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CASH FLOW—THE OIL THAT KEEPS THE SMALL AND FAMILY BUSINESS ORGANIZATION RUNNING SMOOTHLY*

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ABSTRACT

The purpose of this paper is to emphasize the importance of cash flow and the purposes of uses of the Statement of Cash Flows. Two different methods of calculating cash flows from operations are presented along with a discussion of ways to interpret cash flows and how to plan for future activity. The importance of cash flow should be clear to the financial manager whether the business entity be a small family business or a major corporation. A shortage of cash flow could result in the loss of valuable trade discounts or, in extreme circumstances, financial embarrassment and bankruptcy. While a cash surplus does not necessarily translate into greater returns to owners, it certainly provides opportunities for prospective buyers who understand how to utilize positive cash flows. The caveat for interpreting cash flow is the same as that used for net income: quality counts. This means that firms that depend heavily on depreciation to generate cash flow are not looked on as favorably as firms that have a preponderance of cash flow from operations. Furthermore, cash flow should be analyzed to make certain that the company is investing properly in order to maintain future operations. Managers who attempt to improve cash flow artificially by ignoring necessary investments in plant and equipment may not be familiar with the concepts of cash flow.

INTRODUCTION

Before the business day is over, probably a dozen small companies in our nation will declare bankruptcy. The Small Business Administration states that most businesses fail for lack of good management (Small Business Administration, 1988). According to the Bank of America, the history of small business failures reveals that many firms fail because of inadequate working capital and poor cash flow management. Small business managers must always be concerned with their company's day-to-day financial position, as well as its future growth and profitability. It becomes necessary to ensure that your company is using its assets and liabilities effectively, is able to meet current obligations and borrow funds when necessary, and is financially prepared to support future operations.

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A good starting point in an effort to enhance future operations would be in planning cash flow — planning cash and planning profits period by period, performing cash flow analysis, calculating cash flow from extended data, determining free cash flow and undedicated cash flow and the cash conversion cycle. The purpose of this paper is to suggest some procedures a small family business manager might follow in planning cash flow.

The income statement and the balance sheet, the general purpose and generally accepted financial statements, do not answer all questions raised by users of financial statements. Such questions include: How much cash was generated by the company's operations? How much was spent for equipment and property, and where did the company get the cash for the expenditures? How was the company able to make distributions to the owners when it incurred a net loss for the year? The statement of cash flows answers those questions.

In November 1987, the Financial Accounting Standards Board issued *Statement of Financial Accounting Standard No. 95*, "Statement of Cash Flows (FASB, 1987)." The statement is effective for annual financial statements for fiscal years ending after July 15, 1988. Thus, the statement of cash flows is now one of the major financial statements issued by a public company. Unfortunately many small businesses do not prepare this statement and are content with the conventional statements — the income statement and balance sheet.

The main purpose of a statement of cash flow is to report on the cash receipts and cash disbursements of an entity for a period. Cash is broadly defined to include both cash and "cash equivalents," such as commercial paper and money market funds. A secondary purpose is to report on the entity's investing and financing activities for the period. To accomplish these purposes, the statement of cash flows reports the effect on cash during a period of its operating activities, investing activities, and financing activities. The effects of investing and financing activities that do not affect cash are also shown. A reconciliation of net income and cash flows from operating activities is also provided. If one could visualize the income statement as a motion picture and the balance sheet as a still photo in black and white, the statement of cash flows converts the balance sheet into a motion picture in technicolor.

The statement of cash flows summarizes the effects on each of the operating, financing, and investing activities of a company for a period; it reports on past management decisions on such matters as expansion and the incurrence of debt. This information is available only in bits and pieces from other financial statements. Because cash flows are vital to a company's financial health, the statement of cash flows provides useful information to management and other interested parties, especially creditors and investors.

This paper deals with the financial management of organizations whether they be the large multi-national corporation or the small independent family business. Financial management is not confined to preparing financial statements, managing the petty cash, paying bills, collecting debts, and handling relations with banks. Almost every action of the small business and every decision made by its manager(s) or the individual entrepreneur has financial implications.

