



## Statements of Cash Flows: Three Examples

John Stacey, a sales engineer for Aldhus Corporation, was worried. A flight delay had caused him to miss last week's accounting class in the evening MBA program in which he had enrolled at the suggestion of the personnel director at Aldhus, a growing manufacturer of computer peripherals. The class he had missed had been devoted to a lecture and discussion of the statement of cash flows, and he was sure the material he had missed would be covered in the weekly quiz that was part of each class session. A classmate had faxed Stacey some notes distributed by their instructor, but they were too cryptic to be understood by anyone who had missed the class.

In desperation, John called Lucille Barnes, the assistant controller at Aldhus, to ask if she could take a few minutes to point him in the right direction toward understanding the statement of cash flows. She seemed delighted by the request, and they agreed to meet that afternoon.

### The Meeting

At 2:00 P.M. John Stacey went to the office of Lucille Barnes with his notes and questions. After they had exchanged greetings, Lucille handed John three cash flow statements from the annual reports of other high-technology companies (Exhibits 1, 2, and 3). John was worried that Lucille would ask him to explain them, and that she would see how confused he still was about some aspects of accounting; instead, Lucille began explaining.

**Lucille Barnes (Assistant Controller):** The statement of cash flows is really a very useful part of the set of three statements companies are required to prepare. In some cases, it tells more about what is actually happening in a business than either the balance sheet or income statement. The statements of cash flows that I have given you are very revealing. Let me give you a brief overview of the structure and content of cash flow statements, and then you take some time to study these statements. I have prepared some questions to guide your study. Then, we can meet again tomorrow to discuss what you have learned and to answer any questions that remain. I do not think you have to worry about your next quiz because if you understand how balance sheets and income statements are prepared, much about the statement of cash flows will seem pretty obvious.

**John Stacey:** I hope you are right. I really like the accounting course, and I want to do well in it and to really learn the material. That's why I panicked when I could not understand the notes our instructor passed out last week.

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*Professors Julie H. Hertenstein and William J. Bruns prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.*

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**Lucille Barnes:** Forget those notes for a while and just concentrate on studying the statements I have given you. Notice that the statement of cash flows is divided into three sections: operating activities, investing activities, and financing activities. Each section shows the cash inflows and the cash outflows associated with that type of activity.

Operating activities shows the inflows and outflows related to the fundamental operations of the basic line or lines of business that the company is in. For example, it would include cash receipts from the sale of goods or services and the cash outflows for purchasing inventory, and paying wages, taxes and rent.

Investing activities shows cash flows for the purchase and sale of assets not generally held for resale and for the making and collecting of loans. (Maybe it should more appropriately be called the investing and disinvesting activities section.) Here is where you would see if the company sold a building, purchased equipment, made a loan to a subsidiary, or purchased a piece of equity in its supplier.

Finally, financing activities shows the cash flows associated with increasing or decreasing the firm's financing, for example, issuing or repurchasing stock and borrowing or repaying loans. It also includes dividends, which are cash flows associated with equity. However, ironically, it does not include interest payments; these are included in operating activities.

**John Stacey:** That seems strange to me. Since loans are the reason interest payments are made, why are they not included in the financing activities section? You know, interest is to loans as dividends are to equity?

**Lucille Barnes:** Actually in some other countries such as the United Kingdom interest is included in the financing activities section! But in the United States the Financial Accounting Standards Board voted that interest payments should be in the operating activities section instead. This is one of these situations where you might have to do some adjusting if you were trying to compare a U.K. company like British Petroleum to a U.S. company like Exxon.

**John Stacey:** That is interesting! How can I use each section of the statement?

**Lucille Barnes:** The operating activity section is the cash-flow engine of the company. When this engine is working effectively, it provides the cash flows to cover the cash needs of operations. In a healthy, growing company, we would expect growth in operating working capital accounts such as inventory and accounts receivable (uses of cash) as well as in accounts payable and other operating payables (sources of cash). Obviously there can be quite a bit of variability in working capital accounts from period to period, but on average inventories, receivables, and accounts payable usually grow in growing companies. In addition, this operating cash-flow engine provides cash for needed investments, to repay debt, and to pay dividends. There are exceptions, of course. Start-up companies, for example, usually have negative cash flows from operations because they have not gotten their cash-flow engines up to speed. Companies in cyclical industries may have negative operating cash flow in a "down" year; a company that has experienced an extensive strike could also be expected to have negative cash flow from operations. Although an occasional year of negative operating cash flow does not spell disaster, nonetheless, we should expect operating cash flow, on average, to be positive.

Investing activities are a different story. Whereas we expect positive operating cash flow, we also expect a healthy company to continually invest in more plant, equipment, land, and other fixed assets to replace the assets that have been used up or have become technologically obsolete, as well as to expand and grow. Although companies often sell assets that are no longer of use to them, we would normally expect them to purchase more capital assets than they sell. As a result, in general, we expect negative cash flows from investing activities. Like operating activities, exceptions occur, especially if the firm divests a business or subsidiary.



