

**Shuaib Suleman**

## **Term End Assignment - Financial Accounting**

### **Question 1**

#### **Apple Inc. Primary Activities from a value chain perspective:**

##### **Inbound logistics**

Apple's supply chain is very extensive. Its top 200 suppliers account for 98 percent of its procurement expenses for materials, production, and product assembly. Suppliers are held to stringent quality standards, and Apple places a premium on an invention or innovation

##### **Operations**

Apple reduces labour and raw material prices by purchasing from Japan and China, lowering manufacturing expenses. Specific outsourcing allows them to keep total manufacturing costs low.

##### **Logistics for outbound travel**

Apple's business model allows things to be purchased both online and in-store. Because the corporation has hundreds of retail locations, it can capitalise on any retail margins generated by Apple sales. Because of brand familiarity, non-Apple stores stock the products in huge quantities.

##### **Sales and marketing**

Apple's design, quality, and ingenuity are easily recognisable. The marketing and sales strategy mirrors the Company's chosen competitive advantage whilst emphasising value. Apple reflects its perceived worth in its products' cost and advertising. They want to offer the finest marketing or engage with the most influential people possible.

##### **Providing assistance**

Most Apple devices come with a one-year guarantee and 90 days of technical support. Customers can schedule appointments for technical repairs or product support. Customers can also take advantage of guided, interactive demos provided by qualified Apple experts in their stores. Allowing customers to interact with products increases their likelihood of purchasing.

##### **Apple's Support Activities**

##### **Research and development:**

Apple spends a significant amount of money on R&D. More than \$16 billion was invested in Apple's R&D program in 2019 alone, ensuring that the Company's competitive advantage is maintained. The gamble paid off in 2020, and the Company launched 28 new or refurbished items.

##### **Managing Human Resources**

Apple was named the most appreciated firm in human resources in 2019, owing to its reputation for hiring and paying well. The organisation is notorious for attracting excellent candidates and sometimes snatching talent from competitors.

##### **Business Model**

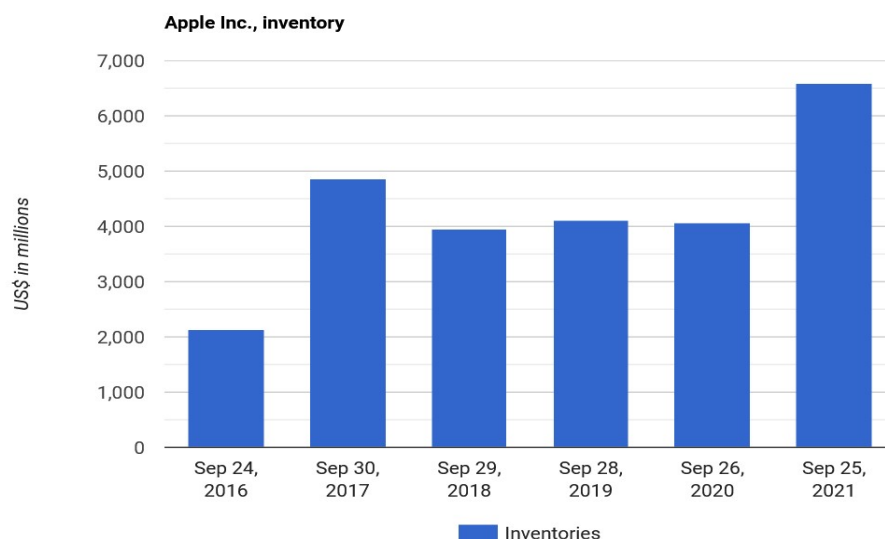
Apple's business model is based on patented technology, which allows them to reduce supplier power. Buyers' bargaining power is diminished because the price is not essential in purchasing decisions. Customers are willing to pay a premium for Apple merchandise because of its cult brand, reinforced by its stores and its value constellation of products and services.

Apple aligns its value system, people strategy, and branding with core capability. They select the most acceptable candidates, define accountability, and create integrative values. Invest in the long-term maintenance and development of a specific ability. Remove misalignments as soon as possible and reallocate investments as needed, even if this is painful.

Apple takes advantage of synergies in its business model and operations (e.g., technology platforms, similar design aspects). It includes streamlining the organisation and focusing on the work rather than the ceremonial and allowing others to take on specific roles if doing so is less expensive. They make use of crowdsourcing while maintaining control (e.g. Apps).

Given the nature of its offerings, Cisco is most analogous to Apple. They are both Large Cap American companies competing in the Hardware, tech and equipment industry. To reduce the list to one, I evaluated the size, market cap, growth, and other critical financial parameters.

## Question 2



| Year                                 | Sep 2021 | Sep 2020 | Sep 2019 | Sep 2018 | Sep 2017 |
|--------------------------------------|----------|----------|----------|----------|----------|
| No. of times - Inventory turned over | 32.37    | 41.75    | 39.40    | 41.39    | 29.05    |
| Benchmark                            |          |          |          |          |          |
| Cisco                                | 11.50    | 13.74    | 13.91    | 10.14    | 11.00    |
| Industry -Inventory Turnover         | 13.22    | 13.29    | 13.53    | 12.80    | 11.80    |

Apple Inc.'s inventory remained consistent between 2018 to 2020 but subsequently rose from 2020 to 2021, surpassing the 2019 level due to supply chain constraints induced by Covid-19. Apple is now more efficient than its competitors, according to efficiency metrics. Apple rotates its inventory more than 30 times per year, but Cisco turns it 11 times. Their inventory turnover rates are around three times higher than the industry average. Stockpile levels peaked in 2021 because of supply chain

uncertainties during the Covid19 pandemic. Apple has been severely impacted by supply chain issues afflicting tech companies that rely on Asian manufacturing and Asian processors. Their earnings call for the third quarter of 2021 indicated that supply-chain difficulties impacted iPhone sales by up to \$6 billion.

With a current declining ratio and quick ratio, it is easy to conclude that the Company's liquidity position is deteriorating. However, the Company has promised to enhance its cash flow in the future. Another essential item is that the difference between the current and quick ratios is minor, implying that inventory accounts for a minor component of existing assets. This demonstrates Apple's tremendous supply chain efficiency.

Profitability reflects the massive contrast in inventory turnover rates compared to the industry. Apple's net margin has been at about 20 percent consistently during the last five years except for 2021, where it increased to about 25%.

The accounting policy note offers information regarding the Company's inventory valuation approach. Inventories are calculated using the first-in-first-out method and are expected to be sold within an operating cycle or year and reported at market value or cost.

