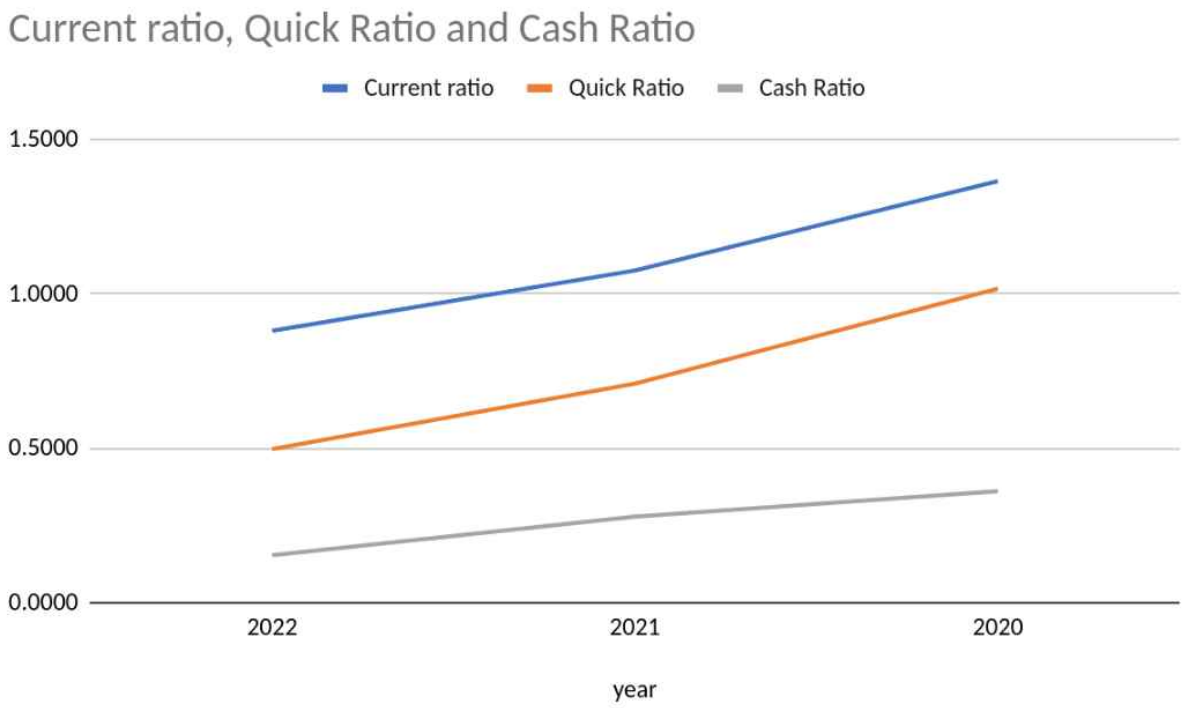
Financial ratio interpretation

This document focuses on the interpretation of annual financial ratios for Apple Inc in the years 2020 to 2022.

1. LIQUIDITY RATIO

This group of ratios measures a company's ability to meet its current debt obligations without raising external capital. The higher it is, the more financially liquid the company is and the better.

Figure 1.



1.1. Current ratio

The current ratio tells us whether the company has the ability to meet its short term obligations within one year. This is measured by calculating the weight of current assets over current liabilities. A rate of 1 or more is considered good meaning that a company is able to settle each dollar on liabilities. However, looking at the figures and chart shown on figure 1 above, the trend is falling between the years 2020 to 2022. This is unhealthy especially considering that in 2022 it was 0.88 meaning it had only $0.88 to meet each $1 of current liabilities.

1.2. Quick ratio

This is also called Acid-test ratio and measures the company's ability to meet its short term obligations using most liquid current assets. In this case it doesn't need to sell inventory to meet the obligations. Quick ratio is considered more conservative than current ratio.
Similarly it's falling between the years 2020 and 2022 putting the company in an unhealthy liquidity situation.

1.3. Cash ratio

The cash ratio computed by dividing only cash and cash equivalents by current liabilities. It shows a company's ability to meet short term liabilities using only cash and cash equivalents.

Over the three years it's showing that the cash ratio was falling below 0.5 and having a falling trend. Thus, the company had insufficient cash at hand to pay off short term debt. Only 15 cents was available in 2022 to pay dollar of current liabilities

1.4. Defensive interval ratio

This ratio seeks to compute the number of days a company can operate depending on liquid assets only. Although there is no specific number of good measures, the higher ratio indicates a better position. As indicated on figure 2, the defensive ratio is between 1899.73 in 2020 and 1228.2 in 2022. The company's liquidity buffer to meet its expenses is decreasing and doesn't look good

Figure 1.2.

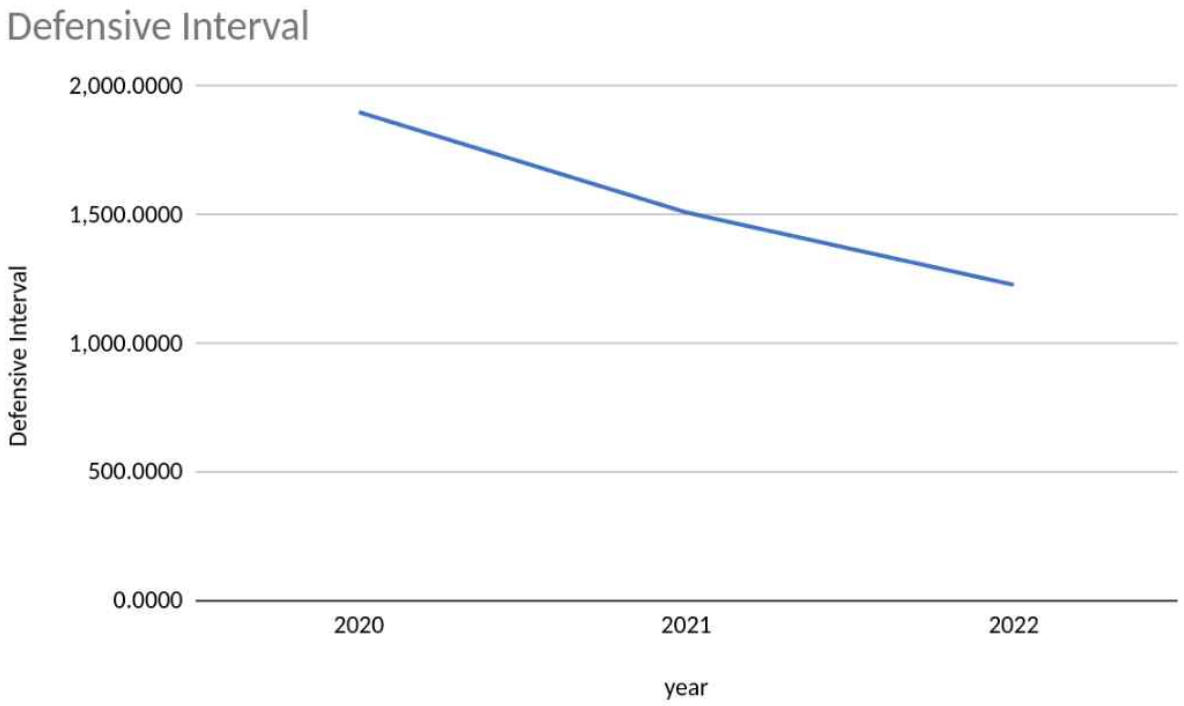
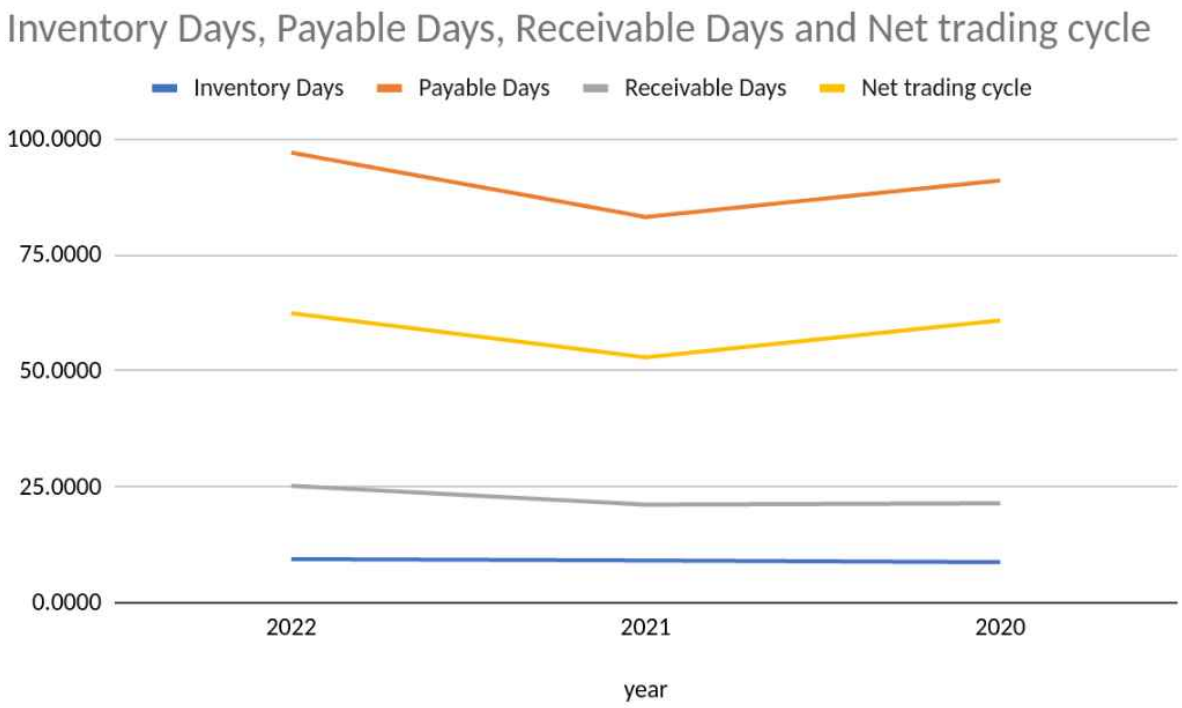

Defensive Interval
2,000.0000
1,500.0000
1,000.0000
500.0000
0.0000
Defensive Interval
2020
2021
2022
year

Figure 3



1.5. Inventory days

This measures the number taken to sell off inventory. For the three years metric measure of less than ten days was recorded. This is a good measure meaning less cash is tied up in stock and there is little risk of inventory expiring or becoming obsolete.

1.6. Payable days

This is also referred to as days payable outstanding and shows the average number of days taken for a company to pay its creditors. This fell in 2021 but rose again in 2022 meaning the company is negotiating well with creditors and could have extra cash on hand which can be used for other short term investment.

1.7. Receivable days

It is the average number of days taken to receive payment outstanding from debtors who would have bought on credit. Generally 40 days and below is considered good, so the company was in a good position between 2020 and 2022 with all years included.

