8-1971

Preparation and Utilization of Cash Flow Reports

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PREPARATION AND UTILIZATION OF

CASH FLOW REPORTS

by

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B. S. in Business Administration,

University of North Dakota 1968

An Independent Study

Submitted to the Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the Degree of

Master of Science

Grand Forks, North Dakota

~~September~~ August

~~1968~~ 1971

This Independent Study submitted by Paul Bohrer in partial fulfillment of the requirements for the Degree of Master of Science from the University of North Dakota is hereby approved by the Faculty Advisor under whom the work has been done.

(Advisor)

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Introduction

The financial statements of a company have consisted traditionally of a Balance Sheet, an Income Statement, and a Retained Earnings Statement. The decisions of management, investors, and stockholders have been guided by these three statements for a number of years. Even recently, these three statements have been mentioned as the only ones a person needs to study when planning to invest in a particular firm.[1]

Since the late 1950's, a growing number of accountants and businessmen have questioned whether adequate decisions can be based on these three financial statements. This paper discusses "cash flow" and how it relates to the Statement of Source and Application of Funds. This statement, when properly prepared, is an additional tool which decisions-makers can use as a guide in determining their companies' needs.

The statements shown in this paper were created by this writer for purposes of illustration, and any similarity between them and those of an existing company is purely coincidental.

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[1] "Tips You Can Dig Out of Financial Reports," Changing Times, March, 1966, pp. 29-31.

Objectives

The term "cash flow" has many meanings. In financial analysis "cash flow" means net income after adding expense items not currently using cash and deducting revenue items not currently providing cash.[2] Other writers define "cash flow" as net profit after dividends, depreciation, depletion, net deferred income taxes, and non-cash income have been added to the net income reported on the income statement.[3]

The term "cash flow" is really not correct, because "cash flow" is neither cash nor flow. Adding items such as depreciation does not convert net income to cash flow, because the result still reflects accrued items in Cost of Goods Sold and Operating Expenses. It is not flow either because the total is a result of a flow, not a measure of the flow itself.[4]

Persons who calculate cash flow emphasize it is not a substitute for net income, because it does not measure the increase in stockholders' equity.[5]

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[2]Perry Mason, Cash Flow Analysis and the Funds Statement, An Accounting Research Study, No. 2 (New York: American Institute of Certified Public Accountants, 1961), p. xv.

[3]J. B. Weiner, "Masters of Cash Flow Management," Duns Review, July, 1966, p. 31.

[4]Mason, p. 5.

[5]Mason, p. 39.

What type of firm is able to generate a high cash flow? Is a high cash flow indicative of size, prestige, or a particular industry? The answer to the second question leads to the answer to the first one. The size or prestige of a firm bears little resemblance to its cash flow, but the type of industry may be indicated by its cash flow. Two traits seem to stand out in firms having a high cash flow. The firm is usually involved in either selling high profit margin products or leasing more of its products than it sells.[6] For instance, "Xerox Corporation's cash flow has been twice its net income in each of the last ten years."[7]

Cash flow calculations are useful in many ways. The figure may be used in trying to judge a firm's ability to meet debt retirement, or its ability to maintain its dividend policy.[8] Management may find the figures useful in determining whether the company can plan for expansion or finance replacements of machinery and equipment.[9] Investors may study it for the same reasons.

Depreciation is, in many cases, the only major item added back to the net income of a company. Cash flow does not necessarily vary with the rate or method of depreciation used. It does vary to the extent that a certain depreciation method

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[6]Weiner, p. 31.

[7]Weiner, p. 32.

[8]Mason, xv.

[9]Mason, xv.

Comparative funds statements have recently gained significance. Comparative statements, prepared for several years, give a small history of the firm. These statements show the past and present financing methods, dividend policies, contribution of funds derived from operations to growth of the company, and provide clues to future money requirements.[15] Comparative statements have some definite advantages. These include the fact that trends are shown, progress and effect of financial policies are shown, and long-term results are shown.[16] Comparative statements also have some definite disadvantages. The first is that they lack flexibility. Another is that the statements become very long and difficult to read. The last disadvantage is that they do not show clearly the company's current problems and policies.[17]

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[15]Mason, p. 50.

[16]Mason, p. 88.

[17]Mason, p. 88.

Definitions and Preparation

The funds statement starts with a comparative balance sheet. The net changes during the period are then listed. The funds statement is an attempt to analyze the changes in a particular account or group of accounts for the period being examined.

The net change in each of the accounts must be divided into a source of funds or an application of funds, This is the major problem in preparing the funds statement.

