13

Incentive and Compensation Systems

There is no topic that commands as much fervor in the management literature as incentive compensation. Many people consider pay for performance systems, along with private ownership, as the hallmarks of capitalism. To these people, modern organizations simply will not function effectively without good pay for performance systems.

Indeed, pay for performance seems to have appeared when owners first hired managers to manage their capital. Sharing in the profits of the trading voyages to the Far East and the New World in the early and late middle ages, piecerate pay used since at least the industrial revolution, and profit sharing in the modern corporation are all examples of pay for performance. Sharecropping, in which the worker shares in the output created on the landowner's property, may be the most ancient form of pay for performance. Pay for performance is an artifact of the widely held belief that if you want to motivate people to pursue organization objectives then you have to reward them based on the performance level they achieve.

THE EXPECTANCY VIEW OF BEHAVIOR

In this book we adopt the so-called expectancy approach to motivation, which argues that people act in ways that they expect will create the rewards they desire. Given this view, the role of compensation is to provide individuals with rewards they value when their behavior promotes the organization's objectives.

Exhibit 13-1 describes the expectancy view of motivation. Organizations develop compensation systems that reward specified individual results or behavior that advance organization objectives. Individuals exert effort to develop skills and knowledge to make decisions that create results that provide the rewards they value and seek. Measured results, the domain of management accounting, provide the critical linkage in this motiva-

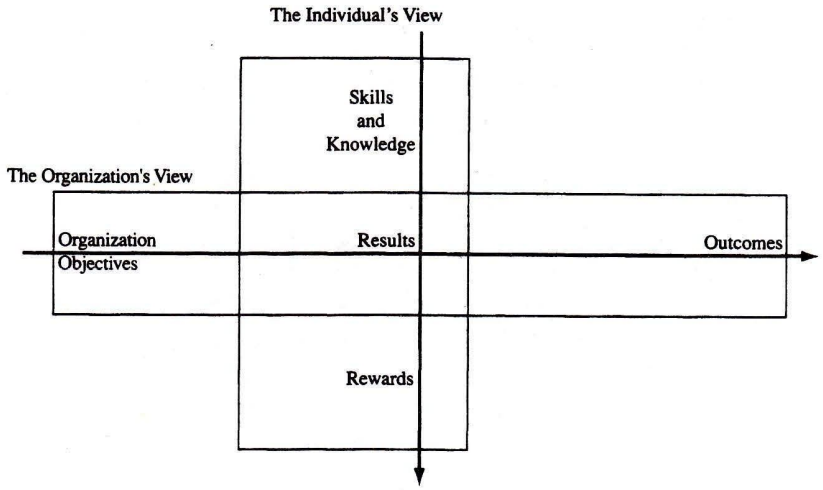


EXHIBIT 13-1 Expectancy View of Motivation

tion process. Results must have two critical properties. First, they must reflect organization objectives. That is, creating these results must create outcomes that lead the organization toward accomplishing its objectives. Second, the decision makers must clearly understand the linkage between results and rewards that they value.

INTRINSIC AND EXTRINSIC REWARDS

There are two broad types of rewards that people value: intrinsic and extrinsic. Intrinsic rewards are those that come from within the individual, such as satisfaction from a job well done or taking satisfaction from acting in a way that is consistent with inner values or beliefs. No intervention by another person is required for someone to experience an intrinsic reward. Organizations can create the potential for people to experience intrinsic rewards through job design, organization culture, and management style, but individuals feel or experience intrinsic rewards on their own.

Extrinsic rewards are rewards that one person gives to another. Extrinsic rewards include recognition, plaques, prizes, awards, and, of course, pay based on performance, also known as incentive pay or pay for performance. Most of the interest and attention in management journals focus on extrinsic rewards in general and incentive pay in particular. However, there are some people who believe that this attention is misplaced. They believe that the motivational effect of intrinsic rewards is far more powerful than that of extrinsic rewards.[1] We will focus on pay for performance, which is an extrinsic reward, not because we believe that intrinsic rewards and extrinsic rewards other than performance pay are unimportant but because the conventional role of the management accountant is to develop the systems that identify the organization's desired results and tie results to managers' and employees' compensation.

TYING REWARDS TO PERFORMANCE

The management accountant's role of identifying the organization's desired long-term outcomes (such as profitability) and corresponding short-term results (such as product quality and employee satisfaction) falls out of the strategic planning process. That role is the focus of the Balanced Scorecard discussed in Chapter 8. The idea in incentive compensation is to tie individual rewards to the organization's target outcomes and results.

Rewards Based on Financial Performance

Traditionally, organizations have used measures from the financial control system, such as corporate or divisional profits, as the results to which individual rewards are tied. Alfred Sloan was one of the most enthusiastic advocates of incentive compensation plans for top management. He instituted the General Motors bonus plan in 1918 to increase the commonality of interests between the senior managers and the stockholders of the firm.[2] Annual bonuses were awarded on the basis of each manager's contribution to the overall success of the corporation. General Motors had decentralized its operating decisions, and before the bonus plan, which focused attention and rewards on *corporate* performance was instituted, the key executives had little incentive to think of the overall welfare of the organization. Rather, they tended to focus narrowly on their own division's profitability, occasionally at the expense of the corporation's welfare. After the bonus plan was installed, the senior executives were more sensitive to how their individual efforts affected the welfare of the entire organization. Sloan noted that the plan was successful in molding top-level executives into a cooperative constructive group but without destroying individual ambition and initiative.

The General Motors bonus plan was structured so that rewards were increased more than proportionately to salary as executives were promoted to higher positions. Therefore, managers had a major incentive to become eligible for bonus awards and then to continue to perform in an outstanding fashion so that they could be promoted to even higher ranks. Apart from the direct financial reward, the plan seemed to provide an intangible incentive just by the recognition that the executive had made a significant personal contribution to the success of General Motors. One executive claimed that the ego satisfaction from receiving the award was prized just as much as the actual monetary compensation.

Rewards Based on Group or Individual Performance

The General Motors plan raises an important issue that must be considered by the designers of incentive plans. Should rewards be based on individual or on group performance? On the one hand, rewards that focus on rewarding individual behavior obviously do not promote group-oriented behavior. On the other hand, critics of rewards based on group behavior argue that many individuals fail to see how their individual behavior affects group rewards and ultimately their individual reward. The failure to see this link is thought to dilute the motivational effect of the reward. Critics also believe that group rewards can encourage shirking and free-riding on the efforts of others.

Many companies are asking employees to work in teams to achieve organization objectives. One way to combine individual and group rewards is to base the total group reward on group performance, such as corporate profit, but to base the individual shares

of the group reward on performance points that reflect the individual's ability to achieve individual performance objectives. This approach avoids objections to performance shares that are based on salary or rank rather than on the individual's realized performance.

Rewards Based on Nonfinancial Measures of Performance

Organizations have been using formal profit sharing and bonus systems based on profits for many years, and this practice has been criticized almost since these systems were first used. The criticism focuses on the short-run orientation of profits and the belief that individuals can, and will, sacrifice long-run performance to do well on a short-run measure to maximize their bonus. For example, a manager rewarded on the basis of the ability to control costs might reduce maintenance in the current period even though he knows that this reduction will increase breakdowns and failures in future years.

The short-run orientation of profit-based performance measures motivated the development of performance measures that combine short-run and long-run incentives. These measures have been developed in three ways: (1) by using stock options to reward managers and assuming that markets assess future consequences of current actions; (2) by forcing managers to bank bonuses and pay out those bonuses over several years; and (3) by rewarding current performance using a mix of performance measures including both short-run financial measures that focus on profits and nonfinancial measures, such as product quality, customer satisfaction, and innovation, thought to be the drivers of future financial performance.

The practice of rewarding managerial performance on a mix of short-term and long-term performance measures is still developing. In one study of practice,[3] less than 2% of the organizations in the sample used nonfinancial performance measures designed to assess the short-run drivers of long-run financial performance. The study did find that the short-run performance measures seemed to be chosen strategically in the sense that organizations that were competing using innovation were more likely to use nonfinancial measures to reward performance than were organizations that were competing based on cost.

More generally, firms that have implemented the Balanced Scorecard develop a performance measure that is a weighting of performance on both financial and nonfinancial measures. Because these performance measurement systems are just now being implemented, it is too early to draw conclusions about their effectiveness and value in organizations.

Executive Compensation

Compensation contracts, particularly incentive and bonus plans, provide important direction and motivation for corporate executives. One cannot talk about decentralization without an explicit treatment of how the top-division managers are rewarded (or penalized). Almost all highly decentralized firms have incentive compensation contracts for their top-management group (usually less than 1% of all employees) to encourage profit-maximizing decisions at the divisional and corporate levels and to stimulate individuals to higher levels of performance.

Executive compensation plans should

1. Be competitive to attract and retain high-quality managers
2. Communicate and reinforce the key priorities of the firm by tying bonuses to key indices of performance

3. Foster the development of a performance-oriented climate within the firm by rewarding good performance relative to potential[4]

The enthusiasm of Alfred Sloan and the General Motors Corporation for executive incentive plans is now widespread. More than 90% of the top managers of decentralized profit centers in large corporations are eligible for an annual bonus. Reports in various periodicals indicate that the median bonus of senior executives that is based on short-term profit measures is now about one-quarter of annual compensation. The form of the bonus plan varies among corporations. Payments can be made in cash, in stock of the company, in stock options, and, more recently, in performance shares, stock appreciation rights, or participating units. The bonus can be made contingent on corporate results (as in General Motors) or on divisional profits. It can be based on annual performance or on performance over a four- to six-year period. It can be paid out immediately, deferred, or spread over a three- to five-year period.

No single bonus incentive plan dominates all other plans for all companies. Incentive plans will depend upon the degree of decentralization, the time horizon for critical decisions of the firms, the degree of interaction among divisions, the amount of uncertainty faced by the firm, the nature of its business activities, and the structure of the industry. In addition, many plans, alleged to provide incentives to managers, have as their greatest benefit the reduction of taxes of the manager and the firm. For example, stock options have become the most popular incentive form for three reasons. First, stock options that are out of the money when issued appear to minimize the joint tax burden of the organization and the manager. Second, stock options provide a means of coordinating the incentives of managers and owners. Third, for a long time many shareholders incorrectly believed that stock options were a costless way of motivating managers and were therefore not concerned about the amount and nature of stock options issued to executives.

In this chapter, we will survey existing practice and will comment on the properties, strengths, and weaknesses of different incentive schemes. In the next chapter, we will introduce the emerging literature in optimal contracting and describe some preliminary results for constructing optimal incentive contracts between owners and chief executives and between a central management group and its division executives.

Incentive Compensation and the Principal-Agent Relationship

We begin our survey of incentive compensation arrangements by introducing the principal-agent paradigm.[5] The perspective provided by the theory of agency relationships gives us a systematic way to think about incentive compensation plans.

An agency relationship exists whenever one party (the principal) hires another party (the agent) to perform a service that requires the principal to delegate some decision-making authority to the agent. For our purposes, two types of principal-agent relationships arise in management control systems. First, the firm's owners or shareholders, acting as the principal (perhaps through the board of directors), hire the chief executive officer (or, more broadly, the top-management group) to act as their agent in managing the firm in their best interests. In the second principal-agent arrangement, the firm's top-management group acts as the principal and hires division managers as agents to manage the decentralized units of the organization.

Managers work to maximize the compensation they earn for their participation in the organization. But they incur personal costs as they devote their time, knowledge, and effort to the firm. Therefore, agency theory assumes that agents seek to balance the return from, and cost of, their efforts. Moreover, agency theory assumes that agents bear no moral burdens. Therefore, they are perfectly willing, given the opportunity, to renege on pledges that they make during contract negotiations about the level of effort, skill, and knowledge that they will provide the firm. This characteristic, combined with the principal's inability to monitor exactly what the agent is putting into the firm, creates what the agency literature calls the **moral hazard problem** and the need to monitor the agent's actions.

For example, the agency model argues that if only a straight salary compensates the top executives of the company, they may not be motivated to take actions that maximize the value of the firm to the shareholders. They may overconsume nonpecuniary items such as leisure, attractive working conditions, and company perquisites or will not invest sufficient time and effort to increase shareholder wealth. If the ownership group knew what actions were optimal for the firm and could costlessly observe the actions of the top managers, they could direct the managers to implement these optimal actions with the threat of withholding compensation if these actions were not carried out effectively and efficiently. But because a dispersed ownership group will probably have inadequate information and will find monitoring costly, the owners are unlikely to either know what the optimal decisions should be or whether the agent has acted in the principal's best interests.

Therefore, to encourage the top executives to take actions that are in the firm's best interests, the owners introduce an incentive compensation plan that enables the top executives to share in the firm's increased wealth or, more generally, to receive rewards designed to align the agent's interests with the principal's. These plans can take the form of stock options or bonuses based on reported performance.

Incentive compensation plans are designed to create a commonality of interest between the principal (owners) and the agents (managers). But because of differences in risk attitudes, the existence of private information (managers' knowing more than the owners about the environment and their actions), and limited or costly observability, some divergence of interest will always exist between the principal and the agents, creating a phenomenon called **agency cost**. The principal attempts to limit agency cost by establishing appropriate incentives for the agents and by incurring monitoring costs designed to limit actions that increase the agents' welfare at the expense of the principal.

Audited financial statements are an excellent example of a costly monitor of managerial behavior. They generate an accountability report from the agent (managers) to the principal (shareholders and creditors). Even with costly incentive and monitoring arrangements, however, the agents' decisions will still diverge from those that would maximize the principal's welfare. For example, audited financial statements provide a less-than-complete summary of the manager's decisions and actions. Thus, agency costs in the owner-manager relationship are the sum of the costs of the incentive compensation plan, the costs of monitoring the managers' actions, and the remaining costs of actions taken by managers that diverge from the preferences of the owners.

To see how agency costs affect the compensation management of top executives, let us informally trace through a simple scenario. We have already noted that because of the

private information of managers and costly observation of managers' actions, owners may provide an incentive compensation scheme for the top executives. One obvious incentive scheme is to provide managers with a stock option or stock bonus plan, since actions that the managers take to increase stock prices should benefit the owners in a direct and obvious manner. Although certainly popular, this incentive scheme is not used by all companies with publicly traded stock.

What factors limit the desirability of stock ownership plans for top executives? First, risk aversion problems arise. The highly paid top executives of the firm already have most of their wealth, in the form of human capital (measured by the discounted present value of their expected compensation), directly tied to the firm's well-being. If the firm were to do poorly, their managerial reputations would suffer, limiting their outside job offers and slowing the rate of compensation increases within the firm. If a significant part of managers' compensation were invested in shares of the firm's stock, the managers could suffer a significant decline in their financial wealth at the same time that bad outcomes were affecting their human-capital wealth.

To avoid this situation, the executives would tend to avoid risky investments and risky decisions, even those with high expected returns, because risk aversion causes them to demand a risk premium and consequently value the potential gains far less than they fear the penalties from possible losses.[6] Therefore, stock ownership by top executives reinforces risk-avoiding behavior: avoidance of risks that the owners would prefer the executives take. The owners are less risk-averse because (1) their human capital may be independent of the firm's outcomes, and (2) they can diversify their wealth through ownership of many different firms and have only a small portion of their wealth at risk in any given investment. Therefore, owners may be risk-neutral in the small but, like the manager, risk-averse when faced with large gambles. Firm managers already have more of their wealth (in the form of nondiversifiable and nontradeable human capital) tied up in the firm than they would probably prefer. Additional stock ownership in the same firm increases their firm-specific risk even further. Michael Jensen summarized this problem: "The problem we are stuck with is one of achieving the proper balance between linking managements' interests with stockholder interests by making them bear a lot of market risk, and at the same time, insulating them from some of that risk."[7]

A second problem with executive stock ownership arises from the lack of a direct causal relationship between executive actions and stock market performance. Noncontrollable random events, such as general business conditions, competitors' actions, government actions, unexpected material, energy, or labor shortages, and international developments, may overwhelm the best (or worst) efforts of management. If the stock price unexpectedly rises because of these noncontrollable events, creating a general bull market, the executives obtain a windfall gain at the expense of the original set of owners. Conversely, if the stock price plunges, the executives suffer a significant loss in expected income or wealth. The uncertainty of the stock market introduces an additional component of noncontrollable risk into the executives' compensation schedule and does not provide reliable feedback on the quality of decisions and extent of effort exerted by these executives.[8]

In an attempt to obtain a performance measure more sensitive than stock prices to executive actions, owners may develop a measure based on an internal evaluation of the economic well-being of the firm. The stock market provides one estimate of the economic value of the firm's assets, but it has the problems described above. Appraising the value of

the firm's assets provides another estimate, but this measure may be very costly to obtain each year and can be a source of controversy because of its subjectivity. An incentive contract could, however, be based on data that are already prepared and audited for external parties, namely, the historical-cost-based financial statements. Performance goals can be set on the basis of earnings per share or return on shareholders' investment. These figures are more under management's control than are stock prices and, at least in the long run, should be correlated with the economic welfare of the firm. In fact, many incentive compensation plans do depend directly on earnings per share (EPS) and accounting return on equity (ROE).

The accounting-based measures for executive compensation, however, introduce problems of their own because of the imperfect association between accounting income and the long-run economic well-being of the firm. Executives can take many actions that increase reported income—and hence increase their income from incentive compensation plans—but decrease the firm's value. For example, managers of U.S. corporations may choose to remain on FIFO (first in–first out) for inventory valuation rather than switch to LIFO (last in–first out). For most companies, LIFO decreases the present value of cash paid in taxes (and therefore increases the present value of the cash flows to the firm) but reports lower income in the short run and hence lower earnings-based performance measures.

Executives have many other opportunities to increase reported earnings by means of actions that do not benefit the firm and that may, in some cases, actually decrease the value of the firm. These actions include

1. Producing goods in excess of demand in order to absorb fixed costs into inventory and thereby increase reported income in the current period
2. Repurchasing debt or preferred stock selling at a discount
3. Switching to straight-line depreciation or the flow-through method for the investment credit for financial reporting
4. Purchasing other companies under terms that permit use of the pooling-of-interests method
5. Selling off assets whose market value is well in excess of book value
6. Increasing the leverage of the firm by issuing debt and acquiring assets whose returns exceed the after-tax debt cost but are below the risk-adjusted cost of capital

Conversely, executives could decline investments that would increase the long-run value of the firm but penalize short-run earnings. For example, profitable capital investments with heavy initial startup costs might not be undertaken, and research and development expenditures could be underfunded because of the longer-term risky nature of the rewards from such expenditures. Also factors such as new mandated accounting procedures that affect reported income will be viewed skeptically by executives rewarded under an earnings-based incentive scheme.

Thus, accounting-based performance measures may be preferable to stock incentives because they are related to activities that are more under the control of top executives. On the downside, however, such plans may be too controllable by executives who can manipulate the measures in ways that are detrimental to the owners. The board of directors must approve virtually all the actions that could increase an accounting-based performance measure without increasing the economic value of the firm, and the board can,

in principle, play an important role in reducing the agency cost of the contractual relationship between owners and managers. For example, the board could define earnings for computation of executive bonuses to exclude expenditures on long-term intangibles (R&D, maintenance, quality control, personnel development) so that executives would not be motivated to underinvest in these important areas. Similarly, the board could undo accounting policies that increase reported income but do not benefit the company directly (holding gains reported under FIFO, flow-through of the investment tax credit, unadjusted historical cost, straight-line depreciation). In this way, more of the managers' reward would be related to actions that increase the long-run profitability of the firm. Such practices, although theoretically possible, do not seem common.[9] Apparently, directors are not comfortable rewarding managers on one income figure while reporting quite a different number to shareholders and creditors. Moreover, there is widespread evidence that the compensation committees of some, or even many, organizations are not independent and often act in the best interests of management at the expense of shareholders.

IMPORTANT ATTRIBUTES OF COMPENSATION SYSTEMS

At their root, incentive compensation systems are designed to align the interest of owners and managers. To be effective, managers must have a clear understanding of:

1. The measured performance variables for their job
2. How their behavior affects the measured performance variables
3. How the measured performance variables translate into individual rewards

If managers do not have a clear image of this causal process, the incentive compensation system will lose its ability to motivate or influence decision-making behavior. Clearly, the management accountant is at the center of the process in terms of choosing the measured performance variable, designing the system that will measure performance, analyzing the results, and reporting results. The results then become the input into the mechanism that relates measured performance to the reward given to the employee. This sequence describes the causal chain shown in Exhibit 13-1, which relates individual performance to rewards and therefore provides the motivating potential of rewards.

Note the pivotal role played by the results, or performance measurement; this provides the link between individual motivation and the organization's goals. These results, or performance measures, must be chosen so that when individual decision makers pursue these results they move the organization toward achieving its objectives. Therefore, these performance measures must be rich enough to capture how the individual job contributes to the organization's objectives. Attributes of the job that are ignored by the performance measure will either be ignored or deemed unimportant by the individual.

For example, if an employee is told that getting the work done on time is all that matters and conformance to schedule is the only performance measurement, then other job attributes such as cost control and quality will be either ignored or sacrificed to achieve the measured objective. This example reflects the old performance measurement adage "What gets measured is what gets done." The performance measurement system sends powerful signals to the employee about what is important in the job. Therefore, the management accountant, who is usually a central figure in designing these performance

measurement systems must have a clear understanding of both the organization's objectives and strategies and the individual's role in the organization when designing these systems.

Although clarity and understanding reflect the important technical characteristics of the performance measurement system required to ensure that decision makers understand the casual chain between performance and rewards, there are important behavioral considerations that the performance measurement system must reflect. First, and above all, the individual must believe that the system is fair. For example measuring and rewarding performance that the individual does not believe she controls will reduce or eliminate the motivational potential of a performance measurement system. Developing standards of performance that the individual feels are extremely difficult or impossible to meet will similarly inhibit the motivational potential of incentive compensation. The bottom line is that the employee must believe that she can legitimately influence the performance measures that are linked to her rewards. Absent this belief, the motivational potential of incentive compensation will be lost.

Second, the individual must believe that the organization's compensation policies are equitable. For example, rewarding senior executives with multimillion dollar bonuses while rewarding assembly-line workers with bonuses with a maximum potential of several hundred dollars will create an environment or culture in the organization that only senior organization members are valued by the organization. In such an environment, motivational systems that might otherwise do well become ineffectual.

Third, the incentive system should provide rewards on a timely basis to reinforce the relationship between decision making, measured performance, and the rewards. As time passes, the link in the decision maker's mind between activities and rewards fades, but prompt rewards can reinforce the decision maker's understanding about activities and rewards.

Role for Bonus and Incentive Contracts

Arch Patton argues that the following conditions are ideal for the use of an incentive system:[10]

1. Profits are affected by numerous short-term decisions.
2. The managers have the authority to make the decisions (this is most characteristic of decentralized firms organized on a product-line basis).
3. The control system is well defined, and performance is evaluated on a systematic basis, either by comparison with a plan or by comparison with the performance of similar firms.
4. The managers are expected to be entrepreneurial and ambitious.

On the other hand, Patton argues that firms with the following characteristics are poor candidates for the application of executive incentive plans:

1. Profits are most affected by a few long-term decisions.
2. The company is organized on a functional basis (say by marketing, production, accounting, and finance).
3. Budgets are difficult to develop, or data do not exist about competitors, to judge the adequacy of managerial performance.
4. Decision making need not be rapid or responsive.

In the organization behavior literature, a line of research called **equity theory** appears to support the notion that individual performance-based compensation is both widely accepted and promoted in Western cultures.[11] G. S. Leventhal, J. W. Michaels, and C. Sanford summarized the results of this theory, as of 1972:

> Equity theory . . . suggests that individuals are motivated to allocate rewards in accordance with recipients' inputs or work contributions. This assumption is supported by results from studies on reward allocation in task-oriented groups. When members [provide] equal inputs, an individual member usually attempts to bring about an equal division of reward between himself and his co-worker. . . . And when members of a group have unequal inputs, an individual member allocates rewards in accordance with perceived work contributions. . . . It has also been shown that allocators distribute rewards in accordance with work inputs when they themselves are not members of the group of recipients among whom the rewards are distributed.[12]

The tendency to allocate rewards based on performance is mitigated by many factors, including whether the person allocating the rewards must make the allocation decision public. In general, equity theory supports the contention that an individual's reward should reflect that person's contribution to the organization. On the other hand, Paul Lawrence and Jay Lorsch argue that people who play an integrative role in organizations should be rewarded based on overall performance.[13] Lawrence and Lorsch conclude that

> rewards systems . . . can help induce either the "you do your job, and I'll do mine" attitude or the "let's pull together" attitude. Each can be suitable under certain conditions. Reward systems should be designed with these conditions more clearly in mind.

This line of reasoning would imply that people at senior levels of the organization who perform integrative tasks should be rewarded on the basis of corporate performance, whereas people who are not engaged in integrative tasks should be rewarded on the basis of individual performance.

For example, a survey of compensation practice[14] reported the following average distribution of the total compensation of chief executive officers in large corporations:

Salary	21%
Short-term incentives	27%
Long-term incentives	16%
Stock-based pay	36%

Thus, 79% of the total compensation of the executives was performance-related and, therefore, at risk, and 52% of this performance-related compensation was in the form of long-term incentives. The article also pointed out that the fraction of executive compensation at risk declined for lower-level executives. For example, the average percent of fixed pay for other senior executives was

Chief operating officer	23%
Chief financial officer	26%
Chief counsel	31%
Head MIS area	41%
Head auditing area	49%

Such plans put more of a person's compensation at risk and tie long-term compensation to the achievement of strategic goals. The bonus percentage in total compensation was highest in the energy and wholesale retail trade industries and lowest in the public utility and construction industries. This pattern is consistent with our prediction that the more volatile the industry, the greater the motivation potential for performance-based compensation schemes.

Types of Incentives

Executive compensation schemes can be characterized along several dimensions:

1. **Immediate versus long term:** Awards can be immediate (usually in the form of cash or equity awards based on current performance) or long-term (usually in the form of stock options whose value is tied to the long-run performance of the company's common equity or shares that must be held for an extended number of years before redemption).
2. **Cash versus equity:** Awards can be in the form of cash or in the form of equity (shares, stock options, phantom shares, and performance shares). Although both cash and equity rewards can be tied to short-term or long-term performance, cash awards are usually tied to short-term profit performance, and equity awards are usually tied to long-term price performance of the firm's common equity.
3. **Monetary versus nonmonetary:** Awards can be either cash or near-cash (equity) or perquisites and other nonmonetary entitlements. Perquisites take many forms. As reported by surveys of practice, the most common perquisites include vacation trips, executive parking privileges, use of a company car, life insurance, corporate loans at preferred rates of interest, club memberships, and specialized health care insurance packages. In some cases, the perquisite is provided because of the position held. In other cases, the perquisite is awarded based on an informal performance assessment. The granting of some perquisites, particularly vacation trips, may be tied directly to formal performance measurements, often in the form of a contest. The other nonmonetary awards include formal recognition in the form of a citation or a trophy, informal recognition in the form of social invitations from more-senior executives, and participation in personnel development programs that are reserved for executives being groomed for senior management. Superiors often base these awards on informal performance assessments.

In this chapter, we concentrate on the cash and equity types of incentives. This emphasis does not imply that the perquisite and other nonmonetary forms are unimportant. It merely reflects the greater availability of information on cash and equity incentive plans.

Specific Forms Assumed by Monetary Compensation Plans

We consider the following forms of monetary compensation plans:[15]

1. Cash bonus or profit sharing and the stock bonus
2. Deferred compensation
3. Stock options
4. Performance shares or units
5. Stock appreciation rights
6. Participating units

Cash or Stock Awards

Current bonuses, in either cash or stock, are awarded at the end of an accounting period. Corporate profit and individual performance are the most common bases used to deter-

mine the amounts of the bonuses. These awards reward executives for performance during the bonus period, which usually is one year. Therefore, these awards for short-run performance do not avoid the danger of promoting a preoccupation with short-run results that often is detrimental to the long-run interests of the firm. The short-run performance measure is usually a financial measure, such as profit or cost, but it could be a nonfinancial measure such as quality or on-time delivery. When the performance measure is nonfinancial it is usually chosen because it is felt to be a driver of long-term financial performance that is controllable by the person being rewarded.

Typical formulas (to be discussed later in more detail) are a fixed percentage of corporate profits or a percentage of profits in excess of a specified return on stockholders' equity. A hybrid type of reward is profit sharing, in which the rewards are used to purchase stock, which is then held in the recipient's name.

