

DO VALUE-ADDED PROGRAMS ADD VALUE FOR SHAREHOLDERS?

By Stanley Block

To compete in the 1990s, companies must increasingly focus on shareholder interests, and one popular method is through EVA (economic value added) analysis. This approach may help improve management performance, but it is less useful to investors due to a lack of timeliness and difficulty in analyzing the data.

The theme of creating shareholder value has never received greater attention than in the 1990s. The CEOs at Eastman Kodak, IBM, American Express, GM, and Sears were all given their "walking papers" for failure to maximize the value of their company's stock in the marketplace. The classic case is IBM, where management was replaced by Lou Gerstner Jr. and his takeover team in the mid-1990s, and the stock soared from \$40 to \$200 a share (before a stock split), for a gain of 400%.

As institutional money managers continue to expand their influence on corporate policy and individual investors place an increasingly large percentage of their household assets in equities, the pressure on corporate management for performance is greater than ever before. If, indeed, the Social Security system in the U.S. becomes partially or fully privatized, with funds shifted from the Treasury bond market to individual portfolios, the pressure for performance will be even greater as every citizen will be dependent on equity performance for retirement benefits.

Nor is the emphasis on shareholder value strictly a U.S. phenomenon, as was true in the 1980s. With the globalization of equity markets, firms throughout the world must respond to shareholder demands. The socially oriented economies of Germany, France, Japan, Mexico, and elsewhere are giving way to the discipline of the marketplace and replacing socialized programs of job permanence, healthcare, etc., with a more freely competitive industrial market.

As never before, investors are keeping score. Not only do we have the traditional benchmarks, such as the Dow Jones industrial average, the S&P 500, and the Russell 2000, but institutional investors are publishing names of poor equity performers for all to see. The Council of Institutional Investors, a public pension fund trade organization, publishes a list of the bottom 20 companies in the S&P 500 based on underperformance in their industry. Although not widely distributed, the California Public Employees Retirement System (Calpers) annually screens for the 10 worst equity performers in their portfolio.

Perhaps the most publicized list is the Stern Stewart 1,000 that comes out annually and ranks companies based on market value created or destroyed. An example is presented in Table 1.

The most likely targets for underperformance on anyone's list are companies that compete in mature industries, such as auto or oil, and continue to allocate excess cash flow toward uneconomic reinvestment or ill-advised diversification. An excellent discussion of this is contained in Northwestern University Professor Alfred Rappaport's recently published book "Creating Shareholder Value—A Guide to Managers and Investors" (The Free Press, 1998). In the book, Prof. Rappaport defines the "value gap" as the difference between what a company is potentially worth if it were operated to maximize shareholder wealth versus what it is currently worth in the marketplace. A classic example is the national retail chain that continues to own enormously valuable downtown property in New York or Chicago to make marginally profitable retail

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**TABLE 1. THE TOP 10 FIRMS IN
MARKET VALUE ADDED (1996)**

1997 Rank	Company	Market Value Added (\$ millions)
1	Coca-Cola	124,894
2	General Electric	121,874
3	Microsoft	89,957
4	Intel	86,481
5	Merck	78,246
6	Philip Morris	66,608
7	Exxon	55,532
8	Procter & Gamble	55,102
9	Johnson & Johnson	51,119
10	Bristol-Myers Squibb	42,910

Source: Stern Stewart Performance 1000

sales.

OTHER MANAGEMENT THEMES

Before getting into the nuts and bolts of shareholder value-added programs, it should be kept in mind that there are other strategic management programs that have had their time and place in history. Shareholder value creation should be viewed in this context.

One of the first value-added strategic management programs was "management by objectives," developed by Peter Drucker over three decades ago. The theory is that the best performance results are obtained by workers and managers when objectives for performance are mutually developed and agreed upon. The employee is then empowered to achieve the objectives in the most creative and efficient manner possible. This model, which was intended to produce high productivity and, as a byproduct, maximum stockholder value, was comparable in acceptance and visibility to the economic value-added (EVA) concepts of today. Yet 30 years later, hardly anyone still speaks of management by objectives as a primary driver of superior performance.

The next big management trend was total quality management (TQM). Growing out of a deep respect for the Japanese way of

industrial life, TQM stressed that quality was not something that was inspected as a last step in the production process, but was an overriding theme of the firm. Every step in the value chain from design and development, through production, marketing, and distribution must adhere to the highest standard of quality. During its period of prominence, TQM

companies were thought to be true value drivers. While TQM is still held in high regard, it is not the end-all solution once imagined.

