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For Better Corporate Governance, The Shareholder Value Review

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A Shareholder Value Review (SVR) is proposed as the best way for boards of directors to explain to shareholders how the board monitors management's performance in maximizing shareholder value. An SEC requirement that boards perform SVRs would motivate both management and the board to select and use an explicit valuation model to guide corporate actions. The life-cycle model, used in various forms in the money management industry, would likely be the model of choice for SVR implementation. Increased attention by both management and boards to how financial performance connects to shareholder value would lead to a common valuation language and useful dialogue with investors, proponents of accounting reform, and accounting rule-makers.

In the wake of the financial reporting scandals of Enron, WorldCom, Tyco, and other major firms, corporate governance reforms were initiated in the U.S. with the expressed aim of holding managements and boards more accountable for fulfilling their responsibilities to shareholders. Logically, any proposal for achieving this aim should be rooted in a corporation's ultimate goal of maximizing shareholder value. As a long line of economists starting with Adam Smith have argued, maximizing long-term value provides a criterion for management decision-making that leads to the most efficient use of society's resources.[1]

[1] See Anant K. Sundaram and Andrew C. Inkpen, "The Corporate Objective Revisited," *Organization Science*, vol. 15, no. 3 (May/June, 2004): 350-363.

But at the practical level, management and the board need a working knowledge of how a corporation's financial performance translates into shareholder value—in short, they need an insightful and workable valuation model. Many companies appear to operate as if investors care only about current reported earnings and value their shares simply by assigning an industry-average P/E multiple to their current EPS. In this article, I begin by presenting a relatively simple life-cycle valuation model that is rooted in both discounted cash flow (DCF) principles and the economic concept of competitive corporate life-cycles.[2] Then, with the aim of grounding corporate governance in sound principles of value creation, I recommend that corporate boards undertake a dialogue with management about the content of a periodic Shareholder Value Review (SVR). Although mutual agreement is expected, the board must insist that management respond to the board's oversight authority. Independent directors would sign off on the following information:

(1) a description of the valuation model, whether earnings- or DCF-based, that top management uses to connect the firm's financial performance to its market valuation, and that guides the firm in carrying out its responsibility of maximizing shareholder value;

(2) historical time series of the key drivers of the valuation model for each of the firm's major business units; and

[2] For testimony to the usefulness of the model, see Joel Litman and Mark L. Frigo, "When Strategy and Valuation Meet," *Strategic Finance* (August, 2004); and "Barron's 500," *Barron's* (16 May, 2005): 37-46.

(3) narrative statements of how value has been created or reduced by each unit, along with management's rationale for each unit's strategy and planned future investments.

One serious limitation of this proposal is that companies most in need of SVRs would not voluntarily produce them. To avoid this problem, the SEC could *require* all companies to conduct shareholder reviews, perhaps, as I suggest later, in exchange for rolling back some of the more onerous and counterproductive provisions of Sarbanes-Oxley. Requiring such SVRs would be consistent with and serve to reinforce the on-going initiative to reform the entire financial reporting system based on Generally Accepted Accounting Principles (GAAP). Current proposals to reform GAAP include calls for the collection and reporting of more data, primarily with the goal of achieving more detailed reporting of intangibles and a variety of non-financial measures. An SEC mandate of SVRs would motivate managements and boards to become more meaningfully engaged in GAAP improvements with accounting rule-makers and advocates of reform.

Maximizing Shareholder Value as the Corporate Objective

Maximizing long-term shareholder value is often misunderstood as maximizing short-term quarterly earnings and neglecting the interests and ignoring the contributions of non-investor "stakeholders." But, as Michael Jensen pointed out in this journal several years ago,[3] long-run value maximization is likely to provide a more effective corporate "objective function" than so-called stakeholder theory:

[3] Michael C. Jensen, "Value Maximization, Stakeholder Theory, and the Corporate Objective Function," *Journal of Applied Corporate Finance*, vol. 14, no. 3 (Fall, 2001).

> *…[whereas] value maximization provides corporate managers with a single objective, stakeholder theory directs corporate managers to serve "many masters." And to paraphrase the old adage, when there are many masters, all end up being shortchanged. Without the clarity of mission provided by a single-valued objective function, companies embracing stakeholder theory will experience managerial confusion, conflict, inefficiency, and perhaps even competitive failure. And the same fate is likely to be visited on those companies that use the so-called "Balanced Scorecard" approach—the managerial equivalent of stakeholder theory—as a performance system.*

Nevertheless, as Jensen went on to say,

> *But if stakeholder theory and the Balanced Scorecard can destroy value by obscuring the overriding corporate goal, does that mean they have no legitimate corporate use? And can corporate managers succeed by simply holding up value maximization as the goal and ignoring their stakeholders? The answer to both is an emphatic no. In order to maximize value, corporate managers must not only satisfy, but enlist the support of, all corporate stakeholders—customers, employees, managers, suppliers, local communities. Top management plays a critical role in this function through its leadership and effectiveness in creating, projecting, and sustaining the company's strategic vision. And even if the Balanced Scorecard is likely to be counterproductive as a performance evaluation and reward system, the process of creating the scorecard can add*

significant value by helping managers understand both the company's strategy and the drivers of value in their businesses.

In further defense of balanced scorecards, it should be noted that successful implementations of balanced scorecards do not give equal weight to all stakeholders.[4] Well-designed scorecards focus instead on organizational alignment and the integration of strategy with financial and non-financial metrics in a system that aims to maximize shareholder value. For such a system to be operationally complete, however, an explicit valuation model is required to link financial performance to shareholder value. The key advantage of the life-cycle model described below is its effectiveness in revealing the important valuation issues involved in both financial reporting and corporate governance.

The Life-Cycle Valuation Model

Ever since Miller and Modigliani published their explanation of how discounted cash flow (DCF) principles can be used to value a firm,[5] DCF has been at the core of much valuation modeling. Broadly speaking, DCF says that the value of a firm is the sum of its future expected stream of net cash receipts (operating cash flows less cash outlays for reinvestment) discounted to a present value at the firm's cost of capital.

As M&M also showed, a company's total market value can be divided into the present value of cash flows from *existing assets* (or what is sometimes referred to as "current operations value") and the present value of cash flows from *future investments* (or "future growth value"). When investors expect a company to achieve returns on

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[4] See Robert S. Kaplan and David P. Norton, *Alignment—Using the Balanced Scorecard to Create Corporate Synergies* (Boston: Harvard Business School Press, 2006).

[5] Merton H. Miller and Franco Modigliani, "Dividend Policy, Growth, and the Valuation of Shares," *Journal of Business,* vol. 34, no. 4 (October, 1961): 411-433.

future investments that are just equal to the cost of capital, those new investments create zero additional economic wealth—in which case, the firm's total market value would be roughly equal to the value of its existing assets. To the extent investors expect returns on future investments to be greater than the cost of capital, those investments will create value; and to the extent returns are expected to fall below this standard, value will be destroyed.

Moreover, for companies where future investments are expected to earn returns above the cost of capital, greater wealth is created when more capital is invested, especially when such wealth-creating opportunities can be extended farther into the future. In this sense, a company's current value depends on *competitive life-cycle* patterns that reflect expected future economic returns and reinvestment rates.

