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|  |  | Apple Inc. |  |  |  |   |   |   |   |   |   |   |   |

**FINANCIAL RATIO ANALYSIS REPORT OF APPLE INC FOR THE YEARS 2020-2022**

This report provides an in-depth analysis of Apple Inc.'s financial ratios over the three years (2020, 2021, and 2022) to assess the company's liquidity, profitability, solvency, asset utilization, and market performance as well as growth rates in the line items of the income statement and balance sheet. The ratios are thoroughly examined offering insights into the company's financial health and trends over the financial periods.

1. **LIQUIDITY RATIOS**

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| --- | --- | --- | --- |
| **RATIOS** | **2022** | **2021** | **2020** |
| Current ratio | 0.88 | 1.07 | 1.36 |
| Quick ratio | 0.85 | 1.02 | 1.33 |
| Cash ratio | 0.15 | 0.28 | 0.36 |

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| --- | --- | --- | --- |
| **OTHER LIQUIDITY RATIOS** | **2022** | **2021** | **2020** |
| Inventory Days | 8 days | 11 days | 9 days |
| Payable days | 104 days | 94 days | 91 days |
| Receivable Days | 26 days | 26 days | 21 days |
| Net trading cycle | -70.52 | -56.36 | -60.87 |
| Working Capital as a % of Sales | -0.05 | 0.03 | 0.14 |

**ANALYSIS**

This report offers a comprehensive examination of Apple Inc.'s liquidity ratios from 2020 to 2022, utilizing data from its end of year financial statements to evaluate the company's short-term financial health and liquidity management strategies. Liquidity ratios are crucial for evaluating a company’s ability to meet short-term obligations using its liquid assets. In this report Apple Inc’s liquidity ratios were assessed based on the current ratio, quick ratio and cash ratio. Other ratios like the inventory days, payable days and receivable days will be used in providing further information on the company’s liquidity.

 The current ratio assesses the company’s ability to pay off its short-term liabilities with its short-term assets. Usually, a current ratio that is above 1 is considered as more desirable as it indicates the company’s ability to cover its short-term liabilities using its current assets. Over the three-year period, there is a decline from 1.36 in 2020 to 0.88 in 2022, which reveals a decreasing ability to cover short-term liabilities with the available current assets. The observed decline in current assets during 2021, especially in cash and cash equivalents and marketable securities, along with only a marginal increase in 2022, highlights inefficient working capital management. If this trend persists, the company is likely to face substantial liquidity challenges, potentially jeopardizing its overall financial health.

The quick ratio also measures the company’s ability to cater for its short-term liabilities by excluding inventory from the current assets. In a similar vein, there is a declining trend in the quick ratio reducing from 1.33 in 2020 to 0.85 in 2022. This suggests that the company’s most liquid assets are not sufficient to cover the current liabilities and raises potential liquidity concerns regarding Apple Inc’s short-term solvency.

The cash ratio, on the other hand, only considers cash and cash equivalents. A ratio below 1 implies that the company does not have enough cash to pay off its short-term obligations. The reduction from 0.36 in 2020 to 0.15 in 2022 signifies a considerable drop in cash reserves, which is a critical concern as it shows the company has less immediate liquidity available. This can partly be attributed to the huge purchases in marketable securities and repurchases of common stock as seen in the cashflow statements. While Apple's strong operational cash flows can typically mitigate liquidity concerns, a low cash ratio could limit the company's financial flexibility in periods of economic uncertainty. A declining trend in liquidity ratios highlights tighter working capital management but raises concerns about short-term financial flexibility and signals potential risks in meeting short-term obligations.

The Inventory days, receivable days and payable days further explain the company’s liquidity. Inventory days measure the average time inventory is held before being sold. The reduction from 11 days in 2021 to 8 days in 2022 suggests improved inventory management, indicating Apple Inc. is rapidly utilising its inventory.

