Moody's
INVESTORS SERVICE

Instrument Information

CUSIP: 037833DF4
Issuer: APPLE INC.

This section details the Moody's ratings for CUSIP 037833DF4.

Aaa Senior Unsecured Rating
as of 12/21/2021

Investment Grade	Non-Investment Grade

Instrument Long-Term Debt Rating as of 12/21/2021
Obligations rated Aaa are judged to be of the highest quality, with minimal credit risk.

Upgrade	Downgrade	Uncertain	Not on Watch

Instrument Watch Status
Moody's uses Watch Status to indicate that a rating is under review for possible change in the short-term.

Corporate Bond Information

Class	REG
Coupon	2.750
Maturity	13 Jan 2025
Rating Date	21 Dec 2021
Sale Date	06 Nov 2017
USD Face Value (in millions)	$1500.000
Currency	USD
Debt has Support	N

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Aaa	Stable
Long Term Rating	Moody's Rating Outlook
as of 21 Dec 2021	as of 21 Dec 2021
Not on Watch	

Moody's Opinion as of 22-Aug-2023

Summary

Apple has an exceptionally strong financial profile with $167 billion of cash balances and our expectations for $90 billion in free cash flow (after dividends) in FY '24. We expect operating income to increase 4% in FY '24, after declining 5% in FY '23. Gross leverage (Moody's adjusted) was 1.1x at F3Q '23, and we expect Apple to maintain leverage of 1x to 1.5x through business cycles, with a strong net cash position. Apple's financial policy of transitioning into a net cash neutral position over time provides stability and we expect this transition to occur over the next 4 to 5 years. Apple has substantial operating scale, a large installed base of devices and users of its services, strong customer loyalty, and premium brand positioning that drive its industry-leading profitability across product categories. Its ecosystem of products and services enhances revenue visibility despite variability in hardware revenues from new product introduction cycles and the macroeconomic environment. Apple's broad portfolio of offerings, solid track record of innovation and execution, and significant opportunity to monetize its installed base support our expectations for good long term earnings growth through business cycles. Although Apple's revenue diversity continues to improve, its overall revenue growth and profitability still depend upon iPhone sales to a large degree. Apple faces intense competition across its product and service offerings. As a product-centric company, it has execution risks from short product cycles, the need to adapt to shifting consumer preferences, and managing a large and complex supply chain. The company has high manufacturing and supply chain concentration. Other principal risks to the business stem from growing regulatory uncertainties and legal challenges in certain parts of Apple's Services segment. The company's world class risk management capabilities and financial strength mitigate these risks.

Credit strengths

- Substantial operating scale, a loyal base of more than 2 billion active devices and a large ecosystem of devices and services
- Core strengths in design, innovation, and integration of hardware, software and services
- Premium brand positioning drives industry-leading profitability
- Robust financial flexibility from strong cash balances and earnings, and low financial leverage

Credit challenges

- Elevated regulatory and legal risks in certain parts of the Services segment
- High concentration of manufacturing operations
- Intense competition in all product categories; sales and profitability still dependent on iPhone's performance
- Evolving technologies, shifting consumer brands and a complex supply chain increase product execution risk

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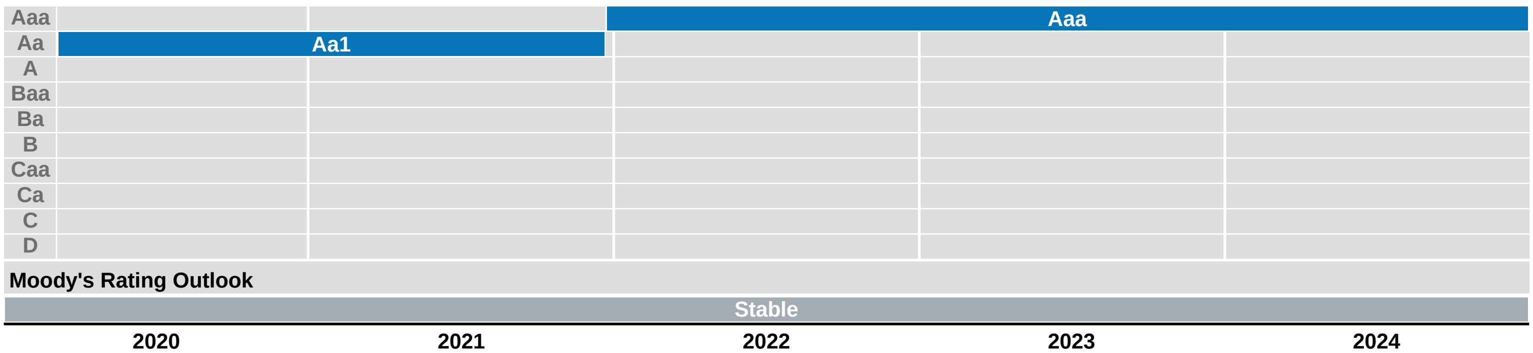
Rating History

5 Year Rating History for 037833DF4



Rating outlook

The stable rating outlook reflects our expectation that Apple will maintain robust liquidity and generate approximately $90 billion in free cash flow in FY '24.