What constitutes a source or application of funds? Generally speaking, sources of funds are decreases in assets or increases in liabilities or in stockholders' equity. Increases in assets or decreases in liabilities or stockholders' equity constitute an application of funds.[18]

Probably the most common adjustment made on a funds statement is the addition of depreciation to net income. Does this mean that depreciation is a source of funds? According to the American Institute of Certified Public Accountants, depreciation is not a source of funds. It is a non-fund transaction, since cash is not transferred when the charge is made.[19]

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[18] Mason p. 48.

[19] Mason p. 42.

Some of the items, besides depreciation, that are adjusted on the funds statement include deferred taxes, deferred executive compensation, unexpected pension costs, and long-term deferred credits.[20] A few items are similar; therefore, they should be handled in a similar manner. These include depreciation, amortization of intangibles, research costs, and bond discounts.[21]

Five different definitions of funds exist, of which four have been used by companies preparing funds statements. One of the definitions is "cash".[22] In this definition, cash means undeposited cash and demand deposits. It corresponds to the cash basis of accounting. Net income is adjusted for changes in Accounts Receivable, Accounts Payable, Inventories, Accrued Revenue and Expenses. Under this definition, the funds statement will have the largest number of non-fund adjustments.

Another definition commonly used is "net monetary assets."[23] The funds statement compiled under this definition is very similar to the one computed under the cash definition. The main differences occur in the manner in which inventories and prepaid expense items are handled. These differences are illustrated later in the paper. (See page 9.)

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[20]Mason, p. 63.

[21]Mason, p. 60.

[22]Harry Simons and Wilbert E. Karrenbrock, Intermediate Accounting (Cinncinnati, Ohio: South-Western Publishing Company, 1964), p. 841.

[23]Simons and Karrenbrock, p. 840.

A third definition of funds is "working capital."[24] A funds statement made up under this definition accounts for the change in working capital in the period being considered. This is the most common method of preparing a funds statement.[25]

A fourth definition of funds is "cash and marketable securities."[26] This method includes temporary investments along with cash as the changes that the statement is to explain. This method is not used very often, because it is very similar to the cash definition.

The final definition of funds is the "all financial resources" definition.[27] Under this concept, all transactions affecting a source or application of funds are shown on the statements. This includes items that are not shown on the other statements, such as, exchanges of stock for assets and gifts. The funds statement will have fewer non-fund adjustments under this concept than under any of the other definitions.[28]

One of two methods is usually employed when preparing a funds statement.[29] The most common method is to adjust net income by reversing the non-fund transactions. The second method includes all income and deducts all out-of-pocket ex-

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[24] Simons and Karrenbrock, p. 840.

[25] Mason, p. 53.

[26] Mason, p. 52.

[27] Simons and Karrenbrock, p. 839.

[28] Mason, p. 59.

[29] Mason, p. 58.

penditures. This second method differs from the first in that it shows no non-fund transactions.

The following discussion relates primarily to the actual preparation of the funds statement. All the definitions of funds except "cash and marketable securities" are illustrated in the Appendix, to which this discussion refers. The illustrations do not show all the types of transactions that affect the funds flow in a firm; however, several transactions that require detailed analysis follow the analysis of the funds statements shown in the Appendix.

The two year Balance Sheet with net changes for Company A is presented as Exhibit A in the Appendix. This is the starting point for the funds statement. The Income Statement and Retained Earnings Statement are presented as Exhibits B and C. These two statements give additional information which is needed for completing the funds statement.

After one has completed the balance sheet and changes section of the working papers, the next step is to analyze the transactions that affected the accounts during the year. An explanation of certain transactions affecting the accounts of Company A appears as Exhibit D in the Appendix. The main job confronting the preparer of the funds statement is to show the effect of these transactions on the funds flow of the company. His adjustments are affected by the definition of funds that he is using.

Exhibit E in the Appendix is a funds statement prepared under the "cash" definition of funds.[30] Note that under this definition, the net income or loss from operations is adjusted for all current items, both assets and liabilities, as well as the non-fund adjustments of depreciation and amortization. The adjustments follow the general rule that decreases in assets and increases in liabilities are considered as funds provided, and that decreases in liabilities and increases in assets are considered as funds applied. The illustration shows that the "cash" definition accounts for the difference between the beginning and ending cash balances shown on the comparative balance sheet.[31]

The second method or definition illustrated in the Appendix is the "net monetary asset" definition.[32] This method requires some additional comments. First, when one considers the definition of net monetary assets, one finds that it is the difference between the total liabilities and the monetary assets of a firm. Under the "net monetary asset" definition of funds, the definition is changed. In fact, it is changed so much that it is a complete misnomer, although the present writer could not find a definite statement to this effect. Instead of being called the net monetary asset definition, it should be called a "quick asset" definition. The following discussion points out the fallacy of the net monetary asset definition.