Current bonuses are equivalent to salaries in their tax consequences to the firm and its executives. But bonuses may be cut or eliminated during a year of poor economic performance, whereas salaries are rarely cut. A stock award creates a close affinity of interests between the top-management group and the shareholders. A disadvantage is that the executive will need to find cash or financing to pay taxes on the stock award if the shares are not sold immediately. Also, significant stock ownership by managers may lead to risk-averse behavior, as mentioned in our principal-agent discussion.

Profit-sharing plans are widely regarded as poor motivators for two reasons. First, beneficiaries of the plans almost never see a clear relationship between their effort and group performance and their effort and their individual rewards. Second, because there is no attempt to measure individual performance, there is an incentive for group members to free-ride on the efforts of others.

Another form of cash bonus is a system that provides awards based on of the organization's computed economic value added—an accounting-based evaluation tool discussed in Chapter 10. In fact, Stern and Stewart, the developers of economic value added, stress, above all, the motivational effects of tying executive rewards to economic value added.

On the surface, rewarding executives based on reported economic value added would seem like another scheme that rewards short-run performance. However, studies have found that economic value added is more highly correlated with stock prices than is accounting income—suggesting that the adjustments made to accounting income to correct its conservative bias may help in turning a short-run profit measure (GAAP profit) into a longer-run measure of performance (economic value added).

Deferred Bonus and Compensation

Deferred compensation refers to any type of award, cash or stock, that is deferred until a future period. Deferred stock-compensation plans are often supplemented by restrictions that prevent the manager from selling the stock or that specify that the firm's contributions to the purchase price of the stock will not vest for some specified period of time, thus attempting to tie the manager to the firm.

In some companies, bonuses are not paid until the executive retires so that the executive will receive the income when in a lower tax bracket. As long as the deferred compensation is unfunded and based solely on the unsecured credit of the employer, current taxes can be avoided. The overall tax benefit of deferred compensation to the company

and the executive combined is worthwhile only if the executive's original tax bracket on interest income exceeds the corporate tax rate.

Some plans defer the bonus over a period of three to five years after it is earned. Receipt is contingent on the employee's continuing to work for the company and continued strong organization performance. Referred to as **golden handcuffs,** these plans make it expensive for key executives to leave a company. These plans are especially useful in high-technology companies that attempt to minimize the loss of key executives to rivals.

Stock Options

A stock option gives executives the right to purchase company stock at a future date, at a price established when the option was granted. Stock options are intended to motivate the executive to work hard to do things that investors value so that they will bid up the price of the stock, enhancing the value of the stock option. For incentive and tax reasons, the option price should be higher than the current price. However, there is evidence[16] that most stock options are issued in the money; that is, with an option price less than the existing market price. Moreover, reports of practice published in various business periodicals and reports filed by companies with the Securities and Exchange Commission suggest that many organizations will adjust the option price downward if the company's share price falls after the option was issued.[17] This behavior, along with the value and dilutive effect of the stock options, has created a storm of controversy about executive compensation.

With stock options, executives are presumed to attempt to influence long-term stock price performance rather than short-term profits. Of perhaps greater importance is that an option has no downside loss (since the executive does not actually own the stock) and unlimited upside potential. Therefore, executives may be encouraged to reduce the risk-averse behavior that would otherwise accompany their ownership of stock and to undertake riskier projects with higher payoffs.

Although most compensation experts believe that stock options are an effective motivational tool, stock options have a disadvantage in that events not directly under managerial control may strongly influence share prices. During the mid-1990s critics of executive compensation, in general, and stock options, in particular, complained that a strong bull market, wherein the prices of all securities were rising because of general economic conditions, provided lavish rewards to executives in many companies whose performance was mediocre or even poor relative to similar organizations. This view suggests an important role for management accountants: namely, to develop indices or perhaps even contribute insight to the development of derivative securities so that executives can be rewarded relative to the performance of comparable organizations, thereby eliminating the effect of general market movements on the value of compensation through stock options. Moreover, stock options can be very expensive. Estimates are that stock options, if fully exercised, would, for the average company, dilute profits by 5%, or about $70 million per year.

Performance Shares

A performance share awards company stock (the share) for achieving a specified, usually long-term, performance target. The most common target is to achieve a growth in earnings per share over a three- to five-year period. A typical range for cumulative earnings

per share (EPS) growth is between 9% and 15% per year. Executives generally receive no additional reward for exceeding the EPS growth and may receive a fraction of the rewarded shares if the objectives are partially met. Performance share awards suffer from the same limitations as stock options: the imposition of risk on the manager and the influence of factors beyond the manager's control on the amount of the award. Performance shares also are subject to the problems of basing awards on accounting measures that may promote decisions that improve the measured accounting performance rather than necessarily improving the economic worth of the firm.

Performance share plans can be quite complex and reflect the strategic and long-run considerations of strategic performance measurement schemes such as the Balanced Scorecard. For example, in one company that manufactured components used in the electronics industry:

1. Performance on six attributes of performance was measured. These attributes were (a) quality (measured by reported product failures), (b) timeliness of production (measured by comparing scheduled completion times with actual completion times), (c) cost control (measured by flexible budget variances), (d) sales growth, (e) profitability (measured by reported corporate profits), and (f) employee morale (measured by absenteeism).
2. Rewards were based on (a) the ability to meet annual targets and (b) the relative improvement of performance over a three-year period. Targets were set based on discussions between subordinates and their superiors. These discussions were related not only to the choice of the standards but also to the appropriateness and controllability of the attributes being measured.
3. Rewards were made annually and based on performance over the previous three-year period.

Stock Appreciation Rights and Phantom Stock

Stock appreciation rights (SAR) are deferred cash payments based on the increase of the stock price from the time of award to the time of payment. SARs are frequently used in conjunction with stock option plans to provide a means for executives to purchase stock earned under stock option plans. Phantom stock plans are awards in units of number of shares of stock. After qualifying for receipt of the vested units, the executive receives in cash the number of units multiplied by the current market price of the stock. Both SARs and phantom stock are essentially deferred cash bonuses but with the value of the bonus a function of the future stock price. Thus, they have both the strengths and the weaknesses that result when compensation is a function of share price.

Participating Units

Participating unit plans are similar to SARs except that payment is keyed to operating results rather than to stock price. Commonly used operating measures include pretax income, return on investment, sales and backlog, or a combination of these. The units awarded can vary continuously with the measure of operating results. Participating units are most useful for an organization with little or no publicly traded stock or for a specialized division whose fortunes are not closely linked to overall company results. Participating units permit the greatest flexibility in relating executive incentives to long-term performance measures internal to the organization. The measures are not affected by stock market fluctuations and therefore reduce some noncontrollable uncertainty in the execu-

tive's compensation function. The measures, however, suffer from a disadvantage because of the divergence of interests created between executives and shareholders. Participating unit plans require a careful and operational specification of the long-term operating results desired for the firm and the way in which incentive compensation will vary with partial or complete attainment of those operating results.

Evaluating Accounting-Based Incentive Compensation Schemes

Within the broad framework of incentive schemes, ranging from the annual cash bonus to more recent and sophisticated schemes such as performance shares, many crucial design issues can determine whether the incentive plan provides the appropriate motivation at minimum cost to the firm's owners. The two most crucial questions are (1) how the total size of the bonus pool is determined each year and (2) how the bonus pool is allocated to the corporate and divisional executives.

Establishing the Size of the Bonus Pool

In choosing the magnitude of the bonus pool, compensation specialists must decide what items to exclude and what items to include in defining the pool. The ideal would be to have a performance measure defined for each individual that reflects that individual's personal contribution to the organization and makes allowances for the positive or negative factors in the environment that were beyond the executive's control and might affect the performance measure. Unfortunately, it is generally impossible to measure the contribution each individual makes to the organization, and it is equally difficult to make the performance measure totally independent of the factors over which the executive has no control. For example, how can one evaluate the contribution of an individual violinist to the overall sound and performance of a symphony orchestra? As a compromise, some organizations assess individual performance by comparing actual results against targeted or budgeted results. For example, a production manager might be evaluated using a weighted performance rating or score based on her ability to meet production deadlines, quality goals, and cost control. Then rewards from the pool would be distributed using the individual performance scores.

We must often use less than perfect motivational devices that sometimes reward or penalize managers for factors that were beyond their control and that reflect joint, rather than individual, contributions to the organization. The simplest rule for determining the magnitude of executive bonuses is to compute the bonus pool as a fixed percentage of the profit earned by the organization. Some firms, however, determine the amount of the available bonus pool by performance relative to plan, irrespective of the absolute level of profits. The rationale for making awards, even at low or negative levels of corporate profits, is to retain executives in a severely depressed firm.

Profits, as a measure of performance, are closely related to the goals of the owners of the organization, are verified by an independent third party, and are well understood by the organization members. The most basic system defines the bonus pool as a percentage of reported profits, such as 15%. This rule, however, will award bonuses even with very low profits when the firm is earning a low return on invested capital. Variations on this basic system include a residual income concept wherein the bonus pool is activated only when the owners have received some predetermined return on investment (which raises

the problem of defining the amount of the investment). In addition, maximum dollar limits, based on dividend payments, are often placed on the size of the bonus pool.

A fairly common procedure is to compute the bonus pool as a percentage of profits after a prespecified return on invested capital or shareholders' equity has been earned. For example, one firm described how the amount in its profit-sharing plan for officers and key personnel was determined each year:

> Under the present formula of the Plan, the company's consolidated net income after tax (adjusted) for any year must exceed 5% of the average amount of the consolidated book value of its capital stock before any amount becomes available for distribution to participants. Ten percent of the excess of adjusted net income [is distributed, subject to the approval and discretion of outside members of the board of directors in cash and stock].

Another company's incentive plan for its key employees indicated:

> There shall be credited to the incentive fund an amount not to exceed 5% of the company's total income before any provision for incentive payments, interest, income taxes and extraordinary items, after deducting 13% of invested capital.

And Alfred Sloan's favorite, the General Motors bonus plan:

> The Corporation maintains a reserve for purpose of the Bonus Plan to which may be credited each year an amount which the independent public accountants of the corporation determine to be 8% of the net earnings which exceed 7% but not 15% of net capital, plus 5% of the net earnings which exceed 15% of net income, but not in excess of the amount paid out as dividends on the common stock during the year.

A variety of issues arise in these formulas. First is the definition of the investment base: shareholders' equity or invested capital (generally computed as shareholders' equity plus long-term debt). The use of shareholders' equity provides an incentive to increase leverage as long as the net cash flows from the asset acquired exceed the after-tax borrowing cost plus straight-line depreciation. By including long-term debt in the investment base, we eliminate the bias to increase debt. A more comprehensive approach might include all interest-bearing debt, short and long term, in invested capital.

A second problem arises if only shareholders' equity is used for computing bonus payments. Several years of losses may reduce the shareholders' equity to a low level and make future bonuses very easy to earn, even though total return on assets is still not at highly profitable levels.

As an aside, it is interesting to speculate whether one of the forces giving rise to occasional big baths in earnings is related to incentive compensation schemes. Under the big-bath approach, disappointing (or even negative) earnings cause the company managers to write off a variety of dubious assets on the balance sheet so that bad news in a single year can be concentrated (who cares how negative a price-earnings ratio gets?) to clean up the books for future profitability. Such an action becomes easy to explain if the managers reason as follows:

1. With earnings this low, we're not going to earn a bonus this year anyway. Let's clean off these accruals so that we won't have to keep amortizing them against earnings in future years.
2. A good healthy loss reduces shareholders' equity and will make future bonuses a little easier to earn and a little larger.

A third and more serious problem with the use of shareholders' equity, either by itself or as part of total invested capital, is the failure to adjust for price-level changes. Shareholders' equity represents the capital contributed each year in the firm's history through retained earnings and sales of stock. This capital has been contributed at dramatically different price levels, yet it is added together as if it had all been contributed in the most recent year. For many companies, a simple price-level adjustment on shareholders' equity would probably completely eliminate what had been a lucrative bonus and incentive payment. The failure to restate shareholders' equity for price-level changes makes the bonus pool larger than it should be, if the goal is to reward the earning of income in excess of a specified return on invested capital.

A third method for establishing the bonus pool (in addition to a fixed percentage of profits or a percentage of income in excess of a specified return on invested capital) would base performance on profit improvement. With this procedure, bonuses would be awarded for annual increases in profits. Apart from increases in profits caused by accounting manipulations, as we discussed earlier in considering the principal-agent relationship, this procedure may reward or penalize executives for events beyond their control. General business conditions or specific industry factors could cause earnings to expand or contract for reasons not controllable by company executives. The result might be windfall gains or losses for these executives in their incentive plans.

The impact of uncontrollable factors could be reduced by comparing a company's performance with that of other firms in the same industry.[18] In this way, the executives of a company whose earnings increased 15% while the industry average earnings increased 25% would not be rewarded for a good absolute but weak relative performance. The following excerpt from a *Wall Street Journal* article raises this point:

> All for one and one for all. That theme has traditionally determined how many executives receive incentive rewards. When the whole company does well, the executive does well; when the company flops, so does the incentive pay. But many companies are starting to break from that tradition. They are now tailoring incentive plans to the performance of an executive's division or business unit over a three- to five-year period. The goal is to motivate executives and to reward them more fairly when their unit performs well—regardless of corporate results.[19]

The article provides two quotations from directors of corporate compensation plans to reinforce the need to assess individual contributions as well as to identify the specific contributions expected from each business unit:

> "If you want incentive pay to change behavior, a manager has got to believe he has some control over what is being measured." John Hillers, Director of Corporate Compensation, Honeywell Inc.
>
> "[The divisional compensation plan] ties our compensation in with the business unit strategy and helps focus the executive on what is important for that unit." Wallace Nichols, Director of Compensation, Premark International Inc.

The article recognizes the problems created by basing rewards on local measures of performance, which include the following:

1. In firms with highly interrelated business units, many problems will arise from attempting to allocate joint revenues (the transfer-pricing problem) and joint costs. Moreover, in

highly interrelated firms, a fiction may be created that the business units are separate economic units that can operate independently of each other. Measuring individual performance may create interdivisional competition and conflict that may discourage these business units from coordinating their activities.

2. Goal setting will be difficult because of the specialized nature of the tasks of each business unit as well as the need to understand the potential of each unit.
3. The use of long-term measures of performance would effectively end the practice of rotating managers among the various business units.

Awards based on overall corporate, rather than divisional, performance would seem to work best for dominant-product firms: that is, vertically integrated firms producing a single major product (such as automobiles, tires, or steel) and in which a high degree of interaction or coordination among divisions is required for the firm to function effectively. Awards based on divisional performance seem most appropriate when the firm is highly decentralized with little interaction among its divisions, which are organized as profit or investment centers. For example, firms that can be characterized as conglomerates, venture capitalists, or holding companies for diverse operating units can use incentive plans based primarily on divisional performance. For firms somewhere in the middle of the continuum between dominant-product and highly diversified firms, a combination of corporate and divisional performance may provide the right mixture of incentives for optimizing local performance while still looking out for overall corporate goals.

Finally, one can always attempt to evaluate managerial performance against a profit plan or budget and avoid all the problems that arise when using mechanical formulas for profitability. If the board of directors could obtain forecasts that truly represented what profits were achievable, given (1) anticipated business conditions, (2) high-quality managerial decision making, and (3) the best administrative efforts of the managers, then achievement of the profit plan would provide an excellent basis for incentive compensation. The problem, of course, with any incentive plan based on budgeted performance is to obtain information that is not biased or distorted in order to influence the ease of achieving the targeted plan.

Allocating the Bonus Pool to Managers

Once the size of the bonus pool is defined, the next issue is to determine how to distribute the bonus pool to the members of the organization who are entitled to share in the bonus pool. The most basic distribution rule makes the share proportional to salary. In this system, a person's share equals the ratio of that person's salary to the total salaries of all the people entitled to share in the pool. Although this system is easy to implement, it is very crude. First, it assumes that a person's merit is proportional to that person's salary. This assumption is tenuous at best. Second, the scheme introduces a **free-rider** problem by providing bonuses for everyone who is entitled to share in the bonus pool, irrespective of whether that person did a good job or not. Some people may free-ride (relax, or shirk responsibility) and rely on the hard work of others to provide a big bonus pool. The people who have relaxed then participate in the division of the pool along with the diligent workers. Carried to an extreme, the system falls apart as everyone shirks, waiting for someone else to do the work, and nothing gets done. That is why many companies base bonuses on individual performance, such as the performance of the manager's division. But recall Sloan's admonition that basing rewards on individual performance inevitably causes man-

agers to focus on local responsibility unit initiatives in ways that are detrimental to the overall organization. Also, many Japanese companies reward group performance so that everyone takes responsibility for the successes and failures of the entire organization. These group reward systems must include some formal or informal monitoring mechanisms to mitigate the free-rider problem.[20]

An alternative to basing the bonus pool distribution on salary is to award bonuses as a function of (1) the importance of the job that the person does and (2) the success that the person has in carrying out assigned tasks. This type of system requires that each individual's role in the organization be clearly defined and understood:

1. The content of a person's job is agreed to by both the person and the supervisor.
2. The individual develops performance targets for the job.
3. The individual and the superior discuss the performance targets, and a target is agreed upon.
4. A control system is established to monitor progress toward achieving the target.
5. The superior and the subordinate meet at the end of the period to discuss the results and the relationship of the results to the target.

For example, the performance review system used by Lee Iacocca at Ford and Chrysler required that, each quarter, superiors ask subordinates to specify their goals, priorities, and the manner in which they will seek their goals.

With this scheme, step 1 would be the point at which the importance of the job would be defined, and this would determine the potential bonus points that the individual could earn. Step 5 would determine whether all, some, or none of the potential bonus points defined in step 1 would be awarded. Although the approach seems sound, it appears to be seldom used. Perhaps the considerable effort required to operate and maintain the system makes it impractical.

In general, the bonus system will be more effective as an incentive and reward if top management and the board of directors review the bonus allocation. This review enables the bonus award to also be a function of longer-range, less-quantifiable performance criteria and thereby relieves the pressure on exclusive use of a short-term accounting-based measure of performance. The board of directors is in the best position to tie incentive payments to the establishment and implementation of plans for long-term profitability. Review by the board also permits an evaluation of relative performance, comparing results with industry performance, when awarding incentive payments.

Short-Term versus Long-Term Performance Measures

A preoccupation with short-run performance may seriously damage the future potential of the firm. Classical examples of short-run suboptimization include curtailing discretionary cost expenditures, such as research and development, maintenance, and personnel development. Alfred Rappaport pointed out the myopia of most compensation plans.[21] Rappaport argued that incentive plans should be linked to the achievement of the long-run goals of the organization. Incentives should be paid for performance over several years rather than for just one year. Whether it is practical to devise incentive schemes that are tied to longer-run strategic factors, rather than shorter-run performance factors, is an open issue. Moreover, it may be difficult to measure an executive's performance over several years if the executive is constantly changing jobs within the company.

McDonald's evaluates its store managers based on performance in the following areas:

- Product quality
- Service
- Cleanliness
- Sales volume
- Personnel training
- Cost control

The manager's performance on each of these factors is measured and is then evaluated relative to targets that have been set by the manager and the manager's supervisor. Obviously, each of these factors will affect long-run profits. Evidently, the senior management at McDonald's feels it important to evaluate these key success variables in the short run. Moreover, focusing on these key success factors, rather than on short-run profits, identifies these factors as the key influences on long-run profitability.

Are Chief Executives Overpaid?

The late spring of each year, after companies have released details of executive compensation in their annual reports and 10-K filings, sees a torrent of editorial comments and articles about the level and nature of executive pay. These editorials and discussions have promoted numerous debates about whether senior executives, particularly chief executive officers, are overpaid.

There are two broad complaints about the pay of chief executive officers (CEOs). First, people complain that CEO rewards should be more closely tied to organization performance. Second, people complain that CEOs are overpaid both in absolute terms and relative to other organization members.

On average, 79% of CEO compensation is variable with some measure of organization performance. The most common measures of performance for short-term rewards are GAAP income or some adjustment of GAAP income, earnings per share, return on assets or net assets, and economic value added. The most common measure of performance for long-term rewards is share price.

People who complain that CEO compensation is not variable enough argue that the correlation between executive pay and organization performance should be higher. That is, CEOs should get more when their organization does well and suffer more when their organization does poorly. The cause of the low correlation between executive rewards and organization performance seems to result from two factors: (1) Executives rarely are paid negative bonuses when performance is below standard, and (2) there are often caps on how much the executive can share in rewards when performance is above standard.

It would appear that the management accountants, who are invariably involved in designing incentive plans that are based on measured performance, must address this issue and must solve the problem of how to make the executive's pay more related to performance without allowing for the potential of huge losses if performance is bad (which the executive could not pay from personal funds) or for the potential of huge gains if performance is good (which invariably attracts criticism and may affect the motivation of other organization members). Perhaps one solution is for short-term performance rewards

to be put into a fund that would be increased in good years and decreased in bad years and to allow an executive to withdraw only a portion of the accumulated amount in any given year.

The second broad issue relating to CEO pay is the matter of how CEO pay affects the motivation of other organization members. This issue is relevant to the management accountant who is involved in designing and implementing incentive systems for other organization members. There is widespread evidence that huge payouts to CEOs affect the morale and motivation of lower-level management and nonmanagement employees. Surveys suggest that people feel that the pay of the CEO is unfair when compared with the pay of other organization members. These notions of distributional fairness have existed for many years. The Greek philosopher Plato argued that for moral and ethical reasons, in any organization, the highest paid worker should earn no more than five times the pay of the lowest paid worker.[22] A study by Pearl Meyer & Partners Inc. reported that CEOs in 1965 earned 44 times the average production worker's wage. In 1996, the ratio was 212 times.

This phenomenon seems to be most pronounced in the United States. Exhibit 13-2 shows the Canadian Centre for Policy Alternatives report of the ratios of the pay (including salary, bonuses, stock option, etc.) of a typical CEO to that of a typical worker in 1995.

The approach to executive pay in which the CEO earns a huge salary relative to other organization members, including other senior executives, has been called the winner-take-all or **tournament** approach to paying senior executives. Whether this sports-event approach to executive pay has the effect of motivating executives to work hard to aspire to the top job is a question that remains unanswered. But one result is unequivocal; this approach has the potential to alienate workers who have no chance of winning the top job. The potential result of perceived inequity is for these workers to withdraw efforts and to put less effort and dedication into the organization.

Dealing with these issues is the domain of compensation experts, but the management accountant involved in designing compensation plans must be aware of the culture

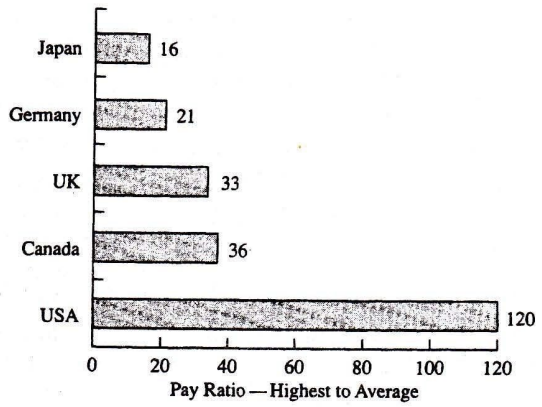


EXHIBIT 13-2 The Wage Gap

Source: Canadian Centre for Policy Alternatives

or climate in the organization that can affect motivation. Because there appears to be little doubt that relative pay can affect the organization's culture or climate, management accountants should be sensitive to the potential motivational effect of relative pay when designing performance measurement systems.

REWARDING OTHER ORGANIZATION MEMBERS

Compensation experts seem to agree that, for organization harmony and motivation reasons, all organization members should participate in incentive compensation plans, although they might not all participate in the same plan. Unfortunately, this seemingly important objective is not widely met in practice. A recent survey[23] suggests that only 13% of employees in mid- to large-sized companies participate in profit-sharing plans, 3% participate in stock ownership plans, and only one-half of one percent participate in stock option plans.

We observed earlier that the scope and focus of an incentive plan should be tailored to the individual's responsibilities in the organization. Therefore, senior executives are usually rewarded on the basis of broad measures of organization performance. Other organization members may be rewarded on the basis of the identified contribution that they make to the organization.

Gainsharing

Among the types of plans for rewarding production line workers is the gainsharing plan. The most common and widely known gainsharing program is the Scanlon plan, developed and first implemented in 1935, which provides for a sharing between the company and employees of labor cost savings associated with productivity improvements over a baseline level.[24] Over the years, the Scanlon plan has prompted variations:

> The Scanlon plan bases bonus payments on changes in the ratio of total payroll costs to the sales value of production. The Rucker plan, a variant of Scanlon, also uses total payroll in its rewards formula, but value added in production is adopted in place of sales value in an effort to discount the effects of changes in material cost and bought-in service and/or the ratios of materials employed in production. Improshare, the most recent of the gainsharing plans, dispenses entirely with economic productivity ratios; instead it bases rewards on changes in the ratio of actual labor hours expended per unit of production standard hours, where the latter reflects the labor hours content of a unit of output in the base period.[25]

More generally, gainsharing involves the sharing of the increased profits resulting from any targeted-level performance. For example, believing that improved quality leads to higher sales and increased profits, some organizations provide for payments to employees based on the estimated effect on profits of increased quality levels.

Gainsharing plans, focusing on labor costs, were widely adopted in the 1930s and 1940s but gradually fell into disfavor during the 1960s.[26] However, when a 1981 U.S. General Accounting Office study[27] estimated that gainsharing plans, on average, resulted in 17% labor cost savings, interest in gainsharing programs revived, and interest continues in using this approach to reduce labor costs. For example, gainsharing was a negotiated solution to a threat by workers at Canadian National Railways to go on strike.

Piecerate Systems

In a piecerate system, a person is paid according to that person's measured production. Piecerate systems were common during the period of the industrial revolution and gradually, during the 1800s and 1900s, were replaced by wage systems. Managers felt that an hourly wage represented a more humane approach to pay, and workers in integrated, process-focused, operations lost their ability to control the pace of their individual output.

Piecerate systems are now infrequent enough to attract attention when they are used. For example, in 1995 Safelite Glass Corporation, an installer of autoglass, changed from a wage to a piecerate system. The workers were guaranteed a minimum wage of $11 per hour but were also offered a piecerate wage that paid them $20 for each unit they installed. The cost of repairing faulty installations was charged back to the location that originally did the work. Because the name of the original installer was known provided a basis for peer pressure on employees who were creating losses. The result was that productivity rose by 20%. The productivity gains were shared equally by the company and the employees.[28]

The best-known user of the piecerate system is Lincoln Electric, a manufacturer of arc-welding equipment and electric motors.[29] Almost all Lincoln Electric's production workers are paid using a piecerate system. The piecerate system is designed so that a worker producing at a reasonable rate will earn a wage equal to comparable jobs in the local job market. Rework is charged back to the originating worker so that there is no incentive to sacrifice quality for speed. The result is worker productivity that is higher than average and pay rates that are two to three times the national average of compensation paid to production workers. In addition, all workers share in a bonus pool, which varies in total from about 50% to 100% of the total wage bill. An individual worker's share in the pool is determined by ratings on four factors of performance: dependability (meaning not missing work), quality, output, and improvement suggestions.

Labor-Related Plans

First widely implemented in the 1930s, labor-related incentive plans focus on labor cost savings. In labor-intensive settings where the workers can control the rate of production and where they have the authority and training to implement changes, labor-related plans share productivity gains between the organization and the worker. These plans have many forms, but the basic idea is the same in all of them. The amount of labor in a given piece of work is identified for a benchmark period. That labor amount becomes the standard against which subsequent work is compared. When the amount of labor for a given level of output is less than the budget based on the target, part of the labor savings (usually between 25% and 50%) goes into a bonus pool. When the amount of labor for a given level of output is more than the budget based on the target, part of the excess cost of labor is deducted from the pool. Each year, part of the pool is paid out to employees. Usually, the total is distributed equally among the employees. Critical attributes of these plans are:

1. How the benchmark standard is determined
2. How and how often the standard is revised
3. The sharing rules—both between the organization and the workers and among the workers
4. The payout rules

These plans continue to be popular because they provide a straightforward and manageable approach to motivation.

Bonus Systems

Bonus systems are the simplest of the incentive plans. In these systems, the employee is paid a bonus, usually a percent of salary but often a fixed amount, for meeting or exceeding a performance target. For example, an employee might be rewarded with a day holiday or a day's wages for completing 500 days of work without an injury. Bonus systems are very targeted and reward specific behavior. Bonus systems focus on short-run and manageable behavior.

SUMMARY

The use of executive incentive plans is widespread. Participation in these plans is usually limited to those employees whose activities have a significant effect on the performance of the firm.

The rewards provided by incentive plans are diverse and include cash, equity in the firm, perquisites, and intangible rewards. Of these rewards, cash, stock options, perquisites, and public recognition of outstanding performance appear to be the most commonly used.