Factors that Could Lead to an Downgrade

- Shifts in financial policy or a large acquisition that leads to a sustained and material increase in financial leverage or a less than robust liquidity position
- Changes in business practices under regulatory or legal pressure that substantially weaken long-term earnings growth prospects and cannot be mitigated over time through changes in financial policy or business activities
- Sustained erosion in market position and profitability from execution challenges

Detailed credit considerations

Exceptional liquidity, robust profitability and stability from financial policy

Apple's exceptionally strong cash balances, low gross financial leverage, and our projections of $90 billion of annual free cash flow provide the company substantial flexibility to manage its business risks, make large investments in growth opportunities, and fund shareholder returns. Apple maintained gross leverage around 1.8x (Moody's adjusted, see Appendix) from FY '18 through FY '20 since US tax reform but robust EBITDA growth in FY '21 and FY '22 and relatively stable debt levels drove leverage down to 1.1x at FYE '22. Leverage was unchanged 1.1x at F3Q '23, as declining EBITDA was offset by lower debt and tax repatriation liability balances. Assuming stable debt levels, we expect EBITDA growth of 4% to drive a modest decline in gross leverage in FY '24. Over time, we expect the company to maintain gross leverage in the range of low to mid 1x through business and investment cycles, while maintaining a net cash to net cash neutral position. Apple has historically driven its product innovation largely through internal R&D, which is sizeable at $29 billion. In contrast, the company's cumulative cash spending on acquisitions over the last five years was a modest $2.5 billion, consisting of numerous small acquisitions. Capital expenditures are relatively modest (3% to 4% of revenues).

Apple had $57 billion of cash in excess of total reported debt at F3Q '23, compared to $60 billion a year ago. The company's credit profile is strongly supported by the enhanced visibility into its capital allocation from management's financial policy goal of transitioning to a net cash neutral position over time. Apple's historical pattern of share repurchases since US tax reform and its strong earnings and cash balances support our expectation that the company will transition to a net cash neutral position gradually over the next 4 to 5 years.

Core strengths in innovation, design, and integration of technologies differentiate offerings in an intensely competitive industry

Apple's products provide superior user experience with aesthetically designed products and unmatched integration of hardware with software and services that simplifies complex underlying technologies. All of its major hardware products are powered by its proprietary operating system platforms. Apple also tightly controls third party applications that run on its devices through the App Store. The company has further distanced its products from competition with its internally designed ARM-based M-series processors that power new Mac products and iPads, and the H-series chips in its AirPods. Apple's integration of operating system software and processors will become an even greater differentiating factor as future applications such as artificial intelligence applications, rich gaming, and Augmented and Virtual Reality will require greater processing power, speed and efficient power management. Apple has rarely been the first to launch products but it has been highly successful in differentiating its offerings by simplifying technologies for consumers. It has successfully deployed this formula from its early Macintosh personal computer to the introductions of the iPhone, iPod, iPad, Apple Watch, and AirPods, and has extended that into new proprietary services such as Apple Pay, Apple Card, and the news, music and video streaming services, by leveraging its strong brand and penetrating its large installed base that also increase stickiness into its ecosystem.

Large installed base and a growing ecosystem of products and services increase long-term revenue visibility

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Key indicators APPLE INC.

US Millions	Sep-18	Sep-19	Sep-20	Sep-21	Sep-22	LTM (Jul-23)	2023 F	2024 F
Revenue	$265,595	$260,174	$274,515	$365,817	$394,328	$383,933	$384,726	$405,622
EBIT	$76,430	$69,530	$70,148	$112,071	$122,298	$115,417	$117,894	$122,396
EBITDA Margin %	33%	32%	30%	34%	34%	34%	34%	34%
Operating Income ROA (net of Cash + Mkt Sec)	57%	46%	48%	75%	70%	69%	63%	64%
Debt / EBITDA	1.8x	1.8x	1.8x	1.3x	1.1x	1.1x	1.1x	1.0x
EBIT / Interest Expense	21.7x	18.3x	22.9x	39.1x	38.3x	28.7x	28.1x	28.8x
FCF / Debt	32%	31%	39%	49%	63%	62%	63%	67%

