



Company Overview for 2017-2021: Apple vs Microsoft

Munisa Abdulkarimova¹, Prof. Abduraim Vahobov², Prof. Vijay Shenai³

¹Samarkand Institute of Economics and Service

²National University of Uzbekistan

³Cardiff Metropolitan University

ABSTRACT: The paper is devoted to company analysis and company stock trend analysis for two giants in electronics hardware and software market: Apple Inc. and Microsoft Corp. All data was derived from the companies' annual reports and some other referenced websites. Analysis has been plotted using Python including and excluding the most recent year due to data availability.

KEYWORDS: Apple Inc., Microsoft Corp., Financial Analysis

SALES AND STOCK MARKET DEVELOPMENT

In 1976 Steve Jobs, Steve Wozniak and Ronald Wayne founded Apple Computer Inc., renamed as Apple Inc. in 2007, which corporate headquarters located in Cupertino, California. The company started its business initially with personal computers and laser printers, from 2001 presented its portable digital audio players, iPods, iTouches, iPhones and iPads and in 2011, services such as Siri and iCloud. Apple Inc. has been significantly pioneering in highly competitive electronics market through more dedicated and loyal customer base and continually innovating its products. It also significantly improved its software products such as AirPlay, FaceTime, iCloud, iCloud Drive, iOS, iPadOS, macOS, Xcode.

Currently Apple's assigned CEO is Tim Cook. As for FY2020 it has around 147,000 employees, operates its manufacturing mainly in China and manages its sales through more than 450 retail stores in 16 countries besides its third-party cellular network carriers, wholesalers, and online distribution markets.

The iPhone represents over 50% of Apple's revenue in 2020, though iPhone sales recently slumped, dropping from \$142 billion in 2019 to \$137 billion in 2020. Apple charges premium prices across all its products, which cause lower-priced smartphones take market share in developing countries. Apple has also long been criticized for its incompatibility with other software.

Despite Apple stores closed in China as a result of the coronavirus, total sales for 2020 has not been plummeted from total sales in 2019.



Table 1. Apple sales by products through 2017-2020 years, in thousand dollars (Adapted from the annual reports of Apple Inc.)

year	iphone	mac	ipad	wearables	services
2020	137781	28622	23724	30620	53768
2019	142381	25740	21280	24291	46291
2018	166699	25484	18805	17417	37190
2017	141319	25850	19222	12863	29980

Table 2. Apple sales by regions through 2017-2020 years (Adapted from the annual reports of Apple Inc.)

region_thous_dollars	2020	2019	2018	2017
US	124556	116914	112093	96600
other countries:	149959	143260	153502	132634
Europe	68640	60288	62420	54938
China	40308	43678	51942	44764
Japan	21418	21506	21733	17733
rest of Asia Pacific	19593	17788	17407	15199

Microsoft Corporation was founded in 1975 by Paul Allen and Bill Gates. The company sells operating systems, cross-device productivity applications, server application, business solution applications, desktop and server management tools, software development tools, video games, training and certification of computer system integrators and developers. It is headquartered in Redmond, Washington and has offices in more than 190 countries with around 166,475 employees (as for FY2020). Satya Nadella is currently in charge of Microsoft.

Microsoft is one of the leading players in the software industry through its Windows operating system and office utility tools. Its sales of server products and office products along with their cloud services accounted for more than half of total sales in 2020. Microsoft ranks one of the five largest cloud service providers among with AWS, IBM, Oracle and Google.

Unstable cybersecurity and unsuccessful acquisitions like WebTV, LinkExchange, Massive and Danger have been the biggest weaknesses of Microsoft.



Table 3. Microsoft sales by products through 2017-2020 years, in thousand dollars. (Adapted from the annual reports of Microsoft corporation)

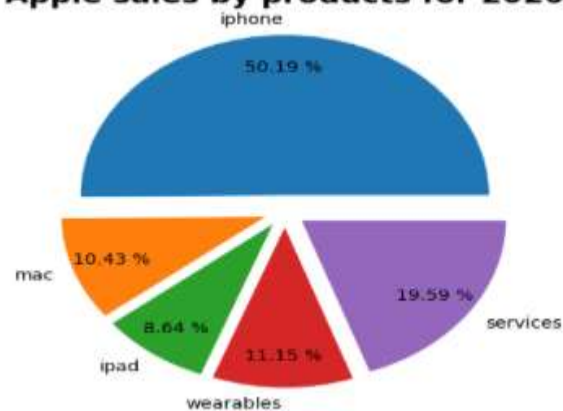
year	server_products_and_cloud_services	office_products_and_cloud_services	Windows	gaming	LinkedIn	search_advertising	devices	enterprise_services	other
2017	21649	25573	18593	9051	6219	2271	5542	5062	2611
2018	26129	28316	19518	10353	5259	7012	5134	5846	2793
2019	32622	31769	20395	11386	6759	7628	6095	6124	3070
2020	41379	35316	22294	11575	8077	7740	6457	6409	3768

Table 4. Microsoft sales by regions through 2017-2020 years (Adapted from the annual reports of Microsoft Corporation)

regions_thous_dollars	2020	2019	2018	2017
US	73160	64199	55926	51078
Other countries	69855	61644	54434	45493

Figure 1. Apple and Microsoft sales by products for FY2020

Apple sales by products for 2020



Microsoft sales by products for 2020

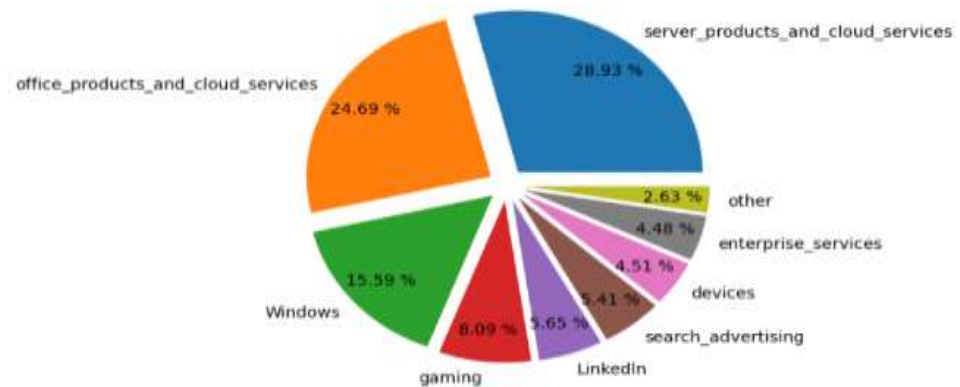




Figure 2. Apple and Microsoft sales by products through 2017-2020 years

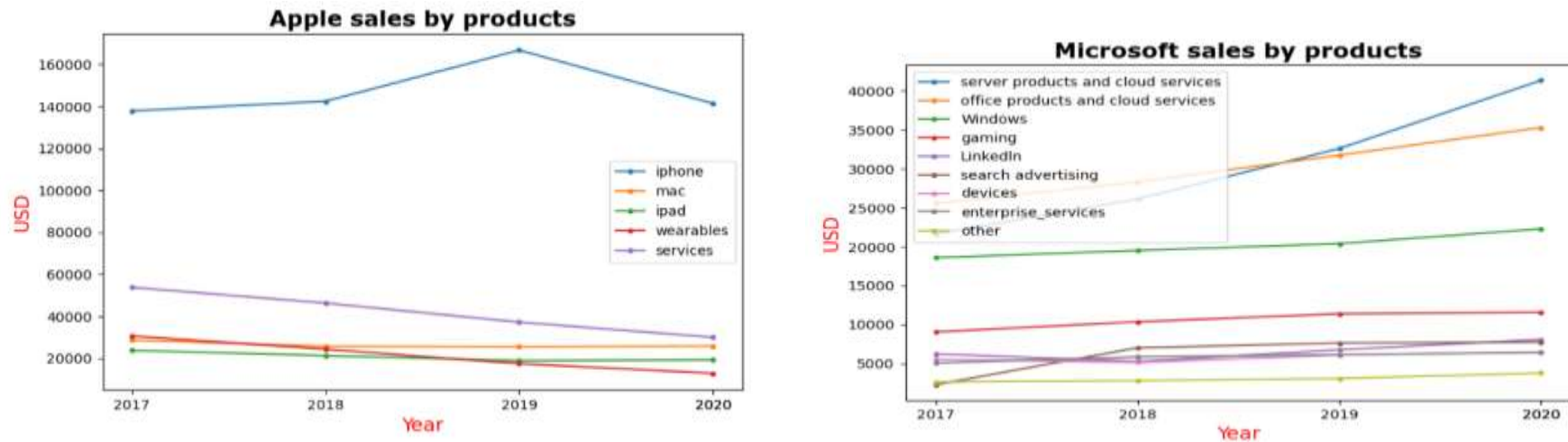
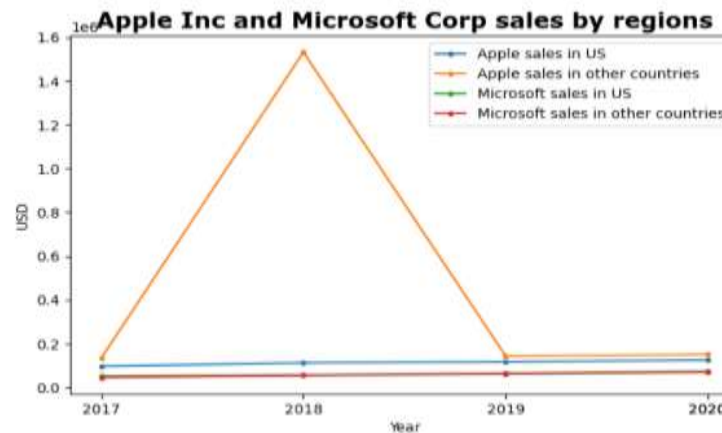


Figure 3. Apple and Microsoft sales by regions through 2017-2020 years





From 2017 to 2020 Microsoft sales were equally distributed to both US and other countries, while Apple had been highly selling to other countries by 2019.