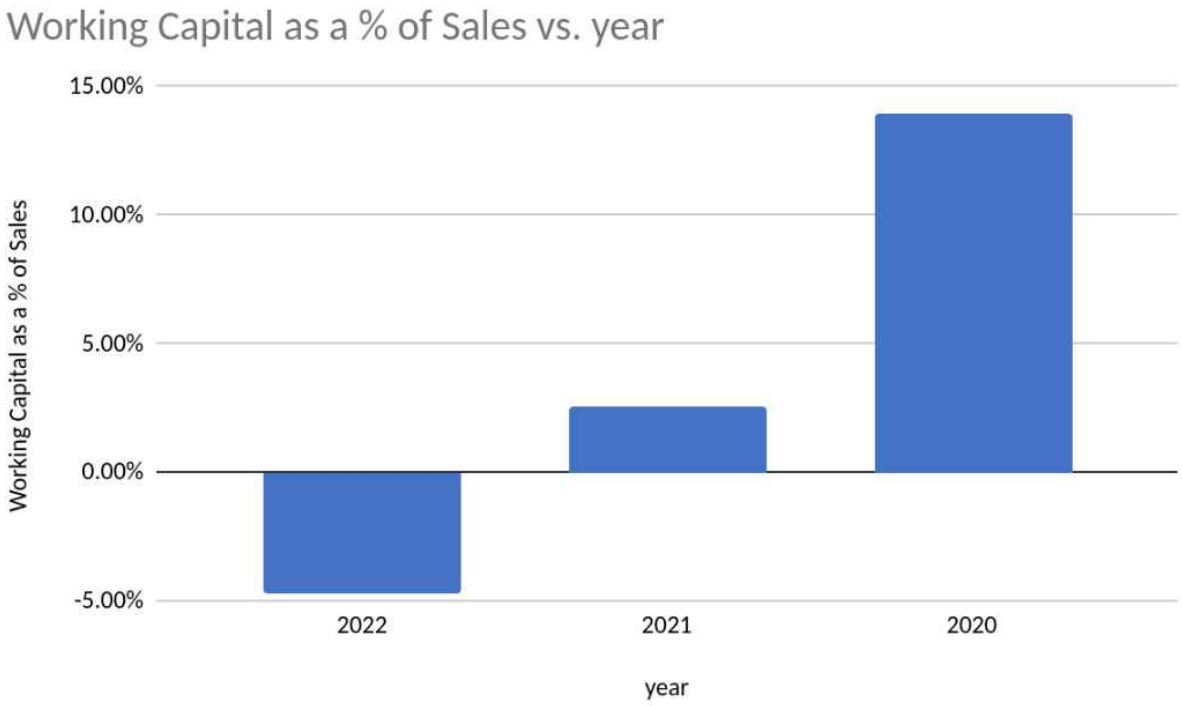
1.8. Net trading cycle

Net trading cycle is a financial ratio that measures the time it takes for a company to convert inventory into cash, considering both operating and financing trends. Year 2021 had a better ratio since a shorter period shows a company's better working capital management.

1.9. Working capital as a % of sales

Working capital relative to sales was always falling from 2020 to 2022. This is not a good position. A lower percentage is desired as it means efficient use of working capital to generate sales.

Figure 4



2. PROFITABILITY RATIOS

2.1. Gross margin

The gross margin was increasing between the years 2020 and 2022 as shown by the chart on table 5. Thus the amount generated in gross gross profit per dollar of sales increased from 38 cents in 2020 to 43 cents in 2022

2.2. EBITDA margin

Earnings before interest, tax, depreciation and amortization per dollar of sales also increased from 28 cents in 2020 to 33 cents in 2022. This is another good result showing management of pricing model, stocks, expenditure or both.

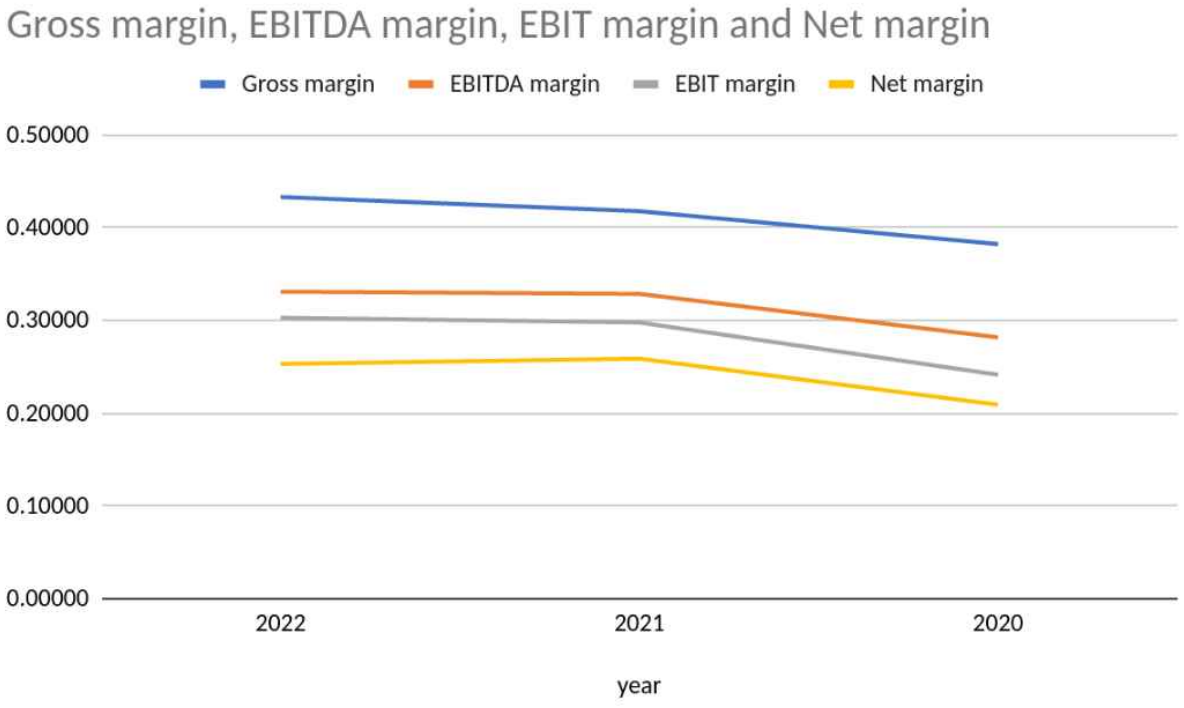
2.3. EBIT margin

EBIT also increased over the three years which is a positive result

2.4. Net margin

This is the final answer as much as profitability is concerned. As with the other previous margins, there was an increase in profit generated by a dollar of sale from 20.9 cents in 2020 to 25.3 cents in 2022. However 2021 had the best margin of 25.9 cents

Figure 5

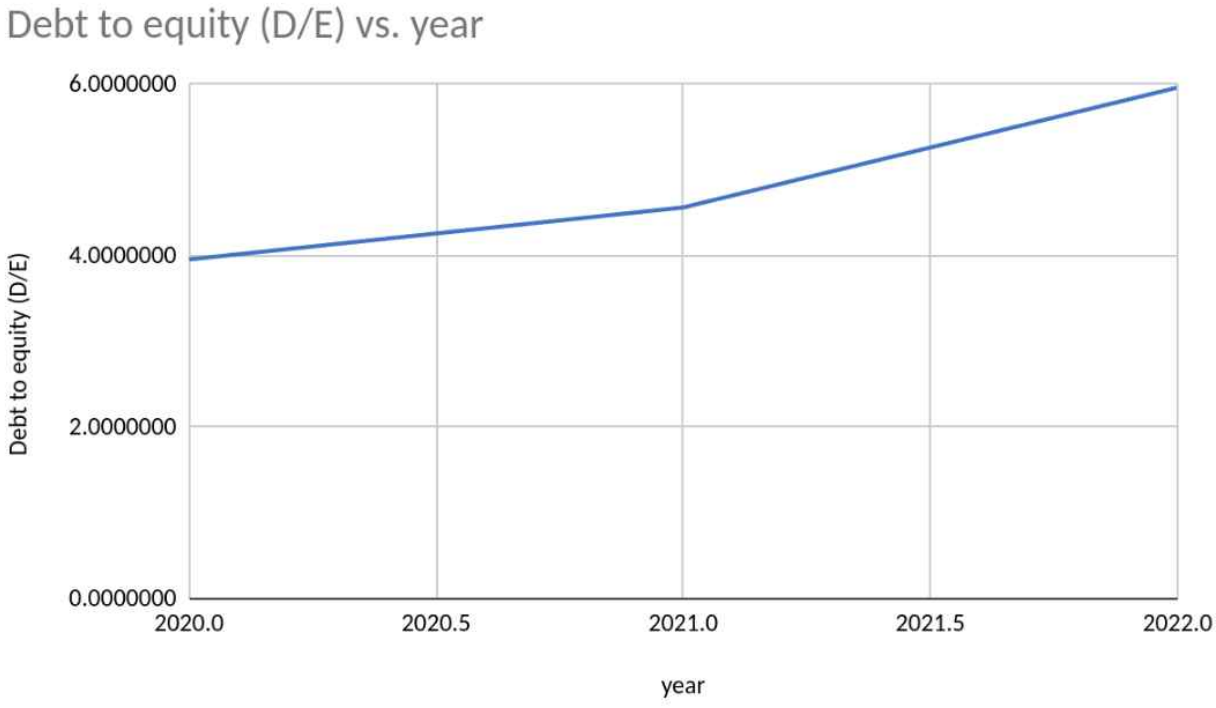


3. SOLVENCY RATIOS

3.1. Debt to equity

This measures how much a company uses debt and equity to fund its operations.It is sometimes called gearing ratio. A number between 1 and 1.5 is generally good and 2 will be considered risky. For the three years it's always increasing from 3.96 in 2020 to 5.96 in 2022 meaning the company is getting more riskier.

Figure 6



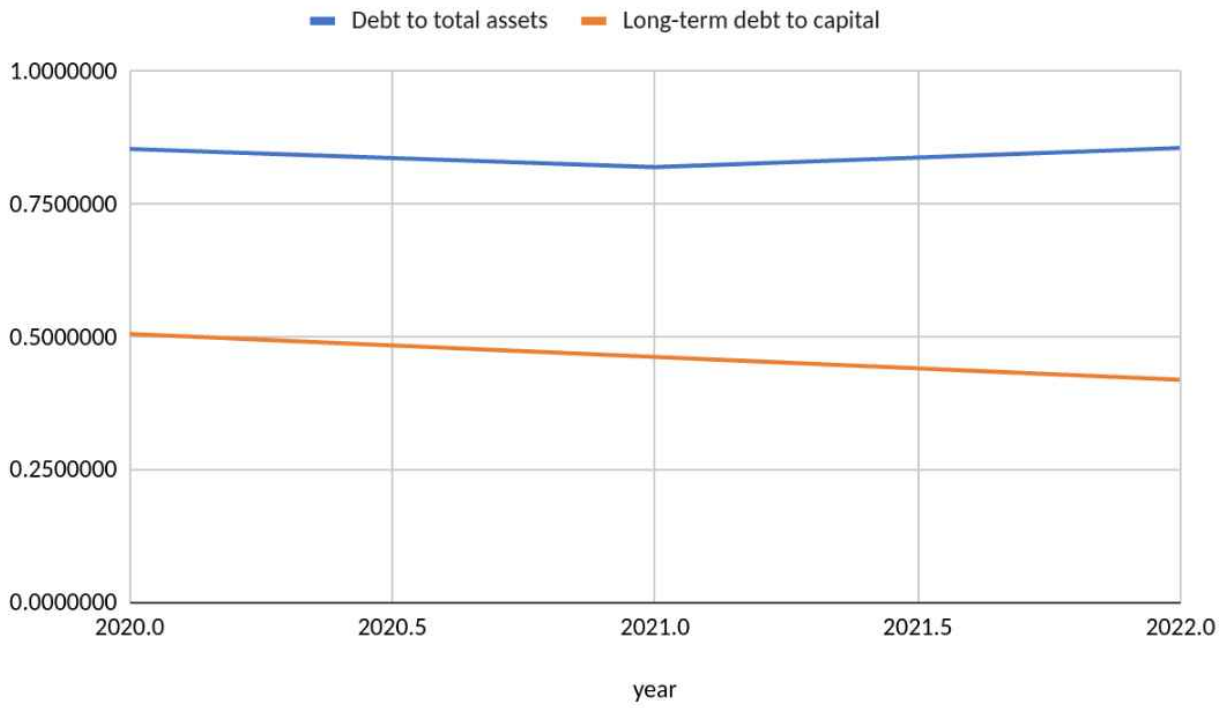
3.2. Debt to asset

This is also called debt ratio and it measures how much of a company's assets are financed by debt. Like gearing ratio, results show that Apple's debt ratio was on an increasing trend between 2020 and 2022 which is not desirable.

