Creative Cash Flow Reporting

Uncovering Sustainable Financial Performance

Charles W. Mulford
and
Eugene E. Comiskey

JOHN WILEY & SONS, INC.

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This book is printed on acid-free paper. ♾

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To our parents,
Charles W. Mulford, Sr., and Geraldine L. Mulford,
Joseph B. Comiskey, Jr., and Genevieve E. Comiskey,
for a lifetime of support and guidance.

Contents

Foreword

Enron. Worldcom. Tyco. Healthsouth. Sunbeam. Cendant.

Just the mention of those names puts a chill and fear in the hearts of investors.

Each represents a recent accounting fraud that burned investors badly.

Shell-shocked investors began to feel helpless, wondering if investing in securities is a loser's game. Is the game rigged? they wondered. If not, how do you win? What's the holy grail of successful investing?

I believe that I have found the holy grail. The new book by Charles Mulford and Eugene Comiskey, *Creative Cash Flow Reporting: Uncovering Sustainable Financial Performance*, points us to it. Find a company's sustainable cash flow from operations. Use it as a means of finding the creators of real value and as a way of confirming reported earnings.

Case in point: Enron. In the year 2000, Enron reported cash flow from operations of $4.8 billion. In contrast, its legitimate, sustainable cash flow was -$3.1 billion. That same year, the company claimed that it generated about $1 billion in profits.

Mulford and Comiskey provide a simple and sensible approach for calculating sustainable cash flow from operations. They show how easily reported cash flow from operations can be inflated by the way items are classified among the operating, investing, and financing sections of the statement of cash flows—typically well within the boundaries of generally accepted accounting principles. Consider, for example, the effect of acquisitions on cash flow. Specifically, cash paid for working capital is shifted to the investment section rather than being shown as a reduction in cash flow from operations.

Many other books on financial analysis focus on techniques that improperly inflate profits by manipulating revenue or expenses. But none, however, points us precisely to the holy grail: sustainable cash flow from operations.

Read this book and begin your journey. This may be the most important book in your investment collection library.

Dr. Howard M. Schilit, CPA
Author, *Financial Shenanigans: How to Detect Accounting Gimmicks and Fraud in Financial Reports,* and Founder, CFRA (Center for Financial Research & Analysis)

Preface

It is difficult to overstate the importance of cash flow to overall corporate financial health. Indeed, our fundamental concepts of credit quality and valuation are based on projections of cash flow. Typically these projections are of operating cash flow or a closely related metric, free cash flow, which is operating cash flow adjusted for capital expenditures. These measures of cash are viewed as sustainable and discretionary sources that can be used for such designated purposes as debt repayment, new investment, stock buybacks and dividends.

Many investors, burned by the trust they have placed in reported earnings in an era of questionable accounting, have turned their focus to cash flow as the only trustworthy measure of financial performance available. One might hear such statements as

> *Cash flow is real and not subject to the vagaries of GAAP or the whims of the accountants.*
>
> *It's virtually impossible to manage cash flow.*
>
> *Profit is an opinion. Cash is a fact.*
>
> *Dividends are tangible cash, and therefore impossible to fake.*

The balance in cash and the total change in cash from one period to the next are generally not prone to misstatement. These amounts are readily verifiable with banks and other institutions holding reported balances. Unfortunately, however, changes in the components of total cash flow —the operating, investing, and financing components—can be reported in a misleading fashion. Typically, but not always, this is done within the boundaries of generally accepted accounting principles (GAAP) as the guidelines provide much flexibility. Increases in operating cash flow, denoting an improvement in financial performance, are offset with higher disbursements in the investing or financing sections. The net effect: With no difference in total cash flow, apparent operating performance is improved.

Creative Cash Flow Reporting: Uncovering Sustainable Financial Performance provides a guide for adjusting cash flow to remove misreported and misclassified amounts, yielding a more sustainable and meaningful measure of cash flow.

In an era of reduced trust in reported earnings, operating cash flow, properly adjusted, offers a useful means for identifying earnings-related reporting indiscretions.

Increases in earnings obtained through questionable means will not generate operating cash flow. Consider, for example, premature or fictitious revenue. Such reporting ac-

tions result in growing receivables but not cash. Also, steps taken to misstate inventory might boost gross profit and net income, but will not provide cash flow. Similar statements can be made about aggressive cost capitalization and other creative accounting acts. Earnings are boosted but operating cash flow or, more precisely, operating cash flow adjusted using steps described in the book, is not.