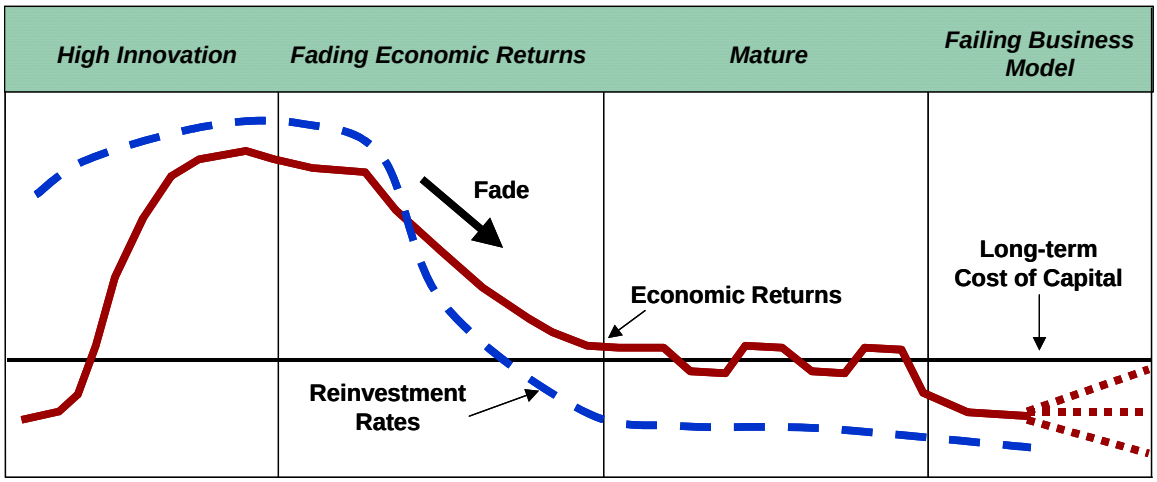
As illustrated in Figure 1, the idea of competitive life cycles is based on the premise that competition and capital flows operate over the longer term to force companies' economic returns toward the cost of capital. This relationship was succinctly summarized by George Stigler in 1963, when he wrote:

> *There is no more important proposition in economic theory than that, under competition, the rate of return on investment tends toward equality in all industries. Entrepreneurs will seek to leave relatively unprofitable industries and enter relatively profitable industries.*[6]

[6] George Stigler, *Capital and Rates of Return in Manufacturing Industries* (Princeton: Princeton University Press, 1963), p. 54.

The pattern of corporate economic returns and reinvestment rates depicted in Figure 1 reflects the unending struggle between managerial skill and competition over time.

Figure 1 Corporate Competitive Life-Cycle



During the *high innovation* stage shown in the figure, companies turn innovations into commercially successful businesses and earn economic returns well above their cost of capital. The typical successful startup is characterized by reinvestment that exceeds internally generated funds. At this stage, companies are rich in opportunities and often seek external financing to exploit such opportunities as quickly as possible.

Skillful managements can earn above-average economic returns and position their companies in expanding industry segments, or even create new industries. Nevertheless, in a free-market environment, no matter how skillful a firm's management, competition eventually takes its toll. Attracted by the wealth creation opportunities, competitors attempt to duplicate the innovations and possibly even provide additional benefits to customers. The tension between managerial skill and competition results in a tendency of economic returns to *fade* towards the long-term average of the corporate sector's economic returns (which approximates the corporate sector's long-term average cost of

capital). And, along with the drop in returns, corporate reinvestment rates also fall back toward the lower, long-term average growth rate of the overall economy.

To maintain well-above-average economic returns and reinvestment rates over decades, companies must continually reinvent themselves to outperform competitors. In this sense, *the direction and rate of fade can often be interpreted as an indicator of managerial skill.*

In the case of companies in the *mature* stage, management often suffers from a bigger-is-better mindset and past success can breed business-as-usual complacency. Large companies with mature businesses should put top priority on actions designed to prevent a decline in economic returns. Among the possibilities are recycling resources to shareholders in the form of dividends and spinning off business units likely to perform better as stand-alone enterprises (perhaps operated by private equity firms).

In the *failing business model* stage, shareholders, employees, and all other stakeholders pay a heavy price for the failure of top management and boards to adapt successfully to changing business conditions. Companies in this fourth stage eventually take the path of economic return improvement that invariably involves downsizing—or they go bankrupt. Capital markets force this up-and-onward or down-and-out transition because continually investing resources at returns below the cost of capital not only destroys shareholder value, but also prevents resources from recycling to higher-valued uses. Such a hard-nosed, forced adaptation to economic reality produces long-term gains to society that far outweigh the attendant short-term disruptions.

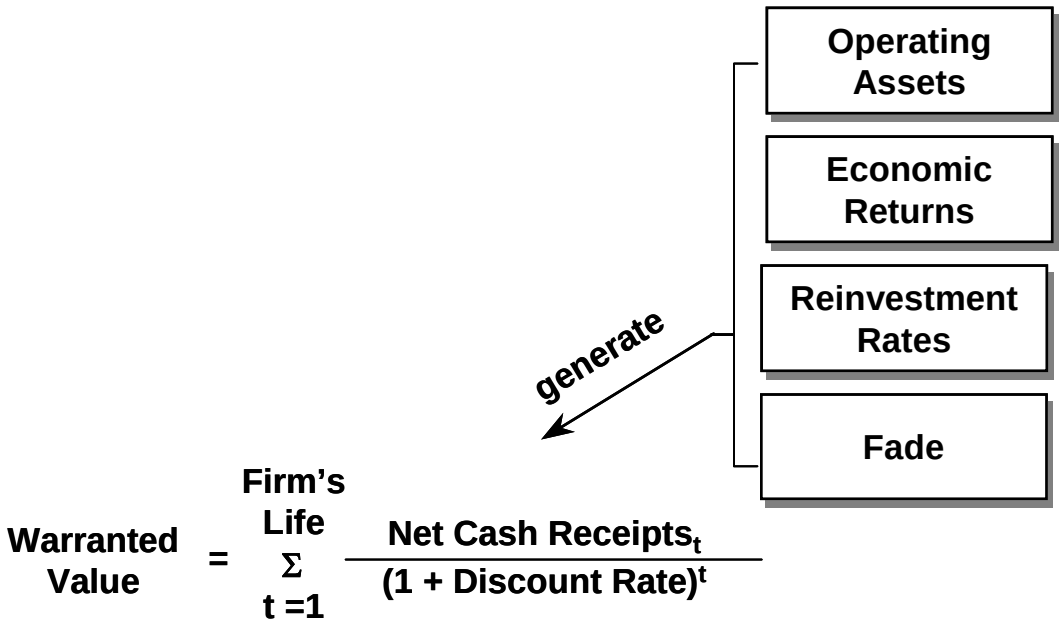
A Common Valuation Language

A board should consist of directors with diverse business experiences relevant to the firm's existing and future businesses. While directors need not be exceptionally proficient in financial analysis and valuation, they should have a solid grounding in important principles of shareholder value creation to be able to put their business expertise into the framework and metrics of valuation.

To assist them, a valuation model can serve as a *common language* for both management and the board. This will foster more focused discussion, clarify aspects of agreement and disagreement, and facilitate discussions with investors and regulatory bodies concerned with the content of financial reporting.

Figure 2 shows the basic components of a theoretically sound, life-cycle valuation model that is well suited to serve as that common language. In this model, the company's quantified long-term stream of net cash receipts is driven by a number of variables: the beginning asset base, current levels of economic returns and reinvestment rates, and the long-term pattern of fade of those levels. As stated earlier, over the long term economic returns fall back to the cost of capital, and reinvestment rates eventually approximate an economy-wide growth rate.

Figure 2 Life-Cycle Valuation Model



The four drivers of a company's net cash receipt stream shown in Figure 2 are helpful for analyzing valuation tradeoffs. For example, all else equal, coupling a higher reinvestment rate to above-cost-of-capital economic returns will generally increase wealth creation. But such a business strategy could also result in a faster fade of the economic returns, with the net effect of less wealth creation.

In another example, a sharp reduction in R&D expenditures could immediately boost reported profitability and calculated economic returns. However, over the long term, it also could lead to a more rapid decline (fade) of economic returns. The value-maximizing resolution of such tradeoffs may be clear in some cases, but in others a valuation model that explicitly addresses these important issues can assist tradeoff analysis by forcing attention to them and giving management and directors a common template and language for doing so.