For the most part, small business owners are concerned with the future. They must formulate decisions in terms of plans, with sufficient flexibility to adopt them to ever-changing circumstances.

As a small business grows in scale and complexity, so does the area of financial decision making. The following is a list of what the author believes are the five most important responsibilities of small business owners in this environment:

1. To ensure that the company always has enough cash to meet its legal obligations.
2. To arrange to obtain whatever funds are required from external sources at the right time, in the right form, and on the best possible terms.
3. To use their knowledge and viewpoint to ensure that the company's assets and liabilities - current and long-term —are utilized as effectively as possible.
4. To forecast and to plan for the financial requirements of future operations.
5. To perform all the above functions and make all decisions on the basis of one key criterion: maximizing the long-term wealth of the company's owners ("Steps to Starting a Business," 1986).

As the operations of a company go on day-by-day and month-by-month, they cause cash to be received and cash to be disbursed. Moreover, these receipts and disbursements will not always balance out to a steady, gradual increase in the company's cash, even if the company is making steady profits. Large cash outflows will occur at times, such as when income taxes are due or a major new capital investment must be paid for. Thus, over the short term, the cash balances of any company fluctuate considerably.

There are two reasons for planning cash flow. The first reason is to ensure that short-term sources of funds can be negotiated and arranged well in advance of having to use them. As the cash flows fluctuate, there may be a time when cash balances fall below zero. These shortfalls must be anticipated so that the liquidity of the business is not jeopardized. It is much easier to negotiate a short-term loan in advance, thereby giving the indication of good management, than it is to attempt to secure funds at the last moment in a crisis.

The second reason for planning cash flow is just as important if not more so than the first, especially during high inflation periods. As a result of fluctuations, cash balances may be much higher than immediate needs. The idle cash must be invested in short-term money-market instruments as soon as the cash becomes available, so as to preserve its purchasing power and contribute to business profitability. Whether the business's cash budget indicates a shortfall or a surplus, the manager of the firm must take appropriate action in a timely manner.

PLANNING FOR PROFITS AND CASH FLOW

Although there is a relationship between them, profits are not the same as cash flow. Profit is an accounting concept designed to measure the overall performance of the company. It is a somewhat nebulous concept, open to various measurement techniques and accounting principles each of which produces somewhat different results, which are then open to different interpretations.

In contrast, cash flows are not a measure of a company's performance. Take two extremes: a new, profitable company, and an old, unprofitable company heading for bankruptcy and/or receivership. The results in terms of cash flow are likely to be the same: declining cash balances. A company can show a handsome profit and a net cash outflow in the same month, if it chooses

to pay for new equipment in that month. It can equally show a substantial loss and an increased cash balance in one month, if the results of increased borrowing or the proceeds from the sale of other assets are received in that month.

However, the concept of cash is not nebulous. Either the company has a certain amount of cash or it does not. And a lack of cash is critical. A company can sustain losses for a time without suffering permanent damage, but a company that has no cash is insolvent and in imminent danger of bankruptcy, no matter what its profit picture may be. Thus, many financial transactions that do not enter into the calculation of profit — such as buying new operating assets, getting additional financing, and making distributions to owners — enter into cash flows. Similarly some transactions that enter into the determination of profit —notably, the deduction of depreciation expenses — do not enter into cash flows because they are non-cash transactions with no effect on cash balances.

PLANNING PERIODS

Cash flow planning consists of both short-and-long-term forecasts. The principal purpose of a short-term forecast is to identify temporary cash shortages or surpluses and to deal with them. The primary purpose of a long-term forecast is to establish long-term goals and objectives and provide a financial plan to meet the desired target.