Creative Cash Flow Reporting demonstrates how to use adjusted operating cash flow in uncovering earnings that have been misreported using aggressive or fraudulent accounting practices.

Equities are purchased and loans are made based on the perceived ability of a company to generate cash. Cash flow analysis provides an effective look at the financial soul of a company. An important step in cash flow analysis is deciding whether current cash surpluses or shortfalls will continue. It is not unusual for companies to generate ample amounts of cash even as they slide toward extinction. In contrast, a cash shortfall may be an early sign of future success. To be effective, cash flow analysis must find the true meaning in reported cash results.

Creative Cash Flow Reporting provides an effective approach to cash flow analysis that focuses on the fundamental drivers of sustainable cash flow.

Beyond its primary objectives, the book includes certain special features. For example, it includes the results of a study designed to adjust the cash flow statements of the S&P 100 for the years 2000, 2001, and 2002. For many companies included in this sample, we found significant differences between reported and adjusted operating cash flow. Also, to maintain a contemporary and real-world feel, the book's results are illustrated using hundreds of actual and recent company financial reports.

Creative Cash Flow Reporting was written for serious readers of financial statements, including equity analysts or investors, credit professionals, serious individual investors, professional money managers, and anyone interested in uncovering true sustainable cash flow performance.

Interested in more?
For insightful, cutting-edge reports on issues of financial reporting and analysis,
visit the Georgia Tech Financial Analysis Lab at:
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For professional, software-based solutions focused on cash-flow analysis,
visit Cash Flow Analytics, LLC at:
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About the Authors

Charles W. Mulford is the Invesco Chair and Professor of Accounting and **Eugene E. Comiskey** is the Callaway Chair, Associate Dean, and Professor of Accounting in the College of Management at the Georgia Institute of Technology in Atlanta. Both professors have doctorates in accounting and are professionally qualified as Certified Public Accountants. In addition to their work at Georgia Tech, they actively consult with analysts, money managers, and credit professionals in the United States and abroad. Professors Mulford and Comiskey have published articles on issues of financial reporting and analysis in leading academic and professional journals. Their opinions are often sought by widely read outlets in the financial press and by the broadcast media.

This is the authors' fourth book. Their first book, *Financial Warnings*, published in 1996, identifies the warning signs of future corporate earnings difficulties. Their second book, *Guide to Financial Reporting and Analysis*, published in 2000, seeks to simplify the complexities of current-day generally accepted accounting principles as an aid to practicing financial analysts and other users of financial statements. Their third book, *The Financial Numbers Game: Detecting Creative Accounting Practices*, published in 2002, uncovers the use of aggressive and fraudulent reporting methods in financial statements.

CHAPTER ONE

Seeking Sustainable Cash Flow

Your cash ain't nothin' but trash . . .[1]

It is hard to overstate the importance of operating cash flow and its closely related, carefully watched, and loosely defined metric, free cash flow, to fundamental measures of debt-service capacity and firm valuation. Such cash flow measures are viewed as being sustainable, providing management with discretionary resources that can be used for investment, reductions in principal on outstanding debt, stock buybacks, and dividends. In addition, analysts, investors, and creditors, burned by the trust they have placed in reported earnings in an era of fraud and deceit in financial reporting, have turned their attention to cash flow as a directional beacon guiding them through the uncharted and risky waters of modern financial analysis. The logic is that, while earnings can be manipulated, both within and outside the parameters we know of as generally accepted accounting principles (GAAP), cash flow is more real and less subject to the vagaries of GAAP or the whims of the accountants.

The following quotes, made by respected financial professionals, demonstrate this point quite well:

> *It's a lot harder to manipulate cash flow from operations than it is earnings per share.*[2]
>
> *Cash is fact and accounting profit is opinion.*[3]
>
> *Unlike some items that can be clouded with financial reporting issues, cash is real, finite, and measurable. Cash is cash.*[4]
>
> *Dividends are tangible cash, and are therefore impossible to fake.*[5]
>
> *In an environment where reported earnings are viewed with some degree of skepticism, cash dividends will provide a very strong signal to investors of true financial strength and of the credibility of earnings reports.*[6]

Financial statement readers can generally accept the balance in cash as reported on the balance sheet and the total change in cash as reported on the statement of cash flows as

reliable amounts. The balance in cash is so easily verified by a reporting company's auditors through bank confirmation that most companies would not even think of purposefully misreporting it. There are, of course, exceptions. Consider, for example, HPL Technologies, Inc.