But a word of caution: The valuations produced by this model should be viewed somewhat tentatively as "warranted values," thereby reminding the users of their dependence on the specific algorithms and inputs used. This can avoid confusion resulting from labeling modeled valuations as "intrinsic values" (or some such term), which then lead to stocks being viewed as "overvalued" or "undervalued."

A better interpretation, and a more reliably productive use, of such valuations is for analysts to calibrate, for a given market price of a stock, the implied future pattern of returns and life-cycle performance and then compare such market expectations to a plausible range of forecast life-cycle performances. This way analysts will be better equipped to judge whether investors are likely to be negatively (or positively) surprised by actual performance when it materializes.

Figure 2 also serves to reinforce three basic decision rules for maximizing shareholder value:

(1) Avoid investments in businesses likely to earn economic returns below the cost of capital.

(2) Reinvest in businesses likely to earn economic returns above the cost of capital.

(3) Develop strategies that can realistically produce favorable future fade rates.

Brokerage reports occasionally include a highly condensed version of this model, combining an explicit forecast of net cash receipts (usually labeled "free cash flows") for a short horizon (often five years) with an estimated terminal value at the end of the explicit forecast period.

Board Oversight

Of course, the first task of boards is hiring (and, when necessary, firing) CEOs to carry out the goal of maximizing shareholder value. Directors should expect management to take actions consistent with the three fundamental rules for maximizing shareholder value. More specific ongoing board oversight should include:

- analyses of how *management's strategies* will likely fare under plausible future scenarios;
- reviews of the *operating performance* of each business unit;
- analyses of the likely *shareholder value impact* of planned capital outlays and any acquisitions or divestitures;
- constructively skeptical assessments of the extent, if any, to which the firm's core competencies will provide *competitive advantages* in the future; and
- critical watchfulness over *business-as-usual* practices, including the firm's current organizational architecture.[7]

These tasks, which are proposed as duties of directors, are the work of investment managers when analyzing the companies they follow. Money managers are especially interested in using a firm's track record to gain insights into the wealth creation skills of management as well as the viability of the firm's core strategy versus its competition.

One approach to analyzing track records, employed by money managers and security analysts, is the use of graphic displays of a company's life-cycle track record,

[7] A company's organizational architecture can be thought of as consisting of three main components: (1) assignment of decision-making authority; (2) performance measures used to evaluate firm and business unit performance; and (3) managerial and employee incentives. See James A. Brickley, Clifford W. Smith, Jr., and Jerold L. Zimmerman, "Corporate Governance, Ethics, and Organizational Architecture," *Journal of Applied Corporate Finance*, vol. 15, no. 3 (Spring 2003): 34-45.

with all the variables adjusted for inflation. Expressed in real units, such a track record makes the past and future directly comparable and enables more accurate analyses of levels and trends. With this approach, management can monitor a rate-of-return measure such as cash-flow return on investment, or CFROI®.[8] Alternatively, managements and boards may choose to "keep score" using measures of residual income such as Economic Value Added (EVA®),[9] which attempts to summarize corporate performance by condensing the life-cycle variables into a single measure of economic profit. And, finally, as a fallback, some less financially sophisticated companies may choose to construct their SVRs around conventional GAAP earnings, at least initially.

From a valuation perspective, estimates of the reinvestment rate, which can be extrapolated from the firm's track record, should reflect the internal (organic) growth rate

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[8] CFROI® is a registered trademark of Credit Suisse. A CFROI is analogous to a project ROI with an initial outlay, annual cash inflows over an explicit project life, plus the release of non-depreciating assets at the end of a project's life. The initial outlay is the firm's gross operating assets. Net income, interest, and depreciation charges are the primary components of cash inflows to a firm's capital suppliers. Project life is the average life of depreciable assets. Non-depreciating assets include land and net working capital. In order to adjust for inflation and calculate a CFROI as a real number, assets are marked up to current dollars thereby matching cash flows in current dollars. For an extensive description of CFROI methodology, see my book, *CFROI Valuation—A Total System Approach to Valuing the Firm* (Oxford: Butterworth-Heinemann, 1999). Current CFROI calculations include capitalization of R&D expenditures and exclusion of acquisition goodwill from the firm's operating asset base. See my monograph, *Maximizing Shareholder Value And The Greater Good.* Naperville, IL: LearningWhatWorks, (2005), pp. 47-52. This monograph can be downloaded as a PDF file from www.LearningWhatWorks.com.

The same inflation-adjusted DCF methodology has been copied and promoted in the money management industry as a cash-return-on-capital-invested, or CROCI® (See Pascal Costantini, *Cash Return on Capital Invested,* Amsterdam: Butterworth-Heinemann, 2006.). The CROCI is an inflation-adjusted, return-on-net-assets or RONA. CROCI® is a registered trademark of Deutsche Bank A.G.

[9] EVA®, which is a registered trademark of Stern Stewart & Co., is a version of residual income that is calculated as the spread of return on capital less the cost of capital multiplied by the asset base. EVA also makes accounting adjustments to net income to better approximate economic as opposed to accounting returns. See Bennett Stewart, *The Quest for Value* (New York: Harper Collins, 1991).

in new investment projects. As a practical matter, the growth rate of the firm's asset base is typically used as a proxy for the reinvestment rate. All else equal, asset growth will be greater than organic growth in companies that expect to make large acquisitions (and will be less than internal growth in cases involving major divestitures).

Although security analysts and portfolio managers clearly benefit from using the life-cycle framework in their analyses and decision-making, most corporate board members are unlikely to have the same mastery of technical accounting and valuation issues. Thus, for board implementation of the life-cycle framework, companies should begin at a basic level and then require that any additional complexity generate insights with clear practical value.

Such initial implementations should focus on understanding each business unit's invested capital, calculating a streamlined return on capital, and using the spread between that return and an estimated cost of capital to calculate *residual* income for each business unit. This would provide a baseline analytical framework that could be used to facilitate a transition from an earnings-centered to a value-centered financial management system.

Life-Cycle Track Records

In the current corporate environment, top executives typically spoon-feed their boards information designed to support the executives' strategy and investment plans. A Shareholder Value Review would change that by enabling boards to create and control the information they use to monitor management. How might this happen?

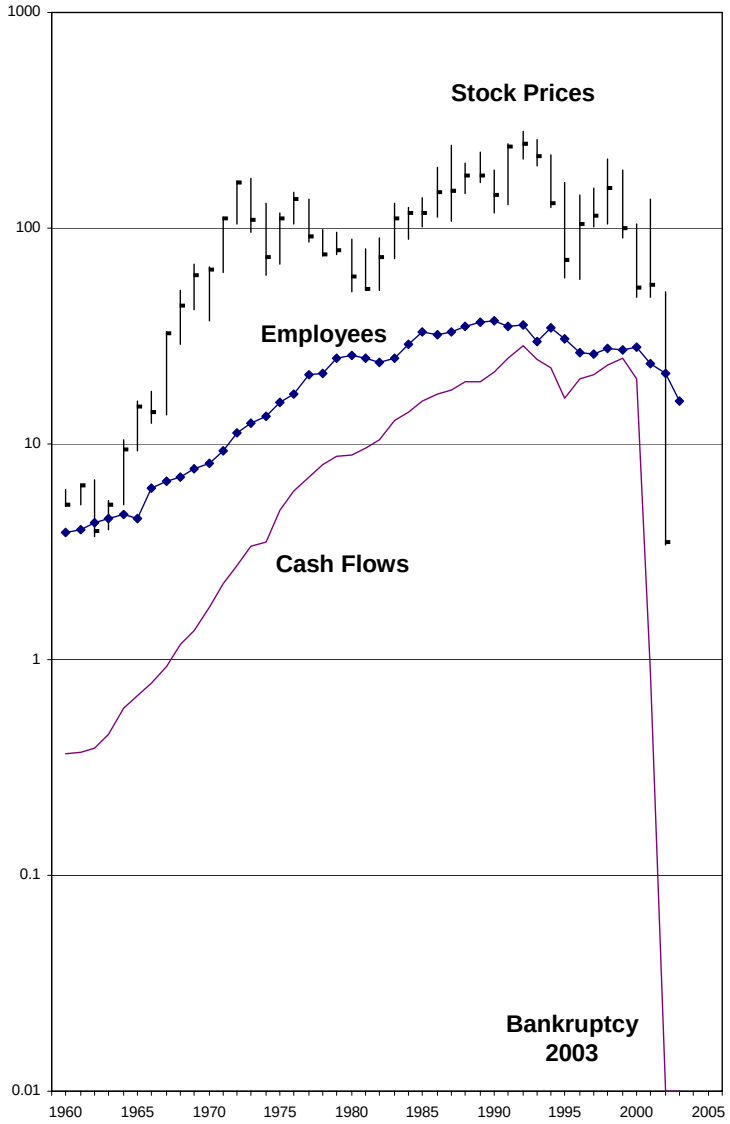
Since the money management industry is far ahead of boards in working with financial performance data, it is the logical place for boards to look for useful ways to