3.3 Long term debt to capital

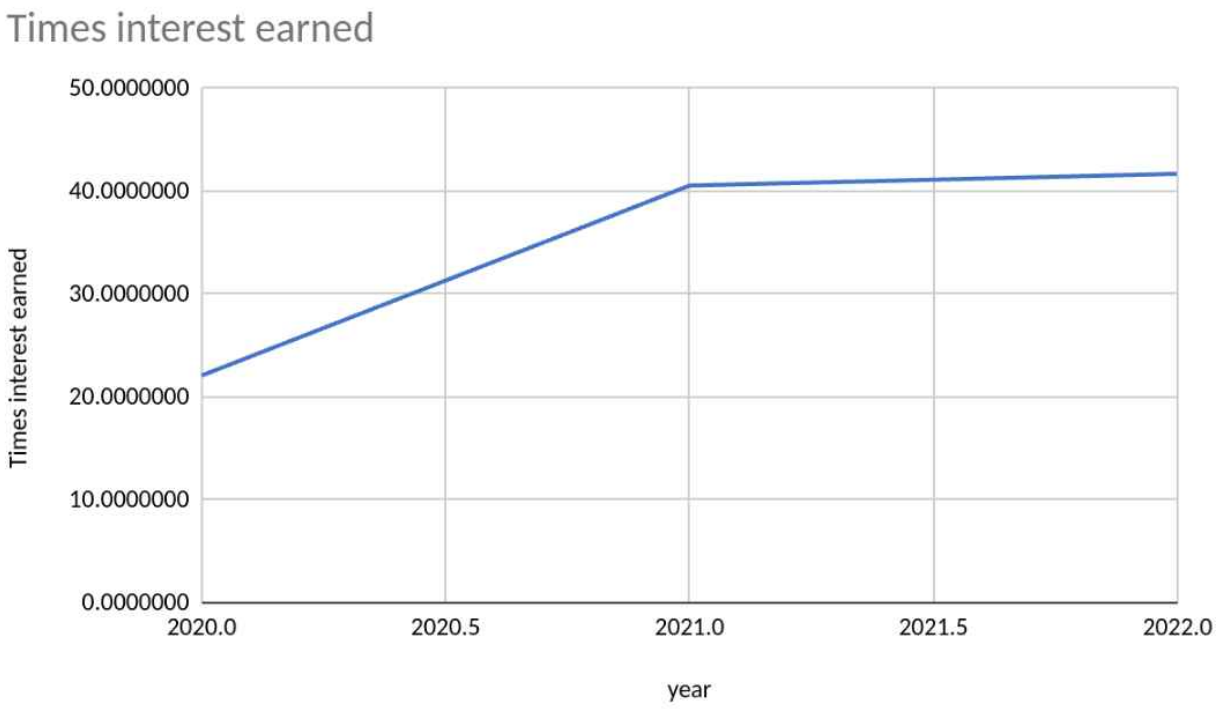
This measures the degree of financial leverage the company is taking. A higher value means the company is taking too much debt and faces risk of solvency or defaulting on its debts.
As shown by figure 7, the ratio is decreasing from 0.47 in 2020 to 0.42 in 2022 which is a good direction.

Figure 7



3.4. Times interest earned

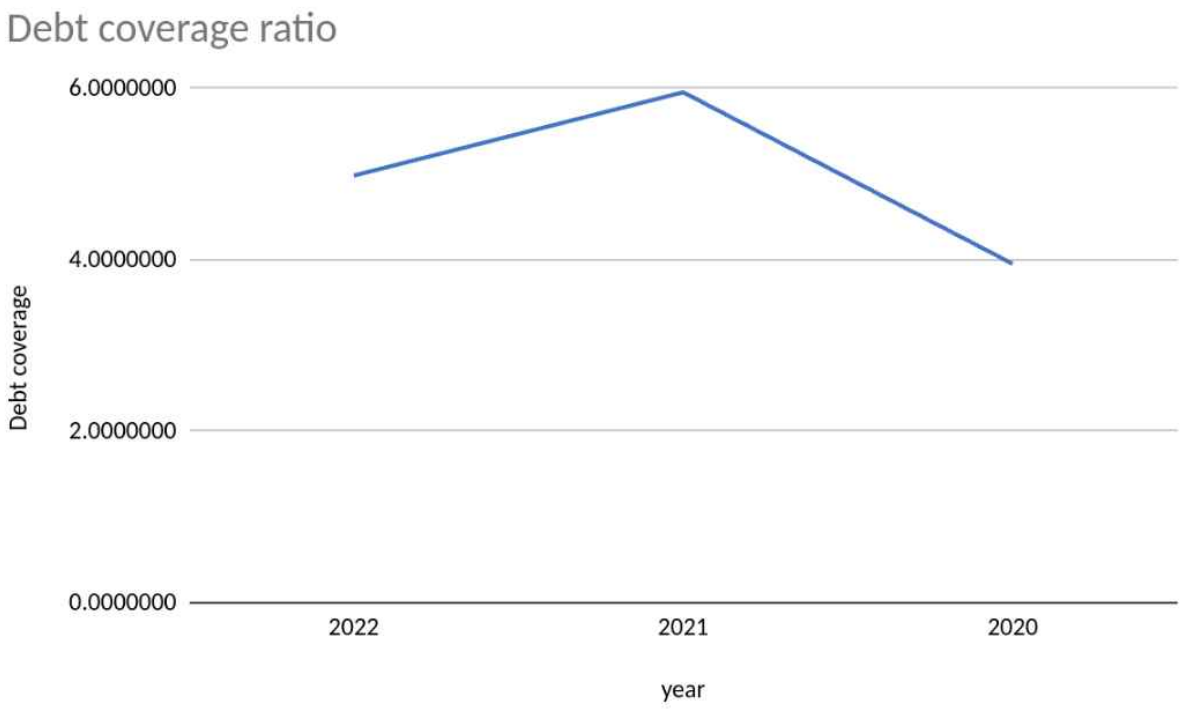
Figure 8



This ratio measures the company's ability to pay its obligation on all interest and debt obligations. There was a recorded increase between 2020 and 2022 which is a good result.

Debt coverage ratio

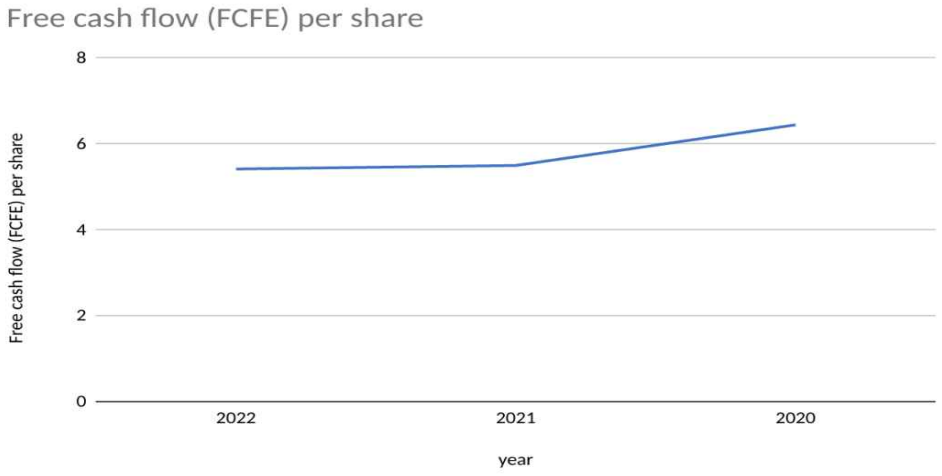
Figure 9.



This ratio measures the amount of cash flow available to pay debt obligations. Generally this 1.25 must be the minimum. The chart above shows that though there is no clear trend, the debt coverage ratio for Apple Inc is within desired range.

3.6. Free cash flow per share

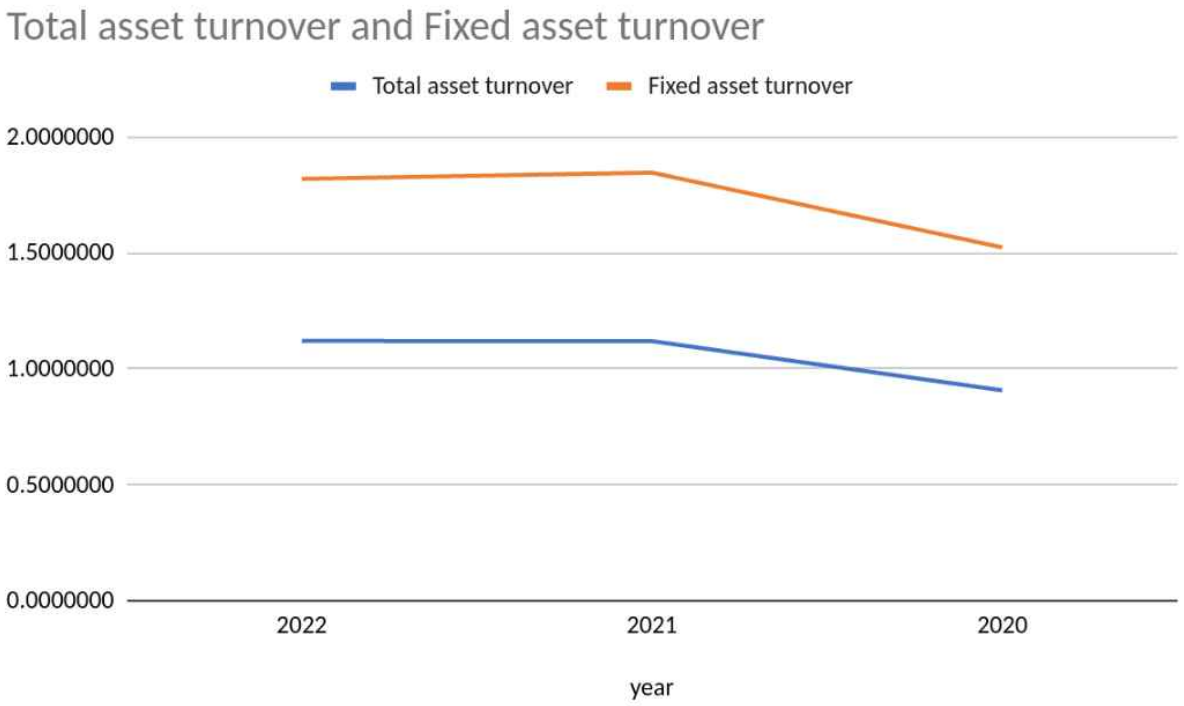
Figure 10



This is computed by dividing free cash flow by the total number of outstanding shares and is a measure of financial flexibility. In 2020 it was $6.4 with a falling trend to $5.4 in 2022 which is not desirable.