Apple makes use of the straight-line approach of depreciation with the useful life of assets varying among assets.

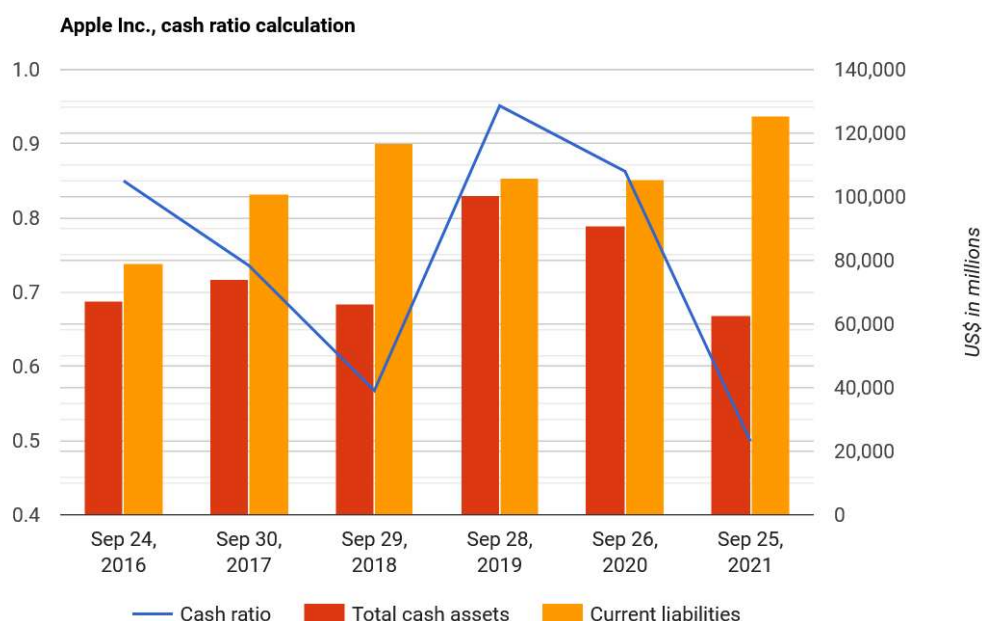
### Question 3

| <b>Apple Inc.<br/>Cash Ratio</b>     | <i>US\$ in millions</i> |                     |                     |                     |                     |                     |
|--------------------------------------|-------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Year</b>                          | <b>Sep<br/>2021</b>     | <b>Sep<br/>2020</b> | <b>Sep<br/>2019</b> | <b>Sep<br/>2018</b> | <b>Sep<br/>2017</b> | <b>Sep<br/>2016</b> |
| Cash                                 | 34 940                  | 38 016              | 48 844              | 25 913              | 20 289              | 20 484              |
| Securities, Marketable<br>& Current  | 27 699                  | 52 927              | 51 713              | 40 388              | 53 892              | 46 671              |
| <b>Total cash assets</b>             | <b>62 639</b>           | <b>90 943</b>       | <b>100 557</b>      | <b>66 301</b>       | <b>74 181</b>       | <b>67 155</b>       |
| Current liabilities                  | 125 481                 | 105 392             | 105 718             | 116 866             | 100 814             | 79 006              |
| <b>Liquidity Ratios</b>              |                         |                     |                     |                     |                     |                     |
| <b>Cash ratios</b>                   | <b>0,50</b>             | <b>0,86</b>         | <b>0,95</b>         | <b>0,57</b>         | <b>0,74</b>         | <b>0,85</b>         |
| <b>Benchmarks</b>                    |                         |                     |                     |                     |                     |                     |
| <b>Cash Ratios -<br/>Competitors</b> |                         |                     |                     |                     |                     |                     |
| Cisco Systems Inc.                   | 0,93                    | 1,16                | 1,05                | 1,72                | 2,56                | 2,64                |
| <b>Sector Cash Ratios</b>            |                         |                     |                     |                     |                     |                     |
| Technology, Hardware<br>& Equipment  | 0,80                    | 0,92                | 0,97                | 0,78                | 1,13                | 0,89                |
| <b>Cash Ratios, Industry</b>         |                         |                     |                     |                     |                     |                     |
| Industry - Information<br>Technology | 1,02                    | 1,13                | 1,05                | 1,14                | 1,34                | 1,22                |

The ratio is derived by dividing current liabilities by cash plus short-term marketable investments. Due to the effects of the Covid epidemic, The Company's cash ratio reduced from 2019 to 2020 and further in 2021.

| <i>Average No. Days – Cash Conversion Cycle</i> |            |            |            |            |            |            |
|---|------------|------------|------------|------------|------------|------------|
| Year  | Sep 2021   | Sep 2020   | Sep 2019   | Sep 2018   | Sep 2017   | Sep 2016   |
| Average processing period inventory             | 11         | 9          | 9          | 9          | 12         | 6          |
| + : Average period of receivable collected      | 26         | 21         | 32         | 31         | 29         | 28         |
| <b>= Operating cycle</b>                        | <b>37</b>  | <b>30</b>  | <b>41</b>  | <b>40</b>  | <b>41</b>  | <b>34</b>  |
| - : Average period of payables payment          | (94)       | (91)       | (104)      | (125)      | (127)      | (104)      |
| <b>Cash conversion cycle</b>                    | <b>-57</b> | <b>-61</b> | <b>-63</b> | <b>-84</b> | <b>-86</b> | <b>-72</b> |

The operating cycle is 37 days, whilst the cash conversion is -57 days and has been reducing on average over the extended period and has always been negative, which indicates that creditors fund the cash conversion cycle; however, this reduces gradually over time.