Some people believe that individual performance should be evaluated relative to that person's tasks and assigned goals in the organization. In this approach, performance awards should be based on the individual's performance relative to a plan, with due consideration of the factors over which the individual had no control and that may have affected performance.

Others recommend that rewards should be based on group performance. The disadvantage of group rewards is that distinctive (good or bad) individual performance is not formally recognized, and, if no effective group sanctions exist, group rewards can lead to individual shirking.

Many contemporary incentive schemes also focus exclusively on short-run financial performance. To offset the pursuit of short-run goals, a company should construct incentives so that executives are motivated to pursue long-run objectives or, alternatively, evaluate performance relative to the firm's key success variable.

Incentive plans provide strong motivation for the top corporate executives to perform well along specified measures of performance. Formula-based plans reduce uncertainty and ambiguity about how performance will be evaluated, but devising mechanistic formulas that do not encourage dysfunctional behavior can be difficult. Limitations of accounting-based formulas, such as the failure to control for changes in price levels, can lead to the awarding of large bonuses even when the firm is earning less than a competitive return on capital.

The board of directors, particularly an independent compensation committee consisting solely of outside directors, can play a vital role in offsetting these potential limitations. Such a committee could control for

1. Increases or decreases in profits caused by accounting conventions rather than operating performance
2. Increases in profits caused by the failure to adjust for price-level changes

3. Increases in profits not commensurate with performance of similar companies in the same industry
4. Increases in profits caused by concentration on short-term rather than long-term performance measures
5. Actions that maximize divisional performance measures at the expense of overall corporate welfare

ENDNOTES

1. For a critique of incentive pay see A. Kohn, "Why Incentive Plans Cannot Work," *Harvard Business Review* (September–October 1993). For a discussion of Kohn's views and his response to criticisms, see "Rethinking Rewards; What Role—If Any—Should Incentives lay in the Workplace. *Harvard Business Review* (November–December 1993), pp. 37–45.
2. The General Motors bonus plan is described in A. Sloan, *My Years with General Motors* (New York: Doubleday, 1964), chap. 22.
3. C. D. Ittner, D. F. Larcker, and M. V. Rajan, "The Choice of Performance Measures in Annual Bonus Contracts," *The Accounting Review* (April 1997), pp. 231–55.
4. D. Swinford, "Unbundling Divisional Management Incentives," *Management Review* (July 1987), pp. 35–37.
5. For an excellent summary of the agency literature see J. S. Demski, *Managerial Uses of Accounting Information* (Boston: Kluwer, 1994).
6. The value, or certainty equivalent, of the return is the expected, or acturial value of the gamble less the premium for taking the risk. The risk premium is often approximated in analytical work using the decision maker's personal risk aversion index and the variance of the gamble.
7. M. Jensen, "A Roundtable Discussion of Management Compensation," *Midland Corporate Finance Journal* (Winter, 1985).
8. One approach to mediating the effects of these uncontinuable events is to base rewards on the performance of share price relative to an index of the share prices of competitors.
9. See the evidence in P. Healy, S.-H. Kang, and K. Palepu, "The Effect of Accounting Procedure Changes on CEOs' Cash Salary and Bonus Compensation," *Journal of Accounting and Economics* (April 1987), pp. 7–34.
10. A. Patton, "Why Incentive Plans Fail," *Harvard Business Review* (May–June 1972).
11. A formal statement of this theory and some empirical evidence of its descriptive validity can be found in J. Stacy Adams, "Toward an Understanding of Inequity," *Journal of Abnormal and Social Psychology* (November, Volume 67, No. 5, 1963), pp. 422–36; and J. S. Adams, "Inequity in Social Exchange," in *Advances in Experimental Psychology*, ed. L. Berkowitz (New York: Academic Press, 1965).
12. Gerald S. Leventhal, James W. Michaels, and Charles Sanford, "Inequity and Interpersonal Conflict: Reward Allocation and Secrecy about Reward as Methods of Preventing Conflict," *Journal of Personality and Social Psychology* (July, Volume 23, Number 1, 1972), pp. 88–102.
13. P. L. Lawrence and J. W. Lorsch, *Organization and Environment* (Homewood, IL: Richard D. Irwin, 1969).
14. *Fortune*, March 31, 1997, p. 119.
15. For an extended discussion of these alternative forms of compensation and a collection of field studies illustrating the use of these plans see S. A. Butler and M. W. Maher, *Management Incentive Compensation Plans* (Montvale, NJ: National Association of Accountants, 1986).
16. "Executive Pay," *Business Week* (April 21, 1997).
17. For example, Apple Computer altered the option price for its executives eight times in 12 years in response to a falling stock price that the executives could not improve.
18. See M. W. Maher, "The Use of Relative Performance Evaluation in Organizations," in *Accounting & Management: Field Study Perspectives*, ed. W. J. Bruns Jr., and R. S. Kaplan (Boston: Harvard Business School Press, 1987), pp. 295–315.

19. "Firms Trim Annual Pay Increases and Focus on Long Term," *Wall Street Journal* (April 10, 1987), p. 25.
20. For example, a survey of practice found that 40.5% of respondents used bonuses based on team performance but used individual incentives to determine individual rewards. See J. Sheridan, *Industry Week* (March 4, 1996), p. 63.
21. Alfred Rappaport, "Executive Incentives vs. Corporate Growth," *Harvard Business Review* (July–August 1978), pp. 81–89.
22. For a discussion, see "Inequality," *The Economist* (November 5, 1994), p. 29.
23. S. S. Roach, "The Hollow Ring of the Productivity Revival," *Harvard Business Review* (November–December 1996), pp. 81–90.
24. Well-known and enthusiastic users of the Scanlon plan include Dana Corporation, Donnelly Corporation, and the Herman Miller Company.
25. H. Y. Park, "A Comparative Analysis of Work Incentives in U.S. and Japanese Firms," *Multinational Business Review* (Fall 1996), pp. 59–70.
26. For an interesting discussion of gainsharing plans see W. Imberman, "Is Gainsharing the Wave of the Future?" *Management Accounting (USA)* (November 1995), p. 35.
27. *Productivity Sharing Programs: Can They Contribute Productivity Improvements?* (Washington, D.C.: Government Printing Office, 1981).
28. *Business Week* (February 17, 1997), p. 25.
29. For an interesting description of Lincoln Electric's approach to compensation see K. Chilton, "Lincoln Electric's Incentive System: Can It Be Transferred Overseas?" *Compensation and Benefits Review* (November 1993), p. 21.

■ *PROBLEMS*

13-1 Executive Compensation Plan

The formula at Federal Signal provides bonuses to executives based on the company's pretax profits as a percent of average shareholders' equity plus the average long-term debt.

Required

(1) What is the motivation for basing rewards on this measure?
(2) What are the strengths and weaknesses of this plan?

13-2 Changing the Incentive Plan

In 1996 the CEO at ICF Kaiser faced a bonus plan that required earnings per share of $0.10 or better. After losing a large contract, this target seemed out of reach. However, on the last day of 1996, the company sold its interest in a coal mine, allowing it to meet the performance target and providing a bonus payment of $175,000 to the CEO. The compensation committee of the company's board of directors considered this sale legitimate because the proceeds from the disposition were needed to make a debt repayment and because the company routinely sells off minority investments.

Many compensation experts believe that compensation committees regularly adjust the parameters of incentive plans, or even change compensation plans completely, to allow senior management to earn incentive compensation when committee members believe that the executive compensation is too low. Although there is considerable evidence that compensation committees are willing to boost pay in bad times, there is relatively little evidence that they are prepared to scale back pay when the compensation seems excessive.

Required

What do you think of the practice of a compensation committee's managing the parameters of an incentive compensation plan after the fact in order to provide an executive with a target level of compensation?

13-3 Incentives and Decision Making

HS Custom Woodshop (HSCW) specializes in custom cabinet work. HSCW uses many different types of machines, which are repaired and replaced at regular intervals in order to ensure low-cost, high-quality operations.

The factory manager, Nero Oakie, recently authorized the purchase of an $85,000 automated lathe that will be used to make spindles for stairways. This machine has just been installed. At the projected level of operations, this machine is expected to last for 10 years and have annual operating costs of $40,000. The machine is assumed to be worthless at the end of its life.

Nero is concerned about a recent development. Susie Company has just announced the availability of a new machine that performs the same tasks as the machine just installed at HSCW. The Susie machine would cost $130,000, last for 10 years, and have annual operating costs of $35,000. This Susie machine will provide for improved quality that Nero expects will increase operating margins by $10,000 a year over and above the operating cost savings. The machine just installed has a value, net of salvage, of $50,000. The new machine would have no salvage value in 10 years.

Nero is currently paid a salary of $60,000 and receives a bonus of one-half of one percent of corporate net income. Nero estimates that he will remain with HSCW for "about two more years." At that time he expects to achieve a promotion and raise by moving to another company.

In the questions that follow, ignore income taxes and assume that HSCW's pre-tax required return is 12%. The company uses the straight-line method to compute depreciation.

Required

(1) Should the company keep the newly installed machine on buy the Susie machine?
(2) Which machine would Nero prefer?
(3) What motivation problems are caused by using short-run financial measures of performance as reward devices?
(4) How might the inconsistencies raised in Requirements 1 and 2 and the problems raised in 3 be mitigated?

13-4 *Designing an Incentive Compensation System*

[What follows is an excerpt from the Definitive Proxy Statement, SEC Form 14A, filed April 28, 1997 by Lincoln Electric.]

The executive compensation policy of the Company is based on the Company's longstanding commitment to incentive-based compensation generally for all employees, including officers. This commitment is exemplified by the cash bonus program. For many years the Company has administered a discretionary employee bonus program featuring a cash distribution determined on the basis of a formula that takes into account individual earnings and the results of a merit review process. Virtually all domestic employees participate in the program, and efforts have been made to include employees of foreign subsidiaries, when appropriate. The costs of this program, net of hospitalization costs but inclusive of payroll taxes, were $66.7 million in 1996, $66.4 million in 1995, and $59.6 million in 1994.

In 1996 the Committee directed, and management completed, a comprehensive review of the Incentive Management System that has served the Company so well for many years. The study reaffirmed the Company's commitment across the board to premium pay for premium performance and recognized the continuing importance of the piecework system to the Company's production employees. The study also acknowledged, however, the need for more vigorous performance management review and productivity gains among salaried employees and certain hourly employees; it also sought to define more clearly the connection between Company performance on the one hand and the size and equitable distribution of the cash bonus payments on the other hand.

Concurrent with the reconfiguration of the Company's Incentive Management System (which has been renamed the Incentive Performance System), the Committee recommended a reevaluation of the Company's executive compensation policy. The Committee had begun to refine the theory of its incentive-oriented executive compensation in 1995, when it first introduced a Management Incentive Plan (MIP) for officers. One purpose of the MIP as introduced was to benchmark base salary and cash bonus opportunities against comparable opportunities at comparable companies. As first introduced, the MIP focused on establishing individual base salaries at the median of comparable companies, with a maximum incentive target, assuming achievement of predetermined financial targets, placing individuals at approximately the 75th percentile for comparable companies. The MIP was also segmented to reflect the responsibilities of individual officers, with weighing on corporate or regional results accordingly. In early 1996, the Committee set the financial performance and individual award targets for the MIP participants, including those applicable to the executive officers named in the Summary Compensation Table, on that basis. The Committee recognized later in 1996, however, as the Incentive Management System review was completed, the need for additional improvements in the MIP and in executive compensation strategy generally.

Consistent with the overall philosophy of the Company's compensation system, the Committee decided that the base salaries of MIP participants should as a norm be set at the 40th percentile, rather than the median (i.e., base salaries will be somewhat below average). The Committee has reaffirmed, however, that cash bonus opportunities should be *above average, with the 75th percentile retained as the maximum target for total cash*

compensation. The Committee also recognized, however, that individual circumstances and performance should be factors in incentive awards, both positively and negatively—notwithstanding the performance of the Company against financial targets. The financial targets for 1997 are based on earnings before interest, taxes, and the cash bonus referred to above. Financial targets were set on the same basis in 1996. An individual performance element, based upon the achievement of personal objectives, has been added to the MIP. These improvements to the MIP are effective in 1997.

The Committee also noted in its review of executive compensation that the Company had not emphasized long-term equity incentive compensation as an element of total compensation, notwithstanding the existence of the 1988 Incentive Equity Plan (the IEP), which the Committee administers. Awards under the IEP, which are made only to officers and other key employees responsible for or contributing to the management, growth, and/or profitability of the Company, may be of four types: (1) stock options, (2) stock appreciation rights attached to stock options, (3) restricted stock, and (4) deferred stock. In early 1996 the Committee approved, on a one-time basis, option grants for a total of 167,590 shares to 31 individuals in settlement of litigation arising from earlier awards under the IEP. The options were premium priced at the time of grant, with exercise prices of $30 and $34 per share. The Committee also approved in September 1996 nonqualified option grants at market for a total of 278,000 shares to 21 individuals in order to address the longer-term incentive compensation program. The Committee expects that equity compensation will be an important part of incentive compensation going forward. As of December 1996, 1,454,362 shares remained available for grant under the IEP.

Required

Based on the information provided, evaluate the changes that Lincoln Electric made in its plans, including both the nature and the components of the plans.

13-5 Choosing the Bases for a CEO's Bonus Award

[The following is an except from the Definitive Proxy Statement, SEC Form 14A, filed by General Electric on March 12, 1997.]

The Committee's decisions concerning the specific 1996 compensation elements for individual executive officers, including the Chief Executive Officer, were made within this broad framework and in light of each executive officer's level of responsibility, performance, current salary, prior-year bonus and other compensation awards. As noted above, in all cases the Committee's specific decisions involving 1996 executive officer compensation were ultimately based upon the Committee's judgment about the individual executive officer's performance and potential future contributions, and about whether each particular payment or award would provide an appropriate reward and incentive for the executive to sustain and enhance the Company's long-term superior performance.

For 1996, Mr. Welch received total cash payments of $6,300,000 in salary and bonus. The Committee continued to consider this level of payment appropriate in view of Mr. Welch's leadership of one of the world's top companies in terms of earnings, balance sheet strength, creation of share owner value, and management processes.

In 1996, the Committee also granted Mr. Welch 320,000 stock options, half of which will become exercisable in 1999, and half in 2000. The primary basis for the Committee's determination to grant such stock options to Mr. Welch in 1996 was to provide a strong incentive for him to increase the value of the Company during the remainder of his employment.

The bases for the Committee's determinations regarding Mr. Welch's compensation in 1996 included his aggressive leadership, which drove the Company's outstanding financial results and improved its overall global competitive position; his vision and determination to achieve preeminent quality in all of the Company's products and services; and his drive to reinforce a culture of integrity, stretch targets, boundaryless behavior, and employee involvement throughout the Company. As in prior years, the key judgment the Committee made in determining Mr. Welch's 1996 compensation was its assessment of his ability and dedication to continue increasing the long-term value of the Company for the share owners, by continuing to provide the leadership and vision that he has provided throughout his tenure as Chairman and Chief Executive Officer.

Required

(1) What do you think about the scope of the bases used by the compensation committee to determine the bonus paid to Mr. Welch in 1996? Note that these are the particulars of the short-term bonus plan. Mr. Welch is also provided incentives by the long-run plan that relies on stock options to motivate behavior.
(2) Suppose that as a management accountant you were asked to help the committee develop performance measures for the bases used by the committee to evaluate performance for the purpose of awarding the bonus. How would you measure each of the identified performance bases?
(3) What performance measures, if any, would you add to the committee's group? Why?
(4) What performance measures, if any, would you drop from the committee's group? Why?

13-6 Measuring the Awards Bases of the Annual Bonus Plan

[The following is an excerpt from Rockwell International, Definitive Proxy Statement, SEC Form 14A, filed by Rockwell International, in 1996.]

Annual Incentives. Near the beginning of each fiscal year, the Committee reviews with the Chief Executive Officer and the President the Corporate Goals and Objectives for that year, including measurable financial return and shareowner value creation objectives as well as long-term leadership goals that in part require more-subjective assessments. Principal 1995 financial goals included increasing earnings per share well above fiscal 1994, achieving a return on equity of 20% and generating sufficient cash flow to provide at least $400 million for dividends, acquisitions, debt reduction, and share repurchases. In 1995, the Corporation achieved a primary earnings per share increase of 19%, return on equity of 20.8%, and met its cash flow goal. Shareowner value goals for 1995 included achieving a total return (stock price appreciation and dividends) exceeding a composite of the peer companies selected by the Corporation and utilizing interbusiness sharing of competencies, technology, product development, and facilities to achieve added leverage

for competitive advantage. The Corporation's long-term goals included developing new products, investing in new technologies, and taking the management actions—focused on promoting teamwork, organizational effectiveness, streamlining, and empowerment—essential to assuring quality, reduced product cycle times, and enhanced customer responsiveness.

After the end of the year, performance against the Corporate Goals and Objectives is evaluated and the results are considered by the Committee in awarding annual incentive compensation to corporate executives who were not directly responsible for the management of a business unit. Individual awards to members of the senior management group, including the Named Officers other than the Chief Executive Officer and the President, are determined by the Committee after reviewing with the Chief Executive Officer and the President the recommended awards, taking into account the contributions made and the levels of responsibility of each of the participants. While the Committee believes achievement of the financial, shareowner value, and long-term leadership goals are each important, it accords greater significance to the first two in determining the total amount available for annual incentive payments.

The amount available for annual incentives is determined for the Corporation's senior executives and other key management under the Corporation's Incentive Compensation Plan. Under the Corporation's Plan, the addition to the incentive fund for a fiscal year cannot exceed either the aggregate amount of dividends declared on the Corporation's outstanding stock during the year or an aggregate amount computed by adding 2% of the first $100 million of the applicable net earnings (defined as net income, before provision for domestic and foreign taxes based on income, of the Corporation and its consolidated subsidiaries) for the year, and 3% of the next $50 million of such earnings, and 4% of the next $25 million of such earnings, and 5% of the balance of such earnings. Generally, the Committee makes awards under the Corporation's Plan in an aggregate amount well below the amount available thereunder.

Required

Evaluate the positive and negative elements of Rockwell's bonus plan for senior executives. Note that this focuses only on the annual incentive plan. All senior Rockwell executives also participate in a long-run incentive plan.

13-7 Management Bonuses and Economic Value Added

[The following is an excerpt from the Definitive Proxy Statement, SEC Form 14A, filed on March 18, 1997, by Armstrong World Industries Inc.]

Economic Value Added (EVA®) serves as the Company's principal financial measure and is the basis for determining awards under the Management Achievement Plan. EVA equals the dollar amount arrived at by taking net operating profit after taxes and subtracting a charge for the use of the capital needed to generate that profit. For the corporate and business unit achievement segments, there are threshold levels of EVA performance below which no incentive awards are paid. For the corporate and major business unit seg-

ments, there are no caps or maximum award limits, so there will be incremental awards for higher levels of EVA achievement. The incentive awards for the Chairman and CEO, the Executive Vice President and the Senior Vice President, Finance, and Chief Financial Officer are based entirely on corporate EVA achievement. The incentive awards for all other executive officers are based solely on corporate and/or business unit EVA goal achievement.

The Management Achievement Plan has been structured so that the level of cash compensation (base salary plus annual bonus) will exceed the median level of cash compensation for the selected group of companies when high levels of corporate, business unit, and individual performance are achieved. Conversely, when the Company and business units fall short of established targets, the level of cash compensation will fall below the median level of cash compensation for the selected group.

Required

The Management Achievement Plan is one unit in a set of incentive compensation plans used to motivate senior executives. Another important component of the incentive compensation set is a stock option plan. Evaluate the Management Achievement Plan.

13-8 Senior Executive Incentive Plan Components

[The following is an excerpt from the Definitive Proxy Statement, SEC Form 14A, filed on March 18, 1997, by FMC Corp.]

The program comprises three different compensation components—base salary, variable cash and stock incentive awards, and long-term incentive awards (stock options). Base Salary. FMC uses external surveys to set competitive compensation levels (salary ranges) for its executives. In order to obtain the most comprehensive survey data for review, the group of companies in the surveys is broader than the Dow Jones Diversified Industrial Index and includes a majority of comparable companies at the Fortune 500 level. Performance graph companies are well represented.

Salary ranges for FMC executives are established that relate to similar positions in other companies of comparable size and complexity. Generally, the Company sets its competitive salary midpoint for an executive officer at the median level compared with the companies surveyed. Performance levels within the ranges are delineated to recognize different levels of performance ranging from "learner" or "needs improvement" to "exceptional." Thus, although compensation is nominally targeted to fall at or near the 50th percentile of such comparable organizations, it may range anywhere within the salary bracket based on performance.

Starting placement in a salary range is a function of an employee's skills, experience, expertise, and anticipated job performance. Each year, performance is evaluated against mutually agreed-upon objectives and performance standards that may, in large part, be highly subjective; a performance rating is established; and a salary increase may be granted. Performance factors used may include timely responses to downturns in major markets; setting strategic direction; making key management changes; divesting businesses and acquiring new businesses; continuing to improve operating efficiency; and de-

veloping people and management capabilities. The relative importance of each of these factors varies based on the strategic thrust and operating requirements of each of the businesses.

Variable Incentive Award (Annual Bonus). In 1995, the Committee and the Board recommended a revised Management Incentive Plan, which shareholders approved. This revised plan includes annual bonuses for achievement of both individual performance targets and multiyear targets for the improvement of Net Contribution (operating profit after tax less the product of an 11.5% capital charge and capital employed). All executives participate in this incentive plan. Achievement of high standards of business and individual performance are rewarded financially with both stock and cash, and significant compensation is at risk if these high standards are not met. At the executive level, target incentives approximate 50% to 65% of base salary, while actual payments can range from zero to almost three times target incentive.

The multiyear incentive period uses a three-year net contribution target and began in 1995. In 1997, participants, including all executives, received a draw against the second three-year award period, which will end on December 31, 1998. The draw is equal in percentage terms to their business performance incentive target (BPF) under the prior plan. Participants' three-year incentive awards, if any, shall be reduced (but not below zero) by the amount of their 1996 and 1997 draws. In the case of Mr. Burt, the draw is equal to 25% of his base salary.

At the executive levels, the annual individual performance incentive comprises 40% to 50% of the total target incentive. This incentive is less quantitative than the three-year net contribution incentive. It varies with individual performance and can range from zero to twice the target percentage. It is awarded based on achievement of annual objectives set for the individual's most important business responsibilities. In 1996, these included such disparate objectives as implementation of profit and growth strategies; improvements in operating efficiencies and market positions; acquisitions such as Frigoscandia; divestiture of FMC Gold Company and the Automotive Service Equipment Division; and demonstrated leadership in enhancing the teamwork, diversity, and management climate necessary to improve shareholder value.

Long-Term Incentive Awards. This plan is designed to link closely the long-term reward of executives with increases in shareholder value. The 1995 approval by the shareholders of an updated stock option plan continues to give the Committee broad discretion to select the appropriate types of rewards. 1996 awards consisted of nonqualified stock options. The award vesting period is three years, with an option term of 10 years.

To determine the number of options to be granted to an executive, the Committee first multiplies the midpoint of the salary range for an executive's salary grade by a percentage applicable to that grade and consistent with competitive industry practice as provided by an independent, outside consultant and divides that product by the then current market price of FMC's shares. The Committee then applies a percentage (ranging from 80% to 120%) based on the individual's contributions and potential. In approving grants under the plan, the number of options previously awarded to and held by executive officers is considered but is not regarded as a significant factor in determining the size of the current option grants.

Stock Retention Policy. The Company has established guidelines setting expectations for the ownership of FMC stock by officers and management. The guidelines for stock reten-

tion are based on a multiple of the employee's total compensation midpoint. The revisions to the 1995 Management Incentive and Stock Option Plans included incentives and enhancements to help executives meet these guidelines.

Required

Evaluate the structure and nature of the incentive compensation systems used at FMC Corp. for senior executives.

13-9 Determining and Distributing the Bonus Pool

[The following is an excerpt from the Report of Compensation Committee in the Definitive Proxy Statement, SEC Form 14A, filed April 3, 1997, by Amgen Inc.]

The MIP (management incentive plan) has been established to reward participants for their contributions to the achievement of Company-wide performance goals. All executive officers of the Company and certain other key employees, as determined by the Compensation Committee, participate in the MIP. MIP payouts are established at a level designed to ensure that when such payouts are added to a participant's Base Salary, the resultant compensation for above average performance will exceed the average cash compensation level of comparable companies.

The structure of the MIP provides for the development of a compensation pool (the "Pool"). Amounts attributable to the Pool are based upon the achievement of certain specified performance goals and milestones established by members of management and approved by the Compensation Committee at the beginning of each MIP period. As implemented by the Compensation Committee, at least 50% of the Pool determination will be based upon Return on Capital Employed (ROCE) and Growth in Revenue, with the remainder based upon two or three major goals selected by the Committee from the goals established by management in connection with the planning process. Target awards for participants are established pursuant to a percentage formula relating to Base Salary. The MIP provides for a range of payouts based on actual achievements, with both the size of the Pool and the individual awards subject to an upside potential of 150% of applicable targets for the achievement of performance that is significantly above the target levels. No awards are made to the participants, regardless of the performance achieved on the other goals or by individual participants, unless either the ROCE or the Growth in Revenue goal is achieved.

At the beginning of each MIP period, participants in the MIP are required to work with upper management to define individual performance objectives that will contribute to the success of the Company. Each participant's payout from the MIP Pool is based upon the respective supervisor's and the Compensation Committee's assessment of achievement of the participant's goals. Performance objectives are stated as a range of possible measured achievements. In order to be eligible to receive a payout from the MIP, each individual participant must have achieved his or her individual performance objectives at least at the minimum threshold. The minimum threshold represents significant, but less than planned, performance. The payout at the minimum threshold is usually 50% of the target payout, assuming Pool goals are achieved at target. The maximum amount payable under the MIP to any participant may not exceed $900,000.

The Pool goals for the MIP period ended December 31, 1996, included goals related to ROCE, growth in revenue, specific product development objectives, and profit after taxes. The relative weightings of these four factors in determining the total Pool were 30%, 20%, 25% and 25%, respectively. Based upon evaluations by management and approved by the Compensation Committee, the Company achieved 142.2% of the target Pool goals established under the MIP for the period ended December 31, 1996. For 1996, in order to stimulate increased effort toward the development of potential products, the Pool included an incentive equal to 5% of the maximum payable under the Pool goals for the development and/or acquisition of two novel molecules. The achievement of these objectives resulted in the inclusion of this incentive in the MIP payout.

Required

(1) What do you think of the management incentive plan at Amgen Inc.? Note that this plan is part of a wider incentive package that includes a base salary and stock options.

(2) Suppose that you were part of a group developing the relevant performance measures for employees in this plan. What performance measures would you use for each of the following executives: (a) a production supervisor, (b) a regional sales manager, and (c) the director of product research. Explain your choices.

■ *CASES*

McDONALD'S CORPORATION: DESIGNING AN INCENTIVE SYSTEM*

Designing an equitable compensation system is not an easy task for the top management of any company, as the attention the subject has received in these pages and elsewhere makes clear. But the difficulties of designing a compensation program for managers in a service business are particularly severe. When a company's product—be it flying lessons, cleaner offices, waffles, or Caribbean cruises—is manufactured and consumed almost simultaneously, there is no second chance to sell or perform.

Although bank tellers, chambermaids, and short-order cooks may have little in common, they are all at the forefront of their employers' public images. How they perceive and perform their jobs can promote or undermine the success of their organizations, and their proper and effective management keeps many a banker, innkeeper, and restaurateur on his toes.

The problems of motivation and reward in service-oriented companies are increasingly important as the provision of service assumes an ever-growing role in our economy. In this article, we show how one such company—perhaps the world's largest and most successful food-service organization—is grappling with these problems and how other executives concerned with similar compensation issues view the plans the company has devised.

*Case originally prepared for classroom use by Charles Horngren, based on W. E. Sasser and S. H. Pettway, "Case of Big Mac's Pay Plans," *Harvard Business Review* (July–August 1974). Reproduced with permission of *Harvard Business Review* and Charles Horngren.

"We consider our first-line management to be the managers of our company-owned units," a senior executive of McDonald's Corporation told us. "And they do a tremendous job for us. Somehow we have to design a compensation system that will reward them for the hard work they do and still motivate them to continue putting in the extra effort that has made McDonald's a household name. We've tried various compensation programs, but none has proved to be totally successful."