analyze corporate performance. For illustrative purposes, inflation-adjusted CFROI data are used to summarize the long-run performance of two sample companies, Kmart and Wal-Mart. These examples demonstrate the type of insights available from life-cycle analysis and the related ease in pinpointing fundamental causes of gains and losses in shareholder value over time.

Figure 3 displays stock prices (high/low price ranges appear as vertical lines and tick marks as year-end prices), employee counts, and cash flows for Kmart from 1960 to its bankruptcy in 2003.[10] Although the data plotted for employees and cash flows provide some indication of performance, they are not as illuminating as the life-cycle data in the form previously displayed in Figure 1.

[10] For plotting convenience and clearer observation of trends in Figure 3, Kmart's plotted per share stock prices were multiplied by 10, employees in thousands by 0.1, and cash flows in millions by 0.01. Similarly, Wal-Mart data in Figure 5 used multiples of 100, 0.1, and 0.001.

Figure 3 Kmart Stock Prices, Employees, and Cash Flows, 1960 to 2003



Source: Compustat

Kmart management opened the first discount department store in 1962 and for some years thereafter exploited this innovation. Beginning in the early 1990s, Kmart's financial performance deteriorated rapidly as a consequence of unskilled management combined with an ineffective board of directors. The board's more serious failures included presiding over a revolving door of CEOs who implemented flawed strategies geared to short-term fixes. For many years, even prior to the 1990s, Kmart's core

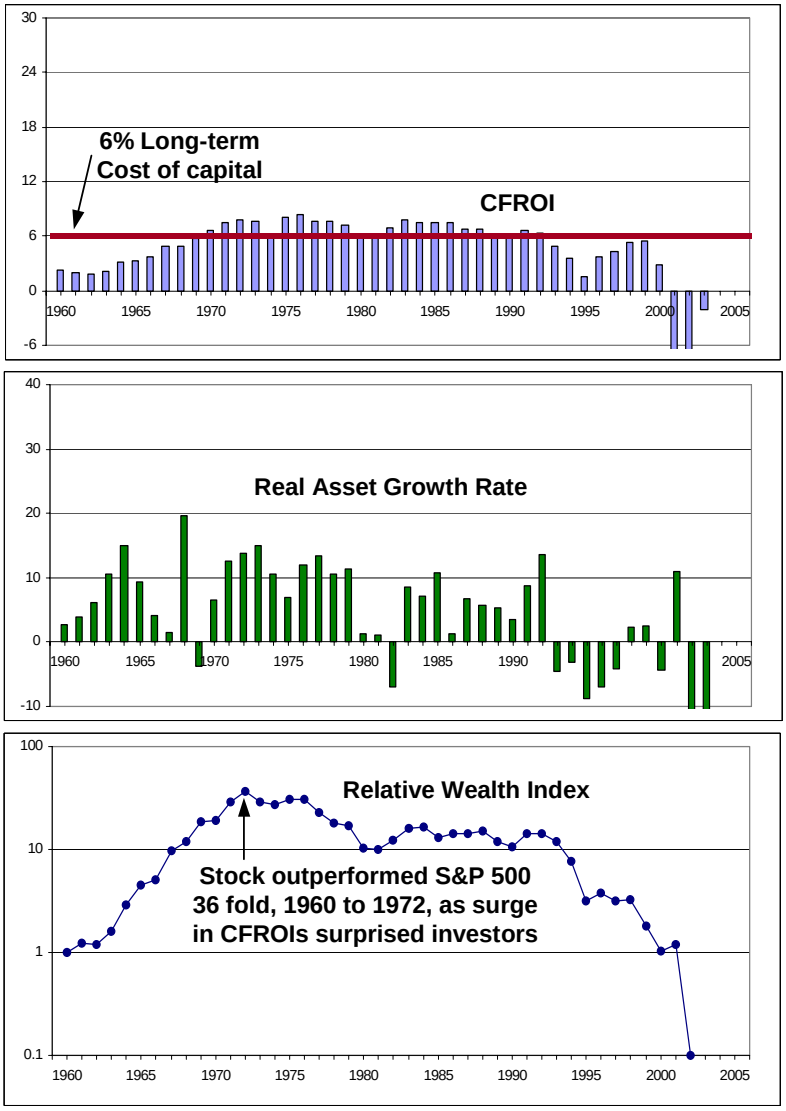
business processes dealing with store locations, merchandise selection, customer service, supply chain management, and information technology were all poorly handled and sowed the seeds for eventual competitive failure.[11]

The life-cycle track record for Kmart is displayed in Figure 4. The top panel shows economic returns as CFROIs, including a benchmark, long-term, corporate average CFROI of 6% real to approximate the cost of capital.[12] The middle panel shows real asset growth rates. The bottom panel shows a cumulative index reflecting annual

[11] See Marcia Layton Turner, *Kmart's 10 Deadly Sins* (New York: John Wiley & Sons, 2003).

[12] From 1960 to 1996, aggregate industrial CFROIs in the U.S. approximated 6 percent *real* and a "market-derived" real discount rate (cost of capital) also averaged close to 6 percent *real* (see Madden, 1999, p. 92). For the nonfinancial sector, 1950-1996, Fama and French (1999) estimated the *real* cost of capital at 5.95 percent and the return on corporate assets, *unadjusted for inflation*, at 7.38 percent. Eugene Fama and Ken French, "The Corporate Cost of Capital and the Return on Corporate Investment," *Journal of Finance*, vol. 54, no. 6 (December, 1999), 1939-1967.

