

FOCUSED FINANCE

Most companies overly complicate financial management. The best companies keep it lean and linked to value.

- According to the ancient Greek poet Archilochus, “the fox knows many things, but the hedgehog knows one big thing.” For all his cunning and sophistication the fox is always beaten by the hedgehog’s one simple defense.
- The same applies to financial management. The hedgehog beats the fox. But today, most firms use fox finance. Their financial management systems know many things but trip up on the big questions like “are we creating shareholder value” and “how can we create more.” Finance is fuzzy, when a riveting value-focus is called for.
- The standard financial management model uses cash flow analysis for capital budgeting reviews, turns to earnings, EBITDA and return measures for performance reporting and investor relations, interjects yet another scorecard of metrics for planning and managing purposes, and generally ties bonus awards to beating budgets. Although each element in it is simple and well-established, the system as a whole is a complex jumble of metrics, methods and messages that line managers find very difficult to understand.
- Fuzzy finance also fails because it neither holds managers fully accountable for delivering value nor adequately rewards them when they are successful. It is guaranteed to frustrate the performance and inhibit the value of any organization.
- CFOs should join with CEOs and directors to assert control over financial management system design and use it to reshape and strengthen internal corporate governance. They should champion a cross-functional effort to streamline the overall system and establish a transparent, comprehensive focus on creating shareholder value.
- The EVA[®] measure of economic profit is ideally suited to bind together the various financial management applications and incentive plans into one common language and framework. It is unique in its ability to play that role because as a measure of profit, EVA is conceptually easy to understand, and as a measure of performance, it is the only one that directly ties to NPV and the creation of shareholder wealth and that legitimately qualifies for a mission of continuous improvement. EVA is truly the hedgehog of finance, and the key to value-focused management.

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By G. Bennett Stewart, III, Senior Partner, Stern Stewart & Co., a NY-based global consulting firm that specializes in the management, incentive, valuation, and financial applications of economic profit under the trademarked name of EVA[®].

Is your company fuzzy or focused when it comes to financial management?

- Do you call upon a series unrelated measures and procedures for various management and incentive purposes? For example, do you rely on cash flow, NPV and IRR for capital budgeting and acquisition decisions, talk about earnings-per-share for investor relations, and measure margins, EBITDA or rates of return to determine bonuses?
- Do you track a wide range of metrics on performance dashboards while failing to sum them to an overall score? Are you “drowning in data?”
- Do you lack a common language and overarching financial goal to unite, speed and simplify decision-making?

If so, you are using fuzzy finance, and that puts you at a significant disadvantage to value-focused competitors.

Fuzzy finance uses conventional measures and methods for various purposes, and superficially, nothing is wrong with it. But taken as a whole and considered as a management system, fuzzy finance is diffuse, eclectic, and ineffectual. It fails to provide the clarity, cohesion and accountability that are essential to drive shareholder value.

Focused Finance, as the phrase implies, is the exact opposite. It is finance wired to measure, manage and deliver shareholder value. It results from a clear understanding of how the stock market truly values corporate performance, and a commitment by top management to concentrate on that to the exclusion of other objectives, other measures, and other procedures.

Smart CFOs today are moving their organizations towards Focused Finance. They are realizing that strategic financial management, too, is a process that can be streamlined and simplified, and more effectively aligned with value. They are looking for a single overarching financial measure that can reliably their point line people toward the most valuable decisions and strategies, and that can easily thread through and unite all aspects of their management. I argue that the economic profit measure known as EVA[®], or economic value added, is perfectly suited to be that Focus Finance measure -- for any company, in any business. But first, the shortcomings in today’s corporate financial management systems must be laid bare.

Fuzzy Finance is Foxy

The distinction between focused and fuzzy finance has parallels to the hedgehog and fox parable that author and management consultant James Collins popularized in his classic turnaround text, *Good to Great* (HarperBusiness, 2001). According to his convincing research findings, companies perform best when managers are emboldened by certainty and guided by single-minded purpose:

Those who built the good-to-great companies were, to one degree or another, hedgehogs. They used their hedgehog nature to drive toward what we came to call a Hedgehog Concept for their companies. Those who led the comparison companies tended to be foxes, never gaining the clarifying advantage of a Hedgehog Concept, being instead scattered, diffused and inconsistent.

All of the turnaround champs Collins identified in his comprehensive study – firms like Abbott, Pitney Bowes, and Walgreens – produced outstanding shareholder returns by following a similar procedure. They pruned everything that did not accord with a central vision defined by the answers to three questions: What can we do the best in the world, what stirs our passion, and what can we be paid well for doing? For Walgreens, the intersecting theme was to be the best, most convenient drugstore with the highest profit per customer visit. Walgreen became a great success because its management team pursued that simple but effective goal with zeal and precision.

The hedgehog and fox story has so worked its way into management discourse these days that it pays to cite the original source. Sir Isaiah Berlin, an eminent British philosopher and man of letters, retrieved the parable from Greek poetry in a 1953 essay of the same name:

There is a line among the fragments of the Greek poet Archilochus which says: 'The fox knows many things, but the hedgehog knows one big thing'... which may mean no more than that the fox, for all his cunning, is defeated by the hedgehog's one defense. But, the words can be made to mark one of the deepest differences which divide human beings in general. For there exists a great chasm between those, on one side, who relate everything to a single central vision, one system less or more coherent or articulate, in terms of which they understand, think and feel - a single, universal, organizing principle in terms of which alone all that they are and say has significance - and, on the other side, those who pursue many ends, often unrelated and even contradictory, connected, if at all, only in some de facto way, related by no moral or aesthetic principle...The first kind of personality belongs to the hedgehogs, the second to the foxes

The Hedgehog and the Fox
Sir Isaiah Berlin (1953)
New York, Simon & Schuster

Throughout his life Berlin worried about hedgehogs as political leaders. He feared their convictions would turn them into dogmatic tyrants. Stalin and Hitler were to him hedgehogs run amok. A liberal society, he argued, required the humility, the pluralism and doubt of fox-like men and women who would accept unbridgeable human differences and limit government power. Live, and let live, was his intellectual credo.

But it is now clear that hedgehogs make the best business leaders, and hedgehog companies create the most value. Collins elaborated on what it meant to adopt the Hedgehog Concept in these words: *...all the good-to-great companies attained a very simple concept that they used as a framework of reference for all their decisions, and this understanding coincided with breakthrough results.* Although he wrote about corporate strategy, Collins' admonitions apply equally to the financial policy maker.

WHAT'S WRONG WITH FUZZY FINANCE?

To appreciate just how muddled they are, you must first understand financial management systems as I define them. To be clear, the systems are not the back-office finance functions for order entry, invoicing, auditing, cash management, and such. Rather, as depicted in Exhibit 1, financial management systems consist of the various policies, procedures and levers that a leadership team has at its disposal to guide, control and drive its operations and strategies. It is finance as the handmaiden of value-based management, as opposed to finance as a business operation.

Exhibit 1: Fuzzy Finance



Remarkably, most CFOs have not taken the time to blueprint their overall financial management system and to ask how good it is when considered as a whole. For that, they need to answer this series of questions:

- **Goals:** What kinds of goals are set and how are targets established? What are the tradeoffs and what are the priorities when business aims and financial objectives are in conflict?
- **Communication:** How does the management committee discuss financial goals and review progress toward achieving them with employees, the board and investors? What are the measures that matter?

- **Planning:** Which procedures are employed to identify the most valuable business strategies? How are planning alternatives prompted and evaluated? How is risk assessed?
- **Capital Budgeting:** How are capital spending projects approved—everything from mundane decisions to replace or maintain equipment, to entering a new market, building a plant, stepping up research, or making an acquisition—to the opposite—decisions to divest, downsize, outsource and prune? How are those decisions made, who is responsible for making the decisions, and how are managers held accountable for delivering promised results after the fact?
- **Decisions:** How do managers make operating decisions that involve tradeoffs, such as about pricing for margins versus market share, aiming for fixed versus variable cost structures, and choosing between integration, outsourcing or partnering alternatives?
- **Measurement:** What set of metrics are used to keep track of results and to highlight successes and failures needing attention? What is the hierarchy of financial and operational metrics, and how are they organized into an overall scorecard?
- **Incentives:** Last, but certainly not least, how is business performance measured and rewarded, and how are monetary incentives aligned with the long-term interests of shareholders?

Most companies employ a complex web of measures, methods and messages for these sundry purposes. Financial management systems are almost always a spaghetti bowl full of unconnected decision and feedback loops. They are like the Internet without a protocol. They amount to internal corporate governance at its worst, and fuzzy finance at its finest.

Consider that managers typically rely on cash flow, NPV, IRR and the like for making capital budgeting and valuation decisions, but when it comes time for them to set goals and measure actual performance, they put aside those cash metrics and turn to a separate set of yardsticks. Earnings, growth, margins, market share, unit costs, returns, and EBITDA are among the reporting indicators that take center stage for those purposes. In the standard financial model, a wide gulf invariably separates the use of cash flow for capital budgeting on the one side and a long laundry list of accounting measures that are applied on the other. Without really thinking about it, most CFOs have accepted that different measures apply for different purposes, but it should not be so.

To make matters considerably more convoluted, bonuses typically are based on the achievement of certain financial and operational budgetary goals that are negotiated as part of the annual planning process, but which individually and collectively often bear little correlation with shareholder value. And if that were not enough, top management often centers its dialogue with investors around next quarter's earnings-per-share.