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[30]Simons and Karrenbrock, p. 841.

[31]Simons and Karrenbrock, p. 841.

[32]Simons and Karrenbrock, p. 841.

When examining the funds statement prepared under this method, one will see that the total funds applied are equal to those in the example done under the cash definition. One will also note that only prepaid expenses and inventories enter the adjustments portion of the statement instead of all current assets and liabilities. Is the figure shown at the bottom of the statement really the actual decrease in net monetary assets?

The funds provided are correct as shown as prepaid items and inventories are not monetary assets because their value is affected by price level changes. The funds applied is wrong, however, because it takes into account the decrease in a liability that should be shown in the bottom part of the statement. The bonds require a fixed amount be paid whether they are paid off today or in ten years. They are definitely monetary in nature. Instead of a decrease of $5,100 in net monetary assets as is shown on the statement, this writer believes an increase in net monetary assets of $9,900 has occurred during the year, because of the $15,000 decrease in bonds payable. This statement can be supported by referring to the definition of net monetary assets: total liabilities minus monetary assets. Using the figures in the illustration, the excess of total liabilities over monetary assets has decreased by $9,900. This clearly indicates the definition of net monetary assets for fund statement purposes does not follow the true definition of net monetary assets.

The third method, illustrated in Exhibit G, is the "working capital" method. As was noted earlier, this method reconciles the change in working capital from one period to another.[33] Once again the total funds applied is the same as in the two previous methods; however, the only additions and deductions from the reported net income or loss are those that do not affect the current assets or current liabilities. In this case, only the non-fund adjustments of depreciation and amortization are added to the net income. If there were losses or gains on sales of assets, these would also be shown in the funds provided section as additions to or deductions from net income. The results of this method can be checked very easily: one can figure out the working capital for each year and compare the two totals; the total difference should equal the total shown on the funds statement.

The last exhibit in the Appendix shows a funds statement prepared under the "all financial resources" definition of funds.[34] The main difference between this and the other methods illustrated is that the exchange of stock for the addition to the building is shown, while in the other methods this transaction is not shown. Another difference is that under the "all financial resources" method, the "total funds applied" balances with the "total funds provided." Because it shows more transactions, the "all financial resources" method is the one recommended by the American Institute of Certified

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[33]Simons and Karrenbrock, p. 840.

[34]Simons and Karrenbrock, p. 839.

Public Accountants.[35] This method is somewhat contradictory. While it does show more information than other methods, it, like those methods, does not show a stock dividend, because there was no receipt or expenditure under any concept of the term funds. This transaction could, in some cases, greatly influence investors.

One type of transaction that requires detailed analysis is the converting and refunding of stock. Under the all financial resources definition, this transaction should be shown. The preparer of the funds statement must break the transaction into its two parts, the redeeming of the first stock and the issuing of the new stock. At times a company may both issue and retire long term debt securities in the same year. The company may be tempted to "net" these two figures on the funds statement. The American Institute of Certified Public Accountants recommends that under the all financial resources method, both the issue and the redemption figures should be shown if the statement is to show a clear picture of the company's funds flow.

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[35]Grady, p. 315.

Use

Is "cash flow" gaining in importance? If so, what are accountants' responsibilities in seeing that it is reported properly? One might think the answer to the first question is obvious; however, three factors lead to inconsistent ideas concerning accrual accounting and cash flow. One of these three items is the lack of uniformity of accounting principles. Another is the attempt by persons to simplify things as much as possible. The third factor is the tremendous importance placed on the net income figure.[36] Although these factors may be limiting the growth of importance of cash flow, the American Institute of Certified Public Accountants recommends that a detailed funds statement showing cash flow be shown in the year-end financial statements of a firm.[37]

The answer to the second question requires more detail because an accountant's responsibility to his client is just as important as his responsibility to the general public. Because the transactions vary in significance greatly from year to year, consistency as to the arrangement of items is less important than the arrangement of items on either the

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[36] Mason, xi.

[37] Mason, p. 43.

If this distortion is taking place, a separate funds statement should be shown for each company.[43]

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[43]Mason, p. 69.