Figure 4 Kmart Life-Cycle Performance, 1960 to 2003



Source: Credit Suisse HOLT's *ValueSearch* database

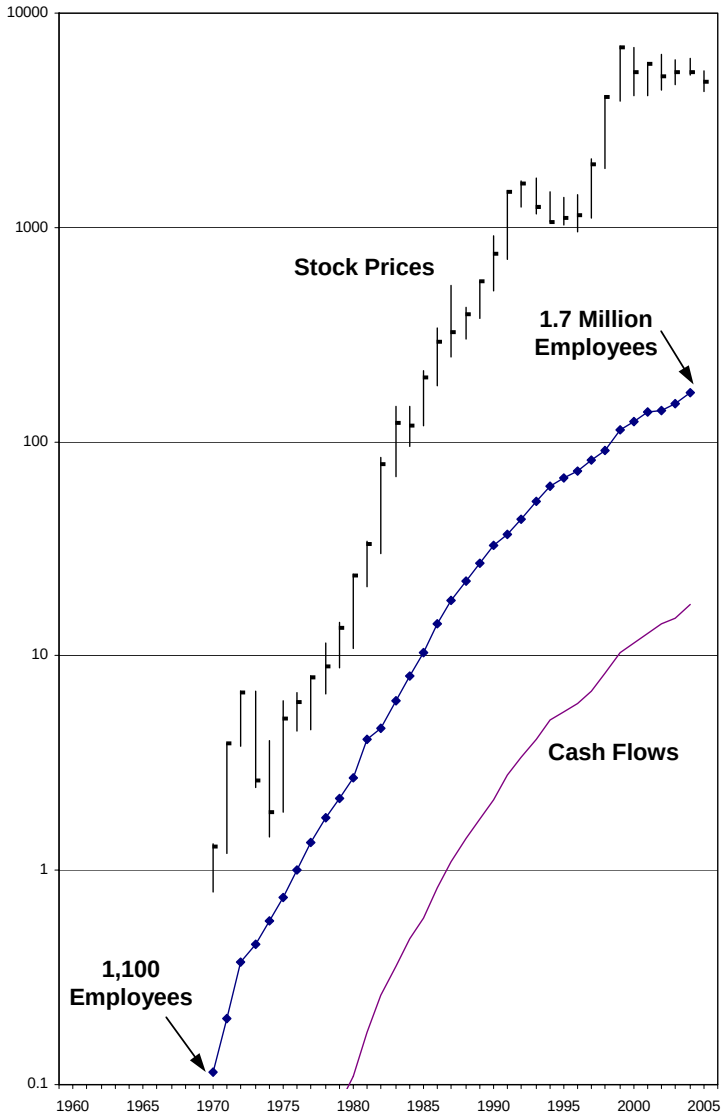
changes in the yearly excess (positive or negative) of the total shareholder return (dividends plus price appreciation) on Kmart's stock relative to the S&P 500. Positive share performance versus the S&P 500 is depicted by rising trends, and negative performance by falling trends, in the relative wealth index.

The above life-cycle performance graph offers a clearer lens for understanding Kmart's stock price history. From the mid-1960s to the mid-1970s, Kmart's innovative discount store strategy propelled its CFROIs from barely positive levels to above the cost of capital. Kmart's pattern of performance (upward fade) repeatedly exceeded investor expectations during that time, and the stock greatly outperformed the market. Over the next 20 years, Kmart slightly underperformed the market as it delivered CFROIs that averaged around 7%. From the mid-1990s to 2003, Kmart's board of directors supervised four CEOs. The choices of ineffective CEOs must be seen as evidence of the board's insufficient skills and as a major contributing factor to the collapse of CFROIs, leading to bankruptcy in 2003 and massive losses suffered by common stockholders.

It is noteworthy that, for decades, Kmart's management and board continually failed to develop and execute a viable strategy to address the emerging dominance of Wal-Mart in the retailing industry. It was not impossible. Other retailers, notably Kohl's and Target, developed and implemented strategies enabling them to earn above-cost-of-capital economic returns.

But now let's examine the performance of Wal-Mart since the 1970s. One clear indication of the firm's success, as shown in Figure 5, was the phenomenal increase in its number of employees, from 1,100 in 1970 to 1.7 million in 2005.

Figure 5 Wal-Mart Stock Prices, Employees, and Cash Flows, 1970 to 2005



Source: Compustat

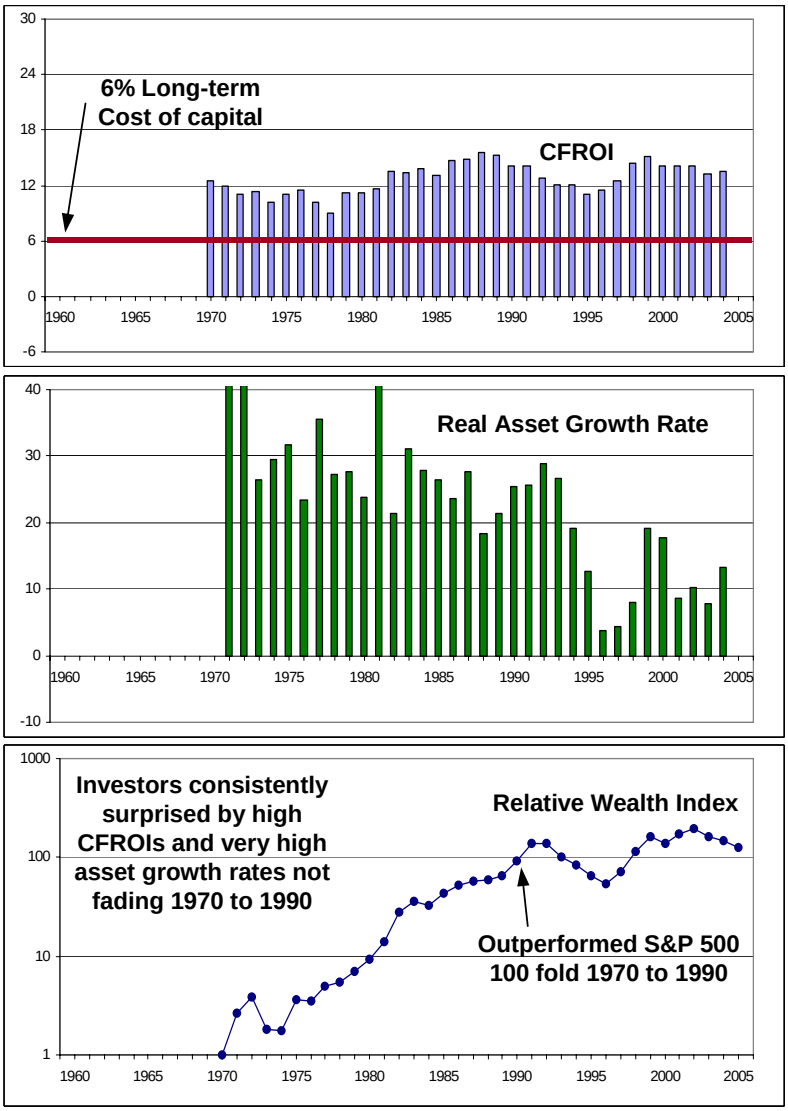
The life-cycle performance of Wal-Mart, shown in Figure 6, is remarkable in that the company has been able to postpone the downward competitive fade of its superior CFROIs while still reinvesting at very high rates (especially so in the earlier years). This occurred because Wal-Mart's founder, Sam Walton, was skilled in hiring talented people, motivating employees, and developing strategies that were extraordinarily effective as

well as a step ahead of his competitors.[13] He aimed for continuous improvement of every aspect of Wal-Mart's operations. He was fanatical about learning from competitors and experimenting. He meticulously studied Kmart and improved on the discount store innovation.

Walton's original strategy was to locate stores away from large cities and to saturate regions so the stores could be efficiently serviced by a centrally located distribution center. His strategy proved correct as population expanded to where his stores were located. The remarkable achievement of creating the world's largest retailer, along with over 1.7 million jobs, and huge shareholder value, had the additional social benefit of increasing the purchasing power of millions of customers through its discount pricing.

[13] See Sam Walton, *Made in America* (New York: Doubleday, 1992).

Figure 6 Wal-Mart Life-Cycle Performance, 1970 to 2005



Source: Credit Suisse HOLT's *ValueSearch* database

One important benefit of the life-cycle valuation model when used in the money management industry is not only in providing insights about past corporate performance, but in analyzing stock prices to assess the market's expectations about future life-cycles. That kind of intelligence-gathering is potentially quite useful to boards that need to bring competitive "reality checks" to bear on management.

