SRYAHWA PUBLICATIONS

Journal of Banking and Finance Management
ISSN: 2642-9144 | Volume 5, Issue 1, 2024
https://doi.org/10.22259/2642-9144.0501004

RESEARCH ARTICLE

Capital Budgeting, M&A, and Valuation Functions of Cash Flow Based Corporate Finance (CFCF) Model

Prof. Dr. Huseyin Yilmaz (MBA in the U.S.A.)

Department of Accounting and Finance, Faculty of Economics and Administrative Sciences Bilecik Şeyh Edebali University, Turkey.

Received: 12 August 2024 Accepted: 23 August 2024 Published: 29 August 2024
Corresponding Author: Huseyin Yilmaz, Department of Accounting and Finance, Faculty of Economics and Administrative Sciences Bilecik Şeyh Edebali University, Turkey.

Abstract

Cash flow based corporate finance (CFCF) model is a model its initiative is cash flows instead of profit. Three functions of the model have been explained in this article. These are capital budgeting, merger acquisition, and valuation. The same four ratios were used for both capital budgeting and merger & acquisition for similarity and complementary reasons. The four ratios used for the capital budgeting and M&A functions are:1.Reinvestment of Cash =Asset Acquisition: CFFO, 2.Depreciation Effect =Depreciation: CFFO,3.Capital Acquisition =(CFFO- Dividends): Cash Paid for Acquisition, 4.Capital Expenditure = CFFO: Capital Expenditure Two ratios were used to explain the valuation function of the CFCF model. They are: 1. Cash Flow Per Share =Net Cash Flow: Number of Shares, 2. Cash Flow Per Share II = Net Cash Flow from Operations: The Number of Shares Outstanding At the article, an application on the Apple Corp. cash flow statements has been fulfilled.

Keywords: Cash Flow Based Corporate Finance (CFCF) Model, Capital Budgeting, M&A, Valuation, Apple Corp.

1. Introduction

Cash Flow Based Corporate Finance (CFCF) Model was built by Yilmaz (2022) and improved by Yilmaz (2023a). Then, the first three functions of the model have been explained before this article. The functions explained before this article are working capital management (Yilmaz, 2023b), capital structure (Yilmaz, 2024a), and dividend policy (Yilmaz,2024b).

In this article, the remaining three functions Capital Budgeting, M&A, and Valuation will be explained. For this purpose, six cash flow ratios will be used, totally. The first four ratios will be used to explain the two functions Capital Budgeting and M&A because of the similarity and complementarity of the two functions[1].Valuation function will be explained via two ratios. In the article, all of the six ratios for the three functions are called Group A ratios because of the classification of the ratios used by the CFCF model as A, B, and C Groups[2].

2. Capital Budgeting and M&A Functions of CFCF Model

2.1 Similarity and Complementarity of the Two Functions

Van Horne (1971:9 and 175) says that he considers mergers and acquisitions from the standpoint of an investment decision. These external investment opportunities can be evaluated in the eneral manner as an investment proposal that is generated internally. A prospective acquisition is much the same as any investment proposal: there is an initial outlay of cash or stock, followed by expected future benefits. The

[1] These two properties of the two functions have been explained at the 2.1 below.
[2] For detailed information, look at Yilmaz (2023a).

Citation: Huseyin Yilmaz. Capital Budgeting, M&A, and Valuation Functions of Cash Flow Based Corporate Finance (CFCF) Model. Journal of Banking and Finance Management. 2024;5(1):29-36.

major difference is that with acquisitions, the initial cost may not be established, it is frequently subject to bargaining. Ross et.al (2003:841) think that the acquisition of one firm by

another is an investment made under uncertainty and the basic principles of valuation are applied. One firm should acquire another only if doing so generates a positive net present value for the shareholders of the acquiring firm. However, the NPV of an acquisition candidate can be difficult to determine.

McLaney (2009:388) thinks that a business will become a bidder when it sees an opportunity to make an investment with a positive incremental net present value. It is likely to perceive such an opportunity either:-where it considers that the incremental cash flows from the investment, when discounted at a rate consistent with the level of risk associated with those cash flows, are positive; and/or -where the reduction in the level of risk associated with the bidder's existing cash flows causes the appropriate rate for discounting those cash flows to fall, thus increasing the NPV of the existing cash flows of the bidder.