Other management trends have also taken place over time. The latest strategic management focus is economic value added (EVA) and its emphasis on shareholder wealth maximization.

ECONOMIC VALUE ADDED

Economic value added (EVA) stresses that decisions should be made or projects accepted only if net operating profit after taxes exceeds the capital costs to finance the investment. For anyone who has taken a course in finance—or made a personal investment—the principal behind EVA is well known. When you strip away the fancy wording, EVA merely maintains that you should only make an investment if the return exceeds the cost.

Then why all the commotion?

The reason is that it is one thing for managers of corporations to understand the concept, but it is quite another for them to implement it. That is where Joel M. Stern and G. Bennett Stewart III come in. As copyrighted

developers of the concept of EVA, they maintain that they can teach corporate managers how to put a program in place that ensures that return on capital exceeds the cost and, in the process, stockholder wealth is maximized.

Stern Stewart & Co. now has over 200 EVA clients in the U.S. and worldwide that include such firms as AT&T, Citicorp, Coca-Cola, Eli Lilly, Georgia Pacific, Kansas City Power & Light, Quaker Oats, Sprint, Sun International, Whirlpool, and the U.S. Postal Service.

Under the EVA program, all decisions from the executive suite to the lowest production level are made with an EVA emphasis. The key issue addressed is whether the project will increase or decrease the EVA. EVA is increased when net operating income after taxes exceeds capital costs to finance the project and lessened when the opposite is true. While one might think that no corporation would undertake a project where costs exceed the return, such is far from the truth. For examples of firms that have increased or decreased EVA in the past, see Table 2.

Many times investments are made because management is already committed to a course of action, and they continue to pour good money after bad to justify their initial actions. GM has often followed this

**TABLE 2. THE TOP AND BOTTOM FIVE
ECONOMIC VALUE-ADDED FIRMS (1996)**

Company	Economic Value Added (\$ millions)
Microsoft	1,727
Abbott Laboratories	1,187
Computer Associates	784
Gillette	447
Eli Lilly	184
Goodyear	-298
Tenneco	-385
Motorola	-630
Caterpillar	-1,570
WorldCom	-1,611

Source: Stern Stewart Performance 1000

policy in the development of new model automobiles. In other cases, a firm is in a maturing industry, such as steel or chemicals, and management continues to make investments in the industry in spite of the fact that the funds would be better spent in diversifying operations or in paying cash dividends to stockholders.

Another reason for generating negative EVA is simply that management, while well intended in its actions, lacks the proper focus. All too often, the chief financial officers evaluate projects based on net present value, but modify recommendations to meet the earnings growth target of the firm. Business unit evaluations may not be based on either parameter, but rather on assets or some other profit goal set by top management. Bonuses for operating managers may be related to demand/supply conditions within an industry (such as software engineering or biotechnology). New product introduction may be based on gross profit margins, and so on. The intent of EVA is to develop a unified, at times uncompromising, approach to problem solving and decision-making. Using EVA, investment returns must exceed the cost of capital, and this rule applies to every decision the corporation makes from the boardroom to the secretarial pool.

EVA AND ACCOUNTING DATA

In order to determine whether the firm has earned a return that exceeds the cost of financing and produces a positive EVA, the return figure must be properly calculated. Stern Stewart & Co. maintains that traditional accounting numbers, as measured through generally accepted accounting principles (GAAP), lack validity and do not measure economic value.

For example, traditional accounting numbers are based on the historical cost principle and have little to do with current value. On

TABLE 3. ACTUAL MARKET VALUE VS. REPORTED ACCOUNTING VALUE FOR SELECT FIRMS (JUNE 1998)

Company	Ratio of Market Value to Accounting Value
Dell Computer	25.1
Coca-Cola	23.7
PeopleSoft	19.7
Microsoft	17.8
Pfizer	17.6
Apollo Group Inc. A	16.0
Cisco Systems	13.9
Medtronic	11.1
Merck	10.9
Oracle	10.0

the other hand, traditional accounting is not intended to capture new developments—GAAP is based on the premise that accounting values must be objective and therefore measure only actual, observable transactions. Traditional accounting is most useful in helping creditors monitor the debt-repaying capability of the firm, not its value in the marketplace. Investors and managers who rely exclusively on accounting data are likely to be systematically misled.