Short-term forecasts are often prepared on a receipts minus disbursements basis, while longer term forecasts are usually based on an adjusted net income approach. The short-term forecast is focused on the timing of cash flows and on the availability of cash to meet bills as they come due. An insufficient level of cash on hand could cause the business to pass up valuable trade discounts, and, at the extreme, could cause the business to file for bankruptcy. Thus, the short-term forecast concentrates on the actual receipt and disbursement of cash.

In times of high inflation, the necessity for actively managing the business's cash position is obvious. Not only is it very expensive to borrow short-term funds, but there also may be periods when no funds are available at any price. A business that has not secured a commitment in advance will be unable to meet its cash requirements. Excess cash must be invested as soon as it becomes available, so as to avoid erosion in purchasing power. Making a cash budget also allows the financial manager to see the impact of various decisions on speeding up or slowing down cash flows.

Since cash flow planning is concerned with fluctuations in cash balances, the interval of time used in planning is a more important consideration than the length of the whole planning period. The most common interval is one month. That is to say, a financial manager forecasts cash inflows and outflows over one month and then calculates beginning and end-of-month balances. The procedure is repeated for the other eleven months of the year, if the overall planning horizon is one year. Using one month as the time period has the advantage of coinciding with the accounting period of most companies and probably also with their official period for collecting receivables.

Many companies use a shorter interval of time, and some companies forecast by the day. Why such a short interval? If the company forecasts by the month and shows adequate balances at the end of each month, isn't it a waste of time to use a shorter interval? That this is not true can be shown by Tables 1 and 2.

Table 1

Cash Flow Plan For One Month

Cash at start of month	$20,000
Cash Inflows:	
Collection of Accounts Receivable	$35,000
Proceeds from sale of operating assets	10,000
Other collections - Miscellaneous revenues	3,000
Total cash inflows	$48,000
Cash Outflows:	
Selling expenses and wages	$15,000
Purchases of inventory	20,000
Supplies	5,000
Rent	3,000
Taxes	4,000
Miscellaneous Expenses	1,000
Total cash outflows	$48,000
Cash at end of the month	$20,000

It would appear from Table 1 that all is well. The company's cash balance will stay steady at $20,000. But will it? Suppose we break down this forecast by the week, as is done in Table 2.

Table 2

The Same Cash Flow Plan By The Week

	Week 1	Week 2	Week 3	Week 4
Cash at start of week	$20,000	($2,250)	($9,500)	($2,250)
Cash Inflows				
Collection of Accounts Receivable	6,000	15,000	17,000	20,000
Proceeds from sale of Operating Assets				12,000
Other collections: Misc. Revenue			4,000	5,000
Total cash inflows	$6,000	$15,000	$21,000	$37,000
Cash Outflows				
Selling Expenses and Wages	$6,000	$6,000	$6,000	$6,000
Purchases of Inventory	9,500	5,000	4,000	5,000
Supplies	1,250	1,250	1,250	1,250
Rent	4,000			
Taxes	5,000	7,500		
Miscellaneous Expenses	2,500	2,500	2,500	2,500
Total cash outflows	$28,250	$22,250	$13,750	$14,750
Cash at end of week	($ 2,250)	($ 9,500)	($ 2,250)	$20,000

Suppose a company uses a planning interval of one month. Its cash flow plan for one month might look like that in Table 1. As can be seen from Table 2, although the month cash flow forecast looks fine, the weekly forecast shows that the company will be in considerable trouble before the first week is over. Such a company would do well to choose a planning period not longer than one week, and possibly shorter.

Usually, the size of cash inflows and outflows is much more predictable than their timing. But when it is not, unexpectedly small inflows combined with unexpectedly large outflows could create a serious cash shortage over a short time. This possibility must be avoided, either by carrying large balances to provide a margin of safety or by maintaining a very short planning interval and a continuous watch on how actual events are conforming to plan. Which alternative is adopted will depend on the size of the balances needed and the management time available for short-interval cash planning.