Table 5. Apple and Microsoft sales forecast for 2021-2025

year	APPLE	MICROSOFT
2017	\$229,234,000,000	\$89,950,000,000
2018	\$265,595,000,000	\$110,360,000,000
2019	\$260,174,000,000	\$125,843,000,000
2020	\$274,515,000,000	\$143,015,000,000
2021	\$257,379,500,000	\$117,292,000,000
2022	\$264,415,875,000	\$124,127,500,000
2023	\$264,121,093,750	\$127,569,375,000
2024	\$265,107,867,188	\$128,000,968,750
2025	\$262,756,083,984	\$124,247,460,938

In table 5, sales of both companies were extrapolated with 5-period moving average till 2025, assuming, that sales keep same growth trend.

The latest closing stock price for Apple as of July 09, 2021 was 145.11, and for Microsoft it was 277.94. As can be seen from the figures below, stock trends of both companies have resembling patterns with their spikes and declines. Stock prices and market cap of the companies has changed as shown in the tables below, more detailed look can be found in <https://github.com/Muniska/Project>.



Table 6. Apple and Microsoft stock price trends through 2017-2021 yy.

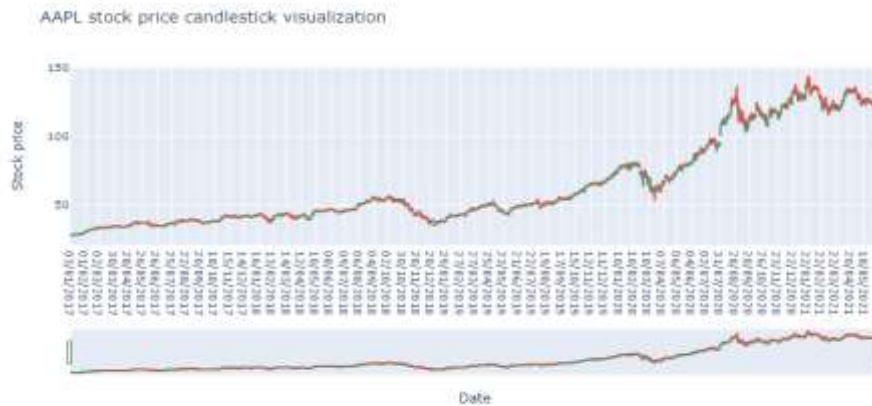
	date	open	high	low	close	volume	average_price	market_cap
0	03/01/2017	27.3275	27.4528	27.0821	27.4101	115127480	27.28735	3155.855191
1	04/01/2017	27.3393	27.4951	27.3157	27.3795	84472484	27.40540	2312.813828
2	05/01/2017	27.3559	27.5787	27.3299	27.5187	88774348	27.45430	2442.954650
3	06/01/2017	27.5588	27.8845	27.4857	27.8255	127007600	27.68510	3534.049974
4	09/01/2017	27.8349	28.1842	27.8328	28.0803	134247792	28.00840	3769.718274
...
1115	09/08/2021	127.2100	127.7500	126.5200	127.1300	55584187	127.13500	7066.417693
1116	10/08/2021	127.0200	128.1900	125.9400	126.1100	70808505	127.08500	8904.188346
1117	11/08/2021	126.5300	127.4400	126.1000	127.3500	52839952	126.77000	6729.167887
1118	14/08/2021	127.8200	130.5400	127.0700	130.4800	96908490	128.80500	12644.358815
1119	15/08/2021	129.8400	130.8000	129.3900	129.6400	80771136	129.99500	7878.370071

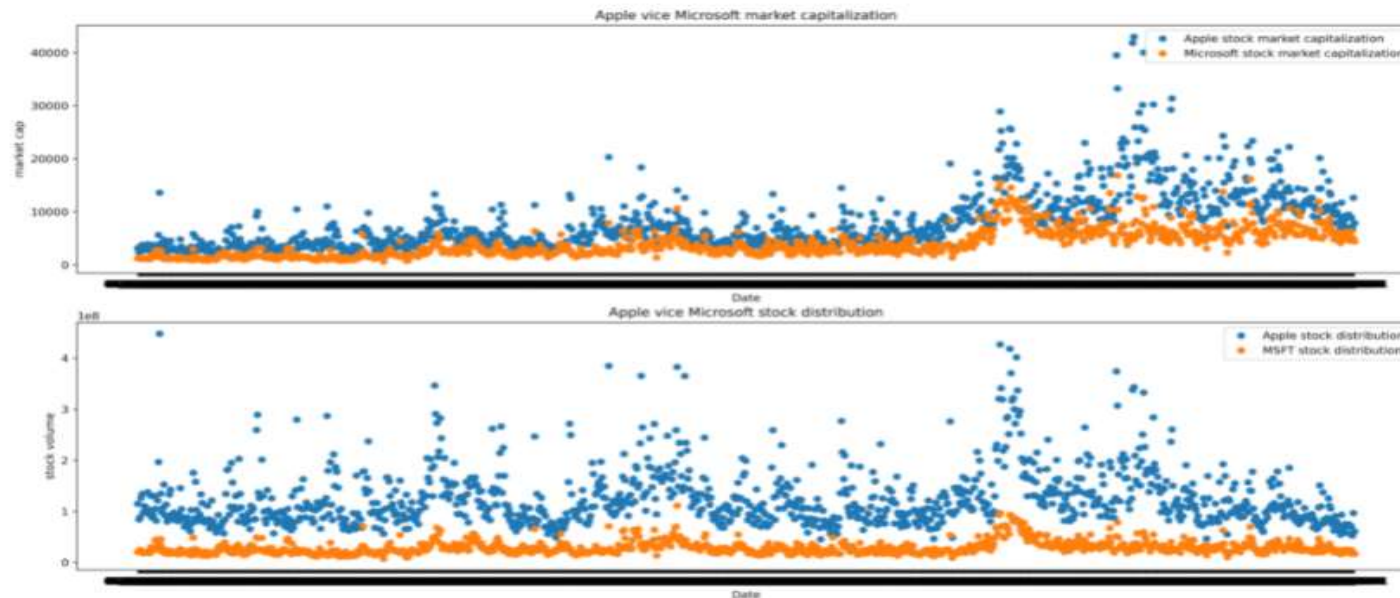
1120 rows × 8 columns

	date	open	high	low	close	volume	average_price	market_cap
0	03/01/2017	58.8008	58.8475	58.1779	58.6040	20894101	58.51270	1212.757095
1	04/01/2017	58.5103	58.7632	58.1732	58.3418	21339989	58.46820	1245.012203
2	05/01/2017	58.2388	58.6789	58.0889	58.3418	24875988	58.38390	1451.308750
3	06/01/2017	58.3418	59.1378	58.0983	58.8475	19922919	58.81805	1172.413976
4	09/01/2017	58.7725	59.0722	58.5665	58.6602	20382730	58.81935	1195.655018
...
1115	09/08/2021	253.8100	255.5300	253.2100	253.5900	17873688	254.37000	4532.583468
1116	10/08/2021	254.2900	257.4600	253.6700	257.2400	24422932	255.58500	6282.555028
1117	11/08/2021	257.9850	258.4888	256.6100	257.8900	18791793	257.54840	4846.215497
1118	14/08/2021	257.9000	259.9500	256.8000	259.8900	19150507	258.37500	4977.025264
1119	15/08/2021	259.7750	259.9900	257.6800	258.3600	17034100	258.83500	4400.930076

1120 rows × 8 columns

Figure 4. Apple and Microsoft stock market development visualizations for 2017-2021 yy.





INCOME STATEMENT ANALYSIS FOR 2017-2020

Apple's gross profit has not changed significantly through last four years, accounting for around 38% of total revenue. There were decline in operating income and EBIT in 2019. Apple's earnings per share have been rising from \$2.32 to \$3.31.

Microsoft has been improving its gross profit from 62% to 68% total revenue. It has been cutting largely its non-operating income expenses. Microsoft's operating income and EBIT has risen for around 20% in 2019. The company's earnings per share increased from \$2.74 to \$5.82.



