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# Measurements to Cure Management Myopia

Kenneth A. Merchant and William J. Bruns, Jr.

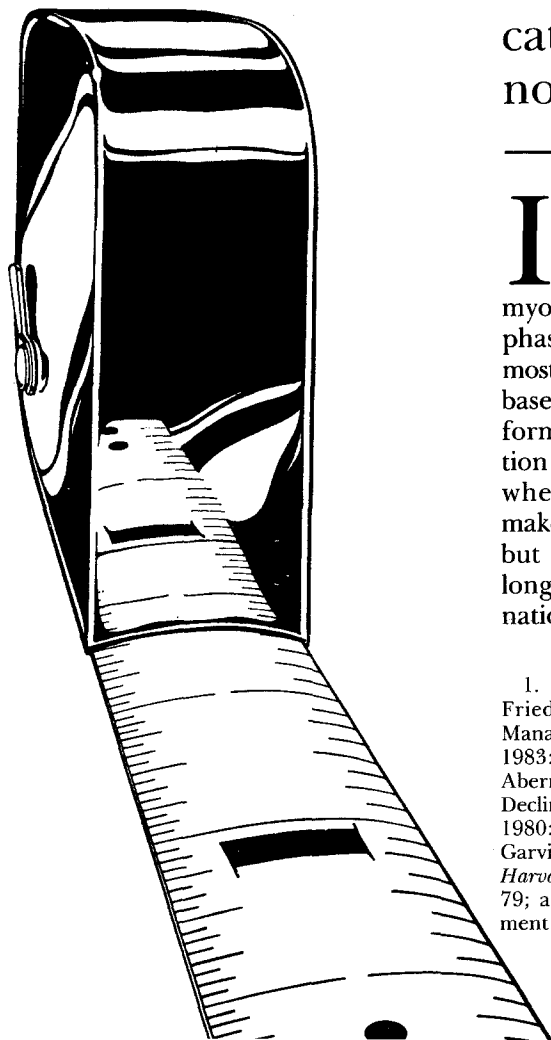
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How can the performance of managers be measured? Traditional accounting measures often encourage short-sighted actions. The returns realized by the shareholders are a better yardstick for top management's performance. For middle management, the problem is more complicated, but a good measure combines economic returns with the cash flow generated.

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In the first half of this decade, managers have been accused of selfish actions and management myopia. Managers allegedly overemphasize short decision horizons. In most cases, these allegations have been based on the presumed effects of performance measurement and evaluation systems, which create situations where managers take actions that make them look good in the short term but are not good for shareholders, long-term corporate health, or the national economy.<sup>1</sup>

1. This point of view is put forth by Thomas Friedman and Paul Solman, "Is American Management Too Selfish?" *Forbes*, January 17, 1983: 77; Robert H. Hayes and William J. Abernathy, "Managing Our Way to Economic Decline," *Harvard Business Review*, July-August 1980: 67-77; Robert H. Hayes and David A. Garvin, "Managing as if Tomorrow Mattered," *Harvard Business Review*, May-June 1982: 70-79; and Lester C. Thurow, "Where Management Fails," *Newsweek*, December 7, 1981: 78.

These allegations of management myopia and selfish actions have the appeal of simplicity. Financial measurements of current profitability encourage short-term actions. Revenues can be enhanced by rapid product change without attention to function or quality. Expenses can be reduced by deferring expenditures that would improve products, distribution, or long-term competitiveness. Managers are led to take such actions because, based on traditional accounting measurements, they are rewarded for profit performance in the current period. They perform for the measurements, not for the long-run good of shareholders or society.

These allegations attribute great importance to the financial measurements and control systems used in organizations. They reveal wide acceptance of the idea that what is measured makes a difference. In spite

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of this, little attention has been given to the idea that different measurements might lead to a cure for management myopia and selfishness.

In the analysis that follows, we reaffirm that financial control systems are needed. We develop criteria for choosing among alternative measurements. Using these criteria, we recommend that traditional measurements of profitability be replaced by available alternatives. These alternative measurements, we believe, could help cure management myopia.

### Financial Control Systems

All but the smallest economic organizations need to develop, maintain, and use financial control systems. Without financial information and controls, survival becomes a matter of chance, and integration of activities on which economic progress depends is impossible. Financial control systems usually perform multiple roles. They assist in coordinating, motivating, and evaluating performance within the organization and the economic society of which the business firm is a part. Financial information is supposed to direct attention to problems and opportunities as well as to provide data that are useful in economic decision making.