Shareholder Value Review

As noted earlier, the board's fundamental responsibility is to ensure that the company is on a path of maximizing shareholder value. With the proposed SVR, a board would explain how it fulfilled its responsibility. Although some aspects of my proposal—including the possibility of an SEC mandate—are new, recognition of the need for more meaningful board analysis is not; it is plain commonsense.

In a 1995 article in the *Harvard Business Review*, Gordon Donaldson proposed a board-directed strategic audit. As Donaldson explains it,

The mechanism is a formal strategic-review process…which imposes its own discipline on both the board and management, much as the financial audit process does… An effective strategic-oversight process requires that the board take control not only of the criteria of performance but also of the database in which the criteria are maintained. One of the problems that outside board members often have in evaluating strategic performance is that all the information they receive passes through the filter of a management perspective. In addition, data often come with limited historical reference and in a format that does not map to the previous one… The credibility of the board's review process depends on the integrity and consistency of the statistics by which progress is measured.[14]

In my view, an SVR should contain three major sections. In the first, the board would describe the conceptual model they use to inform their understanding of how the company's strategy, operating performance, and investments connect to shareholder value. Without such a model, boards would most likely be forced to rely on a simple

[14] Gordon Donaldson, "A New Tool for Boards: The Strategic Audit," *Harvard Business Review* (July/August, 1995), pp. 99-107.

accounting earnings model—one that effectively assumes that any increase in reported earnings, however achieved, is mechanically "capitalized" into a firm's stock price by investors using an industry-wide P/E multiple or similar rule of thumb. Companies that subscribe to this model, explicitly or otherwise, place disproportionate emphasis on meeting, or exceeding, Wall Street's quarterly earnings expectations.[15] Business decisions that are made on this basis are likely to differ sharply from those focused on long-term business processes and the life-cycle variables that drive the firm's long-term net cash receipt stream. An extreme focus on earnings discourages spending on R&D, advertising, employee training, and other intangibles since such investments are treated as "expenses" that have the effect of reducing near-term earnings.

Despite such drawbacks, however, if the SEC were to require an SVR, many boards might initially choose an earnings-centric valuation model, if only to avoid the perceived complexities of communicating a more economically realistic model to outsiders. But once the limitations of an earnings-based model revealed themselves in practice, my prediction is that most such companies would eventually find the model both misleading and generally unworkable.

To sum up, then, it is plausible to expect boards eventually to follow in the footsteps of money managers and adopt the life-cycle model for two primary reasons: One, it is simply far more consistent with and useful for meeting their analytical needs. Two, an SVR requires boards to *explain* their thinking and analyses, and having to do so

[15] John R. Graham, Campbell R. Harvey, and Shivaram Rajgopal, "The Economic Implications of Corporate Financial Reporting," *Journal of Accounting and Economics*, vol. 40, no. 1 (December, 2005): 3-73.

with an earnings model that encourages a short-term focus would open the board to valid charges of bias against long-term wealth creation.

The second major section of an SVR would divide the company into its primary business units and focus on each of their fundamental sources of shareholder value. If the company chose to use a life-cycle approach, the complete package of variables would include:

(1) asset base,

(2) economic returns compared to the cost of capital,

(3) reinvestment rates, and

(4) fade (time series) patterns for economic returns and reinvestment rates.

For this section, the board would choose a format for life-cycle display that they believe embodies the best tradeoff between simplicity and technical completeness. In the spirit of the life-cycle displays for Kmart and Wal-Mart, business unit data would be graphed and serve as the launch pad for the board's discussion of business units. This would be a solution for Donaldson's concern that management-controlled data "often come with limited historical reference and in a format that does not map to the previous one."

To do this, each business unit's current operating asset base would be specified. Such a specification should include non-GAAP assets when the board can defend such treatment on the basis of the underlying economics. Economic returns and reinvestment rates for each business unit would be calculated in a way that is consistent with how assets are defined. As suggested earlier, boards are advised to begin an SVR implementation with a bare-bones approach to capitalization and amortization of critical non-GAAP assets, perhaps capitalizing R&D and little else. Then, over time, more

refinements would likely be made to better reflect the *economics of the business units*. In this way, time series of economic returns and reinvestment rates would convey more accurate information to help guide forecasts of future life-cycle performance.

Displaying time series of investors' discount rates, and thus companies' costs of capital, for each business unit is a challenge because of the widely different values obtained when using different estimating procedures.[16] Initial SVR reporting might be based on long-term averages of aggregate economic returns as a proxy for the cost of capital for the industrial or financial sector, as applicable.

The critical guide to wealth creation is the spread—positive, zero, or negative—of economic returns compared to the cost of capital. The spread determines if higher reinvestment will create additional wealth, have a neutral effect, or destroy wealth. Reinvestment rates, measured as asset growth rates, receive a large boost due to acquisitions. But the sustainability of future reinvestment rates depends on *organic growth* and therefore careful attention to the impact of acquisitions is needed.[17]

Empirical guidelines for forecasting the competitive fade patterns depicted in Figure 1 are suggested by a number of studies. In particular, a 2000 study by Fama and

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[16] For discussion of this problem, see Eugene F. Fama and Kenneth R. French, "Industry Costs of Equity," *Journal of Financial Economics*, vol. 43, no. 2 (February, 1997): 153-193.

[17] In forecasting future organic growth rates, it is helpful to study a time series of past asset growth rates that separates the impact of acquisitions from organic growth. Note that a firm's present value of future investments is dominated by the forecast ROIs on internally-generated projects in the future. In almost all situations, future acquisitions cannot be forecasted. Moreover, many future acquisitions probably will earn close to a cost-of-capital return on the acquiring firm's purchase price and therefore do not add to the value of future investments.

A related conceptual issue is that, on the one hand, it is desirable for the time series of economic returns to be based on operating assets, stripped of acquisition goodwill. Consequently, past economic returns are closely connected to likely future ROIs from reinvestment in existing businesses. On the other hand, management needs to be held accountable for the full purchase prices of acquisitions (goodwill included). These two different, yet important, tasks suggest that a single solution for the "appropriate" treatment of goodwill will likely be misleading.

French provides evidence that profitability is mean reverting, and that mean reversion takes place more quickly when profitability is farther from the mean in either direction. And a 2002 study by Robert Wiggins and Timothy Ruefli showed that few firms have been able to maintain competitive advantage for exceptionally long periods of time.[18] Favorable fade rates tend to be caused by a company's success in executing an innovative business strategy and maintaining value-creating business processes that are difficult for competitors to duplicate. For example, even before Kmart's economic returns plummeted, its core business processes were becoming obsolete due to Wal-Mart's advances. Investors benefit from any insights that directors provide about how a firm's business processes might lead to sustained competitive advantage (and thus favorable fade). At the same time, any serious shortfalls should be noted, accompanied by a discussion about how management intends to improve. The most difficult part of security analysis, and the single most valuable skill for an investor, is the forecasting of fade rates for future economic returns and reinvestment rates.

In the third section of an SVR, the board plays the role of a hard-nosed, long-term investor with a significant ownership position in the firm and a vested interest in having the firm maximize shareholder value. Therefore, for each major business unit, and then for the overall firm, directors would provide narratives that answer *basic wealth creation questions* and that represent the proverbial bottom line as to how well the board fulfilled its responsibilities to shareholders.

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[18] Eugene F. Fama and Kenneth R. French, "Forecasting Profitability and Earnings." *Journal of Business*, vol. 73, no. 2 (April, 2000): 161-175. Robert R. Wiggins and Timothy W. Ruefli, "Sustained Competitive Advantage: Temporal Dynamics and the Incidence and Persistence of Superior Performance," *Organization Science*, vol. 13, no. 1 (January/February, 2002): 82-105.