All figures and ratios are calculated using Moody’s estimates and standard adjustments. Moody's Forecasts [F] are Moody's opinion and do not represent the views of the issuer. Periods are Financial Year-End unless indicated. LTM = Last Twelve Months

Detailed credit considerations *Continued from Page 2*

Apple's large (and growing) installed base of devices increases visibility into sales opportunities from replacement and upgrade of devices and cross-selling of new services into the customer base. Consumers switching to iPhones and first-time buyers of Macs, iPads, AirPods and Apple Watch continue to drive growth in Apple's installed base. Apple's products provide superior customer experience that generates tremendous customer loyalty, as reflected its industry-leading customer satisfaction ratings. The company has a large growth opportunity from cross-selling additional products and services into its relatively affluent installed base. Apple's paid subscriptions of services have nearly doubled in last 3.5 years to more than 1 billion at F3Q '23, and its Services segment generated approximately $85 billion in annualized revenues. Apple's ecosystem of products and services enhance user experience and increase stickiness to the ecosystem. The stickiness mitigates Apple's risk from its high concentration of profits in the iPhone category and variability in sales in its hardware products.

An inflection in global smartphone sales and shift to higher-value iPhones will support profitability in the mature iPhone segment

We expect global smartphone unit sales to grow 5% in 2024, after declining 5.5% in 2022, and 7% to 8% in 2023. We expect Apple's iPhone segment revenues and profitability to grow from the increasing mix of higher-value, new models, and 5G devices. iPhone 14 family of products released in September/October 2021 have strongly supported sales in the iPhone category and Apple's profitability and the new models are expected to be launched in September 2023. Apple has gained share of the global smartphone market over the last 3 years, based on IDC's data, partly benefiting from Huawei's share losses following the 5G export license restrictions imposed by the US. We expect global smartphone unit sales to grow in the low single digits annually over the next 3 to 4 years, but we expect the share of 5G smartphone units to increase from about 50% of total smartphone units sold in 2022, to more than 70% in 2024. The expanding coverage of 5G wireless networks and incentives from wireless carriers will stimulate industry sales for 5G devices and support increases in average selling prices, before a growing number of 5G device suppliers begin to pressure profitability.

Sustained growth in services will bolster profitability and reduce volatility in operating profits

Apple's Services revenue growth decelerated from 27% and 14%, in FY '21 and FY '22, respectively, and to 7% in the YTD F3Q '23 period. The deceleration in revenue growth reflected the adverse foreign currency impact in the YTD F3Q '23 period, negative impact from macroeconomic conditions on advertising and gaming revenues from AppStore, and challenging comparisons against prior periods. On a constant currency basis we expect Services revenues to grow in the high single digits over the next 12 to 18 months driven by growth in paid subscriptions of Apple's digital services and higher contributions from macro-sensitive gaming, advertising and Apple Pay offerings. The Services segment had a gross profit margin of 71% in YTD F3Q '23 period, nearly 2x that of the Products segment. Apple's Services gross margin benefits from its App Store business in which it recognizes commissions as net revenues and from the highly profitable licensing revenues from Google. In the YTD F3Q '23 period, Services gross margins declined by 140 basis points as a result of weakening foreign currencies relative to the US Dollar, and we estimate negative impact from investments in original content for Apple TV+ offering. Apple's growing portfolio of services offerings and still low penetration of paid subscriptions relative to the installed base provides a large, long-term opportunity for growth in higher-margin services that will continue to diversify Apple's revenues and gross profits. The company continues to experience a rapid growth in paid subscriptions as well as free or transaction accounts. The App Store's developer base and content is growing rapidly. The company reported $1.1 trillion in developer billings and sales from App Store in 2022 ($643 billion in 2020), with 90% of the billings and sales occurring outside of the App Store, largely consisting of sales of physical goods and services. This reflects the substantial scale of the company's online commerce platform and user engagement that are growing rapidly.