Conclusion

While the American Institute of Certified Public Accountants as a whole seems to feel that the funds statement should appear with the other financial statements, the Opinion Board leaves it up to the individual companies and their accountants and auditors.[44] The title of the funds statement should indicate clearly that it is "not a statement of financial position, but is a report of financial changes during the period."[45] It is "a condensed report of how the activities of the business have been financed, and how the financial resources have been used during the period covered by the statement."[46]

The importance of cash flow in today's fast moving economy is best summed up by the following two statements.

> By using cash flow to its fullest, a company may increase the physical plant and equipment without increasing invested capital, if all of the funds saved by depreciation were used to buy new equipment.[47]

Russell Erickson, President of Rayonier, Inc. says:

> To me, in terms of financial planning, cash

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[44] Grady, p. 315.

[45] Mason, p. 57.

[46] Mason, p. 90.

[47] Mason, p. 35.

> flow is the basic criterion. Our entire long range planning program is based on cash flow. As a matter of fact, in the last eight years we've been able to finance all our growth--capital expenditures, dividends, interest costs, and so on--from internally generated funds.[48]

Although the first statement may not be true in times of rising prices, together these statements show that businessmen as well as accountants have recognized the need for more information if they are to properly guide the multi-million dollar industries of today.

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[48]Weiner, p. 31.

Company A
Comparative Balance Sheet
December 31, 1967

	1966	1967	Inc. or (Dec.)
ASSETS:			
Cash	$ 42,500	$ 37,000	$(5,500)
Accounts Receivable	28,000	35,000	7,000
Merchandise Inventory	65,500	61,500	(4,000)
Accrued Income	2,100	1,700	(400)
Prepaid Expenses	2,200	2,000	(200)
Land	75,000	95,000	20,000
Building	170,000	200,000	30,000
Acc. Depr. - Building	(69,000)	(79,000)	(10,000)
Office Equipment	30,000	33,000	3,000
Acc. Depr. - Off. Equip.	(14,700)	(19,000)	(4,300)
Machinery	62,000	68,000	6,000
Acc. Depr. - Machinery	(41,600)	(46,200)	(4,600)
Goodwill	60,000	50,000	(10,000)
Patents	24,000	21,000	(3,000)
TOTAL ASSETS	$436,000	$460,000	$24,000
LIABILITIES AND STOCKHOLDERS EQUITY:			
Notes Payable	$ 7,500	$ 12,000	$ 4,500
Accounts Payable	32,000	34,000	2,000
Accrued Expenses	1,800	1,500	(300)
Bonds Payable	100,000	85,000	(15,000)
5% Preferred Stock($100 par)	100,000	120,000	20,000
Common Stock ($50 par)	150,000	155,000	5,000
Additional Paid-in-Capital	10,000	25,000	15,000
Retained Earnings	34,700	27,500	(7,200)
TOTAL LIAB. & EQUITY	$436,000	$460,000	$24,000

EXHIBIT B

Company A
Comparative Income Statement
For the Years Ended December 31, 1966 and 1967

	1966		1967	
Income:				
Sales (Net)		$151,500		$159,500
Cost of Goods Sold:				
Msde. Inv. (Beg.)	$ 62,000		$ 65,500	
Purchases (Net)	81,500		85,000	
Goods Avail for Sale	$143,500		$150,500	
Less: End. Inv.	65,500		61,500	
Cost of Goods Sold		78,000		89,000
Gross Profit		$ 73,500		$ 70,500
Operating Expenses:				
Utilities	$ 2,600		$ 2,900	
Depreciation	15,400		18,900	
Patent Amortization	10,000		10,000	
Goodwill Amortization	3,000		3,000	
Interest	5,000		5,000	
Salaries & Wages	26,000		27,000	
Taxes & Insurance	6,500		4,900	
Total Expenses		68,500		71,700
NET INCOME (LOSS)		$ 5,000		$ (1,200)

EXHIBIT C

Company A
Comparative Retained Earnings Statement
For the Years Ended December 31, 1966 and 1967

	1966	1967
Retained Earnings January 1	$40,700	$34,700
Add: Net Income (Loss)	5,000	(1,200)
	$45,700	$33,500
Less: Dividends	11,000	6,000
Retained Earnings December 31	$34,700	$27,500

