	1.25%	0.91%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total non-current liabilities	31.13%	35.57%	41.98%	41.16%	36.07%	40.72%	41.15%	39.44%	36.03%	31.85%	28.48%	25.60%	22.87%	20.50%	18.47%
Total liabilities	58.89%	60.13%	85.64%	82.37%	84.40%	81.54%	81.40%	78.12%	72.92%	67.68%	61.71%	56.34%	50.99%	46.22%	42.05%
Shareholders' equity:															
Common stock and additional paid-in capital	9.44%	9.71%	18.38%	20.93%	22.82%	22.27%	21.14%	18.65%	16.28%	13.52%	11.22%	9.27%	7.55%	6.13%	4.97%
Accumulated earnings / deficit	31.78%	29.96%	-0.87%	-0.06%	-5.25%	-3.81%	-0.72%	4.83%	12.20%	19.96%	28.03%	35.19%	42.11%	48.18%	53.40%
Accumulated other comprehensive income / loss	-0.12%	0.20%	-3.15%	-3.25%	-1.97%	-1.92%	-1.82%	-1.61%	-1.40%	-1.16%	-0.97%	-0.80%	-0.65%	-0.53%	-0.43%
Total shareholders' equity	41.11%	39.87%	14.36%	17.63%	15.60%	18.46%	18.60%	21.88%	27.08%	32.32%	38.29%	43.66%	49.01%	53.78%	57.95%
Total liabilities and shareholders' equity	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

In % of total assets

## Apple

### Weighted Average Cost of Capital (WACC) Estimation

#### Cost of Equity:

Risk-Free Rate	4.02%
Beta	1.12
Equity Risk Premium	4.75%
<b>Cost of Equity</b>	<b>9.32%</b>

#### ASSUMPTIONS:

10-year Treasury bond

Average of 2, 3, 4, and 5-year weekly beta

1928-2024 geometric average over 10-year Treasury

#### Cost of Debt:

Risk-Free Rate	4.02%
Implied Default Premium	0.29%
Pre-Tax Cost of Debt	4.31%
Marginal Tax Rate	17.64%
<b>After-Tax Cost of Debt</b>	<b>3.55%</b>

10-year Treasury bond

YTM on company's 10-year corporate bond

#### Market Value of Common Equity:

Total Shares Outstanding	15,117
Current Stock Price	\$267.81
<b>MV of Equity</b>	<b>4,048,366</b>

#### MV Weights

95.61%

#### Market Value of Debt:

Short-Term Debt	89,839
Long-Term Debt	85,750
PV of Operating Leases	10,234
<b>MV of Total Debt</b>	<b>185,823</b>

4.39%

#### Market Value of the Firm

4,234,189

100.00%

#### Estimated WACC

9.07%

## Apple

### Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models

#### Key Inputs:

CV Growth of NOPLAT	3.00%
CV Year ROIC	8.84
WACC	9.07%
Cost of Equity	9.32%

Fiscal Years Ending Sep. 28	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
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#### DCF Model:

Free Cash Flow (FCF)	92,600	103,245	126,474	153,406	171,971	194,153	223,433	252,195	289,179	332,585
Continuing Value (CV)										5,420,715
PV of FCF	84,900	86,788	97,473	108,398	111,411	115,322	121,678	125,920	132,379	2,481,471

Value of Operating Assets: 3,465,739

#### Non-Operating Adjustments:

+ Excess Cash	6,494
+ Marketable Securities	126,707
- Short-Term Debt	(89,839)
- Long-Term Debt	(85,750)
- PV Operating Leases	(10,234)

Value of Equity 3,413,118

Shares Outstanding 14,752

Intrinsic Value of Last FYE \$ 231.37

**Implied Price as of Today \$ 234.20**

#### EP Model:

Economic Profit (EP)	102,230	108,495	122,786	140,184	161,304	185,308	215,863	245,494	283,038	326,770
Continuing Value (CV)										5,383,364
PV of EP	93,729	91,201	94,631	99,055	104,501	110,068	117,555	122,574	129,568	2,464,372

Total PV of EP 3,427,255

Invested Capital (last FYE) 38,485

Value of Operating Assets: 3,465,739

#### Non-Operating Adjustments:

+ Excess Cash	6,494
+ Marketable Securities	126,707
- Short-Term Debt	(89,839)
- Long-Term Debt	(85,750)
- PV Operating Leases	(10,234)

Value of Equity 3,413,118

Shares Outstanding 14,752

Intrinsic Value of Last FYE \$ 231.37

**Implied Price as of Today \$ 234.20**



## Apple

### Dividend Discount Model (DDM)

<i>Fiscal Years Ending</i>	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
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EPS	\$	7.91	\$	8.75	\$	10.08	\$	11.70	\$	13.61	\$	15.97	\$	18.28	\$	22.01	\$	25.94	\$	30.61
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#### Key Assumptions