As corporations grow and management tasks are distributed, it is common to establish relatively independent financial responsibility centers (profit or investment centers at general management levels) and to try to control managers' behaviors by

holding them accountable for the results achieved. Such a results-accountability control system requires:

- 1. *Defining* the performance dimensions on which results are desired,
- 2. *Measuring* performance on these dimensions, and
- 3. *Providing rewards* or punishments to motivate the behaviors that will lead to the desired results.

This combination of a divisionalized organizational structure with a results-oriented control is the norm in all but the smallest organizations. A recent survey of 620 medium to large corporations (more than \$90 million in annual sales) found that fewer than five percent had neither profit nor investment centers.<sup>2</sup>

There is nothing inherently bad about results-accountability control systems. In fact, they represent perhaps the only way that organizational

2. James S. Reece and William R. Cool, "Measuring Investment Center Performance," *Harvard Business Review*, May-June 1978: 28-49.

coordination can be preserved at the same time that managerial initiative is encouraged. Managers who are held accountable for achieving certain results are allowed considerable autonomy within their spheres of influence. Even though, from the corporate perspective, their behavior is channeled in the right directions, managers feel that they control their destiny. But if measurements are poorly selected, the cues and directions they provide can create problems.

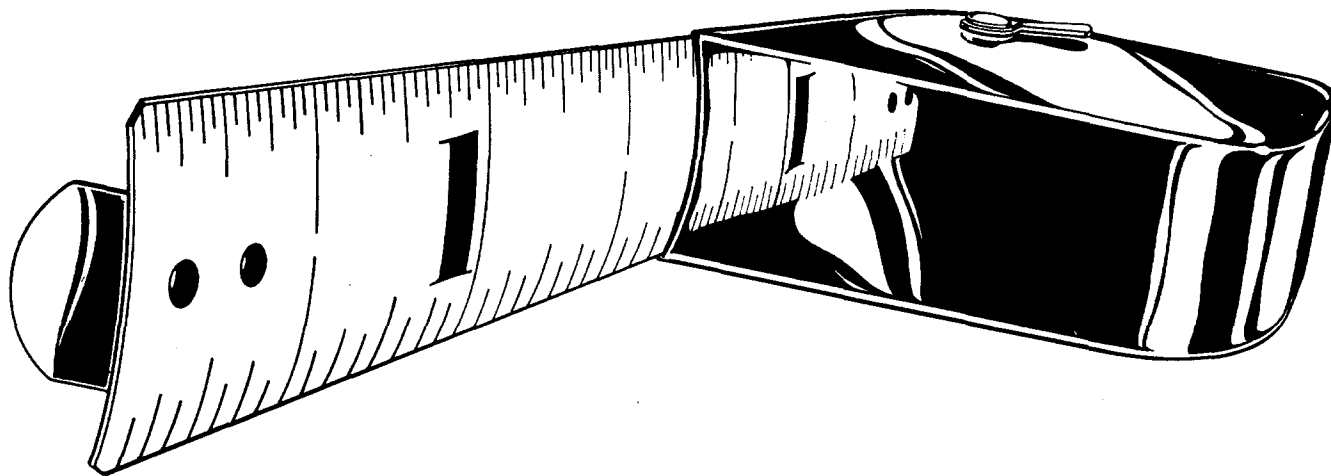
Are there better measurements than the traditional accounting framework, methods, and terms for use in financial control systems? In many cases, we think there are. Some of these measurements seem to have been ignored because they are new; others, because they are not well understood. Because "perfect" measurement is next to impossible, trade-offs between measurement qualities are inevitable. But some of these trade-offs have been poorly managed. As a result, the very systems and measurements that were supposed to help them manage better have encouraged American managers to make short-sighted and selfish decisions.

### Characteristics of Good Financial Measurements

Before comparing the kinds of measurements commonly used in financial control systems with alternatives, it is essential to select useful criteria for such a comparison. We propose the following:

- Measurements should be on the *correct* performance dimensions.





- Measurements should be *precise*, *timely*, and *objective*.

- Measurements (and the goals to which they relate) should be well *understood*.

Some amplification will show why each of these criteria is important.

### Correctness

First and most importantly, financial measurements should be *correct*. A measurement that implies a good decision or performance must actually mean that good decisions have indeed led to good performance. For corporations, correct measurements should reflect the interests of shareholders. Correctness means that, everything else being equal, shareholders should prefer more of the quantity being measured and that optimal management decisions should yield a higher amount than would less optimal choices. Correctness is the single most important measurement criterion. If the measures are not assessing the proper characteristic, then none of the other measurement qualities matter.