Little wonder that when confronted with such a disjointed system, operating managers throw up their hands in exasperation and ask under their breath if not aloud, “So what do the head office so-and-so’s really want? They have saddled us with every measure and method under the sun.” It is a tyranny of ambiguity and indecision. CFOs are the ones responsible for this architectural indigestion.

Most CFOs simply have not brought their financial management systems into sharp focus. Their financial reports and decision procedures know many things but miss really big things, questions like how much value are we creating for our shareholders, and how can we create more? They use fox finance when they should adopt the strategies of the hedgehog.

Fuzzy Finance Makes Corporate Life Miserable

Accountability is one of the first casualties of the metrics muddle. In an attempt to hold managers responsible for many things the fuzzy finance diminishes their accountability for anything—particularly the one thing that should matter, creating value. Most managers are smart enough not to complain. They negotiate a budget they can easily achieve and take their bonus to the bank.

The absence of a common language and riveting financial mission diminishes the incentive for managers to cooperate and share best practices. Sales and marketing departments go hunting for gains in sales, market share, customer satisfaction, or brand loyalty while research and development and production managers go shooting for prey such as time to market, unit cost of production, working capital days, or quality or continuous improvement. With each department aiming at individual success factors, warring fiefdoms and parochial, sub-optimal behavior rule the roost.

Speed and decentralized decision-making also take a beating. Without a commonly accepted score to arbitrate decisions and allocate resources responsibly, top managers understandably do not trust subordinates to know how to make the correct decisions. They hoard information and hog decisions that they should pass down the line. Decisions are less informed and slower than they ought to be. Meanwhile, competitors are learning, gaining and passing.

Fuzzy finance also features incentive plans that are at once less challenging and less rewarding than they should be. On the one hand, it is relatively easy for managers to qualify for a basic bonus by hitting negotiated budget goals. There is no real challenge there. But in exchange, managers surrender the opportunity to earn rich bonuses for delivering truly exceptional performance. Direct monetary incentives are considerably less stimulating than they ought to be.

The ambitious manager who ventures to run far ahead of budgetary goals in an attempt to earn a bigger bonus knows that is a trap. That’s because bonus caps usually prevent managers from qualifying for anything more than 150% or so of the target bonus. By limiting bonuses, boards are signaling they do not believe the measures used to determine

incentive pay truly measure sustainable contributions to value. If they did, why would the directors want to limit the potential for managers to earn a bigger bonus by creating more shareholder value?

Beating budget is not just an unrewarding proposition, but often a punishing one. In many companies, the motivated manager finds vaulting ahead of expectations is widely interpreted to mean a manager lacks firm control over his operation, or has sandbagged its actual profit potential, or his superiors failed to negotiate a sufficiently challenging budget target. Rather than receiving a pat on the back for a job well done, the ambitious, budget-busting field commander is greeted with a slap in the face, interrogations under bright lights, and a dramatic bump up in his budget target for the next year. The best performers can become discouraged and look for greener pastures, as when Ross Perot quit IBM to establish EDS out of frustration over limit on his incentive pay. Fuzzy finance kills the incentive to excel.

Other financial management land mines, at least for public companies, are strewn along investor communications pathways. Interactions with sell-side security analysts and the media have convinced many top executives and board members that the market impatiently demands more earnings and earnings-per-share (EPS). Although untrue, corporate leaders often believe that it is, and act accordingly. They cheerfully adopt EPS growth as their chief corporate financial goal, and tie their bonuses to it.

EPS is the Opiate of the Executive Suite

The consequences are dire, of course. Decision-making becomes considerably more complex and ambiguous as yet one more metric is tossed into the financial management stew. Even worse, EPS is such an unreliable measure of value that managers often make dumb decisions to increase it.

EPS sets so undemanding a return hurdle for new investments that it widely prompts managers to misallocate capital. EPS is measured after subtracting the interest cost of debt but before setting aside the significantly higher cost of equity. According to EPS, retained earnings are a free source of capital. As a result, EPS encourages managers to over-retain capital and use it wastefully. Managers behave like the old farmer who continues to plow the same field long after it has gone fallow instead of moving on. They use retained earnings to fund mature or dying businesses units, product lines and markets that should be harvested.

Ironically, accounting rules have also discouraged EPS-maniac managers from spending capital where they probably should commit it most liberally—on investments in intangible assets like brands, research and training. With GAAP requiring such outlays to be immediately written-off as an earnings charge, managers resist sharply boosting spending on intangibles, and they slash the outlays in weak times to preserve earnings, even if such cuts severely damage long-term capabilities.

CFOs also frequently juggle capital structures to keep EPS on track. To avoid EPS dilution, they refrain from issuing common shares even at times when they really need equity. They fabricate EPS gains by using more debt than they should—both on and off the balance sheet—and by imposing dangerous financial risks on their shareholders. Even if they do not go as far as Enron CFO Andrew Fastow, with his bet the ranch financial strategy, EPS fanatic CFOs violate basic capital budgeting principles by improperly mix operating and financing decisions. They accept weak projects—especially overpriced acquisitions—that happen to be financed with debt, and reject worthwhile projects if they must be financed with new common shares.

Earnings manipulation is often just one short step from the active management of earnings. Many CFOs succumb to the temptation to build up bookkeeping reserves in lush years that they can use to sustain EPS through lean years while forestalling painful but valuable decisions. They use good times to subsidize bad times. They invest their pension funds in equities, speculating off the balance sheet in an attempt to buy a subsidy to reported earnings (in the form of assumed rates of return on the pension portfolio that reduce the pension cost line on the income statement). And in extreme cases, they throw all caution to the wind and make up the numbers as they go along, as Worldcom and HealthSouth reportedly have done.

The corporate EPS mandate also can be particularly demoralizing for middle managers. They may watch in dismay as top brass sets aside a well-conceived plan to re-launch a brand simply because the plan would trigger a temporary dip in reported earnings. From the point of view of Lilliputian middle managers that nurture such strategies, the Gullivers in the executive suite apply an unfathomable and unreasonable filter to undermine their earnest efforts to create value. Such are the frustrations of fuzzy finance.

Actions that artificially inflate EPS such as those noted above make no sense in principle. But they also typically fail in practice because they are countered by changes in price-earnings multiples. Fraud aside, the market assigns a lower multiple to companies that boost the quantity of their earnings by degrading earnings quality. A lower multiple is simply a recognition by shareholders that they have been put in a riskier position, or that the short term earnings have been ginned up at a considerable long expense, or that bookkeeping entries overstate true, sustainable profits, or that management has boosted EPS by unwisely investing capital in negative net present value projects. P/E markdowns apply with even greater force now that accounting scandals, corporate bankruptcies, and over exuberant new economy investments have shown investors how much there is to lose by not minding the quality of earnings.

In today's market a management team that aims to boost its earnings at the expense of quality will be more certainly penalized than ever before with a lower stock price and a sullied reputation. Managers today have even more reason to take the opposite tack, to take actions to increase the quality of earnings, to reduce and control risk, to increase transparency, and to create intangible values even if EPS according to GAAP accounting makes such decisions look foolish in the short term. To break away from fuzzy finance, top management will have to break its belief that GAAP earnings measure reality.

Fuzzy Finance Fails to Allocate Capital Properly

As if the EPS distortions were not enough to indict it, the standard financial management model also does a remarkably poor job on the one application it would appear capable of doing well—the allocation and management of capital. Misallocation and misuse of capital is the norm, and the use of discounted cash flow (DCF) for capital budgeting is the culprit.

DCF is not a problem in theory, of course, just in practice. Projecting and discounting cash flow does equate to net present value, and managers are right to accept projects on the basis of those they think will maximize it. The problem with cash flow as the decision currency is that capital budgeting decisions do not occur in a vacuum. They are highly dependent on how the decision-makers' performance is subsequently evaluated, and on the constraints top managers feel they face when they reach out to communicate with investors. CFOs need to assess their financial management system as a system, as a pulsating, interacting whole, in order to gauge its effectiveness and likely impact on decision-making behavior.

To elaborate on this point, consider the simple capital budgeting decision depicted in Exhibit 2. Suppose that an investment of \$1,000 is expected to generate \$250 a year in NOPAT, or Net Operating Profit After Taxes, for an annual return on capital, or ROC of 25%. If the project (and the firm) has a weighted average cost of capital (COC) of 10%, then it is a go. Just as any banker would be delighted to lend money at a 25% rate when funds cost 10%, so too is this project attractive as its ROC handsomely exceeds its COC.

