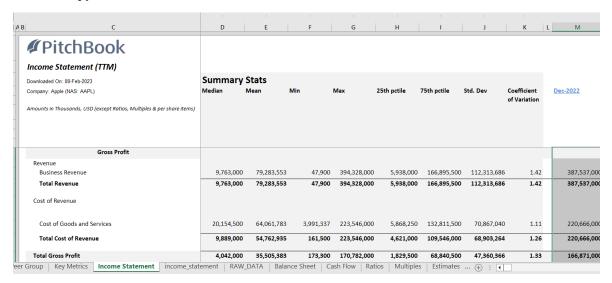
# **Financial Statement Analysis in Python**

## Version 1.0

## 12 Feb 2023

## User guide

1. Copy column "C", and "M" to "end of column" in Income Statement.



2. Paste (as value) into a new excel as below then rename the sheet into Income Statement.

Α	В	С	D	E	F	G	Н	1	J	K	L	M	
Income Sta	tement (T	TM)											
Downloade		•											
Company:	Dec-2022	Sep-2022	Jun-2022	Mar-2022	Dec-2021	Sep-2021	Jun-2021	Mar-2021	Dec-2020	Sep-2020	Jun-2020	Mar-2020	Dec
Amounts ir	1 Thousand	s, USD (exc	ept Ratios,	Multiples 8	& per share	items)							
Gross Prof													
Revenue													
Busine	3.88E+08	3.94E+08	3.88E+08	3.86E+08	3.78E+08	3.66E+08	3.47E+08	3.25E+08	2.94E+08	2.75E+08	2.74E+08	2.68E+08	2.6
Total	3.88E+08	3.94E+08	3.88E+08	3.86E+08	3.78E+08	3.66E+08	3.47E+08	3.25E+08	2.94E+08	2.75E+08	2.74E+08	2.68E+08	2.6
Cost of I													
Cost c	2.21E+08	2.24E+08	2.2E+08	2.19E+08	2.16E+08	2.13E+08	2.05E+08	1.96E+08	1.8E+08	1.7E+08	1.69E+08	1.66E+08	1.6
Total	2.21E+08	2.24E+08	2.2E+08	2.19E+08	2.16E+08	2.13E+08	2.05E+08	1.96E+08	1.8E+08	1.7E+08	1.69E+08	1.66E+08	1.6
Total Gr	1.67E+08	1.71E+08	1.68E+08	1.67E+08	1.63E+08	1.53E+08	1.42E+08	1.3E+08	1.14E+08	1.05E+08	1.05E+08	1.02E+08	1.0
Operating													
Selling, G	25252000	25094000	24270000	23670000	22791000	21973000	21293000	20712000	20350000	19916000	19558000	19153000	186
Researc	27654000	26251000	25262000	24182000	23057000	21914000	21120000	20161000	19464000	18752000	17884000	17383000	167
Deprecia													
Depre													
Total													
Total Or	52906000	51345000	49532000	47852000	45848000	43887000	42413000	40873000	39814000	38668000	37442000	36536000	354
Total Oper	1.14E+08	1.19E+08	1.18E+08	1.19E+08	1.17E+08	1.09E+08	99938000	88903000	74253000	66288000	67138000	65591000	661
Non-Opera													

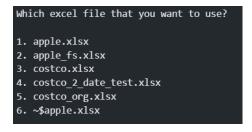
3. Repeat the same steps for Balance Sheet and Cash Flow sheets.