For these reasons, it is not surprising that the firms that comprise the S&P 500 index traded at 6.1 times their traditional accounting value, as measured by book value or stockholder equity, in June of 1998. As indicated in Table 3, firms that have highly valued intangible assets (such as technological capability) or strong name recognition, neither of which is measured by accountants, are likely to show the greatest divergence

between actual market value and reported accounting value.

With the great difference between market values and accounting values, it is not surprising that a concept such as EVA, which attempts to maximize shareholder wealth, would adjust values traditionally shown by accountants.

Stern Stewart & Co. has identified 160 performance measurements in GAAP that are in need of revision to measure true

economic performance. Because such a large number of changes would be difficult to implement for a client company, 20 to 25 adjustments are normally addressed in detail and the five or 10 most significant adjustments are actually made.

In 1997, I did a survey of EVA companies, and found the adjustments in Table 4 to be the most frequently implemented.

Items 1 (capitalization of research and development) and 3 (capitalization of restructuring and disposition expenses) in the table represent a recognition of the fact that traditional accounting frequently requires the immediate expensing of items even though the benefits may be long-term. For example, traditional accounting often forces drug companies and high-tech firms to take immediate write-offs for items that provide benefits for the next decade. This conservatism may lead to a misleading calculation of operating

TABLE 4. THE MOST FREQUENT ADJUSTMENTS TO TRADITIONAL ACCOUNTING MADE BY EVA FIRMS

Adjustment	Percentage of Times Listed
1. Capitalization of research and development	77.1
2. Add back of goodwill	60.0
3. Capitalization of restructuring and disposition expenses	51.1
4. Actual tax payments vs. tax provisions	42.8
5. Adjustment to reserve accounts	34.3
6. Capitalization of operating leases	34.2

income.

The adjustments that are made using an EVA approach to research and development and restructuring expense have the dual impact of increasing operating income as well as increasing the capital base on which an acceptable return must be earned. The treatment of R&D expenditures and restructuring costs as long-term investments rather than current expenses has the highly desirable effect of encouraging firms to think of the long-term consequences of their actions rather than the impact on next quarter's earnings per share.

EVA AND COMPENSATION

EVA advocates place a very heavy emphasis on the nature of the compensation package to overcome the problems associated with the separation of management and ownership in publicly held companies (typically management only owns 2% of the shares outstanding). According to Stern Stewart & Co., a corporation loses 50% of the value of EVA if the incentive plan is not driven by it.

Unlike many conventional plans in which goals are negotiated annually with management with the intent of earning a bonus at year-end, EVA targets are supposed to be automatically set by formula. The primary goal each year is to better the prior increase in EVA.

Stern Stewart & Co. also recommends that there be no upside limit on bonuses and compensation. Their philosophy is that most stockholders would say that's a good idea. "Drive my stock price as high as you can."

The EVA measure, with its emphasis on *annual* rate of return exceeding cost of capital, has been cited as only related to one year. Stern Stewart & Co. addresses this issue through the recommended introduction of a bonus bank. Part of the annual bonus for superior performance is put in a bonus bank and may only be fully withdrawn after

TABLE 5. THE FIXED/VARIABLE COMPONENT IN COMPENSATION

Compensation: Fixed vs. Variable	Percentage of Companies	
	Prior to EVA Implementation	After EVA Implementation
90%/10%	55%	5%
80%/20%	23%	14%
70%/30%	22%	36%
60%/40%	0%	18%
50%/50%	0%	27%

continued good performance. If a manager makes a decision that helps EVA in year one, but ultimately hurts EVA in year three, part of the initial bonus will be deducted from the bonus bank as a penalty. Stern Stewart & Co. recommends that it takes up to six years to get up to 90% of budget bonuses fully paid out.

Stern Stewart & Co. further suggests that a good EVA plan is one that relates a large portion of compensation to incentives. In Table 5, the relationship of fixed to variable pay is shown for my 1997 survey of EVA companies. Note that before the implementation of EVA, 55% of the survey respondents had a 90-10 split between fixed and variable compensation, while after the introduction of EVA, only 5% of the responding companies retained such a heavy emphasis on fixed compensation.

Employees in EVA companies are exposed to greater risks in their annual compensation to put them on the same footing as investors. Employees who have 90% of their annual compensation already established in salary are much less likely to be creative, risk-taking drivers for increased EVA and stock values than those who have 30% to 50% of their compensation tied to actual performance.