Table 7. Apple Inc. Income statement vertical and horizontal analysis (Adapted from the annual reports of Apple)

Indicator_IS	amount2020	percentage2020	amount2019	percentage2019	amount2018	percentage2018	amount2017	percentage2017	change2020	percentage_change2020	change2019	percentage_change2019	change2018	percentage_change2018
total_revenue	\$274,515,000,000	100.00%	\$260,174,000,000	100.00%	\$265,595,000,000	100.00%	\$229,234,000,000	100.00%	\$14,541,000,000	5.51%	\$-5,421,000,000	-2.04%	\$36,361,000,000	15.86%
cost_of_revenue	\$169,559,000,000	61.77%	\$161,752,000,000	62.18%	\$163,756,000,000	61.66%	\$141,048,000,000	61.53%	\$7,777,000,000	4.81%	\$-1,974,000,000	-1.21%	\$22,708,000,000	16.10%
gross_profit	\$104,956,000,000	38.23%	\$98,392,000,000	37.82%	\$101,839,000,000	38.34%	\$88,186,000,000	38.47%	\$6,564,000,000	6.67%	\$-3,447,000,000	-3.38%	\$13,653,000,000	15.48%
Selling_general_and_administrative	\$19,916,000,000	7.25%	\$18,245,000,000	7.01%	\$16,705,000,000	6.29%	\$15,261,000,000	6.66%	\$1,671,000,000	9.16%	\$1,540,000,000	8.22%	\$1,444,000,000	9.46%
Research_and_development	\$18,752,000,000	6.83%	\$16,217,000,000	6.23%	\$14,236,000,000	5.36%	\$11,581,000,000	5.05%	\$2,555,000,000	15.63%	\$1,961,000,000	13.82%	\$2,655,000,000	22.92%
total_operating_expenses	\$38,668,000,000	14.09%	\$34,462,000,000	13.25%	\$30,941,000,000	11.65%	\$26,842,000,000	11.71%	\$4,206,000,000	12.20%	\$3,521,000,000	11.36%	\$4,059,000,000	15.27%
operating_income	\$66,288,000,000	24.15%	\$63,930,000,000	24.57%	\$70,898,000,000	26.69%	\$61,344,000,000	26.76%	\$2,358,000,000	3.69%	\$-6,968,000,000	-8.83%	\$9,554,000,000	15.57%
interest_income_non_operating	\$3,763,000,000	1.37%	\$4,961,000,000	1.91%	\$5,686,000,000	2.14%	\$5,201,000,000	2.27%	\$-1,198,000,000	-24.15%	\$-725,000,000	-12.75%	\$465,000,000	8.33%
interest_expense_non_operating	\$2,873,000,000	1.05%	\$3,576,000,000	1.37%	\$3,240,000,000	1.22%	\$2,323,000,000	1.01%	\$-703,000,000	-19.66%	\$338,000,000	10.37%	\$917,000,000	39.47%
net_non_operating_interest_income	\$890,000,000	0.32%	\$1,385,000,000	0.53%	\$2,446,000,000	0.92%	\$2,878,000,000	1.26%	\$-485,000,000	-35.74%	\$-1,061,000,000	-43.38%	\$-432,000,000	-15.01%
other_non_operating_income_expense	\$87,000,000	0.03%	\$422,000,000	0.16%	\$441,000,000	0.17%	\$133,000,000	0.06%	\$-335,000,000	-79.38%	\$-19,000,000	-4.31%	\$308,000,000	231.58%
pretax_income	\$67,091,000,000	24.44%	\$65,737,000,000	25.27%	\$72,903,000,000	27.45%	\$64,089,000,000	27.96%	\$1,354,000,000	2.09%	\$-7,166,000,000	-8.83%	\$8,814,000,000	13.75%
tax_provision	\$9,680,000,000	3.53%	\$10,481,000,000	4.03%	\$13,372,000,000	5.03%	\$15,738,000,000	6.87%	\$-801,000,000	-7.64%	\$-2,891,000,000	-21.62%	\$-2,366,000,000	-15.03%
net_income_common_stockholders	\$57,411,000,000	20.91%	\$55,256,000,000	21.24%	\$59,531,000,000	22.41%	\$48,351,000,000	21.09%	\$2,155,000,000	3.90%	\$-4,275,000,000	-7.18%	\$11,180,000,000	23.12%
basic_EPS	\$3.31		\$2.99		\$3.00		\$2.32		\$0.32	10.60%	\$-0.01	-0.40%	\$0.68	29.63%
diluted_EPS	\$3.28		\$2.97		\$2.98		\$2.30		\$0.30	10.23%	\$-0.01	-0.17%	\$0.67	29.32%
basic_average_shares	17352118000		18471336000		19621508000		20860968000		-1119217000	-6.04%	-1350172000	-6.81%	-1047483000	-5.02%
diluted_average_shares	17528214000		18595852000		20000436000		21006768000		-1067458000	-5.74%	-1404784000	-7.02%	-1006332000	-4.79%
total_operating_income_as_reported	\$66,288,000,000	24.15%	\$63,930,000,000	24.57%	\$70,898,000,000	26.69%	\$61,344,000,000	26.76%	\$2,358,000,000	3.69%	\$-6,968,000,000	-8.83%	\$9,554,000,000	15.57%
total_expenses	\$208,227,000,000	75.85%	\$196,244,000,000	75.43%	\$194,697,000,000	73.31%	\$167,890,000,000	73.24%	\$11,963,000,000	6.11%	\$1,547,000,000	0.79%	\$26,807,000,000	15.97%
normalized_income	\$57,411,000,000	20.91%	\$55,256,000,000	21.24%	\$59,531,000,000	22.41%	\$48,351,000,000	21.09%	\$2,155,000,000	3.90%	\$-4,275,000,000	-7.18%	\$11,180,000,000	23.12%
interest_income	\$3,763,000,000	1.37%	\$4,961,000,000	1.91%	\$5,686,000,000	2.14%	\$5,201,000,000	2.27%	\$-1,198,000,000	-24.15%	\$-725,000,000	-12.75%	\$465,000,000	8.33%
interest_expense	\$2,873,000,000	1.05%	\$3,576,000,000	1.37%	\$3,240,000,000	1.22%	\$2,323,000,000	1.01%	\$-703,000,000	-19.66%	\$338,000,000	10.37%	\$917,000,000	39.47%
net_interest_income	\$890,000,000	0.32%	\$1,385,000,000	0.53%	\$2,446,000,000	0.92%	\$2,878,000,000	1.26%	\$-485,000,000	-35.74%	\$-1,061,000,000	-43.38%	\$-432,000,000	-15.01%
EBIT	\$69,964,000,000	25.49%	\$69,318,000,000	26.64%	\$76,143,000,000	28.67%	\$66,412,000,000	28.97%	\$651,000,000	0.94%	\$-6,830,000,000	-8.97%	\$9,731,000,000	14.65%
reconciled_depreciation	\$11,056,000,000	4.03%	\$12,547,000,000	4.82%	\$10,903,000,000	4.11%	\$10,157,000,000	4.43%	\$-1,491,000,000	-11.86%	\$1,644,000,000	15.08%	\$746,000,000	7.34%
normalized_EBITDA	\$81,000,000,000	29.51%	\$81,860,000,000	31.48%	\$87,046,000,000	32.77%	\$76,569,000,000	33.40%	\$-840,000,000	-1.03%	\$-5,186,000,000	-5.96%	\$10,477,000,000	13.68%