The company, a Silicon Valley–based software firm, was caught allegedly reporting $11 million in fictitious sales out of a total of $13.7 million in the quarter ended March 31, 2002. While such a misstatement is bad enough, the company went further and allegedly reported $10 million in fictitious cash, which according to a spokesperson for the company was "not now and may never have been in the company's possession."[7] Such transgressions in reporting cash are rare. Indeed, the exception proves the rule as the fallacy was readily discovered. When asked about the misreported cash, accounting experts were in agreement as to the brazen nature of the company's acts. Various phrases, such as "A scheme that couldn't possibly succeed," "You'd have to wonder what anyone could be thinking of," and "Outrageous bravado," were used to describe the scheme.[8]

Consider also the example of Parmalat SpA, Italy's largest food company. As this chapter is being written we find ourselves scratching our heads in amazement at the mystery of the $4.8 billion in cash and securities supposedly belonging to a subsidiary of Parmalat that turned up "missing." Allegedly, the company's auditors were able to confirm with Bank of America Corp. the amount reported to be on deposit. It was later determined, however, that the bank never received the confirmation. It was, in fact, intercepted and forged by someone other than a bank officer and returned to the auditors. The money did not exist.[9]

At present we do not know how individuals involved in an apparent fraud at Parmalat were able to intercept a bank balance confirmation from the company's auditors and make it appear as if it were being returned in the affirmative from the bank itself. We hasten to stress, however, that an intercepted and forged bank confirmation—a truly exceptional and seldom-occurring event—was required for such a misstatement of cash to occur. While we empathize with the plight of investors and creditors who were misled by financial statements that reported fictitious cash, it remains our position that cash is typically not an asset that is subject to such deceit.

Although the ending balance in cash and the change in cash from one period to the next are not readily subject to manipulation, the components of total cash flow, the operating, investing, and financing amounts are more susceptible to management. Such steps, collectively referred to here as creative cash flow reporting, may be taken both within and beyond the boundaries of GAAP. Moreover, when financial professionals speak of cash flow and the difficulty of managing or misreporting cash flow, they typically are referring to some measure of operating cash flow or closely related free cash flow. Free cash flow is generally defined as operating cash flow minus capital expenditures and, for companies that pay them, preferred dividends. Thus, while analysts, investors, and creditors might be led to believe that operating cash flow and free cash flow are somehow above the creative accounting fray, that belief is unfounded. Operating cash flow and free cash flow are subject to manipulation, which, unfortunately, occurs often.

Of course we would not go as far as the opening quote to this chapter and title of the once-popular song by the Steve Miller Band from the 1970s and categorically state, "Your cash ain't nothin' but trash." Indeed, even the final line of that song announces "but I sure better get me some more." Our point is that cash flow, in particular operating cash

flow, may not be what it seems. As a result it can give an incorrect impression of a company's sustainable cash-generating capacity.

AN ARTIFICIAL BOOST TO OPERATING CASH FLOW

Two examples are provided for consideration. In the first, Mim Corp. used flexibility found in GAAP for cash flow reporting to boost its operating cash flow. In the second, Dynegy, Inc. went beyond the boundaries of GAAP to provide a near-term increase to operating cash flow. The steps taken by both companies provided only a temporary boost to operating cash flow.

Employing Book Overdrafts

As part of their cash management practices, some companies may maintain minimal checking account balances. Through a prearranged agreement their bank automatically provides any funding needed to cover checks presented for payment.[10] At the end of an accounting period the bank-reported cash balance will be approximately zero. However, due to outstanding checks that have not been presented for payment, the book balance in cash, which consists of the bank balance less any outstanding checks, will be a negative amount. Generally accepted accounting principles are clear in calling for negative book balances in cash to be reclassified as liabilities. That is, the book balance in the overdrawn cash account is marked up from a negative amount to zero, reflecting more cash on hand, and is offset by an increase in a current liability. That liability represents the company's obligation to the bank for financing to cover the company's outstanding checks as they are presented for payment.

During its first quarter ended March 31, 2002, Mim Corp. generated $12.9 million in operating cash flow. That amount was up substantially from the $3.9 million generated during the same period in the previous year. A closer look at the company's cash flow statement, however, indicated that an increase in overdrafts provided $9.7 million of the operating cash flow generated in 2002. Thus, approximately 75 percent of its operating cash flow was not really generated by the company but was instead due to a reclassification of overdrafts.

Generally accepted accounting principles are not definitive in the cash-flow classification of overdrafts. Mim has used this lack of direction to its advantage, boosting operating cash flow in the process. Whether one agrees with the company's approach or not, the nonsustainable nature of cash flow generated by increasing overdrafts should be clear.