The company's concern was not academic. At the time of the 1972 compensation system evaluation—the take-off point for this case—McDonald's and its subsidiaries operated, licensed, and serviced 2,127 fast-service restaurants throughout the United States and Canada and a few in other countries. About 25% of the units were company owned and operated. (The ratio has now risen to about 30%.) By 1977, the company has estimated, the system will have some 4,000 units, and company-owned outlets will number more than 1,000.

The average volume of a company-owned unit in 1971 was $540,000. The company expected sales to rise to about $600,000 by the end of 1972.

Pervasive throughout McDonald's operations has been a success formula often stated by the founder, Chairman Ray Kroc: quality, service, and cleanliness ("QSC" in the corporate shorthand). Accordingly, McDonald's maintains a year-round training program at all levels of operations, such as at the world's only Hamburger University, at Elk Grove, Illinois. At this $2 million facility licensees as well as managers of company-owned restaurants must take an intensive course on McDonald's operational policies; refresher courses are also available. In 1973 some 1,200 persons were graduated from Hamburger U.

Below the managerial level, most jobs are quite simple and can be easily taught to new employees within hours, with the aid of operating manuals and in-store visual material supplied by the corporate training staff.

Initial Efforts

Between 1963 and 1972 McDonald's tried several compensation systems in an effort to encourage superior performance by managers of its company-owned outlets. But, as noted, none of the plans left front-line or top management entirely satisfied.

In 1963 a restaurant manager's bonus was merely a function of his sales increase over the previous year. The managers complained that volume frequently varied independently of their control, so they jockeyed for assignments to units with the most potential for revenue growth. Equally detrimental to corporate health was the lack of recognition offered the cost-conscious manager. In 1964 the plan was abandoned.

For the next three years the company had no formal incentive system in effect and awarded bonuses purely on the basis of subjective evaluations. Many managers felt that their regional superiors were not adequately recognizing and rewarding their performance. In 1967 this informal plan was abandoned.

McDonald's then made its first attempt to provide a comprehensive and equitable compensation program. The company tied the base salaries of each unit's manager and first assistant manager to their ability to meet the QSC standards. It made the quarterly bonus payments depend on a profit contribution defined as "the difference between sales volume and those costs over which unit management normally exercises direct or indirect control through managerial judgment, decision, and action." The list of controllable costs on which unit management was being judged appeared to be reasonable and complete.

But the plan proved unpopular with those on the front line because it mainly rewarded high volume. Since a restaurant's profit contribution depended considerably more on increased revenues than on cost control, superior management and cost control did not always gain a commensurate bonus. The result was a wide disparity in bonuses; the median was $2,000, but bonuses ranged from $700 to $8,000. In 1971 this plan was also abandoned.

The 1972 Plan

In the 1972 compensation package for line managers, McDonald's tried to satisfy the complaints and at the same time to maintain harmony between managerial incentives and corporate goals. The unit manager's annual compensation consisted of his base salary and a quarterly bonus that rewarded his ability to meet predetermined objectives in the areas of labor costs, food and paper costs, QSC, and volume projections.

1. *The fixed salary.* After surveying each market in which it owned restaurants, McDonald's established three salary ranges according to prevailing labor rates and other economic factors. Range I, the highest, usually applied to very large metropolitan areas; Range II applied to somewhat smaller areas where industrial and rural influences on the labor market were about equal; and Range III applied to small metropolitan markets with little industrial influence. In addition, annual merit increases were awarded within each range according to whether an employee was judged superior, satisfactory, or still in the new employee bracket. In 1972, the base salary schedule began at $6,800 for a trainee in Range III and rose to $15,000 for a consistently outstanding manager in Range I.
2. *The bonus.* Meeting the optimum labor crew expenses—figured according to projected sales volume and labor crew needs for each month of the quarter—entitled the manager to a bonus of 5% of his base salary.

Together, the area supervisor and the unit manager determined the food and paper cost objective based on current wholesale prices, product mix, and other operating factors peculiar to the unit. By meeting the objective to which he had agreed previously, the manager earned another 5% bonus.

An excerpt from the monthly management visitation report (see attached sample) by which each store's QSC was—and still is—rated. Based on the average score for the quarter, units were designated A, B, or C. Managers of A stores received a bonus of 10% of base salary; B store managers 5%, and C store managers no bonus.

In addition, the manager received a bonus of 2.5% of the increase over the previous year's sales, up to 10% of his base salary. If unit volume was significantly affected by operating circumstances beyond his control, the regional manager could grant him a semiannual payout of 5% of his base salary.

Therefore, the maximum annual incentive bonus to an A store manager who met all his objectives was 20% of his base salary plus an additional 10% of his salary because of the volume gain at his restaurant. (His first assistant was entitled to a bonus of approximately 60% as much.)

Bonuses for meeting cost objectives were paid quarterly; those for meeting QSC standards and volume increases were paid semiannually.

Still Another Try

While the 1972 compensation system eliminated many shortcomings of previous programs, unit managers now protested that it was much too complicated. Moreover, complaints about undue subjectivity and dependence on volume patterns were heard anew. McDonald's top management went back to the chalkboards and calculators and came up with four alternative plans.

Management Visitation Report

Store Address:

_____
NUMBER STREET CITY STATE

This store is in the _____ TV market. This report was completed by _____ at ___ A.M./P.M. on _____ 197___ and the day of the week was _____. There were
MONTH DATE
_____ cars on the lot, and _____ customers in line waiting to be served and _____ persons seated in the dining area. The person totally in charge of the store during this visit is _____ and his title is _____. The manager of this store is _____; the supervisor is _____; and the operator is _____. When completed this report was reviewed with _____ on _____.
DATE

SCORE: Outside (Sec. I) _____ out of 30. Inside (Sec. II) _____ out of 35. Food (Sec. IV) _____ out of 35. Overall _____ out of 100

(MAXIMUM SCORE PER QUESTION IS 5.)

QUESTION NO.	SECTION I (OUTSIDE)	ITEM SCORE
1.	Is area within one block of the store free of all litter?	
2.	Are flags being displayed properly and are they in good condition? Are entrance and exit and road signs in excellent condition?	
3.	Are waste receptacles in an excellent state of repair and clean? Is trash being emptied as necessary?	
4.	Is the parking lot and landscaping as clean, litter-free, and well picked up as you could reasonably expect for this business period? Do these areas reflect an excellent maintenance program? Is traffic pattern well controlled?	
5.	Do the sidewalks surrounding the building and the exterior of the building reflect an excellent maintenance program? Were these areas being maintained properly during this visit?	
6.	Were all inside and outside lights which should have been on, on, and were windows clean?	
	SECTION TOTAL	

QUESTION NO.	SECTION II (INSIDE STORE PREPURCHASE OF FOOD)	ITEM SCORE
7.	Was the restroom properly maintained? Was the inside lobby and dining area properly maintained?	
8.	Does P. O. P. in the store present a unified theme?	
9.	Is menu board in excellent repair and clean? Are napkins and straws available near all registers?	
10.	Is the general appearance of all stations good? Is all stainless steel properly maintained?	
11.	Is there an adequate number of crew and management people working for this business period and are they positioned properly?	

continued

12.	Are all crew members: wearing proper McDonald's uniforms, properly groomed, and does their general conduct present a good image?	
13.	Are all counter persons using the Six Step Method and does their serving time per customer meet McDonald's standards?	
	SECTION TOTAL	

QUESTION NO.	SECTION IV (AFTER FOOD ORDER)	ITEM SCORE
14.	Was the sub total, tax, and total charged to you exactly correct and did you receive the correct change?	
15.	Was your order placed properly in the proper size bag, on the correct tray, and did the total packaging appear neat? Was the bag double folded?	
16.	Was the Production Caller controlling production properly?	
17.	Did sandwiches appear neat and do they reflect that the prescribed operational procedures were used when preparing the food?	
18.	Were all sandwiches hot and tasty?	
19.	Were your fries a full portion, hot, and did they meet finish fry standards?	
20.	Did all soft drinks, shakes, or coffee meet McDonald's standards?	
	SECTION TOTAL	

Plan A The unit manager's base salary would be determined initially according to the range system described earlier. Thereafter he would be rated monthly by the regional operations staff on six factors: quality, service, cleanliness, training ability, volume, and profit. Each factor would be rated 0 for unsatisfactory, 1 for satisfactory, and 2 for outstanding. A manager whose semiannual total was 12 would earn a bonus of 40% of his base salary for half a year, a score of 11 would warrant a 35% bonus, and so on. At the end of the year his two semiannual scores would be averaged, and he would receive a salary increase of 12% for a score of 12, 11% for a score of 11, and so on, down to a point where the manager presumably would be encouraged to seek his fortune with a competitor.

Plan B After receiving the base salary suggested by the range system in his first year as manager, the person would be placed on a draw against commission. The draw would be his salary as before; the commission would be a bonus of 10% of any sales gain plus 20% of the profit (provided that gross profit amounted to at least 10% of the gross take). For example, if sales increased by $50,000 this year to $550,000 and profits were 12% (or $66,000), the manager's total compensation package would be 10% × $50,000 plus 20% × $66,000 = $18,200.

A variation of this plan being considered

would incorporate a sliding scale—that is, 10% of the sales increase at units with sales up to $500,000, plus 20% of the profit; 7% of the sales increase at units with sales up to $700,000, plus 17% of the profit; and 7% of the sales gain at units with sales exceeding $700,000, plus 15% of the profit.

Plan C Similar to Plan B in its draw against commission, the so-called supermanager program would base total compensation solely on sales volume. For units having volumes of $500,000 and less, salaries were set at different levels—for example, $10,500 for unit sales of $300,000, $11,500 for sales of $400,000, and $12,500 for $500,000.

Any volume exceeding $500,000 would be multiplied by 2% and added to the base of $12,500. For example, the manager of a $750,000 unit would earn $12,500 plus $5,000. Managers of new stores and of stores considered to be in inferior locations would be paid at the $12,500 base rate for the first 12 months of their stay.

Plan D A predetermined lump sum based on the size of the management team and the volume of the store would be allocated for management salaries. Individual performance as evaluated by the regional operations staff would determine the percentage of the total allocation to be received by each team member. The total amounts that would be available are shown in Table 1.

As this article was being written, McDonald's was still wrestling with these alternatives. A senior officer of the company summarized his feelings about the compensation dilemma in this way:

> When this company began, it was a fight for survival. Just meeting the payroll was an accomplishment. Later, as we became better known and began to grow, we could concentrate on perfecting our operations. We started the first comprehensive training program for fast-food service in the industry.
>
> Now is the first time we've been able to look carefully at an area that we really should have considered years ago—our compensation programs and how they affect our people. We know we have a real opportunity here, but quite frankly we're not sure how to proceed. When you're growing internally at a 30% annual rate plus acquiring licenses, the issue of management training in the company stores becomes acute, particularly when so much training must be on the job.
>
> In short, we're faced with a situation where our unit managers are putting great pressure on us to simplify and improve their compensation system. At the same time, we have to design a system somehow that's equitable across the board and encourages the manager to give close attention to training his subordinates.

TABLE 1 Total Compensation Availability by Unit According to Size of Management Team

SALES	2 PERSONS	3 PERSONS	4 PERSONS	5 PERSONS
$ 0– 300,000	$19,500	$28,500		
301,000– 400,000	20,000	30,000		
401,000– 500,000	22,500	32,500	$45,000	
501,000– 600,000		33,000	48,000	$60,000
601,000– 700,000		35,000	49,000	63,000
701,000– 800,000			52,000	64,000
801,000– 900,000			54,000	67,500
901,000–1,000,000			55,000	70,000

Required

(1) What factors should McDonald's consider when designing a compensation plan for its first-line managers?
(2) Assume that you are a first-line manager. Outline your views on the 1972 plan and Plans A–D. Which plan would you prefer that McDonald's adopt and why?
(3) Assume that you are the senior officer charged with making recommendations on a compensation plan. Which plan would you recommend that McDonald's adopt and why?

ANALOG DEVICES, INC. (A)*

In reference to Analog Devices, Inc. (ADI) bonus plans—one for management and one for technical personnel—Graham Sterling, Vice President, Strategic Planning, stated the following:

> The purposes of the Bonus Plans are first to communicate to the people that the company places a high value on concurrent growth and profitability and is willing to accept some tradeoff between the two, undertaking at the Corporate level to balance the portfolio so that the total corporation enjoys self-funded growth. The second purpose is to carry out our objective of paying above-average compensation, some substantial fraction of which is conditional on company or group performance.
>
> I do not like to refer to the plans as incentive plans. I visualize them as plans for communicating some important facts of life. The concept of rapid, self-funded growth has always been central to the corporate culture, because without rapid growth we could lose control of our markets, while without self-funding we might not long be viable as an independent owner–managed company. The bonus plans help us deliver this message and enable us to share the fruits of whatever success we accomplish as a total organization.

*Prepared by Kenneth A. Merchant.

Copyright © 1980 by the President and Fellows of Harvard College. Harvard Business School case 181-001.

The Company

ADI was a medium-sized semiconductor manufacturer with headquarters in Norwood, Massachusetts. Founded in 1965 with an initial capitalization of $100,000, the company had grown rapidly to a sales level of just over $100 million in fiscal year 1979 (ended November 3). Average annual growth from 1975 to 1979 was 35% (compared with an electronics industry growth rate over the prior decade of about 13%), and 1979 company sales were up nearly 50%.

ADI was primarily engaged in the design, manufacture and sales of precision electronic components and subsystems employed mostly in measurement and control applications. More than 90% of company sales were of components designed to acquire, condition, and convert electrical analogs (voltage or current) or real-world phenomena (temperature, pressure, flow, light, etc.). These components facilitate the recording, processing, and display of the information content of these signals, which is vital for managing a broad range of real-world processes. These components are designed for incorporation in measurement and control instruments for markets such as avionics, industrial automation, and medical and scientific testing. ADI was the leading producer in this market segment.

ADI was able to compete with the giant semiconductor companies, such as Texas Instruments and National Semiconductor, which were able to generate high volume (and lower cost) because, in this market segment, product design was more important than price. Customers were generally willing to pay premiums for components that would best solve their particular problems. The market was highly fragmented: ADI served over 6,000 active accounts. The company's strategy was to capitalize on and expand its market leadership positions and gradually to integrate vertically by combining its data acquisition components into higher-level building blocks (subassemblies) and user-oriented, computer-based measurement systems.

ADI had two primary financial objectives: (1) growth of Sales at an average compound rate of 25% per year and (2) Pretax Return on average invested Capital of 19% per year. For internal control purposes, the 19% Return on Capital goal was translated to an equivalent 23% Operating Pretax Return on Assets (OPROA). Company financial models had shown that the 23% Operating Pretax Return would generate enough cash internally to support 25% annual growth and a modest cash dividend with a Debt/Equity ratio of not greater than 75%. The growth objective was considered to be a minimum goal, rather than a ceiling, so there was considerable emphasis on overachieving this goal, although it was realized that to be self-funding a higher growth rate would require some combination of higher Return on Capital, higher Debt/Equity ratio, and lower cash dividend payout.

The company's growth was primarily internally generated. From time to time, ADI would acquire a small company as an entree to a new product line, a new location or a new market, but these acquisitions were always small in proportion to the prior year's consolidated sales, so they served as bases for subsequent internal growth rather than as purchased expansions.

The rapid growth created the need for a substantial, continuous flow of innovative new products. Typically, 80% of the company's sales had come from products introduced in the prior five years. This created a strong demand for capital and personnel. ADI, like all companies in the electronics industry, faced a critical shortage of technical personnel, both for professional functions such as engineering, marketing, and manufacturing and paraprofessional areas such as technicians and draftspeople.

The company's operations were organized into two main product groups—Instruments and Systems, and Semiconductors. Each of these groups was divided into product divisions which were organized functionally. A sales group sold the products of all divisions.

Financial plans were prepared quarterly with a four-quarter planning horizon. The intent of planning was bottom-up, although if the corporate consolidation of plans revealed inconsistencies or failed to meet the corporate objectives, the groups were asked to revise their plans. The November rolling plan, prepared in September and October, set the target for the following fiscal year (November–October).

The Parallel Ladder

To help conserve and develop the critical technical skills within the organization, ADI operated a Parallel Ladder organization structure that enabled technical employees to continue their career growth without the necessity of assuming line management responsibilities. The Parallel Ladder program provided technically oriented individuals the opportunity for long-term career growth within their technical discipline and the rewards that are commensurate with those available to managers—increased compensa-

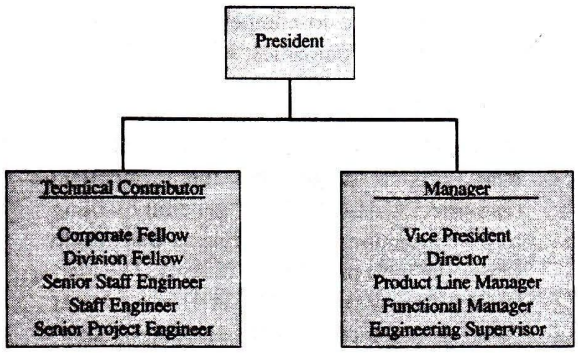


FIGURE 1 Parallel Ladder

tion, status, and recognition. By providing these rewards, the company hoped that technically competent personnel would not be tempted to leave their technical specialties for managerial positions when that choice was made for nothing more than a lack of alternatives for personal career growth.

The structure of ADI's Parallel Ladder is shown in Figure 1. It indicates the relationship between sample technical positions and those in the management hierarchy.

At the lower levels in the technical hierarchy, the emphasis was on individual contributions, perhaps as part of a technical team. At the Division Fellow level the emphasis was increasingly helping others, perhaps as a mentor helping develop younger employees or as a consultant helping solve difficult technical problems. Corporate Fellows had demonstrated an ability to influence broad corporate objectives, strategies, and policies and to help determine the future direction of corporate development.

Bonus Plans

ADI operated two bonus plans, both providing supplementary awards for specific performance in the form of a cash payment. The Management Bonus Plan was designed to reward all personnel with significant management responsibilities. The New Product Bonus Plan was designed for people on the technical ladder involved in developing new products and introducing them to the market.

The bonus awards were based on collective (corporate and/or group) achievement, not on individual performance. The bonuses of top-level managers, corporate fellows, and corporate staff were based solely on corporate performance. Low-level managers and technical personnel were rewarded for the performance of their group (Instruments and Systems or Semiconductor). Upper-level managers and technical personnel in the groups received 50% of their bonus based on group performance and 50% on corporate performance, on the expectation that individually they could have a significant impact on corporate performance.

ADI established bonus plans to provide ADI employees with above-average compensation within an environment that encouraged concurrent achievement of personal and company goals. Graham Sterling explained:

> What we wanted was a wealth-sharing system which would make an objective determination of the incremental wealth available to be shared and would then share it among the people in an easily explainable and predictable manner. We felt that if we paid people well but

made some of the pay conditional on company performance, they would better understand and have more concern for what we defined as "performance" and would cause the performance to stabilize at a higher level than would otherwise be the case. The plans were expected to promote a sense of teamwork rather than competition and encourage acceptance of tradeoffs, where necessary, in the interests of the total corporation.

Also, the company puts a high value on stability of operating margins. When a recession causes a drop in returns because fixed expenses and capacity are temporarily out of phase with demand, the compensation plan automatically cushions the operating margin, giving us the benefits of compensation cuts without the effort of negotiation and with minimum withdrawal pains. The opposite is true during boom periods, when the bonus plan triggers high rewards and moderates what would otherwise be unsustainably high margins.

A strict bonus formula was used to assure objectivity in the bonus allocation process. This was explained by a middle-manager bonus plan participant:

> We used to have individually calibrated bonuses here, and the reason we're not doing that now, according to the general manager, is that it always ended up in a war. They only had so much money to divvy up, and individual managers had preferences for their people. For an outstanding performance it wasn't so bad, but as soon as you got away from there and started awarding to people who had done just a good job, not a terribly great job, then it got into a real shoving match. Given an ideal management committee where you didn't have some of the personalities involved (which is sort of an impossibility in this industry), I would recommend a more personalized plan based on your performance in that quarter and how you have met your objectives. But given the management here, we may be better off with our formula.

Despite use of the bonus formula, ADI management had the capability to recognize differences between people and to reward special accomplishments both within the rules of the bonus plans (e.g., assignment of level of participation) and outside the bonus plans (e.g., promotions, salary adjustments), so it was not seen as necessary or desirable to permit subjectivity in the calculation of the bonuses.

The General Bonus Formula

The general formula for both bonus plans was as follows:

$$B = S \times I \times F$$

where:

B = Amount of cash bonus (paid quarterly)

S = Individual's base pay (quarterly)

(I) = Individual Bonus Factor (described below)—varied with level in organization from 25% for top management to 10% for lower-level participants

F = Bonus Payout Factor (described below)—derived from different performance-based functions, one for the Management Bonus Plan and one for the New Products Bonus Plan. Both were equal to 1.0 if plans were just achieved, and both were subject to a Maximum Personal Payout, an upper constraint, that varied by organization level.

Individual Bonus Factors (I) and Maximum Personal Payout

The plans were designed to offer rewards commensurate with risk. Since risk was higher for individuals in more-responsible positions, the potential rewards were greater at higher organizational levels. This distinction was accomplished by assigning Individual Bonus Factors and Maximum Personal Payouts, upper limits on the Bonus Payout Factor, that varied with level. These are shown in Exhibit 1. The maximum bonus for top executives was 100% of salary (4 times 25%) for outstanding performance in both ROA and growth; the maximum for lower-level participants was 20% (2 times 10%).

EXHIBIT 1 Plan Differences at Different Organizational Levels

ORGANIZATIONAL POSITION	BONUS PLAN ASSIGNMENT	INDIVIDUAL BONUS FACTOR (% OF SALARY)	MAXIMUM PERSONAL PAYOUT
Officers, corporate staff	100% Corporate	10%–25% (varies)	2.0–4.0*x* (varies)
General managers, senior operations managers, fellows	50% Corporate 50% Group	20%	3.0*x*
Division-level functional managers	50% Corporate 50% Group	15%	3.0*x*
Senior staff engineers	100% Group	15%	3.0*x*
Senior functional managers, senior project engineers	100% Group	15%	2.0*x*
Other designated line and staff managers and key engineers	100% Group	10%	2.0*x*

Bonus Payout Factor (F)—Management Bonus Plan

When the Management Bonus Plan was first instituted in 1975, the Bonus Payoff Factor was defined as a matrix function of the Average Rate of Growth of Sales and the Average Rate of Return on Assets (shown in Exhibit 2). This operationalized the growth/profitability tradeoff mentioned by Graham Sterling in the comment at the beginning of the case. Larry Sullivan, Senior Vice President, Corporate Development and Finance, explained the rationale behind this two-dimensional performance measure:

> We at Analog Devices recognized several years ago the shortcomings of measuring corporate and divisional performance on short-term profit results such as net earnings and return on investment. In 1975, we developed an incentive bonus program for corporate and divisional management that is based on a tradeoff between Return on Assets and long-term growth management. The concept behind this incentive program is that management must both do a good job of utilizing operating assets in the short term and make sound strategic investments for future growth and profitability.

Graham Sterling further explained the choice of two dimensions:

> Although in principle a Bonus formula could take any number of performance measures and compress them to a single Payoff Factor, it is neither necessary nor desirable to employ more than two measures. In the first place, over the long term, Rate of Growth and Rate of Return characterize the activity so thoroughly that very little if any new information can be brought in by adding a measure such as market penetration or customer service level. In the second place, having more than one or two performance measures might interfere with the desired concentration and encourage suboptimization.

A measure of return on assets was included in the summary performance measure to motivate managers to consider profitability and asset productivity in their decision making and to encourage them to adjust expenses and production rates promptly as market conditions change. Return on assets was selected as an easily visualized internal measure that, unlike return on equity or capital, was independent of financing decisions. Return was defined as Operating Pretax Return so that managers were not held responsible for such corporate con-

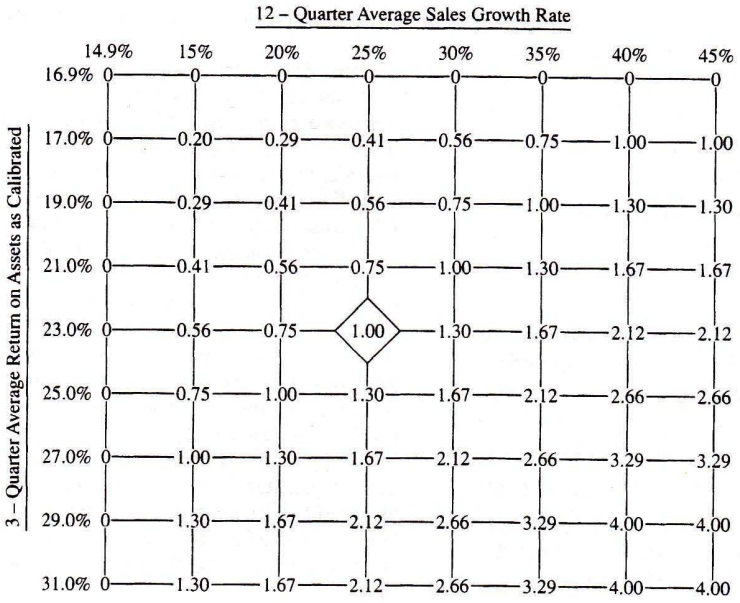


EXHIBIT 2 Corporate Bonus Matrix (Payout Factor as a Function of ROA and Sales Growth)

cerns as interest expenses and taxes. Operating Pretax Return on Assets (OPROA) was averaged over three quarters in the belief that, for ADI, it took about one quarter to detect a change in conditions, another quarter to implement corrective actions, and another quarter to see meaningful changes in results.

The sales growth dimension of the Summary performance measure was included because it was primarily a consequence of longer-term strategic decisions. Management was encouraged to maintain expenditures intended to produce future growth rather than to compromise to accomplish short-term profit objectives, and this suggested that sales growth (in dollars) should be averaged over a long period. ADI defined this averaging period as 12 quarters (3 years) because the delay between initiation of new product development and significant contribution to sales from most investments was about three years. Although some investments might not have yielded returns in this period, longer horizons did not have much appeal as incentives for management performance because the career perspective of many executives in a single assignment did not extend beyond this time.

The Payoff Matrix was constructed so that the Bonus Payout Factor is equal to 1.0 when the corporate objectives of 23% ROA and 25% Growth were being achieved but not overachieved. The maximum Payout Factor possible was 4.0, at 29% ROA and 40% Growth, a level of performance considered outstanding, as established by assessing company capabilities and the performance of other companies in the industry. Lower limits were set so that no award was made if OPROA fell below 17% or Growth fell below 15%, performance levels considered poor.

The two performance elements, OPROA and sales growth, were weighted so that a 2% increase in OPROA performance was equivalent in payoff to a 5% increase in sales growth rate. This represented the feelings of management about the relative importance of these two areas to the future health of ADI. This weighting was held constant but could have been set differently to emphasize different business strategies.

The Matrix was constructed so that an improvement along either axis was rewarded, but the rewards increased most rapidly with progress along both axes simultaneously: that is, along the diagonal of the Payoff Matrix. This was consistent with the corporate goals of rapid growth concurrently with Return on Assets high enough to assure self-funding. Corporate financial models showed that at the center point of the Matrix, defined as the intersection of 23% ROA and 25% Growth, the Company was self-funding with a 10% cash dividend payout rate and a Debt/Equity Ratio of 75% and that movement in either direction along the diagonal connecting 23% ROA/25% Growth with 29% ROA/40% Growth preserved this self-fundability. Obviously, movement outward along this diagonal was very much desired. Progress horizontally through the matrix reduced or reversed the cash dividend payment ability and/or raised the Debt/Equity ratio, and, since this was less desirable from the company standpoint, through the bonus plan it was made less rewarding to the participants. The cutoff limits at 29% ROA and 40% Growth reinforced the desire that improvement generally be along a diagonal.

A bonus plan *calibration factor* was used to adjust the center point of the bonus payout matrices to the performance level of the annual plan if planned performance, as accepted by top management, was below the timeless standard.

This was explained by Graham Sterling

> The justification for a Calibration Factor arose when the company's performance had not reached but was clearly trending toward the objectives established. At that time, we considered direction and velocity of progress as well as absolute performance in determining what Bonus Payoff Factor should result from attainment of the annual plan for the following year. In effect we said that if last year's results compared favorably to the prior year and to plan and if this year's plan showed significant improvement over last year's results, we might give these facts the weight of a few points of Return on Assets and incorporate this as a Calibration Factor in the numerator of the Payoff Function. At the outset of the year, a separate constant Calibration Factor was assigned to each quarter of the annual plan, so that the Planned Payoff Factor was at the desired level, contingent on accomplishment of the plan.