CV growth of EPS	3.00%
CV Year ROE	51.88%
Cost of Equity	9.32%

#### Future Cash Flows

P/E Multiple (CV Year)																				14.90
EPS (CV Year)																				\$ 30.61
Future Stock Price																				\$ 456.14
Dividends Per Share	\$	1.02	\$	1.06	\$	1.10	\$	1.14	\$	1.18	\$	1.22	\$	1.26	\$	1.30	\$	1.34		
Discounted Cash Flows	\$	0.93	\$	0.89	\$	0.84	\$	0.80	\$	0.76	\$	0.71	\$	0.68	\$	0.64	\$	0.60	\$	204.49


Intrinsic Value as of Last FYE	\$	211.34
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Implied Price as of Today	\$	213.93
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## Apple

### Relative Valuation Models

Ticker	Company	Price	EPS		P/E 25	P/E 26
			2025E	2026E		
MSFT	Microsoft	\$523.61	\$13.64	\$15.54	38.39	33.69
GOOG	Alphabet	\$260.51	\$9.91	\$10.76	26.29	24.21
AMZN	Amazon	\$224.21	\$6.68	\$7.61	33.56	29.46
META	Meta	\$738.36	\$28.28	\$30.16	26.11	24.48
DELL	Dell	\$158.64	\$6.38	\$7.90	24.87	20.08
HPQ	HP	\$27.66	\$2.76	\$3.11	10.02	8.89
Average					<b>26.54</b>	<b>23.47</b>

 APPL	Apple	\$267.81	\$ 7.91	\$ 8.75	33.9	30.6
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### Implied Relative Value:

**P/E (EPS25)                      \$ 209.79**

**P/E (EPS26)                      \$ 205.33**

**Apple***Key Management Ratios*

<i>Fiscal Years Ending Sep. 28</i>	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
<b>Liquidity Ratios:</b>													
Cash Ratio (Cash & Cash Equivalents / Current liabilities)	0.15	0.21	0.17	0.18	0.13	0.27	0.49	0.77	1.08	1.40	1.77	2.16	2.57
Current Ratio (Current Assets / Current Liabilities)	0.88	0.99	0.87	1.00	0.97	1.11	1.32	1.55	1.85	2.16	2.52	2.90	3.30
Quick Ratio (Current assets - Inventory / Current Liabilities)	0.19	0.25	0.21	0.22	0.18	0.32	0.53	0.82	1.12	1.44	1.81	2.21	2.62
<b>Asset-Management Ratios:</b>													
Total Asset Turnover Ratio (Sales / Total Assets)	1.12	1.09	1.07	1.11	1.12	1.10	1.07	0.99	0.92	0.85	0.78	0.72	0.66
Accounts Receivable Turnover Ratio (Cost of Sales / Avg Accounts Receivable)	68.42	67.98	57.43	58.90	62.67	64.11	64.19	64.27	64.35	64.43	64.50	64.58	64.65
Days Sales Outstanding (365 Days / Receivable Turnover)	5.33	5.37	6.36	6.20	5.82	5.69	5.69	5.68	5.67	5.67	5.66	5.65	5.65
<b>Financial Leverage Ratios:</b>													
Debt to Equity Ratio (Total Liabilities / Total Equity)	5.96	4.67	5.41	4.42	4.38	3.57	2.69	2.09	1.61	1.29	1.04	0.86	0.73
Debt to EBIT Ratio (Total Liabilities / EBIT)	2.53	2.54	2.50	2.29	2.24	2.15	2.03	1.99	1.92	1.85	1.79	1.74	1.70
Interest Coverage Ratio (EBIT / Interest Expense)	-40.75	-29.06	N/A	28.94	23.31	24.54	26.23	29.34	29.98	205.99	33.88	35.66	37.36
Debt to Assets Ratio (Total Liabilities / Total Assets)	0.86	0.82	0.84	0.82	0.81	0.78	0.73	0.68	0.62	0.56	0.51	0.46	0.42
<b>Profitability Ratios:</b>													
Return on Equity (NI / Beg TSE)	158.19%	191.42%	150.83%	207.30%	184.75%	195.87%	166.77%	133.96%	107.13%	84.17%	72.03%	60.44%	51.88%
Return on Assets (NI / Total Assets)	28.29%	27.51%	25.68%	31.57%	32.38%	32.14%	31.85%	30.13%	28.73%	26.61%	25.60%	24.06%	22.65%
Net Profit Margin (NI / Rev)	25.31%	25.31%	23.97%	28.42%	28.97%	29.34%	29.89%	30.47%	31.25%	31.22%	32.77%	33.59%	34.44%
Pretax Margin (EBT / Rev)	30.20%	29.67%	31.58%	34.50%	35.17%	35.62%	36.29%	36.99%	37.95%	37.91%	39.79%	40.79%	41.81%
<b>Payout Policy Ratios:</b>													
Dividend Payout Ratio (Dividend / EPS)	0.15	0.15	0.16	0.13	0.12	0.11	0.10	0.09	0.08	0.07	0.06	0.05	0.05
Total Payout Ratio ((Divs. + Repurchases) / NI)	1.04	0.95	1.17	0.13	0.12	0.11	0.10	0.09	0.08	0.07	0.06	0.05	0.05
Retention Ratio (1 - Dividend Payout Ratio)	0.85	0.85	0.84	0.87	0.88	0.89	0.90	0.91	0.92	0.93	0.94	0.95	0.95