A Complex Long-Term Contract

In the year ended December 31, 2001, Dynegy, Inc. reported cash provided by operating activities of $811 million. That was up from $438 million in 2000 and $9 million in 1999. The improvement in operating cash flow appeared to lend credence to the company's growing earnings. Earnings, defined as income from continuing operations, grew to $648 million in 2001, up from $501 million in 2000 and $152 million in 1999. The company's earnings and cash flow results for the years 1999, 2000, and 2001 are summarized in Exhibit 1.1.

Exhibit 1.1 Dynegy, Inc., Selected Financial Results, as Originally Reported, Years Ending December 31, 1999, 2000, and 2001 ($ millions)

	1999	2000	2001
Income from continuing operations	$152	$501	$648
Cash provided by operating activities	$ 9	$438	$811

Source: Dynegy, Inc., Form 10-K annual report to the Securities and Exchange Commission, December 31, 2001, pp. F-4 and F-5.

Proud of his company's performance in a difficult operating environment, Chuck Watson, Dynegy's chief executive officer, noted:

> Despite the extraordinary circumstances, Dynegy generated a 47 percent increase in recurring earnings per share. . . . If our results could be summarized in one word, it is execution. In 2001, the bar was raised on our company more than once and, collectively, our employees cleared it again and again.[11]

Commenting further on his company's reported financial results, Watson stated:

> We remain committed to providing comprehensive and transparent financial disclosures so that our stakeholders have a clear understanding of our operating results and financial position.[12]

These comments were made on March 22, 2002. However, within only a few weeks the company was backtracking on its published results as it announced a Securities and Exchange Commission (SEC) investigation and a planned restatement. In an 8-K Current Report filing, dated April 25, 2002, the company announced that it was going to restate its statement of cash flows, reclassifying amounts reported as operating cash flow to the financing section.

Dynegy's Gas Contract

During April 2001 Dynegy entered into a five-year contract to purchase natural gas from an unconsolidated special purpose entity (SPE), ABG Gas Supply, LLC. The five-year contract was dubbed "Project Alpha." It was unique in that during its first nine months, which ended with Dynegy's 2001 reporting year, Dynegy would be able to purchase natural gas for below-market rates. In turn, Dynegy would sell this gas at market, reaping gains. Across that nine-month time frame those gains amounted to approximately $300 million and were offset with losses on the books of ABG Gas Supply. ABG financed its losses with a $300 million loan from Citigroup, Inc. Following that nine-month period and commencing in early 2002, the contract held that for 51 months Dynegy would be required to buy gas from ABG Gas Supply at rates that were above market. During this term of the contract Dynegy would incur losses while ABG Gas Supply would enjoy gains. During this 51-month period, Dynegy's losses and ABG Gas Supply's gains would accumulate to approximately $300 million. At the end of the five-year contract's life, both parties would be whole.[13]

On the surface this gas supply contract looked like an old-fashioned earnings management tool. It appeared that Dynegy was able to use the agreement to boost profits during 2001 and then offset them with losses in 2002 and beyond. However, that was not the design. This was strictly an operating cash flow management tool.

As is the case with other energy companies, Dynegy's contract with ABG Gas Supply was only one contract in its open book of derivatives. All such contracts were carried at fair value under mark-to-market rules. Gains and losses resulting from mark-to-market adjustments were included in reported net income.

When it was signed, the ABG Gas Supply agreement had no market value. That is, it was a contract to buy gas at market. It just happened to include below-market purchase prices early that were offset with above-market purchase prices later. While in the early going Dynegy purchased gas below market and recognized gains, the company recognized losses during the remaining months of the contract. If the entire contract netted to no gain or loss, then any gain recognized early must have been offset with accompanying losses on the contract's remaining term. These losses were recognized in income as the open gas contract was marked to market. Thus, the contract had no net effect on net income. Gains were offset with losses.

The creativity of the transaction—and in this context "creativity" does not have a positive connotation—was that while the transaction did not increase net income, it did increase operating cash flow. That is, the purchase of natural gas at below-market rates and its accompanying sale at market resulted in profits that were backed by operating cash flow. However, the losses reported as a result of marking the natural gas contract to market were noncash. As a result, operating cash flow was boosted even as net income was unaffected. Of course operating cash flow would be reduced during the later months of the contract when the company began purchasing gas at above-market rates. But such a drain on operating cash flow would occur in subsequent fiscal years. Further, the losses associated with sales of gas purchased at above-market rates would be offset by gains on marking the natural gas contract to market.