Corporations generally agree that their primary financial objective should be to increase the wealth of their owners by the greatest amount possible.<sup>3</sup> Shareholders invest in business organizations, in effect forgoing current consumption, in exchange for the potential for greater future consumption, which is called *wealth*.

3. Jack L. Treynor, "The Financial Objective in the Widely Held Corporation," *Financial Analysts Journal*, March-April 1981: 68-70.

Wealth can be valued at any given time by discounting the expected future cash flows.<sup>4</sup> Thus, wealth has no time horizon. It is a long-term concept. Any additional cash flow potential, no matter how far into the future it is expected, increases the amount of wealth.

A change in wealth over any given period is termed *income*. An alternative way of phrasing the basic corporate financial objective is "the maximization of income." Note that this is not accounting income, meaning revenues less expenses (both as defined by accountants), but true economic income.

### Precision, Timeliness, and Objectivity

Measurement *precision* refers to the accuracy with which a given quantity can be measured; in other words, the amount of randomness or "white noise" in a measure. For precision to be high, the dispersion among the values placed on a given results area by multiple independent measurers would be small.

4. More precisely, wealth is the sum of all the future *purchasing power* flows (that is, cash flows deflated by the expected inflation rate, because cash is useful only for what it will buy) discounted at the *real* time value of money. As a practical matter, however, the value calculated for wealth is the same, regardless of whether the allowance for inflation is made in the numerator, by using purchasing power flows instead of cash flows, or in the denominator, by using a nominal discount factor that includes an inflation component instead of a real discount factor.

*Timeliness* is important for two reasons. First, if the measurements are not timely, it may not be possible to make interventions (for example, process or management changes) to fix problems quickly enough to avert serious harm. And second, when rewards or punishments must be delayed—perhaps for months or even years—because the performance measurements are not available, they lose much of their motivational effect.

*Objectivity* means freedom from personal bias or opinions, particularly those of the person or persons whose performance is being measured. Obviously, if the measurement of performance is done by the person whose performance is being evaluated and the measure is not checked, the potential for bias may be strong, especially if performance has not been good. Objectivity can be accomplished by having the measurement done by independent persons, such as an accountant or a controller's staff, or by having the measurements reviewed by independent persons, such as auditors.

### Understandability

Finally, *understandability* is important. Motivation is improved only if the managers understand both what the measure means *and* (at least in broad terms) what they must do to influence it.

### The Importance of These Criteria

Significant difficulty in achieving *any* of these measurement qualities can

“For top managers of actively traded public corporations in the United States, one financial measurement meets the critical criteria better than any other: Top managers should be held accountable for the real returns provided to the shareholders over a period, adjusted for the general market movements.”

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mean weakness or failure of a results-oriented control system. Because no economic performance quantity can be measured perfectly, trade-offs between the dimensions are often necessary. The proper assessment of these trade-offs is vital in designing any financial control system. But American managers may have assessed these trade-offs improperly. In the process, they may have become victims of their own systems.

#### Financial Control of Top Management

The control problems and desired effects of financial control systems are the same for all managers, but measurement problems are different for top management than for their subordinates.

Top managers are responsible for the financial performance of the entire corporate entity. For top managers of actively traded public corporations in the United States, one financial measurement meets the critical criteria better than any other: **Top managers should be held accountable for the real returns provided to the shareholders over a period, adjusted for the general market movements.** Real returns include dividends declared plus or minus the change in market value, adjusted for inflation.

Measuring real returns to measure performance is correct because such measures correspond with what shareholders are seeking. Defining performance in terms of real returns also meets the other criteria: precision, timeliness, objectivity, and

understandability. Objective valuations of the corporation are made by the market, and the prices are readily available and well understood. And, so that the returns are not overstated by the amount of inflation, inflation adjustments can be made using the relatively accurate, broad-based inflation index which is available in the U.S.—the consumer price index.

#### Returns, Cash Flows, and Management

What are the most significant benefits in using a market return-based performance measure at the heart of financial control systems? This measure reinforces the knowledge of what influences returns to shareholders, and it motivates managers to respond appropriately.