Because the standards for corporate consolidated performance were considered "timeless," the concept of a "calibration factor" at the Corporate level was something of a contradiction and was being phased out. At the *Group* level, however, a Calibration Factor was always used to make the Planned Payoff Factor for each Group commensurate with the Planned Payoff Factor for the corporate consolidation, taking into account that Group's relative contribution to the corporate plan. The philosophy was that after a Group plan had been reviewed, iterated, and finally accepted into the corporate consolidation, the managers responsible for executing the plan deserved essentially the same Planned Bonus Payoff Factors as the managers of the corporate consolidation and the other Groups. Thus, if a Group achieved its plan (without overachieving), the Group Bonus Payout Factor would be 1.0, regardless of how the actual performance compared with the corporation's long-term objectives.

A year or so after the start of the plan, the

EXHIBIT 3 Illustration of Quarterly Bonus Calculation—Corporate Management Bonus Plan

Assume the following facts for a hypothetical corporate staff manager:

a. he/she assigned 100% to corporate bonus plan
b. salary = $3,000 per month
c. personal bonus factor = 15%
d. maximum personal payout = 3.0*x*
e. summary performance standard = 33%
f. 3-quarter average OPROA = 26%
g. 12-quarter average sales growth = 28%
h. calibration factor is zero

Bonus calculated as follows:

$$B = S \times I \times F$$

$$B = [3{,}000/\text{month} \times 3 \text{ months}] \times 0.15 \times \left[\frac{26 + 0.4 \times 28}{33}\right]^{4.5}$$

$$B = 9000 \times 0.15 \times 1.714 = \$2{,}315 \text{ cash bonus this quarter}$$

Because of the maximum personal payout of 3.0*x*, the maximum quarterly bonus this manager could receive is (9000 × 0.15 × 3) = $4,050.

matrix function was replaced by an essentially equivalent algebraic formula. This simplification was desirable because use of the matrix required tedious double interpolation to determine the Bonus Payoff Factor for combinations of Growth and OPROA not explicitly defined on the matrix. The formula that most closely approximated the matrix for the Corporate Management Bonus Payout Factor was:

$$F_m = \left[\frac{\text{OPROA} + C + 0.4G}{P_s}\right]^{4.5}$$

where:

F_m = Management Bonus Payout Factor
OPROA = Operating Pretax Return on Average Assets (3-quarter average)
C = Calibration Factor
G = Sales growth (12-quarter average)
P_s = Performance standard

The performance standard (P_s) was timeless, fixed by the corporate long-range objectives. For the corporate plan, the performance standard was 33, calculated as the ROA goal (23%) plus 40% of the sales growth goal (25%). The effect of the exponent (4.5) was to impart the nonlinearity present in the Matrix.

Exhibit 3 provides an illustration of a bonus calculation for a hypothetical manager, on the corporate staff, using the formula, with the assumption that the Calibration Factor was not used.

Bonus Payout Factor (F)—New Products Plan

The New Product Bonus Plan was designed in 1978 and patterned after the Management Bonus Plan, with analogous performance dimensions—growth in new product bookings and return on new product investment, weighted equally. The assumption was that a successful technical contributor innovated and would have to keep inventing more and more products.

Larry Sullivan explained:

> Since the development of the bonus program for managers and executives, we have come to

realize that it is very important to plan and measure the results of investments in new products and reward the individuals that are involved in new product performance based on those results. With new product activities in virtually any industry, there are three issues that are involved in success: (1) establishing objectives for new product efforts such that they directly support corporate growth and return on investment objectives, (2) selecting the right areas in which to invest in new products such that these investments generate high return on engineering, marketing, and manufacturing startup expenses, and (3) executing the investment decision rapidly. This is important as in a dynamic market; the company that gets the right product to the market first usually ends up with the largest market share and hence long-term profits.

To reflect these realities, we have established objectives for new product bookings as a percent of total bookings, the growth in new product bookings, and the return we need to generate on new product investments. We have also devised the new product bonus system that pays off on the growth in new product orders from year to year and the return on investments made in new products.

In the New Products Plan, *Growth* was considered the short-term (i.e., highly responsive) performance measure. Growth was defined as a four-quarter average of the percent increase in total (corporate or group) new product bookings ($) in the quarter being measured over the same quarter a year ago. *New products* ranged from major strategic developments to minor modifications of existing products, anything for which a new product number was assigned. A product remained a new product for 15 months following the quarter in which it was introduced.

Return was conceptualized as a longer-term performance measure which put a high value on the volume and profitability of products released in the past three years. It was defined as the annualized value of the current quarter's marginal contribution from all new products (introduced in the past three years) divided by the development expense investment—engineering and marketing expense—needed to get the products to market (incurred in preceding four quarters). Marginal contribution was defined as revenue less manufacturing and selling costs, including variances (which could be significant during startup).

EXHIBIT 4 Illustration of Quarterly Bonus Calculation—New Products Bonus Plan

Assume the following facts for a hypothetical project engineer:

a. he/she assigned 100% to group bonus plan
b. salary = $2,000 per month
c. personal bonus factor = 10%
d. maximum personal payout = 2.0*x*
e. actual group new product growth = 50%
f. standard group new product growth = 40%
g. actual group new product ROI = 12%
h. standard group new product ROI = 15%

Bonus calculated as follows:

$$B = S \times I \times F$$

$$B = (\$2000 \times 3) \times 0.10 \times \left[\frac{50 + 12}{40 + 15}\right]^2$$

$$B = \$6000 \times 0.10 \times 1.27 = \$762 \text{ cash bonus this quarter}$$

Because of the maximum personal payout of 2.0*x*, the maximum quarterly bonus this engineer could receive is $1,200.

The New Product Bonus Payout Factor formula was as follows:

$$F_{np} = \left[\frac{G_a + R_a}{G_s + R_s}\right]^2$$

where:

F_{np} = New Products Bonus Payout Factor
G_a = Growth in New Product Bookings (4-quarter average)
R_a = Return on Investment
G_s = Growth standard
R_s = ROI standard

The performance standards were chosen as that level of performance necessary for the group to achieve the long-term corporate financial objectives. They were a function of such variables as asset intensity, growth rate, length of product life cycle, and profitability.

Payoff constraints were again selected at both upper and lower levels. At the upper level neither G_a nor R_a was allowed to exceed twice its respective standard. At the lower level, no payoff was allowed if either performance measure fell below 50% of standard.

The exponent (2) was chosen so that the payoff factor equaled 4.0 when both growth and ROI performance were at or above 200% of standard.

Exhibit 4 provides an illustration of a bonus calculation for a hypothetical project engineer.

Required

Evaluate the ADI bonus plans. How, if at all, would you modify the plans?

THE CHARLES RIVER COMPANY*

In a meeting to prepare for their upcoming management conference, Steve, Tom, and Bill Turner surveyed the view from the Dedham, Massachussetts, offices of the Charles River Company (CRC) and contemplated the success of the diversified holding company. The brothers recognized that one of the major factors in CRC's success was their philosophy of management, which rewarded managers based on the performance of their operating companies. CRC based its management control system on a unique concept called professional entrepreneurship. The company trained its managers to be professional managers while encouraging the risk-taking activity of entrepreneurs. As Tom Turner noted, "This training allows the managers to look for opportunities, but to manage the risks professionally."

As CRC entered its eighth year of operations, however, the Turners realized that CRC's operating philosophy and control system would need to conform to the changing corporate structure. Recently, CRC had hired Jack O'Meara as a *group* president and member of the executive committee. Unlike a CRC *company* president, O'Meara did not run an individual operating company but rather was responsible for coordinating, supervising, and advising four operating company presidents. One challenge for the Turners was to provide O'Meara with a bonus plan that was tied directly to the success of

*This case was prepared by Brian Jaffe, MBA '88, under the supervision of Assistant Professor George Baker. It is prepared as a basis for class discussion rather than to illustrate either an effective or ineffective handling of an administrative situation. All names have been disguised.

Copyright © 1989 by the President and Fellows of Harvard College. Harvard Business School case 189-179.

the operating companies for which he was responsible.

To encourage professional entrepreneurship, CRC provided company presidents with incentives tied directly to the performance of their operating companies. In addition to a base salary, the managers received a bonus if they exceeded a budget determined at the beginning of the year by the operating company management and by CRC headquarters. A bonus ceiling limited the amount that some managers could receive in compensation each year. However, Steve Turner was unsure of the effect the bonus cap had on incentives and was considering removing it from the system.

As the Turners prepared for CRC's annual management conference in Napa Valley, California, they were concerned with two major challenges to the CRC compensation system. First, they needed to develop a compensation system for Jack O'Meara, based on the principles of professional entrepreneurship. Second, the bonus cap would have to be reevaluated.

History

The Charles River Company was founded one Sunday afternoon in January, 1976, when the Turner family was watching the Super Bowl. Bill Turner recalled, "We were bored, so someone said, "What do you want to do?' and someone else said, 'Well I don't know, why don't we start a company?" '

In June 1976, the Turners placed an ad in the *Wall Street Journal* reading,

> Principals looking to acquire businesses any size range, any profitability, anything goes, send us what you have on a first-come, first-served basis.

They received 980 replies, of which 979 were from business brokers.

After several false starts, they acquired the Capitol Plastics Corporation, a subsidiary of the Capitol Corporation, a $200 million producer of industrial products. At the time of the acquisition, the Capitol Plastics Company was losing $600,000 on sales of $5 million. CRC purchased the company for $1.8 million, investing only $100,000 in cash and financing the remainder with debt, much of which was bought back by the seller.

The Turners took over the company and took control of several key management tasks. In his capacity as treasurer, Steve found four inappropriate sales representative organizations, along with a number of unprofitable arrangements with suppliers. As Steve recalled,

> By signing the correct checks and not signing the incorrect checks, we were able to make a half a million dollar profit the following year. The seller could not believe that we were able to accomplish this. We were then able to use our profits as a springboard into other things.

The acquisition history of the Charles River Company is shown in Table A.

Acquisition Strategy and Operating Philosophy

CRC organized and managed leveraged buyouts (LBOs) of small- to medium-sized companies and divisions. The company purchased the target firm by putting up a small amount of equity in the deal, and financing the rest of the purchase with debt. This debt was often secured with the assets of the acquired company or division. In leveraged buyouts, debt/equity ratios as high as 10 to 1 were not uncommon. Because of the financial structure of these deals, CRC was able to buy all of the equity in the companies that it bought without investing large amounts of capital. CRC put up the equity, and the debt was carried on the books of the acquired company or division.

CRC'S acquisition strategy changed as it achieved growth in capital. In its early years, CRC pursued turnaround opportunities, since they could be purchased for less cash. As the

TABLE A Acquisition and Divestiture History

COMPANY	BUSINESS	DATE ACQUIRED	COMMENTS
Capital Plastics Corp.	Plastic products	Oct 1978	Sold 7/81
Harris Paint Co.	Traffic paint	Nov 1979	Sold 2/85
Northern Paint Co.	Interior/exterior paint	Sept 1980	Sold 3/84
Benson Bakeries	Baked goods and cold storage	Dec 1980	Sold 10/82
Carter Steel Corp.	Steel minimill	Sept 1981	
Business Furnishings	Office design and furniture distribution	June 1983	
Forced-Air Manufacturing Co.	Heating and air-conditioning products	July 1983	
ADC Corp.	Office design and furniture distribution	Aug 1984	
J.T. Massie Co.	Automotive parts and metal products	Jan 1985	
Holland Mills Inc.	Wood furniture manufacturing	May 1985	
Cliftwood Ltd.	Wood furniture manufacturing	May 1985	
General Technology Inc.	Static control products	May 1985	Sold 12/86
Carter Steel Corp., Bloomington, IN	Steel bars and shapes	Aug 1986	

company became more successful, it could afford to be more selective. The acquisition criteria that CRC used in 1987 are shown in Exhibit 1. CRC pursued midtechnology companies that had the potential to dominate their markets. As Bill Turner noted,

> The best industries to buy into are the ones that are changing dramatically, that are in the midst of some kind of transition, because if you understand the industry, what the nature of the transition is, and where you think it is heading, you can then buy in at the right place, or maybe be a catalyst for change. It's tough to get rich by buying a cardboard box manufacturing company at the peak of its performance and just riding out their investment. There are higher returns in buying industries and companies in transition. That is our acquisition strategy.

EXHIBIT 1 Acquisition Criteria

Sales: $20+ million
Turnaround situations: $40+ million
Manufacturer or value-added distributor
Break-even or better profitability on an operating basis
Modest technology content
Industries of specific interest:
Commercial office–related (furniture, carpet, etc.)
Steel
Specialty window
HVAC
SIC Codes: 3312 3433 3585 5021 2514 2272 3743 2512

Several of CRC's earlier acquisitions are detailed in Exhibit 2.

CRC's stated objective was to pursue a growth strategy through acquisition. Gross sales, as shown in Exhibit 3, had grown from approximately $80 million in 1982 to $380 million in 1987. Moreover, CRC's management philosophy set it apart from other LBO firms. As Bill Turner stated, "We have differentiated ourselves from the others by focusing on the management of the companies we buy, rather that just being financial players. That is the one thing that isn't cyclical. There is always going to be the need for good management."

CRC's operating philosophy was ex-

EXHIBIT 2 Selected Acquisition Histories

Carter Steel

CRC's purchase of Carter Steel Corp., made up of two divisions of United Steel located in Tulsa and St. Louis, made the front page of the *Wall Street Journal* as one of the biggest deals of 1981.

Carter's profits had been squeezed by foreign competition. Prior to 1981, United had gone into a strategic planning binge, moving away from steel and into insurance. United wanted to sell the 10 plants and the sales office of the steel company for the book value of $62 million. Included in the package were two minimills; the Tulsa mill, a continuous caster and merchant mill producing rebar for reinforced concrete, and the Marysville, Ohio, mill, which was old and had no continuous caster. CRC, unwilling to purchase the Marysville mill, offered to accept the package at the same price without the plant.

The divestiture was extremely traumatic for the United employees. The employees in the plant were distraught, believing that United had violated their trust. The steel men of the plant and fabrication shops resented the salespeople, and there was only limited cooperation with CRC. The company was in desperate need of new management.

CRC sent in a manager, John Haskins, centralized operations in Tulsa, and created overhead functions such as payables, receivables, and accounting systems. CRC renegotiated the note that they had given to United and Carter soon returned to profitability. As Steve Turner recalls, "There is a lot more involvement from everyone now, even the union. The people's spirits are high, and the management is committed." Carter Steel today is a profitable company, with revenues of over $100 million.

Forced-Air Manufacturing

In 1983, Forced-Air Manufacturing was a small manufacturing subsidiary of the large propane gas distributor Yankee Propane. The company manufactured an array of product lines, holding a 30% share of the recreational vehicle heating unit market.

In 1980, Forced-Air had an impressive year. Capitalizing on the popularity of wood-burning stoves, the company achieved profits of $5 million on sales of $30 million. The following year, however, witnessed a lowered enthusiasm for wood-burning stoves, and sales for these items plummeted from $7 million to $3 million. Forced-Air also developed a revolutionary line of unvented heaters that burned propane or liquid natural gas. Forced-Air manufactured $1 million of these heaters and sold very few owing to regulations requiring the storage of propane outside the home.

Yankee Propane wanted book value, or $11 million for Forced-Air, which had annual sales of $25 million. The agreed upon price was $9 million, of which $6.5 million was for cash and $2.5 million was for a note with a two-year moratorium on principal and interest.

Prior to CRC's involvement in the subsidiary, Forced-Air was managed in an authoritarian manner. The company president was afforded much respect and had minimal contact with the shop employees. Subsequent to the sale, however, Tom Turner visited with the plant employees, smiled, and shook hands. Turner made some immediate changes and determined that the company president was ineffective. The president was moved upstairs as chairman, but not as chief executive officer.

The new company president, Jack Carter, significantly improved asset management as well as employee cooperation throughout the organization.

Northern Paint

When CRC purchased Northern Paint from Dakota Corp., a diversified conglomerate, in September 1980, Northern was reporting zero profits on $20 million in sales. Prior to the sale, Dakota brought in a turnaround specialist, who had Northern focus on private-label paints, instead of pursuing their own national brands. CRC paid $6 million for Northern, of which $3 million was in cash and $3 million in a note. Another bidder offered $4 million in cash plus a $2 million note for Northern. Both the presidents of Dakota and Northern Paint preferred CRC's management to this bidder, and CRC was awarded the bid.

CRC employed incentives based on professional entrepreneurship and experienced substantial sales growth. In 1980, profits reached $1 million after interest expense. By 1984, profits were $3 million on sales of $33 million. During this period, while the paint industry was shrinking, Northern's market share increased and profitability improved dramatically. CRC sold Northern in 1984 for more than $20 million.

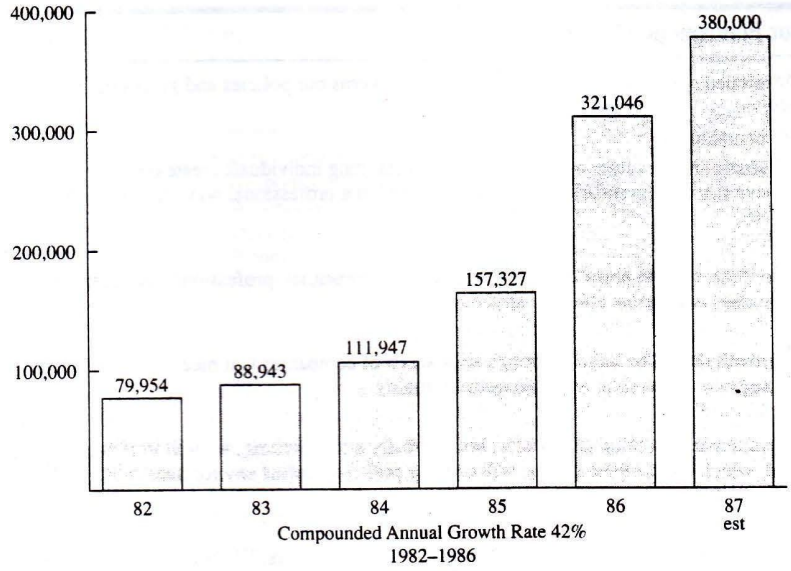


EXHIBIT 3 Charles River Company Growth–Sales ($ Thousands)

pressed in their Fundamental Beliefs, shown in Exhibit 4. The CRC operating companies were highly decentralized, with the managers of each of the subsidiaries responsible for its product development, manufacturing, and marketing strategies. The companies were treated as separate entities, each with individual banking, legal, and accounting relationships. This separation served to limit corporate liability and ensured that a bank did not lend money to an entity based on the viability of the corporation as a whole. The operating companies also maintained their own auditing and legal relationships. As Bill Peterson, Director of Financial Planning stated,

> We feel strongly that each one of those companies should operate as a stand-alone entity. We insist only that they send out their internal monthly reporting package to us. They also establish big eight accounting relationships and legal relationships in the city that they are in. If they need consultants, they bring in consultants; whatever it takes to run the company.

However, as the company grew the Turners recognized that they would need more management structure in Dedham to coordinate the growing number of operating companies. The hiring of Jack O'Meara reflected what was likely to be an ongoing company trend toward "Group Presidents." CRC's Principles for Successful Group Presidents is shown in Exhibit 5. The organization structure as of the spring of 1987 is shown in Exhibit 6.

Professional Entrepreneurship

Steve Turner believed that managers could be characterized along a spectrum ranging from entrepreneurial to managerial. Entrepreneurial managers were free-wheeling risk takers, while professional managers were more analytical, utilizing skills developed in formal training. Professional entrepreneurship was a system of management training and control that encouraged professional management while promoting more risk taking. Ken Duf-

EXHIBIT 4 Our Fundamental Beliefs

The company has developed a formalized belief system which governs our policies and guides our actions. These beliefs include:

Professional Entrepreneurship

We believe that individuals are the center of our company. Outstanding individuals create outstanding performance. We believe that entrepreneurial endeavors managed in a professional way are the key to realizing our goals and objectives.

Decentralization

We believe that an environment that promotes decentralized, entrepreneurial, professional management in self-reliant operating companies is the most effective structure for CRC.

Growth

We believe that our growth should be largely through acquisition of companies that meet our criteria in terms of sales, profits, market segment leadership, and management quality.

Communications

We believe that by communicating often and clearly, both verbally and in writing, we will improve our ability to excel in the markets in which we compete and we will create a positive internal environment which will enhance our team-effectiveness.

Education

We believe that continued personal growth is a key to creating better managers. We believe in being students.

Incentives/goals

We believe in incentive management with a modicum of controls. We will do this through our five principles of incentive management and our systems of planning and reporting.

Quality

We believe that quality is vital to achieving our growth and profitability objectives. By providing our customers with the highest level of quality in the products we produce and the services we provide, we will assure that we will repeat sales at attractive margins.

Decision Making

We believe that decision making is best achieved through consensus-style discussion where several individuals with different perspectives participate.

Integrity

We believe that trust and teamwork with ourselves, our supplies, our customers and others, is founded on absolute integrity in all interactions.

Leadership

We believe that it is essential to be a leader in the markets we serve. We also believe in being leaders in the communities in which we live and work.

Innovation

We believe that market leadership, growth and profitability result from creative, forward-looking, and responsive solutions to the product and service needs of the markets we serve.

fey, CEO and President of Business Furnishings, a distributor of office furniture, cited the benefits of professional entrepreneurship:

> CRC doesn't know the business as well as us (the operating company) so we are expected to think about the business long term, strategizing, recognizing opportunity. CRC is available for training and for consulting if we wish. I think it's a hell of a lot better than a company saying, "Well, we own you, and we'll tell you what to do and when to take risk and when not to take risk."

The Turners believed that professional entrepreneurship worked most effectively in ex-

EXHIBIT 5 CRC's Five Principles for Successful Group Presidents

HIRE SMART	MOTIVATION	CONTROL	SUPPORT	STRATEGIC PLANNING
CEO of subsidiary or division	Self-fulfillment Responsibility Autonomy Decisions Planning Accountability	System vs. people Need respect for system (enforce it) Enforce system (issues) not people	Central issues Insurance Banking	Planning: help focus Strategy and analysis
Assure all "10s" for all Executive Committee positions	Short-term incentives CRC's five principles	Maximize their autonomy with maximum CRC's info.	Communicate Challenge Set high standards	Challenge them to be strategic thinkers
Organization is proper for company and industry	Long-term incentives CRC's equity sharing program	Ask good questions Communication	Let them know you're there, but keep out of their way	Challenge them to manage change

tremely competitive industries. Steve Turner stated,

> If you put the classic professional manager, who is more of a take-it-slow type, into an extremely competitive environment, the competition is going to chew him up.

Professional entrepreneurship was not something that all managers of acquired companies were comfortable with, and the Turners admitted that CRC had experienced some turnover in operating company management. This turnover, however, usually occurred long after the acquisition had taken place. As Steve Turner professed,

> One of the basic premises of this system is that all people have the basic capabilities to do the job, and if they don't they can be trained. Professional entrepreneurship is a system whereby anybody can succeed if they are open-minded. Only those people who have a negative attitude toward change can't make it.
>
> We do have to let people go, and it is not easy, but as a rule nobody ever fires anybody too early. When you have the feeling in your stomach that the person isn't right, that is the best time to move. That is difficult to do in our business, but our system depends on it.

According to Turner, company presidents who were used to entrepreneurial environments or private ownership initially had some difficulty with professional entrepreneurship. The strategy formulation and budgeting process at CRC was a bottom-up process, and the former owners had the greatest difficulty soliciting input from subordinates. Regarding the entrepreneurial company president, Turner stated,

> Not only does he not want to ask his managers about what to do, he doesn't want to show them the numbers. He doesn't know how to share information or how to get others involved. Often that is why he sold the company in the first place.
>
> Our view is that it is possible to train and encourage managers to use the right mix of professional management techniques and entrepreneurial judgement. That is a large part of our job.

Control and Incentive Compensation System

CRC had few corporate rules and did not tamper with the authority structure of its operating companies after it bought them. However, CRC did implement its own planning

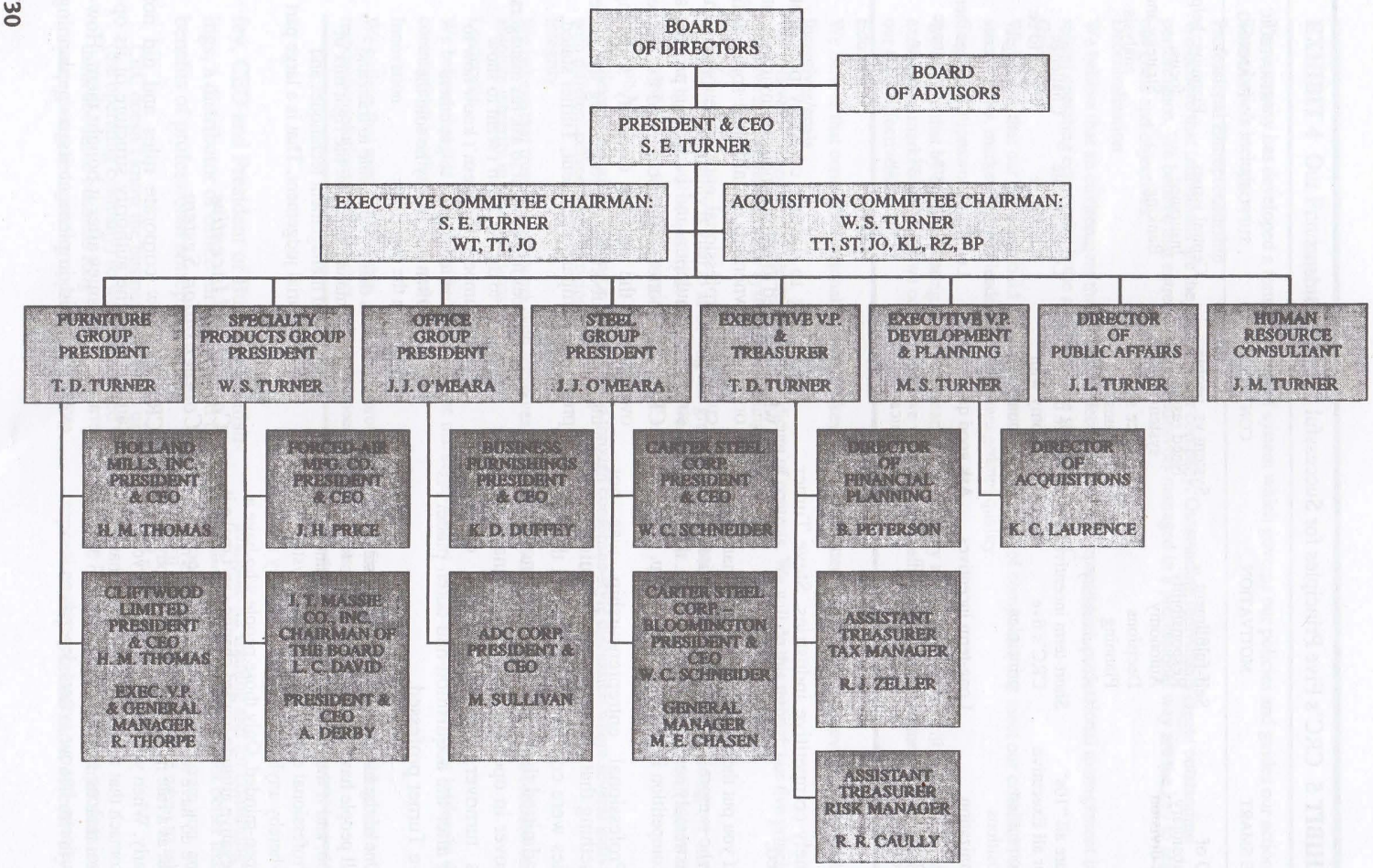


EXHIBIT 6 Charles River Company—General Management and Staff Organization Chart, Spring 1987

and budgeting system in all its companies. This system was the foundation on which the incentive compensation system was built.

CRC's planning and budgeting system consisted of several formal and informal devices. The two formal planning devices, a five-year strategic plan and an annual business plan, served to establish strategy for the operating companies. In October of each year, the president of each operating company presented a five-year strategic plan to CRC's executive committee. The strategic plan outlined the company's marketing plan, including projections of market share and expenditures. The purpose of this plan was not to commit the unit to a specific long-term plan but simply to force the operating presidents to think strategically about their businesses and to set direction. Because of market dynamics, CRC believed that managers should not be held strictly accountable to five-year plans. So, although the plan had to be submitted and approved by the executive committee, the operating presidents were not restricted to the targets outlined in these plans. As Bill Turner stated, "We just want to make sure that in doing the process of developing the thinking, people have agreement on where they are going, and that all members of the team are heading in the same direction."