Total Cash Assets peaked in 2019 and have since declined dramatically, with a commensurate increase in liabilities used to fund working capital changes amid difficult economic circumstances.

| Statement of cash flows - Consolidated                |          |          |           |          |          |          |
|---|----------|----------|-----------|----------|----------|----------|
| US\$ in millions                                      |          |          |           |          |          |          |
| Year  | Sep 2021 | Sep 2020 | Sep 2019  | Sep 2018 | Sep 2017 | Sep 2016 |
| Cash (utilised by)/generated from operations          | 104,038  | 80,674   | 69,391    | 77,434   | 63,598   | 65,824   |
| Cash (utilised by)/generated from investing activity  | (14,545) | (4,289)  | 45,896    | 16,066   | (46,446) | (45,977) |
| Cash utilised by financing activity                   | (93,353) | (86,820) | (90, 976) | (87,876) | (17,347) | (20,483) |
| Change - (decrease)/increase in cash & or equivalents | (3,860)  | (10,435) | 24,311    | 5,624    | (196)    | (635)    |

The ongoing operating activities of the Company consistently generated increasing amounts of cash. Even though the cash ratio is 0.50: 1, Apple now has fewer reserves on its balance sheet due to stock buybacks, but it has generated around 90 billion in cash per year on average. Apple's services business now accounts for about just under a quarter of sales and growth. It is twice as profitable as hardware like iPhones and MacBooks before corporate overhead and marketing costs, implying that cash flow will be at least \$100 billion per year for the next few years and will most likely continue to rise. Services will be the main growth drivers during the medium-term growth projections and forecasts.

The cash generated from operations and the Company's continuing ability to access debt capital is sufficient to support its cash needs and dividend policy for the ensuing year. The cash and balances should gradually increase towards the norm for improved liquidity ratios. Apple Inc. continues to invest effectively and does not hold excess cash, which is excellent for the efficiency of the business.

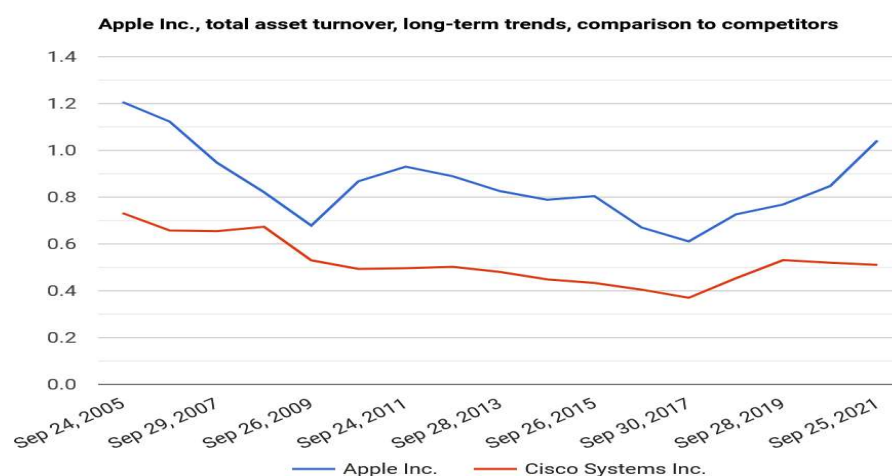
The Company invests enough in new plant and equipment to maintain or increase the Plants' capacity and replace the older plant with more efficient ones. The long term asset turnover rate has consistently exceeded its peer firm.

#### Question 4

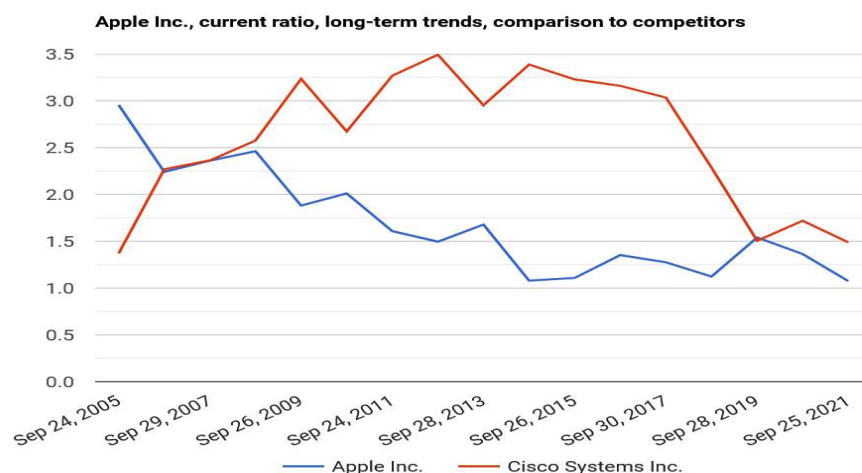
| Apple Inc.                    |                         |                |            |                |            |                |            |                |            |                |            |                |
|-------------------------------|-------------------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|
| Horizontal and trend Analysis |                         |                |            |                |            |                |            |                |            |                |            |                |
| 5 Yr mean %                   | Selected financial data | September 2021 | % Movement | September 2020 | % movement | September 2019 | % movement | September 2018 | % movement | September 2017 | % movement | September 2016 |
| 12%                           | Net sales               | 365,817        | 33 %       | 274,515        | 6%         | 260,174        | - 2%       | 265,595        | 16 %       | 229,234        | 6%         | 215,639        |
| 11%                           | Cost of sales           | 212981         | 26 %       | 169559         | 5%         | 161782         | - 1%       | 163756         | 16 %       | 141048         | 7%         | 131376         |
| 14%                           | Gross margin            | 152836         | 46 %       | 104956         | 7%         | 98392          | - 3%       | 101839         | 15 %       | 88186          | 5%         | 84263          |

|      |   |        |      |        |        |        |        |        |        |        |       |        |
|------|---|--------|------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| 15%  | <b>Operating income</b>                                 | 108849 | 64 % | 66288  | 4%     | 63930  | - 10 % | 70898  | 16 %   | 61344  | 2%    | 60024  |
| 18%  | <b>Net income</b>                                       | 94680  | 65 % | 57411  | 4%     | 55256  | - 7%   | 59531  | 23 %   | 48351  | 6%    | 45687  |
| 2%   | <b>Total Assets</b>                                     | 351002 | 8%   | 323888 | - 4%   | 338516 | - 7%   | 365725 | -3%    | 375319 | 17%   | 321686 |
| 9%   | <b>Property, plant and equipment, net</b>               | 39440  | 7%   | 36766  | - 2%   | 37378  | - 10 % | 41304  | 22 %   | 33783  | 25%   | 27010  |
| 6%   | <b>Current Assets</b>                                   | 134836 | - 6% | 143713 | - 12 % | 162819 | 24 %   | 131339 | 2%     | 128645 | 20%   | 106869 |
| 35%  | <b>Inventories</b>                                      | 6580   | 62 % | 4061   | - 1%   | 4106   | 4%     | 3956   | - 19 % | 4855   | 128 % | 2132   |
| -12% | <b>Shareholders Equity</b>                              | 63090  | - 3% | 65339  | - 28 % | 90488  | - 16 % | 107147 | - 20 % | 134047 | 5%    | 128249 |
| 8%   | <b>Total debt, and finance leases (carrying amount)</b> | 125567 | 11 % | 113097 | 5%     | 108047 | - 6%   | 114483 | -1%    | 115680 | 33%   | 87032  |
| 1%   | <b>Provision for income taxes</b>                       | 14527  | 50 % | 9680   | - 8%   | 10481  | - 22 % | 13372  | - 15 % | 15738  | 0%    | 15685  |