The large body of research on the behavior of capital markets suggests that stock market valuations of company shares are based on expectations of future cash flows, discounted for

time and risk. With rare exceptions, the responses to new, publicly available information are made promptly and in the right direction. The theory upon which the valuation of financial assets is based is known as the “capital asset pricing model,” and the literature that has examined the extent to which market responses correspond to this model is known as “efficient markets” research.<sup>5</sup>

These concepts are very well tested. In the words of Michael C. Jensen, director of the Managerial Economics Research Center at the University of Rochester and professor of business administration at the Harvard Business School:

There is no other proposition in economics which has more solid evidence supporting it than the Efficient Market Hypothesis. That hypothesis has been tested and, with very few exceptions, found consistent with the data in a wide variety of markets.<sup>6</sup>

The basic principle is that the market responds to changes in the amount or timing of expected cash flows (or risk), not changes in accounting numbers (like earnings per share) that carry no messages about the future.



5. See, for example, George Foster, *Financial Statement Analysis* (New York: Prentice-Hall, 1978), and David W. Mullins, Jr., “Does the Capital Asset Pricing Model Work?” *Harvard Business Review*, January-February 1982: 105-14.

6. Michael C. Jensen, “Some Anomalous Evidence Regarding Market Efficiency,” *Journal of Financial Economics*, September 1978: 95.

## Accounting Numbers Are Misleading

While most managers seem to be quite skilled at maximizing, or at least managing, accounting performance measures, recent studies have shown that, for individual firms, accounting earnings are, on average, very poorly correlated with market returns. Thus, accounting measures of performance fail to meet the correctness criterion.

For example, Rappaport studied the 172 firms of Standard & Poor's 400 industrial companies that had earnings per share growth (excluding extraordinary items) of 15 percent or greater over the period 1974-1979. He found that shareholders in 27 (16 percent) of these firms realized negative *nominal* rates of return (dividends less capital losses) over this period, despite the extremely favorable accounting earnings pattern. And shareholders in more than one-third of these firms (60 of the 172, or 35 percent) had negative *real* returns (that is, returns inadequate to compensate them for inflation).<sup>7</sup>

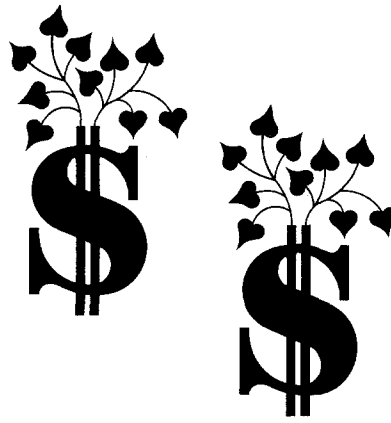
Other studies have given similar results. In a study of 276 New York Stock Exchange firms over the period from 1965 to 1974, there was an average correlation of .38 between annual percentage changes in earnings and annual percentage changes in security prices.<sup>8</sup> A similar study, based on data from the 1958-1976 period, found a correlation of .49.<sup>9</sup> These data suggest that annual accounting earnings changes "explain" only a small proportion of the variance of returns to shareholders, perhaps between only 14 percent (.38<sup>2</sup>) and 24 percent (.49<sup>2</sup>). Quarterly data would show even worse results.

Accounting earnings are poor measures of performance. The lack

7. Alfred Rappaport, "Selecting Strategies That Create Shareholder Value," *Harvard Business Review*, May-June 1981: 139-49.

8. William H. Beaver, Roger Clarke, and William F. Wright, "The Association Between Unsystematic Security Returns and the Magnitude of Earnings Forecast Errors," *Journal of Accounting Research*, Autumn 1979: 316-40.

9. William H. Beaver, Richard Lambert, and Dale Morse, "The Information Content of Security Prices," *Journal of Accounting and Economics*, March 1980: 3-28.



of understanding of this basic fact causes obvious and serious problems. It causes managers to do things that are not in the shareholders' best interests. Some managers, for example, seem to feel that they can fool the market by engaging in "earnings management"—the polite term that Wall Street uses to describe the practice of improving profits by reducing discretionary spending.<sup>10</sup>

Others are deluded into believing the accounting numbers, which, in periods of inflation, commonly show "record sales and earnings." As an editor of *Forbes* magazine observed, even though the 1981 median return on equity for large American businesses was almost 15 percent, four percentage points higher than it was 20 years before, stocks were now valued at only eight times earnings, as opposed to 18 times earnings two decades before. He concluded:

The money illusion of rising sales and assets may fool some businessmen into thinking they are keeping up with inflation, but it hasn't fooled the stock market.<sup>11</sup>

### Other Limitations of Accounting Measures

Accounting measures of performance do not satisfy any measurement criteria as well as shareholder return measures.