Exhibit 2: Discounted Cash Flow Approach

	Year 0	Year 1	Year 2	Year 3
NOPAT		\$250	\$250	\$250...
		$(1+10\%)^1$	$(1+10\%)^2$	$(1+10\%)^3$
	\$2,500	←		
<u>Investment</u>	<u>-\$1000</u>			
NPV	\$1,500			

The more conventional and accurate way to evaluate a project, however, is to discount its projected cash flows to a net present value. The value of the \$250 NOPAT cash inflow is \$2,500 at the 10% discount rate. Put another way, by paying \$2,500 for the right to receive a \$250 check in the mail every year, investors would always earn the 10% return they are seeking. Subtract the initial \$1,000 investment, and the remainder is the project's net present value of \$1,500. Operating managers are generally instructed to

accept such projects because the shareholders will receive a value from them greater than the amount of capital they must commit. The difference, which again is the net present value (NPV), adds directly to the wealth of the shareholders.¹

As the example demonstrates, there is nothing wrong with DCF in principle. Cash flow does convert to net present value, and it measures the addition to shareholder wealth. The problem with DCF analysis is that it does not smoothly mesh with other moving parts in the financial management system. Suppose, as is not uncommon, that the example company bases bonuses on beating budgets for operating profit or operating cash flow (i.e., EBITDA), and that its investor (and board) communication circulates around achieving growth goals for earnings-per-share. In that case, the measures and motivations that count are inconsistent with DCF analysis. Once an investment project is approved, managers know the investment will be inconsequentially buried on the balance sheet. They also realize that when the projected earnings start to materialize, the company's earnings-per-share and their bonuses will all quite likely get a boost, even from many projects that actually have a negative NPV. Why? Because earnings and EPS rise if the returns merely are sufficient to cover the after-tax interest cost on the *portion* of the project financed with debt. Operating earnings (the frequent measure for line managers) do not even include a deduction for interest costs; the project is measured as "profitable" if it simply covers current-period operating costs.

Field managers consequently have a perverse incentive to get their hands on as much capital as possible—to help them to build their budgets, to build their businesses, and to build their bonuses. No matter how elaborate and rigorous the capital budgeting process may be on paper, in practice it will degrade into a cat and mouse game between corporate headquarters and field commanders. Central staff will feel compelled to send legions of fact checkers into the field to probe the assumptions line managers have advanced to justify inflated capital requests; the field units will retaliate by raising projected returns even more; the head office responds by raising hurdle rates—and in the end the escalation and confrontation completely undermine the integrity of the process.

Capital requisitions often get so out of control in fuzzy finance systems that CFOs have no recourse but to mandate an overall funding limit. But by rationing capital CFOs attack a symptom and not the disease, only making matters worse. Facing a capital constraint, line managers realize their only chance to obtain funding and stay ahead of their peers is to radically overstate the payoff from their projects for fear that other managers are doing the same. Fueling them with an ardent desire to get their hands on more capital, but constraining their ability to do so, is like putting a pot on a hot fire and securing a lid tight on top—it is an explosive combination. The quality of the information exchange and the integrity of decision-making are shot through more than ever. In practice, of course,

¹ To be more precise, managers should not accept just any project that will earn a positive NPV, but the project among mutually exclusive projects that is expected to create the highest NPV. In that regard each project competes against alternative versions of itself, such as waiting a year for the market to mature or to gather more information before a final decision is made, or investing more funds sooner to lessen the threat of competitive entry.

capital almost always goes to the divisions with the best track records, not the ones that can make the best honest case for added capital now.

The capital allocation debacles just described are not the fault of the capital budgeting system per se, but of the overall financial management system. It is the totality of fuzzy finance that is to blame. Many CFOs attack financial management and incentive issues in isolation, a strategy about as effective as squeezing balloons. Problems always reappear where least expected. The only real solution is a total redesign of the financial management system.

Many CFOs are letting IT implementations distract them from addressing these pressing financial management design issues. They are spending too much time worrying about efficiency instead of effectiveness. Computerizing back-office finance functions is worthwhile to save costs, of course, and to generate useful business data. But automating a financial management system without redesigning risks getting managers running faster in all the wrong directions and drowning in figures. CFOs must first to figure out how to make their overall financial management system more effective in guiding, controlling and driving the creation of shareholder value, and then make it more efficient with IT support.

Cash Flow is Not the Answer

A seeming remedy is to make cash flow the center of a closed loop decision-making and control system. Use cash flow for everything—for measuring, rewarding and communicating performance as well as for capital budgeting. But that is not workable because cash flow, for all its virtues, is simply not a valid performance measure. So long as capital is invested in projects that earn a return higher than shareholders could earn by investing on their own, then the more investment a company makes and the more negative its cash flow becomes, the higher its share price will be.

The case history of Wal-Mart over the 1980s is a plain example of how a negative net cash flow can be positively good for shareholder value. The company had so many attractive growth opportunities that capital outlays significantly outstripped internally generated funds from operations—an average of \$1.40 was invested per every \$1.00 of NOPAT earned over the decade. Cash flow—net of investment—was negative in 8 of those ten years. To finance the gap, Wal-Mart was forced to borrow and raise equity, thereby severely diluting the ownership of the pre-existing shareholders. Sam Walton suffered the most dilution, of course, as he ended the decade with only a 40% share interest in the company he had started.

Yet nothing could have been better for the shareholders, Walton included. As sales surged from \$1.6 billion in 1980 to \$32.6 billion in 1990, the shareholders earned a compound average total return of 43% per annum, a performance so outstanding that soon thereafter company founder Sam Walton was the nation's wealthiest individual according to a Forbes magazine ranking. Far from suffering from the negative cash flow and dilution, Walton and other shareholders benefited mightily from owning a smaller

share of a much larger pie of value. Had Wal-Mart set goals or paid bonuses for generating net cash flow, managers would have wanted to turn off the investment spigot to turn cash positive. But that would have curtailed the profitable business expansion that was driving the stock price higher.

Such investments rarely work out so well as they did for Wal-Mart, of course, but there is no conceptual reason for managers and investors to shun outlays that have the prospect of creating value, even if they diminish cash flow for extended periods. Managers instinctively know that cash flow is an unreliable performance indicator, and that is why they discard it and turn to other measures for setting goals, assessing results, and paying bonuses. But of course, the proliferation of metrics and methods is what makes fuzzy finance so ineffective.

A popular cash flow variant is EBITDA, the earnings before interest, taxes, depreciation and amortization. Popular though it may be, EBITDA has a big failing. It does not deduct any charge for using capital—not depreciation, and not interest. To increase EBITDA, managers simply invest as much capital as they can lay their hands on, and regardless of whether it adds to net present value. The truth is, EBITDA is neither the fox nor the hedgehog of finance. It is the ostrich—a head in the ground to ignore every variety of capital costs.

RONA Isn't Right, Either

Many CFOs think they can use the internal rate of return (IRR) and return on net assets (RONA) to anchor their financial management system to value. They think they can compare projected IRRs with the cost of capital when making capital budgeting decisions, reward RONAs in their bonus plans, and build a bridge to basic financial and operational metrics with the DuPont formula. But these CFOs are wrong. RONA and IRR are incomplete indicators. They do not measure scale or growth. They see no difference between earning a 20% return on a \$1 million investment or a \$1 billion investment. But these two projects are in fact very different, with distinctly different net present values.

The flaws in rate-of-return measures isn't just that they make it impossible for managers to pick out the best investment projects. If return measures drive their bonuses, managers will actually have the incentive to misallocate capital. In high-return units they will under-invest, and in poorly performing units, over-invest. A 20% RONA unit, for instance, will summarily reject a 15% RONA investment, and yet, if the cost of capital is 10%, the project has a positive net present value and should be accepted. But the managers in that unit won't see it that way. For the sake of their bonus, they will want to avoid diluting the high rate of return their unit already has, and will not invest as aggressively as they should. They will throw out a lot of babies with the bath water.

Return-minded managers are far more likely than others to stumble over the “innovator's dilemma” reported by Harvard Professor Clayton Christensen. His research shows that upstart firms are typically the first to exploit disruptive innovations. Apparently,

established market leaders are generally so concerned with maintaining margin and return standards that they shy away from experimenting with new technologies and entering new markets that initially offer slimmer margins and lower returns than they currently enjoy. The aristocrats just keep adding bells and whistles to existing products and services so as to justify ever-higher prices and earn higher returns. They eventually price themselves over the market and open the door for the newcomers. In the end the upstart companies leapfrog the entrenched ones by offering new technologies and new business models with aggressive pricing.

If large, established companies were less concerned with holding onto unsustainably high returns they might avoid the fate of firms like Sears and K-Mart, which became the victims of upstart innovators like Best Buy and Wal-Mart, or of IBM, which never made a decent return in personal computers because management waited too long to enter. IBM executives were reluctant to jump in even years after Apple Computer had made impressive inroads because they feared diluting the 25% return they were garnering in the mainframe business in the late 1970s and early 1980s. When IBM finally decided to make a go of it, haste to develop a computer entry led them to make mistakes like handing ownership of the software operating system to Harvard dropout Bill Gates. It is not an exaggeration to say that the biggest boner in business history was due to a preoccupation with maintaining a high rate of return.

Managers in poorly performing business units face the opposite temptation, of course—accepting projects they ought to bury. The head of a 5% RONA unit might eagerly accept an 8% return project because it will increase the unit's overall rate of return. Yet that investment should be summarily rejected. It is a negative NPV endeavor, and will reduce the wealth of the shareholders. But if their bonuses are based on increasing returns, the managers won't care about that.

As one CEO has put it, “when we paid our managers to increase returns, the best units sat on their laurels and only cherry-picked the absolute best opportunities, and the worst ones kept asking us to give them more capital in the hope they could spend their way out of their troubles. We ended up starving our stars and feeding our dogs. That's no way to run a company.” True enough: RONA is simply not a valid objective function. RONA cannot reliably anchor financial management to value.