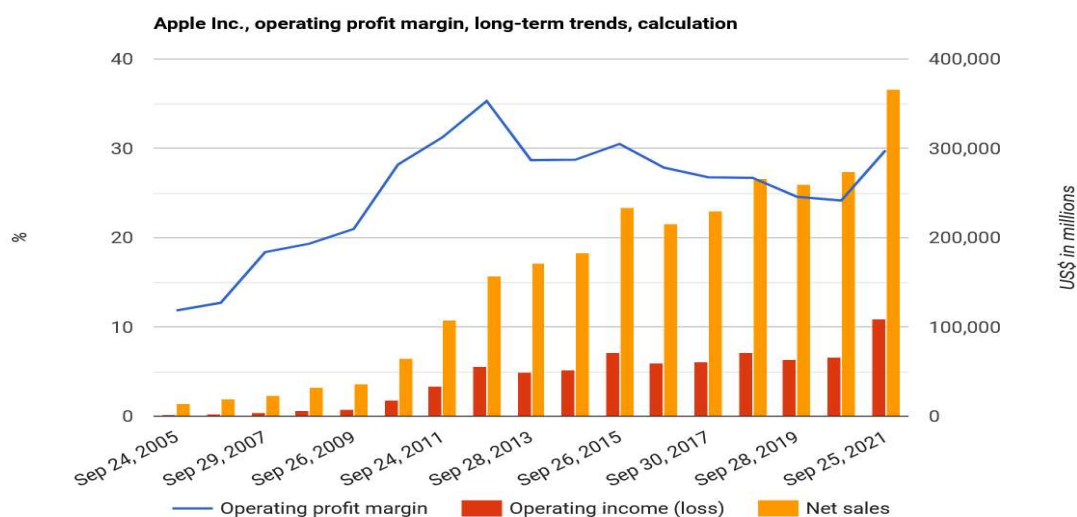
## Long Term Trend Analysis



Total Asset turnover has consistently performed much better than peer firm



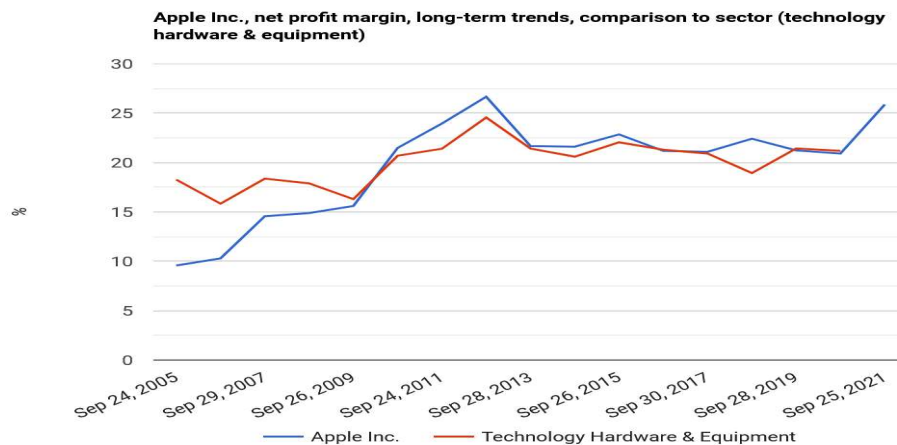
The current ratio trend has always been below its peer firm though the Company has generated significant returns from these lower short term asset levels.



Operating income has steadily increased over the longer term.



Operating margins have generally been better than the peer firm



Net profit margins are consistent with the industry.

| Apple   |                |                |                |                |                |                |
|---|----------------|----------------|----------------|----------------|----------------|----------------|
| Common Sized Income Statement (Consolidated)    |                |                |                |                |                |                |
| Year  | Sept 2021      | Sept 2020      | Sept 2019      | Sept 2018      | Sept 2017      | Sept 2016      |
| Product   | 81,30%         | 80,41%         | 82,21%         | 85,03%         | 85,74%         | —              |
| Services  | 18,70%         | 19,59%         | 17,79%         | 14,97%         | 14,26%         | —              |
| <b>Nett Sales</b>                               | <b>100,00%</b> | <b>100,00%</b> | <b>100,00%</b> | <b>100,00%</b> | <b>100,00%</b> | <b>100,00%</b> |
| Product   | -52,56%        | -55,11%        | -55,73%        | -55,79%        | -55,11%        | —              |
| Services  | -5,66%         | -6,66%         | -6,45%         | -5,87%         | -6,42%         | —              |
| <b>Cost of sales</b>                            | <b>-58,22%</b> | <b>-61,77%</b> | <b>-62,18%</b> | <b>-61,66%</b> | <b>-61,53%</b> | <b>-60,92%</b> |
| <b>Gross margin</b>                             | <b>41,78%</b>  | <b>38,23%</b>  | <b>37,82%</b>  | <b>38,34%</b>  | <b>38,47%</b>  | <b>39,08%</b>  |
| Research and development                        | -5,99%         | -6,83%         | -6,23%         | -5,36%         | -5,05%         | -4,66%         |
| Selling, general and administrative             | -6,01%         | -7,25%         | -7,01%         | -6,29%         | -6,66%         | -6,58%         |
| <b>Operating expenses</b>                       | <b>-12,00%</b> | <b>-14,09%</b> | <b>-13,25%</b> | <b>-11,65%</b> | <b>-11,71%</b> | <b>-11,24%</b> |
| <b>Operating income</b>                         | <b>29,78%</b>  | <b>24,15%</b>  | <b>24,57%</b>  | <b>26,69%</b>  | <b>26,76%</b>  | <b>27,84%</b>  |
| Interest and dividend income                    | 0,78%          | 1,37%          | 1,91%          | 2,14%          | 2,27%          | 1,85%          |
| Interest expense                                | -0,72%         | -1,05%         | -1,37%         | -1,22%         | -1,01%         | -0,68%         |
| Other (expenses)/income - nett                  | 0,02%          | -0,03%         | 0,16%          | -0,17%         | -0,06%         | -0,55%         |
| <b>Other (expense)/income - nett</b>            | <b>0,07%</b>   | <b>0,29%</b>   | <b>0,69%</b>   | <b>0,75%</b>   | <b>1,20%</b>   | <b>0,63%</b>   |
| <b>Income before provision for income taxes</b> | <b>29,85%</b>  | <b>24,44%</b>  | <b>25,27%</b>  | <b>27,45%</b>  | <b>27,96%</b>  | <b>28,46%</b>  |



|                            |               |               |               |               |               |               |
|----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Provision for income taxes | -3,97%        | -3,53%        | -4,03%        | -5,03%        | -6,87%        | -7,27%        |
| <b>Net income</b>          | <b>25,88%</b> | <b>20,91%</b> | <b>21,24%</b> | <b>22,41%</b> | <b>21,09%</b> | <b>21,19%</b> |