10. Bill Abrams, "Is General Foods Cutting Ads to Lift Fourth Period Profit?" *Wall Street Journal*, December 24, 1981: 9.

11. James W. Michaels, "The Stock Market Knows," *Forbes*, January 4, 1982: 8.

Because the accounting measures rely on "accounting judgments," *precision* can sometimes be a problem. Totally objective measurers can settle on widely varying sets of numbers depending on the assumptions they make, such as the economic life of an asset, the percentage of receivables that are collectible, or the expected yield on pension fund investments.

*Objectivity* can also be a problem. Management often has discretion in its choice of measurement method (for example, for depreciation, inventory). As long as this choice is within the rules of generally accepted accounting practice (GAAP), auditors will not object.

*Timeliness* is a third potential problem. The longer the period of time they cover, the more accounting numbers improve as measurements of performance. At the extreme (for example, over the life of a venture), if we ignore the time value of money, there is no difference between total economic income and total accounting income. Thus, annual earnings, for example, are a better performance indicator than are quarterly earnings. So one way to improve the correctness problem of accounting earnings is to extend the horizon, perhaps to look at earnings over a multiple-year period. But this causes obvious problems of timeliness. Managers are not highly motivated by the promise of rewards they will have to wait years to receive.

### Market Valuations Are Not Perfect

Although switching to market return-based performance measures has distinct advantages over accounting measures, these measures are not perfect. Several minor criticisms of this solution can be made.

One is that, if material information has not been publicly disclosed, the market may not be fully informed. The market appears to respond appropriately to information that is publicly available, but it may not have access to some significant, but perhaps sensitive, data. If the company has prepared substantive plans that have not been disclosed (divestiture, new investment, or new strategy, for example), the market valuation will

not reflect the “true” economic value.

It is also possible that management could manipulate disclosures of substantive plans to affect market prices. Managers might be motivated to such manipulations if they believed that the disclosures would have significant effects on their rewards (bonuses or job security, for example). In this way, they could compromise the objectivity of the performance measure. In the U.S., however, the Securities and Exchange Commission (SEC) uses its considerable legal power to control such manipulations of stock prices. The dangers here appear to be minimal.

### The Top Management Solution

Financial control systems designed to influence the behavior of the top managers in actively traded U.S. corporations should define goals and measure performance in terms of the returns provided to shareholders. While return-based systems are not perfect, they provide the characteristics needed in a good financial control system: correctness, good measurement qualities, and understandability (see **Figure 1**).

Measuring performance by shareholder return raises the question, Do managers understand what they must do to improve performance (that is, increase cash flows, reduce risk)? Even if this knowledge is lacking at present, it can be imparted.

But what if a company’s shares are not actively traded? In such cases, using market-based measures of real returns to shareholders may not give an accurate reflection of the true value of a firm. Other measures may have to be used. And what about middle managers who are responsible for only

**Figure 1**  
**Financial Control of Top Management:**  
**Shareholder Returns and Accounting Returns as Performance Measures**

<i>Criterion</i>	<i>Shareholder Returns</i>	<i>Accounting Returns</i>
Correctness	excellent	quarterly—poor annual—fair
Measurement qualities:		
Precision	excellent	good
Timeliness	excellent	quarterly—good annual—fair
Objectivity	excellent	good
Understandability	good	excellent

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part of a firm? For these managers, a market-based financial measurement may not differentiate good performance from poor performance. What financial controls are appropriate in such cases?

### Financial Control of Middle Management

When there is no reliable market valuation (in a division or department, for example, or in a corporation whose shares are seldom traded), the use of shareholder returns becomes more tenuous. Separating good from bad performance demands measures that can be identified with parts of the corporation, hence with the actions of middle managers. To varying degrees, alternatives that allow evaluation of unit and middle manager performance meet our criteria for evaluating financial control system measurements.