The SEC found that Dynegy's agreement with ABG Gas Supply was effectively a financing transaction. Dynegy effectively borrowed $300 million from Citigroup and used ABG Gas Supply as a conduit to handle loan proceeds and repayment. What was unique about the restatement was that it required Dynegy to change the classification of its cash flow statement without materially altering the total change in cash. The SEC was sufficiently concerned about the proper classification of cash flow to enforce reclassification.

After restatement for this item and other, less material items, Dynegy's operating cash flow was reduced to $535 million in 2001 from the $811 million originally reported. Earnings were also restated, although for other reasons. In contrasting Exhibit 1.1 with the revised financial results presented in Exhibit 1.2, it is clear that the company's apparent ability to generate cash and earnings was reduced significantly.

CLASSIFYING CASH FLOW

Generally accepted accounting principles require that the change in cash between two accounting periods be classified into three broad categories: cash provided or used by (1) operating activities, (2) investing activities, and (3) financing activities. The three categories represent three very different sources and uses of cash.

Exhibit 1.2 Dynegy, Inc., Selected Financial Results, as Restated, Years Ending December 31, 1999, 2000, and 2001 ($ millions)

	1999	2000	2001
Income from continuing operations	$118	$494	$419
Cash provided by operating activities	$ 40	$410	$535

Source: Dynegy, Inc., Form 10-K/A annual report to the Securities and Exchange Commission, February 14, 2003, pp. F-4 and F-5.

Cash provided by operating activities, or more simply operating cash flow, generally reflects the cash effects of transactions that enter into the determination of net income. Included is cash collected from customers for sales made or services provided. Cash payments to employees and suppliers are also included in the calculation of operating cash flow as are all income taxes paid.[14] Cash flows from investing activities include the making and collecting of loans and the acquiring and disposing of debt and equity investments and property, plant, and equipment. Thus, the purchase of inventory by a jeweler is reported as an operating use of cash. However, the payment for a showcase in which the jewelry inventory is displayed is reported as an investing use of cash. Cash flows from financing activities include principal amounts borrowed from and repaid to lenders as well as cash received from the issuance and cash paid for the repurchase of equity. Only debt arising from actual borrowing transactions is reported as financing cash flow. Thus, the use of vendor financing—for example, accounts payable—by the jeweler to postpone payment for inventory purchases would be classified as an operating source of cash.

A helpful way to look at the structure of the cash flow statement is to categorize cash amounts paid to make investments, including purchases of property, plant, and equipment, or cash received from the sale of investments, as investing activities. Any income generated by those investments, such as cash revenue less cash expenses on investments in property, plant, and equipment, interest income on investments in debt securities, or dividend income on investments in equity securities, is included in the calculation of operating cash flow. Although the sale of investments will generate gains and losses, those gains and losses are not reported in the operating section of the cash flow statement. Rather the proceeds from sale, which include recovery of an investment's book value plus a gain on sale or less a loss, are reported in the investing section.

Although proceeds from new borrowings or cash paid to retire debt are reported as financing activities, interest paid on debt is classified as an operating item. In the same way that net income is considered to be earnings available for shareholders, operating cash flow is measured from a shareholder's point of view. That is, net income is measured after interest expense but before dividends. Similarly, operating cash flow is measured after interest is paid but before dividends, which are reported as a financing activity. Exhibit 1.3 provides a summary of the classification of cash flow into operating, investing, and financing activities. The topic is dealt with at greater length in Chapter 2.

Importance of Operating Cash Flow

Cash provided by operating activities is the primary source of sustainable cash flow. It is this source of cash that provides management with money to meet discretionary needs,

Exhibit 1.3 Classifying Cash Flow into Operating, Investing, and Financing Activities

Cash provided or used by operating activities	Cash collected from customers for sales Cash payments to employees and suppliers Interest paid Income taxes paid
Cash provided or used by investing activities	Cash disbursements and collections from making and collecting loans Investments made and proceeds from sales of investments in debt and equity instruments Cash disbursements from the purchase and cash proceeds from the sale of property, plant, and equipment
Cash provided or used by financing activities	Principal amounts borrowed and repaid on debt Proceeds from the issuance and cash disbursed in the repurchase of equity securities Dividends paid

including reinvestment, debt reduction, stock buybacks, and dividends. Unlike cash provided by investing or financing activities, operating cash flow comes from a renewable source, operations.