Payable days show how long it takes the company to pay its suppliers. The increase from 91 days in 2020 to 104 days in 2022 indicates the company is taking longer to settle its payables, which may be a strategy to preserve cash in the short term but could possibly strain supplier relationships. Receivable days reflect the time taken to collect payments from customers. A constant period of 26 days in 2021 and 2022, up from 21 days in 2020, suggests the company’s efficiency in collecting receivables has remained stable but has slightly deteriorated from 2020. The net trading cycle indicates the number of days the company’s cash is tied up in the operations. A negative cycle means the company receives cash from sales before it needs to pay suppliers. The increasing negativity from -56.36 days in 2021 to -70.52 days in 2022 shows an improvement in cash cycle management. With regards to the proportion of working capital relative to sales, the negative percentage in 2022 indicates a deficiency in working capital, implying the company has more current liabilities than current assets. This deficiency has grown from a positive 0.14% in 2020 to a negative 0.05% in 2022, which reveals a worsening working capital management. In conclusion, while there are improvements in inventory management and cash cycle efficiency, the increasing payable days and deterioration in working capital management present significant concerns. The company’s strategy to delay payables might be preserving cash temporarily but could result in longer-term financial health issues. Immediate steps should be taken to enhance receivables collection and manage payables better to ensure the company’s financial stability.

To enhance liquidity and ensure better management of short-term obligations, Apple Inc. is advised to improve the management of their cash flow. This can be done by strengthening their collections on accounts receivable and minimizing operational inefficiencies to maintain a higher proportion of earnings as liquid assets. It is critical for the company to take immediate action by enhancing asset management practices and implementing effective liability reduction strategies.

Though Apple’s inventory showed a slight improvement in 2022, more dynamic measures like just-in-time inventory practices can be implemented to minimize excess stock and free up working capital to improve the quick ratio.

**B. PROFITABILITY RATIOS**

|  |  |  |  |
| --- | --- | --- | --- |
| **RATIOS** | **2022** | **2021** | **2020** |
| Gross Margin | 43% | 42% | 38% |
| EBITDA margin | 30% | 30% | 24% |
| EBIT margin |  30% | 30% | 24% |
| Net margin | 25% | 26% | 21% |

**ANALYSIS**

This report provides a detailed analysis of Apple Inc.'s profitability ratios over the years 2020 to 2022. The report assesses the company’s efficiency in generating profits relative to its revenue focusing on gross margin, EBITDA margin, EBIT margin and net margin.

Apple Inc. has exhibited consistent improvement in its gross margin, increasing from 38% in 2020 to 43% in 2022. This trend indicates effective cost control measures and the creation of value through its product offerings. The enhancement in gross margin reflects stronger pricing power and optimized production processes.

The EBITDA margin which measures earnings before interest, taxes, depreciation, and amortization as a percentage of revenue has remained stable at 30% after increasing from 24% in 2020. The stability of Apple's EBITDA margins reveals the company’s ability to maintain operational efficiency showing that it manages its operating expenses efficiently relative to revenue.

The EBIT margin, which measures core operational profitability excluding interest and tax expenses, increased from 21% in 2020 to 26% in 2021, followed by a slight decline to 24% in 2022. This marginal decrease can be attributed to rising operating costs as seen in the marginal rise in the research and development as well as selling and administrative expenses.

The net margin follows a similar pattern revealing an increase from 21% in 2020 to 26% in 2021 before a minor reduction to 25% in 2022. This reduction suggests an increase in costs that partially offsets revenue growth, yet overall, it signifies higher profitability as a result of improved operational performance.

The consistent growth in Apple Inc.'s profitability ratios highlights the company’s operational efficiency. However, these margins remain vulnerable to increased operating expenses and as such the company needs to adopt strategic cost management and identify cost-saving opportunities as these will be crucial for sustaining and enhancing these profitability metrics despite the dynamic market conditions.

1. **SOLVENCY RATIOS**

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| --- | --- | --- | --- |
| **RATIOS** | **2022** | **2021** | **2020** |
| Debt to Equity ratio | 5.96 | 4.56 | 3.96 |
|  Debt to Total Assets ratio | 86% | 82% | 80% |
| Times Interest Earned | 41.57 |  40.64 | 22.35 |
|  Long-Term Debt-to-Capital Ratio | 75% | 72% | 70% |
| Free Cash flow per share | 7.02 | 6.61 | 5.58 |

**ANALYSIS**

This report provides an in-depth examination of Apple Inc.'s solvency ratios over the three years, evaluating the company's ability to meet long-term obligations whilst maintaining financial stability.

The Debt-to-Equity ratio has risen from 3.96 in 2020 to 5.96 in 2022, indicating an increased reliance on debt financing over equity. These rising debt levels necessitate careful strategic management to prevent the adverse financial effects on the company.