#### Common-Sized Balance Sheet: (Consolidated) Assets

| Year                               | Sept 2021      | Sept 2020      | Sept 2019      | Sept 2018      | Sept 2017      | Sept 2016      |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Cash and cash equivalents          | 9,95%          | 11,74%         | 14,43%         | 7,09%          | 5,41%          | 6,37%          |
| Current marketable securities      | 7,89%          | 16,34%         | 15,28%         | 11,04%         | 14,36%         | 14,51%         |
| Accounts receivable, net           | 7,49%          | 4,98%          | 6,77%          | 6,34%          | 4,76%          | 4,90%          |
| Inventories                        | 1,87%          | 1,25%          | 1,21%          | 1,08%          | 1,29%          | 0,66%          |
| Vendor non-trade receivables       | 7,19%          | 6,58%          | 6,76%          | 7,06%          | 4,74%          | 4,21%          |
| Other current assets               | 4,02%          | 3,48%          | 3,65%          | 3,30%          | 3,71%          | 2,57%          |
| <b>Current assets</b>              | <b>38,41%</b>  | <b>44,37%</b>  | <b>48,10%</b>  | <b>35,91%</b>  | <b>34,28%</b>  | <b>33,22%</b>  |
| Non-current marketable securities  | 36,43%         | 31,15%         | 31,12%         | 46,70%         | 51,88%         | 52,98%         |
| Property, plant and equipment, net | 11,24%         | 11,35%         | 11,04%         | 11,29%         | 9,00%          | 8,40%          |
| Other non-current assets           | 13,92%         | 13,13%         | 9,74%          | 6,09%          | 4,84%          | 5,40%          |
| <b>Non-current assets</b>          | <b>61,59%</b>  | <b>55,63%</b>  | <b>51,90%</b>  | <b>64,09%</b>  | <b>65,72%</b>  | <b>66,78%</b>  |
| <b>Total assets</b>                | <b>100,00%</b> | <b>100,00%</b> | <b>100,00%</b> | <b>100,00%</b> | <b>100,00%</b> | <b>100,00%</b> |

#### Apple

#### Common-sized Balance Sheet: Liabilities and Equity (Consolidated)

| Year   | Sep 2021      | Sep 2020      | Sep 2019      | Sep 2018      | Sep 2017      | Sep 2016      |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| Accounts payable   | 15,60%        | 13,06%        | 13,66%        | 15,28%        | 13,07%        | 11,59%        |
| Current portion of finance leases  | 0,02%         | 0,01%         | —             | —             | —             | —             |
| Other current liabilities, excludes the current portion of finance lease | 13,51%        | 13,17%        | 11,14%        | 8,94%         | 6,86%         | 6,85%         |
| Deferred revenue   | 2,17%         | 2,05%         | 1,63%         | 2,06%         | 2,01%         | 2,51%         |
| Commercial paper   | 1,71%         | 1,54%         | 1,77%         | 3,27%         | 3,19%         | 2,52%         |
| Current portion of term debt   | 2,74%         | 2,71%         | 3,03%         | 2,40%         | 1,73%         | 1,09%         |
| <b>Current liabilities</b>   | <b>35,75%</b> | <b>32,54%</b> | <b>31,23%</b> | <b>31,95%</b> | <b>26,86%</b> | <b>24,56%</b> |
| Non-current portion of term debt   | 31,08%        | 30,46%        | 27,12%        | 25,63%        | 25,90%        | 23,45%        |
| Long-term taxes payable  | 7,03%         | 8,70%         | 8,73%         | 9,18%         | 0,07%         | —             |
| Non-current portion of finance leases                                    | 0,22%         | 0,20%         | —             | —             | —             | —             |
| Other non current liabilities excl. non-current portion - finance leases | 7,94%         | 7,93%         | 6,19%         | 3,93%         | 11,46%        | 12,12%        |

|   |         |         |         |         |         |         |
|---|---------|---------|---------|---------|---------|---------|
| Other non-current liabilities                   | 15,19%  | 16,82%  | 14,92%  | 13,12%  | 11,52%  | 12,12%  |
| Non-current liabilities                         | 46,28%  | 47,29%  | 42,04%  | 38,75%  | 37,42%  | 35,57%  |
| Total liabilities                               | 82,03%  | 79,83%  | 73,27%  | 70,70%  | 64,28%  | 60,13%  |
| Common equity and paid in capital @ par value   | 16,34%  | 15,68%  | 13,34%  | 10,99%  | 9,56%   | 9,71%   |
| Retained earnings                               | 1,58%   | 4,62%   | 13,56%  | 19,25%  | 26,20%  | 29,96%  |
| Other comprehensive income / (loss) accumulated | 0,05%   | -0,13%  | -0,17%  | -0,94%  | -0,04%  | 0,20%   |
| Shareholders' equity                            | 17,97%  | 20,17%  | 26,73%  | 29,30%  | 35,72%  | 39,87%  |
| Total share holder equity & liabilities         | 100,00% | 100,00% | 100,00% | 100,00% | 100,00% | 100,00% |