Cash flows from financing activities could as easily be positive as negative in a healthy company, and they are likely to change back and forth. If the company's need for cash to invest exceeds the cash flow generated by operating activities, this will require extra financing by debt or equity, therefore a positive financing cash flow. On the other hand, if cash flow from operating activities exceeds the investing needs, the firm will have excess cash to repay debt or pay more dividends, producing negative cash flows from financing.

**John Stacey:** I am beginning to see why you said that the statement of cash flows is so useful. Where do you start your review and analysis?

**Lucille Barnes:** A way to approach the cash-flow statement is to begin with cash flows from operating activities. If this is the cash-flow engine, then the first question is, "Is cash flow from operating activities greater, or less, than zero?" Also of interest is the trend: is it increasing or decreasing?

**John Stacey:** As you were talking, I glanced at the cash flows from operations sections of the first two statements (Exhibits 1 and 2) you gave me. They look very different. On the first, depreciation seems to provide cash flows, but there is no mention of depreciation on the second.

**Lucille Barnes:** Oops! I forget to mention that there are two ways operating cash flows can be presented. Sometimes they are presented using the indirect method as in the first statement I gave you (Exhibit 1). Using that method, net income is adjusted for all noncash revenues and expenses, one of which is depreciation. Depreciation is *never* a source of cash, but it *is* deducted to compute net income, so it must be added back. Likewise, operating cash flows not included in net income, such as purchases of inventory not sold, have to be added or subtracted.

When the direct method is used to present cash flows from operations, that section of the report looks much more like a summary from the operating cash account as it does in the second report I gave you (Exhibit 2).

**John Stacey:** Which of the methods is better?

**Lucille Barnes:** I think the direct statement of cash flows from operations is easier to understand, but few companies present their operating cash flows that way. Most of the statements you will see will use the indirect method. The reason for this is that if the direct method is used, a reconciliation of income to cash flows from operations is also required (see Exhibit 2), so most companies simply use the reconciliation as their summary of cash flows from operations.

But let's get back to how I approach the statement of cash flows.

Assuming operating cash flows are greater than zero, the next challenge is to decide whether they are adequate for important, routine expenditures. Again, our expectations are tempered by our understanding of the company and its situation. Just like we do not expect a start-up company to have positive operating cash flows, we also do not expect a company still in a very rapid growth phase to have enough cash flow from operations to cover its investments. However, for a mature company, we expect operations to generate enough cash to "keep the company whole." This would include the amount of investment required to replace those fixed assets that are used up, worn out, or technologically obsolete as well as cash required to pay the annual dividend which the shareholders have come to expect. It is hard to know precisely how much cash is required to keep the company's fixed assets "whole," and the cash-flow statement does not separate investing cash flows for replacement and renewal from those investing cash flows for expansion and growth. However, the annual depreciation amount is a very rough surrogate for the amount of fixed assets that need to be replaced each year. In periods when prices are rising, we should expect that the cost to replace assets would be somewhat greater than the cost of older assets that are being depreciated. Thus, it is

common to expect the portion of investing activities related to the purchase of fixed assets to exceed the annual depreciation.

After considering whether operating cash flows cover capital expenditures and dividends, I look to see whether there are other major cash needs such as acquisitions, stock repurchase, or debt repayment. If so, how do these cash needs fit with the availability of cash? Are these needs discretionary, like acquisitions?

If there are cash shortfalls, I investigate how they are being funded. Is it by issuing stock? By borrowing? By selling businesses or assets? In each case, I consider whether the company is likely to be able to continue such funding, and for how long. Will the funding source continue to be available, or are we likely nearing the limit? Will continuing to use this source hurt the company in any way?

**John Stacey:** Do you always have to look at all of those things in every case?

**Lucille Barnes:** No. But if you stop short of a full review, you may miss an important part of the story.

In evaluating the cash-flow statement, you are evaluating many pieces of evidence to produce an overall picture. However, it would be rare to find a company where all of the evidence is positive, or where all of the evidence is negative. To do a balanced evaluation, you must search out both the good news and the bad news in each cash-flow statement. To reach an overall conclusion you need to judge the relative importance of each piece of evidence and assess its relationship to the overall picture. Like in a legal case, your conclusion needs to be based on the "weight of the evidence."

I think the best way to learn about statements of cash flow is to study some carefully. The statements I have given you are a place to start. I wrote out some questions to guide your study (the assignment). Try to develop answers, and we can meet tomorrow to discuss them. By the time we finish, I think you will be well prepared for the quiz in your next class.