The debt to total assets ratio measures the extent to which a company’s assets are financed by debt. The upward trend from 80% in 2020 to 86% in 2022 indicates an increasing proportion of assets funded by debt, which could increase financial risk. The marginal increase in term debts over the three-year period highlights the company’s growing dependence on debt possibly to fund substantial investments like the purchase of its marketable securities.

The improvement in the Times Interest Earned (TIE) ratio indicates Apple's ability to meet its interest payments from its operating income. An increase from 22.35 in 2020 to 41.57 in 2022 indicates improved earnings relative to interest expenses, suggesting better coverage. This positive development suggests a reduced risk of financial distress despite the increasing debt levels.

The Long-Term Debt-to-Capital ratio shows that Apple is financing a larger portion of its capital structure with long-term debt. While this can potentially boost shareholder returns, it also increases financial obligations in the long term, requiring prudent management.

Free cash flow per share measures the amount of cash available per share after accounting for capital expenditures. The steady increase from £5.58 in 2020 to £7.02 in 2022 indicates stronger cash generation.

The rising debt ratios indicate a high debt leverage for Apple Inc., which, although may enhance returns, requires careful monitoring to prevent potential financial distress. To reduce the inherent risks associated with increased debt reliance, management should explore strategies to diversify the capital structure. This could include reducing dependency on debt through measures such as issuing equity, implementing stock splits, or offering incentivized equity plans to employees and investors. Such actions would help maintain financial stability and safeguard against the adverse effects of the company being highly leveraged.

**D. ASSET UTILIZATION RATIOS**

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| --- | --- | --- | --- |
| **RATIOS** | **2022** | **2021** | **2020** |
| Total Asset Turnover |  1.12 | 1.04 | 0.85 |
| Fixed Asset Turnover | 1.81 | 1.69 |  1.52 |
|  Inventory Turnover | 45.20 |  32.37 | 41.75 |
| Return on Assets |  28% | 27% | 18% |

**ANALYSIS**

Asset utilization ratios assess how effectively Apple uses its assets to generate revenue. This report evaluates Apple Inc.'s asset utilization ratios over the three years, assessing the company's efficiency in using its assets to generate revenue.

The improving trend in total asset turnover ratios highlights Apple's efficient use of its asset to generate sales. This improvement reflects effective management practices and the growing demand for Apple’s products and services.

The Fixed asset turnover ratio measures how well a company generates sales from its fixed assets. The rise in the fixed asset turnover ratio indicates Apple's enhanced ability to generate revenue from its investments in fixed assets, such as property, plant, and equipment.

Inventory turnover indicates how many times inventory is sold and replaced over a period. The significant improvement in the inventory turnover ratio in 2022 reflects faster inventory movement, likely due to strong product demand and effective inventory management. This helps minimize carrying costs and obsolescence risks.

The Return on assets ratio measures how effectively a company uses its assets to generate profit. The consistent growth in ROA reveals Apple’s capability to generate higher profits from its assets reflecting improved operational efficiency and profitability. The strong turnover ratios demonstrate Apple’s efficient use of its resources to generate revenue. In conclusion, while Apple Inc.'s asset utilization ratios exhibit steady improvements, there is potential for further enhancement through strategic capital expenditure, advanced inventory management, and revenue diversification initiatives.

1. **INVESTOR AND MARKET RATIOS**

|  |  |  |  |
| --- | --- | --- | --- |
| **RATIOS** | **2022** | **2021** | **2020** |
| Earnings Per Share (EPS) | 6.15 | 5.67 | 3.31 |
| Price-to-Equity (P/E) Ratio | 22.47 | 25.16 | 33.92 |
| Dividend Yield |  1% | 1% | 1% |
| Return on Equity (ROE) | 1.97 | 1.50 | 0.88 |
| Price to book value | 44.53 | 38.13 | 30.12 |
| Book value per share  | 3.10 | 3.74 | 3.73 |
| Dividend payout ratio | 0.15 | 0.15 | 0.25 |
| Return on capital employed | 0.60 | 0.48 | 0.31 |
| Return on assets | 0.28 | 0.27 | 0.18 |
| Enterprise Value to EBITDA | 21.15 | 24.13 | 32.33 |

**ANALYSIS**

This report evaluates Apple Inc.'s investor and market ratios over the past three years, providing insights into shareholder returns and market valuation.