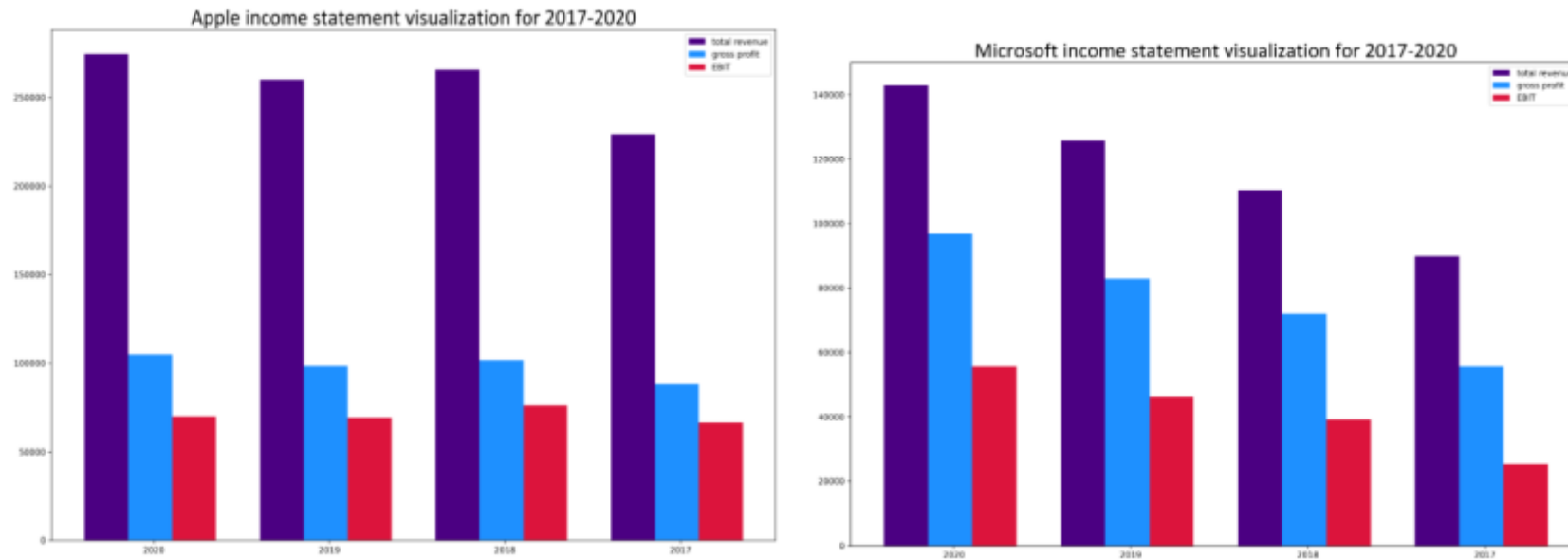


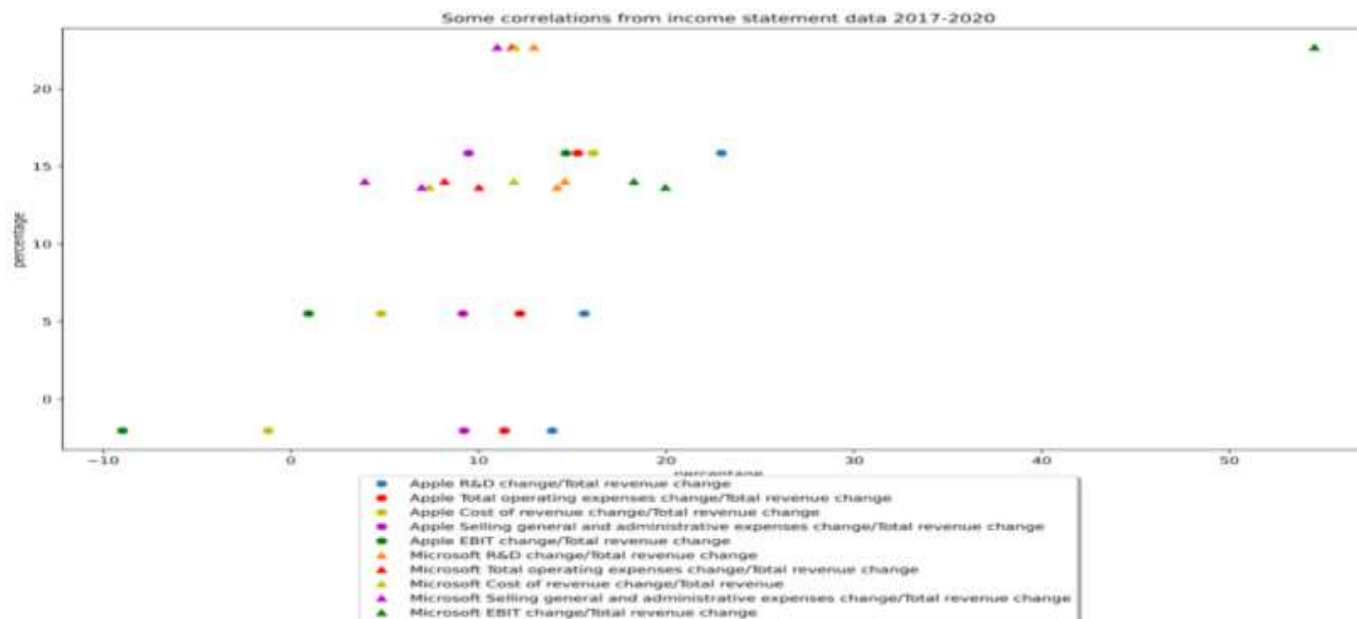
Table 8. Microsoft Income statement vertical and horizontal analysis (Adapted from the annual reports of Microsoft Corp.)

Indicator_IS	amount2020	percentage2020	amount2019	percentage2019	amount2018	percentage2018	amount2017	percentage2017	change2020	percentage_change2020	change2019	percentage_change2019	change2018	percentage_change2018
total_revenue	\$143,013,000,000	100.00%	\$125,643,000,000	100.00%	\$110,360,000,000	100.00%	\$89,950,000,000	100.00%	\$17,172,000,000	19.65%	\$15,483,000,000	14.03%	\$20,410,000,000	22.69%
cost_of_revenue	\$46,076,000,000	32.22%	\$42,910,000,000	34.10%	\$38,353,000,000	34.75%	\$34,261,000,000	38.09%	\$3,168,000,000	7.36%	\$4,337,000,000	11.66%	\$4,092,000,000	11.94%
gross_profit	\$96,937,000,000	67.78%	\$82,933,000,000	65.90%	\$72,007,000,000	65.25%	\$55,689,000,000	61.91%	\$14,004,000,000	16.89%	\$10,926,000,000	15.17%	\$16,318,000,000	29.30%
Selling_general_and_administrative	\$24,709,000,000	17.28%	\$23,098,000,000	18.35%	\$22,223,000,000	20.14%	\$20,020,000,000	22.26%	\$1,611,000,000	6.87%	\$875,000,000	3.94%	\$2,203,000,000	11.00%
Research_and_development	\$19,269,000,000	13.47%	\$16,878,000,000	13.41%	\$14,726,000,000	13.34%	\$13,037,000,000	14.49%	\$2,383,000,000	14.38%	\$2,150,000,000	14.60%	\$1,669,000,000	12.96%
total_operating_expenses	\$43,978,000,000	30.75%	\$39,974,000,000	31.76%	\$36,949,000,000	33.48%	\$33,057,000,000	36.75%	\$4,004,000,000	10.02%	\$3,025,000,000	8.19%	\$3,892,000,000	11.77%
operating_income	\$52,959,000,000	37.03%	\$42,959,000,000	34.14%	\$35,056,000,000	31.77%	\$22,632,000,000	25.16%	\$10,000,000,000	23.28%	\$7,901,000,000	22.54%	\$12,426,000,000	54.90%
interest_income_non_operating														
interest_expense_non_operating	\$2,591,000,000	1.81%	\$2,686,000,000	2.13%	\$2,733,000,000	2.48%	\$2,222,000,000	2.47%	\$-95,000,000	-3.54%	\$-47,000,000	-1.72%	\$511,000,000	23.00%
net_non_operating_interest_income	\$-2,591,000,000	-1.81%	\$-2,686,000,000	-2.13%	\$-2,733,000,000	-2.48%	\$-2,222,000,000	-2.47%	\$95,000,000	-3.54%	\$47,000,000	-1.72%	\$-511,000,000	-23.00%
other_non_operating_income_expense	\$2,668,000,000	1.87%	\$3,415,000,000	2.71%	\$4,145,000,000	3.76%	\$133,000,000	0.15%	\$-747,000,000	-21.87%	\$-734,000,000	-17.69%	\$4,016,000,000	3019.53%
pretax_income	\$53,036,000,000	37.08%	\$43,688,000,000	34.72%	\$36,474,000,000	33.05%	\$23,148,000,000	25.74%	\$9,348,000,000	21.42%	\$7,214,000,000	19.78%	\$13,325,000,000	57.56%
tax_provision	\$8,755,000,000	6.12%	\$4,448,000,000	3.53%	\$19,903,000,000	18.03%	\$1,945,000,000	2.16%	\$4,307,000,000	96.83%	\$-15,455,000,000	-77.65%	\$17,938,000,000	923.29%
net_income_common_stockholders	\$44,281,000,000	30.96%	\$39,240,000,000	31.18%	\$16,571,000,000	15.02%	\$21,204,000,000	23.57%	\$5,041,000,000	12.65%	\$22,669,000,000	136.80%	\$-4,633,000,000	-21.85%
basic_EPS	\$5.82		\$5.11		\$2.15		\$2.74		\$1	13.76%	\$3	137.63%	\$-1	-21.38%
diluted_EPS	\$5.76		\$5.06		\$2.13		\$2.71		\$1	13.67%	\$3	136.05%	\$-1	-21.47%
basic_average_shares	7610000000		7673000000		7700000000		7746000000		\$-63,000,000	-0.82%	\$-27,000,000	-0.35%	\$-46,000,000	-0.59%
diluted_average_shares	7685000000		7730000000		7794000000		7832000000		\$-70,000,000	-0.90%	\$-41,000,000	-0.53%	\$-38,000,000	-0.49%
total_operating_income_as_reported	\$52,959,000,000	37.03%	\$42,959,000,000	34.14%	\$35,056,000,000	31.77%	\$22,632,000,000	25.16%	\$10,000,000,000	23.28%	\$7,901,000,000	22.54%	\$12,426,000,000	54.90%
total_expenses	\$90,056,000,000	62.97%	\$62,864,000,000	65.86%	\$75,302,000,000	68.23%	\$67,318,000,000	74.84%	\$7,172,000,000	8.83%	\$7,582,000,000	10.07%	\$7,964,000,000	11.86%
normalized_income	\$44,281,000,000	30.96%	\$39,240,000,000	31.18%	\$16,571,000,000	15.02%	\$21,204,000,000	23.57%	\$5,041,000,000	12.65%	\$22,669,000,000	136.80%	\$-4,633,000,000	-21.85%
interest_income														
interest_expense	\$2,591,000,000	1.81%	\$2,686,000,000	2.13%	\$2,733,000,000	2.48%	\$2,222,000,000	2.47%	\$-95,000,000	-3.54%	\$-47,000,000	-1.72%	\$511,000,000	23.00%
net_interest_income	\$-2,591,000,000	-1.81%	\$-2,686,000,000	-2.13%	\$-2,733,000,000	-2.48%	\$-2,222,000,000	-2.47%	\$95,000,000	-3.54%	\$47,000,000	-1.72%	\$-511,000,000	-23.00%
EBIT	\$55,627,000,000	38.90%	\$46,374,000,000	36.85%	\$39,207,000,000	35.53%	\$25,371,000,000	28.21%	\$9,253,000,000	19.95%	\$7,167,000,000	18.28%	\$13,536,000,000	54.53%
reconciled_depreciation	\$12,795,000,000	8.95%	\$11,682,000,000	9.28%	\$10,261,000,000	9.30%	\$8,778,000,000	9.76%	\$1,114,000,000	9.54%	\$1,421,000,000	13.89%	\$1,483,000,000	16.89%
total_intangible_assets	\$2,708,000,000	1.89%	\$3,472,000,000	2.76%	\$4,208,000,000	3.81%	\$2,990,000,000	3.32%	\$-764,000,000	-22.00%	\$-736,000,000	-17.49%	\$1,218,000,000	40.74%
normalized_EBITDA	\$65,713,000,000	45.95%	\$54,584,000,000	43.37%	\$45,260,000,000	41.01%	\$31,159,000,000	34.64%	\$11,131,000,000	20.39%	\$9,324,000,000	23.60%	\$14,101,000,000	45.25%



Figure 5. Apple and Microsoft income statement visualizations for 2017-2020





BALANCE SHEET ANALYSIS FOR 2017-2020

Apple's assets had been decreasing from 2017 to 2020. If in 2017 total current assets of the company accounted for 34.28% total assets, in 2020 it reached 44.37% of total assets. However total liabilities also surged in 2018 and 2020 years.