4. ASSET UTILISATION RATIOS

Figure 11



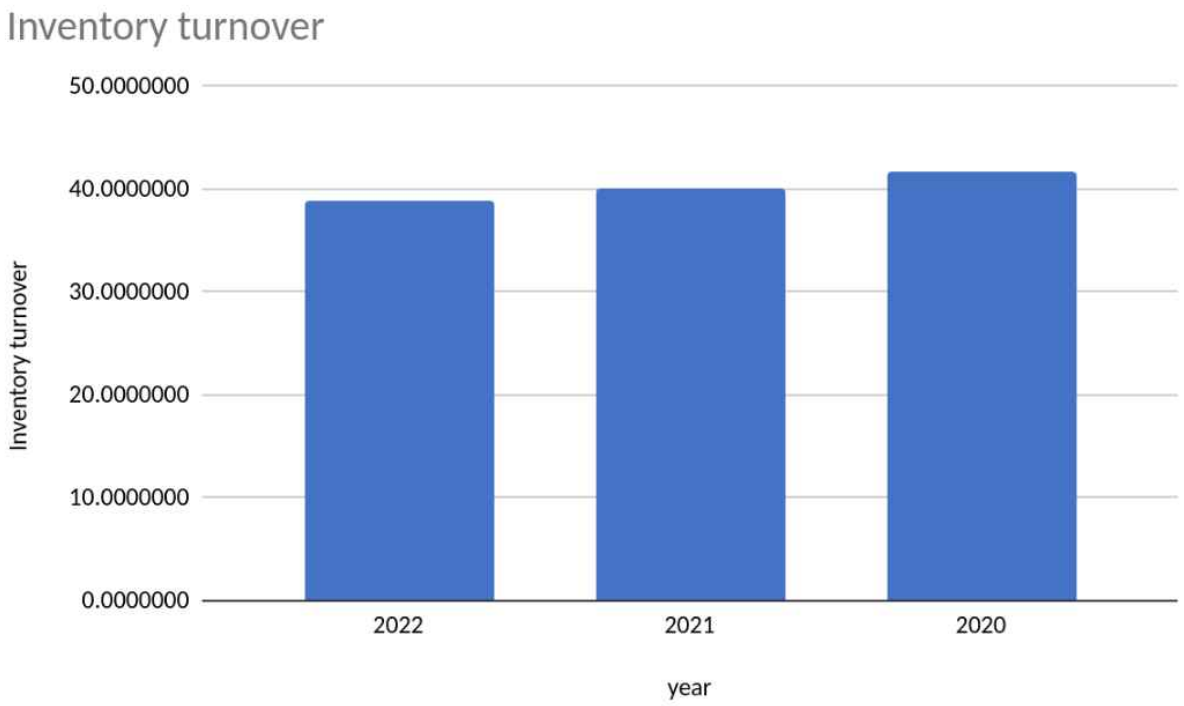
4.1. Total asset turnover

This measures how well a company uses its total assets to generate revenue and is calculated by dividing net sales by average total assets. A higher ratio is desired which implies that the company is effectively utilising its assets in revenue generation. There was an upward trend in total asset turnover from 0.85 in 2020 to 1.2 in 2022. In a nutshell, the company was building efficiency in asset utilisation over time. The chart above shows an increasing trajectory in fixed asset turnover which is a good indicator of efficiency.

4.2. Fixed asset turnover

This is almost similar to total asset turnover with the only difference being that fixed asset value is used in computation instead of total asset. Likewise, a higher ratio indicates greater efficiency while a lower ratio means the company is not getting enough value from its existing fixed assets.

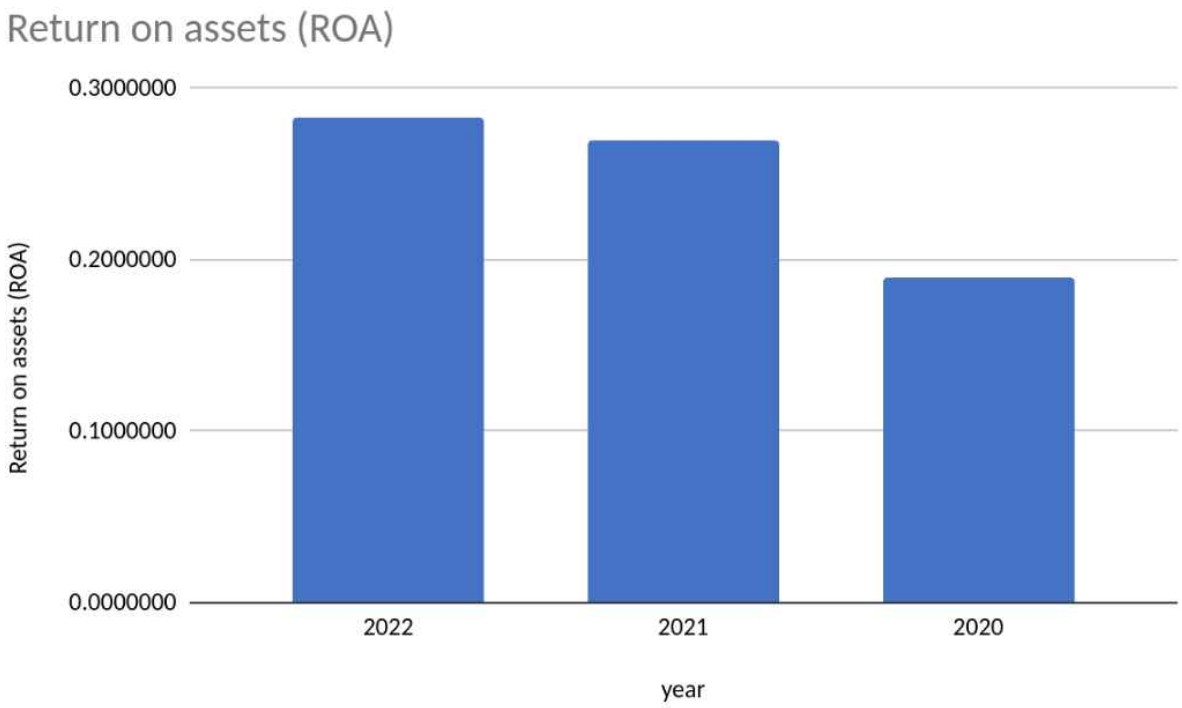
Figure 12



4.3. Inventory turnover

This is the rate at which inventory is sold/used and replaced and to calculate it we divide cost of sales by average inventory. The turnover is very high over the period may be its due to the type of products Apple deals with. However the ratio is decreasing over time which is a red flag.

Figure 13.

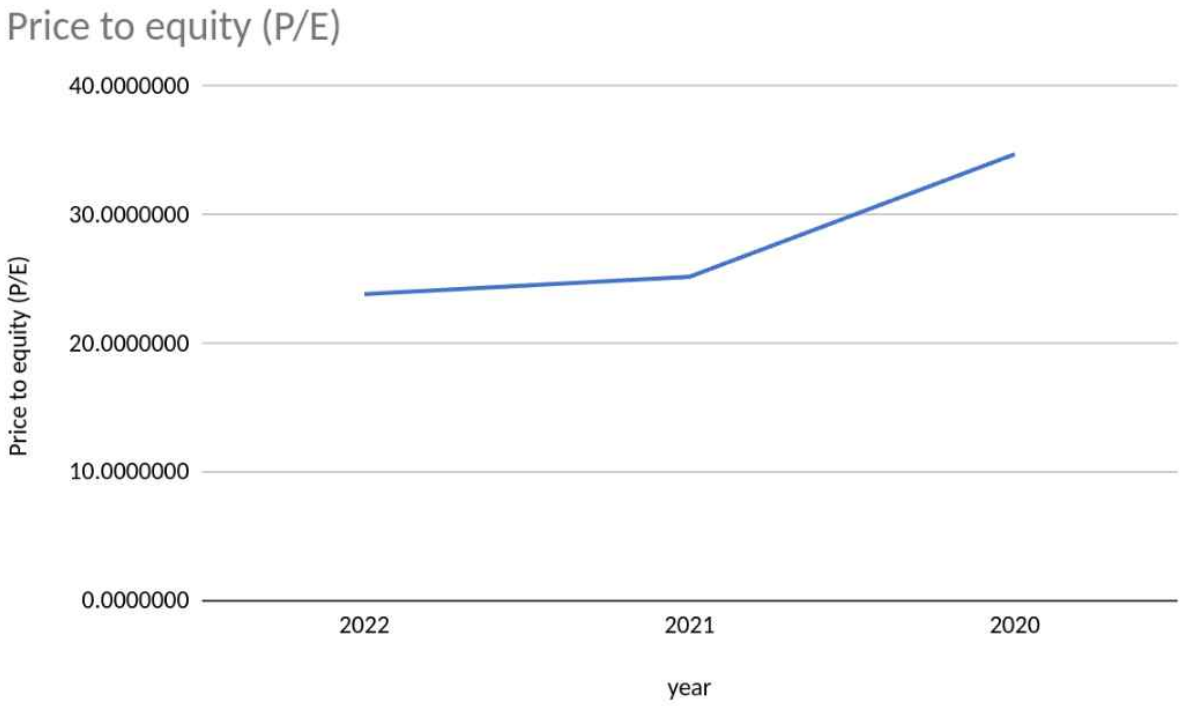


4.4. Return on assets

This measures profitability of a company in relation to its assets. This ratio has increased from 0.18 in 2020 to 0.28 in 2022

5.0. INVESTORS/MARKET RATIO

Figure 13.



5.1. Price to equity ratio.

This is obtained by dividing the share market price by earnings per share. A higher value means the share's value is high relative to earnings hence overvalued whilst a lower P/E ratio means the stock is undervalued relative to earnings and probably undervalued. The P/E ratio computed is high over the period but falling from 34.7 in 2020 to 23.8 in 2022.

5.2. Earnings per share

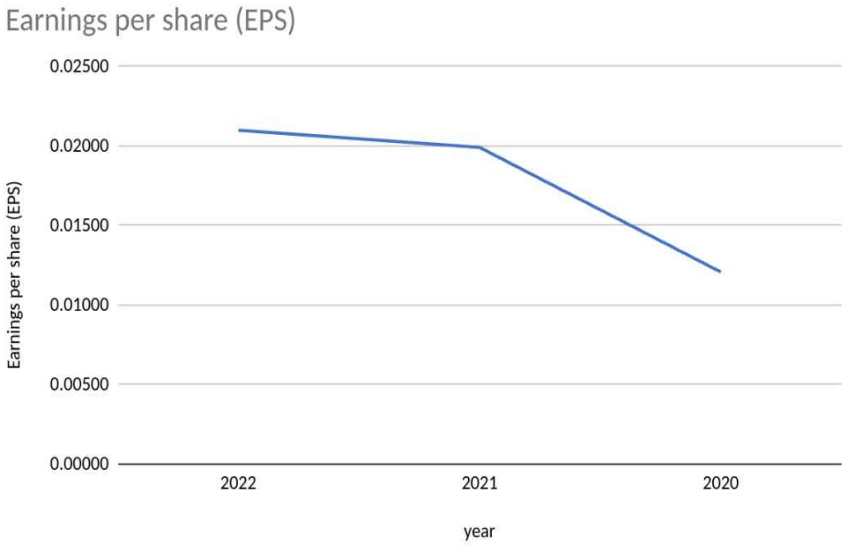
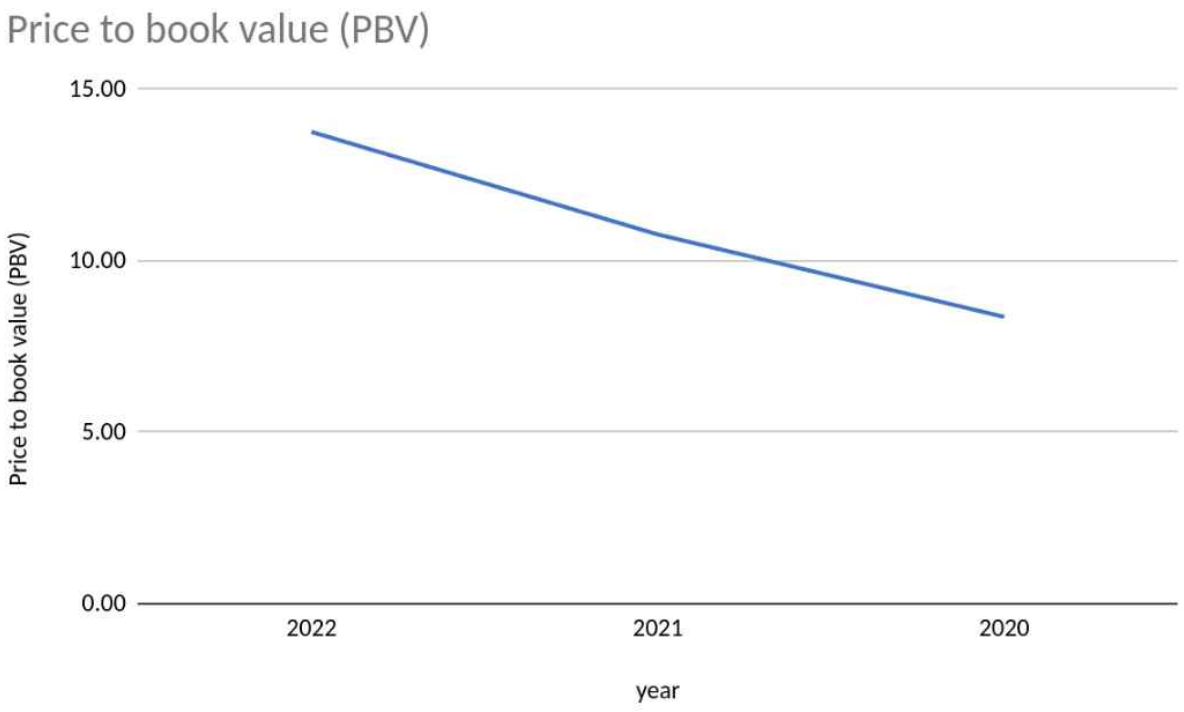


Figure 14.