From the point of view of avoiding insolvency, the size of cash balances in relation to cash flow has a bearing on the planning interval. If cash balances are large, temporary variations within a long planning interval such as a month are unlikely to place them in jeopardy. But if the company is operating on inadequate balances, a strong net cash outflow over only a few days may bring balances down to dangerously low levels. In such circumstances a short planning interval is necessary for survival, even if it could not be economically justified on any other grounds. For this reason, a company that normally uses a planning interval of one month may switch to weekly planning when its cash balances are dangerously low.

DEVELOPING THE PLAN

Once the planning horizon and planning interval have been determined, the actual planning can begin. The first step is to forecast expected cash receipts during each planning interval. Sales receipts are normally based on the sales forecast and experience of the pattern of receivables collections. Other receipts, such as those from the sale of operating assets, and investment income, can also be predicted with a fair degree of accuracy. Receipts higher than the forecasts may result in cash that might otherwise have been invested profitably; but receipts lower than expected may expose the company to illiquidity, which is far more serious.

The next step is to forecast cash disbursements. Here planners again lean on experience of what cash outlays are normally needed to maintain a given level of sales, but they also need the help of others in the organization. For example, if the purchasing department believes that prices may soon be going up and plans to pick up several months' worth of inventory soon, the planner must know about it. If a major advertising campaign is being planned the financial manager must be made aware of its planned cost and timing. Every manager with the authority to commit large sums of money must be fully aware of the responsibility to keep the financial manager informed of future plans. Table 3 shows estimated cash outflows included in the cash flow forecast.

Table 3

Cash Flow Forecast By Month

	Jan.	Feb.	Mar.	Apr.	May	June
Cash at first of month	$19,680	($10,020)	($1,820)	$13,180	$22,230	$13,670
Cash Inflows						
Sales receipts	55,000	57,000	69,000	61,000	64,000	65,000
Insurance Claim					7,000	
Misc. Revenue	4,000			3,500		
Total Cash Inflows	$59,000	$57,000	$69,000	$64,500	$71,000	$65,000
Cash Outflows						
Labor payroll	23,000	23,500	24,000	24,500	31,000	25,200
Salaries	4,800	4,800	4,800	5,600	5,600	5,600
Inventory	31,000	15,500	18,250	11,650	28,760	15,625
Supplies	2,400	1,800	2,000	2,000	2,000	2,000
Insurance			750			
Lease Payments	1,000	1,000	1,500	1,000	1,000	1,500
Advertising Exp.	500	500	1,500	500	500	500
Misc. Expense	1,000	1,200	1,200	1,200	1,200	1,200
Loan Payments	18,000					
Income Taxes	7,000			9,000		
Professional Fee		500			4,000	
New Equipment					5,500	
TOTAL CASH OUTFLOWS	$88,700	$48,800	$54,000	$55,450	$79,560	$51,625
Cash at end of month	($10,020)	($1,820)	$13,180	$22,230	$13,670	$27,045

Once cash inflows and disbursements have been forecast, the planner can forecast cash balances at the end of each planning unit. The results of this appear as the top and bottom lines of Table 3.

At this point, the planner has a cash flow forecast, not a plan. Planning is the mental process of visualizing a set of events that one is determined to make happen in the future, not just a summary of what one expects to happen. But it is at this stage that planning can begin.

Some of the cash balances at the end of each planning interval may be higher than needed; others may be too low or even negative. Planners first determine how to invest any excess cash in order to earn the maximum return on it, depending on its amount and the length of time for which it will be available. Next, they decide how to cover temporary shortages of cash exposed by the forecast. Other means are delaying purchases or payments until a later period, deciding to reduce or eliminate certain expenditures, selling short-term investments or other assets, accelerating collections, and so on. Table 4 shows the results of this kind of planning based on the cash flow forecast in Table 3.