The annual business plan, which the operating presidents presented to headquarters in March each year, was a comprehensive document that detailed marketing and production strategy, manpower planning, and R&D and capital expenditures. Initially, a company's business plan was acceptable if it "worked"; i.e., if the operating unit produced sufficient cash flow to pay the interest and debt repayments on the loan that were required to purchase the operating unit. In later years, CRC added measurements against competitors, such as market share and comparative industry profitability.

In addition to repaying the sinking fund requirements and interest payments on the loan to fund the LBO, the unit had to maintain working capital requirements determined by the bank. The annual budget had to include capital expenditures that at least met the company's depreciation on fixed assets. Any significant variation in expenses as a percent of sales required explanation to headquarters. The operating unit also had to remain within a comfortable operating range with its bank in terms of bank loan availability. On the subject of bank relationships, Tom Turner stated,

> If the banker doesn't like the plan, he will call us up an say, 'I have been dealing with the local managers, and their plan doesn't seem to work for us. They are in trouble and you have to help us.' Then we will meet with the company presidents and with the bank to bail them out. Usually that requires a greater degree of communication, and some major changes in plans. It has happened a few times, and in one case the bank lived with us for two years before we made a management change.

In addition to submitting a five-year strategic plan and the annual budget, each operating company submitted monthly performance reports which outlined the performance on a monthly and year-to-date basis. The company presidents also submitted a Daily Flash Report that detailed daily cash flows and other key indicators. Included in this report were actual cash in and cash out numbers, bank availability, billings, and daily backlogs.

CRC provided the managers of its operating units with a "highly levered" incentive compensation program. If the operating unit reached the target defined in its annual budget, the company's management received bonuses equal to 25% of their base salaries. In addition, the operating company management received 25 cents for every dollar by which the budget was exceeded. The remaining 75% was reinvested in the company to fund growth. Exhibit 7 outlines the principles of CRC's incentive system.

EXHIBIT 7 Five Principles for Incentive Management

People will have an incentive program for extra compensation. The plan may vary by profit center but should take into consideration CRC's principles for incentive management, which are:

1. Each team member knows his or her job; what's expected; and how the job is related to the rest of the company.
2. Each team member is involved in formulating job-specific goals and the company's objectives and strategies and, therefore, there is good communication of the company's strategic focus and business plan. Everybody should be comfortable with the game plan.
3. All team members receive timely and accurate measurements of how they and the company are progressing toward their objectives.
4. The incentives are based on realizing the agreed-upon goals and objectives and are agreed upon and understood in advance.
4. Participants receive timely realization of their incentives.

1/17/85
pma
Rev: 11/10/86

Under this compensation system, managers had an incentive to sandbag: that is, to submit plans that barely exceeded the requirement to make the plan "work." Steve Turner said of this, "We don't mind sandbagging. So long as they are making their plans, we want them to share in the upside. When they don't make their plans, then we have problems." The Turners felt that the bonus plan had been successful.

It was true, however, that a company president could take advantage of the bonus structure. Steve Turner cited an example of an entrepreneur who sold his business to CRC in 1982. He remained as president after the sale, and in the first year of CRC ownership, he presented a plan with a negative sales growth and a loss of $50,000. After lengthy negotiations, a compromise was struck on a budgeted income figure of $150,000, which the Turners suspected was still sandbagged by $400,000. When income came in at over $500,000, the management team was rewarded $100,000 in bonuses. CRC dealt with this manager by keeping his base salary and the salaries of those below him unchanged for four years. As Steve Turner stated, "Do I like that? You bet! Someday they are going to have a recession and we are going to be damn lucky we have the lowest salaries in town. We don't mind carrying the extra compensation if they do well."

Bonuses were typically paid to the upper management team of the companies (3 to 10 people), in proportion to their base salaries. However, companies had experimented with other schemes. For example, the top management of Business Furnishings had relinquished roughly one-third of the bonus pool to the next level of management in its company. Recently, Business Furnishings went even further and introduced a plan that provides *all* of its employees with a bonus. Ken Duffy described the benefits of this system:

> I recognize that the way to provide incentives for a truck driver is really not by giving him something based on the profit of the company because he does not see immediately how his job relates to the bottom line. However, we have had this (bonus system) through three quarters, and they've earned this bonus every quarter. They're delirious about it.

As an additional incentive, CRC made stock or stock equivalents available to the management of each operating company over a period of years after the buyout. Up to 18%

of the company's stock could be awarded to the management team, with the president eligible for 8%–10% maximum. CRC awarded stock for good performance and vested it over a period of five years. The stock was highly restricted, however; there were no outside equity investors, and although the managers could cash out with CRC at book value, they could only redeem their stock back at the rate of 10% per year after a five-year holding period and up to a maximum of 50% of their original issue. If CRC sold the operating company, they would allow a manager to cash out 100%, and CRC would then buy back the managers' shares at a rate that reflected the selling price of the company. When managers retired or quit, they could also sell their stock back, but it was redeemed with junior debt from the company which matured at a rate of 20% per year.

The Debate Over Incentives

As the Turners prepared for the annual management conference in California, they evaluated the challenges to CRC's compensation system. In particular, they contemplated how to effectively compensate Jack O'Meara, the first nonfamily member to be appointed to the executive committee, as well as the company's first group president. The Turners hoped to design an incentive system that would provide O'Meara with incentives tied to his management of his four operating companies and that would be consistent with their existing incentive system for the company presidents.

The Turners were also unsure about whether the incentive compensation system should include a bonus cap. Initiated in 1984, the cap placed a ceiling on the bonuses of certain company managers. In recent months the cap had been removed, resulting in wide swings in operating profits. As Tom Turner recalled, "We had one company earning a fortune one year and zero the next. Since they knew that they were going to have a tough year the next year, they pushed everything into the prior year so they could maximize their bonuses." The Turners wanted their managers to share in unlimited upside potential but were unwilling to accept the wide profit variations that seemed to accompany the removal of the bonus caps.

RKO Warner Video, Inc.: Incentive Compensation Plan*

On a cold morning in mid-January 1989, Steve Berns and Ken Molnar sat in a conference room at RKO Warner Video headquarters in Manhattan analyzing fourth quarter 1988 results and evaluating the company's incentive compensation plan, which had been in effect for the past two quarters. Berns, RKO's president, and Molnar, the company's vice president of operations, were scheduled to meet with Michael Landes, the chairman and owner of RKO, at the end of the week to review the video chain's expansion plans for 1989 (see Exhibit 1).

Berns had been with the company, previously known as Video Shack, since its inception in 1979 when he joined as a salesperson.

*Samuel L. Shimer, MBA '89 prepared this case under the supervision of Professor George P. Baker. It is intended for class discussion rather than to demonstrate either effective or ineffective handling of an administrative situation.

Copyright © 1989 by the President and Fellows of Harvard College. Harvard Business School case 190-067.

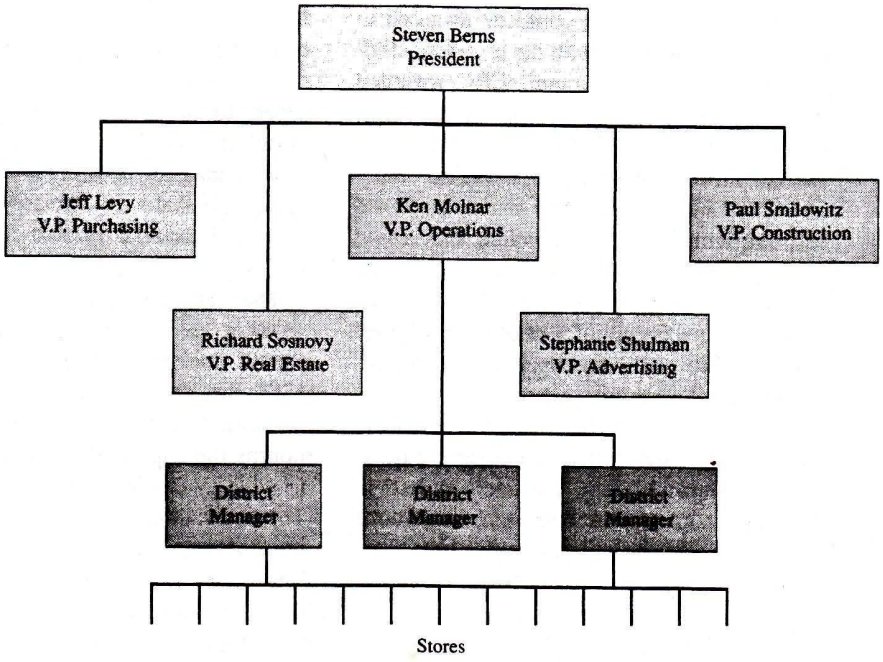


EXHIBIT 1 Organization Chart of RKO Headquarters and Stores

When Landes acquired the company in November 1986, Berns had risen to the position of president. Molnar had worked for Landes for six years at RKO Century Warner Theaters, which Landes had sold in 1986. While both men were pleased with the 1988 results and confident of their plans for the chain's future expansion, they were uneasy about the costs and the results of the incentive program that had been initiated on Landes's suggestion six months previously.

RKO's 24 stores were concentrated in the New York City area and sold or rented prerecorded videocassettes (PRCs) to consumers. The Broadway store, the first and largest RKO store, and the largest PRC retail outlet in the world, epitomized the chain's strategy. It had an enormous inventory of PRCs representing a broad range of titles, presented in an attractive and carefully designed environment. After a brief period of consolidation following the acquisition, computer equipment was installed, the stores were redecorated to Landes's high standards, and RKO embarked on a store-opening spree designed to consolidate its dominant position in the New York market. Seventeen new stores had been opened in less than two years, with 15 additional stores projected to open in 1989. Berns reflected on the past, present, and future of RKO:

> Right now, we are positioned to dominate the video specialty retailing market in New York. We have already realized significant advantages over our competitors in both purchasing and advertising. In addition, our stores have greater tape selection and better appearance. One key to our future success will be our ability to attract and keep qualified help. You have to remember that we are drawing from the retail labor pool, the same pool as Macy's and Crazy Eddie's. But people have to work harder in video—everyone else is playing

when we're at work. A major goal of the incentive compensation program, in addition to recruiting, is to make all of our managers conscientious, to motivate them to build a future with RKO, and to take pride in their work.

As Berns and Molnar planned for their upcoming meeting with Landes they wondered if the incentive program was working, or if it was an unnecessary waste of time and money, which was not helping to achieve the goals they had for RKO. Berns concluded, "We want our stores to be well run, organized, and clean. The Bloomingdales of the video industry."

The ALMI Group

The ALMI Group was formed in 1978 as a partnership between Michael Landes and Albert Schwartz. Schwartz, educated as a lawyer, had done real estate investment and development before creating a foreign film distribution company in 1976. In August 1978, Schwartz hired Michael Landes, also an attorney, to represent him in litigation over theatrical exhibition rights. Schwartz and Landes created ALMI in November 1978.

In 1980, ALMI began acquiring movie theaters in the New York area, beginning with five United Artists theaters. In March 1981, Landes and Schwartz acquired the Century Theaters chain for $8 million. In November of that year ALMI bought the RKO Stanley Warner Theaters chain for $40 million, forming the RKO Century Warner Theaters chain. ALMI's strategy was to renovate and rejuvenate the theaters, while selling off substantial theater assets for attractive prices. As a result of the successful implementation of this strategy, RKO Century Warner was able to build a reputation for quality and develop brand name recognition for the theater chain. This strategy resulted in higher market share and profitability. In September 1986 ALMI sold certain RKO Century Warner assets for $179 million to the Cineplex Odeon Theaters chain.

By early 1987, ALMI was active in a number of other entertainment businesses including film and video production and film distribution. Other investments included real estate and oil production ventures, a video game operation, an ice cream store, and a shirt manufacturer. In addition, Landes and Schwartz each continued to make investments as individuals. The Video Shack purchase was one such investment by Landes.

The Videocassette Retailing Industry

Most PRCs were originally released as theatrical films. Movie studios traditionally produced these films themselves or bought complete rights from independent producers. The studios generally controlled all rights for a film, distributing to domestic movie theaters and to such "ancillary" markets as home video, commercial and pay television, and foreign theaters. The studios had historically received most of their revenues from their share of the box office receipts. However, by the mid-1980s, video sales were a substantial source of revenue for the studios.

Under the First Sale Doctrine, once a video store purchased a PRC it could rent it indefinitely without further reimbursing the distributor. By 1986, movie studio executives were concerned that studios were not sharing in the growth of rental revenues. One response by the studios was to dramatically lower the release price on selected hit titles, from the traditional $79.95 paid by rental stores, to below $30, in order to encourage consumers to buy rather than rent the films. This "sell-through" demand was far greater than the demand from rental outlets would have been, and thus resulted in higher total revenues for the studios. For example, the

1982 hit *E.T. The Extraterrestrial*, priced at $24.95 *sold* 10 million copies within two months of its release on PRC in November 1988. RKO management estimated that the average suggested retail price of a newly released PRC had declined from $45 in 1985 to $32 by the end of 1988. Consequently, many nonvideo retailers began to offer PRCs, primarily for sell-through but also for rental. Mass merchants, toy store chains, grocery and convenience stores, bookstores, major drugstore chains, and even dry cleaners and gas stations began to carry tapes.

The variety of retailers offering PRCs confused the typical video customer. One market survey indicated that 87% of rental customers had a specific title in mind on 60% of rental store visits, but 88% expected to browse for the title on 64% of visits. This seeming overlap between planned and impulse selections was ascribed to the frequent unavailability of desired titles. Indeed, if all titles were available, the average rental customer would rent an additional 6.9 titles per month. Customers buying PRCs selected roughly 45% of their purchases in the store. Another survey indicated that, on rental visits, 52% of customers choose the most convenient location.

Video Shack History

In 1979, Arthur Morowitz concluded an experiment selling PRCs in the lobbies of certain movie theaters that he owned. Impressed with the success of that venture, Morowitz opened a store on Broadway and 49th Street to sell PRCs. Less than 3% of households owned videocassette recorders (VCRs) in 1979. Because these initial owners were primarily upper-middle class, Morowitz furnished the store with expensive jewelry-store-style display cases. Salespeople wore ties, and helped customers select tapes from locked cases.

Encouraged by the success of the first Video Shack store, Morowitz opened a second store on Long Island, feeling that the suburban market could serve as a barometer of the potential for the video retailing industry. That store was managed by Steve Berns, who had joined Video Shack in 1979 as a salesperson in the Broadway store. The new store was an immediate success, and within days Morowitz began to hire staff and plan for more outlets. Ten more stores were opened in the New York metropolitan area over the next three years. Growth slowed during 1983 as Morowitz devoted his time and money to developing other businesses. But, by the end of 1984, five more stores had been added to the chain. When Michael Landes purchased Video Shack in November 1986, the chain operated 17 stores.

Postacquisition Moves

In the year following the Video Shack acquisition, Landes and his management team moved quickly to bring the chain up to Landes's appearance and performance standards. After conducting a name recognition survey, the chain was renamed RKO Warner Video. Five of the older, unprofitable Video Shack stores were closed. Then, as he had done with the theaters that he had acquired earlier in the decade, Landes renovated and remodeled the other Video Shack stores to be first-class in appearance. Joe Murphy, manager of the flagship 49th Street store remarked, "For appearance sake, RKO goes full out. No chain anywhere can compete with the look of RKO."

On the operations side of the business, management undertook a number of dramatic shifts from prior company practices. First, the membership fees of $24.95 and renewal fees of $14.95 were dropped.[1] Next, rental fees of

[1] In the early 1980s, most video chains offered memberships to rental customers for an annual fee. The membership usually entitled a customer to a number of "free" rentals and discounts on subsequent rentals. Nonmembers were charged a higher rental rate.

$2.99 to $3.99 were reduced to $1.99 per night. As a result of these actions rental volume surged 40%. In addition, all remaining lock and key displays were removed from the stores and all of the stores were computerized, including a standardized transaction system.

RKO Strategy and Store Management

Steve Berns stated RKO's goals clearly: "We want to dominate the metropolitan New York video retailing market." Even as older Video Shacks were being closed, new RKO Warner Video stores were being opened. By the end of 1988, there were 24 open stores, of which only seven were original Video Shack stores. Due to the chain's tremendous size and sell-through tape volume, significant purchasing economies were realized. In addition, the chain's size made advertising much more economical for RKO than for its competitors.

Management believed that RKO's major sources of competitive advantage were quality appearance and the breadth and depth of the store's PRC inventory. Breadth of titles refers to the number of different titles in a store; depth of titles refers to the number of copies of an individual title in a store. The typical new, suburban RKO store was at least 4,200 square feet and contained a minimum of 7,500 tapes and 5,000 titles for rental and 2,500 tapes and 1,000 titles for sell-through. Manhattan stores were somewhat smaller. However, the capital requirements to build and stock a new store were significant barriers to the chain's historical competitors, "Mom and Pop" stand-alone stores. In addition, mass merchants offered a limited number of sell-through at significant discounts to list price in order to build traffic and encourage VCR purchases, but RKO management felt they could outdraw these competitors while selling at list prices. "People know to come to us for selection," said Joe Murphy. Steve Berns agreed, "Our 'discount' is in the selection and service we provide, not in the price."

Store locations, staffing, and inventory levels for all stores were determined centrally by Berns and Molnar. Each store required 10 to 20 clerks and two to four salaried managers, depending on that store's hours and its daily pattern of demand peaks. The company preferred to employ people over 18 years old, and paid entry-level clerks $5.00 per hour, which management considered competitive with other specialty retailers in New York. The store management task was divided among several people, since a typical store might be open 70 to 80 hours per week. All employees in a store reported to the store manager (see Exhibit 2). To assist in manage-

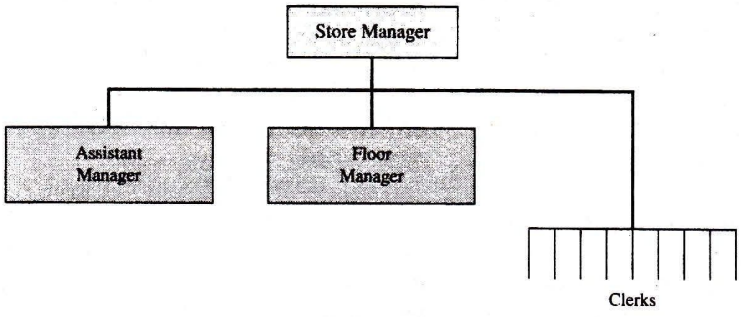


EXHIBIT 2 Store Organization

ment tasks during busy periods and to cover the store when the store manager wasn't present, there was an assistant manager and usually one (but sometimes none or two) floor managers.

Turnover among salaried and hourly workers was considered unacceptably high by RKO management. In addition, the quality and consistency of performance by store managers varied considerably across the chain. According to Ken Molnar, "The day-to-day responsibilities in this business are very important for store performance. Seemingly small things like alphabetizing the racks, keeping the store clean, opening on time, getting returned tapes onto the racks quickly, ordering product from the warehouse, and keeping checkout times short during busy times all make a difference." Given the rapid growth of RKO, management was very concerned about both the turnover and inconsistent quality across the chain.

The Incentive Compensation Plan

Michael Landes had RKO's management issues in the back of his mind when he attended a series of executive education classes early in 1988. While at the meetings, he attended discussions on management compensation and developed a relationship with a consultant who specialized in the field. Landes returned to New York convinced that a properly designed incentive compensation plan would address many of management's concerns about store operations and would help RKO recruit managers for their stores. He asked Berns and Molnar, with the assistance of the consultant, to develop an incentive compensation plan.

Berns's staff originally designed a bonus plan that would be driven by performance reviews, based on a variety of subjective measures. These measures would include "day-to-day" objectives such as store cleanliness and organization, general measures of store manager effectiveness, and store performance. Berns and Molnar were very concerned about the so-called compliance issue: making sure the store managers were doing a good job on the details that were considered essential to the success of an RKO Video retail outlet.

The consultant, on the other hand, favored a totally objective bonus plan driven by store revenues. He believed this would maximize the effect of the plan on incentives by making it clear to store managers what they had to do to maximize their bonuses. It would also eliminate the need for RKO headquarters' people to regularly inspect the stores to monitor compliance. As the consultant said to Berns:

> The bonus plan will give the store managers an incentive to increase store revenue, which in turn will give them an incentive to do the little things. If keeping the store clean and keeping the tapes organized are as important to store revenues as you say that they are, then the managers will do these things to maximize their bonus, without the need for a team of inspectors to check on compliance.

A number of spirited debates ensued. Finally, Berns agreed to implement the revenue-based plan on a two-quarter trial basis.

Details of the Plan

In early 1988, RKO store management personnel received annual salaries ranging from $21,000 to $28,500. Historically, annual raises ranged from 6% to 9%. Under the proposed plan, each store would be classified as an "A," "B," or "C" store based upon store size, volume, hours of operation, and an assessment of the "difficulty" of managing the store. Each class of store would be assigned a "base bonus" to be split by store management, on a quarterly basis, if revenue targets were achieved. The base bonuses were set as given in Table A.

TABLE A

	ANNUAL STORE MANAGER BASE BONUS	ANNUAL ASSISTANT MANAGER BASE BONUS	ANNUAL FLOOR MANAGER BASE BONUS	TOTAL ANNUAL BASE BONUS
A store	$5,000	$3,000	$2,000	$10,000
B store	3,000	1,800	1,200	6,000
C store	2,000	1,200	800	4,000

If a store achieved exactly its sales and rental target in a quarter, then the store management team would receive one-quarter of their annual base bonus.

Any revenue gained above the quarterly target would increase the bonus earned by the management team. Six percent of all rental revenue above target and 2% of all sales revenue above target would be distributed among the store management team in the same percentages as the base bonus. If stores achieved between 95% and 100% of their targets, then the base bonus would be reduced by 6% of rental shortfall and 2% of sales shortfall. If either sales or rental revenue failed to reach 95% of the target, no bonus would be paid. The bonus plan was thus described by the following formula:

If Actual quarterly sales $>$ 95% of the quarterly sales target and

Actual quarterly rentals $>$ 95% of the quarterly rental target then:

Total quarterly bonus = 0.25 $\times$ total annual base bonus + 0.06 $\times$ (actual rentals − target rentals) + 0.02 $\times$ (actual sales − target sales)

The base bonuses and targets were to remain essentially fixed from quarter to quarter, allowing the store management team to share in any revenue growth that occurred. According to Berns, the goal of the plan was to provide an objectively determined bonus plan driven by the economics of retail sales. He believed that the bonus plan would motivate all managers to run their stores efficiently, and in a way consistent with the chain's image and key success factors. He hoped that the revenue-based bonus plan would encourage store managers to monitor service-related performance such as the courteousness of the staff, cleanliness of the store and organization of the stock, all of which management felt directly affected store performance but could not be objectively measured. In addition, Berns had some other objectives in mind for the bonus plan. He hoped that the differences in the base bonuses would provide an incentive for store managers to move up through the chain, from suburban B and C stores to the more difficult to manage Manhattan stores. Finally, he felt that the plan would make it easier to attract and retain high-quality retail salespeople to run the ever-expanding network of stores in the chain. The program was announced to the stores, on a two-quarter trial basis, via a memo from Molnar dated May 19, 1988. [See Exhibit 3 for a copy of the memo.] A meeting was held on June 16

EXHIBIT 3 Interoffice Correspondence

TO: Store Managers
FROM: Kenneth Molnar
DATE: May 19, 1988
SUBJECT: Managerial Incentive Plan

In recognition of the fact that it is store management who provides the direction and motivation so essential for a profitable and well-run store, we are rolling out a Managerial Incentive Plan effective July 1, 1988.

We want our stores to generate as much revenue and profit as possible. To accomplish this we will share increased revenue with store management upon attaining or exceeding reasonable revenue goals.

A meeting explaining this program in detail, assigning goals, and answering any questions you have will be held during the second or third week of June. In preparation for this meeting and to enable you to digest most of the technicalities in advance of this meeting, here is an outline of the program.

Stores have been configured into three strata predicated upon such factors as degree of business, size of store, hours of operation, and operational difficulty.

The structuring is as follows:

A STORES	B STORES	C STORES
Paramus 260	Toms River	Westwood
Hackensack	Little Falls	Coney
Amsterdam Ave.	34th Street	Island
East Meadow	Lexington Ave.	Scarsdale
Greenwich	Union	
Morris Plains		
Carle Place		
Edison		

Each store will be given quarterly goals for both rentals and sales. The base bonus is determined by the class of the store as follows:

A stores	$10,000 per year
B stores	6,000 per year
C stores	4,000 per year

Both sale and rental goals must be met each quarter. If store revenue is exactly on goal, the yearly bonus would be as indicated above.

If store revenue exceeds goal, the base bonus in addition to 2% of incremental sale revenue plus 6% of incremental rental revenue, would be distributed among management.

If store revenue falls short of goal but is within 5% of goal, management would receive base bonus minus 2% of missed sales revenue and 6% of missed rental revenue.

If a store falls short of either rental or sales goal by more than 5% no bonus would be given.

The outcome of one quarter would have no effect on subsequent quarters. Bonus for exceeding goal would be included in that quarter and falling short of goal would adversely affect only that quarter.

Bonus money would be qualified for quarterly and paid out in one additional check the following quarter.

Bonus money would be split in each store with

Store Manager receiving	50%
Assistant Manager receiving	30
Floor Manager receiving	20

STORE TYPE (BASE BONUS)	50% MANAGER	30% ASST. MANAGER	20% FLOOR MANAGER
A ($10,000)	$5,000	$3,000	$2,000
B (6,000)	3,000	1,800	1,200
C (4,000)	2,000	1,200	800

continued

In stores designated as four-manager stores, the floor manager bonus would be doubled then divided and applied to the third and fourth manager.

There are certain measurable areas of profit drain that can be directly or indirectly controlled by management. These measurable areas would be deducted from bonus.

a. Net register shortages—all clerk overages and shortages will be netted out. If a shortage exists it will be deducted.
b. Any missing safe funds and short deposits.
c. Losses resulting from not following proper check procedures.
d. Losses resulting from not following proper charge procedures.

This Incentive Plan has taken a considerable investment in time to develop. While we think most areas have been addressed and problems anticipated, "bugs" may exist and unanticipated problems may arise. Because of this, we are committing to the program in its present form for a period of two quarters. Evaluation of this plan will be ongoing and adjustments will be made accordingly.

We are looking forward to both seeing you in June and initiating this long-deserved Incentive Plan.

cc: S. Berns
J. Levy
C. Meier
M. Berlin
R. Erdmann
R. Stoneman

to answer questions and assign targets for the quarter beginning July 1.

Reactions and Results

Store managers reacted to the announcement of the plan enthusiastically. According to Berns they were "ecstatic." Comments by store managers to the casewriter included:

"The plan was welcome, any chance to make more money is great."

"It's a great program. . . . It really generates a competitive feeling."

"I like it; this company had always been on the cheap side."

During the first quarter of the program, "easy" targets were set for the stores. As a result, 12 out of 17 stores received bonuses in the third quarter of 1988. Total bonus payments were $45,755. Two store managers individually received bonuses of over $3,000, well in excess of their base bonus of $1,250. (See Exhibit 4 for third and fourth quarter results.)

Fourth quarter targets were raised by Berns and Molnar to reflect three factors: third quarter performance, a rental price increase effective November 13 to $2.49 a tape, and generally greater sell-through demand for the Christmas season. However, rental targets were lowered mid-quarter to reflect lower than anticipated demand. For the fourth quarter, 11 out of 21 stores received bonuses totaling $29,448.

Manager reactions to the implementation of the program were mixed. Janet Harris, manager of the 34th Street store commented, "The targets used to be better. The new targets are too high." Jack Hilgartner, manager of the chain's second largest store agreed: "The Christmas targets were unrealistic. I ignored them." He actually stapled them shut to his bulletin board. He added, "I want to know how they come up with these targets. They can zap you so easily with targets that are impossible to hit."