Earnings per share(EPS) measures how much an entity makes for each share. A higher EPS means the company is more valued to investors. There is no benchmark for good or bad EPS but the positive trend on the chart shows that the company is progressing well.

5.3. Price to book value

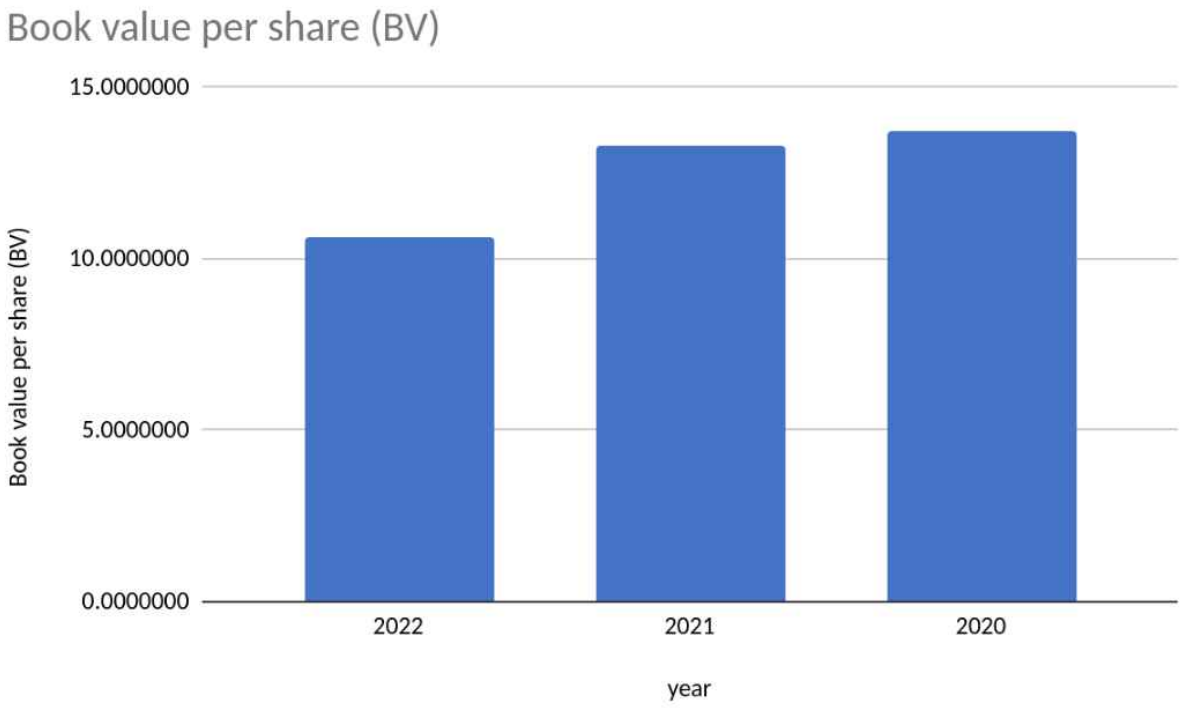
Figure 15.



This is the ratio of market value of company's shares over its book value of shareholders equity. A book value less than 1 means the shares are undervalued and become more attractive to investors. Now the computed PBV above is extremely high and further rising over time making the shares less attractive to investors.

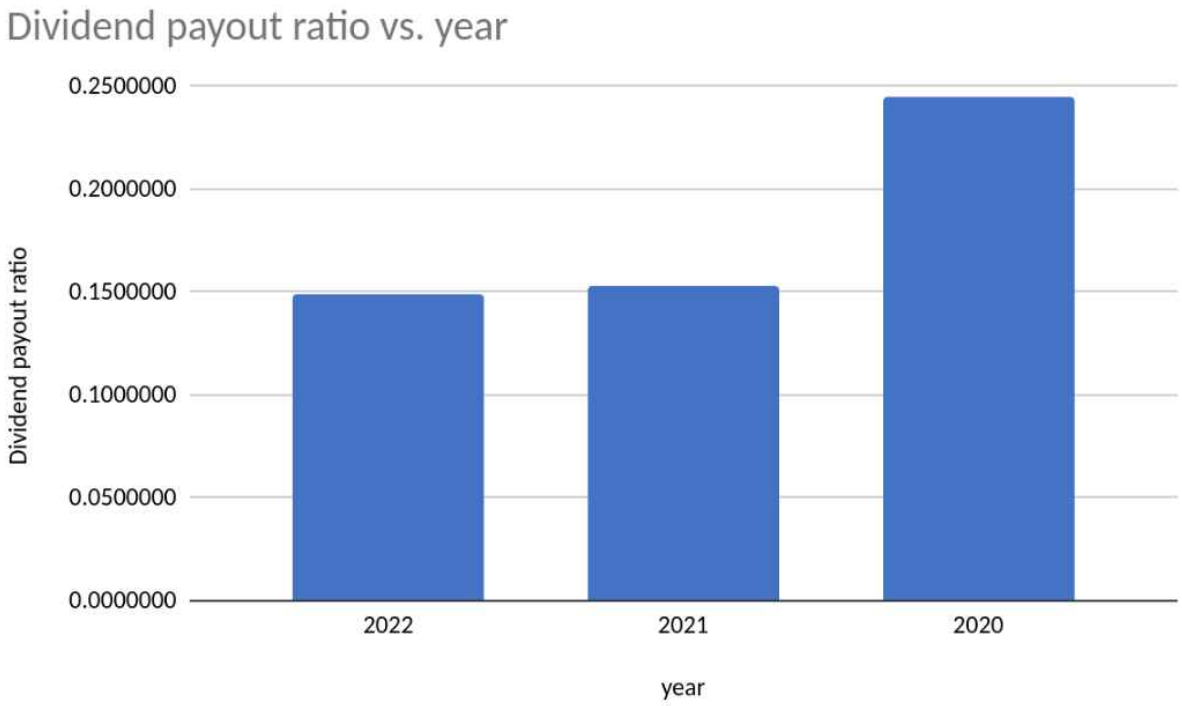
5.4. Book value per share(BV).

This metric measures the value of the equity's price per share. The graph for share book value is falling and making it more overvalued and unattractive.
Figure 16.



5.5. Dividend payout ratio.

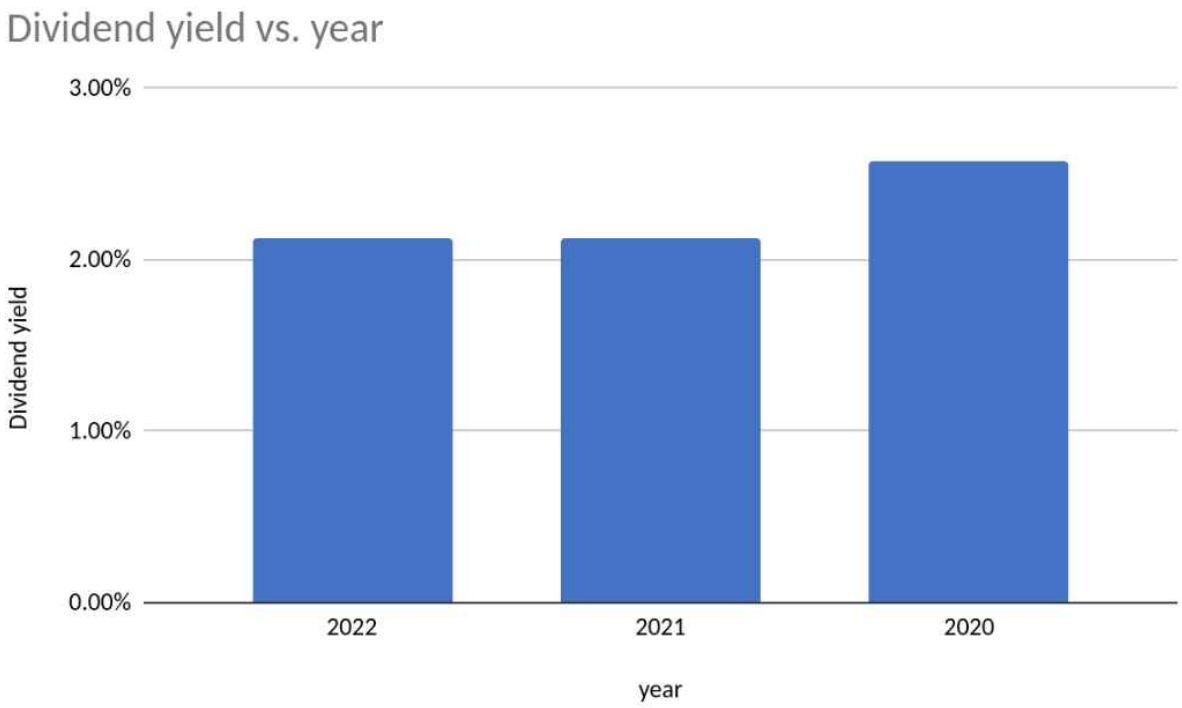
Figure 16.



This measures the proportion/percentage of a company's earnings that is paid to shareholders as dividends. The dividends payout is falling over time which means more earnings are reinvested for future growth. However this might discourage investors who will be looking for income in the form of dividends.