The types of questions answered by directors' commentaries would be quite different, depending on the life-cycle stage of the business unit or firm. For startups, does progress in achieving non-financial milestones and the potential size of the target market warrant continued investment in the venture? For businesses with clearly above-cost-of-capital returns, are planned reinvestment rates consistent with a fade rate for economic returns that maximizes shareholder value? For mature businesses that have historically earned their cost of capital (but no more), can management's strategy and execution realistically lead to higher wealth-creating economic returns, and is the planned reinvestment rate sensible given the expected level of future economic returns? For business units persistently producing economic returns below the cost of capital, does it make economic sense to pursue management's current strategy? Further, if downsizing is not anticipated, then why not? In general, investors want to know about, and directors should comment on, assets that are not essential to operations and might be worth more to others; for example, excessive cash balances might be better distributed as dividends and real estate might be more valuable to the firm if sold.

If SVR became a widespread practice (or were mandated by the SEC), the following changes would likely occur over time:

(1) The focus on meeting Wall Street's quarterly earnings expectations would diminish as management and boards increase their knowledge of how financial performance links to valuation.

(2) Boards would likely begin nominating independent directors with a high skill level in SVR tasks.

(3) Boards would experiment with different ways to meet the SEC's SVR requirements. And it is likely that the life-cycle model (shown earlier in Figures 1 and 2) would gain widespread use and the earnings-centric model gradually abandoned.

(4) As both management and boards become more familiar with the valuation model, they would also become increasingly comfortable using the model to measure the market expectations implied in stock prices. They would gain insights, in general, about fundamental changes emerging in the external environment and, in particular, to their firm's position vis-à-vis global competitors.

(5) Commercial providers of databases, valuation tools, and research to the money management industry would adapt their products and services to address emerging corporate SVR needs. Consulting firms with valuation and strategy expertise would likely offer SVR consulting services. Corporate auditors would be in a particularly favorable position to provide SVR data and consulting services to boards.

(6) Academic research directed toward developing better techniques for measuring economic returns and connecting non-financial metrics to life-cycle variables would accelerate.[19]

(7) In mismanaged companies, there would be earlier recognition of problems and a quicker response by boards in demanding needed change.[20]

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[19] For examples of such studies, see Richard, P. Brief, editor, *Estimating The Economic Rate Of Return From Accounting Data*, (New York: Garland Publishing, 1986). Timo Salmi and Teppo Martikainen. *Finnish Journal of Business Economics*, vol. 43, no. 4, 1994: 426-448; and Paul M. Healey, Stewart C. Myers, and Christopher D. Howe, "R&D Accounting and the Tradeoff Between Relevance and Objectivity," *Journal of Accounting Research*, vol. 40, no. 3 (June, 2002): 677-710.

Participation in Changes to the Financial Reporting System

Both board monitoring and management decision-making depend critically on useful data for analyzing the firm's operations. The proponents of major change in financial reporting hope that corporate executives will actively join in the process, despite their different perspective on the cost of collecting additional data and the cost/benefit tradeoff. Advocates of change want much more data, including non-financial metrics, that would enable investors to better understand a company's business processes.[21] They argue that this will reduce investor uncertainty and, by extension, companies' cost of capital, thereby improving society's use of resources.

A European research consortium addressed many of the issues concerning improved financial reporting and came to the following conclusion:

> It is essential that, in contemplating the expansion of disclosure on non-financial elements…, the 'so what' test be applied. Repeatedly we have

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[20] Note that a number of the above points deal with "organizational learning," which, according to Chris Argyris and Donald Schön (see *Organizational Learning II*, New York: Addison-Wesley, 1996), is stimulated by the recognition that previous notions behind actions (theories of action) were ineffective for producing desired outcomes. Their field research proposes that executive actions often are based on an *implicit* theory of action (*theory-in-use)* that is at odds with the *espoused theory* of action. For instance, frank discussion of problems is a widely held espoused theory. But executives often behave in ways that indicate that their theory-in-use is to gain or preserve unilateral control, to win a debate, to protect certain individuals, or any number of other purposes at odds with the espoused theory. Such behavior, say Argyris and Schön, is typically never discussed, which renders undiscussable its detrimental effect in blocking progress in solving root problems. It seems that the same impediment exists within boards of directors and between boards and management. The SVR could be instrumental in reducing the undiscussability barrier to inquiry and problem solving at the uppermost levels of the corporation.

[21] See, for example, Baruch Lev, *Intangibles—Management, Measurement, and Reporting* (Washington: Brookings Institution Press, 2001); Wayne S. Upton, Jr. *Business and Financial Reporting, Challenges from the New Economy,* Special Report, Financial Accounting Standards Report, 2001; Samuel A. DiPiazza, Jr. and Robert G. Eccles, *Building Public Trust—The Future of Corporate Reporting* (New York: John Wiley & Sons, 2002; and George Benston, Michael Bromwich, Robert E. Litan, and Alfred Wagenhofer, *Following the Money—The Enron Failure and the State of Corporate Disclosure* (Washington: Brookings Institution Press, 2003).

> heard the complaint from companies that they are asked to disclose on more and more areas…but without any real sense of what the actual purpose of disclosing such data might be. Who is going to use it? What are they going to do with it? What does it really mean that 10% of employees of XYZ company have a PhD, versus 7.5% for a competitor? Is R&D spend of 5% of turnover better than 3%?
>
> One place to start might be to explicitly recognize that disclosure of elements around, say, intellectual capital are not necessarily an attempt to value the company's intellectual capital (or knowledge) per se.… Rather, the aim of disclosure and measurement in this context is to develop a language for thinking, talking, and doing something about the drivers of the company's prospects for creating economic value in the future. It is about the creation of a *dialogue around how value is created*, whether that dialogue be internal or external [italics added].[22]

As implied throughout this paper, a useful way to develop such a dialogue and gain the active support of management and boards is to *connect the goal of maximizing shareholder value to the development of new data through SVR*. Let's consider how SVR might work within one area of improved financial reporting that has already achieved remarkably fast acceptance. In Extensible Business Reporting Language (XBRL), names and numbers are tagged with highly specific definitions.[23] For example, companies that report sales per square foot would calculate square feet according to a standard definition.

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[22] Clark Eustace, editor, "The PRISM Report 2003," Report Series no. 2, European Commission Information Society Technologies Programme, available at www.euintangibles.net.

[23] See www.xbrl.org.

A long-term benefit will be the enhanced ability of investors to use XBRL computerized data for security analysis.

Consider a key life-cycle variable that would play a prominent role in SVR and be suitable for XBRL standardization. As mentioned earlier, reinvestment rates for the aggregate firm and for each business unit should reflect *organic growth rates associated with new investments.* An SVR discussion would include details about outlays, which are expensed for GAAP purposes, but in the board's view should be treated as investments.

When time series of past economic returns and these reinvestment rates are displayed, an especially relevant context has been set for the board to give its opinion on how management's investment decisions are likely to impact shareholder value. *Importantly, this approach begins with a specified purpose: analysis of the extent of wealth creation attributable to the strategy, operating performance, and investments for each of the firm's business units. And one fairly predictable consequence of performing the analysis is that the information that is important to collect will reveal itself.*

At present, investors using a computerized database like Compustat are not able to calculate annual organic growth rates for companies that have made purchase (as opposed to pooling) acquisitions. New procedures are needed for accountants to produce meaningful organic growth rates. These procedures should: (1) adjust for acquisitions and divestitures, (2) enable specified GAAP expenses to be treated as intangible investments, and (3) produce organic growth rates with and without intangibles. Information on intangibles should include plausible estimates of the expected life range of intangibles, plus the best-estimate lives used to compute beginning and ending asset values for intangibles as part of organic growth rate computations. These growth rates

should be assigned XBRL tags and would be enormously useful for analyses by management, the board, and investors.