During free cash flow calculation discussion, Ketz (2016:49) says that to obtain more informative measure when calculating capital expenditures, users should include what is spent to acquire land, building, and other capital assets- even if obtained via a business combination. As it could be seen at the paragraphs above, capital assets produced by a business itself and acquired by M&A are both have the same NPV procedure and included in "cash flow from investing activities" section of the cash flow statement. This explains the similarity and complementarity properties of the two functions.

2.2. Explanation of the Two Functions Together

As it has been proved at the 2.1, the explanation of cash flow-based capital budgeting and cash flow-based merger & acquisition functions of the CFCF could be thought together. The cash flow ratios used for cash flow-based capital budgeting and cash flow-based M&A functions of CFCF model are shown at the Table 1 below.

2.2.1 ACFRCBMA1. Reinvestment of Cash

ACFRCBMA1 measures whether the CFFO is enough to invest to noncurrent assets or not. If the output of the ratio is under 1, it means that the CFFO was enough to complete missing non-current assets. However, if the ratio is over 1, its meaning is that the CFFO is not enough to add the productive capacity, the business needs financing source or selling some fixed assets. The ratio explains a corporation's financing needs for its fixed investments through capital budgeting and M&A. Using this ratio could be important for corporations operating in an economic environment in which financing cost is very high and continues to be higher and higher. In this situation, the company could limit the ratio to 1. In so doing, there will not be any financing need from the outside and, of course, any financing cost for this reason. The CFCF model shows the knowledge about whether the CFFO is enough for a corporation's fixed investments and M&As or not.

2.2.2 ACFRCBMA2. Depreciation Effect

ACFRCBMA2 measures operating level of the non-current assets. With a fixed investment and a M&A, the amount of depreciation increases. Fixed investment and M&M decrease profit, but increases cash flow

Table 1. *Cash Flow Ratios Used in Capital Budgeting and M&A Functions*

Code and name of ratio	Calculation of the ratio
ACFRCBMA1. Reinvestment of Cash [3]	Asset Acquisition: CFFO
ACFRCBMA2. Depreciation Effect	Depreciation: CFFO
ACFRCBMA3. Capital Acquisition[4]	(CFFO- Dividends): Cash Paid for Acquisition
ACFRCBMA4. Capital Expenditure [5]	CFFO: Capital Expenditure

3. This ratio and the ratio ACFRBMA2 were cited from Giacomino and Mielke (1993:57). Giocomino and Mielke (1993:57) think that over several years, the reinvestment ratio (ACFRCBMA1 code name in this article) should exceed the depreciation- amortization impact ratio to ensure sufficient replacement of assets at higher current costs. This ratio also can be used as an efficiency evaluation. The writers (1993:57) also say that the second ratio "the depreciation effect ratio (ACFRCBMA2 code name in this article)" show the percentage of cash from operations resulting from add-backs of depreciation and amortization. Comparing this ratio to the reinvestment ratio provides insight into the sufficiency of a company's reinvestment and the maintenance of its asset base. A company would be considered more efficient if depreciation and amortization have a relatively low impact on cash from operations.

4. This ratio was cited from Shim Siegel (1992:57). Shim and Siegel (1992:57) think that the ratio (ACFRCBMA3 code name in this article) reveals the entity's ability to finance capital expenditures from internal sources.

5. This ratio was cited from Mills and Yamamura (1998:55-58). Mills and Yamamura (1998:55-58) think that a strong company should be able to finance growth. This ratio measures the capital available for internal reinvestment. They think that if a capital expenditure ratio (ACFRCBMA4 code name in this article) exceeds 1.0, it means that the company has enough funds available to meet its capital investment, with some to spare to meet debt requirements. The higher the value, the sparer cash the company has to service and repay debt. The writers believe that appropriate values change by industry for this ratio (and for all ratios)

from operations (CFFO). The effect of a fixed investment and MA& on CFFO could be measured through this ratio. If the ratio is near to 1, it means more of the CFFO comes from the depreciation. This shows the contribution of an investment to the CFFO via depreciation. For instance, if the output of this ratio is exactly 1, it means that cash inflows except depreciation is equal all cash outflows. That is, all the net CFFO have been created by depreciation. That means that, for these kinds of cases, investments and M&As are the most important cash sources produced by a company. This shows that this ratio is very important tool for the capital budgeting and M&A function of the CFCF model.

