# Liquidity Ratios

Over the course of the three years under consideration between 2020 and 2022, a number of trends appear, detailing the strengths and weaknesses of Apple Inc. from a liquidity perspective.

* There was a steady increase in the amount of current liabilities they had, leading to a decline in ***current ratio***, ***quick ratio***, and ***cash ratio***. This suggests that Apple may find it hard to generate liquidity in the short-term.
* The ***defensive interval*** which assesses the number of days Apple can cover operating expenses using liquid assets has decreased significantly over the three years from 1300.2 days in 2020 to 914.7 days in 2022. This indicates a drop in Apple’s liquid assets relative to operating expenses due to stronger cash usage.
* The ***Net trading cycle*** that assesses how long cash is held without paying suppliers has seen a steady increase over the three years, and this means Apple took a lot longer to pay their suppliers, even while their they had faster inventory turnover, and a gradually increased receivables period.
* ***Working Capital*** has also increased as a direct effect of the trading cycle being prolonged. Apple have relied more on the ***free source of funding from their suppliers*** to meet their current obligations, a good position to be in.

# Profitability Ratios

* All of ***Gross Margin***, ***EBITDA margin***, ***EBIT margin***, and ***Net margin*** have experienced stability over the three years under review indicating strong profitability, and a consistent control over costs relative to revenue.
* ***EBIT*** and ***EBITDA*** have increased significantly over the last three years, with an 80% increase. This suggests that while revenues increased drastically, Apple were able to control the rise in costs.
* ***Net margin*** remained steady across the three years.

# Solvency/Debt Management Ratios

* ***Debt/Equity ratio*** increased from 1.6x in 2020 to 2.2x in 2022, attributed to growing short term debt obligations. With opportunity on the horizon, Apple sought funding to leverage their growth prospects.
* Both ***Debt to Total Assets*** and ***Long-Term Debt to Capital*** ratios remained stable, allowing them to manage debt levels.
* ***Times Interest Earned (TIE)*** suggests that the growth plan paid off. The ratio was extremely high in 2021 (422.3x), and while it dipped in 2022 to 357.6x, it suggests that Apple were in a very strong position to cover interest expenses.
* ***Debt coverage*** also improved from 0.7x in 2020 to 1.0x in 2022, another indicator of stronger capacity to cover debt payments with cashflow.
* ***FCFE per share*** remained stable over the period suggesting consistency of the free cash flows available to equity shareholders.

# Asset Utilisation

* Apple were able to squeeze out as much benefit from the assets the owned through the period under consideration.
* ***Total Asset Turnover*** increased from 0.8x in 2020 to 1.1x in 2022, indicating improved efficiency in turning assets into revenues.
* ***Fixed Asset Turnover*** also experienced a similar increase.
* ***Inventory Turnover*** improved dramatically between 2021 (32.4x) and 2022 (45.2x) as a result of better efficiency with inventory management, and faster sales cycles.
* ***Return on Assets (ROA)*** also saw an improvement from 17.73% in 2020 to 28.29% in 2022. Apple were able to generate higher returns from the assets they owned.

# Investor/Market Ratios

* The ***Price to Earnings (P/E)*** ratio decreased marginally from its high in 2020 at 35.3x to 22.6x in 2022. This could suggest that Apple’s stock has become reasonably priced relative to earnings.
* ***Earnings per Share (EPS)*** however saw a marked increase from 3.3x in 2020 to 6.1x in 2022, this could also potentially mean higher share prices in the coming future, however, this metric can’t be used standalone.
* ***Price-to-Book Value (PBV)*** remained low across the years meaning that Apple’s stock price is close to book value, a potential indicator of undervaluation.
* ***Dividend Payout Ratio*** decreased as Apple decided to plough back more of its capital to seize market opportunities. The Dividend Yield remained stable.
* ***Return on Equity (ROE)*** rallied from 87.87% in 2020 to 196.96% in 2022. This is a strong indicator of the exceptionally high returns to equity holders, which would most likely be attributed to increased short-term borrowings.
* ***Return on Capital Employed (ROCE)*** improved significantly as well from 40.42% in 2020 to 79.82% in 2022 suggesting again that Apple have converted capital into positive returns.
* With Covid happening in 2020, a lot of technology focused companies had very high ***Enterprise Values (EV)***, and Apple was no exception with 25.2x in 2020. This dropped to 16.9x in 2022, a more reasonable relative to earnings than in previous years.

# Growth Rates

* ***Product sales*** slowed in 2022, while ***service sales*** grew by 14.18% with more people using a number of their services like ApplePay, software for Macbook’s, as well as iTunes.
* ***Net sales*** and ***gross profits*** decelerated in 2022 following a high growth period in 2021.
* ***R&D*** and ***SG&A*** expenses have grown steadily, as is expected in an inflationary environment, reflecting Apple’s ongoing investment in innovation and service expansion.
* ***Cash*** and ***Marketable securities*** saw a decline due to Apple being readily willing to invest excess cash in the operations of the business.