EVA IS THE CORNERSTONE OF FOCUSED FINANCE

How, then, can CFOs ever attain the clarity, unity and alignment that is the hallmark of the hedgehog and the essence of value-focused finance? The simple answer is, they should use EVA for everything, as the sun at the center of their financial management universe (refer to Exhibit 3). They should adopt EVA as their paramount financial goal and corporate performance measure, use it to guide and inform all decisions and plans, and tie everyone's incentive pay to improving it. Dogmatism is called for in this, because focus and commitment are precisely what make Focused Finance so effective.

Exhibit 3: Focused Finance



The point is, not only *can* EVA be used for everything in the financial management system, it *must* be used for everything. All other metrics must be subordinated to EVA and traced to it in a value-anchored and truly balanced scorecard. Projecting, analyzing and discounting EVA must become the primary decision tool, replacing discounted cash flow analysis wherever it is found. Bonuses should no longer be based on a broad array of performance metrics that vary significantly from level to level; everyone's bonus, from top to bottom, should be strictly funded by a combination of company-wide and business-unit EVA performance.

If EVA is not implemented in such a cohesive and comprehensive manner—if it is not used to completely revamp the entire financial management system, or if EVA is just added as one more measure to sit alongside existing measures, or if it fails to work its

way powerfully into incentives—the management system will turn out worse than before. Instead of the hedgehog, the CFO will end up with an even more complex fox. The mathematics of implementing EVA is to add EVA everywhere, but also to subtract, or at least subordinate, all other financial measures and all other methods.

Experience shows that, comparatively speaking, the easy part is to add EVA. The hard part is to get managers to give up or subordinate cherished measures and pet goals like EPS, RONA, and margin, and embrace fully the EVA imperative. Most companies that have tried to implement EVA have not been able to do it. They have failed to get the commitment from the top and a mandate that all staff functions collaborate in applying a consistent measure of EVA across the board. They are foxes masquerading in hedgehog clothing.

EVA is a Better Way to Measure Earnings

The constellation of EVA applications commences with EVA as a performance measure, as simply another—and far better—way to define earnings than taking reported accounting profit at face value. And, because it is just at heart an earnings figure, EVA has the virtue of being relatively simple to explain and to understand, even to the basic shop floor worker. It is neither complicated like cash flow, nor is it a meaningless percentage ratio. It is a full-blooded, dollar and cents, living and breathing measure of corporate earnings that anyone can understand and learn to manage.

In simplest terms, EVA is economic profit—profit the way smart shareholders keep score. In contrast to book earnings, EVA subtracts a charge for the use of all capital—equity as well as debt. EVA deducts not just the interest on debt that all can see, but also an invisible charge for the use of equity capital—i.e., the shareholder funds—to recognize that shareholders too expect and deserve a return that compensates them for bearing risk. Unlike EPS, EVA doesn't begin to count profit until the shareholders receive a minimum acceptable return on their investment. Retained earnings are no longer a free form of finance.²

To keep it simple, the costs of the debt and equity funds are combined into one overall or blended cost of capital and expressed as an interest rate. The cost of capital is not a cost a company must pay in cash, however. It is an opportunity cost. It is the rate of return that the firm's investors could otherwise expect to earn by purchasing a stock and bond portfolio of risk comparable to that of the company in question. EVA says that until a company earns a profit greater than its investors could earn on their own, it really operates at a loss.

² Many companies go beyond deducting the full cost of capital and further refine the measurement of EVA. They define a set of rules that eliminate GAAP distortions with the aim of providing managers with an even more reliable and intuitively appealing decision guide. For more information about some of the potential adjustments, see "How to Fix Accounting—Measure and Report Economic Profit," by G. Bennett Stewart, III, forthcoming in the *Journal of Applied Corporate Finance*, Spring 2003.

The cost of capital for all companies starts with the rate of interest on relatively risk free government bonds, but adds to that the premium the market requires to compensate investors for bearing investment risk. The risk premium can vary from as little as 1 to 2% for stable utilities and food companies up to as much as 10% for airlines, brokerage firms, and entertainment concerns—companies that have high fixed costs and strong revenue ties to the economy that make their profits a roller-coaster ride. Do the math with government bonds now yielding around 4% and it shows American companies must pay between 6 and 14% per annum for using shareholder capital.

At its most elemental level, EVA requires just a simple, five-line computation:

Sales	\$1,000
- Operating Costs (including taxes)	750
NOPAT	\$ 250
- Capital Costs (\$1,000 x 10%)	<u>100</u>
EVA	\$ 150

EVA begins with sales as a measure of customer satisfaction—in this example that is \$1,000—and it then subtracts all of the costs required to support the sales. Operating costs, including taxes payable in cash on the operating profit, are deducted first to arrive at a mid station called NOPAT, or net operating profit after taxes, which in this case is \$250. Most companies stop there, or near there, when they measure profit, set goals, and pay for performance, but that is a mistake. EVA subtracts one more key cost—the cost of renting the capital employed to run the business.

The capital from debt and equity sources—or what amounts to the same thing, the net assets tied up in working capital, plant and equipment, and other long term assets—is assumed to be a total of \$1,000. Suppose that because of its sector, its business risk and financial structure, the firm faces an overall cost of capital of 10%, which amounts to a 5% risk premium over the 5% government bond rate. The charge the firm must pay to rent the \$1,000 of capital it uses at that 10% rate is an even \$100, and the \$150 remainder, which is often rightly referred to in the accounting literature as “residual income,” is EVA, the economic profit. The example shows that this firm is generating \$150 more revenue than is required to cover all of its costs, including the cost of fully financing the capital employed on its balance sheet.

Observe that EVA collapses a firm’s balance sheet and its income statement into a single profit measure that reflects the quality of operating efficiency and asset management, and over time, profitable growth. No longer are there two financial statements to confuse the non-accountant. There is only one statement—a statement of economic profit and loss. EVA performs this miracle of concision by converting the balance sheet into the equivalent of a profit charge, an operating cost that must be managed like any other cost of doing business. Omitting this charge makes no more sense than omitting SG&A. Asset management is no longer something separate and mysterious, but is an integral and natural part of running a business and making a profit.

As a result, EVA makes it less likely that top executives will succumb to micro-management. By building in a charge for using assets, EVA makes it unnecessary for executive leaders to complicate matters by separately targeting working capital days or cash conversion cycles or plant throughput efficiency. EVA subsumes all those asset management metrics along with profit into one overall score, and thus it frees middle managers to play off earnings and assets in ways that simply cannot be detected from a remove.

Gathering all of the pluses and minuses of business decisions onto one overall score makes it considerably easier for operating people to make intelligent choices, particularly those that involve tradeoffs. EVA easily helps a production manager to figure out whether it is worthwhile to invest capital in automation equipment to save labor costs, for example. The manager simply compares the additional profit against the cost of the additional capital. By the same token, marketing people can readily use EVA to judge a strategy to enhance customer satisfaction by extending payment terms. They set the expected benefit of generating additional sales and profit against the capital cost associated with financing a bigger receivable base. A corporate controller also can look to EVA for answers to more erudite or ad hoc questions, like deciding whether a plant should be sold. The controller examines whether the liquidation proceeds that are subtracted from the balance sheet would reduce the capital enough to offset any on-going reduction in earnings. At whatever level, and for whatever purpose, EVA makes it possible for everyone to make more informed decisions, and to learn more quickly what works and what doesn't in their corner of the value creation game.

Unlike reported accounting profit or operating profit, an EVA profit of zero is not necessarily bad. A company or business unit that just breaks even on EVA is actually earning NOPAT profit large enough to pay the interest it owes on its debts, after taxes, while leaving a bottom line profit remainder large enough to give the shareholders a minimal acceptable return on their equity investment. An EVA of zero is thus not bad, but of course, it is not particularly good either. It is the epitome of breaking even. A positive EVA, on the other hand, really is good, and a negative EVA, is not. EVA is the only measure that establishes a searing dividing line between good and bad performance for it is the true measure of profit.

A negative EVA does not necessarily indicate that a business line should be liquidated and management put to pasture, however. That may only make a bad EVA worse. A negative EVA only indicates that capital was misallocated in the misty past, or that prior expectations have not been fully realized, but it is not necessarily an indictment of today's management and current strategy³. A negative EVA, in other words, reflects the impact of prior decisions and sunk costs that are by now irrelevant. A negative EVA is also impounded in the stock market or private market value of a company. As a result, taking an EVA that is negative, and making it less negative, is every bit as valid a way to improve performance, create value, and qualify managers for a bonus as would be taking

³ It may also be due to a recent "strategic" investment that has not yet fully ramped up. If that is the case, EVA will be more accurately measured if part of the capital investment is held back and metered in over the period that the payoff is expected to materialize.

a positive EVA business and making it more positive. It is the continuous sustainable *improvement* in EVA that is the real mission of any true EVA company.

As a result, managers running the best business units cannot rest on their laurels and claim they have hit a triple when they were born on third base. The best are challenged to become even better, and to scale their inherently profitable business models. The managers in charge of tough turnaround situations need not lament their fate. They can be measured and rewarded for making their negative EVA less negative. The mission to increase EVA levels the playing field, makes it unnecessary to waste time and political capital fighting over the allocation of irrelevant sunk costs to get the program started (such as goodwill from prior acquisitions), and it gives managers all of the right incentives to make the decisions at the margin that will create the most shareholder value.