MVA AND EVA

Market value added (MVA) is another important concept that was developed by Stern Stewart & Co. and is closely tied to the concepts of stockholder value added and EVA. The formula for MVA is:

$$\text{MVA} = \text{total market value} - \text{contributed capital}$$

The first term after the equals sign represents the total market value of equity and debt, while the latter term represents the total contributed capital since day one, including the retained earnings contribution of stockholders.

MVA is intended as a useful measure for those who have contributed capital—it seeks to answer:

- What have you done with my funds?
- Have you added or destroyed value?

It is a very different concept from total market capitalization, which may be increased by simply selling new shares.

Stern Stewart & Co. publishes annual MVA data on the 1,000 largest U.S. companies based on market capitalization. The publication also includes related EVA data for each company. Sample data is shown in Table 6.

Although the material was published in late 1997, the actual information is for 1996 data (there is a long lag). Taking number-one ranked Coca-Cola as an example, the market value added since the inception of the company is \$124.9 billion at year-end 1996, compared to only \$49.3 billion at year-end 1991. Coca-Cola is not only a strong creator of market value, but also has moved from fourth place to first place over the five-year time period.

Not all the companies in Table 6 are EVA companies, but Coca-Cola is frequently cited in the literature as a proponent of EVA.

The last column in Table 6 indi-

cates a profitability index, which measures the five-year average return on capital divided by the five-year average cost of capital. A profitability index greater than 1.0 indicates the firm is earning in excess of the cost of capital over the five-year time period, while an index less than 1.0 would indicate the opposite. Coca-Cola's profitability index of 3.7 is impressive. Of course, the companies toward the bottom of the table fare worse on all the parameters.

Fortune magazine has given added visibility to Stern Stewart & Co. data by publishing the top 200 MVA creators annually (usually toward year-end). The Fortune material contains MVA, EVA, and other related information but in a slightly different format than the Stern Stewart original data.

Stern Stewart & Co. maintains that there is a close statistical relationship between MVA and EVA, and this factor can be gleaned from the numbers in Table 6 as well as their own database analysis. This, however, is somewhat of a controversial topic, which leads to our next section.

IS IT USEFUL TO INVESTORS?

An important question is: How

closely are EVA and market value gains related? Even if EVA is a great concept for improving operating performance, its true value to investors must be related to stock gains.

Not surprisingly, Stern Stewart & Co. maintains that there is a strong relationship between EVA and shareholder gains. In one publication, it states: "When management decisions are aligned with interests of shareholders, it is only a matter of time before management initiatives are reflected in a higher stock price. Research demonstrates that EVA is the internal performance measure that best accounts for share value over time—better than earnings, earnings per share, earnings growth, rate of return, and even cash flow."

While this line of reasoning initially had strong acceptance, it is now being challenged. The Spring/Summer 1997 issue of Financial Practice and Education (published by the Financial Management Association in Tampa, Florida) contained a number of articles questioning the close correlation between EVA and stock market gains. A sample quote was in a paper by Jonathan Kramer and George Pushner entitled "An Empirical Analysis of Economic Value Added as a Proxy for Market Value

Added." The authors concluded, "We have found no clear evidence that EVA is the best internal measure of corporate success in adding value to shareholder investments. On the contrary, the market seems more focused on profit than EVA."

In fact, there has been a seemingly endless stream of articles that provide pro and con arguments about whether EVA is truly a driver of stock market value. Most of the difference in outcomes have to do with the statistical methodology employed.

The best advice is probably not to take Stern Stewart & Co. conclusions or its detractors too literally. No doubt, in many cases the adoption of EVA does add stockholder value, while in others it falls short of the mark. But it is not a single indicator that will ensure better-than-average stock market performance.

For example, the number one company in market value added (MVA) in Table 6 is Coca-Cola, a major advocate of EVA. But the 998th ranked company out of 1,000 is Ford Motor Company. By year-end 1996, this non-EVA company had destroyed \$11.9 billion in market value. Yet in the 18 months since the end of 1996, Ford Motor Company has enjoyed a greater than 50% gain in value.