### Economic Returns

One alternative to objective market valuation would be an approximation of this valuation. The best available management cash flow forecast could be discounted by an appropriate discount rate, which would include consideration of the inflation assumption used in preparing the forecast and a risk premium appropriate to the entity. The “economic income” for a period, then, which managers would strive to maximize, would be the dif-

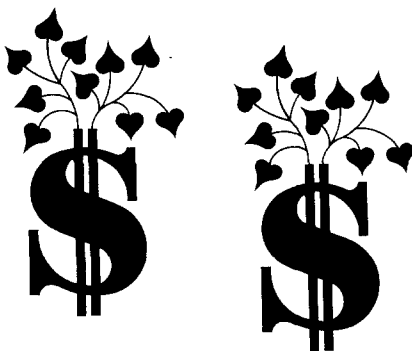
ference between the beginning and ending entity values. If desired, return ratios could be computed by dividing the economic income by the beginning entity value.

The basic computations involved here are not new to managers. They are identical to those used in net present value methods of capital investment evaluation. Instead of the misleading pro-forma income statement indicators, a growing number of firms are now evaluating business strategies by discounted cash flow analyses at a higher level of aggregation.<sup>12</sup>

There are obvious advantages and disadvantages to using economic return measures as part of a financial control system. The principal advantage is that the definition of results is most nearly correct; that is, goals defined in terms of economic returns most closely approximate shareholder goals. Consequently, defining the management goals in these terms maximizes the congruence of management goals and shareholder goals.

However, this solution suffers from some potentially serious measurement problems. *Objectivity* is a problem. Because they are probably best informed about plans and prospects, the managers of the units where results are being measured are in the best position to make the estimates. But they also may be motivated to bias the estimates—especially upward.

12. Rappaport (note 7): 148.



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Another problem arises because measurement of economic values and income is very *imprecise*. Cash flow forecasts done by different observers, even if they are totally objective, may be widely disparate. People preparing these forecasts may have different information or perspectives, they may exhibit personal biases based on optimism or pessimism, or their estimates may vary with their mood.

#### Accounting Returns

*Correctness*, the main weakness of accounting measures, persists at all levels: corporate, division, or department. Maximization of accounting earnings or return does not mean that shareholders' financial interests are being maximized, in spite of some positive correlation between accounting earnings and shareholder returns.

Nevertheless, accounting measures do have two advantages over economic return measures. They are relatively *precise*; many of the measurement rules used to prepare accounting measures require no subjective judgment. As accounting earnings are relatively objective, auditors can check to see that measurements have not been unduly biased by management.

Furthermore, these measures are *timely*. Timeliness can be traded against correctness. The correctness of accounting earnings as a measure of performance can be improved by extending the time horizons. If performance is measured over a multi-year period instead of over a quarter

or year, accounting measures are more likely to be correct. But this solution has several drawbacks. Its feasibility is limited because middle managers often do not stay in a single position for several years. And even if they did, performance evaluation and rewards and penalties would be delayed until results could be measured. Such delays would severely affect the motivational purposes of making measurements.

#### Cash Flows

A final alternative to the use of shareholder returns would be to measure cash flows. Future cash flow potential would be assessed by measuring historical cash flows so that operating cash flows would be isolated from those generated by unusual, nonrecurring events (the sale of a major asset, for example, or new financing). Historical cash flows have obvious measurement advantages: simplicity, precision, objectivity, and understandability. They eliminate the need for the accruals and other matching rules required for calculating accounting return. Several authors have suggested that cash flow performance measures might be used in ratio form by dividing cash inflows by some measure of investment.<sup>13</sup>

But do cash flow measures, however defined, provide a reasonable

approximation of cash flow potential? To date, the evidence suggests that they do not. Studies have compared the relationships between security price changes (which reflect changes in cash flow potential) and changes in both accounting earnings and operating cash flows.<sup>14</sup> These studies suggest that accounting earnings exhibit stronger relationships with security price changes than do operating cash flows. However, doing research in this area is difficult because earnings changes and cash flow changes are highly correlated. More recently, Casey and Bartczak studied 290 companies, 60 of which had been declared bankrupt. They concluded that operating cash flows for a five-year span did not distinguish between a healthy enterprise and one that would fail.<sup>15</sup>

Based on the evidence, it appears that moving to performance measures based on historical cash flows would yield an inferior measurement from the standpoint of correctness. Whether the cost, in terms of correctness, is greater than the benefits, in terms of measurement precision and simplicity, depends on the situation and on the skill and ingenuity with which other measurements can be made.

14. As summarized by William H. Beaver, *Financial Reporting: An Accounting Revolution* (New York: Prentice-Hall, 1981): 128-30.

15. Cornelius J. Casey and Norman J. Bartczak, "Cash Flow—It's Not the Bottom Line," *Harvard Business Review*, July-August 1984: 61-66.