In fact, the goal to increase EVA shines a bright light on all of the ways that performance can be improved and wealth can be created in any business. While managers can do countless individual things to create value, they must all eventually be measured as an increase in EVA falling into one of these four categories:

1. **Reduce the Cost of Capital:** The first imperative is to manage financial capital like any other input to the business, and reduce its purchase price. CFOs and treasurers must select and put in place the financial policies, risk controls, and pension funding strategies that will minimize the rate the market charges the firm to rent capital. Financial officers also need to think about enhancing transparency and management accountability, strengthening incentives for insiders to maximize the wealth of the owners, and even adopting the EVA Focused Finance platform as ways to increase investor confidence and their willingness to advance funds to the firm on favorable terms.
2. **Operate Efficiently.** The obvious opportunities to boost EVA in operations are from cutting costs, and saving taxes, and raising NOPAT without using more capital. EVA naturally rewards intelligent expense control, and transforms the tax department into a profit center.
3. **Manage Assets and Re-deploy Capital.** Management can also cut an EVA expense by reducing the amount of physical and intangible capital it employs. To increase EVA, managers will pare capital tied up in non-productive assets and activities and return the freed cash to investors. Even if operating profit shrinks, so long as the charge for using capital shrinks more, EVA will expand. Managers can use supply chain techniques to step up working capital turns, sell assets they know are worth more to others, or consolidate redundancies and weed out marginal product lines and customer accounts. At a more strategic level, top managers can develop completely new business models that conserve capital by speeding cycles times, such as Dell has done in computer assembly and distribution, and Southwest Airlines in air transport.
4. **Grow Profitably.** Costs and capital can only be cut so far. Over the long haul, the only way to increase EVA is to invest, to grow, and to take risks and innovate—but,

managers must be sure that they increase operating profit by more the cost of renting the new capital. To maximize EVA they must take on as many positive net present value projects as they possibly can. EVA also tells managers to avoid like the plague investing capital for less than the cost of capital, no matter what other benefits there may appear to be. Increasing market share, for example, while fundamentally decreasing EVA, is a fool's errand. The EVA message is to be profitable first—develop a solid, distinctive operating platform and value proposition—and then step on the gas.

The Four Principal EVA Value Drivers

	Initial	(1)	(2)	(3)	(4)
Sales	\$1,000			-50	+150
- Operating Costs (including taxes)	750		-5	-45	+135
NOPAT	\$ 250		\$ +5	\$ -5	\$ +15
- Capital Costs (\$1,000 x 10%)	100	\$ -5		\$ -10	\$ +10
EVA	\$ 150	\$ +5	\$ +5	\$ +5	\$ +5

1. **Cost of Capital:** Reduce the overall cost of capital by 0.5% on \$1,000 of capital, saving \$5 in capital costs. Add \$5 to EVA with no change in operations, NOPAT or capital.
2. **Operate Efficiently:** Cut operating costs, after tax, by \$5, and increase NOPAT and EVA by \$5.
3. **Manage Assets:** Release \$100 in after-tax proceeds from non-productive balance sheet assets, and return the freed funds to investors so they may invest it and earn the 10% cost of capital. The \$10 annual profit that investors earn outside the company more than offsets a corresponding \$5 NOPAT drop recorded inside the company, leaving them \$5 better off a year even though sales and book profit are lower.
4. **Grow Profitably:** Raise \$100 in fresh capital at a 10% cost, and invest in a project that earns a 15% rate of return, adding \$15 to NOPAT and leaving \$5 in net additional EVA profit for the shareholders. The shareholders are better off even though the return on capital and profit margin end up lower.

Many decisions that increase EVA make other measures look worse. For example, Coca-Cola decided in the 1990s to switch from stainless steel to cardboard containers for shipping soft drink concentrate to bottlers. As durable items, the stainless steel containers were capitalized as assets and depreciated as an earnings charge over a period of years. Cardboard containers, by contrast, were not re-usable, and were expensed. By making the switch, Coke's profit and profit margin took a big hit, and the measured unit cost of production went up, but with the elimination of the sizable balance sheet investment in steel containers Coke's capital charge plummeted, and on net, its EVA soared. Managers preoccupied with accounting earnings and margins might never make such a changeover, but that would be a mistake. They would leave considerable value on the table, and would operate at an increasing disadvantage to competitors that think in terms of economics and not accounting.

The truth is, EVA is the only metric that legitimately qualifies for a mission of continuous improvement. With every other measure there is always a caveat, a pregnant pause waiting for another shoe to drop, as is suggested by this imaginary inaugural address by a CEO to his management team:

Ladies and gentlemen, our most important goal is to delight our customers and increase our market share as much as possible. But then again, we also have to make sure we cover our costs and earn a decent profit. Come to think of it, we must also manage our assets wisely and earn a solid return for our shareholders. However, we should be willing to give up a bit of our return if that meant we could grow faster and garner a bigger share of the market.

And so the qualifications would echo, round and round, ad infinitum. Every other measure besides EVA tells half-truths. But with EVA, more is always better and less is always worse because, as will now be shown, EVA is the only performance measure that directly ties to shareholder value.

EVA is a Better Way to Plan for Value

Whether they are contemplating entering new markets, setting product prices, adding new service lines, or making an acquisition, managers need a way to value the alternatives and choose the ones that will produce the highest stock price. Cash flow analysis can help them to do that, but EVA can help them even more. EVA is preferable because it is a simpler, more informative, and more accountable way to measure and manage value.

An ironclad mathematical formula links EVA to value, and it is this: for a given business case, the present value of the EVA profit is always equal to the net present value of discounted cash flow, or in symbols:

$$\text{The Present Value of EVA} = \text{NPV} = \text{Discounted Cash Flow}$$

The equality is a key to unlocking true, value-based management. No longer must managers be held hostage to cash flow. They can feel free to examine all decisions through an EVA lens. To illustrate how this works, consider the aforementioned capital budgeting exercise from an EVA perspective (refer to Exhibit 4).

Exhibit 4: Discounted EVA Approach

	Year 0	Year 1	Year 2	Year 3
NOPAT		\$250	\$250	\$250...
Investment Capital →	\$1,000	\$1,000	\$1,000	\$1,000...
x Cost of Capital		10%	10%	10%...
Capital Charge		\$100	\$100	\$100
EVA		\$150	\$150	\$150...
		$(1+10\%)^1$	$(1+10\%)^2$	$(1+10\%)^3$
NPV	\$1,500	←		

Observe that instead of subtracting the proposed \$1,000 investment up-front as the cash flow calculation dictates, so that psychologically investments are forgotten the moment they are spent, in the EVA method all investments are converted into amortizing loans paying interest at the firm's cost of capital rate. EVA makes managers accountable for the capital they invest because it memorializes the obligation to repay it with interest. In the example, the capital charge at the 10% cost of capital on the \$1,000 investment is \$100 a year⁴. That represents the profit amount that investors could earn by investing the capital on their own, in an equally risky stock and bond portfolio. It is a profit target set by the market, through an objective benchmarking with market available returns. It is the amount the market charges management to rent the capital they say they will need to take on the project and build their business. Managers will want to be sure they can cover that capital charge, for if they cannot, they will suffer alongside the shareholders by earning a lower bonus (if their bonus is based on increasing EVA, as it should be).

In this case, management forecasts that NOPAT will reach \$250, amply covering the \$100 capital charge and leaving an EVA remainder of \$150 which, when discounted to a present value at the 10% cost of capital, is \$1,500—the net present value of the project. The outcome is no coincidence. EVA will always give the same NPV answer as discounting cash flows because EVA subtracts the cost of capital. By its very nature, EVA sets aside the amount of profit that must be earned to recover the value of any capital invested in a project, and so it naturally accounts for any value added or lost relative to that capital.

If management forecasts that a project would earn zero EVA, for instance, then no value would be added from it. Investors would anticipate just breaking even, just earning the return on investment they demand. Accordingly, they would pay a market value that just equaled the book value of the investment, and the net present value difference would be zero. To break even on EVA is to break even on NPV, by definition. Only by exceeding investors' expectations and earning a positive EVA profit can management produce a positive NPV, and vice versa.

This insight leads to a powerful conclusion: the only way to increase NPV is to increase EVA. EVA does indeed measure all the ways that performance can be improved and wealth created, in any business. To emphasize this all-important linkage, CFOs should rip up their capital budgeting manuals, acquisition valuation procedures and planning reviews that are based on cash flow, and replace them with templates that enable managers to project, analyze and discount EVA. The NPV answers will be the same either way, but the EVA method is far more effective for several reasons.

For one thing, managers can tell at a glance if their business plans are creating value by examining the level and trend in their forecast for EVA. Because it appropriately matches the total cost of generating profit against the profit, EVA reveals, period by period, the dollar amount of value added or lost. If they see sales and earnings growing,

⁴ The \$1,000 principal is recouped over time as the depreciation charge that is subtracted from NOPAT. Indeed, the "net" in NOPAT stands for "net of depreciation," so that NOPAT measures sustainable, distributable profit.

margins expanding, and market share soaring in their plan, but no improvement in EVA, the managers know right away they need to go back to the drawing board. They instantly understand that they are spending far too much capital to achieve projected results, and need to rethink the strategy. Cash flow offers no such insights. It concentrates all the pain of an investment up-front with only payoffs to follow. No one period combines the cost and benefit of cash flow in a meaningful way. Cash flow is a highly uninformative measure of value.