Microsoft's assets on the contrary were increasing from 2017 to 2020. Total current assets of the company accounted for 66.30% of total assets in 2017, which plumped to 60.37% in 2020. Although total liabilities had not changed over time, its share in total assets had been less than that in 2017.



Table 9. Apple Inc. Balance sheet vertical and horizontal analysis (Adapted from the annual reports of Apple)

Indicator_B5	amount2020	percentage2020	amount2019	percentage2019	amount2018	percentage2018	amount2017	percentage2017	change2020	percentage_change2020	change2019	percentage_change2019	change2018	percentage_change2018
Total_assets	\$323,888,000,000	100.00%	\$336,516,000,000	100.00%	\$365,725,000,000	100.00%	\$375,319,000,000	100.00%	\$-14,628,000,000	-4%	\$-27,209,000,000	-7.44%	\$-9,594,000,000	-2.56%
cash&cash_equivalents_short term investments	\$60,943,000,000	26.08%	\$100,557,000,000	29.71%	\$66,301,000,000	18.13%	\$74,181,000,000	19.76%	\$-8,614,000,000	-10%	\$34,256,000,000	51.67%	\$-7,880,000,000	-10.62%
receivables	\$37,445,000,000	11.56%	\$45,604,000,000	13.53%	\$48,995,000,000	13.40%	\$35,675,000,000	9.50%	\$-8,339,000,000	-18%	\$-3,191,000,000	-6.51%	\$13,522,000,000	37.34%
inventory	\$4,061,000,000	1.25%	\$4,106,000,000	1.21%	\$3,956,000,000	1.08%	\$4,855,000,000	1.29%	\$-45,000,000	-1%	\$150,000,000	3.79%	\$-899,000,000	-18.52%
other_current_assets	\$11,264,000,000	3.48%	\$12,352,000,000	3.65%	\$12,067,000,000	3.30%	\$15,896,000,000	3.71%	\$-1,086,000,000	-9%	\$265,000,000	2.19%	\$-1,849,000,000	-13.27%
total_current_assets	\$143,713,000,000	44.37%	\$162,819,000,000	48.10%	\$131,339,000,000	35.91%	\$128,645,000,000	34.26%	\$-19,106,000,000	-12%	\$31,480,000,000	23.97%	\$2,694,000,000	2.09%
net_PPE	\$36,766,000,000	11.35%	\$37,378,000,000	11.04%	\$41,304,000,000	11.29%	\$33,763,000,000	9.00%	\$-612,000,000	-2%	\$-3,926,000,000	-9.51%	\$7,521,000,000	22.26%
goodwill&other_intangible_assets	\$-	0.00%	\$-	0.00%	\$-	0.00%	\$6,015,000,000	2.14%	\$-	0%	\$-	0%	\$-6,015,000,000	-100.00%
investments_and_advances	\$100,867,000,000	31.18%	\$105,341,000,000	31.12%	\$170,799,000,000	46.70%	\$194,714,000,000	51.88%	\$-4,454,000,000	-4%	\$-65,458,000,000	-36.32%	\$-23,915,000,000	-12.38%
other_non_current_assets	\$42,522,000,000	13.13%	\$32,978,000,000	9.74%	\$22,283,000,000	6.09%	\$10,162,000,000	2.71%	\$9,544,000,000	29%	\$10,695,000,000	48.00%	\$12,121,000,000	119.26%
total_non_current_assets	\$180,175,000,000	55.63%	\$173,697,000,000	51.90%	\$234,386,000,000	64.09%	\$246,674,000,000	65.72%	\$4,478,000,000	3%	\$-58,669,000,000	-25.04%	\$-12,288,000,000	-4.96%
total_liabilities	\$256,549,000,000	79.83%	\$248,028,000,000	73.27%	\$238,576,000,000	70.70%	\$241,272,000,000	64.26%	\$10,521,000,000	4%	\$-10,550,000,000	-4.06%	\$17,306,000,000	7.17%
payables	\$42,296,000,000	13.08%	\$46,236,000,000	13.66%	\$55,868,000,000	15.28%	\$49,049,000,000	13.07%	\$-3,940,000,000	-9%	\$-9,652,000,000	-17.27%	\$6,839,000,000	13.94%
pension_and_other_post_retirement_expenses	\$-	0.00%	\$-	0.00%	\$-	0.00%	\$25,744,000,000	6.86%	\$-	0%	\$-	0%	\$-25,744,000,000	-100.00%
current_debt	\$13,769,000,000	4.25%	\$16,240,000,000	4.80%	\$20,748,000,000	5.67%	\$18,473,000,000	4.92%	\$-2,471,000,000	-15%	\$-4,508,000,000	-21.73%	\$2,275,000,000	12.32%
current_deferred_liabilities	\$6,643,000,000	2.05%	\$5,522,000,000	1.63%	\$7,543,000,000	2.06%	\$7,348,000,000	2.01%	\$1,121,000,000	20%	\$-2,021,000,000	-26.79%	\$-3,000,000	-0.07%
other_current_liabilities	\$42,694,000,000	13.18%	\$37,720,000,000	11.14%	\$32,687,000,000	8.94%	\$-	0.00%	\$4,964,000,000	13%	\$5,033,000,000	15.40%	\$32,687,000,000	
total_current_liabilities	\$105,392,000,000	32.54%	\$105,718,000,000	31.23%	\$116,066,000,000	31.95%	\$100,614,000,000	26.84%	\$-326,000,000	0%	\$-11,148,000,000	-5.54%	\$16,052,000,000	15.92%
long_term_debt&capital_liabilities	\$96,667,000,000	30.46%	\$91,807,000,000	27.12%	\$93,735,000,000	25.63%	\$97,207,000,000	25.90%	\$6,860,000,000	7%	\$-1,928,000,000	-2.06%	\$-3,472,000,000	-3.57%
non_current_deferred_liabilities	\$-	0.00%	\$-	0.00%	\$3,223,000,000	0.88%	\$34,340,000,000	9.15%	\$-	0%	\$-3,223,000,000	-100.00%	\$-31,117,000,000	-90.61%
trade&other_payables	\$28,170,000,000	8.70%	\$29,545,000,000	8.73%	\$33,568,000,000	9.18%	\$-	0.00%	\$-1,375,000,000	-5%	\$-4,044,000,000	-12.04%	\$33,568,000,000	
other_non_current_liabilities	\$26,325,000,000	8.13%	\$20,956,000,000	6.19%	\$11,165,000,000	3.05%	\$8,911,000,000	2.37%	\$5,362,000,000	26%	\$9,793,000,000	87.71%	\$2,254,000,000	26.29%
total_non_current_liabilities	\$123,157,000,000	47.29%	\$142,310,000,000	42.04%	\$141,712,000,000	38.73%	\$140,458,000,000	37.42%	\$10,647,000,000	8%	\$598,000,000	0.42%	\$1,254,000,000	0.89%
shareholders'_equity	\$65,339,000,000	20.17%	\$90,488,000,000	26.73%	\$107,147,000,000	29.30%	\$134,047,000,000	35.72%	\$-25,149,000,000	-28%	\$-16,659,000,000	-15.53%	\$-26,900,000,000	-20.07%