Consider cash provided by the sale of equipment or the sale of an investment in stock. Such actions represent common sources of cash provided by investing activities. They are, however, one-time events. The cash generated by their sale cannot be expected to recur, as the assets sold are no longer available for resale. Also consider cash provided by a borrowing transaction. To gain new access to borrowed cash a company's management must meet with its lenders, hat in hand. Worse, borrowed cash comes with strings attached—a scheduled maturity date and the need to pay interest. Similarly, financing cash provided by an equity offering is not a sustainable source of cash, as investors must be asked to contribute anew. They can always say no.

A profitable company that generates positive operating cash flow might be viewed as employing a legal cash printing press. Each morning as the firm's lights are illuminated and the wheels of commerce begin to turn, the cash printing presses are switched on and the flow of cash begins for another day. Note that the presses turn and generate cash as long as the company continues to operate. Cash flow is being generated by a renewable source. In addition, because cash is being generated by operations, it need not be repaid to creditors for amounts borrowed outside of operations or returned to investors, unless by design.

The printing press analogy and reference to operating cash as flowing from a renewable source fits Microsoft Corp. well. The company generates prodigious amounts of operating cash flow. In 2003 the amount was $15,797 million, which is over $43 million per day, 365 days per year. That was up from $14,509 million in 2002 and $13,422 million in 2001. In 2003 the company used $7,213 million of its operating cash flow primarily for the purchase of investments. Another $5,223 million was used in the repurchase of common stock and the payment of dividends.

Measured across 2003, Microsoft's cash balance increased by $3,361 million. That was the first year in several that cash on hand did not decline. Of course, as seen in Exhibit 1.4, overall declines in cash during 2001 and 2002 were not representative of the company's cash flow performance. Rather, it was its generation of positive operating cash flow or, if one were to subtract capital expenditures, its free cash flow that were more representative of Microsoft's cash flow performance in each of those years.

Contrast Microsoft's recent cash flow performance with that of Lucent Technologies, Inc. presented in Exhibit 1.5. In 2003 Lucent used $948 million in cash from continuing operations. However, although the company consumed operating cash flow in 2003, investing activities, primarily from the disposition of manufacturing operations, provided $758 million in cash flow. Financing activities also provided cash, $1,117 million, primarily from the issuance of convertible preferred shares and from borrowings. For the year 2003, after factoring in the effect of exchange rate changes on cash, Lucent's cash balance actually increased by $927 million as a result of continuing operations. In fact, the balance in cash related to continuing operations has increased for all three years, 2001, 2002, and 2003.

During 2003, Lucent's operating performance was showing signs of improvement. Although on its income statement the company reported a loss from continuing operations of $770 million, that was much better than a loss of nearly $12 billion in 2002 and over $14 billion in 2001. Reflecting expectations of continued improved performance, during 2003, the company's share price began to show signs of life. However, unless the company can demonstrate an ability to generate positive operating cash flow and not simply a growing balance in cash resulting from asset dispositions, preferred stock offerings, and borrowed amounts, that incipient improvement in its share price may be short-lived.

Exhibit 1.4 Microsoft Corp., Cash Flow Data, Years Ending June 30, 2001, 2002, and 2003 ($ millions)

	2001	2002	2003
Cash provided by operating activities	$13,422	$14,509	$15,797
Cash used by investing activities	(8,734)	(10,845)	(7,213)
Cash used by financing activities	(5,586)	(4,572)	(5,223)
Net change in cash	$ (898)	$ (908)	$ 3,361

Source: Microsoft Corp., Form 10-K annual report to the Securities and Exchange Commission, June 30, 2003, p. 21.

Exhibit 1.5 Lucent Technologies, Inc., Cash Flow Data—Continuing Operations, Years Ending September 30, 2001, 2002, and 2003 ($ millions)

	2001	2002	2003
Cash used by operating activities of continuing operations	$(3,421)	$(756)	$(948)
Cash provided by investing activities of continuing operations	1,951	757	758
Cash provided by financing activities of continuing operations[a]	2,629	503	1,117
Net change in cash from continuing operations	$ 1,159	$ 504	$ 927

[a] Includes effects of exchange rate changes on cash of $4, $35 and $66, respectively, in 2001, 2002, and 2003.

Source: Lucent Technologies, Inc., Form 10-K annual report to the Securities and Exchange Commission, September 30, 2003, p. F-35.

SUSTAINABLE CASH FLOW

In the subtitle of this book, we speak of uncovering sustainable financial performance. In particular, our interest, which is shared by both equity investors and creditors, is in uncovering sustainable sources of cash flow. Equity investors make projections of such cash flow and assign an appropriate risk-adjusted discount rate in computing their present value. This present value provides an estimate of a company's current fair or intrinsic value. Lenders, interested in having interest and principal on loans repaid, seek sustainable cash as a source of repayment.