**TABLE 6. STERN STEWART PERFORMANCE 1000:
THE TOP AND BOTTOM FIVE**

Rank		Company	Market Value Added (\$ millions)		Economic Value Added (\$ millions)		Profitability Index
1997	1992		1996	1991	1996	1991	
1	4	Coca-Cola	124,894	49,348	2,442	715	3.7
2	6	General Electric	121,874	36,893	2,515	342	1.4
3	14	Microsoft	89,957	17,951	1,727	324	4.0
4	74	Intel	86,481	4,429	3,605	64	2.7
5	2	Merck	78,246	57,305	1,688	1,460	1.6
996	153	Kmart	-2,200	1,975	-1,038	-253	0.2
997	997	Digital Equip	-3,862	-5,016	-1,447	-1,316	0.1
998	999	Ford Motor	-11,916	-19,010	1,719	-7,373	1.3
999	992	RJR Nabisco	-11,984	-3,002	-1,228	na	0.6
1,000	1,000	General Motors	-20,701	-23,556	-3,527	-12,494	0.6

Source: Stern Stewart Performance 1000

EVA AND TIMELY DATA

One of the biggest problems for investors using EVA as a means to predict future market value is the unavailability of current EVA data. While Stern Stewart & Co. is highly accommodating in providing EVA data, it is not current information. If you contact Stern Stewart & Co. at 1345 Avenue of the Americas, New York, NY 10105; 212/

261-0600, or fax 212/581-6420, you will receive an outstanding packet of information. However, the EVA data as of June 1998 is year-end 1996. The material on EVA and MVA that was published in the November 10, 1997, issue of Fortune magazine was also year-end 1996. Thus, it does not capture the most recent developments.

Furthermore, it is almost an impossible task for the individual investor or an analyst to compute EVA on their own. There are potentially up to 160 modifications that must be made to the conventionally reported earnings per share figures (which are based on GAAP principles), to get a measure of economic return. Although Stern Stewart & Co. may only make five or 10 major adjustments to determine the EVA you see in their reported material, the process is proprietary in nature, so that you cannot replicate it on your own.

A further concern is that most analysts and portfolio managers are so focused on earnings per share in their valuation models that it might do you little good to forecast EVA even if you could. A company that shows increasing EVA, but decreasing earnings per share, may still go down in value. This could be the case for a firm that has a large

charge-off to R&D in the current year under conventional accounting, but a considerably smaller charge under EVA because EVA calls for amortizing such costs over the full period in which benefits will take place. While EVA might be more correct conceptually, this is a small comfort to those who are obsessed with earnings figures reported to the SEC and headlined in the financial press.

Even those who have problems with conventionally reported earnings per share may not turn directly to EVA as the solution. As one example, Rory Knight, a British researcher at Oxford, uses realized economic value (REV) instead of EVA. Realized economic value consists of cash flow less the cost of financing. Also, he uses a value creation quotient (VCQ) instead of MVA. VCQ represents market value *divided* by capital invested. It is relative value that accounts for size differentials. Smaller companies have a better chance for high rankings under the Knight system than with Stern Stewart & Co.'s MVA.

THE BOTTOM LINE

Similar to past theories that have dominated the economic landscape, such as management by objectives or

total quality management, EVA has played an important role in improving corporate management. However, it should not be viewed as the "ultimate solution." Undoubtedly, there will continue to be new theories in the future that will work for certain firms.

As far as investors are concerned, companies that adopt EVA should generally pass an investor's first screening test for firms that attempt to appropriately manage corporate funds and align their interests with those of shareholders. On the other hand, the lack of EVA use by a firm does not necessarily indicate that management does not focus on shareholder interests. In addition, because of the lack of current EVA data at any point in time, EVA is unlikely (and was not intended) to provide special opportunities for short-term gains.

A more realistic approach is to consider the presence of EVA to be reflective of a positive long-term attitude by management.

But investors should not consider EVA as a substitute for other financial measures. Instead, this type of analysis should be considered as another tool and used in conjunction with all traditional measures to determine whether an investment is justified. ♦

SOURCES FOR STERN STEWART PERFORMANCE 1000 DATA

Stern Stewart & Co.
1345 Avenue of the Americas
New York, NY 10105
212/261-0600 or fax 212/581-6420
Material: A packet of information, but data is dated (over one year old)

Fortune Magazine—annually near year-end
PO Box 60001
Tampa, FL 33660
800/621-8000
Publishes the top 200 MVA creators annually (usually toward year-end). Includes MVA, EVA, and other related information.