For directors to effectively critique management's actions and report in an SVR the progress of startup business units that are not yet profitable, directors are very likely to need relevant non-financial metrics. These metrics, if not already employed internally, would have to be developed. Over time, these functionally grounded, evolutionary data improvements would become the map to guide improved financial reporting requirements.

A Systems View of Costs and Benefits

From a systems vantage point, then, the implementation of an SEC-required SVR with a common valuation language has the potential to forge an evolutionary path that, through an iterative process, links corporate efforts to maximize shareholder value to the development of more insightful reporting data. This step-by-step approach encourages changes that are likely to improve the accuracy of valuation calculations. In this way, the evolution of a financial reporting system would be guided by the *valuation needs* of management, boards, and external investors.

But is the SVR evolutionary approach consistent with the SEC's stated mission? In describing this mission the SEC itself notes that:

> The laws and rules that govern the securities industry in the United States derive from a simple and straightforward concept: all investors, whether large institutions or private individuals, should have access to certain basic facts about an investment prior to buying it, and so long as they hold it.

> To achieve this, the SEC requires public companies to disclose *meaningful* financial and other information to the public [italics added]. [24]

SVR is designed to achieve this goal by having boards produce the clearest statements about the most *meaningful* issues that affect their companies' future performance.

Reply to Anticipated Opposition

It is primarily through the board's accountability to shareholders that management's power can be viewed as legitimate by the investing public. From this perspective, it is in management's long-term interest *not* to insulate the firm from its shareholders. Nevertheless, CEOs with a short-term focus and intent on tight-fisted control of "their" boards will likely oppose SVR. Their public criticism would likely include the following:

(1) Directors lack sufficient in-depth knowledge of the firm's business units.

(2) SVR would force directors to deal with unnecessary technical complexities and be too costly to produce.

(3) Many firms are well managed and do not need heightened board oversight.

In response to the first criticism about the limited business-specific knowledge of directors, management's immersion in the details of the firm's businesses often leads to an automatic acceptance of a business-as-usual mindset. There is a strong tendency for management to focus on execution of the *existing* strategy. In contrast, an effective SVR would stimulate inquiry about the potential shareholder benefits from possible strategy changes.

[24] www.sec.gov/about/whatwedo.shtml

Directors often make up for their lack of in-depth business-specific knowledge with more general business acumen and their different perspective on the big picture. Capable directors will have gone through many business experiences with surprises on both the downside and upside. Such directors tend to have a good nose for the issues that are critical to failure or success. SVR would often lead both management and the board to stronger conviction for more decisive actions—say, expanding a business unit or promptly divesting it.

In sum, whenever I hear someone claim that directors lack sufficient knowledge to produce an SVR, my response is that such directors are then unqualified to fulfill their responsibilities and should be replaced.

In response to the second criticism, it is true that directors would have to contend with technical measurement issues they now largely avoid. A practical solution is for the board to retain the firm's auditor to provide technical advice and services directly for board-related SVR projects, including, for instance, the production of displays of business unit data. For all SVR projects, the board must retain control and be independent of management.

Technical issues have enormous practical importance. To illustrate, if maximizing shareholder value is the goal, exactly what data does the board need to monitor progress toward that goal? If the life-cycle valuation model is used by the board, then the basic data displays for each business unit will resemble the top panels of Figures 4 and 6—time series of economic returns versus estimated costs of capital and asset growth rates. The principal technical issues involve the calculation of each business unit's asset base. Two relevant thorny problems are the identification of informative non-financial metrics

and the handling of GAAP expenses that, in an economic sense, should be capitalized as assets and amortized.

Because sophisticated money managers and security analysts have been dealing with these matters in their analyses of firms, their work can be an educational starting point for boards and their advisers. Having to build life-cycle data displays forces boards to get their hands dirty about key wealth-creation issues, something that is now avoided by blind reliance on GAAP financial data combined with a tunnel focus on earnings growth rates.

A systems view of the criticism of "excessive" cost of SVR implementation suggests that the relevant comparison is the total cost to shareholders versus benefit to shareholders. The "inside story" from the board in terms of life-cycle displays would be especially helpful to outside investors. Moreover, SVR-motivated participation by management and boards in reforming GAAP would provide big benefits to investors over the long term.

Further, a case can be made that the lack of an SVR perspective has contributed to enormous economic losses borne by shareholders that stem from board deficiencies in detecting and dealing with management failures. While a specific tally of losses to shareholders is elusive, the evidence is quite clear that it is huge.

Finally, the costs incurred by a board in producing an SVR may generate the benefit of a reduced cost of capital to the firm. The basic problem is one of uncertainty—uncertainty about whether a board will act effectively and promptly to promote and protect shareholders' interests. Shareholders can be at risk for ill-conceived, empire-building acquisitions made at excessively high prices, creating a much larger, but likely

less efficient firm. Another possible situation is continuous underperformance resulting from lack of top management skill. Generally, when investors have considerable uncertainty that the cost-of-capital guideline for value creation will be adhered to in the future, they demand a higher return as compensation for the risk. For this reason alone, improved corporate governance in companies clearly in need of it is likely to result in a lower cost of capital.

An SVR can help reduce investor uncertainty, at a minimum, by putting the key issues on the table for analysis and possibly forcing an earlier reversal of wealth-destroying activities. Over the long term, it is also reasonable to expect that an SVR environment would result in the replacement of substandard directors by more capable ones.

As for the third criticism, a valid point can be raised that some shareholders might feel that especially well-managed firms do not need an SVR. To accommodate this possibility, the SEC could agree, as part of annual proxy voting, to waive the requirement for an SVR for the coming fiscal year if the majority of the firm's voting shareholders vote in favor of such a waiver.

Concluding Thoughts: The SVR as an Alternative to SOX

The end of the tech bubble and the implosion of many large corporations created, or at least reinforced, the perception that many boards function as impotent ceremonial watchdogs. One answer to the perceived crisis was the passage of the Sarbanes-Oxley legislation. But, as many economists and practitioners have pointed out, SOX consumes considerable financial resources and managerial time, and is a particularly onerous drain

on smaller firms. One recent study estimates a substantial loss in aggregate stock market value around the most significant news announcements leading up to the passage of the Sarbanes-Oxley Act.[25]

That same study offered the following assessment of the economic impact of Sarbanes-Oxley:

> *…despite the claimed benefits of this Act, the business community has expressed substantial concerns about its costs. Whereas the out-of-pocket compliance costs are generally considered significant, they are likely swamped by the opportunity costs SOX imposed on business. Executives complain that complying with the rules diverts their attention from doing business. Furthermore, the ACT exposes managers and directors to greater litigation risks and stiffer penalties. CEOs allegedly will take less risky actions, consequently changing their business strategies and potentially reducing firm value.*
>
> *The overall direct and indirect private costs of SOX on businesses could well outweigh its private benefits. The passage of SOX gives rise to a broader concern that SOX could signal a shift to more rigid federal and state regulation of corporations, thereby causing extensive changes in the economy. A 2004 PricewaterhouseCoopers survey of CEOs finds that 59% of the respondents view the risk of overregulation as one of the biggest threats to the growth of firms.*

[25] Ivy Xiying Zhang, 2006. "Economic Consequences of the Sarbanes-Oxley Act of 2002," Working Paper, University of Minnesota, Minneapolis, MN.

An SEC-mandated Shareholder Value Review could speed up an evolutionary process in which more and more boards act as *facilitators of value creation* and, in so doing, avoid future heavy-handed, legislated bureaucratic controls. The primary objection to SVR will be that it imposes additional demands on corporations. That objection assumes that existing regulatory demands, including the enormous burden of Sarbanes-Oxley, are etched in stone. *From the perspective of investors,* is it not possible that investors would much prefer to trade a lessening of Sarbanes-Oxley demands on companies in exchange for a Shareholder Value Review?

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