 The steady increase in EPS from 3.31 in 2020 to 6.15 in 2022 indicates Apple’s growing profitability and enhancement in shareholder value. This growth reflects higher earnings allocated per share, driven by net income growth.

The decline in the P/E ratio from 33.92 in 2020 to 22.47 in 2022 indicates that the market has taken a more cautious approach to valuing Apple's earnings. This reduction could stem from apprehensions regarding the sustainability of the company's growth, as well as broader market conditions affecting valuation perspectives.

The stable dividend yield of 1% over the past three years demonstrates Apple’s commitment to a consistent dividend policy. This reliability provides steady returns to shareholders, indicating the company's effective approach to capital allocation. It also reflects Apple's strategic focus on maintaining shareholder value and confidence, despite the varying market conditions and economic cycles.

The significant improvement in ROE from 0.88% in 2020 to 1.97% in 2022 indicates Apple’s effective utilization of equity to generate profits. This improvement is a key metric for assessing shareholder value creation and reflects the company's profitability and efficient equity management.

 Apple should continue focusing on revenue growth and operational efficiency to sustain and enhance EPS, ensuring consistent profitability and shareholder value. To address the declining P/E ratio, Apple could improve market confidence through transparent communication of its strategic initiatives and growth prospects. Maintaining a stable dividend yield will continue to reassure shareholders of Apple's commitment to returning value, providing a balance between reinvestment for growth and shareholder returns.

Addressing market concerns about growth sustainability can further strengthen its market valuation.

**GROWTH RATES- APPLE INC.**

 **INCOME STATEMENT**

|  |  |  |
| --- | --- | --- |
| **ITEM** | **2021 to 2022**  | **2020 to 2021** |
| Sales (Products) | 0.06 | 0.35 |
| Sales (Services) | 0.14 | 0.27 |
| Cost of sales (Products) | 0.05 | 0.27 |
| Cost of sales (Services) | 0.07 | 0.13 |
| Gross profits | 0.12 | 0.46 |
| Research and development | 0.20 | 0.17 |
| Selling, general and administrative | 0.14 | 0.10 |
| Total operating expenses | 0.17 | 0.13 |
| Operating income | 0.10 | 0.64 |
| Other income | -2.29 | -0.68 |
| Income before provision for income taxes | 0.09 | 0.63 |
| Provision for income taxes | 0.33 | 0.50 |
| Net income | 0.05 | 0.65 |
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**ANALYSIS OF GROWTH RATES**

There was a significant increase in the growth rate of product sales from 35% within 2020 to 2021 as compared to a marginal increase of 6% from 2021 to 2022. This could be due to increased consumer demand for Apple’s products. Similarly, the growth rate for sales in services also saw a marginal increase within the three-year period.

Cost of sales for products also reveals a 27% increase from 2020 to 2021 and this reduced significantly to 5% from 2021 to 2022 indicating efficient management of production costs. Cost of sales for services share a similar pattern which further accentuates the fact that Apple adopted robust production cost strategies.

Gross profit growth showed a notable increase of 46% from 2020 to 2021, compared to a 12% increase from 2021 to 2022. This was due to a decrease in the cost of goods sold, leading to higher profitability margins. Research and development costs increased from 17% during the years 2020 and 2021 to 20% in the years 2021 to 2022.This increase could be as a result of Apple’s commitment to innovation and future product development, which could drive long-term growth. The selling, general and administrative expenses also increased within the three years indicating an expansion in Apple’s operational cost structure. Managing these costs will be crucial to maintaining profitability. Operating income also saw a significant growth rate from 2020 to 2021 as compared to the marginal increase from 2021 to 2022 as a result of the higher sales growth. Other income has decreased further suggesting potential losses from investments or non-operational activities. This downward trend may need further investigation. Income before provision for taxes has increased while the provision for income taxes has also increased. This is because of the higher taxable income as seen in the income statement. Net income growth has significantly risen over the three years which indicates a positive trend for Apple Inc. operational expenses, it. Continued investment in Research and development is a positive sign, but managing costs and identifying new growth avenues will be critical for Apple sustaining long-term success and profitability.