Α	В	C	D	E	F	G	Н		J	K	L	M	
Balance Sh	eet /TTM\												
	ed On: 08-f	-b 2022											
			lun 2022	Mar 2022	Dec 2021	Con 2021	lun 2021	Mar 2021	Dec 2020	Can 2020	lun 2020	Mari	
Company:	Dec-2022	Sep-2022	Jun-2022	IVIAI-2U22	Dec-2021	Sep-2021	Jun-2021	IVIAI-2021	Dec-2020	3ep-2020	Jun-2020	Mar-2	
Amounts in	n Thousand	ls, USD (exc	ept Ratios,	Multiples 8	& per share	items)							
Assets													
Current.													
Cash,													
Cas	20535000	23646000	27502000	28098000	37119000	34940000	34050000	38466000	36010000	38016000	33383000	40174	
C	17908000		12852000	14298000	17992000		14853000	19444000	18729000	17773000	20253000	24405	
C	2627000		14650000	13800000	19127000		19197000	19022000	17281000	20243000	13130000	15769	
To	20535000	23646000	27502000	28098000	37119000	34940000	34050000	38466000	36010000	38016000	33383000	40174	
Sho	30820000	24658000	20729000	23413000	26794000	27699000	27646000	31368000	40816000	52927000	59642000	53877	
O	30820000	24658000	20729000	23413000	26794000	27699000	27646000	31368000	40816000	52927000	59642000	53877	
To	30820000	24658000	20729000	23413000	26794000	27699000	27646000	31368000	40816000	52927000	59642000	53877	
Tota	51355000	48304000	48231000	51511000	63913000	62639000	61696000	69834000	76826000	90943000	93025000	94053	
Invent													
Raw	2513000												
Wo													
Finis	4307000												
Tota	6820000	4946000	5433000	5460000	5876000	6580000	5178000	5219000	4973000	4061000	3978000	3334	
Trade													
<b>-</b>	Income Statement		Balance Sheet Cash Flow			(+)							

- 4. Save the new excel file in default (xlsx) format.
- 5. Place the file into the same folder with the python script file.
- 6. Run the python script to conduct your analysis.

## Analysis Result Screenshots:

1) Choose file



#### 2) Variables checks

```
./apple.xlsx
Most recent year : 2022
Earliest year: 1979
Cash and Cash Equivalents: Passed!
Total Short Term Investments: Passed!
Total Inventories: Passed!
Total Trade and Other Receivables, Current (Account Receivable): Passed!
Total Current Assets: Passed!
Total Gross Property, Plant and Equipment: Passed!
Accumulated Depreciation: Passed!
Total Net Property, Plant and Equipment: Passed!
Total Assets: Passed!
Total Payables and Accrued Expenses, Current (Account Payable): Passed!
Total Current Liabilities: Passed!
Total Liabilities: Passed!
Total Equity: Passed!
Common Shares Outstanding: Passed!
Total Revenue: Passed!
Total Cost of Revenue (COGS): Passed!
Total Gross Profit: Passed!
Research and Development Expenses (R&D Expense): Passed!
Total Operating Profit/(Loss) (Operating Income): Passed!
Interest Expense Net of Capitalized Interest (Interest Expense): Passed!
Pretax Income (EBIT): Passed!
Net Income from Continuing Operations (Net Income): Passed!
Total Cash Flow from Operating Activities, Indirect: Passed!
 Do you want to continue?
```

#### 3) Analysis options

```
Please choose the ratios:
 ----- Liquidity Ratios
1. Current Ratio
2. Quick or Acid Test Ratios
 ------ Productivity Ratio
3. Asset Turnover Ratio
4. PPE Turnover
5. Account Receivable Turnover
6. Inventory Turnover
7. Account Payable Turnover
8. Percent PPE Used Up
 ----- Cash Conversion Cycle ------
9. Days Sales Outstanding (DSO)
10. Days in Inventory (DIO)
11. Days Payable Outstanding (DPO)
12. Cash Conversion Cycle (CCC)
 ----- Financial Leverage Ratio ------
13. Liabilities to Equity
14. Financial Levarage as a standalone ratio
15. Financial Levarage (for decomposition)
16. Times Interest Earned
17. Cash from Operations/Total Debt
 ----- Profitability Ratios
18. Return on Assets (ROA)
19. Return on Equity (ROE)
20. Gross Profit Margin
21. Operating Profit Margin
22. Net Profit Margin
 ----- Other Commonly Used Ratios ------
23. Earning Per Share (EPS)
24. Research and Development as a Percent of Sales
```

#### 4) Current Ratio Test result

## 5) Acid Test Result

## 6) Days Sales Outstanding (DSO) Ratio Result

#### 7) Earnings Per Share (EPS) Ratio Result

```
This is the Earnings Per Share (EPS) Ratio calculation. Please choose a year:

Net Income: 100,555,000

Average Common Share Outstanding: 16,578,817,000.0

Earnings Per Share (EPS) Ratio for 2021 is 0.01
```

#### Note:

- 1) The Account Chart name should be in column A.
- 2) Financial statement year should be in the same row across different period.
- 3) Sheet name show be same figure "Income Statement", "Balance Sheet", and "Cash Flow".