13. See, for example, William L. Ferrara, "A Cash Flow Model for the Future," *Management Accounting*, June 1981: 12-21; and Yuji Ijiri, "Recovery Rate and Cash Flow Accounting," *Financial Executive*, March 1980: 54-60.

## The Middle Management Solution

**Figure 2** summarizes the advantages and disadvantages of three types of performance measures in terms of the three criteria we are using to compare financial control systems. In general, economic return seems the most nearly correct measure of performance, but it is difficult to measure. Accounting return has good measurement properties, but it is a poor approximation of "good" performance. Operating cash flows is an excellent gauge in terms of measurement precision and simplicity, but at some cost in terms of correctness.

No one of the financial performance measures appears perfect for those situations where no market valuations are possible. Attempts to use or adapt the traditional accounting model for use in financial control systems are unlikely to end the tendency of systems to lead to myopic or selfish behavior by managers. Although accounting earnings may be the most easily understood, they are not good measures of benefits to shareholders, and they have poor measurement qualities.

Better measurements—and better management—for all managers not at the top of their organizations are likely to depend on solving the measurement problems of economic return, or on developing systems that improve the correctness of cash flow measurement systems. These two alternatives share a common characteristic. They focus on cash flows. Economic return measures value inherent in future cash flows; cash flow measures used to date focus on past cash flows. Better management is likely to depend on learning to use information about cash flows in coordinating, evaluating, and motivating managerial action.

### Using Cash Flows in Financial Control

For most companies, a move to use cash flows in financial control will require three steps.

1. *Initially, the possible usefulness of economic return or cash flow should be assessed.* Some companies may feel that they can solve the problems associ-

**Figure 2**  
**Financial Control of Middle Management:**  
**Economic Returns, Accounting Returns, and Cash Flows as Performance Measures**

Criterion	Economic Returns	Accounting Returns	Cash Flows Generated
Correctness	excellent	quarterly—poor annual—fair	poor?
Measurement qualities:			
Precision	poor	good	excellent
Timeliness	excellent	quarterly—good annual—fair	excellent
Objectivity	poor	good	excellent
Understandability	excellent	excellent	excellent

ated with the measurement of economic income, at least in some parts of the organization, perhaps because the environment is relatively predictable and top management is adequately informed to provide an objectivity check. Other companies may decide that cash flow measures of performance do indeed provide a good enough measure of cash flow potentials, and that their measurement qualities provide worthwhile advantages. But all companies should experiment with the information that each of these measurement systems can provide.

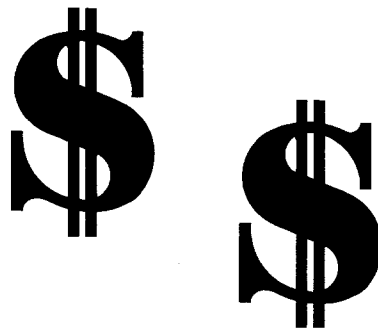
2. *Most companies will need to change their present planning/budgeting system to develop a cash flow orientation rather than an accounting profit orientation.* Such a system should focus on cash flows in three time periods. Future cash flow predictions should be required, and these should be used to assess economic returns. Initially, these probably should play a minor role in performance review because they are likely to suffer from measurement errors and biases. The cash flows that

were expected should be compared with those that occurred. Variances from expectations should be analyzed so that future forecasts of cash flows can be improved by correcting weaknesses in the system used to predict cash flows or managers' understanding of the process.