2.2.3 ACFRCBMA3. Capital Acquisition

ACFRCBMA3 explains how much cash payment has been fulfilled for acquisition by "CFFO after dividend" which was produced by the business. If it is more than 1, it means that the company has produced more "CFFO after dividend" than that of payment for the acquisition. Let's assume that the ratio is only 10%. So, 10 folds of "CFFO after dividend" has been spent for capital acquisition. The nine folds has been paid by providing some external financing sources such as bank credit, debt issue, or asset sale.

If the output of this ratio is 1, this shows that a business could pay its all-fixed asset investments via its "CFFO after dividend payment". It does not require any financing need and, of course, any financing cost. If a company has more capital acquisition and investment than the CFFO after dividend payment, the ratio will be less than 1. After all, the investment will increase the depreciation in the CFFO in next years. For this reason, there is no need any fear for small ratio because good investment environment will bring the company's CFFO back through depreciation.

2.2.4 ACFRCBMA4. Capital Expenditure

ACFRCBMA4 could be thought as "without dividend payment" version of ACFRCBMA3 because CFFO takes place alone in the numerator of the ratio. There is no any decrease in the CFFO in the numerator in this ratio. ACFRCBMA4 aims measuring how many folds or per cent CFFO is produced to meet the capital expenditure made by a business. A ratio under 1 shows less CFFO than the capital expenditure the business produces. This ratio measures payment degree of the the capital investment via the CFFO.

2.3 The Usage Level of Items Used in the Four Cash Flow Ratios

As it could be seen from the Table 2, the items CFFO, asset acquisition, depreciation, dividend, cash paid for acquisition, and capital expenditure are used in the four ratios used in the capital budgeting and M&A functions of the CFCF model. From them, asset acquisition, cash paid for acquisition, and capital expenditure mean same thing. They all mean fixed investment of a corporate. However, in this article, the original words[6] of the writers cited has been protected. The three ratios could be used to measure cash flow-based amount of investment through ACFRCBMA1, ACFRBCMA3, and ACFRCBMA4. They show how many folds or what percentage of cash flow from operations (CFFO) is invested via ACFRCBMA1, how many folds or what percentage of "CFFO after dividend" of investment is created via ACFRCBMA3, and how many folds or what percentage of CFFO of investment is created via ACFRCBMA4. The other ratio ACFRCBMA2 is a little different ratio than the three ratios explained above. It aims to explain the relationship between depreciation and CFFO. All items of cash flow ratios used in capital budgeting and M&A functions of CFCF model could be found from cash flow statements. There is no need the balance sheet and the income statement. That is, all ratios used for the two functions could be calculated using only cash flow statement. These four cash flow ratios already had been class fielded in the Group A ratios of the CFCF model. This shows the degree or power of this capital budgeting and M&A functions of CFCF model about becoming really cash flow based.

Table 2. *Numbers of Usage of Items in the Cash Flow Ratios Used for Capital budgeting and M&A Functions*

Names of Items	Number of Usage	% usage in the ratios	% usage in total items
CFFO	4	100.00	44.45
Asset Acquisition, Cash Paid for Acquisition, Capital Expenditure	3	75.00	33.33
Depreciation	1	25.00	11.11
Dividend	1	25.00	11.11
Total	9		100.00

[6]Giacomino and Mielke (1993:57) use the concept "asset acquisition" (in ACFRCBMA1), Shim and Sigel (1992:96-99 and 624) use the concept) "cash paid for acquisition (in ACFRCBMA3", and Mills and Yamamura (1998:55-58) use the concept "" capital expenditure" (in ACFRCBMA4) for same meaning.