Sustainable cash flow is recurring cash and is derived from a company's profitable operations, which is a renewable source. Positive operating cash flow can be generated in the near term and on occasion over extended periods, even in the absence of profitable operations. However, to produce sustainable cash flow, profitable operations are a must.

Witness the extended demise of Eastern Airlines, Inc., through the late 1980s. Before it was liquidated, the company thrashed about for several years losing money on a regular basis. It stayed in business and at times actually generated positive operating cash flow even as it reported losses. The operating cash it generated was the result of significant noncash expenses, such as depreciation on its equipment, the liquidation of working capital accounts, and its ability to convince certain employee groups to accept equity claims, typically preferred stock, in return for services. An end to operations was ultimately necessary as the company's inability to generate any meaningful profits finally eliminated any prospect it had of meeting its obligations.

Even operating cash flow supported by profitable operations may not be sustainable. For example, operating cash derived from an outsized decline in accounts receivable or a wholesale liquidation of inventory cannot be maintained. Similarly, extending the time

period taken to pay vendors will provide an increase in operating cash flow. However, that increase in cash flow is not derived from a recurring source as vendors ultimately will balk at ever-increasing payment periods and demand more timely payment.

Potential problems notwithstanding, among the three classifications on the statement of cash flows (operating, investing, and financing), operating cash flow is derived from a more sustainable source. Moreover, operating cash flow is clearly disclosed and readily accessible in financial statements. Accordingly, operating cash flow is our starting point for identifying sustainable cash flow. It must be stressed, however, that operating cash flow is only our starting point. Numerous adjustments for misclassifications and nonrecurring cash flow items are needed, as discussed in the paragraphs and chapters that follow.

Equity Investors and Cash Flow

Equity investors are naturally interested in sustainable cash flow that might be distributed to them. As residual interest holders, common shareholders have the last claim on cash flow. Lenders and preferred shareholders come before them.

As a starting point in computing cash available for common shareholders, operating cash flow is a useful metric because it is calculated after interest payments have been deducted. Such disbursements represent required cash payments to lenders. However, equity investors typically are interested in making other subtractions from operating cash flow as well. A deduction for capital expenditures is common. As discussed at length in Chapter 10, there is no general agreement on the measure of capital expenditures to be deducted. For example, some investors would argue that gross capital expenditures, which exclude any proceeds from capital equipment disposals, should be used. Others would argue that net capital expenditures is the more realistic measure.

There is also disagreement concerning whether replacement capital expenditures or capital expenditures needed to support expected growth should be used. Replacement capital expenditures are amounts needed to replace productive capacity consumed during a reporting period. That is, before cash can be paid to shareholders, a company needs to maintain its productive capacity. Failure to do so would mean an eventual end to operations. Replacement capital expenditures are designed to reflect just such a charge. Of course, estimating replacement capital expenditures is not straightforward. Depreciation is often used as an approximation. However, because it is based on older equipment costs, it tends to understate replacement capital expenditures.

Because replacement capital expenditures permit only the maintenance of current productive capacity, capital expenditures needed to grow the business are not taken into account. Many would argue that if a certain rate of growth is assumed in valuing a company's shares, then capital expenditures adjusted for growth are more meaningful than replacement capital expenditures.

Estimating capital expenditures needed to maintain growth is also a challenging endeavor. Many would use actual capital expenditures for this purpose or possibly a normalized measure of actual capital expenditures: for example, an average of actual capital expenditures made over the most recent two- or three-year period.

As an example, consider Lowe's Companies, Inc. During the company's fiscal year ended January 31, 2003, Lowe's generated $2,696 million in operating cash flow. Using depreciation as an estimate, replacement capital expenditures that year totaled $626 million, yielding free cash flow of $2,070 million. However, if net new capital expenditures

made during the year of $2,318 million were used to represent replacement and growth-related capital expenditures, free cash flow would be only $378 million. These calculations, together with amounts for 2001 and 2002, are presented in Exhibit 1.6.

As can be seen in the exhibit, measures of free cash flow are very dependent on the definition of capital expenditures employed. Using replacement capital expenditures, Lowe's free cash flow has been positive for all three years presented. However, using actual capital expenditures as an estimate of replacement and growth-related capital expenditures, free cash flow turned positive, but only marginally, in 2003.