EXHIBIT D

Company A
Analysis of Changes

Sold Common Stock (100 shares, $50 Par)		$10,000
Paid for building addition by issuing 200 shares, $100 par, to contractor		$30,000
Purchased Land		$20,000
Retired Bonds		$15,000
Purchased Machinery		$ 6,000
Purchased Office Equipment		$ 3,000
Paid Dividends		$ 6,000
Depreciation:		
Building	$10,000	
Office Equipment	4,300	
Machinery	4,600	
Total		$18,900
Amortization:		
Goodwill	$10,000	
Patents	3,000	
Total		$13,000

EXHIBIT E

Company A
Statement of Source and Application of Funds
Defined as Cash
For the Year Ended December 31, 1967

Cash was provided by:		
Sale of Common Stock		$10,000
Operations:		
Net Income (Loss)	$(1,200)	
Add: Depreciation	18,900	
Amortization	13,000	
Dec. in Prepaid Exp.	200	
Dec. in Inventories	4,000	
Dec. in Accrued Income	400	
Inc. in Accounts Pay.	2,000	
Inc. in Notes Payable	4,500	43,000
		$51,800
Deduct:		
Dec. in Accrued Exp.	$ 300	
Inc. in Accounts Rec.	7,000	7,300
		$44,500
Cash was applied to:		
Purchase of Land	$20,000	
Purchase of Equipment	6,000	
Purchase of Office Equipment	3,000	
Retirement of Bonds	15,000	
Dividends	6,000	50,000
Decrease in Cash		$ 5,500

EXHIBIT F

Company A
Statement of Source and Application of Funds
Defined as Net Monetary Assets
For the Year Ended December 31, 1967

Net Monetary Assets were provided by:		
Sale of Common Stock		$10,000
Operations:		
Net Income (Loss)	$(1,200)	
Add: Depreciation	18,900	
Amortization	13,000	
Dec. in Prepaid Exp.	200	
Dec. in Inventories	4,000	34,900
		$44,900
Net Monetary Assets were applied to:		
Purchase of Land	$20,000	
Purchase of Machinery	6,000	
Retirement of Bonds	15,000	
Purchase of Office Equipment	3,000	
Dividends	6,000	50,000
Decrease in Monetary Assets		$ 5,100

The decrease in Monetary Assets is accounted for as follows:

Net Monetary Assets	Dec. 31 1966	Dec. 31 1967	Inc. (Dec.)
Monetary Assets:			
Cash	$42,500	$37,000	$(5,500)
Accrued Income	2,100	1,700	(400)
Accounts Receivable	28,000	35,000	7,000
Current Liabilities:			
Notes Payable	7,500	12,000	(4,500)
Accounts Payable	32,000	34,000	(2,000)
Accrued Expenses	1,800	1,500	300
Decrease in Monetary Assets			$ 5,100

EXHIBIT G

Company A
Statement of Source and Application of Funds
Defined as Working Capital
For the Year Ended December 31, 1967

Working Capital was provided by:		
Sale of Common Stock		$10,000
Operations:		
Net Income (Loss)	$(1,200)	
Add: Depreciation	18,900	
Amortization	13,000	30,700
		$40,700
Working Capital was applied to:		
Purchase of Land	$20,000	
Retirement of Bonds	15,000	
Purchase of Machinery	6,000	
Purchase of Office Equipment	3,000	
Dividends	6,000	50,000
Decrease in Working Capital		$ 9,300

The decrease in working capital is accounted for as follows:

Working Capital Items	Dec. 31 1966	Dec. 31 1967	Inc. (Dec.)
Current Assets:			
Cash	$42,500	$37,000	$(5,500)
Accounts Receivable	28,000	35,000	7,000
Merchandise Inventory	65,500	61,500	(4,000)
Prepaid Expenses	2,200	2,000	(200)
Accrued Income	2,100	1,700	(400)
Current Liabilities:			
Notes Payable	7,500	12,000	(4,500)
Accounts Payable	32,000	34,000	(2,000)
Accrued Expenses	1,800	1,500	300
Decrease in Working Capital			$ 9,300

EXHIBIT H

Company A
Statement of Source and Application of Funds
Defined as All Financial Resources
For the Year Ended December 31, 1967

Funds were provided by:		
Sale of Common Stock		$10,000
Operations:		
Net Income (Loss)	$(1,200)	
Add: Depreciation	18,900	
Amortization	13,000	
Dec. in Working Capital	9,300	
Issuance of Preferred Stock	30,000	70,000
Total Funds Provided		$80,000
Funds were applied to:		
Purchase of Land	$20,000	
Purchase of Building	30,000	
Purchase of Machinery	6,000	
Purchase of Office Equipment	3,000	
Dividends	6,000	
Retirement of Bonds	15,000	
Total Funds Applied		$80,000

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