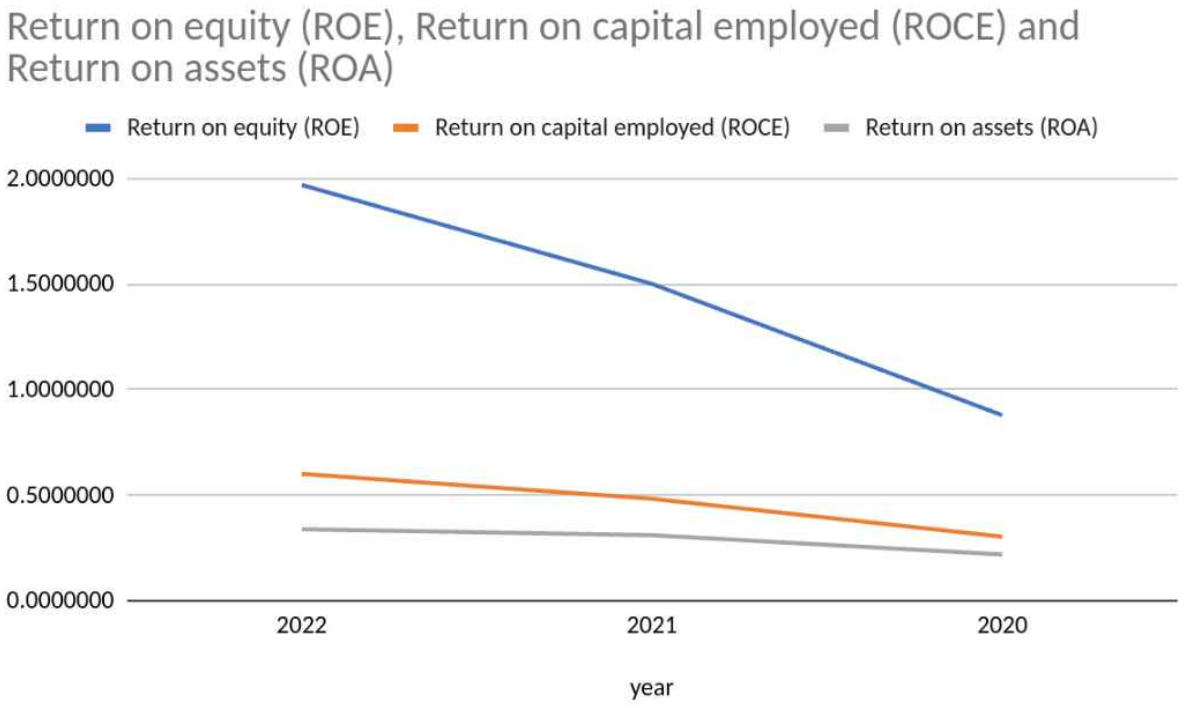
5.6. Dividend yield.

Figure 17.



Dividend yield measures how much dividends have been paid to shareholders relative to the share price. A value between 2% and 6% is generally regarded as good thus the graph on figure 17 shows a good dividend yield both years inclusive.

Figure 18.



5.6.1. Return on equity(ROE).

This measures how the company's equity/net assets (total assets - total liabilities) generates profits. A return of 15% - 20% is considered good. As shown on the chart, ROE increased from 88% in 2022 to 197% in 2022 which is exceptional.

5.7. Return on capital employed(ROCE)

This measures how well is the company generating profits from its capital employed(equity + long term debt). The benchmark for good ROCE is 20% or more thus Apple Inc ROCE has been excellent as shown on the chart above

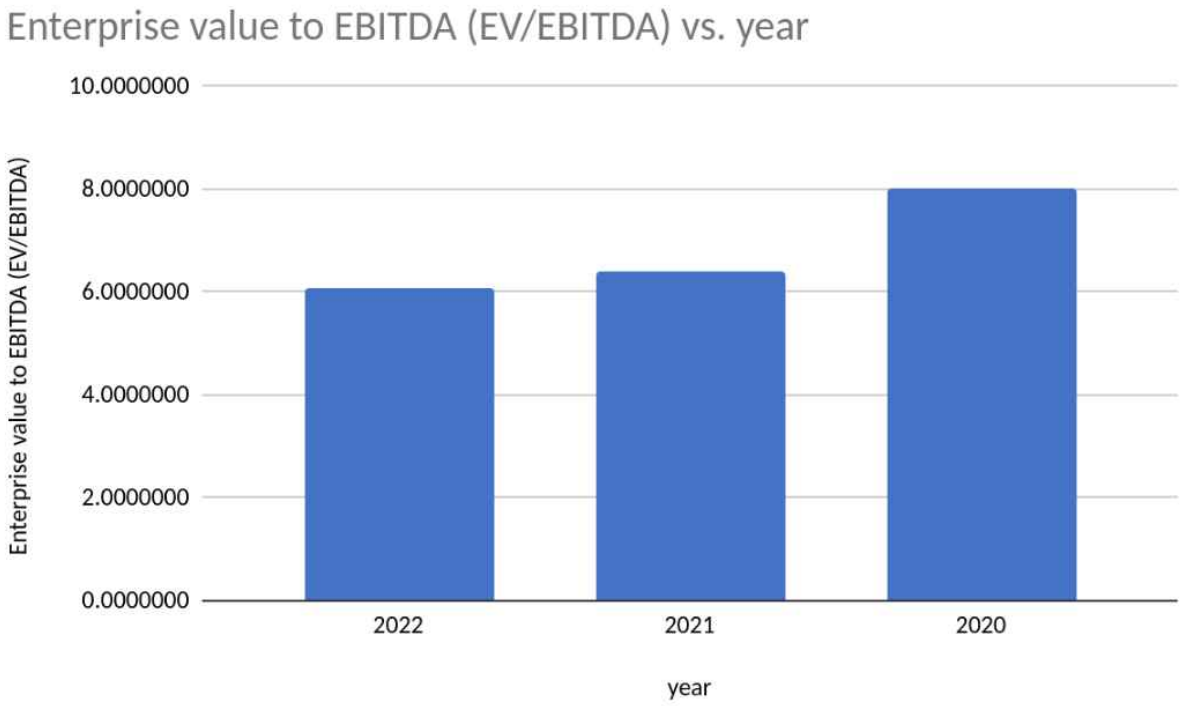
5.7.2. Return on assets(ROA)

This measures how a company efficiently manages assets on the balance sheet to generate profits. Generally a good ratio is 5% and above meaning computed results shows that the company has been so efficient in utilising total assets. Again the rate is increasing over time which is a sign of improved efficiency over time.

5.8. Enterprise value to EBITDA.

This measures the company's enterprise value(total value) relative to EBITDA. Typically a value of 10 and below is healthy. Apple's EV/EBITDA value was 8 in 2020 and fell to 6 in 2022 which was a positive direction.

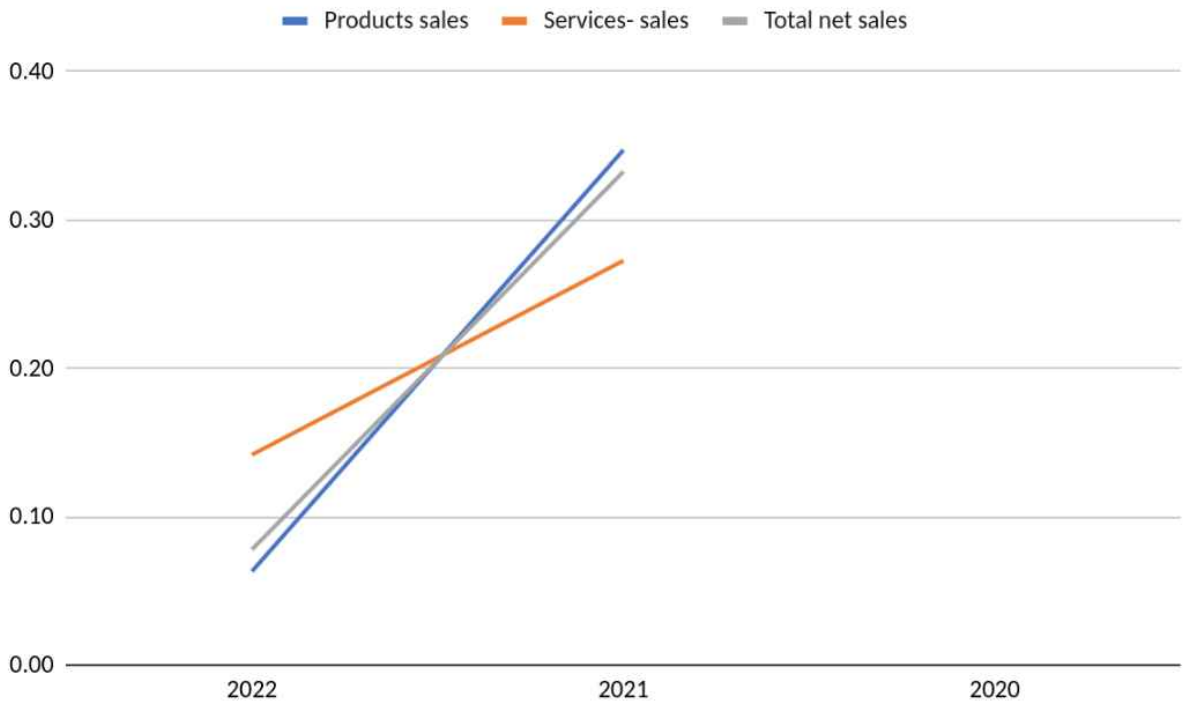
Figure 19



6. GROWTH RATES

6.1. Sales growth rates

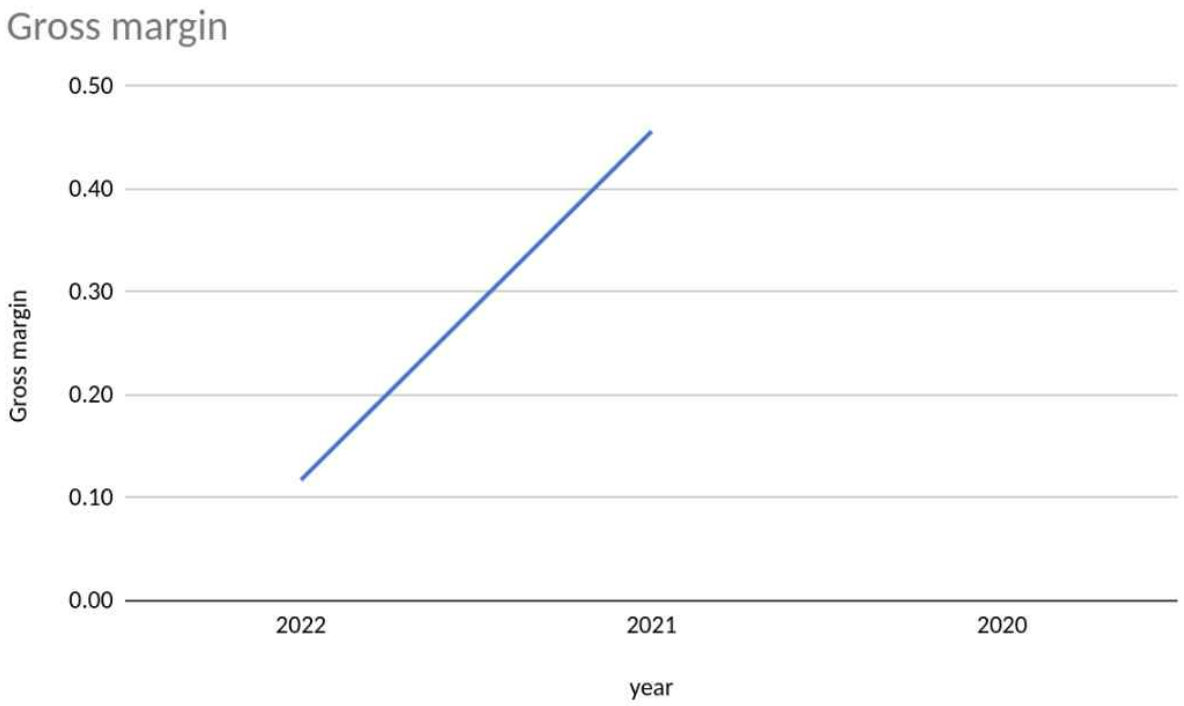
Figure 20



Net sales and its sub-components (product sales & service sales) has been increasing from 2020, 2021 and 2022. However, the increases were recorded at a decreasing rate for both product and service sales.