## Ratio Analysis

| Liquidity Ratios                          |          |          |          |          |          |          |
|---|----------|----------|----------|----------|----------|----------|
| Apple Inc.                                |          |          |          |          |          |          |
| Year                                      | Sep 2021 | Sep 2020 | Sep 2019 | Sep 2018 | Sep 2017 | Sep 2016 |
| Current ratios                            | 1,07     | 1,36     | 1,54     | 1,12     | 1,28     | 1,35     |
| Quick ratios                              | 0,91     | 1,22     | 1,38     | 0,99     | 1,09     | 1,22     |
| Cash ratio                                | 0,50     | 0,86     | 0,95     | 0,57     | 0,74     | 0,85     |
| Competitor - Cisco                        |          |          |          |          |          |          |
| Current Ratios                            | 1.49     | 1.72     | 1.51     | 2.29     | 3.03     | 3.16     |
| Quick Ratios                              | 1.32     | 1.58     | 1.39     | 2.11     | 2.92     | 3.05     |
| Cash ratios                               | 0.93     | 1.16     | 1.05     | 1.72     | 2.56     | 2.64     |
| Industry- Technology Hardware & Equipment |          |          |          |          |          |          |
| Current Ratios                            | 1.34     | 1.43     | 1.53     | 1.34     | 1.65     | 1.56     |
| Quick Ratios                              | 1.18     | 1.29     | 1.39     | 1.20     | 1.48     | 1.38     |
| Cash ratios                               | 0.79     | 0.92     | 0.97     | 0.78     | 1.13     | 1.22     |

| Short-term or Operating Ratios |          |          |          |          |          |          |
|--------------------------------|----------|----------|----------|----------|----------|----------|
| Year                           | Sep 2021 | Sep 2020 | Sep 2019 | Sep 2018 | Sep 2017 | Sep 2016 |
| <i>Turnover Ratios</i>         |          |          |          |          |          |          |
| Inventory turnover             | 32,37    | 41,75    | 39,40    | 41,39    | 29,05    | 61,62    |
| Receivables turnover           | 13,92    | 17,03    | 11,35    | 11,45    | 12,82    | 13,69    |
| Payables turnover              | 3,89     | 4,01     | 3,50     | 2,93     | 2,88     | 3,52     |
| Working capital turnover       | 39,10    | 7,16     | 4,56     | 18,35    | 8,24     | 7,74     |

## Long-term Investment Ratio

| <b>Year</b>   | <b>Sep 2021</b> | <b>Sep 2020</b> | <b>Sep 2019</b> | <b>Sep 2018</b> | <b>Sep 2017</b> | <b>Sep 2016</b> |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Nett fixed asset turnover   | 9,28            | 7,47            | 6,96            | 6,43            | 6,79            | 7,98            |
| Nett asset turnover includes right-of-use asset - operating lease | 7,39            | 6,06            | 6,96            | 6,43            | 6,79            | 7,98            |
| Asset turnover Total  | 1,04            | 0,85            | 0,77            | 0,73            | 0,61            | 0,67            |

| <b>Solvency Ratio</b>                      |                 |                 |                 |                 |                 |                 |  |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| Apple Inc.                                 |                 |                 |                 |                 |                 |                 |  |
| <b>Year</b>                                | <b>Sep 2021</b> | <b>Sep 2020</b> | <b>Sep 2019</b> | <b>Sep 2018</b> | <b>Sep 2017</b> | <b>Sep 2016</b> |  |
| <b>Coverage Ratios</b>                     |                 |                 |                 |                 |                 |                 |  |
| Interest coverage                          | 42,29           | 24,35           | 19,38           | 23,50           | 28,59           | 43,15           |  |
| Fixed charge coverage                      | 26,13           | 16,34           | 14,48           | 17,42           | 19,72           | 26,63           |  |
| <b>Debt Ratios</b>                         |                 |                 |                 |                 |                 |                 |  |
| Debts to Assets                            | 0,36            | 0,35            | 0,32            | 0,31            | 0,31            | 0,27            |  |
| Debts to Equity                            | 1,99            | 1,73            | 1,19            | 1,07            | 0,86            | 0,68            |  |
| Financial leverage                         | 5,56            | 4,96            | 3,74            | 3,41            | 2,80            | 2,51            |  |
| Competitor - Cisco Systems Inc.            |                 |                 |                 |                 |                 |                 |  |
| Debts to Asset                             | 0.12            | 0.15            | 0.25            | 0.24            | 0.26            | 0.24            |  |
| Debts to Equity                            | 0.28            | 0.38            | 0.73            | 0.59            | 0.51            | 0.45            |  |
| Financial leverage                         | 2.36            | 2.50            | 2.91            | 2.52            | 1.96            | 1.91            |  |
| Interest cover                             | 31.56           | 24.88           | 17.96           | 14.83           | 15.27           | 20.11           |  |
| Fixed charge cover                         | 16.92           | 14.79           | 12.28           | 10.41           | 10.72           | 13.18           |  |
| Industry - Technology Hardware & Equipment |                 |                 |                 |                 |                 |                 |  |
| Debts to Asset                             | 0.30            | 0.30            | 0.30            | 0.30            | 0.30            | 0.32            |  |
| Debts to Equity                            | 1.10            | 1.24            | 1.07            | 0.93            | 0.75            | 0.56            |  |
| Financial leverage                         | 4.37            | 4.06            | 3.52            | 3.16            | 2.52            | 2.36            |  |
| Interest cover                             | 22.32           | 24.44           | 19.11           | 21.55           | 24.99           | 24.52           |  |
| Fixed charge cover                         | 16.30           | 16.05           | 14.02           | 15.75           | 17.30           | 16.52           |  |

The Profitability ratios indicate that the Company's potential to generate profits over a given period is significant and growing. A higher number relative to the industry or a competitor's ratio indicates that the Company performs decently.

Net income growth is frequently viewed as an indicator of a company's operational efficiency. It is influenced by a company's objectives and challenges and should be evaluated with other sales and operating income metrics.