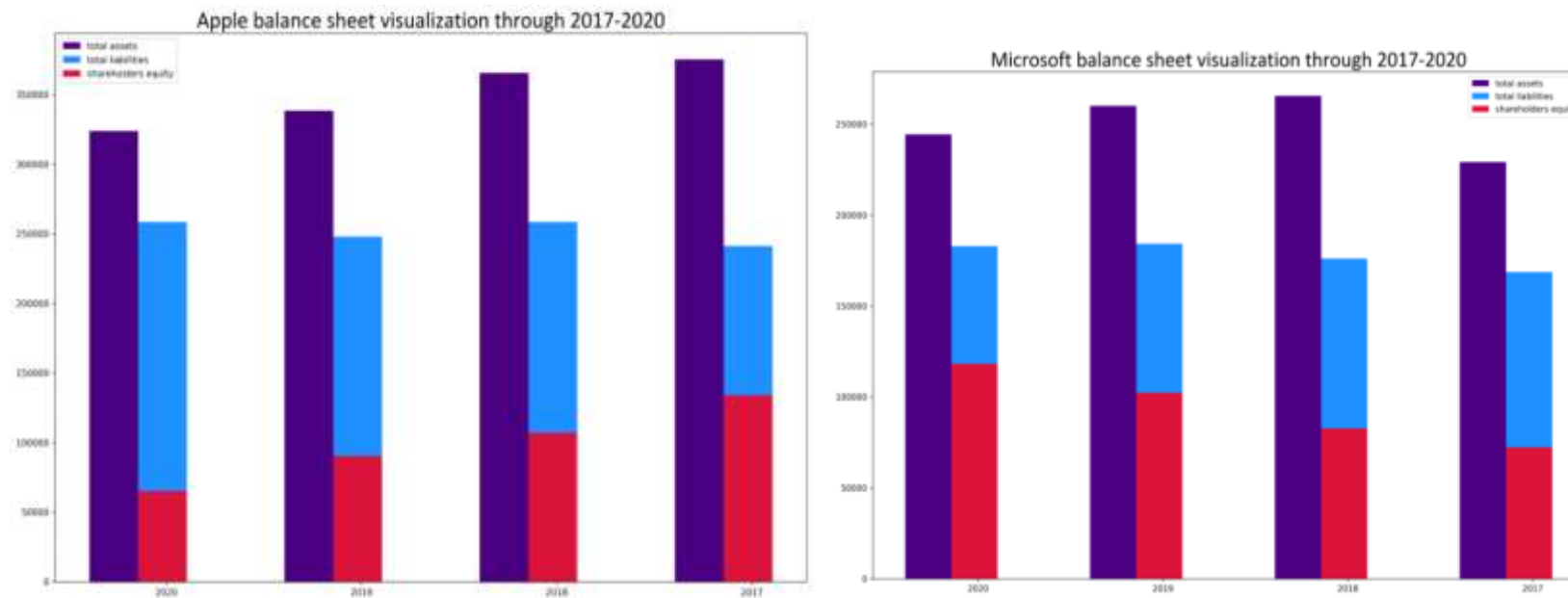


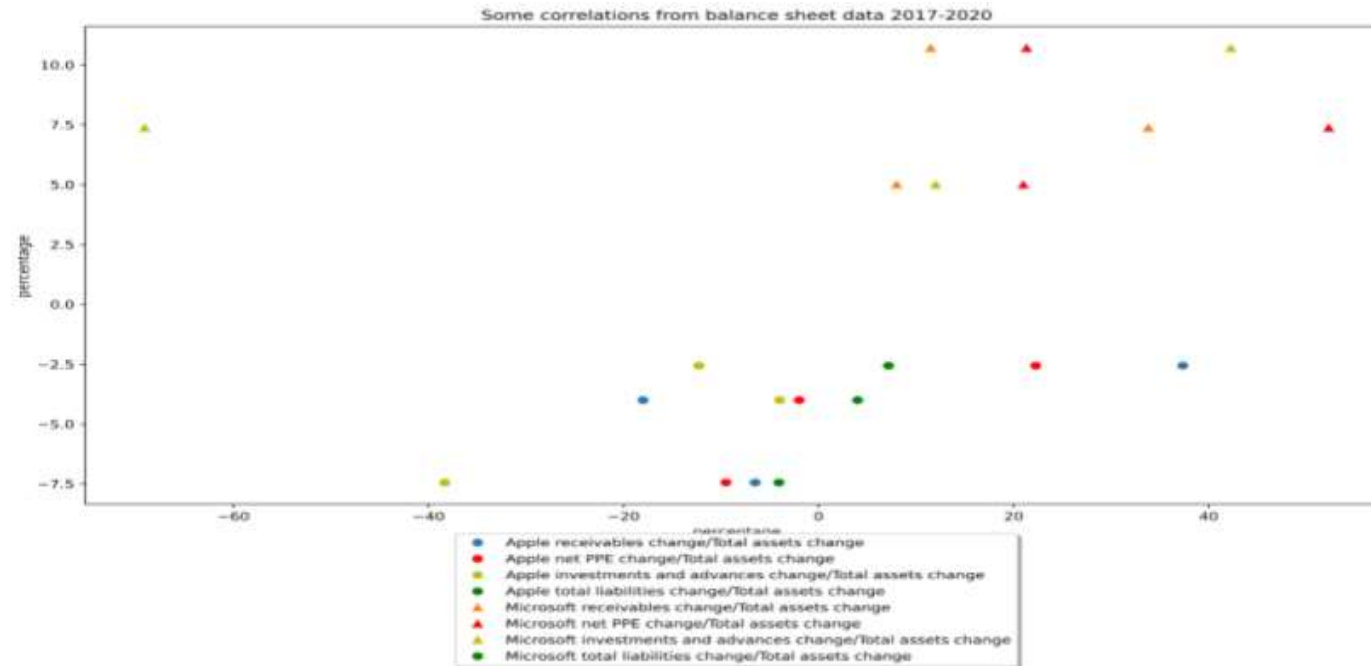
Table 10. Microsoft Balance sheet vertical and horizontal analysis (Adapted from the annual reports of Microsoft Corp.)

Indicator_B5	amount2020	percentage2020	amount2019	percentage2019	amount2018	percentage2018	amount2017	percentage2017	change2020	percentage_change2020	change2019	percentage_change2019	change2018	percentage_change2018
Total_assets	\$307,311,000,000	100.00%	\$286,556,000,000	100.00%	\$256,848,000,000	100.00%	\$241,086,000,000	100.00%	\$14,755,000,000	3%	\$27,708,000,000	10.70%	\$17,762,000,000	7.37%
cash&cash_equivalents_short term investments	\$136,327,000,000	45.31%	\$133,819,000,000	46.70%	\$133,768,000,000	51.66%	\$132,981,000,000	55.16%	\$2,706,000,000	2%	\$51,000,000	0.04%	\$767,000,000	0.59%
receivables	\$32,011,000,000	10.62%	\$29,524,000,000	10.30%	\$26,481,000,000	10.23%	\$19,792,000,000	8.21%	\$2,487,000,000	8%	\$3,043,000,000	11.49%	\$6,699,000,000	33.80%
inventory	\$1,895,000,000	0.63%	\$2,063,000,000	0.72%	\$2,662,000,000	1.03%	\$2,181,000,000	0.90%	\$-166,000,000	-8%	\$-599,000,000	-23.50%	\$481,000,000	23.05%
other_current_assets	\$11,462,000,000	3.81%	\$10,146,000,000	3.54%	\$6,751,000,000	2.61%	\$4,897,000,000	2.03%	\$1,356,000,000	13%	\$3,395,000,000	50.29%	\$1,854,000,000	37.66%
total_current_assets	\$181,915,000,000	60.37%	\$175,532,000,000	61.28%	\$169,662,000,000	65.55%	\$159,851,000,000	66.30%	\$6,363,000,000	4%	\$5,880,000,000	3.47%	\$9,811,000,000	6.14%
net_PPE	\$52,904,000,000	17.56%	\$43,856,000,000	15.30%	\$36,146,000,000	13.96%	\$23,734,000,000	9.84%	\$9,048,000,000	21%	\$7,710,000,000	21.33%	\$12,412,000,000	52.30%
goodwill&other_intangible_assets	\$50,389,000,000	16.73%	\$49,776,000,000	17.37%	\$43,736,000,000	16.90%	\$45,228,000,000	18.76%	\$613,000,000	1%	\$6,040,000,000	13.81%	\$-1,482,000,000	-3.30%
investments_and_advances	\$2,965,000,000	0.98%	\$2,649,000,000	0.92%	\$1,862,000,000	0.72%	\$6,023,000,000	2.50%	\$318,000,000	12%	\$767,000,000	42.27%	\$-4,161,000,000	-69.09%
other_non_current_assets	\$13,138,000,000	4.36%	\$14,723,000,000	5.14%	\$7,442,000,000	2.89%	\$6,250,000,000	2.59%	\$-1,585,000,000	-11%	\$7,281,000,000	97.84%	\$1,192,000,000	19.07%
total_non_current_assets	\$119,396,000,000	39.63%	\$111,004,000,000	38.74%	\$88,186,000,000	34.45%	\$81,235,000,000	33.70%	\$8,362,000,000	8%	\$21,818,000,000	24.46%	\$7,951,000,000	9.79%
total_liabilities	\$183,007,000,000	60.74%	\$184,026,000,000	64.29%	\$176,130,000,000	68.04%	\$168,692,000,000	69.97%	\$-1,219,000,000	-1%	\$8,096,000,000	4.60%	\$7,438,000,000	4.41%
payables	\$14,680,000,000	4.87%	\$15,047,000,000	5.25%	\$10,738,000,000	4.15%	\$8,205,000,000	3.40%	\$-387,000,000	-3%	\$4,309,000,000	40.13%	\$2,533,000,000	30.87%
pension_and_other_post_retirement_expenses	\$7,874,000,000	2.61%	\$6,830,000,000	2.38%	\$6,103,000,000	2.36%	\$5,819,000,000	2.41%	\$1,044,000,000	15%	\$727,000,000	11.91%	\$284,000,000	4.88%
current_debt	\$3,749,000,000	1.24%	\$5,518,000,000	1.92%	\$3,998,000,000	1.54%	\$10,121,000,000	4.20%	\$-1,767,000,000	-32%	\$1,516,000,000	37.97%	\$-6,123,000,000	-60.50%
current_deferred_liabilities	\$36,000,000,000	11.55%	\$32,676,000,000	11.40%	\$28,805,000,000	11.17%	\$34,102,000,000	14.15%	\$3,324,000,000	10%	\$3,771,000,000	13.05%	\$-5,197,000,000	-15.24%
other_current_liabilities	\$10,027,000,000	3.33%	\$9,351,000,000	3.26%	\$8,744,000,000	3.38%	\$6,280,000,000	2.60%	\$678,000,000	7%	\$637,000,000	6.94%	\$2,464,000,000	39.24%
total_current_liabilities	\$72,310,000,000	24.00%	\$69,420,000,000	24.23%	\$56,486,000,000	22.60%	\$64,527,000,000	26.77%	\$2,680,000,000	4%	\$10,932,000,000	18.69%	\$-6,339,000,000	-9.36%
long_term_debt&capital_liabilities	\$67,249,000,000	22.32%	\$72,850,000,000	25.42%	\$77,810,000,000	30.06%	\$78,073,000,000	31.95%	\$-5,601,000,000	-8%	\$-4,960,000,000	-6.37%	\$1,737,000,000	2.28%
non_current_deferred_liabilities	\$3,384,000,000	1.12%	\$4,763,000,000	1.66%	\$4,356,000,000	1.68%	\$10,908,000,000	4.52%	\$-1,379,000,000	-29%	\$407,000,000	9.34%	\$-6,352,000,000	-60.07%
trade&other_payables	\$29,432,000,000	9.77%	\$29,812,000,000	10.33%	\$30,285,000,000	11.69%	\$-	0.00%	\$-180,000,000	-1%	\$-653,000,000	-2.16%	\$30,265,000,000	
other_non_current_liabilities	\$10,632,000,000	3.53%	\$7,581,000,000	2.85%	\$5,211,000,000	2.01%	\$17,184,000,000	7.13%	\$3,051,000,000	40%	\$2,370,000,000	45.48%	\$-11,973,000,000	-69.66%
total_non_current_liabilities	\$110,697,000,000	36.74%	\$114,806,000,000	40.06%	\$117,642,000,000	45.45%	\$104,785,000,000	43.21%	\$-4,109,000,000	-4%	\$-2,836,000,000	-2.41%	\$13,477,000,000	12.94%
shareholders_equity	\$118,304,000,000	39.26%	\$102,330,000,000	35.71%	\$82,718,000,000	31.96%	\$72,394,000,000	30.03%	\$15,974,000,000	16%	\$19,812,000,000	23.71%	\$10,324,000,000	14.28%



Figure 6. Apple and Microsoft balance sheet visualizations for 2017-2020





CASH FLOW STATEMENT ANALYSIS FOR 2017-2020

Both Apple and Microsoft has improved their cash flows since 2017, except investing cash flows and financing cash flows, which were decreasing ever since.