6.2.Growth rate for gross profit margin

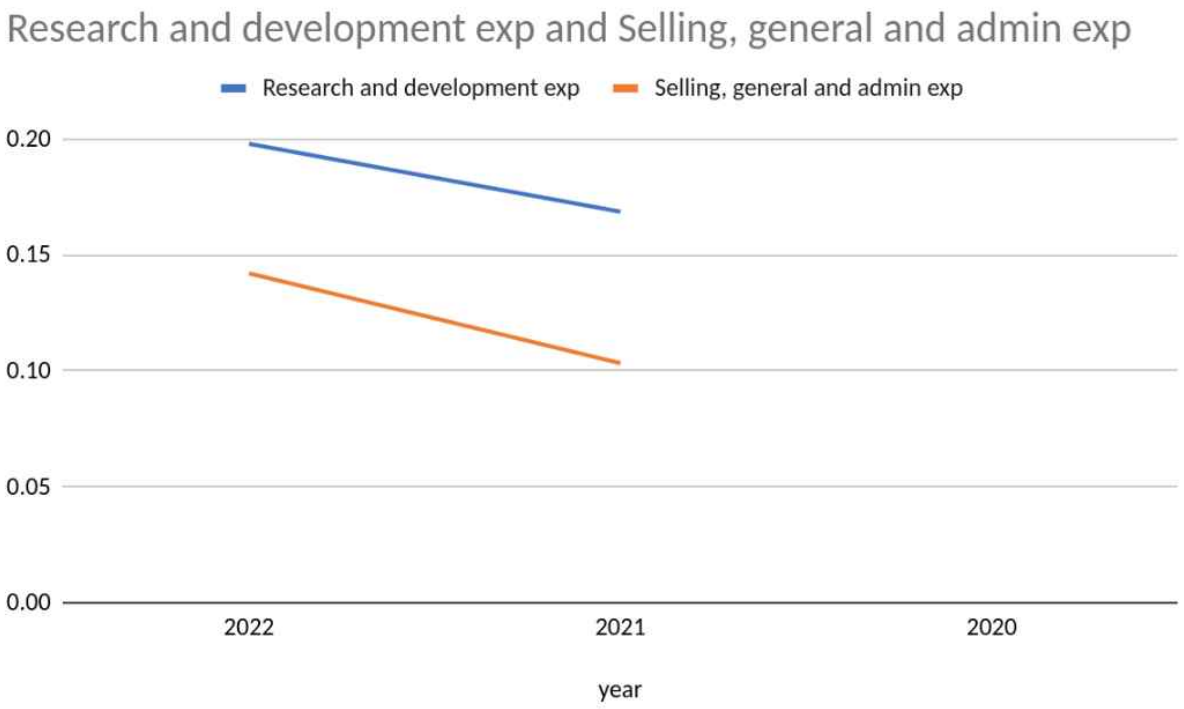
Figure 21.



Gross margin increase was 46% in 2021 and 12% in 2022 which is mainly due to increase in sales over the same period. Again the increase was at a decreasing rate.

6.3. Operating expenses

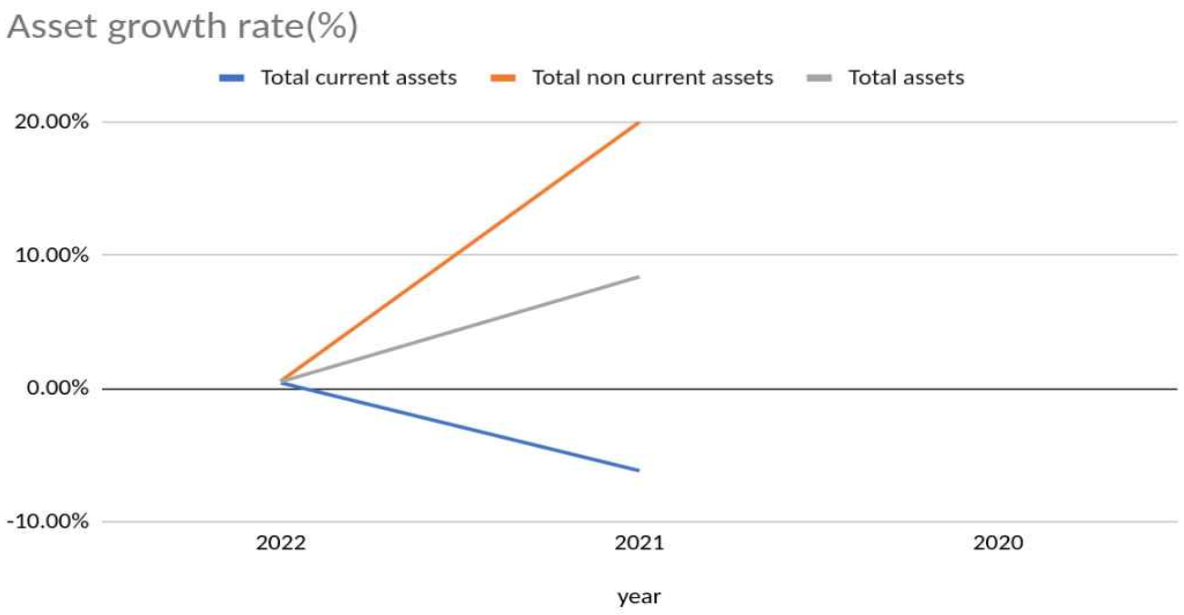
Figure 22



Research and development expenses together with selling, general and administrative expenses increased in both years 2021 to 2022. With expenses the increase was at an increasing rate which is not good especially when sales increased at a decreasing rate.

6.4. Asset growth rate

Figure 23

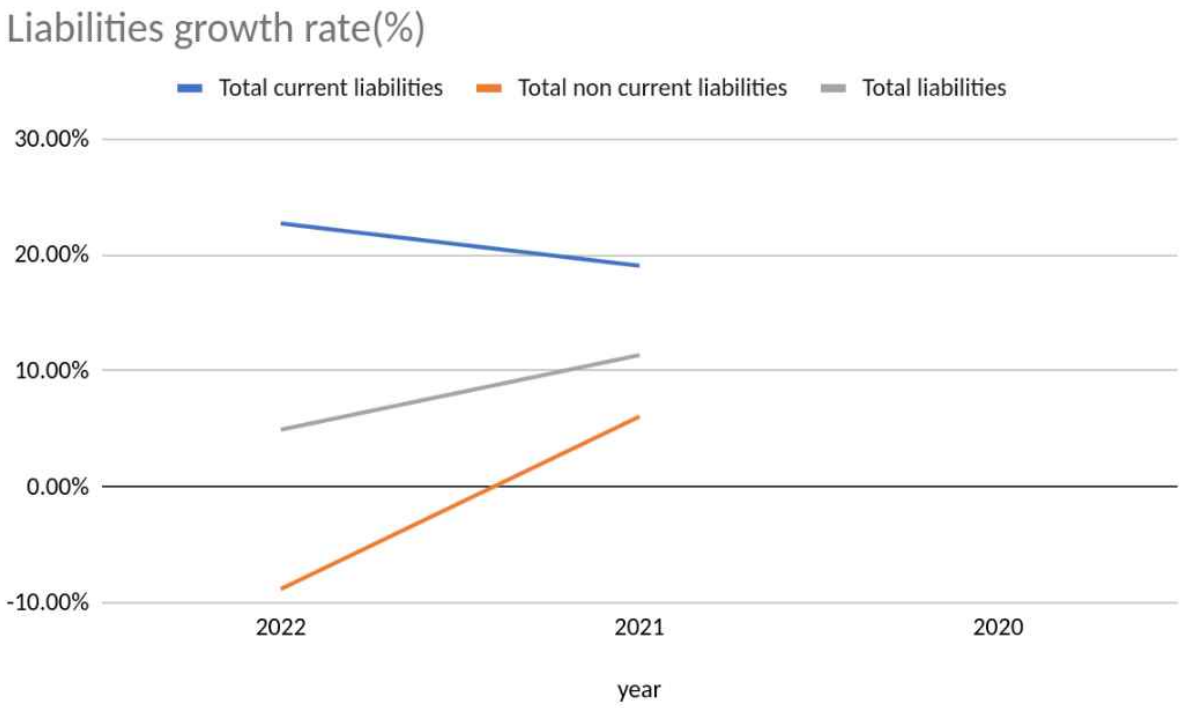


Non-current assets increased in 2021 and 2022 although the change in 2022 was close to 0(0.55%). Thus, non current and total assets increased at a decreasing rate. On the other hand total current assets decreased in 2021 but further increased in 2022.

6.5. Liabilities growth rate

Both current and non current liabilities increased in 2021. In 2022 current liabilities further increased at an increased rate while non current liabilities decreased in 2022. Total liabilities increased in 2021 and further increased in 2022 but at a diminishing rate.

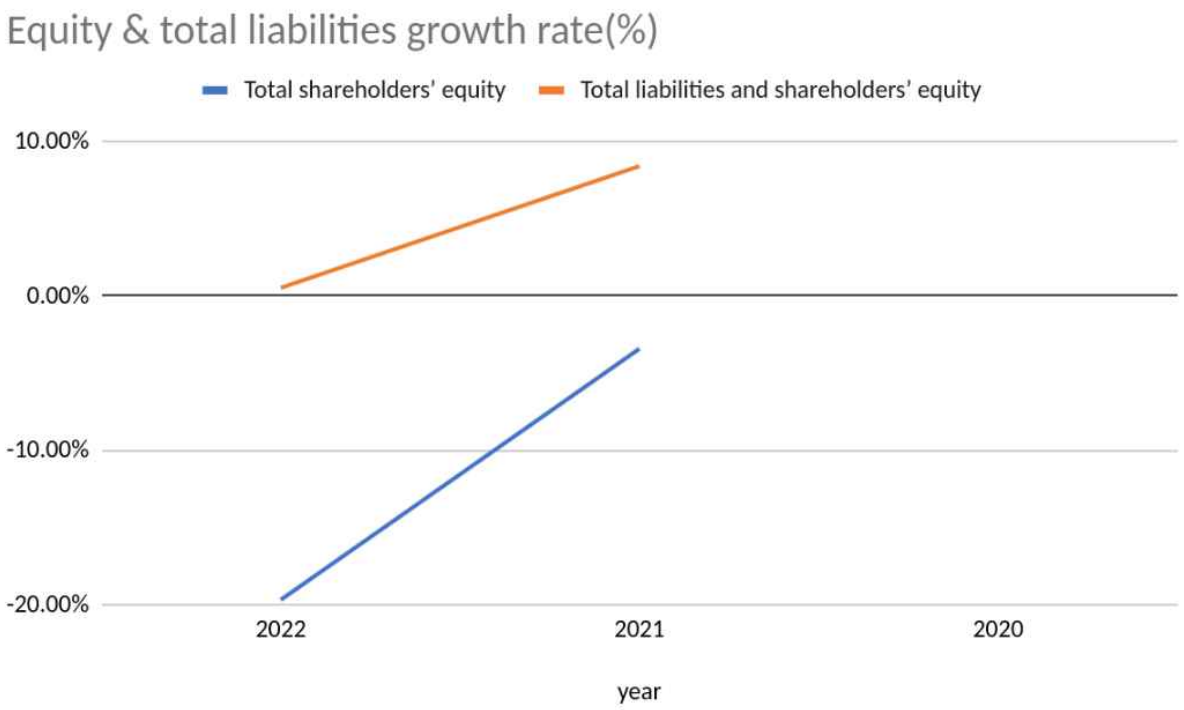
Figure 24



6.6. Equity and total liabilities

Shareholders equity decreased in both years 2021 and 2022. It decreased at an increased rate which is not healthy. For the same period total of equity and liabilities(total assets) increased at a decreasing rate.