**STATEMENT OF FINANCIAL POSITION**

|  |  |  |
| --- | --- | --- |
| **ITEMS** | **2021 to 2022** | **2022 to 2021** |
| Cash and cash equivalents | -0.32 | -0.08 |
| Marketable securities | -0.11 | -0.48 |
| Accounts receivable, net | 0.07 | 0.63 |
| Inventories | -0.25 | 0.62 |
| Vendor non trade receivables | 0.30 | 0.18 |
| Other current assets | 0.50 | 0.18 |
| Total current assets | 0.0042 | -0.0618 |
| Marketable securities | -0.06 | 0.27 |
| Property, plant and equipment, net | 0.07 | 0.07 |
| Other non-current assets | 0.11 | 0.15 |
| Total non-current assets | 0.01 | 0.20 |
| Total assets | 0.00 | 0.08 |
| Accounts payable | 0.17 | 0.29 |
| Other current liabilities | 0.28 | 0.11 |
| Deferred revenue | 0.04 | 0.15 |
| Commercial paper | 0.66 | 0.20 |
| Term debt | 0.16 | 0.10 |
| Deferred revenue | 0.04 | 0.15 |
| Term debt | -0.09 | 0.11 |
| Other non-current liabilities | -0.08 | -0.02 |
| Total non current liabilities | -0.09 | 0.06 |
| Total liabilities | 0.05 | 0.11 |
| Common stock and additional paid in capital, $0.00001 par value: 12,600,000 shares authorized; 4,443,236 and 4,754,986 shares issued and outstanding, respectively | 0.13 | 0.13 |
| Retained earnings | -1.55 | 0.37 |
| Accumulated other comprehensive income/(loss) | -69.15 | -1.40 |
| Total shareholders’ equity | -0.20 | -0.03 |
| Total liabilities and shareholders’ equity | 0.00 | 0.08 |

**ANALYSIS**

Regarding the balance sheet items, the growth rate depicts a mixed performance. Significant reductions in cash and cash equivalents, as well as marketable securities, raise liquidity concerns, as highlighted by the analysis of liquidity ratios. Inventories showed a declining growth rate over the three-year period, which may indicate efficient inventory management or a reduction in demand.The significant increase in accounts payable and current liabilities suggests a higher reliance on short-term financing. Additionally, the decreasing growth rate in accumulated other comprehensive income and retained earnings points to challenges in sustaining profitability and equity value.

**MARGIN AS A PERCENTAGE OF NET SALES**

|  |  |  |  |
| --- | --- | --- | --- |
| **ITEM** | **2022** | **2021** | **2020** |
| COGS (Cost of goods sold) | 0.57 | 0.58 | 0.62 |
| Gross profits | 0.43 | 0.42 | 0.38 |
| Research and development | 0.07 | 0.06 | 0.07 |
| Selling, general and administrative | 0.06 | 0.06 | 0.07 |
| Operating income | 0.30 | 0.30 | 0.24 |
| Net profit | 0.25 | 0.26 | 0.21 |

**ANALYSIS**

The significant reduction in the percentage Cost of goods sold as a percentage of net sales has decreased from 62% in 2020 to 57% in 2022. This reduction suggests improved efficiency in production. Gross profit margins have increased from 38% in 2020 to 43% in 2022 which also shows better cost management or pricing strategies that enhance profitability.

Research and development expenses as a percentage of net sales have remained relatively stable, with a slight increase in 2021 whereas selling, general and administrative expenses have also remained stable, with a slight reduction from 7% in 2020 to 6% in 2021 and 2022 reflecting effective cost management.

Operating income margins have improved from 24% in 2020 to 30% in 2021 and remained steady in 2022 implying that Apple Inc. has managed to convert a larger portion of its sales into operating profit.

Net profit margins increased from 21% in 2020 to 26% in 2021, before slightly declining to 25% in 2022. The overall improvement over the three years indicates strong profitability.

**SUMMARY**

In conclusion, Apple's financial performance exhibits strong profitability, with improving gross profit and operating income margins. The stability in Research and development costs and Selling General and administrative expenses as a percentage of net sales highlights effective cost management. However, the slight decline in net profit margin from 2021 to 2022 may indicate emerging challenges that need to be addressed. Effective management of these elements mentioned will be crucial for ensuring the company's long-term financial stability and growth.