Meanwhile, Berns and Molnar were unhappy with the results of the program. They

EXHIBIT 4 Store Goals and Revenues for Third and Fourth Quarters, 1988

STORE TYPE	STORE NAME	3Q88 RENTAL GOAL	3Q88 RENTAL ACTUAL	3Q88 SALES GOAL	3Q88 SALES ACTUAL	3Q88 TOTAL BONUS
A	Carle Place	$126,100	$ 168,014	$ 59,800	$ 64,022	$ 5,099
A	Edison	97,500	123,603	148,200	172,319	4,549
A	Greenwich	93,600	125,429	104,325	94,071	0
A	Hackensack	143,000	203,314	78,000	84,229	6,243
A	Little Falls	202,800	229,565	130,000	111,434	0
A	Morris Plains	63,960	54,823	43,973	43,588	0
A	Paramus	72,800	97,696	89,700	93,037	4,061
A	Lexington	141,700	198,299	66,300	71,894	6,008
A	East Meadow	75,400	119,730	75,400	126,260	6,177
B	Toms River	72,800	88,547	32,500	35,444	2,504
B	34th Street	89,700	127,348	36,400	49,806	4,027
C	Neptune	46,800	54,511	44,200	58,065.	1,740
C	Westwood	54,600	71,249	52,000	49,327	0
C	Union	55,900	74,524	19,500	25,521	2,238
C	Scarsdale	88,400	90,108	18,200	19,489	1,128
C	Amsterdam	88,400	102,366	19,500	26,706	1,982
	Total		$1,929,126		$1,125,212	$45,756

STORE TYPE	STORE NAME	4Q88 RENTAL GOAL	4Q88 RENTAL ACTUAL	4Q88 SALES GOAL	4Q88 SALES ACTUAL	4Q88 TOTAL BONUS
A	Bay Plaza	$103,950	$ 59,437	$ 52,500	$ 104,803	$ 2,811*
A	Carle Place	166,768	190,348	100,400	92,756	0
A	Oceanside	94,511	106,468	45,000	81,757	3,953
A	Edison	120,109	116,326	237,600	260,513	2,731
A	Greenwich	123,658	122,881	146,400	154,583	2,617
A	Hackensack	204,992	186,189	111,600	133,663	0
A	Little Falls	227,142	247,753	187,400	200,520	3,999
A	Morris Plains	85,179	111,314	94,000	113,864	4,465
A	Paramus	97,332	97,982	118,800	152,875	3,221
A	Lexington	209,465	173,044	94,200	107,143	0
A	East Meadow	129,729	120,595	164,000	221,188	0
B	Toms River	89,716	103,779	59,400	59,440	2,345
B	68th Street	69,300	40,885	35,000	78,490	2,103*
B	34th Street	134,167	110,075	55,200	83,523	0
C	Neptune	98,046	69,905	38,800	29,371	0
C	Westwood	70,200	71,045	36,800	44,405	1,203
C	Union	100,016	97,793	51,200	32,807	0
C	Scarsdale	71,952	71,523	77,800	64,934	0
C	Amsterdam	54,379	48,719	94,200	78,687	0
C	Jersey City	77,552	67,674	38,800	44,644	0
	Total		$2,213,735		$2,139,966	$29,448

Note: All figures are disguised. The 49th Street store figures are omitted.

*These two stores were granted bonuses even though they failed to reach 95% of their rental goals.

acknowledged that the plan had helped recruiting efforts and that some managers were very attentive. However, in general they did not feel that the performance of the store managers had changed. Berns stated, "Plan or not, good managers are good and bad managers are bad. Performance related to profitability was not raised by an appreciable degree." He did acknowledge that the performance of some stores had improved. However, he did not credit the plan, "Some stores were dramatically up, but I'm not sure that the incentive plan had anything to do with the increase in volume. Rental rates went up and we increased our advertising."

Berns felt that the program was expensive, "We're giving away far more incentive dollars than we're getting in incremental revenue dollars. The cost goes straight to the bottom line." In addition, according to Berns, service-related measures had not changed, "The performance level of the people out there has not been raised. Day-to-day compliance on things like ordering product has not improved." Molnar agreed with Berns's comments adding, "I can find the same things that bothered me six months ago going on today. Sitting here is frustrating because compliance is not getting better."

The store managers agreed that their behavior had not changed dramatically. However, numerous subtle indications were evident in their comments. Joe Murphy said, "I've always done the little things well. I'm doing nothing better now. It's not like the plan would get me to beat my employees." Later, however, Murphy added, "Now I'm tracking weekly sales when I didn't do it before.... Well, I do care more. The plan might get me to jump on people a little more." He did agree with Berns and Molnar that the plan would not effect bad managers, "It would not change them. They did not have the tools in the first place." Jack Hilgartner also indicated that his performance had not changed. However, he and Murphy had both gone to the warehouse on an off day to pick up tapes so that their stores would be fully stocked. In addition, Hilgartner was also tracking his results and admitted that, "With six weeks to go in the first quarter, when we knew we could make our numbers, we really got into it."

Conclusion

In summing up the results of the program Berns wondered, "How can an incentive program bring compliance into the picture without having to create a 20-page 'War and Peace' manual for the stores? Where do you draw the line on objectivity?" Berns and Molnar felt that RKO's rapid growth and the difficult labor market in the area prevented them from replacing the chain's "bad" managers. In any event, they both came back to the "Good managers are good. Bad managers are bad" observation to indict the revenue-based bonus plan. But Berns did wryly observe that, "Once giveth the plan, it is hard to taketh away." The store managers knew that the two-quarter test period had ended and they, too, were concerned about the fate of the plan. "We would all be angry if they took the program out," said Mike Batt.

Was the plan effective? Should it be modified? What changes could be incorporated in the plan? Should the plan be dropped as a waste of money? Did the volatile nature of this evolving industry and changing company policies mask the true results? Berns and Molnar examined their information again from the beginning.

DUCKWORTH INDUSTRIES, INC.—INCENTIVE COMPENSATION PROGRAMS*

In early 1992, Mr. John Duckworth, president and controlling shareholder of Duckworth Industries was considering a change in Duckworth Industries' management incentive compensation systems. If implemented the new plan for Duckworth management would, it was hoped, align more closely the interests of management and shareholders. Several industrial firms which were pioneers in value-based management had recently adopted similar management compensation systems. Adopting the new system would keep Duckworth in the vanguard of management incentive compensation planning

Background

Mr. Duckworth was a strong believer in the power of incentives to guide management action. When he was first promoted to a plant management job in the 1950s, Mr. Duckworth took over a plant which had an operating loss of $2.7 million on sales of $9.0 million. He implemented what was then a "state-of-the-art" plan for factory incentives. The plan applied to all supervisors. Achievement of specified goals earned a 15% premium over an individual's base rate of pay. As noted by Mr. Duckworth:

> The more sobering side of the plan consisted of docking supervisors 12% of their base rate when goals were not achieved. Paychecks having a 12% deduction for failure were distributed in bright red envelopes. At that time I was plant manager of the operation, and I got several red pay envelopes. Some 15–18 months after the "12% Club" was profitably and smoothly functioning, the National Labor Relations Board issued a cease and desist order predicated on the fact you cannot tamper with an individual's base pay. Naturally, I complied, but the results were already in—the division was profitable.

Mr. Duckworth founded his own business in 1971. Sales grew from $400,000 in that year to almost $125 million in 1992 (**Exhibit 1**). In 1986, a holding company (Duckworth Industries) was established. It included the original business, Worth Corp., which was a highly profitable producer of proprietary fasteners and adhesives. In 1986, Hospitality Equipment Service was acquired at a purchase price of $5.5 million. In 1988, Hotel Telecom Services was acquired for about $15.0 million. The two newer acquisitions were service businesses rather than manufacturers, and to date had not yet generated satisfactory levels of profitability. In 1992, Duckworth Industries employed 755 people. The structure of the organization is shown in **Exhibit 2**.

The Six Duckworth Incentive Plans

Pay for performance was firmly embedded in the corporate culture at Duckworth Industries. In the words of one senior executive, "we put incentives, within reason, behind everything we can."

For plant-level employees, Duckworth had an *attendance* bonus. A 60 cents per hour pay incentive was earned for each pay period during which an employee was never more than 2 minutes late for work.

For plant-level employees up to the shift supervisory level, there was also a *quality* in-

*This case was prepared by William E. Frahan, Jr. as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

Copyright © 1993 by the President and Fellows of Harvard College. Harvard Business School case 293-091.

EXHIBIT 1 Consolidated Financial Statements 1975–1992, Fiscal Years Ended 5/31 ($000)

	1975	1980	1985	1990	1991	1992
Net sales	5,811	15,109	40,793	116,220	123,545	122,570
Cost of goods sold	4,294	11,164	30,142	85,875	89,865	86,720
Selling, gen'l & admin.	1,231	3,199	8,638	24,610	25,080	28,800
Operating income	287	746	2,013	5,735	8,595	7,050
Investment income	68	177	479	1,365	1,375	1,545
Interest expense	129	334	902	2,570	2,390	1,635
Profit sharing expense	55	142	383	1,090	1,595	1,850
Income before taxes	172	447	1,207	3,440	5,985	5,105
Taxes	50	130	351	1,000	1,850	1,565
Net income	122	317	856	2,440	4,135	3,540
Cash & marketable securities[a]	1,067	2,775	7,492	21,345	24,790	26,085
Accounts receivable	578	1,502	4,056	11,555	12,760	13,210
Inventory	572	1,487	4,014	11,435	11,380	12,995
Less: Lifo reserves	51	131	355	1,010	1,111	1,125
Net inventories	522	1,356	3,661	10,430	10,270	11,870
Other current assets	46	119	321	915	960	990
Total current assets	2,212	5,752	15,530	44,245	48,780	52,155
Construction in progress	25	65	176	500	485	3,105
Other net PP&E	799	2,076	5,605	15,970	15,450	14,330
Other assets[b]	290	753	2,032	5,790	5,735	5,685
Total assets	3,325	8,646	23,343	66,505	70,450	75,275
Short term debt	734	1,909	5,154	14,685	17,390	15,910
Other current liabilities	1,048	2,724	7,355	20,955	19,790	23,700
Total current liabilities	1,782	4,633	12,510	35,640	37,180	39,610
Long term borrowings	496	1,290	3,482	9,920	8,355	7,175
Other liabilities	63	164	444	1,265	1,105	1,140
Net worth	984	2,558	6,908	19,680	23,810	27,350
Total liab. & net worth	3,325	8,646	23,343	66,505	70,450	75,275

[a]*Marketable securities were carried at the lower of cost or market. Market exceeded cost by $4,090 in 1990, $7,870 in 1991, and $10,940 in 1992.*
[b]*Other assets included goodwill of $5,130 in 1990, $4,995 in 1991, and $4,855 in 1992.*

centive plan (**Exhibits 3** and **4**). Quality measures included many variables such as meeting promised shipment dates and reducing customer complaints of any nature. The quality incentive payment target equaled $100 per employee per month. Performance was often a team effort, and the average employee working under this incentive plan received about $600 per year from it. Employees received a separate check each month for the quality bonus to highlight the importance of quality in the company culture.

All Duckworth employees were participants in a *profit-sharing* plan. At the level of each business unit a profit-sharing pool was created. The pool was equal in size to 15% of pretax profits after a deduction equal to 10% of the beginning-of-year net worth allocated to the business unit. At the end of each year the profit-sharing pool was allocated to employ-

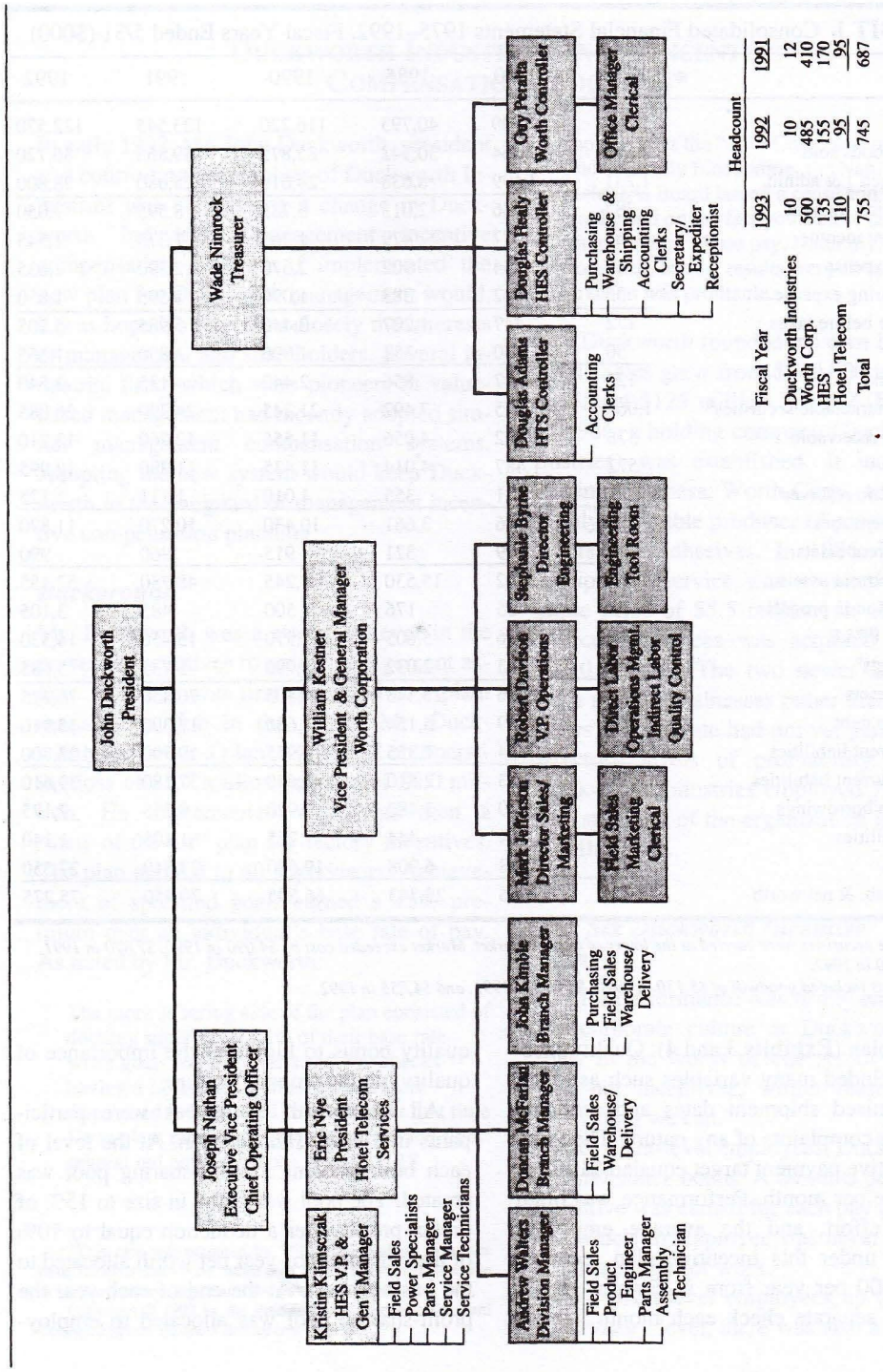


EXHIBIT 2 Organization Chart, Duckworth Industries, Inc., June 1, 1992

EXHIBIT 3 Duckworth Corporation, Quality Incentive Bonus Plan, Fiscal Year 1993

The Quality Incentive bonus plan has been in its current form since FY90 (June of 1989).

As we have improved as a company it is important that our plan be modified to reflect these changes and more accurately represent what the "real world" reflects in terms of total quality performance. After a thorough review of this years' quality performance the following changes are being made to the Quality Incentive bonus plan effective June 1, 1992 (FY93). The monthly complaint ratio and bonus payout levels will be:

COMPLAINT RATIO	MONTHLY BONUS PAYOUT
.6%	$100.00
More than .6%, less than 2.0%	75.00
More than 2.0, less than 3.5%	$ 50.00

As you can see, the lower limits have been changed and the bottom payout of $25 eliminated, but we have increased the top level payout by 25% to $100.00. The total potential maximum yearly payout is now $1,200 compared to $900 with the old plan. This year through the first 11 months we have paid $800 in incentives to each participant. As you can see from the above, superior performance will be rewarded with high-level bonus payouts.

Duckworth quality performance in FY91 improved dramatically to an average 2.7% complaint ratio with the **last 6 months** of the year averaging 2%. The revised plan is designed to build on this success and increase our performance to "world class" levels.

The procedure for analyzing, charging responsibility, and tallying total number of complaints by Richard Sterling all remain the same as in the past. The only additional reporting will be a new category recording invoicing errors, such as billing errors or wrong prices on orders. Complete quality is a total system—from the first customer inquiry to billing of parts and all processes in between.

With constant dedication to teamwork, continuous quality improvement and satisfying our **customers requirements**, we are confident that our new goals will be achieved and even surpassed. You are doing it now and we are counting on you to make Duckworth—**Your Company**—The best quality company possible!

William Kestner
Vice President and General Manager

cc: John Duckworth
Joseph Nathan

EXHIBIT 4 Worth Corporation, Quality Incentive Program, FY93 October Results

No. of Shipments	207
No. of Chargeable Complaints	4
Complaint Ratio	1.9%
Quality Bonus—October	$ 75
Quality Bonus—YTD	$300

With a record number of shipments, this month had the potential of being a **great quality month**, but we fell short because preventable errors were not caught. Without the large shipment level, the monthly payout would not have been $75.00.

If you look at the customer complaints listed below, you will see that these problems could have been detected by our systems. The key to continued improvement is your using the systems and informing others when the system does not work.

The XXX and YYY complaints are good examples of where the system in place was not followed and resulted in a complaint. The AAA and BBB complaints are examples of where people could have come forth to say the system doesn't adequately detect these kinds of defects.

The task of improvement needs to be continually addressed by all. We cannot just let things go on and expect good results. Good results are achieved by good people doing the right things at the right time.

TYPE OF COMPLAINT	CUSTOMER	COMPLAINT
Manufacturing Process	AAA	Cracked AX47 parts and inventory not rotated.
Manufacturing Process	BBB	Cracked AX47 parts and inventory not rotated.
Color	YYY	Color significantly off standard (yellow).
Label	XXX	Label had wrong code printed.

Joy Meadow
Quality Assurance Manager

Thomas Spencer
Production Manager

ees, pro rata, based on their individual share of total wages and salaries in the business unit. At the Worth business unit profit sharing had grown from about 2% of pay to about 15% of pay in recent years. A plant worker earning $15,000 per year would get $2,250. Information sharing with plant personnel as to profit and margin levels was common at Duckworth, so an estimate of the size of their individual profit sharing allocation could be made by employees as the year progressed.

For all sales and supervisory personnel the company had *individual* incentive plans. These typically afforded an employee the opportunity to earn incentives ranging from 10% to 40% of base pay. The incentive plan targets for a typical customer service representative are included as **Exhibit 5**.

The Existing Senior Management Incentive Plans

The more senior managers at Duckworth (a group comprised of up to 40 people) all participated in an *annual* incentive compensation

EXHIBIT 5 Worth Corporation, FY93 Incentive Plan for Customer Service Representative—Maximum Award = 10% of Average Base Salary.

	ITEM RESULTS	% OF BONUS	% OF SALARY
I. Order Accuracy:			
4% maximum potential			
Accuracy equals percentage of	98.0% or higher	40.00%	4.00%
acceptance of orders that have	96.5%	30.00%	3.00%
correct pricing and other	95.0%	20.00%	2.00%
critical information. This	<95.0%	0.00%	0.00%
accuracy is tracked by Director of Sales with bonus being paid based on overall FY93 results.			
II. Order Acknowledgement/Turnaround:			
3% maximum potential			
(effective 9/1/92—9 month period)			
Average number of days	2 days or less	30.00%	3.00%
(excluding holidays & weekends)	3 days	15.00%	1.50%
from order placement until	4 days	5.00%	0.50%
printing of order acknowledgement	>4 days	0.00%	0.00%
for all orders received (except those requiring new part numbers). Results to be tracked weekly on late shipments report.			
III. Sales Growth:			
3% maximum potential			
Total net company sales growth	$7,000M	30.00%	3.00%
over FY92 net sales of	$6,000M	15.00%	1.50%
$63.5 million	$3,000M	5.00%	0.50%
	<$3,000M	0.00	0.00%

plan. A smaller subset of this group also participated in a *long-term* incentive program.

The incentive plans (both annual and long-term) for the senior managers had undergone considerable change in the 1983–1992 decade. Prior to 1990, the *annual* incentive plan would target for each manager a bonus of 20% to 50% of base salary if certain target levels of performance at the business unit level were reached during the year. Typical measures of performance (depending on the manager's area of responsibility) included at least three of the following:

1. Cash flow
2. Sales growth of proprietary products
3. Direct labor variances
4. Inventory turns
5. Accounts receivable (days sales outstanding)
6. Gross margins (less purchase price variances)
7. Special individual projects

In 1990 Duckworth abandoned the narrowly defined annual targets and opted to tie the annual bonus to a matrix built around sales growth and profitability goals. Annually goals for each business unit were set for both sales growth and profitability (**Exhibit 6**). These were determined with reference to the performance levels achieved by various peer group companies (**Exhibit 7**). Individual managers were assigned bonus targets (generally ranging from 25% to 50% of base compensation). Depending on the level of sales growth and prof-

Worth Corporation,
Annual Sales Growth %

Return on Gross Assets %		4.90	5.00	7.50	10.00	12.50	15.00
					GOAL		
25.0		0	1.74	1.81	1.88	1.95	2.03
24.0		0	1.55	1.61	1.67	1.74	1.81
23.0		0	1.37	1.42	1.48	1.55	1.61
22.0		0	1.20	1.25	1.31	1.37	1.42
21.0		0	1.05	1.10	1.15	1.20	1.25
20.0	GOAL	0	0.91	0.95	1.00	1.05	1.10
19.0		0	0.78	0.82	0.87	0.91	0.95
18.0		0	0.67	0.71	0.74	0.78	0.82
17.0		0	0.57	0.60	0.63	0.67	0.71
16.0		0	0.48	0.51	0.54	0.57	0.60
15.0		0	0.40	0.42	0.45	0.48	0.51
14.9		0	0	0	0	0	0

Return on Gross Performing Assets will be determined by dividing Operational Cash Flow Earnings (OCFE) into Average Gross Performing Assets (AGPA).

OCFE is net profit adjusted to add depreciation and to eliminate (a) interest expense, (b) acquisition expenses, (c) net investment income, (d) expense or profit relating to LIFO, and (e) gains or loses from the disposition of depreciable assets. All adjustments will be made on an after-tax basis, using Worth Corporation's effective tax rate.

AGPA is a 13-month average of the company's gross book assets, with cumulative depreciation and the LIFO reserve added back, but investment securities and intercompany receivables eliminated.

The Board of Directors reserves the right to adjust the formula and its components, even after the fact, in any way it determines to be appropriate in order to better effectuate the plan and its purposes.

EXHIBIT 6 Duckworth Industries, Inc., Fiscal 1992 Incentive Compensation

itability achieved, a manager could read directly from the matrix the factor by which his/her target bonus would be multiplied to determine the actual bonus he/she would receive. The incentive compensation matrix for the Worth business unit (**Exhibit 6**) indicated the following: If, in fiscal 1992, a manager working at the Worth business unit had a target bonus of 40%, and the business unit provided a 20% return on assets and 10% sales growth, the manager would receive 1.00 times his/her 40% target bonus. In fact, in 1991 and 1992, business unit managers at Duckworth received the following percentages of their target bonuses from the annual incentive plan.

	1991	1992
Worth Corp.	170%	0%
Hotel Telecom	0	24
Hospitality Equipment	0	0
Duckworth Industries	90	0

While Duckworth's annual incentive plan for senior managers covered several dozen employees by 1992, the long-term incentive

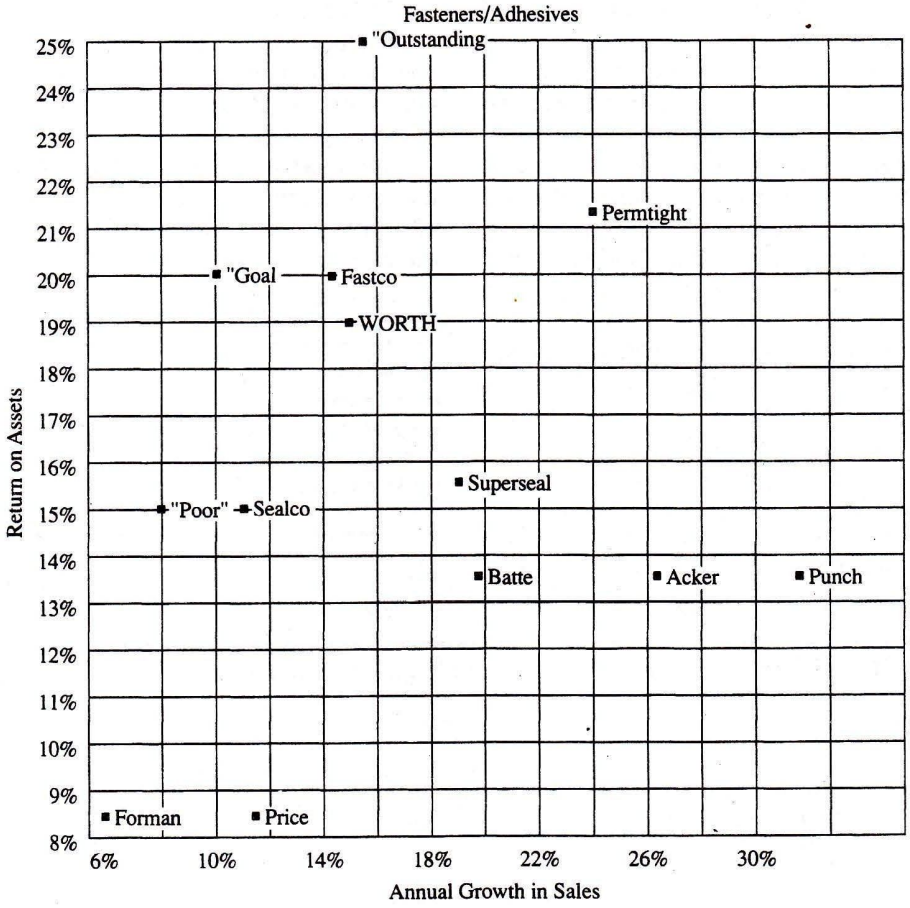


EXHIBIT 7 ROA/Growth Matrix for Worth Peer Group

plan covered fewer participants, particularly in the early part of the decade 1983–1992. In 1983 Duckworth implemented a five-year, long-term management incentive plan. The plan covered only two employees, the then vice president and general manager at Worth (now retired) and the then vice president, sales and marketing at Worth (now president of the Hotel Telecom Services operation). The plan made one payment at the end of five years. It was a phantom stock plan tied to the increase in book value per share multiplied by a performance factor (**Exhibit 8**). The performance factor was determined by several measures including a) the spread separating annual ROE from the sum of the bank prime rate plus two percentage points, b) the annual growth in net book value/share.

According to one of the participants the plan was a horror in complexity, but an attractive feature was that you could have one or two bad years and still get a payment. Because the plan paid only once at the end of five years, it was somewhat like a forced savings plan. "The size of the payment at the end made a meaningful difference in what you could do 'lifestyle'-wise. A check for $150,000 is quite significant when you bring it home. You are willing to make significant personal sacrifices along the way to make it happen."

In 1986 a new long-term management incentive plan was put in place at Duckworth. This plan was broadened to include more managers (15 by 1989) and was designed to begin payments in 1989 after the expiration of the previously described five-year plan. At the start of each year, beginning in 1986, new targets would be established so that incentive payments could be received annually. The business unit management participants in this plan would be awarded a specified percentage of base salary (generally from 25% to 40%) if a Challenge Earnings level of cumulative earnings before interest and taxes (approved by Duckworth's board of directors) was achieved by their business unit during the period. Lesser levels of earnings achievement would produce a proportionately reduced level of award (as shown in **Exhibit 9** for the Worth business unit).

The incentive system established in 1986 continued for four years. The last update was put in place in 1989, and covered the three-year time period ending in 1992.

In fact, between 1989–1992, business unit managers received the following percentages of their target bonuses from the long-term incentive plan.

	1989	1990	1991	1992
Worth Corp.	112%	97%	92%	91%
Hotel Telecom	—	40	20	0
Hospitality Equipment	—	—	40	45
Duckworth Industries	85	80	75	73

For the top management team at Duckworth the target and actual bonus payments (mea-

EXHIBIT 8 Worth Corporation, Inc., Executive Long Term Incentive Plan

SUMMARY	31-MAY-83	31-MAY-88	5-YR CHANGE
Total shareholder's equity at year end	$8,616,500	$16,379,000	
Per share, using standard of 500,000 shares	$ 17.23	$ 32.76	
Value weighting "Leverage Factor"	0.50	1.70	
Weighted share price (= Equity per share × leverage factor)	$ 8.62	$ 55.69	$47.07
Per participant	$47.07 × 3000 shares = $141,210		
In total	× 2 participants = $282,420		

EXHIBIT 9 Worth Division of Duckworth Industries—Management Long-Term Plan *Targets Established* for Successive Three Year Plans versus *Results Achieved*

PLAN YEARS	CHALLENGE EARNINGS LEVELS (3 YR CUMULATIVE EBIT)	% OF TARGET AWARD EARNED	ACTUAL RESULTS DURING PERIOD
1986–1989	$12.0 million	100%	$13.4 million and 112%
	10.0	50%	
	7.5	10%	
	<7.5	0%	
1987–1990	$20.0	100%	$19.3 million and 97%
	12.5	10%	
	<12.5	0%	
1988–1991	28.75	100%	$26.1 million and 92%
	20.0	10%	
	<20.0	0%	
1989–1992	33.0	100%	$30.1 million and 91%
	25.0	10%	
	<25.0	0%	

Award Determination

Each participant will, at the start of a Performance Period, be assigned a Target Award expressed as a percentage of the Participant's average annual base salary to be paid during the Performance Period. The percent of the Target Award earned by each Participant will be based upon the relationship of Performance Period Earnings to various Challenge Earnings Levels specified by the Board for such Performance Period.