EVA is also far easier for line managers to understand and use because it applies so widely. They will encounter EVA not just as an isolated capital budgeting and decision support tool, as is typical with cash flow. They will see EVA at the head of monthly reports and the top of scorecards, as the key driver of their incentive pay, and in the best examples, in shareholder reports and investor communications. One common metric with one common language is a key to simplicity, and it also fosters teamwork when everyone drives toward the same goal.

Accountability also gets a big boost when managers see EVA coming at them from all directions. Managers suddenly become much more grounded when they know that their projects will be approved based upon their projections for EVA and furthermore that their performance will be reviewed and their bonuses will be based on whether they actually deliver it. With EVA, there is no place for them to hide. Transparency and connectivity pervade the management system. All projects, and every initiative, are effectively subject to a natural post audit. Managers quickly realize that if they fail to deliver to plan assumptions or at least cover the cost of capital, they will be the first to feel the pain.

The capital charge plays a vital role in this, for it sets the standard for the NOPAT profit that must be earned before EVA is generated and value is created. Managers know that if they invest more capital into a project, the profit hurdle they must exceed to cover the cost of capital will rise, and vice versa. The NOPAT profit target is automatically reset without the need for top management intervention. If line managers decide to invest another \$500 in the example project, for instance, they would be required to earn another \$50 in ongoing NOPAT profit⁵ just to cover the cost of the capital, and they would know that without the need to touch base with senior executives. The capital charge does the talking for them. More valuable decisions can be made—and made more quickly—when everyone can readily compute the minimum performance standard that is required of them and can work assiduously to beat it.

EVA is the Key to Creating Wealth

Besides measuring the value of individual projects, EVA also determines a company's overall market value and its stock price via a sister measure called MVA, or market value added. MVA measures the difference between the total market value of a company as reflected in its stock price (and value of its bonds), and the total capital employed on its

⁵ In addition to interest on the capital, the \$500 invested in the project would also have to be recouped through the additional depreciation that is subtracted in the measurement of NOPAT.

balance sheet. For example, a firm that has a \$1 billion market value and a \$700 million book value has an MVA of \$300 million, the difference:

$$\begin{array}{rclcl} \text{MVA} & = & \text{Total Value} & - & \text{Total Capital} \\ \$300 \text{ million} & = & \$1 \text{ billion} & - & \$700 \text{ million} \end{array}$$

The MVA spread represents the cumulative amount of wealth that a company has created for its shareholders since the start of the company. It compares the amount of cash that investors have put into a business in the form of capital with the present value of the cash they can expect to take out of it. The investors could withdraw the cash value either by collecting distributions from the company over time, or they could sell their shares and cash in the corporate loans right away. Either way, MVA measures cumulative cash-in versus cash-out value. It measures shareholder wealth, and every company's most important mission is to maximize it.

Legendary investor Warren Buffet has described MVA as the key success measure for Berkshire Hathaway as revealed by this excerpt from his 1995 letter to shareholders:

We feel noble intentions should be checked periodically against results. We test the wisdom of retaining earnings by assessing whether retention, over time, delivers shareholders at least \$1 of market value for each \$1 retained. To date, this test has been met.

Buffet is saying that if a company cannot give its investors at least a dollar of value for every dollar of theirs it keeps, the shareholders would be better off if the firm just handed over the dollar and let them play the game. In his words the maestro is saying that the ultimate litmus test of any company's success lies in increasing its market value by more than it increases its capital, which is the same thing as increasing its MVA.

Exhibit 5 presents the results for the top 3 most wealth-creating firms as of the end of April, 2003. GE, Microsoft and Wal-Mart, although in very different businesses, and with very different business models and financial characteristics, are all nevertheless quite close in terms of MVA. Capital ranges from Microsoft's \$25 billion to nearly \$100 billion for GE, and sales vary from \$31 billion (Microsoft again) to a staggering \$245 billion for Wal-Mart, and yet all three are creating around \$210 to \$220 billion of shareholder wealth.

Being big is no guarantee of success in the wealth game, however. Despite the fact that its 2002 revenues ran at \$184 billion and it has amassed nearly \$120 billion in capital, General Motors ranked tenth from last among all American companies and is currently registering an MVA *loss* of over \$14 billion. GM's \$106 billion in market capitalization, large as it is, is not enough to give investors back what they have put in. GM is a good example of how increasing value does not always translate into an increase in shareholder wealth. The real challenge is to add value to the total amount of capital employed in a business.

Exhibit 5: Winners and Losers in the Wealth Creation Sweepstakes (\$ in billions)

Rank	Company	MVA	Total Value	Total Capital	Sales
1	General Electric	\$222.8	\$322.2	\$ 99.4	\$130.7
2	Microsoft	\$212.3	\$237.5	\$ 25.2	\$ 30.8
3	Wal-Mart	\$207.3	\$281.0	\$ 73.6	\$244.5
10th from last	General Motors	(\$ 14.1)	\$105.7	\$119.8	\$184.2

Another reason MVA is such a significant corporate performance measure is that it represents the stock market's estimate of a company's net present value, both from projects in place and those expected to materialize down the road. Recall the hypothetical project that involved an up-front investment of \$1,000 to generate a \$2,500 cash inflow value, leaving a net present value difference of 1,500. That NPV computation indicates, quite simply, how much the project could be expected to add to MVA. In this case, it would add \$2,500 to the firm's total market value, \$1,000 to its capital, and the \$1,500 difference would appear as an addition to MVA. NPV is just the MVA of an individual project.

The simple example illustrates that to pass the "Buffet Test" and increase the wealth of shareholders, managers must adhere to the classic corporate finance textbook rule. They should successfully undertake all positive net present value projects and sidestep the negative ones. It also shows that MVA measures, as no other measure can, how successfully a company has allocated, managed, and re-deployed resources of all kinds so as to maximize net present value and maximize the wealth of its shareholders. MVA is certainly a measure that every board member, CEO and shareholder should monitor on a regular basis.

Corporate managers cannot manage their stock price or MVA directly, of course, and MVA is quite useless for the managers of private companies and business divisions for which no regular stock price information is available. All managers must drive shareholder wealth by managing a corporate performance proxy that is directly tied to it, and that is the cue for EVA to make a grand entrance once again. At any point in time, a firm's MVA is mathematically equal to the present value of the stream of EVA profit it can be expected to generate over the its entire future life:

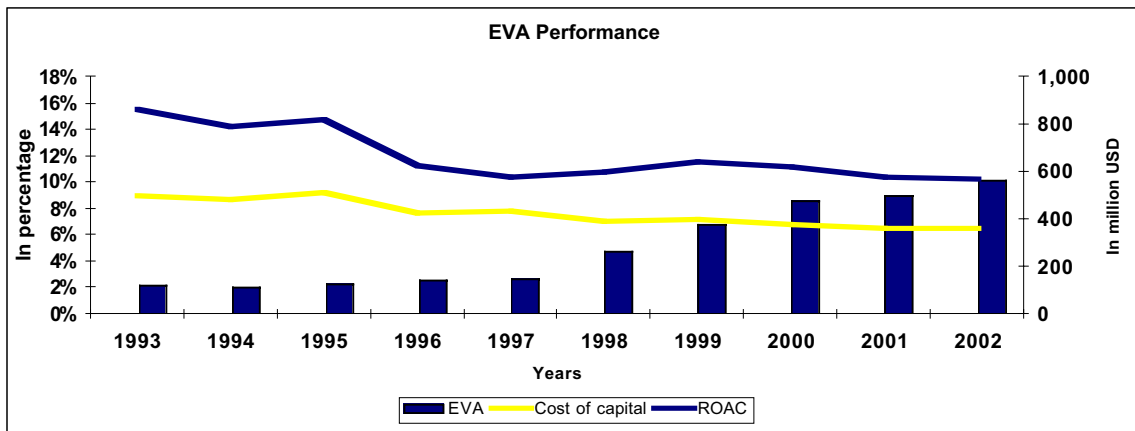
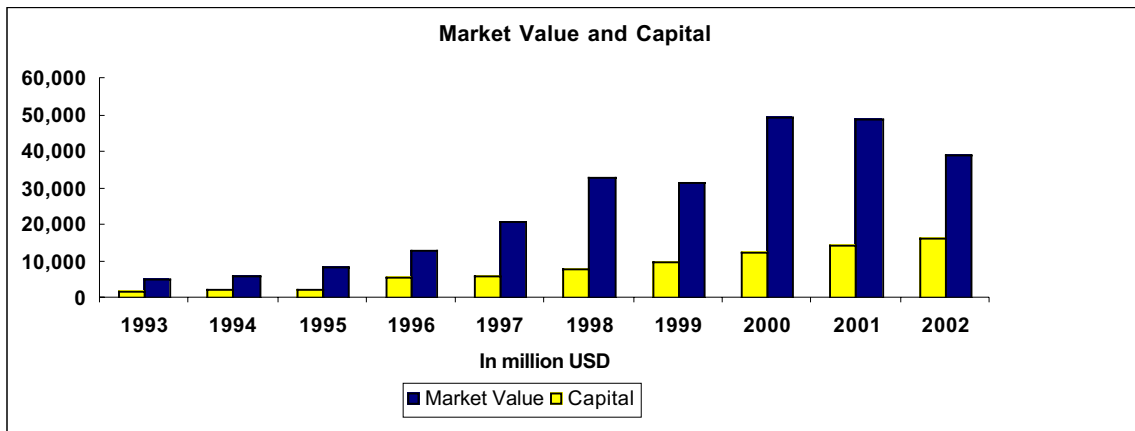
$$\begin{aligned} \text{MVA} &= \text{sum of NPV} = \text{discounted corporate cash flows} \\ \text{MVA} &= \text{present value of consolidated future EVA} \end{aligned}$$

Good-to-great exemplar Walgreens offers a good illustration of the link between EVA and MVA (see Exhibit 6). Observe that Walgreens has been an impressive wealth creator. Over the 1993 to 2002 period, its market value increased by far more than book capital. MVA rose by \$20 billion, and reached \$23 billion by March 2003, the 37th highest of all American public companies. EVA increased significantly, too, and in virtual lockstep pattern, rising from \$122 million in 1993 to \$567 million in 2002.