2.2.5 General Evaluation of Capital Budgeting and M&A Functions

It is pretty logical that all four ratios of the two functions of the model cover CFFO as an item of their two or three items. This means that the four ratios use the 50% (ACFRCBMA1, ACFRCBMA2, and ACFRCFMA4) or 33.33 % (ACFRCBMA3) the item CFFO in their items. This shows one of the two items for the ratios ACFRCBMA1, ACFRCBMA2, and ACFRCFMA4 and one of the three items for the ratio ACFRCBMA3. This could be thought as a very important indicator of the power of the CFCF model created by Yilmaz (2022) and Yilmaz (2023a) because the model emphasizes the cash base in its maid idea.

It is seen that these four ratios investigate fixed assets - CFFO relationship, their connections, their abnormality or normality through the business's accounting information. Investment or finance subsections of a business could use this information to improve their investment decisions.

3.Valuation Function of CFCF Model

3.1 Explanation of the Valuation Function

The cash flow ratios used for valuation function of CFCF model are shown at the Table 3 as below.

3.1.1 ACFRV1. Cash Flow Per Share

ACFRV1 measures how much dollars a stock earns. ACFRV1 uses the concepts "net cash flow" and "number of shares". It divides the first item to the second item. The investor learns how much money an investor earns via the cash flow per share ratio. This ratio could be used by investors and financial managers of the business during valuation of a business.

3.1.2 ACFRV2. Cash Flow per Share II

ACFRV2 covers "net cash flow from operations" instead of "net cash flow" in the ACFRV1. During ACFRV2 calculation, there needs some specific information and carefulness. ACFRV2 needs the items "net cash flow from operations" and "the number of shares outstanding". The first concept covers only a section of the cash flow statement. It's the first section of cash flow statement. The total of cash flow from operations is used to show the "net cash flow from operations". The output of the first section is already the net of cash inflows and cash outflows of operations. That is, there is no need calculating "net" of operating cash flow. The cash flow statement already shows it as the total number of the section of operating cash flow. Its output is different than that of the ACFRV1. Especially, it does not cover treasury stock. It means how much money a company produced via its operations to distribute to the capital market, that is, to its investors. This ratio could be used for evaluation of a business, too. In my opinion, this ratio is more useful from the point of operational cash flow without considering investment and financing cash flow. This measures the created cash flow by a business.

The items used in the two cash flow ratios are net cash flow, net cash flow from operations, number of shares and number of shares outstanding. The four items

Table 3. *Cash Flow Ratios Used in Valuation Function*

Code and name of ratio	Calculation of the ratio
ACFRV1. Cash Flow Per Share[7]	Net Cash Flow: Number of Shares
ACFRV2. Cash Flow Per Share II[8]	Net Cash Flow from Operations: The Number of Shares Outstanding

3.2 Usage Level of Items Used in Cash Flow Ratios for Valuation Function

Table 4. *Usage Level of the Items in the Cash Flow Ratios Used for Valuation Function*

Names of Items	Number of Usage	% usage in the ratios	% usage in total items
Net Cash Flow	1	50.00	25.00
Net Cash Flow from Operations	1	50.00	25.00
Number of Shares	1	50.00	25.00
The Number of Shares Outstanding	1	50.00	25.00
Total	4		100.00

[7.] This ratio was cited from Shim and Siegel (1992: 96). Shim and Siegel (1992:96) think that a high ratio indicates that the company is liquid.

[8.] This ratio was cited from Institute of Management Accountants (1994:18). The real name of this ratio is "cash flow per share". However, the name of ACFRV1 before this ratio is also "cash flow per share". Actually, the coverage of these two ratios is different, too. While the numerator of the ACFRV1 is "net cash flow", the numerator of ACFRV2 is "net cash flow from operations". These two concepts have different coverages. While the ACFRV1 covers all cash flows including from operating, investing, and financing activities, the ACFRV2 covers only cash flow from operating activities. For this reason, the writer of this paper (Yilmaz) added the "II" to the end of the ratio name "cash flow per share" to separate the two ratios.

are used equally. The reason for that is that the two ratios use different levels of some items. ACFRV1 and ACFRV2 fulfill "cash flow per share" style calculations. When the two ratios are calculated their outputs, they use different items. The difference was explained during 3.1.1 and 3.1.2 above.