The percent of Target Award earned will be awarded on a pro rata basis if the actual results fall between specified Challenge Earnings Levels. If a Participant significantly changes responsibility or positions during the Performance Period, the Board will consider the propriety of an equitable adjustment in the Target Award assigned.

A Participant's award is subject to organizational and environmental constraints affecting Performance Period Earnings. Unforeseen problems (other than those referred to in the next paragraph) or opportunities, as well as peer group performance, will be taken into account during the evaluation process. As soon as practicable after the end of a Performance Period, the Board will determine how successfully objectives were met. The Board will evaluate how unforeseen difficulties, as well as unexpected opportunities, were addressed. To allow recognition for quality of results and level of effort, award amounts may be adjusted (to a maximum of plus or minus 25% of the award) by the Board.

The Plan also recognizes that actions of Participants may be negated or overstated due to the occurrence of certain extraordinary events. Examples of extraordinary events include, but are not limited to, "Acts of God," financial difficulty of a major supplier or customer, unexpected tax law changes and acquisitions, divestitures, mergers or significant structural changes. Should such extraordinary occurrences take place, the Board may adjust the incentive awards (or the various formula components thereof) in any manner reasonably intended to reflect the impact of the extraordinary occurrence.

sured as a percentage of base salary) are presented as **Exhibit 10**.

A Proposed New EVA Incentive System

As fiscal 1992 unfolded, both management and Mr. Duckworth (the controlling shareholder) were looking for ways to more closely align the interests of management and shareholders through the incentive plan for senior management. A number of factors had contributed to dissatisfaction with the existing plans. One major factor had to do with

EXHIBIT 10 Target and Actual Payments (as a % of Base Salary) for Annual and Long-term Incentive Compensation Plans

			1990		1991		1992	
			TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL
Manager	A	Annual bonus	—	—	40[a]	68	40[a]	0
		L.T. Incentives	—	—	35[a]	32	35[a]	32
Manager	B	Annual bonus	—	—	25[a]	35	25[a]	0
		L.T. Incentive	—	—	25[a]	23	25[a]	23
Manager	C	Annual bonus	50[a]	50	50[a]	85	50[b]	0
		L.T. Incentive	40[a]	39	40[a]	37	40[b]	0
Manager	D	Annual bonus	25[a]	25	40[a]	35	25[a]	0
		L.T. Incentive	25[a]	24	40[a]	37	40[a]	36
Manager	E	Annual bonus	40[a]	40	40[a]	68	40[a]	0
		L.T. Incentive	40[a]	39	35[a]	32	35[a]	32
Manager	F	Annual bonus	—	—	25[b]	0	25[b]	6
		L.T. Incentive	—	—	25[b]	5	25[b]	0
Manager	G	Annual bonus	40[a]	40	50[b]	0	50[b]	12
		L.T. Incentive	40[a]	39	40[b]	8	40[b]	0
Manager	H	Annual bonus	—	—	25[b]	0	25[b]	6
		L.T. Incentive	—	—	25[b]	5	25[b]	0
Manager	I	Annual bonus	25[a]	25	50[d]	46	50[d]	0
		L.T. Incentive	25[a]	25	25[c]	10	60[d]	44
Manager	J	Annual bonus	—	—	—	—	25[c]	0
		L.T. Incentive	—	—	—	—	—	—
Manager	K	Annual bonus	30[c]	0	30[c]	0	30[c]	0
		L.T. Incentive	30[c]	0	30[c]	12	30[c]	14
Manager	L	Annual bonus	40[c]	0	40[c]	0	50[c]	0
		L.T. Incentive	35[c]	0	35[c]	14	35[c]	16
Manager	M	Annual bonus	50[c]	0	50[c]	0	50[c]	0
		L.T. Incentive	50[c]	0	50[c]	20	50[c]	46
Manager	N	Annual bonus	—	—	35[a]	60	35[a]	0
		L.T. Incentive	40[a]	39	40[a]	37	40[a]	36
Manager	0	Annual bonus	40[a]	40	40[a]	68	40[a]	0
		L.T. Incentive	25[a]	24	25[a]	23	25[a]	23
Manager	P	Annual bonus	20[a]	20	20[a]	34	20[a]	0
		L.T. Incentive	20[a]	19	20[a]	18	20[a]	18

[a]*Worth* *SBU*
[b]*Hotel Telecom Services* *SBU*
[c]*Hospitality Equipment Services* *SBU*
[d]*Duckworth Industries* *SBU*

operation of the annual incentive plan of Worth in 1992. In many ways Worth's performance in 1992 was improved over that of 1991.

	WORTH CORP.	
	1991	1992
Return on gross performing assets	23.6%	23.9%
Sales growth	13.9	(2.3)

The return on gross performing assets had increased, but sales had declined slightly (versus a 10% goal and a minimum 5% sales growth requirement to achieve any annual incentive plan payment). The sales decline was caused by the loss of a very large customer buying a product with commodity-type profit margins. Most of the lost sales in 1992 had been replaced by new customers purchasing proprietary products at higher margins. The change in customer mix was good for enhancing long-run shareholder value, but Worth's management failed to achieve any annual incentive bonus as a result of the change given the structure of the existing annual incentive plan (**Exhibit 6**).

Near the close of fiscal 1992 Mr. John Duckworth began reading a book entitled *The Quest for Value* by G. Bennett Stewart. The Stewart book outlined a management incentive plan that promised to link management pay directly to the creation of long-run economic value for shareholders. Implementation of the plan required the services of Stern Stewart & Co., a financial consulting firm.

The economic value-added (EVA) compensation system developed by Stern Stewart would require (1) considerable data analysis and (2) some reorienting in thinking about how to approach the business going forward for Duckworth's senior management. The EVA system was predicated on the following logic:

1. Economic value for shareholders is created when a firm earns a rate of return on invested capital which exceeds the cost of capital. The economic value-added in a particular year should equal the product of:
   i) The average capital employed during the year multiplied by
   ii) The spread separating the cost of capital from the return on capital earned during the year.
2. The economic value-added during a year can be calculated for each business unit. The management of each unit can be directly compensated for their success in adding economic value via a compensation formula that automatically adjusts the baseline for calculating next year's bonus to reflect the actual performance of the prior year.

The Key Drivers of Economic Value-Added

Exhibit 11 shows a calculation of the economic value-added by the Worth division of Duckworth Industries from 1988 through 1992. It also shows the *forecasted* economic value-added for the period 1993–1997.

The key variables in determining the economic value-added by a business unit were:

1. Net operating profit after taxes (NOPAT)—**Exhibit 11**, Line 9. This excludes corporate overhead, and capitalizes R&D expenses and then amortizes them over three years. NOPAT excludes non-economic noncash charges.[1]
2. Average capital—**Exhibit 11**, Line 15. This excludes construction in progress, and assumes FIFO inventory valuation and the add-back of bad debt reserves. Non-economic non-cash writeoffs are added back to average capital.[2]
3. Cost of capital—**Exhibit 11**, Line 17. This is determined annually for each business unit by using an assumed capital structure and riskiness factor (β value) for peer group firms comparable to each business unit. The formula for calculating capital cost was tied to the yield on 30-year Treasury obligations plus a risk premium.

[1]Items such as the one-time writeoff of a divested business would be a non-economic non-cash charge. Items such as depreciation or the amortization of debt discount would be economic non-cash charges.

[2]This was designed to prevent managers from escaping responsibility for poor prior investment decisions by simply divesting the poor performing assets.

EXHIBIT 11 Worth Corporation Summary of Historical and Projected Operating Performance ($000's)

LINE #		HISTORY					FORECAST				
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
	Operating Results										
1	Revenue	$47,255	$54,615	$57,125	$65,035	$63,565	$69,500	$76,100	$83,330	$91,250	$99,915
2	% Growth	15.0%	15.6%	4.6%	13.9%	(2.3%)	9.3%	9.5%	9.5%	9.5%	9.5%
3	−Cost of Sales	34,985	40,305	41,760	46,020	42,025	47,355	51,950	56,915	62,415	68,445
4	% Sales	74.0%	73.8%	73.1%	70.8%	66.1%	68.1%	68.3%	68.3%	68.4%	68.5%
5	−SG&A	6,620	6,700	6,905	6,905	8,585	9,695	10,865	11,715	12,680	13,585
6	% Sales	14.0%	12.3%	12.1%	10.6%	13.5%	13.9%	14.3%	14.1%	13.9%	13.6%
7	−Cash Taxes	$2,280	$1,965	$2,615	$3,500	$3,650	$4,225	$4,855	$5,310	$5,785	$6,215
8	% Operating Income	40.4%	25.8%	30.9%	28.9%	28.2%	33.9%	36.5%	36.1%	35.8%	34.8%
9	NOPAT	$3,370	$5,645	$5,840	$8,615	$9,305	$8,225	$8,430	$9,390	$10,370	$11,670
	Capital										
10	Net Accounts Receivable	$5,310	$4,855	$ 5,460	$5,525	$ 6,060	$ 6,185	$ 6,760	$ 7,395	$ 8,090	$ 8,850
11	Inventory	2,865	2,965	3,360	3,865	4,020	4,030	4,260	4,585	4,945	5,325
12	PP&E	5,540	9,415	13,775	13,505	12,180	19,465	21,555	21,825	20,915	21,200
13	Other Assets	620	350	1,455	1,565	3,765	3,210	2,450	1,800	1,245	1,185
14	−NIBCL's[a]	(10,775)	(9,790)	(11,545)	(10,025)	(13,125)	(9,940)	(10,860)	(12,040)	(13,360)	14,725)
15	Capital	$3,555	$7,795	$12,505	$14,440	$12,900	$22,945	$24,165	$23,560	$21,830	$21,835
	Operating Analysis										
16	NOPAT/Avg Cap (r)	51.4%	99.5%	57.5%	63.9%	68.1%	45.9%	35.8%	39.3%	45.7%	53.5%
17	−Cost of Capital (c)	13.0%	12.6%	12.7%	12.4%	12.2%	12.2%	12.2%	12.2%	12.2%	12.2%
18	Spread (r − c)	38.4%	86.9%	44.8%	51.5%	55.9%	33.7%	23.6%	27.2%	33.5%	41.3%
19	× Average Capital	$6,550	$5,675	$10,150	$13,470	$13,670	$17,925	$23,555	$23,865	$22,695	$21,830
20	Economic Value Added	$2,515	$4,935	$4,550	$6,945	$7,640	$6,045	$5,565	$6,485	$7,605	$9,010

[a]*Noninterest-bearing current liabilities.*

EXHIBIT 12 Worth Corporation

INPUT TABLE

LINE #		1993	1994	1995	1996	1997
	Bonus Pool Characteristics					
1	Target Bonus	37%	37%	37%	37%	37%
2	Base Salary (000)	$1,710	$1,795	$1,885	$1,980	$2,075
3	# of Units (000)	630	660	695	730	765
	Bonus Calculation Framework					
4	Baseline EVA (000)	$6,045				
5	Annual Target Adjustment Factor	50%				
6	Base Unit Value	$ 1.00	$ 0.80	$ 0.80	$ 0.80	$ 0.80
	EVA Bonus Sensitivity Factor					
7	EVA Bonus Sensitivity Factor (000)	$1,625				

CURRENT BONUS CALCULATION

LINE #		1993	1994	1995	1996	1997	AVERAGE
	Performance Unit Value						
8	EVA (000)	$6,045	$5,565	$6,485	$7,605	$9,010	$6,940
9	− Baseline EVA (000)	$6,045	$6,045	$5,805	$6,145	$6,875	$6,180
10	= EVA vs Baseline EVA (000)	$ 0	($ 480)	$ 680	$1,460	$2,135	$ 760
11	/ EVA Bonus Sensitivity Factor (000)	$1,625	$1,625	$1,625	$1,625	$1,625	$1,625
12	= Performance Unit Value	$ 0.00	($ 0.29)	$ 0.42	$ 0.90	$ 1.31	$ 0.47
	Total Unit Value						
13	Performance Unit Value	$ 0.00	($ 0.29)	$ 0.42	$ 0.90	$ 1.31	$ 0.47
14	+ Base Unit Value	$ 1.00	$ 0.80	$ 0.80	$ 0.80	$ 0.80	$ 0.84
15	= Total Unit Value	$ 1.00	$ 0.51	$ 1.22	$ 1.70	$ 2.11	$ 1.31
	Current Bonus						
16	Total Unit Value	$ 1.00	$ 0.51	$ 1.22	$ 1.70	$ 2.11	$ 1.31
17	# of Units (000)	630	660	695	730	765	695
18	Current Bonus Earned (000)	$ 630	$ 335	$ 850	$1,240	$1,620	$ 935

PAST BONUS IF SYSTEM HAD BEEN IN PLACE PRIOR 5 YEARS

LINE #		1988	1989	1990	1991	1992	AVERAGE
	Current Bonus						
19	Total Unit Value	$1.00	$ 2.29	$1.31	$ 2.53	$ 2.09	$ 1.84
20	# of Units (000)	695	720	720	740	530	680
21	Current Bonus Earned (000)	$ 695	$1,645	$ 945	$1,875	$1,115	$1,255

The Mechanism for Calculating Incentive Compensation

Stern Stewart recommended a mechanism for linking economic value-added in a business unit during a given year to the incentive compensation paid to management in that year.

First, a bonus target was established. At Worth this might equal 37% of base pay (**Exhibit 12**, Line 1). Bonus units (like phantom stock) would be assigned to each manager in an amount such that if the bonus unit was valued at $1.00, the desired level of bonus would be earned by the manager (**Exhibit 12**, Line 3).

Second, a baseline EVA level was established (**Exhibit 12**, Line 4). At the end of each year the baseline EVA for the *following* year would change by one-half of the difference between the actual EVA achieved and the baseline EVA for the prior year (**Exhibit 12**, Lines 8–10). This made the system "self-adjusting." If EVA performance improved each year, the new base would click up by one-half the amount of the improvement. If EVA performance deteriorated for several years, the base level would decline so that the targets would not be so far away as to be unreachable in ensuing years.

Third, a base unit value was established for each ensuing year (**Exhibit 12**, Lines 6 and 14). This base unit value defined, to a large degree, how much of the target bonus could be earned by just maintaining the existing level of business performance. If EVA hit exactly the baseline EVA each year, and the base unit value was set at $1.00, then exactly the target bonus would be earned each year. In the case of Worth, after the first year the base unit value dropped to $.80. This meant that simply repeating the EVA baseline performance after 1993 would produce only 80% of the targeted bonus.

Fourth, a bonus sensitivity factor (**Exhibit 12**, Lines 7 and 11) was established which could either add to or subtract from the base unit value to create a total unit value. In the Worth example, the bonus sensitivity factor was set at $1,625,000. In any year that EVA varied from the baseline EVA, the amount of the gap was divided by $1,625,000, and the resulting amount (called the *performance* unit value, **Exhibit 12**, Lines 12 and 13) was added to the *base* unit value to determine the *total* unit value (**Exhibit 12**, Line 15). In order to earn one times the target bonus *solely* from the performance unit factor, management of the business unit had to beat the baseline EVA by the amount of the bonus sensitivity factor.

As indicated in **Exhibit 12**, if Worth hit the forecasted level of EVA in each year, Worth's management would earn the following percentage of their target bonus in each of the next five years.[3]

	% OF TARGET BONUS EARNED
1993	100%
1994	51
1995	122
1996	170
1997	211[3]

As indicated in **Exhibits 13–16**, if the Hotel Telecom Services and Hospitality Equipment Services business units hit their forecasted level of EVA in each year, Hotel Telecom's and Hospitality Equipment's managements would earn the following percentage of their targeted bonus in each of the next five years (**Exhibits 14** and **16**, Line 15).

[3]Bonuses up to two times the target bonus were paid immediately. One-third of the amount over this maximum was also paid in cash. Remaining amounts were allocated to a "bonus bank" to be paid out in the future. Negative charges for deteriorating performance reduced the bonus bank. Negative charges could even create a negative balance in the bonus bank which would have to be overcome in order to resume bonus payments in future years.

EXHIBIT 13 Hotel Telecom Services, Summary of Historical and Projected Operating Performance ($000s)

LINE #		HISTORY				FORECAST				
		1989	1990	1991	1992	1993	1994	1995	1996	1997
	Operating Results									
1	Revenue	$29,115	$32,540	$29,980	$32,285	$46,600	$55,920	$60,115	$64,625	$69,470
2	% Growth	NMF	11.8%	(7.9%)	7.7%	44.3%	20.0%	7.5%	7.5%	7.5%
3	− Cost of Sales	20.750	24,120	22,395	24,730	36,150	43,435	46,735	50,205	54,005
4	% of Sales	71.3%	74.1%	74.7%	76.6%	77.6%	77.7%	77.7%	77.7%	77.7%
5	− SG&A	5,610	5,475	5,560	5,820	7,935	9,150	9,820	10,550	11,320
6	% of Sales	19.3%	16.8%	18.5%	18.0%	17.0%	16.4%	16.3%	16.3%	16.3%
7	− Cash Taxes	$ 455	$ 1,000	$ 700	$ 500	$ 815	$ 1,060	$ 1,135	$ 1,235	$ 1,325
8	% Operating Income	16.5%	33.9%	34.5%	28.9%	32.4%	31.8%	31.8%	31.9%	31.9%
9	NOPAT	$ 2,300	$ 1,950	$ 1,325	$ 1,230	$ 1,700	$ 2,275	$ 2,425	$ 2,640	$ 2,825
	Capital									
10	Net Accounts Receivable	$ 3,370	$ 3,240	$ 3,935	$ 4,365	$ 6,115	$ 7,265	$ 7,805	$ 8,385	$ 9,010
11	Inventory	4,525	4,145	4,570	6,245	7,120	8,520	9,150	9,820	10,550
12	PP&E	1,365	1,250	1,355	1,525	1,520	1,405	1,395	1,255	1,085
13	Goodwill	4,395	4,395	4,395	4,400	4,400	4,400	4,400	4,400	4,400
14	Other Assets	230	715	1,250	1,935	290	320	330	345	360
15	− NIBCL's[a]	(4,720)	(3,860)	(4,630)	(5,490)	(5,575)	(6,985)	(7,505)	(8,085)	(8,685)
16	Capital	9,170	9,890	10,891	12,975	13,870	14,920	15,570	16,115	16,710
	Operating Analysis									
17	NOPAT/Avg Cap (r)	22.3%	20.5%	12.8%	10.3%	12.7%	15.8%	15.9%	16.7%	17.2%
18	− Cost of Capital (c)	13.1%	13.2%	12.9%	12.7%	12.7%	12.7%	12.7%	12.7%	12.7%
19	Spread (r − c)	9.2%	7.3%	(0.1%)	(2.4%)	0.0%	3.1%	3.2%	4.0%	4.5%
20	× Average Capital	$10,345	$ 9,530	$10,390	$11,935	$13,420	$14,395	$15,245	$15,840	$16,410
21	Economic Value Added	$ 950	$ 695	($ 10)	($ 280)	$ 0	$ 450	$ 495	$ 630	$ 745

[a]*Noninterest-bearing current liabilities.*

EXHIBIT 14 Hotel Telecom Services

INPUT TABLE

LINE #		1993	1994	1995	1996	1997
	Bonus Pool Characteristics					
1	Target Bonus	38%	38%	38%	38%	38%
2	Base Salary (000)	$ 905	$ 950	$1,000	$1,050	$1,100
3	# of Units (000)	345	360	380	400	420
	Bonus Calculation Framework					
4	Baseline EVA (000)	($140)				
5	Annual Target Adjustment Factor	50%				
6	Base Unit Value	$0.25	$0.25	$ 0.25	$ 0.25	$ 0.25
	EVA Bonus Sensitivity Factor					
7	= EVA Bonus Sensitivity Factor (000)	$ 700				

CURRENT BONUS CALCULATION

LINE #		1993	1994	1995	1996	1997	AVERAGE
	Performance Unit Value						
8	EVA (000)	$ 0	$ 450	$ 495	$ 630	$ 745	$ 465
9	− Baseline EVA (000)	($ 140)	($ 570)	$ 190	$ 340	$ 485	$ 160
10	= EVA vs Baseline EVA (000)	$ 140	$ 520	$ 305	$ 290	$ 25	$ 300
11	/ EVA Bonus Sensitivity Factor (000)	$ 700	$ 700	$ 700	$ 700	$ 700	$ 700
12	= Performance Unit Value	$0.20	$0.74	$0.44	$0.41	$0.37	$0.43
	Total Unit Value						
13	Performance Unit Value	$0.20	$0.74	$0.44	$0.41	$0.37	$0.43
14	+ Base Unit Value	$0.25	$0.25	$0.25	$0.25	$0.25	$0.25
15	= Total Unit Value	$0.45	$0.99	$0.69	$0.66	$0.62	$0.68
	Current Bonus						
16	Total Unit Value	$0.45	$0.99	$0.69	$0.66	$0.62	$0.68
17	# of Units (000)	345	360	380	400	420	380
18	Current Bonus Earned (000)	$ 155	$ 360	$ 260	$ 265	$ 260	$ 260

PAST BONUS IF SYSTEM HAD BEEN IN PLACE PRIOR 4 YEARS

LINE #		1989	1990	1991	1992	AVERAGE
	Current Bonus					
19	Total Unit Value	$1.27	$0.39	($0.68)	($ .60)	$0.08
20	# of Units (000)	50	150	325	340	215
21	Current Bonus Earned (000)	$ 60	$ 60	($ 225)	($205)	($ 78)

EXHIBIT 15 Hospitality Equipment Service Co., Summary of Historical and Projected Operating Performance ($000s)

LINE #		HISTORY					FORECAST				
		1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
	Operating Results										
1	Revenue	$24,770	$28,670	$26,555	$28,525	$26,720	$29,220	$31,410	$33,765	$36,300	$39,020
2	% Growth	49.2%	15.8%	(7.4%)	7.4%	(6.3%)	9.4%	7.5%	7.5%	7.5%	7.5%
3	− Cost of Sales	18.560	21,545	19,545	20,955	14,305	21,190	22,500	24,170	25,965	27,895
4	% Sales	74.9%	75.1%	73.6%	73.5%	72.2%	72.5%	71.6%	71.6%	71.5%	71.5%
5	− SG&A	5,765	6,100	7,240	6,495	7,135	7,065	7,480	7,950	8,455	8,985
6	% Sales	23.3%	21.3%	27.3%	22.8%	26.7%	24.2%	23.8%	23.5%	23.3%	23.0%
7	− Cash Taxes	$ 275	$ 440	$ 55	$ 420	$ 320	$ 420	$ 545	$ 615	$ 690	$ 780
8	% Operating Income	62.0%	43.0%	(23.7%)	38.8%	113.3%	43.6%	38.0%	37.2%	36.7%	36.4%
9	NOPAT	$ 170	$ 585	($ 290)	$ 660	($ 35)	$ 545	$ 885	$ 1,035	$ 1,190	$ 1,365
	Capital										
10	Net Accounts Receivable	$ 2,655	$ 3,775	$ 3,075	$ 3,525	$ 3,010	$ 3,660	$ 6,288	$ 4,220	$ 4,530	$ 4,865
11	Inventory	2,830	3,420	4,115	3,205	3,105	3,365	3,560	3,815	4,085	4,380
12	PP&E	545	965	815	515	360	950	1,160	1,370	1,580	1,790
13	Other Assets	535	355	335	835	850	675	770	805	805	810
14	− NIBCL's[a]	(4,295)	(4,845)	(4,095)	(3,250)	(4,045)	(3,295)	(3,520)	(3,805)	(4,110)	(4,440)
15	Capital	$ 2,270	$ 3,675	$ 4,250	$ 4,825	$ 3,280	$ 5,355	$ 5,900	$ 6,405	$ 6,890	$ 7,400
	Operating Analysis										
16	NOPAT/Avg Cap (r)	7.8%	19.7%	(7.3%)	14.5%	(0.9%)	12.6%	15.7%	16.8%	17.9%	19.1%
17	− Cost of Capital (c*)	13.4%	13.4%	13.4%	13.4%	13.4%	13.5%	13.5%	13.5%	13.5%	13.5%
18	Spread (r − c*)	(5.6%)	6.3%	(20.7%)	1.1%	(14.3%)	(1.0%)	2.2%	3.3%	4.4%	5.5%
19	× Average Capital	$ 2,155	$ 2,970	$ 3,960	$ 4,535	$ 4,055	$ 4,315	$ 5,625	$ 6,150	$ 6,645	$ 7,145
20	Eonomic Value Added	($ 120)	$ 185	($ 820)	$ 50	($ 580)	($ 40)	$ 125	$ 205	$ 290	$ 395

EXHIBIT 16 Hospitality Equipment Service Co.

INPUT TABLE

LINE #		1993	1994	1995	1996	1997
	Bonus Pool Characteristics					
1	Target Bonus	42%	42%	42%	42%	42%
2	Base Salary (000)	$ 705	$740	$775	$815	$855
3	# of Units (000)	300	315	330	345	365
	Bonus Calculation Framework					
4	Baseline EVA (000)	($ 310)				
5	Annual Target Adjustment Factor	50%				
6	Base Unit Value	$ 0.25	$0.25	$0.25	$0.25	$0.25
	EVA Bonus Sensitivity Factor					
7	= EVA Bonus Sensitivity Factor (000)	$ 500				

CURRENT BONUS CALCULATION

LINE #		1993	1994	1995	1996	1997	AVERAGE
	Performance Unit Value						
8	EVA (000)	($ 40)	$ 125	$ 205	$ 290	$ 395	$ 195
9	− Baseline EVA (000)	($ 310)	($ 175)	($ 25)	$ 90	$ 190	($ 45)
10	= EVA vs Baseline EVA (000)	$ 270	$ 300	$ 230	$ 200	$ 205	$ 240
11	/ EVA Bonus Sensitivity Factor (000)	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500
12	= Performance Unit Value	$0.54	$0.60	$0.46	$0.40	$0.41	$0.48
	Total Unit Value						
13	Performance Unit Value	$0.54	$0.60	$0.46	$0.40	$0.41	$0.48
14	+ Base Unit Value	$0.25	$0.25	$0.25	$0.25	$0.25	$0.25
15	= Total Unit Value	$0.79	$0.85	$0.71	$0.65	$0.66	$0.73
	Current Bonus						
16	Total Unit Value	$0.79	$0.85	$0.71	$0.65	$0.66	$0.73
16	# of Units (000)	300	315	330	345	365	330
18	Current Bonus Earned (000)	$ 235	$ 265	$ 235	$ 225	$ 240	$ 240

PAST BONUS IF SYSTEM HAD BEEN IN PLACE PRIOR 5 YEARS

LINE #		1988	1989	1990	1991	1992	AVERAGE
	Current Bonus						
19	Total Unit Value	$0.71	$1.10	($1.34)	$1.20	($0.54)	$0.22
20	# of Units (000)	285	525	315	335	255	345
21	Current Bonus Earned (000)	$ 205	$ 575	($ 425)	$ 405	($ 140)	$ 125

	% OF TARGET BONUS EARNED	
	HOTEL TELECOM	HOSPITALITY EQUIPMENT
1993	45%	79%
1994	99	85
1995	69	71
1996	66	65
1997	62	66

According to Bennett Stewart, the beauty of the EVA incentive compensation system was that it was "A self-motivated, self-adjusting corporate governance system that linked capital budgeting and strategic investment decisions to the compensation system."

From John Duckworth's perspective, not only were the interests of management and shareholders aligned, but in addition the bogeys for determining bonus compensation would not have to be renegotiated each year. What had been two plans (one annual plan and a long-term plan) could be combined into *one* plan that paid on annual results but was designed to build long-term shareholder value. The system was like a self-winding watch. You set it once and it might keep going, all by itself, for quite some time.