Wearables will maintain strong growth; Mac and iPad are mature but they increase Apple's business diversity

We expect revenues in the Wearables, Home and Accessory segment to grow 7% on a constant currency basis over the next 12 months, driven by growth in sales of Apple Watch and AirPods. Both categories have low penetration rates and despite growing competition, there is a large opportunity for growth from increasing adoption rates in Apple's device user base. Apple's Mac and iPad categories had record sales after the COVID-19 pandemic but demand began to decline in 2022. Mac and iPad revenues declined 12% and 4% in the LTM F3Q '23. In FY '24, we expect Mac revenues to grow mid-single digits and iPad revenues to decline low single digits, reflecting weak macroeconomic growth in Apple's key markets and mature end markets. While both iPad and Mac products have much lower gross margins than the iPhones, these product lines collectively generated $62 billion in revenues in the LTM F3Q '23 period, and enhanced

Detailed credit considerations *Continued from Page 3*

Apple's product diversity, ecosystem and user engagement across platforms.

Intense competition, a product-centric business and concentration of supply chain increase risks despite Apple's solid track record of managing these challenges

Apple faces intense competition across each of its product and service offerings. As a product-centric company, it has execution risks from short product life cycles, the need to adapt to shifting consumer preferences, and managing a large and complex supply chain with frequent product upgrades. Execution risks in ramping up production in its global operations at large scale and anticipating the right level of demand, is high. Demand for Apple's premium priced products is susceptible to macroeconomic conditions, and in foreign markets, additionally to changes in foreign exchange rates. Apple's products are primarily manufactured in China, which is also Apple's second largest market by revenues. Taiwan Semiconductor Manufacturing Company is the sole provider of the company's integrated processors built with the industry-leading manufacturing processes that contribute to Apple's product leadership in products.

Apple has largely sidestepped any adverse impact on its businesses from US - China trade tensions. Apple's strong supply chain management over the years, especially after the COVID-19 pandemic, demonstrate its world class risk management and resiliency of its operations. However, growing tensions between China and the US, and increasing focus of the US and European nations on controlling semiconductor exports to China to preserve national security advantages which could lead to more export controls, increase risks for Apple's supply chain in China. Apple's primary manufacturing partner, Foxconn, which operates a large facility in China, has faced labor unrest. The COVID-19 pandemic and rising geopolitical tensions have exposed vulnerabilities in global technology supply chains. Apple has been diversifying its manufacturing facilities and assembly operations outside of China but replicating the extensive supply chain outside of China at scale will likely be a multi-year effort and require investments from Apple to directly or indirectly support its outsourcing partners in scaling manufacturing facilities outside of China.

Regulatory scrutiny and legal risks centered on App Store and licensing businesses represent paramount risks

Apple's Aaa rating incorporates Moody's view of Apple's world class risk management capabilities, robust financial profile, and diversifying offerings, which should allow the company to preserve or strengthen its financial profile despite the regulatory challenges. Regulatory uncertainties targeting large technology companies that operate in digital commerce markets have materially amplified in recent years. For Apple, these risks are primarily centered on certain parts of its Services segment. Growth in the Services category has substantially contributed to Apple's operating profit growth over the last several years and we expect Apple's share of gross profits from the Services category to continue to grow, increasing its business diversity and reducing earnings volatility. But its App Store business (part of the Services category) faces risks from new laws in the US and Europe aiming to promote competition in digital marketplaces and platforms, heightened scrutiny from antitrust regulators in a number of countries, and private antitrust legal challenges in the US and Europe. In addition, Apple's licensing revenues (also part of Services revenues) that it generates from Google are under legal scrutiny. The US Department of Justice has initiated an antitrust lawsuit against Google alleging that Google's agreements with device manufacturers, wireless carriers and browser developers that require Google's search engines to be preset as a default search engine, are exclusionary and anticompetitive. Under these agreements, Google pays substantial amounts to its distribution partners. Apple does not break out its revenues from App Store and its licensing agreements with Google. We estimate that revenues from these businesses accounted for about half of Apple's Services revenues and an even larger share of gross profit for its Services segment. Given the significance of these revenue streams, regulatory and legal risks will remain Apple's principal risks until there is greater clarity about how legislative changes and regulatory actions could affect its highly profitable revenue streams. It is likely that the fog of uncertainty may not clear over the next several years given the history of antitrust cases.

Apple, along with other multinational corporations, could also face higher taxes on revenues generated outside their domestic jurisdictions as part of a global tax reform initiative. But we do not expect higher taxes on foreign revenues to have a meaningful impact on Apple's credit profile given its substantial profitability and cash flow. In September 2020, the European Commission appealed to the court of final appeal in the European Union against a lower court's decision to annul European Commission's claim that Ireland granted state aid to Apple in assessing taxes on earnings from certain local subsidiaries. Apple had $14.1 billion of cash at F3Q '23 that was restricted from general use while the dispute is pending .