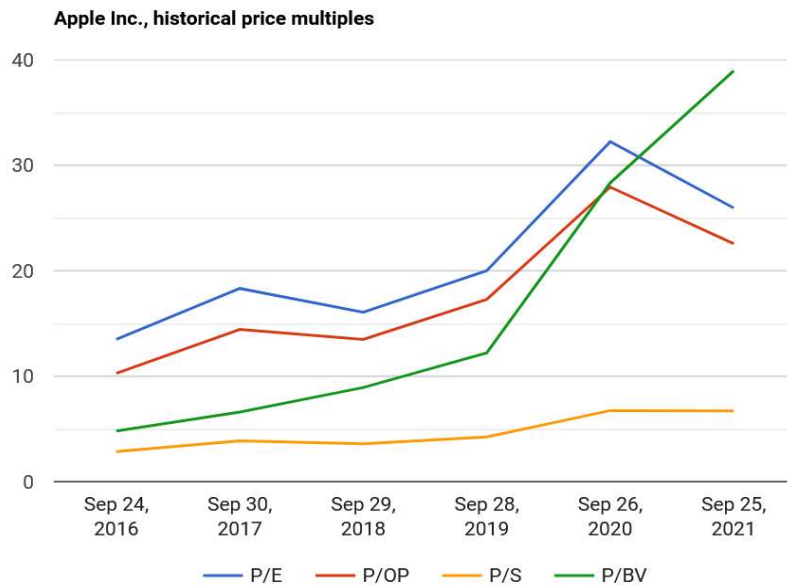
| <b>Profitability Ratio - Apple</b> |                 |                 |                 |                 |                 |                 |
|------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Year</b>                        | <b>Sep 2021</b> | <b>Sep 2020</b> | <b>Sep 2019</b> | <b>Sep 2018</b> | <b>Sep 2017</b> | <b>Sep 2016</b> |
| <b>Return on Sales</b>             |                 |                 |                 |                 |                 |                 |
| Gross profit margin (G.P)          | 41,78%          | 38,23%          | 37,82%          | 38,34%          | 38,47%          | 39,08%          |
| Operating profit margin (O.P)      | 29,78%          | 24,15%          | 24,57%          | 26,69%          | 26,76%          | 27,84%          |
| Net profit margin (N.P)            | 25,88%          | 20,91%          | 21,24%          | 22,41%          | 21,09%          | 21,19%          |

|   |         |        |        |        |        |        |
|---|---------|--------|--------|--------|--------|--------|
| <b>Return on Investment</b>                           |         |        |        |        |        |        |
| Return on equity (ROE)                                | 150,07% | 87,87% | 61,06% | 55,56% | 36,07% | 35,62% |
| Return on assets (ROA)                                | 26,97%  | 17,73% | 16,32% | 16,28% | 12,88% | 14,20% |
| <b>Competitor - Cisco Systems Inc.</b>                |         |        |        |        |        |        |
| <b>Return on Nett Sales</b>                           |         |        |        |        |        |        |
| G.P. Margin   | 64,02%  | 64,26% | 62,94% | 62,04% | 62,96% | 62,87% |
| O.P. Margin   | 25,76%  | 27,63% | 27,39% | 24,95% | 24,94% | 25,71% |
| N.P. Margin   | 21,26%  | 22,75% | 22,39% | 0,22%  | 20,02% | 21,81% |
| <b>Return on Investment</b>                           |         |        |        |        |        |        |
| Return on equity (ROE)                                | 25,66%  | 29,57% | 34,62% | 0,25%  | 14,53% | 16,89% |
| Return on assets (ROA)                                | 10,86%  | 11,82% | 11,88% | 0,10%  | 7,40%  | 8,83%  |
| <b>Industry - Technology Hardware &amp; Equipment</b> |         |        |        |        |        |        |
| <b>Return on Sales</b>                                |         |        |        |        |        |        |
| O.P Margin  | 23.56%  | 24.68% | 25.04% | 26.42% | 26.45% | 26.30% |
| N.P Margin  | 20.46%  | 21.19% | 21.43% | 18.94% | 20.91% | 20.02% |
| <b>Return on Investment</b>                           |         |        |        |        |        |        |
| Return on equity (ROE)                                | 48.52%  | 66.46% | 53.91% | 39.67% | 28.95% | 31.22% |
| Return on assets (ROA)                                | 14.89%  | 16.39% | 15.33% | 12.57% | 11.47% | 13.32% |
|   |         |        |        |        |        |        |

|                                   |                 |                 |                 |                 |                 |                 |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Apple Inc.</b>                 |                 |                 |                 |                 |                 |                 |
| <b>Historical price multiples</b> |                 |                 |                 |                 |                 |                 |
| <b>Year</b>                       | <b>Sep 2021</b> | <b>Sep 2020</b> | <b>Sep 2019</b> | <b>Sep 2018</b> | <b>Sep 2017</b> | <b>Sep 2016</b> |
| Price to earnings (P/E)           | 25,96           | 32,24           | 20,00           | 16,07           | 18,32           | 13,49           |
| Price to operating profit (P/OP)  | 22,56           | 27,92           | 17,29           | 13,49           | 14,44           | 10,27           |
| Price to sales (P/S)              | 6,72            | 6,74            | 4,25            | 3,60            | 3,86            | 2,86            |
| Price to book value (P/BV)        | 38,96           | 28,33           | 12,21           | 8,93            | 6,61            | 4,81            |

|                                       |                 |                 |                 |                 |                 |                 |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Cisco Systems Inc. – Peer firm</b> |                 |                 |                 |                 |                 |                 |
| <b>Historical multiples - Price</b>   |                 |                 |                 |                 |                 |                 |
| <b>Year</b>                           | <b>Jul 2021</b> | <b>Jul 2020</b> | <b>Jul 2019</b> | <b>Jul 2018</b> | <b>Jul 2017</b> | <b>Jul 2016</b> |
| Price to earnings (P/E)               | 23,34           | 15,46           | 17,69           | 16,84           | 16,37           | 14,69           |
| Price to operating profit (P/O.P)     | 19,26           | 12,73           | 14,46           | 17,56           | 13,14           | 12,46           |
| Price to nett sales (P/Sales)         | 4,96            | 3,52            | 3,96            | 4,38            | 3,28            | 3,20            |
| Price to book value (P/BKV)           | 5,99            | 4,57            | 6,12            | 5,00            | 2,38            | 2,48            |

## Question 5



There is a continuous increase in price multiples over the period, and we notice a correlation between the price to earnings and the price to operational profit ratios. This is an indication that dividends are being paid out from operating profits.

| Current price multiples                      |                   |                           |  |                               |
|--|-------------------|---------------------------|--|-------------------------------|
|  | Apple             | Cisco                     | Tech, Hardware and Equipment               | Information Tech              |
| <b>Financial Data</b>                        |                   |                           |  |                               |
| Price per share (P)                          | \$166,30          | \$56.04                   |  |                               |
| Number of common shares outstanding          | 16 319 441 000    | 4,154,168,000             |  |                               |
| Growth rate (G)                              | 46,62%            | 11.17%                    |  |                               |
| Earnings per share (E.P.S)                   | \$5,80            | \$2.55                    |  |                               |
| Next year's expected E.P.S                   | \$8,56            | \$2.83                    |  |                               |
| Operating profit per share                   | \$6,68            | \$3.09                    |  |                               |
| Sales / share                                | \$22,42           | \$11.99                   |  |                               |
| Book value / share (B.V.P.S)                 | \$3,87            | \$9.94                    |  |                               |
|  |                   |                           |  |                               |
|  | <b>Apple Inc.</b> | <b>Cisco Systems Inc.</b> | <b>Technology Hardware &amp; Equipment</b> | <b>Information Technology</b> |
| <b>Multiples of price - Valuation Ratios</b> |                   |                           |  |                               |
| Price to earnings (P/E)                      | 28,84             | 22,78                     | 43,30                                      | 43,29                         |
| Price to next year expected earnings         | 19,54             | 20,49                     | 32,85                                      | 36,28                         |
| Price-earnings-growth (PEG)                  | 0,61              | 2,04                      | 1,36                                       | 2,24                          |