At this point, we are not arguing for or against either measure of free cash flow. That will come later in Chapter 10. We simply want to stress that operating cash flow is a useful starting point for computing free cash flow.

Besides capital expenditures, any claim on cash flow that is superior to the claims of common shareholders and that has not been previously deducted in arriving at net income should be subtracted from operating cash flow in computing free cash flow. In particular, dividends on preferred stock are such a claim. Just as preferred dividends are subtracted from net income in computing earnings available for common shareholders, preferred dividends paid, which are reported in the financing section of the cash flow statement, also should be subtracted from operating cash flow in computing free cash flow. Lowe's did not have preferred stock outstanding and, accordingly, paid no preferred dividends.

Exhibit 1.6 **Lowe's Companies, Inc., Free Cash Flow Calculated Using Estimates of Replacement and Growth-Related Capital Expenditures, Years Ending February 2, 2001, February 1, 2002, and January 31, 2003 ($ millions)**

	2001	2002	2003
Free cash flow computed using replacement capital expenditures:			
Cash provided by operating activities	$ 1,130	$1,613	$2,696
Minus replacement capital expenditures[a]	–409	–517	–626
Free cash flow	$ 721	$1,096	$2,070
Free cash flow computed using growth-related capital expenditures:			
Cash provided by operating activities	$ 1,130	$1,613	$2,696
Minus growth-related capital expenditures[b]	–2,261	–2,157	–2,318
Free cash flow	$(1,131)	$ (544)	$ 378

[a] Estimated using depreciation.

[b] Estimated using actual capital expenditures, net of proceeds from disposals of $71, $42, and $44 in 2001, 2002, and 2003, respectively.

Source: Lowe's Companies, Inc., Form 10-K annual report to the Securities and Exchange Commission, January 31, 2003, p. 29.

Lenders and Cash Flow

Lenders' claims on cash flow precede those of equity investors. Because it is tax deductible, interest is paid with operating cash flow computed before interest and before income taxes are subtracted. EBITDA, earnings before interest, taxes, depreciation, and amortization, is a crude approximation of such preinterest, pretax operating cash flow.[15] It is referred to as a crude measure of cash flow because although it is calculated before two key noncash expenses, depreciation and amortization, it does not adjust for other noncash items, especially changes in working capital accounts. As such, it is really more a measure of working capital, current assets minus current liabilities, generated by operations before interest and taxes.

Working capital generated by operations is not cash generated by operations. Increases in sales that go uncollected contribute to EBITDA by the associated increase in earnings. However, such sales would not increase operating cash flow. Similarly, cash paid to purchase inventory, which remains on hand, would not reduce EBITDA but would reduce operating cash flow. Thus, unless a lender actually is willing to accept accounts receivable or inventory in payment of interest and principal on a loan, EBITDA does not provide an accurate measure of debt-service capacity. Of course, in order to get access to cash, a lender might be able to force a borrower to liquidate its receivables and inventory. However, there is a risk of loss in such a liquidation process.

Returning to the Lowe's example, in its year ended January 31, 2003, the company reported net earnings of $1,471 million. Adding back interest expensed during the year of $195 million, income taxes of $888 million, and depreciation and amortization of $645 million, EBITDA of $3,199 million is obtained. This amount is significantly higher than amounts reported earlier for operating cash flow of $2,696 million or for free cash flow, depending on its calculation, of $2,070 million or $378 million. As noted, the primary reasons for the difference are that EBITDA is calculated before interest expense and income taxes while operating cash flow and free cash flow are computed after interest and income taxes. Plus, EBITDA excludes changes in working capital accounts, such as accounts receivable, inventory, and accounts payable, which, when growing, collectively reduce operating and free cash flow. The details of the calculations of EBITDA for Lowe's for 2001, 2002, and 2003 are presented in Exhibit 1.7. A closer look at EBITDA is provided in Chapter 2.

Equity Investors and EBITDA

During the 1990s, many equity investors became enamored with EBITDA. Companies reporting their results were all too happy to oblige and began reporting pro-forma earnings measures that were based on EBITDA. These moves were understandable as valuations appeared to be less rich when earnings were calculated before interest, taxes, depreciation, and amortization. However, any shareholders who believe the value of a share of stock is a function of EBITDA are misleading themselves. Earnings before interest, taxes, depreciation, and amortization are not earnings that are available for shareholders. There are key expenses that must be paid before EBITDA-based earnings can be distributed to shareholders. If EBITDA was useful for equity valuation, that use would stem from a positive correlation it may have with reported earnings and to a lesser extent with operating cash flow.