3.3 General Evaluation of Valuation Function

Cash flows and cash flow per share of a business could be seen from the ratios. These numbers could be used for evaluation of a business or an investment candidate. In so doing, probably, more realistic value estimation could be fulfilled. Even only these two ratios could give better opinion than that of profit number and/or (profit+ depreciation= cash flow) number.

4. An Application on the Apple Corp. Cash Flow Statements

4.1 Application of Capital Budgeting and M&A Functions

The calculation of cash flow ratios of the capital budgeting and M&A function of the Apple Corp. is shown at the Table 5 as below.

Table 5. *The Calculation of the Cash Flow Ratios of the Capital Budgeting and M&A Functions of the Apple Corp.*

Code, Name, and the Ratio	The Calculation of the Ratio
ACFRCBMA1. Reinvestment of Cash= Asset Acquisition: CFFO	2021: 11,118,000[6]:104,038,000 =0.1069 2022: 11,014,000[7]:122,151,000 =0.0902 2023: 10,959,000: 110,543,000 =0.0991
ACFRCBMA2. Depreciation Effect= Depreciation: CFFO	2021: 11,284,000:104,038,000 =0.1085 2022: 11,104,000:122,151,000 =0.0909 2023: 11,519,000:110,543,000 =0.1042
ACFRCBMA3. Capital Acquisition = (CFFO-Dividend): Cash Paid for Acquisition	2021: (104,038,000-14,467,000): 11,118,000 =8.0564 2022: (122,151,000-14,841,000):11,014,000 =9.7431 2023: (110,543,000-15,025,000) :10,959,000 =8.7159
ACFRCBMA4. Capital Expenditure =CFFO: Capital Expenditure	2021: 104,038,000:11,118,000 =9.3576 2022: 122,151,000:11,014,000 =11.0905 2023: 110,543,000:10,959,000 =10.0870

The Summary of the cash flow ratios of capital budgeting and M&A functions of the Apple Corp. is shown at the Table 6 as below.

Table 6. *Summary of the Cash Flow Ratios of Capital Budgeting and M&A Functions of the Apple Corp.*

Code of the ratio	2021	2022	2023	Average
ACFRCBMA1	0.1069	0.0902	0.0991	0.0987
ACFRCBMA2	0.1085	0.0909	0.1042	0.1012
ACFRCBMA3	8.0564	9.7431	8.7159	8.8385
ACFRCBMA4	9.3576	11.0905	10.0870	10.1784

[9.] This number has been calculated like that:
Payments for acquisition of prop
erty, plant and equipment: 11,085,000,000
Payments made in connection with business acquisition, net: 33,000,000
Total 11,118,000,000

[10.] This number has been calculated like that:
Payments for acquisition of property, plant and equipment: 10,708,000,000
Payments made in connection with business acquisition, net: 306,000,000
Total 11,014,000,000

4.1.1 ACFRCBMA1. Reinvestment of Cash

ACFRCBMA1 ratios of the Apple corp. were 0.1069, 0.0902, and 0.0991 in the years 2021-2023, respectively. The average was 0.0987. It shows that the Apple has 9.87% asset acquisition of its CFFO. This could be explained that either the Apple Corp. has not fulfilled enough investment and/or fixed asset acquisition or it has abundant CFFO.

4.1.2 ACFRCBMA2. Depreciation Effect

ACFRCBMA2 ratios of the Apple corp. were 0.1085, 0.0909 and 0.1042 in the years 2021-2023, respectively. The average was 0.1012. It shows that the Apple has 0.1012 depreciation of its CFFO. It means 10.12 % of its CFFO. That is, the apple's fixed asset investment affects its CFFO in the percent of 10.12. About same trend with ACFRCBMA1 has been seen in this ratio because depreciation increase or decrease together with fixed investment. This is an expected behaviour.

4.1.3 ACFRCBMA3. Capital Acquisition

ACFRCBMA3 ratios of the Apple corp. were 8.0564, 9.7431, and 8.7159 in the years 2021-2023, respectively. The average was 8.8385. It shows that the Apple Corp. has 8.8385 folds "CFFO after paying its dividends" of capital acquisition. The Apple seems comfortable about financing its non-current asset acquisition. It could pay its acquisition with its homemade cash. Of course, this means financial cost saving and competitive advantage in its industry.