Regulations governing consumers' personal data and its use by digital platforms including the EU's General Data Protection Regulation and California Consumer Privacy Act of 2020, reflect heightened regulatory focus on this area. Apple describes data privacy as a fundamental human right. Apple's operating system software require software publishers to obtain permission from users to allow tracking of the users or access the device's advertising identifiers. These changes have upended the digital advertising industry's ability to serve targeted, performance ads and increased tensions between industry participants. The confluence of new regulations with varying standards in different jurisdictions and the lack of clarity in existing regulations about who owns consumers' data in digital businesses create an uncertain business environment for Apple and other digital businesses.

Apple's information systems store personally identifiable information about the company's millions of customers and are increasingly used to authorize access to secure networks. Apple's pre-eminent business profile and brand reputation increases the risk of reputational harm or business disruptions from cybersecurity breaches although the company has not experienced any noteworthy lapses in this area.

Liquidity analysis

Apple's exceptionally strong cash balances and free cash flow provide the company substantial financial flexibility. The company manages its internal cash needs with its significant cash holdings and a commercial paper program. Apple's outstanding commercial paper borrowings at the end of fiscal quarters ranged from $2 billion to $10 billion over the last 12 months. Apple does not have a backstop liquidity facility and it relies instead on its cash and investments balances to manage commercial paper maturities. The company does not disclose its domestic cash and liquid investments position. The lack of a committed backstop liquidity facility

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Liquidity analysis *Continued from Page 4*

is unusual among U.S. non-financial corporate issuers but Apple maintains substantial cash balances. At F3Q'23, Apple had $25.3 billion of cash and $1.1 billion in money market funds. We expect Apple to maintain strong balances of funds with same day access relative to commercial paper maturities. The principal uses of excess cash and liquidity are share repurchases. Apple spent $81 billion on share repurchases in the LTM F3Q '23 period. It had $7.2 billion of term debt and $38 billion of non-cancelable manufacturing purchase obligations due over the next 12 months.

Profile

Apple Inc. designs, manufactures and markets mobile communication and media devices and personal computers, and sells related software, accessories and third-party digital content and applications. Its fiscal year ends on the last Saturday of September.

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Rating Definitions

Long-Term Obligation Ratings

Moody's long-term obligation ratings are opinions of the relative credit risk of fixed-income obligations with an original maturity of one year or more. They address the possibility that a financial obligation will not be honored as promised. Such ratings reflect both the likelihood of default and any financial loss suffered in the event of default.

Aaa Obligations rated Aaa are judged to be of the highest quality, with minimal credit risk.

Aa Obligations rated Aa are judged to be of high quality and are subject to very low credit risk.

A Obligations rated A are considered upper-medium grade and are subject to low credit risk.

Baa Obligations rated Baa are subject to moderate credit risk. They are considered medium-grade and as such may possess certain speculative characteristics.

Ba Obligations rated Ba are judged to have speculative elements and are subject to substantial credit risk.

B Obligations rated B are considered speculative and are subject to high credit risk.

Caa Obligations rated Caa are judged to be of poor standing and are subject to very high credit risk.

Ca Obligations rated Ca are highly speculative and are likely in, or very near, default, with some prospect of recovery of principal and interest.

C Obligations rated C are the lowest rated class of bonds and are typically in default, with little prospect for recovery of principal or interest.

Note: Moody's appends numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa. The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category.

Rating Outlooks

A Moody's rating outlook is an opinion regarding the likely direction of a rating over the medium term. Where assigned, rating outlooks fall into the following four categories: Positive (POS), Negative (NEG), Stable (STA), and Developing (DEV -- contingent upon an event). In the few instances where an issuer has multiple outlooks of differing directions, an "(m)" modifier (indicating multiple, differing outlooks) will be displayed, and Moody's written research will describe any differences and provide the rationale for these differences. A RUR (Rating(s) Under Review) designation indicates that the issuer has one or more ratings under review for possible change, and thus overrides the outlook designation. When an outlook has not been assigned to an eligible entity, NOO (No Outlook) may be displayed.

Watchlist

Moody's uses the Watchlist to indicate that a rating is under review for possible change in the short-term. A rating can be placed on review for possible upgrade (UPG), on review for possible downgrade (DNG), or more rarely with direction uncertain (UNC). A credit is removed from the Watchlist when the rating is upgraded, downgraded or confirmed.

Provisional Ratings

As a service to the market and typically at the request of an issuer, Moody's will assign a provisional rating when it is highly likely that the rating will become final after all documents are received, or an obligation is issued into the market. A provisional rating is denoted by placing a (P) in front of the rating. Such ratings may also be assigned to shelf registrations under SEC rule 415.

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