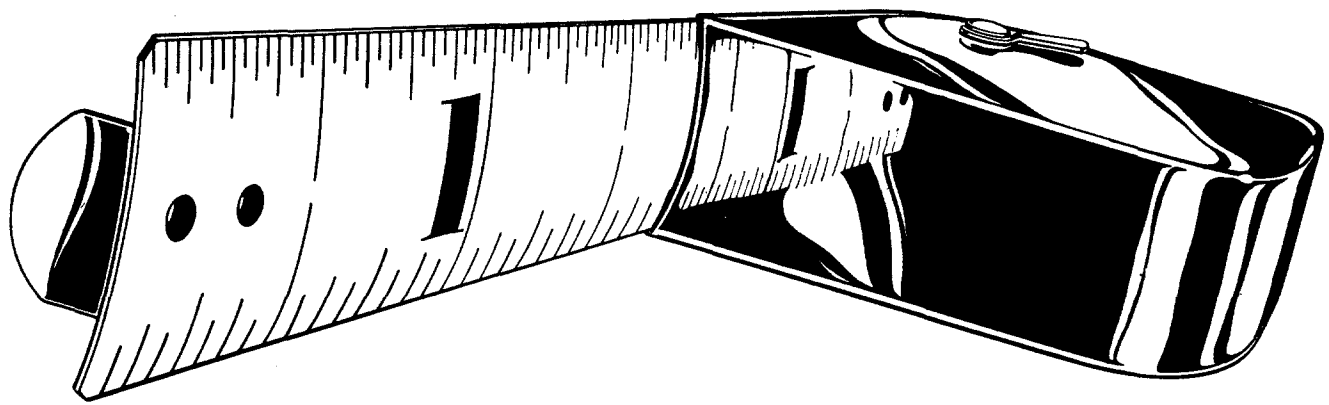
3. *The third step in most companies will be the development of financial measurement systems that use cash flow predictions, measurements, and information to efficiently measure economic return for all managers on a continuous and self-correcting basis.* **Table 1** outlines the essential elements of a system. For organizational units (responsibility centers), planned cash flows provide a basis for calculating economic value. The change in economic value, arrived at by calculating the discounted present value of future cash flows at two points in time, is a measure of economic return. Analysis of current period predictions against actual and past period accuracy will provide a means for judging the likely reliability of future cash-flow projections. Such a system lengthens the management horizon but remains related to current period actions.

Under such systems, myopic and selfish management actions will immediately be shown to reduce economic value and return of the unit. Actions that will improve the value or economic return over any time period can be rewarded.

Performance appraisal and rewards will be related to planning and predicting how and when actions will affect cash flows, to taking the actions necessary to make plans and predic-







tions come true, and to using knowledge gained in the planning-evaluation process to improve future predictions.

**M**anagement myopia and selfish actions by managers are encouraged by the financial control systems used by most corporations today. To address these problems, financial control systems must be changed. For top management, measuring performance in terms of the economic return generated during a given period, rather than by accounting measures, would provide maximum goal congruence (correctness). Managers would be rewarded in proportion to the returns realized by the shareholders. Economic returns also perform exceptionally well on the other measurement qualities: precision, time-

liness, objectivity, and understandability.

Control of middle managers is a much more difficult problem. At present there are no objective valuations of entities that are not publicly traded. Three performance measurement possibilities are economic return, accounting return, and cash flows. All these measurement possibilities have potential uses in a financial control system, but none is perfect for all situations. The best system would seem to have attributes of both economic return and cash flow; the cash flow system could be the basis for assessing the cash flow predictions needed to use the economic return system.

The change from reliance on accounting measures of performance is, unfortunately, likely to be very slow. Managers, controllers, and auditors

have a tremendous incentive to preserve the status quo. They understand the accounting measures, which seem to have served both well and long. But times have changed. The realization that technological change and varying rates of inflation probably have rendered the accounting measures obsolete is slowly sinking in. The ever more vocal critics of management may be the catalyst for the basic financial control system changes that seem to be overdue.

The stakes are enormous. It is folly to continue to use financial control systems that encourage and reward managers for taking the wrong actions. Perhaps one day financial reporting can be based on new premises as well, but we cannot wait. We need better measurements for better management. □

**Table 1**  
Design for a Financial Control System Using Cash Flows and Economic Return

	<i>Plan to Actual Cash Flow Differences</i>			<i>Cash Flow 1985</i>		<i>Economic Value Discounted at 11.5%</i>		<i>Planned Cash Flow</i>		
	1982	1983	1984	Planned	Actual	12/31/84	12/31/85	1986	1987	1988
Division A	1.0	(.9)	.8	\$ 9.3	\$10.2	\$157.3	\$161.2	11.5	12.3	14.1
Division B	1.0	3.2	(1.9)	\$31.2	\$29.7	\$129.7	\$123.8	27.3	23.2	19.6
Division C	(.2)	(1.2)	4.5	\$90.7	\$93.2	\$637.3	\$653.9	100.9	111.3	120.1
	Differences here reveal accuracy of past cash flow forecasts. Useful in considering accuracy of present and future forecasts.			Current year cash flow. Comparing plan to actual.		Discounting of future cash flows gives economic value. Change in value is economic return.		Future forecasts of cash flows provide data for measuring economic value and return. Year-to-year changes provide basis for appraisal of middle managers.		
<i>Time</i>	<i>Past</i>			<i>Immediate Past</i>		<i>Present</i>		<i>Future</i>		