Table 4

Cash Flow Plan

	Jan.	Feb.	Mar.	Apr.	May	June
Cash at first of month	$19,680	$9,380	$7,580	$7,580	$11,630	$8,070
Cash Inflows						
Sales Receipts	$55,000	$57,000	$69,000	$61,000	$64,000	$65,000
Insurance claim					7,000	
Misc. Income	4,000			3,500		
Short-term Bank Loan	19,400					
Total cash inflows	$78,400	$57,000	$69,000	$64,500	$71,000	$65,000
Cash Outflows						
Salaries	$27,800	$28,300	$28,800	$30,100	$36,600	$30,800
Inventory	31,000	15,500	18,250	11,650	26,760	17,625
Payments for supplies	2,400	1,800	2,000	2,000	2,000	2,000
Insurance			750			
Lease payments	1,000	1,000	1,500	1,000	1,000	1,500
Advertising	500	500	1,500	500	500	500
Misc. expenses	1,000	1,200	1,200	1,200	1,200	1,200
Loan payments	18,000	10,000	10,000			
Income taxes	7,000			9,000		
Professional fees	500				1,000	3,000
Equipment					5,500	
Short-term investment			5,000	5,000		5,000
Outflows	$88,700	$58,800	$69,000	$60,450	$74,560	$61,625
Cash at end of month	$ 9,380	$ 7,580	$ 7,580	$11,630	$ 8,070	$11,445

The financial manager has decided to finance the forecasted cash shortage in January by a $20,000 short-term bank loan with a yearly interest rate of 18 percent, which will be paid off in two equal installments in February and March. (The $19,400 actually received from the bank represents the loan less interest deducted in advance. This is known as the proceeds from a discounted loan). By March, the company has spare cash, which it can invest in short-term, interest yielding securities — $5,000 in each of the three months of March, April, and June.

However, this would have caused cash to drop to a low in May: $3,070 by the end of the month. Instead of investing in April and borrowing again from the bank, the planner has decided that payment of some May bills can be deferred until June: $3,000 in professional fees and $2,000 for inventory. Thus, once the financial manager has determined how to invest excess cash and how to cover cash shortages, he or she incorporates the results of these decisions into the cash flow forecast, which now becomes a plan.

The accuracy of the forecasts that are used in preparing the cash flow plan is of critical importance in having the plan be a useful tool. The less reliable the forecasts or the more uncertain the financial manager is about the unexpected events they may affect the cash flows, the larger

the cash balances, lines of credit, or a combination of both that are required. If the planner does not have much confidence in the forecasts, the resulting plan will be of little value to the organization.

PLANNING AND CASH FLOW ANALYSIS

The financial manager should recognize that much of the desired information is difficult to forecast, since many of the receipts and disbursement dates are not always available. This will surely complicate cash flow planning. The traditional receipts and disbursements approach does not lend itself easily to interpretations of cash flow. For example, the answers to such questions as how much the firm should set aside for investments in fixed assets or how the firm should fund future growth are not apparent from such an analysis.

Although net cash flow can be calculated by subtracting cash disbursements from cash receipts, the financial manager should note that cash flow from operations is often calculated by taking net income and adding expenses that do not affect cash such as depreciation, amortization, and deferred taxes. Historically, financial managers used net income plus depreciation as a proxy for cash flow. Today, most accountants and financial managers recognize cash flow as being the former amount (net income plus expenses not decreasing cash) plus increases (minus decreases) in spontaneous liabilities minus increases (plus decreases) in spontaneous assets. Spontaneous assets and liabilities are those accounts which move directly with a change in sales. For example, accounts receivable and inventories would be representative of spontaneous assets, while accounts payable and accruals would be indicative of spontaneous liabilities.

This calculation of cash flows is referred to as an indirect approach, since the actual cash receipts and disbursements are not used, but rather are estimated from all the accounts affecting cash flows. For example, all of the sources and uses of funds that affect cash flows from operations are included in the indirect cash flow calculation. The indirect approach is frequently used for forecasting long-term cash flows (more than one year), since projections of net income may receive greater attention than the actual timing of receipts and disbursements. The indirect approach may also facilitate more reliable long-term planning.

Many financial analysts and managers are becoming increasingly interested in the concept of cash flow. Careful management of available cash resources is critically important to maintain a company's competitiveness.

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