4.1.4 ACFRCBMA4. Capital Expenditure

ACFRCBMA4 ratios of the Apple corp. were 9.3576, 11.0905, and 10.0870 in the years 2021-2023, respectively. The average was 10.1784. It shows that the Apple has 10.1784 folds CFFO of capital expenditure. It shows that the company has created about 10 folds CFFO of its capital expenditure. It could also be thought the company's investment in fixed assets in accordance with its CFFO. There seems no any issue for today or in a short time because there is no CFFO creating problem. However, in the future, it could be some problems for CFFO creating because the future's CFFO is created through today's investment.

4.1.5 General Evaluation of Capital Budgeting and M&A in the Apple Corp.

The Apple Corp. has enough CFFO to finance its investments. There is no need for external finance sources. For this reason, it has 0financial cost advantage against "its external financial source using" competitors. Cash creating of the corporate is not dependent on the depreciation. It is only about 10% of the CFFO.

4.2 Application of Valuation Function

The Calculation of cash flow ratios for valuation function of the Apple Corp. are shown at the Table 7 as below.

Table 7. *Calculation of Valuation Function of the Apple Corp.*

Code, Name, and the Ratio	The Calculation of the Ratio
ACFRV1. Cash Flow Per Share=Net Cash Flow: Number of Shares	2021: (104,038,000-14,545,000-93,353,000):16,426,786= -0.2350 2022: (122,151,000- 22,354,000 -110,749,000):15,943,425= -0.6870 2023: (110,543,000+3,705,000 -110,749,000):15,550,061= 0.2250
ACFRV2. Cash Flow Per Share II= Net Cash Flow from Operations: The Number of Shares Outstanding	2021: 104,038,000: 16,426,786 =6.3334 2022: 122,151,000:15,943,425 = 7.6615 2023: 110,543,000: 15,550,061 = 7.1088

The Summary of the cash flow ratios of valuation function of the Apple Corp. is shown at the Table 8 as below.

Table 8. *Summary of the Cash Flow Ratios Used for Valuation Function of the Apple Corp.*

Code of the ratio	2021	2022	2023	Average
ACFRV1	-0.2350	- 0.6870	0.2250	-0.2323
ACFRV2	6.3334	7.6615	7.1088	7.0346

4.2.1 ACFRV1. Cash Flow Per Share

ACFRV1 ratios of the Apple corp. were -0.2350, -0.6870, and 0.2250 in the years 2021-2023, respectively. The average was -0.2323. It means that the Apple Corp. produces negative net cash flow and the negative net cash flow is -0.2323 per share. The Apple Corp. seems bad in producing "cash flow per share". However, the ratio's numerator covers "net cash flow", not Cash Flow from Operations. The net cash flow includes all of the three sections of cash

flow statement. In 2021, the CFFO was $104.038. However, cash flow from investing activities was $-14,545 and cash flow from financing activities was -93,353. Total of the two items were $-107,898. After considering the negative items, the net cash flow is $-3,860. When it is divided to the number of shares,16,426,786, the ratio is calculated as $-0.2350. It means -23.5 cents. The ratio of the year 2022 was also negative because of the same reason. This means that in 2021 and 2022, the Apple has more investing and financing cash out than CFFO. It is growing and for this reason, it has been financed by external sources.

4.2.2 ACFRV2. Cash Flow per Share II

ACFRV2 ratios of the Apple corp. were 6.3334, 7.6615, and 7.1088 in the years 2021-2023, respectively. The average was 7.0346. The Apple has $7.0346 net operating cash flow per share. Its corporate value is increasing. In my opinion, this ratio is more meaningful than the former ratio, the cash flow per share. Its reason is the cash flow per share II's coverage. The numerator of this ratio covers CFFO which is created by the company, the Apple.

4.2.3 General Evaluation of the Valuation Function of the Apple Corp.

If it is considered that during valuation of a company, cash flows are discounted to present value and the discounted cash flow concept is considered CFFO, the ACFRV2 in this context, the truest company value is calculated. The Apple Corp. is producing CFFO in all years, 3 years, in this context. As a result, it is producing cash flow from operations per share in all the years. It seems good from the point of valuation functions.