## The Assignment

Exhibits 1, 2, and 3 contain cash-flow statements from three companies. Each cash-flow statement has three years of data. Examine the contents of these cash-flow statements carefully. Answer the following questions about each of the three cash-flow statements.

- I. For **each** of the years on the Statement of Cash Flows:
1. What were the firm's major sources of cash? Its major uses of cash?
  2. Was cash flow from operations<sup>1</sup> greater than or less than net income?<sup>2</sup> Explain in detail the major reasons for the difference between these two figures.
  3. Was the firm able to generate enough cash from operations to pay for all of its capital expenditures?<sup>3</sup>

<sup>1</sup> Sometimes called net cash provided by operating activities, or cash flow from continuing operations.

<sup>2</sup> Alternatively referred to as income or loss from continuing operations.

<sup>3</sup> Also called investments in depreciable assets, or purchases of plant, property, and equipment.



4. Did the cash flow from operations cover both the capital expenditures **and** the firm's dividend payments, if any?
  5. If it did, how did the firm invest its excess cash?
  6. If not, what were the sources of cash the firm used to pay for the capital expenditures and/or dividends?
  7. Were the working capital (current asset and current liability) accounts other than cash and cash equivalents primarily sources of cash, or users of cash?
  8. What other major items affected cash flows?
- II. What was the trend in:
9. Net income?
  10. Cash flow from (continuing) operations?
  11. Capital expenditures?
  12. Dividends?
  13. Net borrowing (proceeds less payments of short- and long-term debt)?
  14. Working capital accounts?
- III. Based on the evidence in the Statement of Cash Flows alone, what is your assessment of the financial strength of this business? Why?

Exhibit 1 Alpha Corporation, Consolidated Statements of Cash Flows (\$ millions)

	Year Ended June 30,		
	1991	1990	1989
<b>Operating Activities</b>			
Loss from continuing operations	<b>\$(377.9)</b>	\$(623.5)	\$(320.6)
Depreciation	<b>168.4</b>	220.1	263.4
Amortization of capitalized software	<b>41.4</b>	58.2	39.1
Gain from sale of investments and other assets	<b>(16.6)</b>	(119.0)	—
Restructuring and other unusual items, net	<b>135.5</b>	384.1	125.3
Changes in other accounts affecting operations			
Accounts receivable	<b>160.8</b>	73.4	(45.2)
Inventory	<b>80.2</b>	100.9	(3.0)
Other current assets	<b>17.0</b>	(1.2)	(13.0)
Accounts payable and other current liabilities	<b>(91.3)</b>	(21.3)	41.0
Other	<b>2.8</b>	14.1	(10.5)
Net cash provided by continuing operations	<b>120.3</b>	85.8	76.5
Net cash provided by (used in) discontinued operations	<b>4.9</b>	3.5	(29.7)
Net cash provided by operating activities	<b>125.2</b>	89.3	46.8
<b>Investing Activities</b>			
Investment in depreciable assets	<b>(129.7)</b>	(174.4)	(303.6)
Proceeds from disposal of depreciable and other assets	<b>157.0</b>	242.0	94.1
Proceeds from the sale of discontinued operations	<b>25.3</b>	407.3	—
Investment in capitalized software	<b>(27.8)</b>	(43.1)	(59.5)
Other	<b>(6.0)</b>	(13.0)	14.2
Net cash provided by (used in) investing activities	<b>18.8</b>	418.8	(254.8)
<b>Financing Activities</b>			
(Decrease) increase in short-term borrowings	<b>(2.6)</b>	(222.6)	139.8
Proceeds from long-term debt	<b>44.4</b>	167.7	305.0
Payments of long-term debt	<b>(126.5)</b>	(544.8)	(91.7)
Proceeds from sale of Class B common stock	<b>5.0</b>	8.7	17.5
Purchase of treasury stock	<b>(.3)</b>	(.6)	(18.8)
Dividends paid	<b>-</b>	(7.2)	(26.0)
Net cash provided by (used in) financing activities	<b>(80.0)</b>	(598.8)	325.8
Effect of changes in foreign exchange rates	<b>.1</b>	1.1	(3.9)
Increase (decrease) in cash equivalents	<b>64.1</b>	(89.6)	113.9
Cash and equivalents at beginning of year	<b>169.1</b>	258.7	144.8
Cash and equivalents at end of year	<b>\$233.2</b>	\$169.1	\$258.7

## Statements of Cash Flows: Three Examples

Exhibit 2 Beta Corporation, Consolidated Statements of Cash Flows (\$ thousand)