|                                  |       |       |       |       |
|----------------------------------|-------|-------|-------|-------|
| Price to operating profit (P/OP) | 25,06 | 18,80 | 37,19 | 36,80 |
| Price to sales (P/S)             | 7,46  | 4,84  | 9,18  | 9,49  |
| Price to book value (P/B.V.)     | 43,28 | 5,85  | 28,78 | 13,88 |

From the investor's perspective, their concern lies with the future performance of the Company and how much of a return their investment will yield, both dividends and capital gains. The dominant observation is that performance is somewhat volatile between 2016 and 2021, which translates into the volatility of returns. Conservative investors would therefore be cautious about investing in the Company.

In 2021, revenues were higher by a more significant percentage at Apple Inc. than at Cisco, indicating that apple weathered the exogenous shock, likely from the impacts of Covid19, better than Cisco. The two firms have responded accordingly. Due to increased sales, Apple increased its gross margin by about 10%, translating into an approximate 20% increase in net profits in 2021. Cisco's gross profit margin has remained relatively constant over the last five years. Cisco's net profits reduced by about 10% in 2021, indicating less efficiency in operations than Apple. It should be noted that Apple is approximate twice the size of Cisco's revenue and balance sheet.

The longer-term trend reflects a lower net profit margin on average at Cisco than at apple. Higher volatility in the net profit margin at Cisco than the peer firm.

Apple's return on equity and assets has consistently improved over time with reduced volatility. However, Cisco's equity and assets returns are slightly erratic and lower.

During the pandemic, we establish higher growth than the peer and overall industry from the balance sheet. An increase in equity capital is higher than in the general industry. The Company's price multiple is less than the benchmark's price multiple, indicating an undervalued stock.

Apple Inc.'s price to earnings ratio is much lower than the peer group median: about 43. According to these indicators, Apple Inc.'s firm valuation is significantly lower than the market valuation of its peer group. Apple Inc.'s price multiples are much better than the peer firm in most respects and then the industry. According to these measurements, Apple Inc.'s business valuation is significantly higher than the market valuation of its sector.

Apple Inc.'s P/Earnings ratio is much higher than its historical 5-year average: 20.9. Apple Inc.'s (current) firm valuation is significantly higher than its valuation average over the last five years.

We can indicate that the earnings are high quality as the reported amount is relatively uninfluenced by estimates. Therefore, we conclude that the Company's general objective is to create value for its shareholders while maintaining a solid financial position. It is sustained by the excellent trajectory in the price to book value and the price to sales ratio. Earnings were reduced in 2021 as a result of the impacts of Covid19. Apple Inc.'s current valuation of the stock stands around 167\$ in 2021, which has seen tremendous growth over the years mainly because of Apple's innovative and bold decisions in the competitive market.

## Du Pont Analysis

### Apple

#### Components of ROE

|          | Return On Equity | = | N.P Margin | × | Assets Turnover | × | Financial Leverage |
|----------|------------------|---|------------|---|-----------------|---|--------------------|
| Sep 2021 | 150,07%          |   | 25,88%     |   | 1,04            |   | 5,56               |
| Sep 2020 | 87,87%           |   | 20,91%     |   | 0,85            |   | 4,96               |
| Sep 2019 | 61,06%           |   | 21,24%     |   | 0,77            |   | 3,74               |
| Sep 2018 | 55,56%           |   | 22,41%     |   | 0,73            |   | 3,41               |
| Sep 2017 | 36,07%           |   | 21,09%     |   | 0,61            |   | 2,80               |
| Sep 2016 | 35,62%           |   | 21,19%     |   | 0,67            |   | 2,51               |

The DuPont analysis is a popular combination of the margin on sales, efficiency, and long-term solvency ratios. The DuPont analysis reveals that Apple is improving its asset turnover rate by increasing efficiency in utilising assets whilst increasing its financial leverage, returning significant growth for the Company and its shareholders. We notice that profit margins are robust, that the Company's management is making sufficient profit from its sales and operational costs, and that overhead costs are contained. I would recommend apple as an investment due to anticipated massive future cash flows and the financially healthy business operations sustained by growth over the years.

We will examine the liquidity, solvency, and working capital from the standpoint of a credit analyst.

Liquidity ratios calculate metrics such as the current, quick ratio, operating cash flow, and current liability ratios to liquid assets to establish the coverage of short-term loans in an emergency.

The solvency ratio is one of the numerous ratios used to analyse a company's capability to satisfy long-term financial commitments and obligations. Furthermore, the solvency ratio compares a company's total debt commitments to its after-tax income (excluding non-cash depreciation charges). We have already proved that the Company can meet its production and demand targets while maintaining its operational capital.

Apple also has a solid cash position on its balance sheet, with about 60 billion in unrestricted cash, giving the tech behemoth an unrivalled liquidity profile with significant financial flexibility.

The debt-to-equity ratio has risen over the last five years as the Company has taken on more debt to fund share buybacks, raise dividends, and expand.

Return on capital ratios indicates that the Company uses its capital ( assets, equity, capital employed) to generate profits. These ratios illustrate how much money is earned for every dollar invested in layman's terms.

After paying its operating expenses and capital expenditures, the money a company has left over is free cash flow (FCF). Apple has a healthy free cash flow to devote more to dividends, debt reduction, and expansion prospects. Even though free cash flow is declining, it is not necessarily bad as the Company is investing in its growth supported by the return on capital employed, equity and return on assets ratio.

I believe Apple has benefited from the sustained momentum in the Services category and strong performances from the iPhone, iPad, and Mac.

Apple's Services division has emerged as the Company's new cash cow. Apple forecasts revenue for each product category to increase year over year, except for the iPad, likely to drop due to supply problems. Supply chain constraints caused by a scarcity of silicon and COVID-related manufacturing bottlenecks remain a challenge. As a credit analyst, I can cautiously lend funds to apple for further business development and growth.

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