Although MVA is based on discounting future projections of EVA, the market often forms expectations from past trends, and thus there often is a strong contemporaneous association between increasing EVA inside a company and increasing the wealth of the shareholders who stand outside the company. It is for this reason that Fortune magazine decided to call EVA “the real key to creating wealth.”

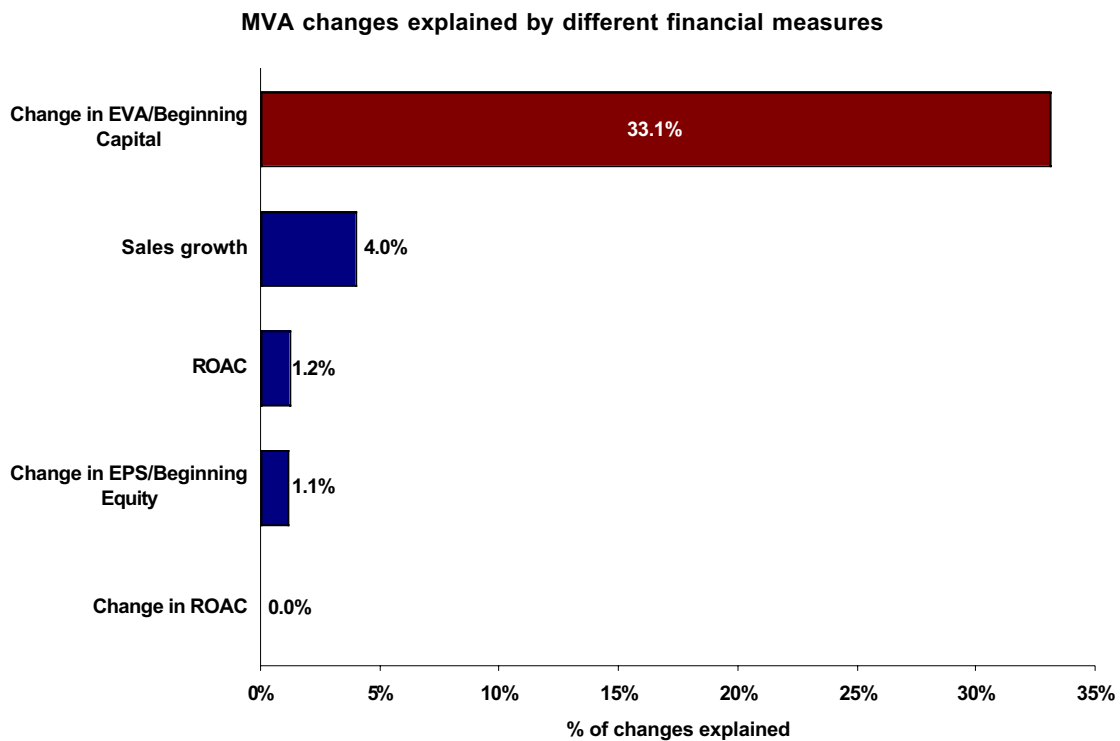
Although its EVA and MVA climbed higher over the years, Walgreens ended its impressive run with a far lower return on capital than it started with. The ratio of NOPAT to average capital, which is the return on average capital or ROAC, dropped precipitously, from 15.6% in 1993 to only 10.3% in 2002. Management quite logically picked the best locations offering the highest returns to open stores at the outset, and over time was forced to reach into more competitive, congested, higher-priced outlets, offering lower returns. But EVA and MVA continued to increase because the returns on the latter stores opened still covered the cost of capital—still offered shareholders a better return than they could expect to earn elsewhere. Walgreens offers a prime example of why return on capital, return on assets, and return on equity are incomplete and misleading. Bonuses should never be based on such measures.

Exhibit 6: Walgreens’ MVA and EVA are Well Linked



A study of all firms making up the Russell 3000 confirms that EVA outperforms other measures in explaining the creation of shareholder wealth. Exhibit 7 shows the percent of the 3-year changes in MVA from 1999 to 2002 that is explained in a regression analysis. The corresponding 3-year change in EVA explains 33% of all the changes in MVA⁶. By comparison, sales growth and return on average capital (ROAC) explain under 5%, and the growth in earnings-per-share (standardized by the level of beginning equity) explains just 1% of all the changes in shareholder wealth! Managers who think that their stock price is set by earnings-per-share just because that's what they hear sell side analysts asking about are really being quite naïve. In the real world, P/E multiples change all the time to reflect a change in earnings quality—now more than ever—and that explains why EPS is only very loosely linked to the creation of wealth.

Exhibit 7



Given how strongly EVA ties to MVA in theory and in practice, managers can with confidence use EVA as their primary valuation and decision tool. Questions such as which pricing policies are apt to create and capture the largest value, or whether it is worthwhile to outsource a function or to sell a business unit, can all in principle be answered in the same way. Choose the action likely to yield the greatest possible present value of EVA.

⁶ To avoid overstating the degree of statistical fit, the MVA and EVA changes were divided by the amount of capital each company had outstanding at the beginning of the three-year period, thereby eliminating company size as a correlating factor.

EVA can be used to value shares as well as decisions. Questions like how much we can afford to pay for an acquisition or whether we should raise or retire stock, require first that MVA be unfolded to measure total market value. From that the corresponding share price can be inferred. The trick is to rearrange the formula—MVA equals total value less total capital—to solve for total value. The result is that total value must equal total capital plus MVA, which in turn is just the present value of EVA, and so, in symbols:

$\text{Total Value} = \text{Total Capital} + \text{the Present Value of EVA}$

The model contains important insights into the factors that underlie the creation of corporate value. The formula says that the total value of a company as a going-concern business enterprise is equal to the commodity cost of its assets as mere tangible assets, plus a premium, or less a discount, that reflects the quality of its asset management. EVA, in other words, is the measure of management's ability to add value to tangible assets by creating and leveraging intangible assets. EVA reflects and implicitly values all forms of innovation and differentiation. It is the value of mind over matter.

Put another way, the economic model states that market value is equal to tangible capital plus intangible value. Value is always a hybrid of the physical and the metaphysical, the material and the spiritual. The market value of Microsoft, for example, is the replacement cost of writing code that is gibberish—zeros and ones without rhyme nor reason—plus the intellectual value impounded in the code in the sense that it works. It works so well, and has so locked in customers, that Microsoft earned \$2.2 billion of EVA profit in 2002 on the strength of a 22.0% return on its total capital. Microsoft's EVA is a direct measure of its intellectual value added.

The same duality applies to Wal-Mart because its market value is also a function of both hard assets (that accountants take great pains to measure conservatively) and soft assets (which accountants ignore but EVA measures implicitly). Wal-Mart's value starts with the perfunctory investment in stores and other operating assets, but it also includes the value of Wal-Mart's business model. Unlike Microsoft, Wal-Mart's software is not code to run a computer program. It is a set of principles for running a discount retailer.

Wal-Mart's operating protocols enable the firm to earn high returns on tangible capital and to generate a strongly positive EVA. Wal-Mart's code starts with its strategy of selecting store locations in relatively under-served markets, and clustering retail outlets around central distribution centers. Most famously, it includes its policy of charging everyday low prices, which draws customers through the front door. The business model also features practices that make operations efficient, such as electronic data interchange with suppliers, just-in-time delivery and double-docking warehousing practices, and store information aggregation that enables the purchasing department to make the right buys at the right prices. Sam Walton was always quick to emphasize the value of his highly motivated workforce—employees and store greeters who would entice customers to return again and again and spend, spend, spend.

Viewed this way, Wal-Mart doesn't just own computers. The company is a computer. Wal-Mart's business model has an intangible value that is directly reflected in and measured by its 2002 EVA of \$2.9 billion, which is the result of earning 13.0% on capital against an approximate 9.0% cost of capital. Superior management instincts, but also, trial and error and outright copying of competitor best practices developed the business model. A learning organization that empowers people to experiment and share and leverage best practices is an ever-greater business success factor, and key to increasing EVA.

GE's intangible value derives almost wholly from the quality of management. Jack Welch's emphasis on management selection, evaluation and education, his ability to create a high-performance culture and boundaryless organization that willingly shares best practices, and his identification and implementation of four key initiatives in 20 years—globalization, service orientation, digital strategy and most recently, the six sigma quality initiative—are some of the intangible assets that have made it possible for GE to earn nearly \$6 billion in EVA profit in 2002, the largest of any company.

The economic valuation model demonstrates that the talk about quantifying intangibles, knowledge capital and intellectual value is overlooking the obvious answer, which is that EVA is the measure of all intellectual value added, in any business and at all times. It is true, for example, that the value of Coke's brands and distribution franchise do not appear on Coke's balance sheet, but nor should they. The value of those intangible assets takes concrete form in the firm's \$2.5 billion in 2002 EVA profit and in its stock price via a corresponding \$82 billion MVA premium (which is the 9th largest among public American firms). The message is, if you want a knowledge scorecard, or if you want managers to develop and leverage intangible assets, then you must start with EVA.