Table 11. Apple Inc. Cash flow statement vertical and horizontal analysis.(Adapted from the annual reports of Apple)

Indicator_CFS	amount2020	amount2019	amount2018	amount2017	change2020	percentage_change2020	change2019	percentage_change2019	change2018	percentage_change2018
cash_and_cash_equivalents_beginning_of_the_year	\$50,224,000,000	\$25,913,000,000	\$20,289,000,000	\$20,484,000,000	\$24,311,000,000	93.82%	\$5,624,000,000	27.72%	\$-195,000,000	-0.95%
operating_cash_flow	\$80,674,000,000	\$69,391,000,000	\$77,434,000,000	\$63,598,000,000	\$11,283,000,000	16.26%	\$-8,043,000,000	-10.39%	\$13,836,000,000	21.76%
net_income_from_continuing_operations	\$57,411,000,000	\$55,256,000,000	\$59,531,000,000	\$48,351,000,000	\$2,155,000,000	3.90%	\$-4,275,000,000	-7.18%	\$11,180,000,000	23.12%
depreciation_amortization_depletion	\$11,056,000,000	\$12,547,000,000	\$10,903,000,000	\$10,157,000,000	\$-1,491,000,000	-11.88%	\$1,644,000,000	15.08%	\$746,000,000	7.34%
deferred_tax	\$-215,000,000	\$-340,000,000	\$-32,590,000,000	\$5,966,000,000	\$125,000,000	-36.76%	\$32,250,000,000	-98.96%	\$-38,556,000,000	-646.26%
stock_based_compensation	\$6,829,000,000	\$6,068,000,000	\$5,340,000,000	\$4,840,000,000	\$761,000,000	12.54%	\$728,000,000	13.63%	\$500,000,000	10.33%
other_non_cash_items	\$-97,000,000	\$-652,000,000	\$-444,000,000	\$-166,000,000	\$555,000,000	-85.12%	\$-208,000,000	46.85%	\$-278,000,000	167.47%
working_capital	\$5,690,000,000	\$-3,488,000,000	\$34,694,000,000	\$-5,550,000,000	\$9,178,000,000	-263.13%	\$-38,182,000,000	-110.05%	\$40,244,000,000	-725.12%
Investing_cash_flow	\$-4,289,000,000	\$45,896,000,000	\$16,066,000,000	\$-46,446,000,000	\$-50,185,000,000	-109.35%	\$29,830,000,000	185.67%	\$62,512,000,000	-134.59%
net_PPE_purchase_and_sale	\$-7,309,000,000	\$-10,495,000,000	\$-13,313,000,000	\$-12,451,000,000	\$3,186,000,000	-30.36%	\$2,818,000,000	-21.17%	\$-862,000,000	6.92%
net_intangibles_purchase_and_sale	\$-	\$-	\$-	\$-344,000,000	\$-		\$-		\$344,000,000	-100.00%
net_business_purchase_and_sale	\$-1,524,000,000	\$-624,000,000	\$-721,000,000	\$-329,000,000	\$-900,000,000	144.23%	\$97,000,000	-13.45%	\$-392,000,000	119.15%
net_investment_purchase_and_sale	\$5,335,000,000	\$58,093,000,000	\$30,845,000,000	\$-33,542,000,000	\$-52,758,000,000	-90.82%	\$27,248,000,000	88.34%	\$64,387,000,000	-191.96%
net_other_investing_changes	\$-791,000,000	\$-1,078,000,000	\$-745,000,000	\$220,000,000	\$287,000,000	-26.62%	\$-333,000,000	44.70%	\$-965,000,000	-438.64%
Financing_cash_flow	\$-86,820,000,000	\$-90,976,000,000	\$-87,876,000,000	\$-17,347,000,000	\$4,156,000,000	-4.57%	\$-3,100,000,000	3.53%	\$-70,529,000,000	406.58%
net_issuance_payments_of_debt	\$2,499,000,000	\$-7,819,000,000	\$432,000,000	\$29,014,000,000	\$10,318,000,000	-131.96%	\$-8,251,000,000	-1909.95%	\$-28,582,000,000	-98.51%
net_common_stock_issuance	\$-71,478,000,000	\$-66,116,000,000	\$-72,069,000,000	\$-32,345,000,000	\$-5,362,000,000	8.11%	\$5,953,000,000	-8.26%	\$-39,724,000,000	122.81%
cash_dividends_paid	\$-14,081,000,000	\$-14,119,000,000	\$-13,712,000,000	\$-12,769,000,000	\$38,000,000	-0.27%	\$-407,000,000	2.97%	\$-943,000,000	7.39%
net_other_financing_charges	\$-3,760,000,000	\$-2,922,000,000	\$-2,527,000,000	\$-1,247,000,000	\$-838,000,000	28.68%	\$-395,000,000	15.63%	\$-1,280,000,000	102.65%
changes_in_cash	\$-10,435,000,000	\$24,311,000,000	\$5,624,000,000	\$-195,000,000	\$-34,746,000,000	-142.92%	\$18,687,000,000	332.27%	\$5,819,000,000	-2984.10%
cash_and_cash_equivalents_end_of_the_year	\$39,789,000,000	\$50,224,000,000	\$25,913,000,000	\$20,289,000,000	\$-10,435,000,000	-20.78%	\$24,311,000,000	93.82%	\$5,624,000,000	27.72%



Table 12. Microsoft Cash flow statement vertical and horizontal analysis_(Adapted from the annual reports of Microsoft Corp.)

Indicator_CFS	amount2020	amount2019	amount2018	amount2017	change2020	percentage_change2020	change2019	percentage_change2019	change2018	percentage_change2018
cash_and_cash_equivalents_beginning_of_the_year	\$11,356,000,000	\$11,946,000,000	\$7,663,000,000	\$6,510,000,000	\$-590,000,000	-4.94%	\$4,283,000,000	55.89%	\$1,153,000,000	17.71%
operating_cash_flow	\$60,675,000,000	\$52,185,000,000	\$43,884,000,000	\$39,507,000,000	\$8,490,000,000	16.27%	\$8,301,000,000	18.92%	\$4,377,000,000	11.08%
net_income_from_continuing_operations	\$44,281,000,000	\$39,240,000,000	\$16,571,000,000	\$21,204,000,000	\$5,041,000,000	12.85%	\$22,669,000,000	136.80%	\$-4,633,000,000	-21.85%
depreciation_amortization_depletion	\$12,796,000,000	\$11,682,000,000	\$10,261,000,000	\$8,778,000,000	\$1,114,000,000	9.54%	\$1,421,000,000	13.85%	\$1,483,000,000	16.89%
deferred_tax	\$-3,620,000,000	\$-3,534,000,000	\$13,040,000,000	\$-3,296,000,000	\$-86,000,000	2.43%	\$-16,574,000,000	-127.10%	\$16,336,000,000	-495.63%
stock_based_compensation	\$5,289,000,000	\$4,652,000,000	\$3,940,000,000	\$3,266,000,000	\$637,000,000	13.69%	\$712,000,000	18.07%	\$674,000,000	20.64%
other_non_cash_items	\$-219,000,000	\$-792,000,000	\$-2,212,000,000	\$-59,808,000,000	\$573,000,000	-72.35%	\$1,420,000,000	-64.20%	\$57,596,000,000	-96.30%
working_capital	\$2,148,000,000	\$937,000,000	\$2,284,000,000	\$69,363,000,000	\$1,211,000,000	129.24%	\$-1,347,000,000	-58.98%	\$-67,079,000,000	-96.71%
Investing_cash_flow	\$-12,223,000,000	\$-15,773,000,000	\$-6,061,000,000	\$-46,781,000,000	\$3,550,000,000	-22.51%	\$-9,712,000,000	160.24%	\$40,720,000,000	-87.04%
net_PPE_purchase_and_sale	\$-15,441,000,000	\$-13,925,000,000	\$-11,632,000,000	\$-8,129,000,000	\$-1,516,000,000	10.89%	\$-2,293,000,000	19.71%	\$-3,503,000,000	43.09%
net_intangibles_purchase_and_sale	\$-	\$-	\$-	\$-	\$-		\$-		\$-	
net_business_purchase_and_sale	\$-2,521,000,000	\$-2,368,000,000	\$-888,000,000	\$-25,944,000,000	\$-133,000,000	5.57%	\$-1,500,000,000	168.92%	\$25,056,000,000	-96.58%
net_investment_purchase_and_sale	\$6,980,000,000	\$540,000,000	\$6,557,000,000	\$-12,511,000,000	\$6,440,000,000	1192.59%	\$-6,017,000,000	-91.76%	\$19,068,000,000	-152.41%
net_other_investing_changes	\$-1,241,000,000	\$-	\$-98,000,000	\$-197,000,000	\$-1,241,000,000	#DIV/0!	\$98,000,000	-100.00%	\$99,000,000	-50.25%
Financing_cash_flow	\$-46,031,000,000	\$-36,887,000,000	\$-33,590,000,000	\$8,408,000,000	\$-9,144,000,000	24.79%	\$-3,297,000,000	9.82%	\$-41,998,000,000	-499.50%
net_issuance_payments_of_debt	\$-5,518,000,000	\$-4,000,000,000	\$-10,201,000,000	\$31,459,000,000	\$-1,518,000,000	37.95%	\$6,201,000,000	-60.79%	\$-41,660,000,000	-132.43%
net_common_stock_issuance	\$-21,625,000,000	\$-18,401,000,000	\$-9,719,000,000	\$-11,016,000,000	\$-3,224,000,000	17.52%	\$-8,682,000,000	89.33%	\$1,297,000,000	-11.77%
cash_dividends_paid	\$-15,137,000,000	\$-13,811,000,000	\$-12,699,000,000	\$-11,845,000,000	\$-1,326,000,000	9.60%	\$-1,112,000,000	8.76%	\$-854,000,000	7.21%
net_other_financing_charges	\$-3,751,000,000	\$-675,000,000	\$-971,000,000	\$-190,000,000	\$-3,076,000,000	455.70%	\$296,000,000	-30.48%	\$-781,000,000	411.05%
changes_in_cash	\$2,421,000,000	\$-475,000,000	\$4,233,000,000	\$1,134,000,000	\$2,896,000,000	-609.68%	\$-4,708,000,000	-111.22%	\$3,099,000,000	273.28%
cash_and_cash_equivalents_end_of_the_year	\$-201,000,000	\$-115,000,000	\$50,000,000	\$19,000,000	\$-86,000,000	74.78%	\$-165,000,000	-330.00%	\$31,000,000	163.16%
cash and cash equivalents, end of the year	\$13,576,000,000	\$11,356,000,000	\$11,946,000,000	\$7,663,000,000	\$2,220,000,000	19.55%	\$-590,000,000	-4.94%	\$4,283,000,000	55.89%