	Year Ended December 31,		
	1991	1990	1989
<b>Cash Flows from Operating Activities:</b>			
Cash received from customers	\$83,865	\$73,273	\$51,110
Cash paid to suppliers and employees	(77,820)	(65,480)	(46,589)
Interest received	643	355	132
Interest paid	(536)	(1,046)	(908)
Income taxes paid	(2,233)	(102)	(75)
Net cash generated by operating activities	<u>3,919</u>	<u>7,000</u>	<u>3,670</u>
<b>Cash Flows from Investing Activities:</b>			
Capital expenditures	(6,031)	(4,600)	(3,650)
Marketable securities purchases	(8,000)	-	-
Net cash used in investing activities	<u>(14,031)</u>	<u>(4,600)</u>	<u>(3,650)</u>
<b>Cash Flow from Financing Activities:</b>			
Net payments under working capital line of credit	-	(2,000)	(860)
Net payments under equipment line of credit	(985)	(126)	(388)
Principal payments under capital lease obligations	(169)	(213)	(276)
Proceeds (payment) of subordinated debt	(5,000)	-	4,400
Proceeds from the issuance of common stock	23,082	141	639
Net cash provided by (used in) financing activities	<u>16,928</u>	<u>(2,198)</u>	<u>3,515</u>
Effect of exchange rate changes on cash	(4)	14	-
Net increase in cash and cash equivalents	<u>6,812</u>	<u>216</u>	<u>3,535</u>
Cash and cash equivalents at beginning of year	<u>5,375</u>	<u>5,159</u>	<u>1,624</u>
Cash and cash equivalents at end of year	<u>\$12,187</u>	<u>\$ 5,375</u>	<u>\$ 5,159</u>
<b>Reconciliation of Net Income to Net Cash Generated by Operating Activities:</b>			
Net income	\$ 6,323	\$ 5,201	\$ 417
<b>Adjustments to Reconcile Net Income to Net Cash Consumed by Operating Activities:</b>			
Bad debt provision	99	47	98
Depreciation and amortization	4,028	2,701	2,231
Amortization of original issue discount	208	324	68
Loss on disposition of assets	17	9	58
Compensation expense related to stock grants	40	85	-
<b>Changes in Assets and Liabilities:</b>			
(Increase) in accounts receivable	(10,837)	(613)	(1,550)
(Increase) decrease in inventory	(951)	(810)	1,043
(Increase) decrease in deposits and other assets	(665)	366	(762)
Increase (decrease) in accounts payable and accrued expenses	<u>5,657</u>	<u>(310)</u>	<u>2,067</u>
Total adjustments	<u>( 2,404)</u>	<u>1,799</u>	<u>3,253</u>
Net cash generated by operating activities	<u>\$ 3,919</u>	<u>\$ 7,000</u>	<u>\$ 3,670</u>



## Exhibit 3 Gamma Corporation, Consolidated Statements of Cash Flows (\$ thousand)

	Years Ended		
	June 29, 1991	June 30, 1990	July 1, 1989
<b>Cash Flows from Operating Activities:</b>			
Net income/(loss)	\$ (617,427)	\$ 74,393	\$ 1,072,610
<b>Adjustments to Reconcile Net Income to Net Cash Provided by Operating Activities:</b>			
Depreciation and amortization	828,560	796,201	686,738
Other adjustments to income	189,077	92,329	49,702
(Increase)/decrease in accounts receivable	105,977	(241,357)	(373,248)
(Increase)/decrease in inventories	18,616	99,743	(62,942)
(Increase)/decrease in prepaid expenses	(47,239)	(90,602)	18,965
Increase/(decrease) in accounts payable	(17,694)	107,001	30,645
(Decrease) in taxes	(105,614)	(201,560)	(75,502)
Increase in deferred revenues and customer advances	92,222	69,207	105,847
Increase in restructuring reserve	593,160	443,544	-
Increase in other liabilities	1,263	285,175	26,576
Total adjustments	1,658,328	1,359,681	406,781
Net cash flows from operating activities	1,040,901	1,434,074	1,479,391
<b>Cash Flows from Investing Activities:</b>			
Purchase of plant, property, and equipment	(737,548)	(1,027,625)	(1,223,038)
(Increase) of other assets, net	(55,782)	(75,489)	(67,624)
Purchase of Kienzle business	(233,261)	-	-
Net cash flows from investing activities	(1,026,591)	(1,103,114)	(1,290,662)
Net cash flows from operating and investing activities	14,310	330,960	188,729
<b>Net Flows from Financing Activities:</b>			
Proceeds from issuance of debt	14,249	17,661	40,425
Payments to retire debt	(112,426)	(20,896)	(153,245)
Purchase of treasury shares	(240,719)	(270,231)	(814,958)
Issuance of treasury shares, including tax benefits	239,653	296,225	230,733
Net cash flows from financing activities	(99,243)	22,759	(697,045)
Net increase/(decrease) in cash and cash equivalents	(84,933)	353,719	(508,316)
Cash and cash equivalents at beginning of year	2,008,983	1,655,264	2,163,580
Cash and cash equivalents at end of year	\$1,924,050	\$2,008,983	\$1,655,264