Figure 25

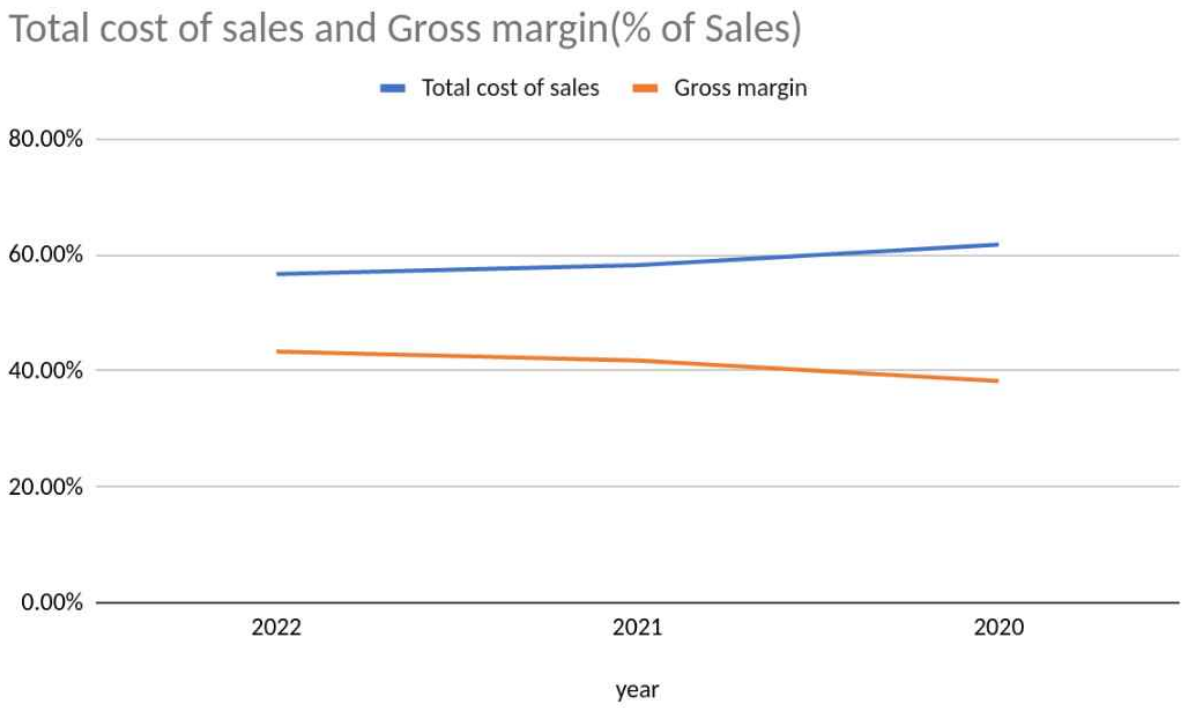


7.0.

7.1. Total cost of sales/sales percentage

The total cost of sales to sales ratio gives a view of how much per dollar of sales is cost of sales. The results showed that cost of sale percentage was declining from 61.77% in 2020 to 56.69% in 2022. Inversely the gross margin percentage of sales increased linearly from 38.23% in 2020 to 43.31%. The company basically improved in production, inventory management and service handling.

Figure 26



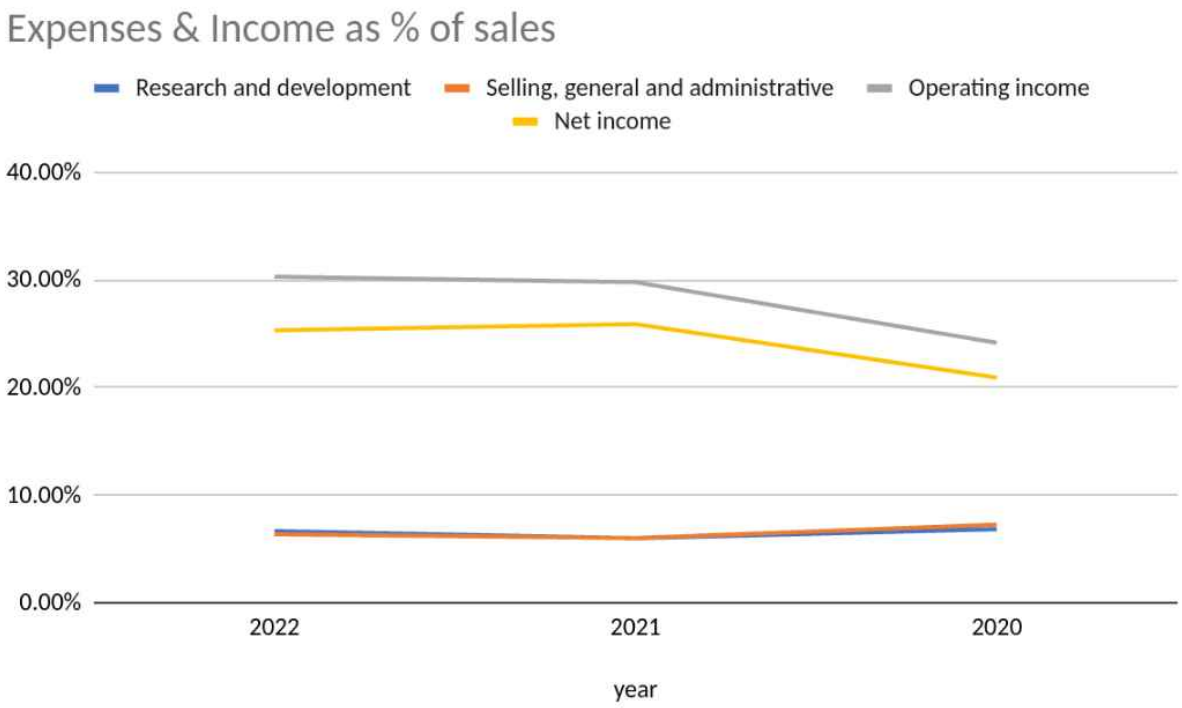
7.2. Operating expenses as a percentage of sales

Operating expenses were almost constant during the period as shown by the close to horizontal line chart. Maybe most of the expense lines were inherent and were supposed to be maintained over that period.

7.3. Operating income and net income

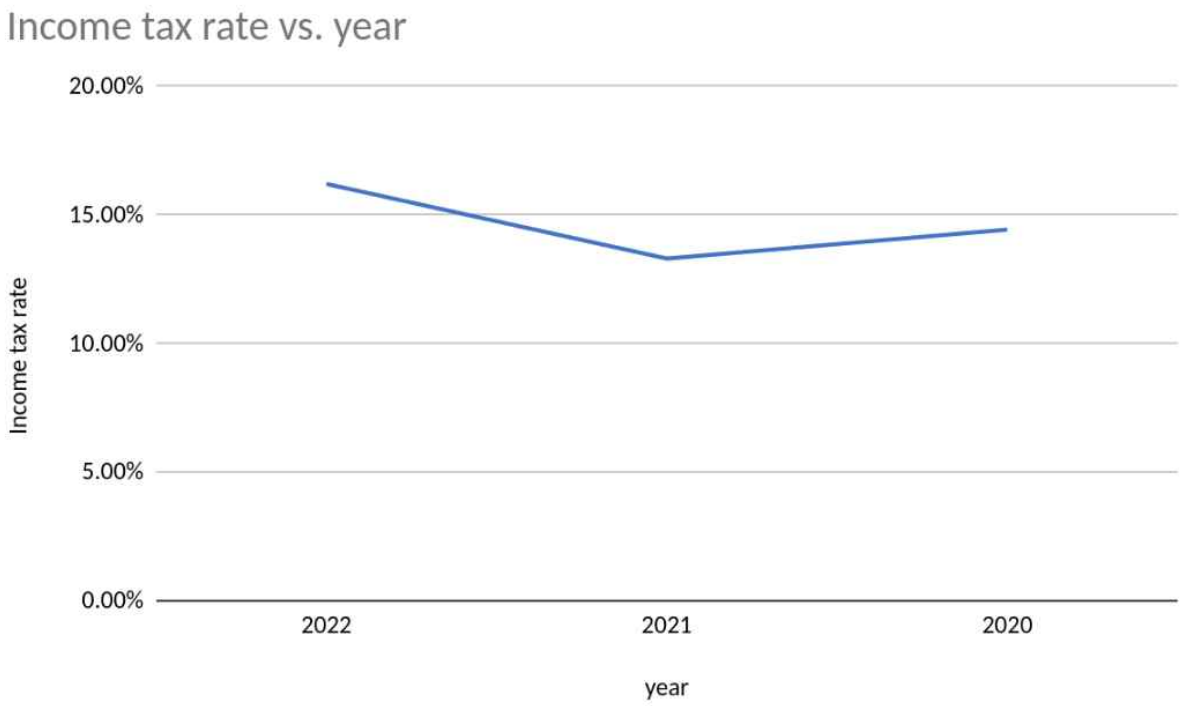
The graph for operating income and net income had the same shape and parallel to each other basically because operating expenses were almost the same for 2020, 2021, and 2022. Secondly the operating and net income graphs increased much in 2021 and a small increase in 2022. The increase was mainly in response to the increase in gross margin.

Figure 27


Expenses & Income as % of sales
Research and development
Selling, general and administrative
Operating income
Net income
40.00%
30.00%
20.00%
10.00%
0.00%
2022
2021
2020
year

8.1. Income tax rate

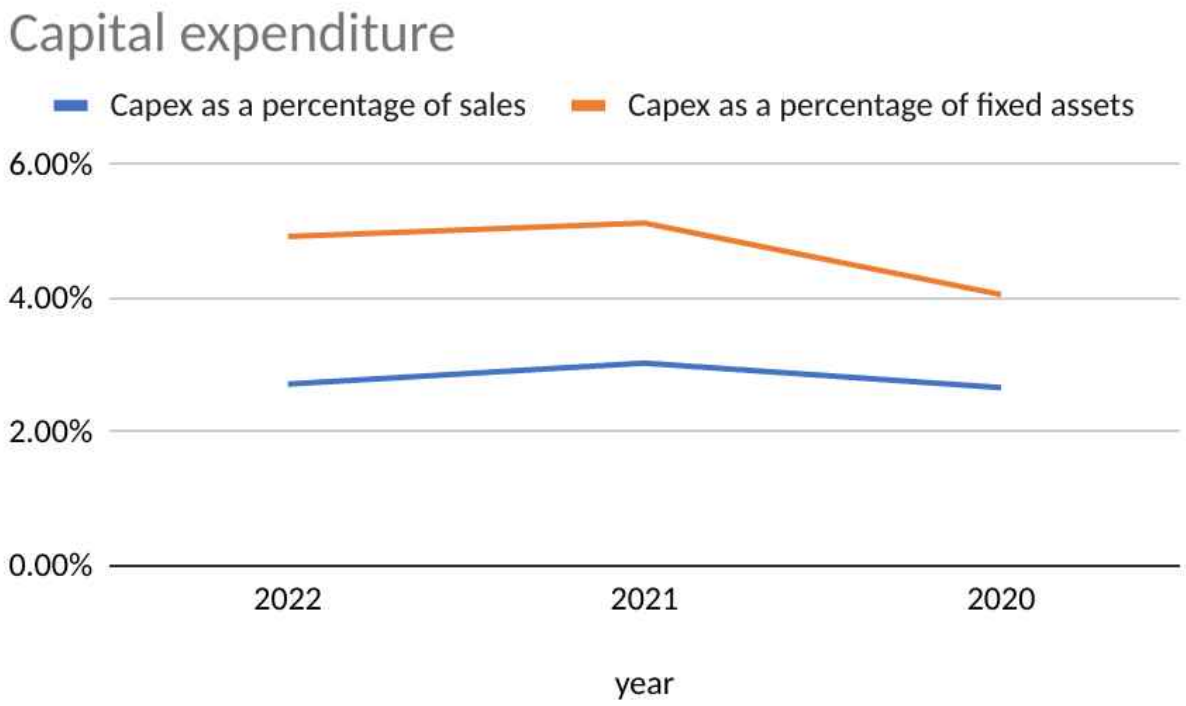
Figure 28



The percentage of tax to income changed from 14.43% in 2020 to 13.3% in 2021. It then increased to 16.2% in 2022 of which these changes might be attributed to changes in income values. Another contribution might be tax relief deductions from capital expenditure.

8.2. Capital Expenditure

Figure 29.



Capital expenditure relative to sales and fixed assets increased between 2020 and 2021. Since they are directly related, investment in new equipment will enhance the company's ability to generate more income and revenue. However, in 2022 capex percentage declined despite an increase in sales. This is not healthy for the future of the company if done consistently.