Figure 7. Apple and Microsoft cash flow visualizations for 2017-2020

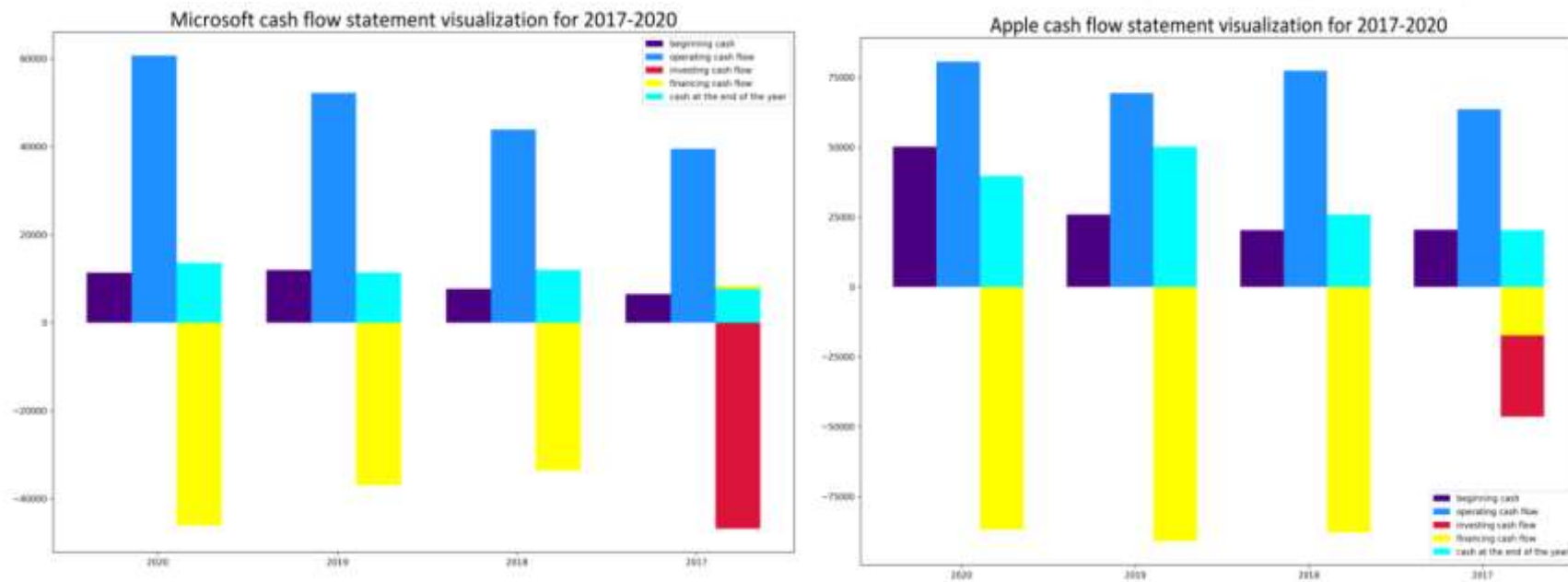




Table 13. Apple's liquidity, profitability, operating and financial leverage ratios (Adapted from the annual reports of Apple Inc.)

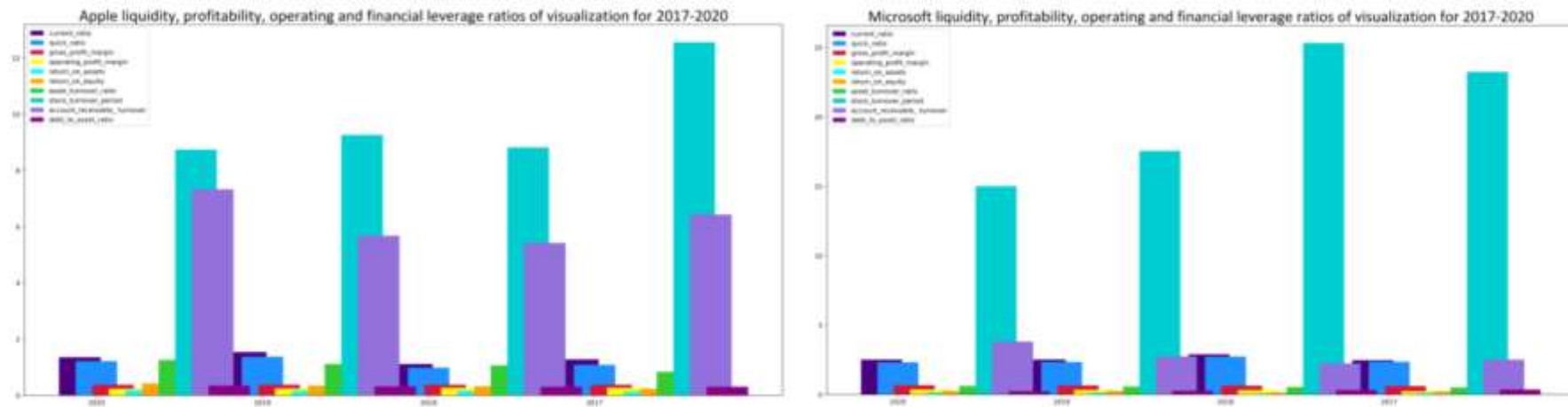
ratios	2020	2019	2018	2017
current_ratio	1.36	1.54	1.12	1.28
quick_ratio	1.22	1.38	0.99	1.09
gross_profit_margin	0.38	0.38	0.38	0.38
operating_profit_margin	0.24	0.25	0.27	0.27
return_on_assets	0.18	0.16	0.16	0.13
return_on_equity	0.43	0.35	0.33	0.24
asset_turnover_ratio	1.26	1.12	1.07	0.84
stock_turnover_period	8.74	9.26	8.82	12.56
account_receivable_turnover	7.33	5.68	5.42	6.43
debt_to_asset_ratio	0.35	0.32	0.31	0.31

Table 14. Microsoft's liquidity, profitability, operating and financial leverage ratios (Adapted from the annual reports of Microsoft Corp.)

ratios	2020	2019	2018	2017
current_ratio	2.52	2.53	2.9	2.48
quick_ratio	2.33	2.35	2.74	2.37
gross_profit_margin	0.68	0.66	0.65	0.62
operating_profit_margin	0.37	0.34	0.32	0.25
return_on_assets	0.15	0.14	0.06	0.09
return_on_equity	0.26	0.27	0.14	0.22
asset_turnover_ratio	0.62	0.58	0.55	0.51
stock_turnover_period	15.01	17.55	25.33	23.24
account_receivable_turnover	3.82	2.75	2.25	2.52
debt_to_asset_ratio	0.24	0.27	0.32	0.36



Figure 8. Apple and Microsoft ratio analysis visualizations for 2017-2020



CONCLUSION

Key financial indicators show that Apple still maintains a high profit margin, though its debts continuously growing in the recent years. Microsoft is leading Apple on the level of liquidity and profitability and financial leverage ratios. However, Apple stays unbeatable on its operating ratios.

REFERENCES

1. <https://www.annualreports.com/Company/apple-inc>
2. <https://www.annualreports.com/Company/microsoft-corporation>
3. <https://www.macrotrends.net/stocks/charts/>
4. <https://finance.yahoo.com/>
5. <https://www.garyfox.co/apple-swot-analysis/>
6. <https://bstrategyhub.com/swot-analysis-of-microsoft/>

Cite this Article: Munisa Abdulkarimova, Prof. Abduraim Vahobov, Prof. Vijay Shenai (2021). Company Overview for 2017-2021: Apple vs Microsoft. International Journal of Current Science Research and Review, 4(7), 767-786