At a more prosaic level, the economic model also can be used to determine share prices. To do that, management first prepares a forecast for sales, operating costs, NOPAT, capital and EVA, and then discounts the EVA implied by its business plans to a present value. The EVA premium (or discount if the EVA forecast is negative) is then added to the capital already employed on the balance sheet to arrive at the total value of business operations. Capital is added to the value because when investors buy a company's shares, they are acquiring not only their share of the EVA premium; they are also cashing out the capital that the selling shareholders had put or left in the business.

In the next step, the value of non-operating assets like surplus marketable securities is added to the total value, and then the market value of all priority claims—such as debt, pension deficits, and preference stock—is subtracted. The result is the estimated common shareholder equity value which, when divided by the outstanding common shares (on a fully diluted basis), is the indicated common stock price. Trace it all the way through, and the predicted stock price is, in effect, net equity book value per share, plus the per share value of the EVA premium. Common shares can be worth more than book value, therefore, only if a company creates and increases its EVA per share.

Such a model is perfectly suited to determining the maximum affordable share price of an acquisition candidate. It implies that for a buyer to come out ahead in a deal, it must limit the purchase price premium to no more than the per share present value of the extra EVA to be created by the combination. The model can also be used to figure out whether a firm's shares are fairly valued in the market, given management's forward plan, and if not, whether it is timely to raise or retire the shares.

Carrots and Sticks

The transparent accountability for creating shareholder wealth that the EVA system imposes strongly supports a culture of discipline, which has generally proven a favorable climate for creating value. James Collins found it another attribute shared by the good-to-great companies in his study. Discipline and accountability, however, are not words that inspire fealty from line managers and employees. Some resistance may occur at the outset, and enlightened top executives and board members must be prepared to respond.

They must take the time to understand and embrace EVA fully, and become its champion. They must be willing to exert their influence to make sure it is firmly cemented as the keystone of financial management. They must not abrogate their role as the keepers of the value flame and principal architects of the company's internal governance system. But they should employ carrots as well as sticks. They should induce line managers to embrace EVA by freeing them in other ways. They should liberate them to run their businesses as entrepreneurs, and should empower them to make a lot of money if they succeed in creating a lot of EVA. They should, in brief, create a culture of ownership to sit beside the culture of discipline.

Handing out boatloads of stock options is unlikely to be the best solution. The incentive is too remote and too abstract to motivate individual managers and employees who have little influence over aggregate results and little schooling in the factors that truly drive shareholder value. Except for a handful of people at the top, most people would be better off participating in a special kind of bonus plan that simulates the incentives of ownership.

To do that, bonuses should be based exclusively or principally on rewarding company-wide and business-unit EVA. That gives managers a simple and understandable incentive to take the actions they believe will maximize shareholder wealth. The potential bonus should also not be capped. Boards should not constrain managers' willingness to work hard and prosper personally if they can increase EVA and create wealth. With bonuses based on EVA, the bigger the bonuses the better for all concerned.

Managers must, however, be discouraged from gaming the system and gunning short-term results to the detriment of long run value. One workable solution is to hold back a large portion of any very large bonus award and to pay it out over time, subjecting it to the risk that unpaid amounts are forfeited if EVA subsequently deteriorates.

This contingent carry-forward and cancellation clause is essential for an EVA bonus plan for without it, no board could legitimately offer an uncapped bonus. The board must be certain that it links management's incentive pay to improvements in performance and value that can be sustained. The only way to know if improvements are real is to force managers to wait and see. While it is impossible to say for sure, such a provision might have tamed the opportunistic executive behavior at Enron, Tyco and WorldCom.

The banking system naturally extends managers' decision horizons. They quickly realize there is no point to overreaching and exaggerating short-term results if they cannot hang onto the gains over the long term. With each year's performance connecting to each subsequent year's, managers suddenly care about maximizing the long run stream of EVA and not just the current result. They take on the perspective of an owner. Since EVA bonus plans combine long-term and short-term incentives in one plan, boards can collapse a variety of bonus programs into one cohesive EVA plan. The hedgehog principle demands no less.

By smoothing business cycles and strategic performance gaps, bonus banks also help mitigate the risk of losing good people in bad times. Banks build up in peak performance years and carry over to supplement pay in lean times. The forced savings can be a significant competitive advantage for high tech companies. Even the best-managed pharmaceutical companies, for instance, occasionally run through a dry spell. Banking bonuses helps retain key research and sales talent until product pipelines are replenished. The bank can also help retain valuable employees in the flush times, incidentally, because they will be forced to surrender their banked bonuses if they join another firm.

The bonus itself should not be tied to meeting budget or exceeding business plan targets. That only encourages managers to sandbag and withhold valuable information. Bonuses should be funded by predictable formulas. One example is to pay a competitive target bonus plus a stated percent of the annual change in EVA —whether positive or negative and without limit in both directions, but subject to the banking feature.⁷ Once the formula has been chosen, tested and calibrated, the board should resist changing it for a minimum three-to-five-year period. Adhering to the terms of the bargain, whether the outcome is for better or worse, is crucial to getting managers to take the incentive seriously and motivating them to think and manage for the long term.

When properly constructed, EVA bonus plans are effectively incentive contracts. They give managers a fixed share interest in the value they help to create over a reasonable planning horizon. With that incentive, corporate executives raise their eyes toward building strategic value and look well beyond the quarter-to-quarter earnings dance with Wall Street that has proven so inimical to the creation of sustained shareholder value.

Incentive contracts also improve the planning atmosphere inside a company. Line managers no longer find it sensible to hedge expectations and hide information during

⁷ Bonus formulas in practice are often more sophisticated, and may involve paying a percent of the current and cumulative increase in EVA measured relative to an "expected improvement" amount that is consistent with market expectations and a realistic assessment of EVA growth opportunities over a 3-5 year horizon.

budget season. They become far more willing to collaborate, share information, and set and achieve ambitious strategic goals for they are compensated not for beating their plans but as a share of the wealth their planning helps them to create.

Incentive compensation by formula also enables the finance department to incorporate bonus computations directly into the templates the company uses to conduct its capital budgeting reviews and planning exercises. Managers can readily simulate how changes in key assumptions will directly affect net present value and their personal net worth. Accepting positive NPV projects and boosting one's incentive pay are transparently joined at the hip.

Managers also realize they have more at stake if things go wrong. With their incentive fixed by a non-negotiable bonus formula, managers are directly exposed to long run investment risks. They naturally take more seriously their responsibility to anticipate risk, control risk, and respond to risk because they are directly exposed to risk. EVA bonus plans, in short, go a long way toward encouraging managers to think and act like owners because the managers can anticipate earning the long-run return of an owner. Setting bonus by formula instead of tying them to budget is a key to making that happen.⁸

Giving line managers more decision autonomy and spending authority makes more sense once the capital discipline, value guidance, and monetary incentive of EVA are in place. In the best examples, CFOs have acknowledged that whereas in the past, capital was essentially free but hard to obtain, with EVA, capital would become readily available but at a market price. Once they truly believe they can access funds when they need it, middle managers' ambition to get their hands on it at all costs dries up overnight. They only want capital when they think they have genuinely valuable uses for the money, in which case it should be made available to them. Such is the reverse psychology of EVA.⁹ Faster, more value centric, more decentralized decision making is a clear consequence of imposing the carrot and stick of the EVA financial management system. And that is what ultimately makes the hedgehog cleverer than the fox.

Summary

Most companies today are laboring to create value with poorly designed financial management systems. The standard fuzzy financial model applies cash flow analysis to capital budgeting reviews, turns to earnings, EBITDA and rates of returns for performance reporting and investor relations, interjects yet another scorecard of metrics for planning and managing, and generally ties bonus awards to beating budgets. Although each element in it is simple enough, the system as a whole is a complex jumble

⁸ More information about EVA bonus plans is provided in "How to Structure Incentive Plans That Work," available at www.eva.com, and "Sharing the Wealth" in the January/February 2003 issue of *Shareholder Value Magazine*, both by G. Bennett Stewart, III.

⁹ Private companies that are truly limited in their ability to access equity capital without a public offering may be forced into internally balancing cash sources and uses. If so, EVA should be measured with an artificially high cost of capital, one that is perhaps several percent above the true, open market rate. A higher cost of capital encourages managers to sweat capital out of the balance sheet and to cut off at the knees some of the new projects that they would otherwise want to accept.

of metrics, methods and messages that line managers find difficult to understand. Worse, it neither holds the managers fully accountable for delivering value nor adequately rewards them when they are successful. The status quo is guaranteed to frustrate the performance and inhibit the value of any organization.

CFOs need to assert control over the design of their financial management systems. They should champion a cross-functional effort to streamline and simplify the overall system and establish a transparent, comprehensive focus on creating shareholder value. EVA is the ideal measure to bind together all of the various applications and incentive plans in one common language and framework. It is unique in its ability to play that role because, as a measure of profit, it is easy to understand conceptually. But also, as a measure of performance, it is the only one that directly ties to NPV and the creation of shareholder wealth and that legitimately qualifies for a mission of continuous improvement. EVA truly is the hedgehog of finance.

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