5. Conclusion

In this article, capital budgeting, M&A, and valuation functions of cash flow based corporate finance (CFCF) model were explained. In so doing, the explanation of the six functions of cash flow based corporate finance (CFCF) model was completed. The functions explained before this article were working capital management (Yilmaz, 2023b), capital structure (Yilmaz, 2024a), and dividend policy (Yilmaz,2024b).

This corporate finance model, CFCF model, requires accounting knowledge in some level especially about financial statements. Especially, the logic of cash flow statement should be understood. After the beginning of the model, that is cash flow ratios, the corporate finance insight should be considered function by function.

The only difference from the traditional corporate finance or accrual corporate finance is considering cash flow insight through all the six functions of the CFCF model.

This model does not exclude traditional corporate finance. Just the opposite, it aims contributing the theory of corporate finance bringing it more cash flow insight not to hear anymore "I have profit, but I bankrupted" complaints from corporate finance managers or businessmen. Because the profit is not cash.

6. References

1. Giacomino D.E. and D.E. Mielke, 1993, "Cash Flows: Another Approach to Ratio Analysis", Journal of Accountancy, Vol. 175, No.3, 55-58.
2. Institute of Management Accountants, 1994, *Management Accounting Glossary*, Prentice Hall, New Jersey.
3. Ketz, J. Edward, "Free Cash Flow and Business Combinations", The CPA Journal, November 2016, pp.48-53.
4. McLaney, E., Business Finance Theory and Practice, Prentice Hall, Eight Edition, 2009.
5. Mills J. R. and J.H. Yamamura, 1998, "The Power of Cash Flow Ratios", Journal of Accountancy, Vol.186, No.4, 53- 61.
6. Ross S.A, R.W. Westerfield and B.D. Jordan, Fundamentals of Corporate Finance, Sixth Edition, McGraw-Hill, Boston, 2003
7. Shim J. K. and J.G. Siegel, 1992, *The Vest-Pocket CFO*, Prentice Hall, New Jersey.
8. US Security and Exchange Commission, Form 10-K, September 25, 2021, Apple Inc., Commission File Number:001-36743.
9. US Security and Exchange Commission, Form 10-K, September 24, 2022, Apple Inc., Commission File Number:001-36743.
10. US Security and Exchange Commission, Form 10-K, September 30, 2023, Apple Inc., Commission File Number:001-36743.
11. Van Horne James C, 1971, *Financial Management and Policy*, Prentice-Hall, Second Edition, New Jersey.
12. Yilmaz H, "Cash Flow Based Corporate Finance (CFCF) Model", 2022, American Journal of Financial Management, Vol.5, No.9, pp. 1-18

13. Yilmaz H., (2023a), "Some Improvements in Cash Flow Based Corporate Finance (CFCF) Model", American Journal of Financial Management, Vol.6, No.10, pp. 1-24.

14. Yilmaz H., (2023b), "Working Capital Management Function of Cash Flow Based Corporate Finance (CFCF) Model", American Journal of Finance, Vol.8, Issue.1, pp.31-49.

15. Yilmaz H., (2024a), "Capital Structure Function of Cash Flow Based Corporate Finance (CFCF) Model", American Journal of Finance, Vol.9, Issue.1, pp.1-14.

16. Yilmaz H., (2024b), "Dividend Policy Function of Cash Flow Based Corporate Finance (CFCF) Model", Journal of Banking and Finance Management, Volume 5, Issue 1, pp. 11-19.

Appendix: Codes Used in Capital Budgering, M&A, and Valuation Functions of CFCF Model and Their Meaning

Code	Full Name of the Code
ACFRCBMA1	Group A cash flow ratio 1 for capital budgeting and M&A
ACFRCBMA2	Group A cash flow ratio 2 for capital budgeting and M&A
ACFRCBMA3	Group A cash flow ratio 3 for capital budgeting and M&A
ACFRCBMA4	Group A cash flow ratio 4 for capital budgeting and M&A
ACFRV1	Group A cash flow ratio 1 for valuation
ACFRV2	Group A cash flow ratio 2 for valuation
CFFO	Cash flow from operations
CFCF	Cash flow based corporate finance